



Protect your electrical equipment from lightning and surge protection damage

Acti9 catalogue 11/2025



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Life Is On

Schneider
Electric

Acti9 iC40N circuit breakers

6000 A / 10 kA



Country approval pictogram

IEC/EN 60947-2

IEC/EN 60898-1

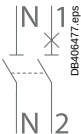
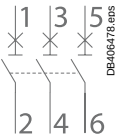
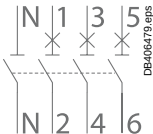
As per the above standards:

Circuit breakers which combine the following functions:

- circuit protection against short-circuit currents,
- circuit protection against overload currents,
- suitable for isolation.



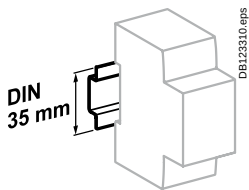
Catalog numbers

Acti9 iC40N circuit breakers								
Type	1P+N			3P		3P+N		
								
Auxiliaries	Catalog module CA907002							
Vigi	Catalog module CA902053							
Rating (In)	B curve	C curve	D curve	C curve	D curve	B curve	C curve	D curve
2 A	-	A9P54602	-	-	-	-	-	-
4 A	-	A9P54604	-	-	-	-	-	-
6 A	A9P44606	A9P54606	A9P64606	A9P54306	-	A9P44706	A9P54706	A9P64706
10 A	A9P44610	A9P54610	A9P64610	-	A9P64310	A9P44710	A9P54710	A9P64710
13 A	A9P44613	A9P54613	A9P64613	A9P54313	-	A9P44713	A9P54713	A9P64713
16 A	A9P44616	A9P54616	A9P64616	A9P54316	A9P64316	A9P44716	A9P54716	A9P64716
20 A	A9P44620	A9P54620	A9P64620	A9P54320	A9P64320	A9P44720	A9P54720	A9P64720
25 A	A9P44625	A9P54625	A9P64625	A9P54325	A9P64325	A9P44725	A9P54725	A9P64725
32 A	A9P44632	A9P54632	A9P64632	A9P54332	A9P64332	A9P44732	A9P54732	A9P64732
40 A	A9P44640	A9P54640	A9P64640	A9P54340	-	A9P44740	A9P54740	A9P64740
Width in 9-mm modules	2			6		6		
Accessories	Catalog modules CA907001 and CA907015							
Comb busbars	Catalog module CA907026							
PowerTag energy sensors	Catalog modules CA907029 and CA908058							

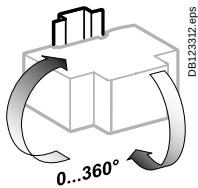


Protection, Circuit protection

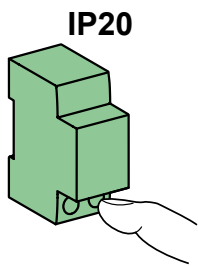
Acti9 iC40N circuit breakers 6000 A / 10 kA



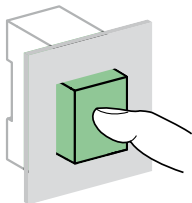
Clip on DIN rail 35 mm.



Indifferent position of installation.

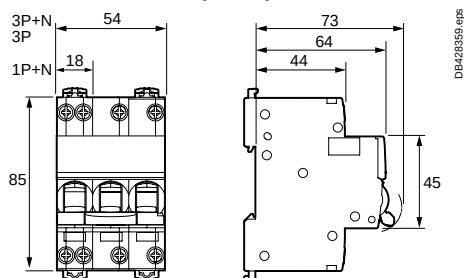


IP20



IP40

Dimensions (mm)



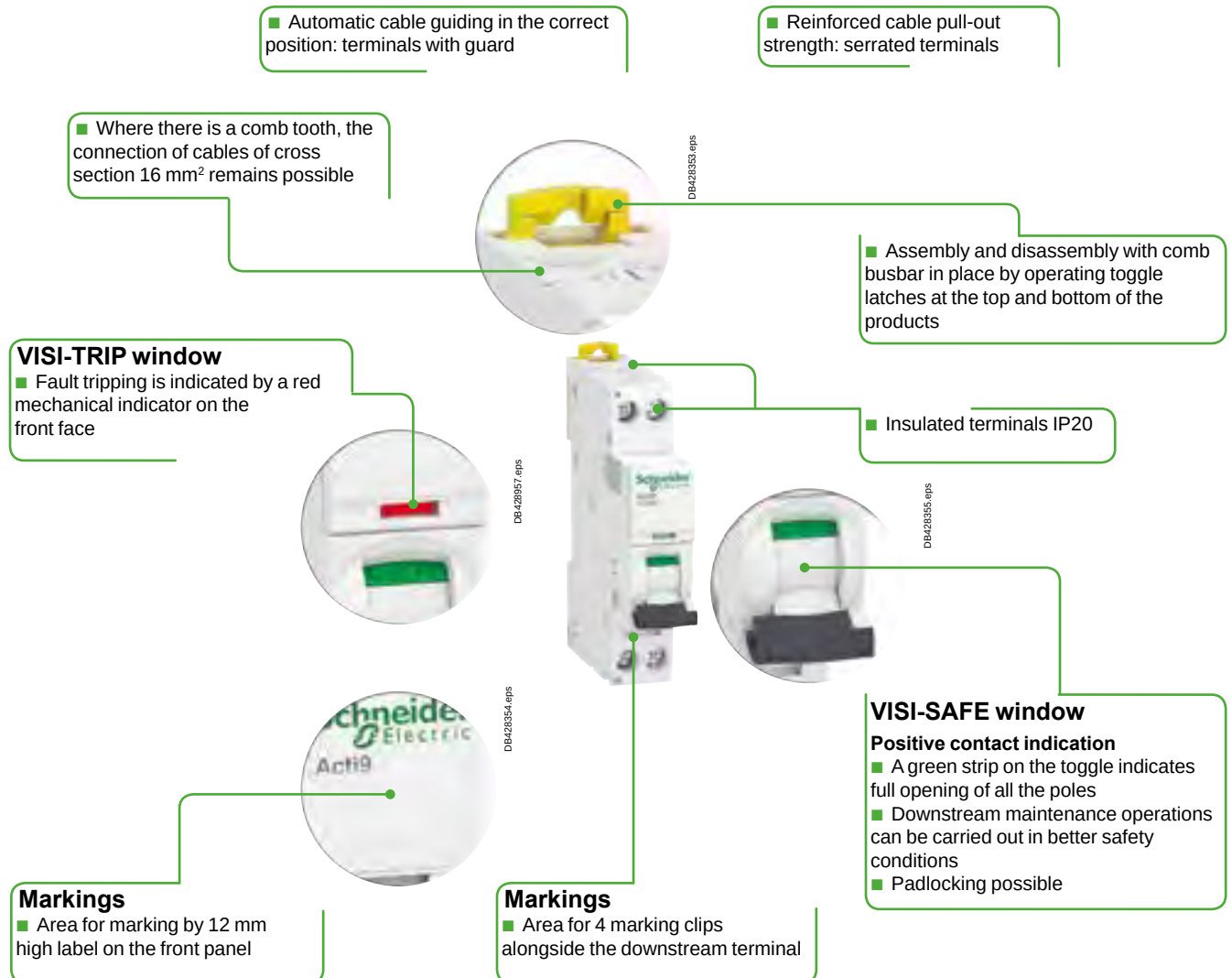
Technical data

Main characteristics		Acti9 iC40N
Insulation voltage (Ui)	Phase-to-neutral	400 V
	Phase-to-phase	440 V
Voltage rating (Ue)	Phase-to-neutral	230 V
	Phase-to-phase	400 V
Operating frequency		50/60 Hz
According to IEC/EN 60898-1		
Limitation class		3
Rated breaking capacity (Icn)		6000 A
Service breaking capacity (Ics)		100 % Icn
Rated breaking and making capacity on a single pole (Icn1)		Icn1 = Icn
Magnetic tripping	B curve	3 to 5 In
	C curve	5 to 10 In
	D curve	10 to 14 In
Operating temperature		30°C
According to IEC/EN 60947-2		
Rated impulse withstand voltage (Uimp)		4 kV
Breaking capacity (Icu)		10 kA
Service breaking capacity (Ics)	3P	75 % Icu
	1P+N, ≤ 25 A	75 % Icu
	3P+N, ≥ 32 A	50 % Icu
Magnetic tripping	B curve	4 In ±20 %
	C curve	8 In ±20 %
	D curve	12 In ±20 %
Operating temperature		50°C
Pollution degree		3
Additional characteristics		
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40 Insulation class II
Endurance (O-C)	Electrical	≤ 20 A 20000 cycles
		≥ 25 A 10000 cycles
	Mechanical	20000 cycles
Operating temperature		-25°C to +70°C
Storage temperature		-40°C to +85°C

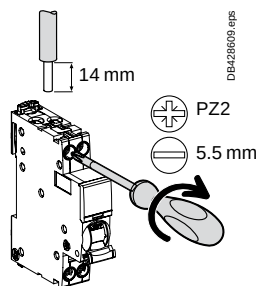
Weight (g)

Circuit breakers	
Type	Acti9 iC40N
1P+N	120
3P	340
3P+N	345

Protection, Circuit protection Acti9 iC40 circuit breakers

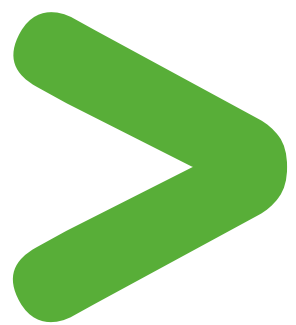


Connection



Type	Connection	Tightening torque	Comb busbar	Copper cables	
				Rigid	Flexible or with ferrule
Acti9 iC40	Top	2 N.m	■	1 to 16 mm ² DB122345.eps	1 to 10 mm ² DB122346.eps
	Bottom		■		

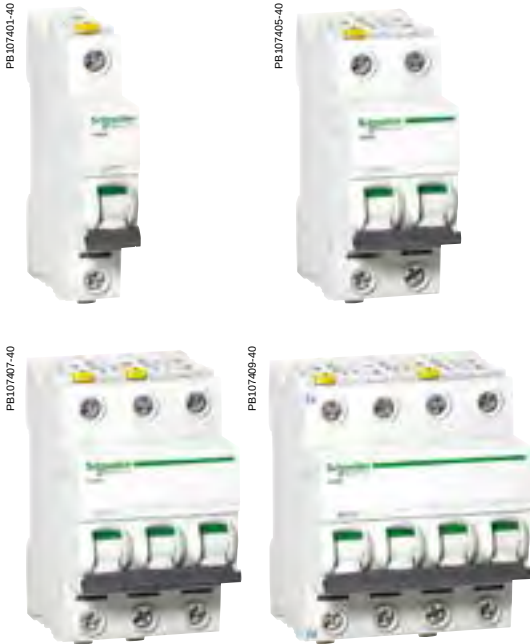
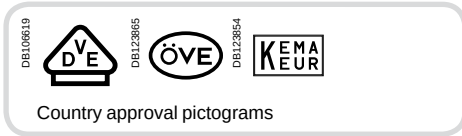
- Connection by comb busbar or cables (as per EN 50027).
- Where there is a comb tooth, the connection of cables of cross section 16 mm² remains possible.
- See Choice of Comb busbars (CA908048).



Protection

Circuit protection

iC60N double terminals circuit breakers (curve B, C, D)



IEC/EN 60947-2 IEC/EN 60898-1

- iC60N double terminal terminals circuit breakers are multi-standard circuit breakers which combine the following functions:
 - circuit protection against short-circuit currents,
 - circuit protection against overload currents,
 - suitable for industrial isolation according to IEC/EN 60947-2, standard.
 - fault tripping indication by a red mechanical indicator in circuit breaker front face.

Alternating current (AC) 50/60 Hz

Breaking capacity (Icu) according to IEC/EN 60947-2					Service breaking capacity (Ics)
Ph/Ph (2P, 3P, 3P+N, 4P)	12 to 133 V	220 to 240 V	380 to 415 V	440 V	
Ph/N (1P, 1P+N)	12 to 60 V	100 to 133 V	220 to 240 V	-	
Rating (In)	0.5 to 4 A	50 kA	50 kA	50 kA	25 kA
	6 to 63 A	36 kA	20 kA	10 kA	6 kA
					100 % of Icu
					75 % of Icu

Breaking capacity (Icn) according to IEC/EN 60898-1

Ph/Ph	Voltage (Ue)
Ph/Ph	400 V
Ph/N	230 V
Rating (In)	0.5 to 63 A
	6000 A

Direct current (DC)

Breaking capacity (Icu) according to IEC/EN 60947-2						Service breaking capacity (Ics)
Between +/-	12 to 60 V	≤ 72 V	≤ 125 V	≤ 180 V	≤ 250 V	
Number of poles	1P		2P	3P	4P	
Rating (In)	1 to 63 A	15 kA	10 kA	10 kA	10 kA	100 % of Icu

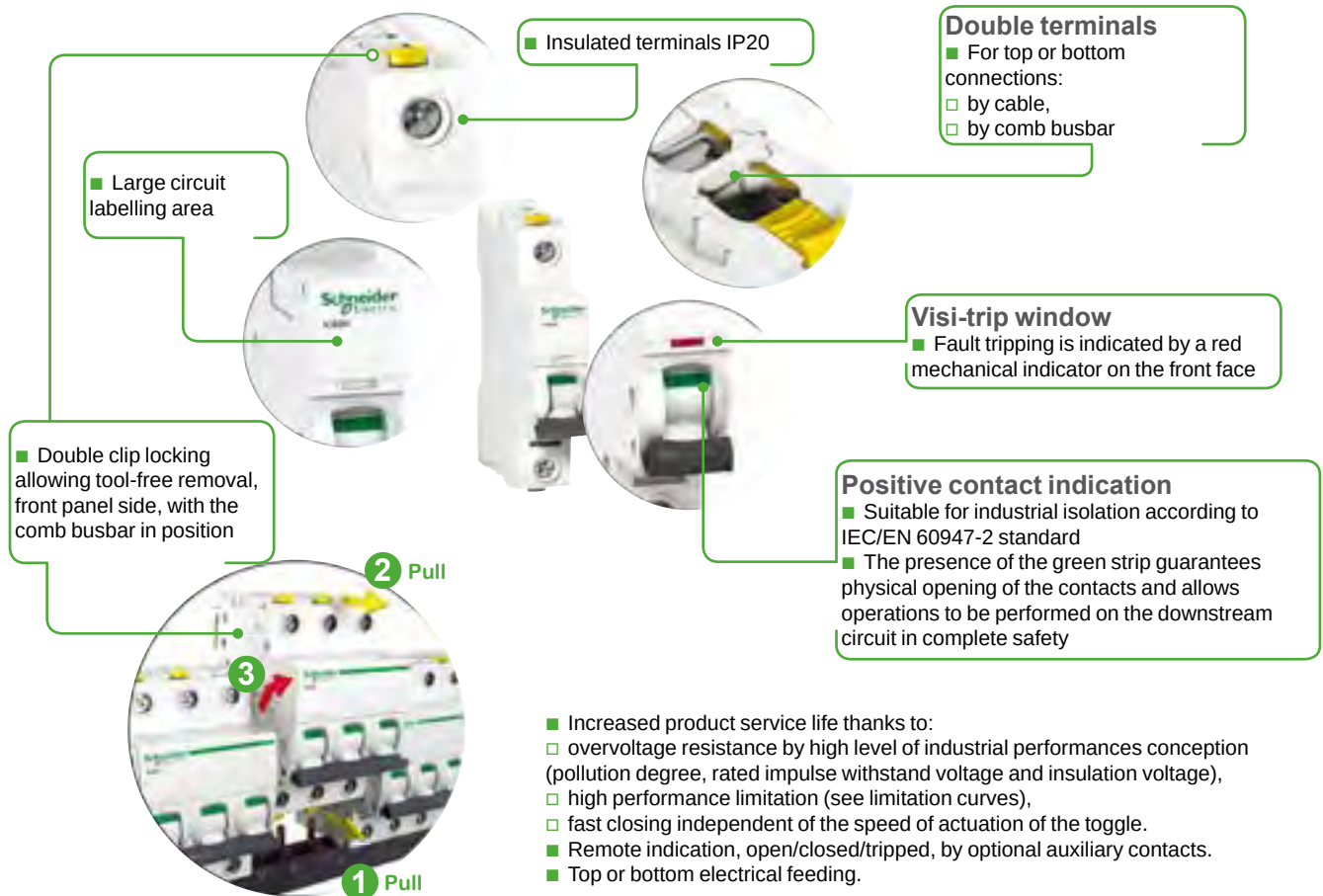
Catalogue numbers

iC60N double terminals circuit breaker

Type	1P	1P+N	2P						
									
Auxiliaries	Remote tripping and indication, module CA907000 and CA907002	Remote tripping and indication, module CA907000 and CA907002	Remote tripping and indication, module CA907000 and CA907002						
Vigi iC60	Vigi iC60 add-on residual current device, module CA902005	Vigi iC60 add-on residual current device, module CA902005	Vigi iC60 add-on residual current device, module CA902005						
Rating (In)	Curve			Curve			Curve		
	B	C	D	B	C	B	C	D	
0.5 A	-	A9F04170	-	-	-	-	A9F04270	-	
1 A	A9F03101	A9F04101	A9F05101	-	A9F04601	-	A9F04201	A9F05201	
2 A	A9F03102	A9F04102	A9F05102	-	A9F04602	A9F03202	A9F04202	A9F05202	
3 A	-	A9F04103	-	-	A9F04603	-	A9F04203	A9F05203	
4 A	A9F03104	A9F04104	A9F05104	-	A9F04604	A9F03204	A9F04204	A9F05204	
6 A	A9F03106	A9F04106	A9F05106	A9F03606	A9F04606	A9F03206	A9F04206	A9F05206	
10 A	A9F03110	A9F04110	A9F05110	A9F03610	A9F04610	A9F03210	A9F04210	A9F05210	
13 A	A9F03113	A9F04113	-	A9F03613	A9F04613	A9F03213	A9F04213	A9F05213	
16 A	A9F03116	A9F04116	A9F05116	A9F03616	A9F04616	A9F03216	A9F04216	A9F05216	
20 A	A9F03120	A9F04120	A9F05120	A9F03620	A9F04620	A9F03220	A9F04220	A9F05220	
25 A	A9F03125	A9F04125	A9F05125	A9F03625	A9F04625	A9F03225	A9F04225	A9F05225	
32 A	A9F03132	A9F04132	A9F05132	-	-	A9F03232	A9F04232	A9F05232	
40 A	A9F03140	A9F04140	-	-	-	A9F03240	A9F04240	-	
50 A	A9F03150	A9F04150	-	-	-	A9F03250	A9F04250	-	
63 A	A9F03163	A9F04163	A9F05163	-	-	A9F03263	A9F04263	A9F05263	
Width in 9-mm modules	2			4			4		
Accessories	Modules CA907000 and CA907001			Modules CA907000 and CA907001			Modules CA907000 and CA907001		

Protection

Circuit protection

iC60N double terminals circuit breakers (curve B, C, D)
(cont.)

3P			3P+N			4P		
Remote tripping and indication, module CA907000 and CA907002			Remote tripping and indication, module CA907000 and CA907002			Remote tripping and indication, module CA907000 and CA907002		
Vigi iC60 add-on residual current device, module CA902005			Vigi iC60 add-on residual current device, module CA902005			Vigi iC60 add-on residual current device, module CA902005		
Curve			Curve			Curve		
B	C	D	B	C		B	C	D
-	A9F04370	-	-	A9F04770	-	-	-	-
-	A9F04301	A9F05301	-	A9F04701	-	-	A9F04401	-
A9F03302	A9F04302	A9F05302	-	A9F04702	-	-	A9F04402	-
-	A9F04303	-	-	-	-	-	-	-
-	A9F04304	-	-	A9F04704	-	-	A9F04404	-
A9F03306	A9F04306	A9F05306	-	A9F04706	A9F03406	A9F04406	A9F05406	
A9F03310	A9F04310	A9F05310	A9F03710	A9F04710	A9F03410	A9F04410	A9F05410	
A9F03313	A9F04313	-	A9F03713	A9F04713	-	A9F04413	-	
A9F03316	A9F04316	A9F05316	A9F03716	A9F04716	A9F03416	A9F04416	A9F05416	
A9F03320	A9F04320	A9F05320	A9F03720	A9F04720	A9F03420	A9F04420	-	
A9F03325	A9F04325	A9F05325	-	A9F04725	A9F03425	A9F04425	-	
A9F03332	A9F04332	A9F05332	A9F03732	A9F04732	A9F03432	A9F04432	A9F05432	
A9F03340	A9F04340	A9F05340	A9F03740	A9F04740	-	A9F04440	A9F05440	
A9F03350	A9F04350	A9F05350	A9F03750	A9F04750	A9F03450	A9F04450	-	
A9F03363	A9F04363	A9F05363	-	A9F04763	A9F03463	A9F04463	A9F05463	
6			8		8			
Modules CA907000 and CA907001			Modules CA907000 and CA907001			Modules CA907000 and CA907001		

Protection

Circuit protection

iC60N double terminals circuit breakers (curve B, C, D) (cont.)

Connection between double terminal circuit breakers

With comb busbar at the back/cables at the front

Back

Front

Without comb busbar at the back/cables at the front

DBA04315



Rating	Tightening torque	Comb busbar	Copper cables	
		Thickness of the teeth	Rigid	Flexible or with ferrule
			DB122945	DB122946
0.5 to 25 A	2 N.m	1.5 mm	1 to 25 mm ²	1 to 16 mm ²
32 to 63 A	3.5 N.m	1.5 mm	1 to 25 mm ²	1 to 25 mm ²

Between double terminal circuit breakers and single-terminal circuit breakers

Cables at the back/comb busbar at the front

Back

Front

DBA04317

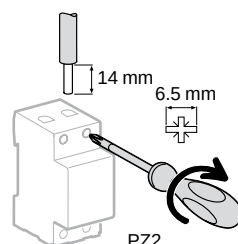


Rating	Tightening torque	Copper cables		Comb busbar
		Rigid	Flexible or with ferrule	Thickness of the teeth
		DB122945	DB122946	
0.5 to 25 A	2 N.m	1 to 16 mm ²	1 to 10 mm ²	1.5 mm
32 to 63 A	3.5 N.m	1 to 16 mm ²	1 to 10 mm ²	1.5 mm

■ Connection by comb busbar or by cable (according to EN 50027).

Connection

DB123847



PZ2

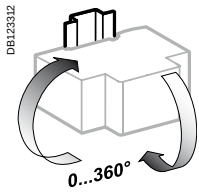
With accessories

Rating	50 mm ² Al terminal	Screw-on connection for ring terminal	Multi-cables terminal	
			Rigid cables	Flexible cables
	DB122935	DB118789	DB118787	
0.5 to 25 A	-	Ø 5 mm	-	-
32 to 63 A	50 mm ²		3 x 16 mm ²	3 x 10 mm ²

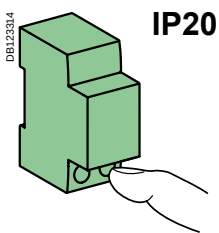
Protection

Circuit protection

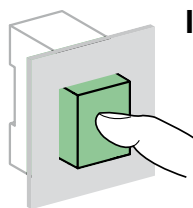
iC60N double terminals circuit breakers (curve B, C, D) (cont.)



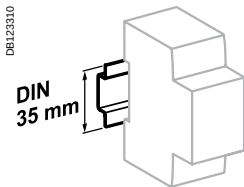
Indifferent position of installation.



IP20



IP40



Clip on DIN rail 35 mm.

Technical data

Main characteristics

According to IEC/EN 60947-2

Insulation voltage (Ui)		500 V AC
Pollution degree		3
Rated impulse withstand voltage (Uimp)		6 kV
Thermal tripping	Reference temperature	50°C
	Temperature derating	See module CA908007
Magnetic tripping	B curve	4 In ± 20 %
	C curve	8 In ± 20 %
	D curve	12 In ± 20 %
Utilization category		A

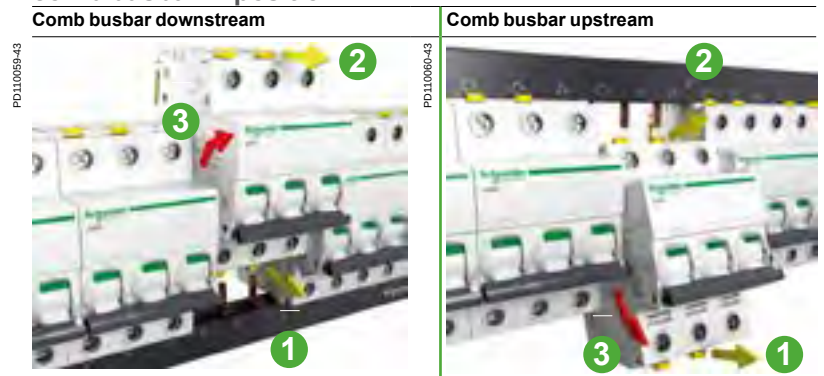
According to IEC/EN 60898-1

Limitation class	3
Rated making and breaking capacity of an individual pole (Icn1)	Icn1 = Icn

Additional characteristics

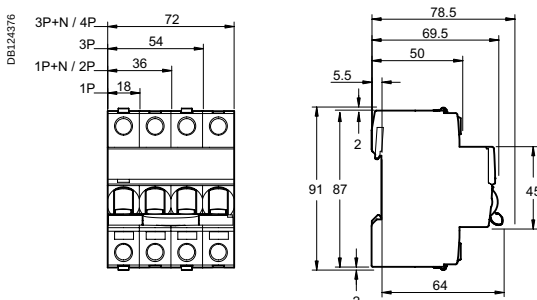
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)	IV	
Operating temperature	-35°C to +70°C	
Storage temperature	-40°C to +85°C	
Tropicalization (IEC 60068-1)	Treatment 2 (relative humidity 95 % to 55°C)	

Disassembly double terminals iC60 circuit breaker with the comb busbar in position



- 1- Pull lower "clip locking"
- 2- Pull upper "clip locking"
- 3- Remove the circuit breaker

Dimensions (mm)



Weight (g)

Circuit-breaker

Type	iC60N
1P	125
2P (1P+N)	250
3P	375
4P (3P+N)	500

iC60H double terminals circuit breakers (curve B, C, D)



Country approval pictograms



IEC/EN 60947-2 IEC/EN 60898-1

- iC60H double tunnel terminals circuit breakers are multi-standard circuit breakers which combine the following functions:
 - circuit protection against short-circuit currents,
 - circuit protection against overload currents,
 - suitable for industrial isolation according to IEC/EN 60947-2, standard.
 - fault tripping indication by a red mechanical indicator in circuit breaker front face.

Alternating current (AC) 50/60 Hz

Breaking capacity (Icu) according to IEC/EN 60947-2						Service breaking capacity (Ics)
		Voltage (Ue)				
Ph/Ph (2P, 3P, 4P)		12 to 133 V	220 to 240 V	380 to 415 V	440 V	
Ph/N (1P, 1P+N)		12 to 60 V	100 to 133 V	220 to 240 V	-	
Rating (In)	0.5 to 4 A	70 kA	70 kA	70 kA	50 kA	100 % of Icu
	6 to 40 A	42 kA	30 kA	15 kA	10 kA	50 % of Icu
	50/63 A	42 kA	30 kA	15 kA	10 kA	50 % of Icu

Breaking capacity (Icn) according to IEC/EN 60898-1

Voltage (Ue)	
Ph/Ph	400 V
Ph/N	230 V
Rating (In)	0.5 to 63 A
	10000 A

Direct current (DC)

Breaking capacity (Icu) according to IEC/EN 60947-2						Service breaking capacity (Ics)
	Voltage (Ue)					
Between +/-	12 to 60 V	≤ 72 V	≤ 125 V	≤ 180 V	≤ 250 V	
Number of poles	1P		2P	3P	4P	
Rating (In) 1 to 63 A	20 kA	15 kA	15 kA	15 kA	15 kA	
						100 % of Icu

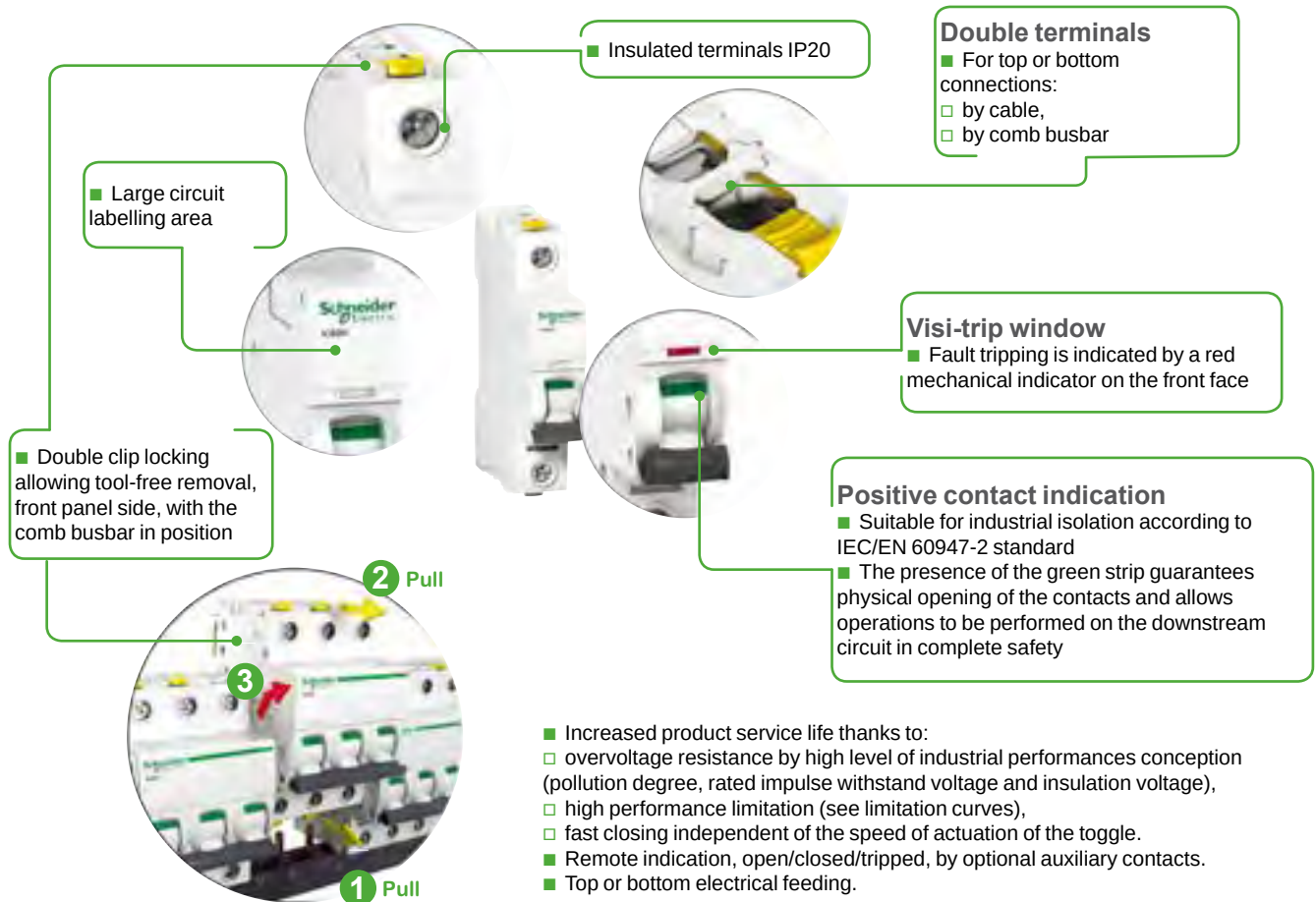
Catalogue numbers

iC60H double terminals circuit breaker

Type	1P	1P+N	2P
Auxiliaries	Remote tripping and indication, module CA907000 and CA907002	Remote tripping and indication, module CA907000 and CA907002	Remote tripping and indication, module CA907000 and CA907002
Vigi iC60	Vigi iC60 add-on residual current device, module CA902005	Vigi iC60 add-on residual current device, module CA902005	Vigi iC60 add-on residual current device, module CA902005
Rating (In)	Curve		
	B	C	D
0.5 A	-	A9F07170	-
1 A	-	A9F07101	A9F08101
2 A	-	A9F07102	A9F08102
3 A	-	A9F07103	A9F08103
4 A	-	A9F07104	-
6 A	A9F06106	A9F07106	A9F08106
10 A	A9F06110	A9F07110	A9F08110
13 A	A9F06113	A9F07113	-
16 A	A9F06116	A9F07116	A9F08116
20 A	A9F06120	A9F07120	-
25 A	A9F06125	A9F07125	-
32 A	A9F06132	A9F07132	A9F08132
40 A	A9F06140	A9F07140	-
50 A	-	A9F07150	-
63 A	-	A9F07163	-
Width in 9-mm modules	2	4	4
Accessories	Modules CA907000 and CA907001	Modules CA907000 and CA907001	Modules CA907000 and CA907001

Protection

Circuit protection

iC60H double terminals circuit breakers (curve B, C, D)
(cont.)

3P				4P			
Remote tripping and indication, module CA907000 and CA907002				Remote tripping and indication, module CA907000 and CA907002			
Vigi iC60 add-on residual current device, module CA902005				Vigi iC60 add-on residual current device, module CA902005			
Curve				Curve			
B	C	D		B	C	D	
-	A9F07370	-		-	-	-	
-	A9F07301	-		-	A9F07401	-	
-	A9F07302	-		-	A9F07402	-	
-	A9F07303	-		-	A9F07403	-	
-	A9F07304	A9F08304		-	A9F07404	-	
A9F06306	A9F07306	A9F08306		A9F06406	A9F07406	-	
A9F06310	A9F07310	A9F08310		A9F06410	A9F07410	-	
A9F06313	A9F07313	-		A9F06413	A9F07413	-	
A9F06316	A9F07316	A9F08316		A9F06416	A9F07416	A9F08416	
A9F06320	A9F07320	A9F08320		A9F06420	A9F07420	A9F08420	
A9F06325	A9F07325	A9F08325		A9F06425	A9F07425	-	
A9F06332	A9F07332	A9F08332		A9F06432	A9F07432	A9F08432	
A9F06340	A9F07340	A9F08340		A9F06440	A9F07440	A9F08440	
A9F06350	A9F07350	A9F08350		A9F06450	A9F07450	-	
A9F06363	A9F07363	A9F08363		-	A9F07463	A9F08463	
6				8			
Modules CA907000 and CA907001				Modules CA907000 and CA907001			

Protection

Circuit protection

iC60H double terminals circuit breakers (curve B, C, D) (cont.)

Connection between double terminal circuit breakers

With comb busbar at the back/cables at the front

Back

Front

Without comb busbar at the back/cables at the front

DB404815



Rating	Tightening torque	Comb busbar	Copper cables	
		Thickness of the teeth	Rigid	Flexible or with ferrule
			DB122945	DB122946
0.5 to 25 A	2 N.m	1.5 mm	1 to 25 mm ²	1 to 16 mm ²
32 to 63 A	3.5 N.m	1.5 mm	1 to 25 mm ²	1 to 25 mm ²

Between double terminal circuit breakers and single-terminal circuit breakers

Cables at the back/comb busbar at the front

Back

Front

DB404817

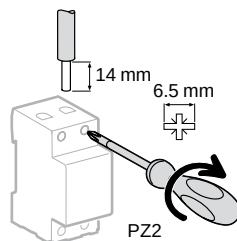


Rating	Tightening torque	Copper cables		Thickness of the teeth
		Rigid	Flexible or with ferrule	
		DB122945	DB122946	
0.5 to 25 A	2 N.m	1 to 16 mm ²	1 to 10 mm ²	1.5 mm
32 to 63 A	3.5 N.m	1 to 16 mm ²	1 to 10 mm ²	1.5 mm

■ Connection by comb busbar or by cable (according to EN 50027).

Connection

DB123847



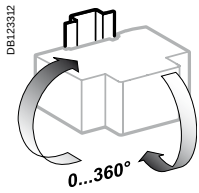
With accessories

Rating	50 mm ² Al terminal	Screw-on connection for ring terminal	Multi-cables terminal	
			Rigid cables	Flexible cables
	DB122935	DB118789	DB118787	
0.5 to 25 A	-	Ø 5 mm	-	-
32 to 63 A	50 mm ²		3 x 16 mm ²	3 x 10 mm ²

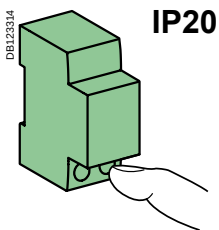
Protection

Circuit protection

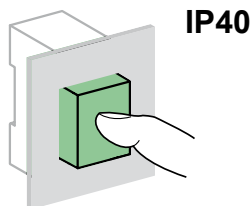
iC60H double terminals circuit breakers (curve B, C, D) (cont.)



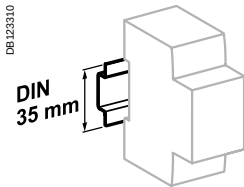
Indifferent position of installation.



IP20



IP40



Clip on DIN rail 35 mm.

Technical data

Main characteristics

According to IEC/EN 60947-2

Insulation voltage (Ui)		500 V AC
Pollution degree		3
Rated impulse withstand voltage (Uimp)		6 kV
Thermal tripping	Reference temperature	50°C
	Temperature derating	See module CA908007
Magnetic tripping	B curve	4 In ± 20 %
	C curve	8 In ± 20 %
	D curve	12 In ± 20 %
Utilization category		A

According to IEC/EN 60898-1

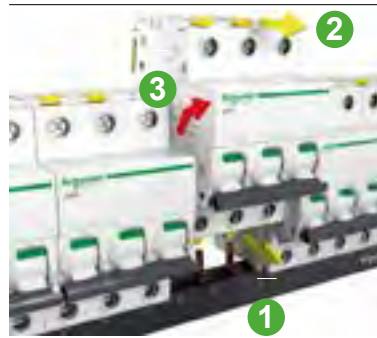
Limitation class	3
Rated making and breaking capacity of an individual pole (Icn1)	Icn1 = Icn

Additional characteristics

Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
		Insulation class II
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)	IV	
Operating temperature	-35°C to +70°C	
Storage temperature	-40°C to +85°C	
Tropicalization (IEC 60068-1)	Treatment 2 (relative humidity 95 % to 55°C)	

Disassembly double terminals iC60 circuit breaker with the comb busbar in position

Comb busbar downstream

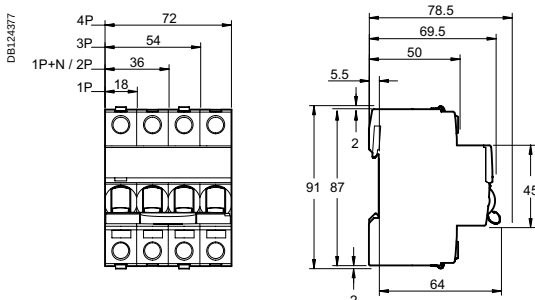


Comb busbar upstream



- 1- Pull lower "clip locking"
- 2- Pull upper "clip locking"
- 3- Remove the circuit breaker

Dimensions (mm)

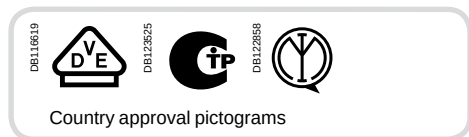


Weight (g)

Circuit-breaker

Type	iC60H
1P	125
2P (1P+N)	250
3P	375
4P	500

iC60L circuit breakers (curve B, C, K, Z)



IEC/EN 60947-2

IEC/EN 60898-1 up to 40 A

- iC60L circuit breakers are multi-standard circuit breakers which combine the following functions:
 - circuit protection against short-circuit currents,
 - circuit protection against overload currents,
 - suitable for industrial isolation according to IEC/EN 60947-2, standard.
 - fault tripping indication by a red mechanical indicator in circuit breaker front face.

Alternating current (AC) 50/60 Hz

Breaking capacity (Icu) according to IEC/EN 60947-2

	Voltage (Ue)					Service breaking capacity (Ics)
	12 to 133 V	220 to 240 V	380 to 415 V	440 V	-	
Ph/Ph (2P, 3P, 4P)	12 to 60 V	100 to 133 V	220 to 240 V	-	-	
Ph/N (1P)	12 to 60 V	100 to 133 V	220 to 240 V	-	-	
Rating (In)						
0.5 to 4 A	100 kA	100 kA	100 kA	70 kA	100 % of Icu	
6 to 25 A	70 kA	50 kA	25 kA	20 kA	50 % of Icu ⁽¹⁾	
32 / 40 A	70 kA	36 kA	20 kA	15 kA	50 % of Icu	
50 / 63 A	70 kA	30 kA	15 kA	10 kA	50 % of Icu	

Breaking capacity (Icn) according to IEC/EN 60898-1

	Voltage (Ue)	
	400 V	230 V
Ph/Ph	400 V	230 V
Ph/N	230 V	
Rating (In)	0.5 to 40 A	15000 A

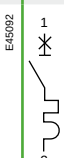
Direct current (DC)

Breaking capacity (Icu) according to IEC/EN 60947-2

	Voltage (Ue)					Service breaking capacity (Ics)
	12 to 60 V	≤ 72 V	≤ 125 V	≤ 180 V	≤ 250 V	
Between +/-	1P	2P	3P	4P		
Number of poles	1P	2P	3P	4P		
Rating (In)	0.5 to 63 A	25 kA	20 kA	20 kA	20 kA	100 % of Icu

Catalogue numbers

iC60L circuit breaker

Type	1P	2P
		
Auxiliaries	Remote tripping and indication, module CA907000 and CA907002	Remote tripping and indication, module CA907000 and CA907002
Vigi iC60	Vigi iC60 add-on residual current device, module CA902005	Vigi iC60 add-on residual current device, module CA902005
Rating (In)	Quality label ⁽²⁾	Curve
0.5 A		A9F93170 A9F94170 - A9F92170
1 A		A9F93101 A9F94101 A9F95101 A9F92101
1.6 A		- A9F95172 A9F92172
2 A		A9F93102 A9F94102 A9F95102 A9F92102
3 A		A9F93103 A9F94103 A9F95103 A9F92103
4 A		A9F93104 A9F94104 A9F95104 A9F92104
6 A		A9F93106 A9F94106 A9F95106 A9F92106
10 A		A9F93110 A9F94110 A9F95110 A9F92110
16 A		A9F93116 A9F94116 A9F95116 A9F92116
20 A		A9F93120 A9F94120 A9F95120 A9F92120
25 A		A9F93125 A9F94125 A9F95125 A9F92125
32 A		A9F93132 A9F94132 A9F95132 A9F92132
40 A		A9F93140 A9F94140 A9F95140 A9F92140
50 A		A9F93150 A9F94150 A9F95150 ⁽³⁾ A9F92150
63 A		- A9F94163 A9F95163 ⁽³⁾ A9F92163
Width in 9-mm modules	2	4
Accessories	Module CA907000 and CA907001	Module CA907000 and CA907001

(1) 100 % of Icu for ratings 6 to 25 A under Ue 100 to 133 V AC Ph/Ph and Ue 12 to 60 V AC Ph/N.

(2) Information to be provided by the country.

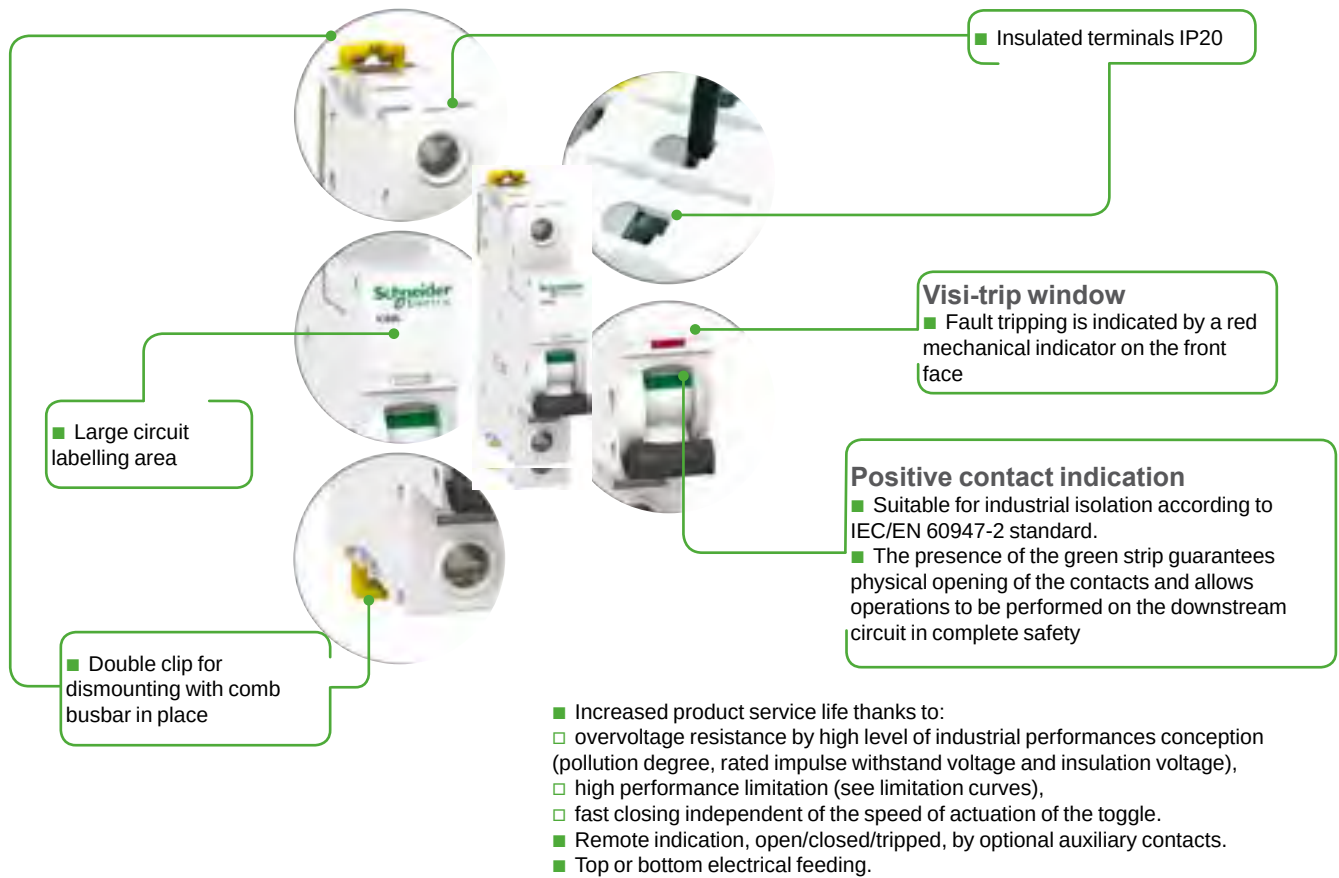
(3) Without approval

Protection

Circuit protection

iC60L circuit breakers (curve B, C, K, Z) (cont.)

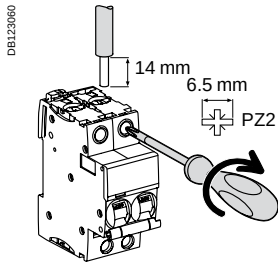
P810436-40



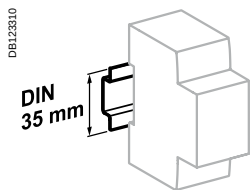
3P					4P				
Remote tripping and indication, module CA907000 and CA907002					Remote tripping and indication, module CA907000 and CA907002				
Vigi iC60 add-on residual current device, module CA902005					Vigi iC60 add-on residual current device, module CA902005				
Curve					Curve				
B	C	K	Z		B	C	K	Z	
-	A9F94370	-	A9F92370		-	A9F94470	-	A9F92470	
A9F93301	A9F94301	A9F95301	A9F92301		A9F93401	A9F94401	A9F95401	A9F92401	
-	-	A9F95372	A9F92372		-	-	A9F95472	A9F92472	
A9F93302	A9F94302	A9F95302	A9F92302		A9F93402	A9F94402	A9F95402	A9F92402	
A9F93303	A9F94303	A9F95303	A9F92303		A9F93403	A9F94403	A9F95403	A9F92403	
A9F93304	A9F94304	A9F95304	A9F92304		A9F93404	A9F94404	A9F95404	A9F92404	
A9F93306	A9F94306	A9F95306	A9F92306		A9F93406	A9F94406	A9F95406	A9F92406	
A9F93310	A9F94310	A9F95310	A9F92310		A9F93410	A9F94410	A9F95410	A9F92410	
A9F93316	A9F94316	A9F95316	A9F92316		A9F93416	A9F94416	A9F95416	A9F92416	
A9F93320	A9F94320	A9F95320	A9F92320		A9F93420	A9F94420	A9F95420	A9F92420	
A9F93325	A9F94325	A9F95325	A9F92325		A9F93425	A9F94425	A9F95425	A9F92425	
A9F93332	A9F94332	A9F95332	A9F92332		A9F93432	A9F94432	A9F95432	A9F92432	
A9F93340	A9F94340	A9F95340	A9F92340		A9F93440	A9F94440	A9F95440	A9F92440	
A9F93350	A9F94350	A9F95350	A9F92350		A9F93450	A9F94450	A9F95450	A9F92450	
A9F93363	A9F94363	A9F95363	A9F92363		A9F93463	A9F94463	A9F95463	A9F92463	
4					6				
Module CA907000 and CA907001					Module CA907000 and CA907001				

iC60L circuit breakers (curve B, C, K, Z) (cont.)

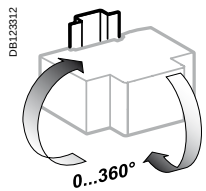
Connection



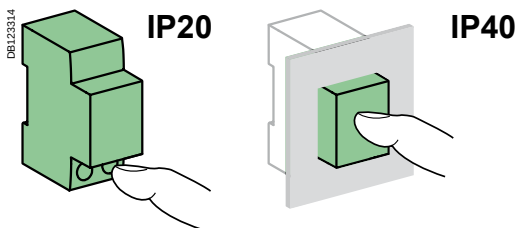
		Without accessory		With accessories			
Rating	Tightening torque	Copper cables		50 mm ² Al terminal	Screw-on connection for ring terminal	Multi-cables terminal	
		Rigid	Flexible or with ferrule			Rigid cables	Flexible cables
		DB122945 	DB122946 	DB122935 	DB118789 	DB118787 	
0.5 to 25 A	2 N.m	1 to 25 mm ²	1 to 16 mm ²	-	Ø 5 mm	-	-
32 to 63 A	3.5 N.m	1 to 35 mm ²	1 to 25 mm ²	50 mm ²		3 x 16 mm ²	3 x 10 mm ²



Clip on DIN rail 35 mm.



Indifferent position of installation.



Technical data

Main characteristics

According to IEC/EN 60947-2

Insulation voltage (Ui)		500 V AC
Pollution degree		3
Rated impulse withstand voltage (Uimp)		6 kV
Thermal tripping	Reference temperature	50 °C
	Temperature derating	See module CA908007
Magnetic tripping	B curve	4 In ± 20 %
	C curve	8 In ± 20 %
	K curve	12 In ± 20 %
	Z curve	3 In ± 20 %
Utilization category		A

According to IEC/EN 60898-1

Rated making and breaking capacity of an individual pole (Icn1)	Icn1 = Icn
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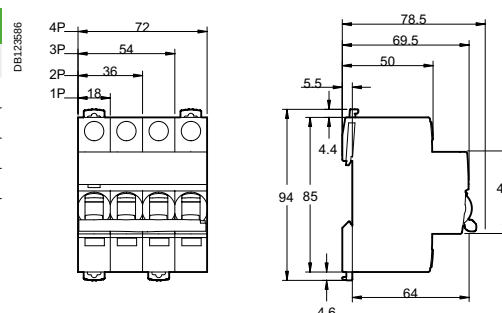
Additional characteristics

Breaking capacity under 1 pole with IT 380-415 V isolated neutral system (case of double fault)	40 A	4 kA
	50/63 A	3 kA
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40 Insulation class II
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)	IV	
Operating temperature	-35°C to +70°C	
Storage temperature	-40°C to +85°C	
Tropicalization (IEC 60068-1)	Treatment 2 (relative humidity 95 % to 55°C)	

Weight (g)

Circuit-breaker	
Type	iC60L
1P	125
2P	250
3P	375
4P	500

Dimensions (mm)



C120N circuit breakers (curves C, D)



Country approval pictograms



IEC/EN 60947-2

C120N circuit breakers are multistandard circuit breakers that combine the following functions:

- circuit protection against short-circuit currents,
- circuit protection against overload currents,
- suitability for isolation in the industrial sector to IEC/EN 60947-2,
- fault tripping and indication by adding auxiliaries.

Alternating current (AC) 50/60 Hz

Breaking capacity (Icu) to IEC/EN 60947-2		Service breaking capacity (Ics)
Type	Voltage (V)	
1P, 2P, 3P, 4P	230 to 400 V	
Rating (In) 80 and 100 A	10 kA	75 % of Icu

Direct current (DC)

Breaking capacity (Icu) according to IEC/EN 60947-2						Service breaking capacity (Ics)
	Voltage (Ue)					
Between +/-	12 to 125 V	≤ 144 V	≤ 250 V	≤ 375 V	≤ 500 V	
Number of poles	1P		2P	3P	4P	
Rating (In) 80 and 100 A	15 kA	10 kA	10 kA	10 kA	10 kA	100 % of Icu

Catalogue numbers

C120N circuit breaker

Type	1P	2P	3P	4P
Auxiliaries	Remote indication and tripping, module CA907008 and CA907013	Remote indication and tripping, module CA907008 and CA907013	Remote indication and tripping, module CA907008 and CA907013	Remote indication and tripping, module CA907008 and CA907013
Vigi C120	Vigi C120 add-on residual current device, module CA902016	Vigi C120 add-on residual current device, module CA902016	Vigi C120 add-on residual current device, module CA902016	Vigi C120 add-on residual current device, module CA902016
Rating (In)	Curve C D	Curve C D	Curve C D	Curve C D
80 A	A9N60729 -	A9N60733 -	A9N60737 A9N60753	A9N60741 -
100 A	A9N60730 -	A9N60734 -	A9N60738 A9N60754	A9N60742 -
Width in 9-mm modules	3	6	9	12
Accessories	Module CA907012 and CA907013	Module CA907012 and CA907013	Module CA907012 and CA907013	Module CA907012 and CA907013

Protection

Circuit protection

C120 circuit breakers

www.schneider-electric.com

PB107917-40

■ Terminals insulated to IP20



■ Location for 4 clip-on terminal markers



Positive contact indication

- Suitability for isolation in the industrial sector to IEC/EN 60947-2.
- The presence of the green strip guarantees that the contacts open physically and allows work to be carried out safely on the downstream circuit.

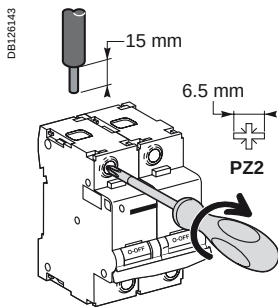
- Longer product service life thanks to:
 - good overvoltage withstand capacity: products designed to offer a high industrial performance level (degree of pollution, rated impulse withstand voltage and insulation voltage).
 - high limitation performances (see limitation curves).
 - fast closure independent of toggle operating speed.
- Remote indication of the open/closed/tripped state by auxiliary contacts (optional).
- Power supply from above or below.

Protection

Circuit protection

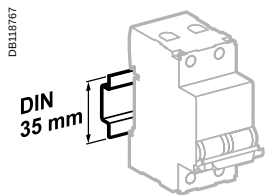
C120 circuit breakers (cont.)

Connection

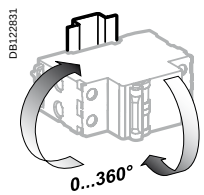


		Without access.		With accessories			
Rating	Tightening torque	Copper cables		50 mm² Al Terminal	Screw-on connection for ring terminal ⁽¹⁾	Multi-cable terminal	
		Rigid/ semi-rigid	Flexible or with ferrule			Rigid cables	Flexible cables
		DB122845 	DB122846 	DB122835 	DB118789 	DB118787 	
80 and 100 A	3.5 N.m	1.5 to 50 mm²	1.5 to 35 mm²	16 to 50 mm²	Ø 5 mm	3 x 16 mm²	3 x 10 mm²

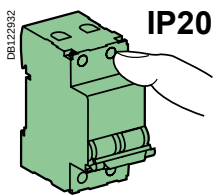
(1) For lugs up to 63 A, front or rear access.



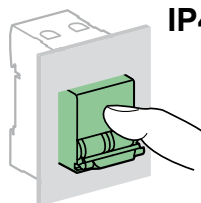
Clips onto 35 mm DIN rail.



Any installation position.



IP20



IP40

Technical data

Main characteristics

To IEC/EN 60947-2

Insulation voltage (Ui)		500 V AC
Degree of pollution		3
Rated impulse withstand voltage (Uimp)		6 kV
Thermal tripping	Reference temperature	50°C
Magnetic tripping	Curve C	8 In ± 20 %
	Curve D	12 In ± 20 %
Limitation class		3

Additional characteristics

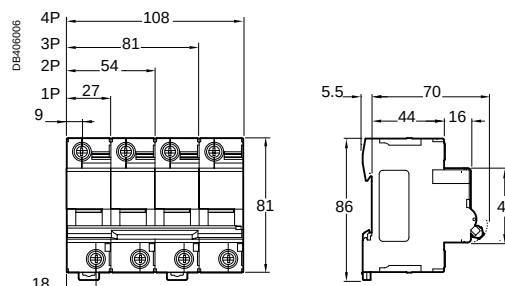
Degree of protection (IEC 60529)	Device only	IP20
	Device in a modular enclosure	IP40
Endurance (O-C)	Electrical	5000 cycles (O-C)
	Mechanical	20000 cycles
Operating temperature		-30°C to +70°C
Storage temperature		-40°C to +80°C
Tropicalisation (IEC 60068-1)		Treatment 2 (relative humidity 95 % at 55°C)

Weight (g)

Circuit breaker

Type	C120
1P	205
2P	410
3P	615
4P	820

Dimensions (mm)



C120N circuit breakers (curves B, C, D)



IEC/EN 60898-1

C120N circuit breakers are multistandard circuit breakers that combine the following functions:

- circuit protection against short-circuit currents,
- circuit protection against overload currents,
- suitability for isolation in the industrial sector to IEC/EN 60947-2,
- fault tripping and indication by adding auxiliaries.

Alternating current (AC) 50/60 Hz

Breaking capacity (Icu) to IEC/EN 60947-2					Service breaking capacity (Ics)
Type	Voltage (V)				
1P	12 to 130 V	220 to 240 V	380 to 415 V	440 V	75 % of Icu
Rating (In) 63 to 125 A	20 kA	10 kA	3 kA ⁽¹⁾	-	
2P/3P/4P	12 to 130 V	220 to 240 V	380 to 415 V	440 V	75 % of Icu
63 to 125 A	-	20 kA	10 kA	6 kA	

Breaking capacity (Icn) to IEC/EN 60898-1

Type	Voltage (V)	Service breaking capacity (Ics)
1P, 2P, 3P, 4P	230 to 400 V	
Rating (In) 63 to 125 A	10000 A	75 % of Icn

⁽¹⁾ One-pole breaking capacity in IT isolated neutral system (double fault).

Direct current (DC)

Breaking capacity (Icu) according to IEC/EN 60947-2						Service breaking capacity (Ics)
	Voltage (Ue)					
Between +/-	12 to 125 V	≤ 144 V	≤ 250 V	≤ 375 V	≤ 500 V	
Number of poles	1P		2P	3P	4P	
Rating (In) 63 to 125 A	15 kA	10 kA	10 kA	10 kA	10 kA	100 % of Icu



Catalogue numbers

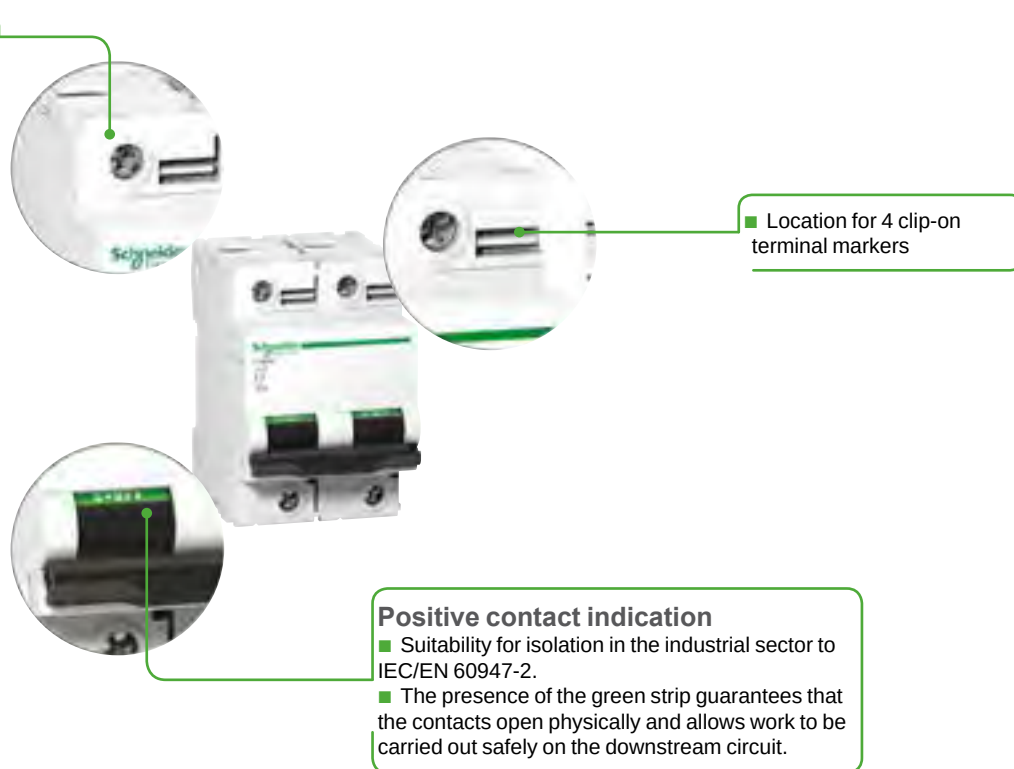
C120N circuit breaker

Type	1P			2P		
Auxiliaries	Remote indication and tripping, module CA907008 and CA907013			Remote indication and tripping, module CA907008 and CA907013		
Vigi C120	Vigi C120 add-on residual current device, module CA902016			Vigi C120 add-on residual current device, module CA902016		
Rating (In)	Curve			Curve		
	B	C	D	B	C	D
63 A	A9N18340	A9N18356	A9N18378	A9N18344	A9N18360	A9N18382
80 A	A9N18341	A9N18357	A9N18379	A9N18345	A9N18361	A9N18383
100 A	A9N18342	A9N18358	A9N18380	A9N18346	A9N18362	A9N18384
125 A	A9N18343	A9N18359	A9N18381	A9N18347	A9N18363	A9N18385
Width in 9-mm modules	3			6		
Accessories	Module CA907012 and CA907013			Module CA907012 and CA907013		

⁽¹⁾ Country France only

C120N circuit breakers (curves B, C, D) (cont.)

PB107917-40



- Longer product service life thanks to:
 - good overvoltage withstand capacity: products designed to offer a high industrial performance level (degree of pollution, rated impulse withstand voltage and insulation voltage).
 - high limitation performances (see limitation curves).
 - fast closure independent of toggle operating speed.
- Remote indication of the open/closed/tripped state by auxiliary contacts (optional).
- Power supply from above or below.

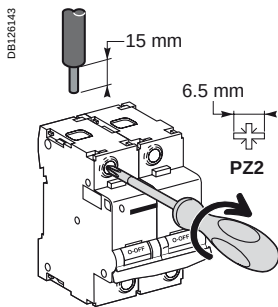
3P				4P			
Remote indication and tripping, module CA907008 and CA907013				Remote indication and tripping, module CA907008 and CA907013			
Vigi C120 add-on residual current device, module CA902016				Vigi C120 add-on residual current device, module CA902016			
Curve				Curve			
B		C	D	B		C	D
A9N18348		A9N18364	A9N18386	A9N18352		A9N18371	A9N18390
A9N18349		A9N18365	A9N18387	A9N18353		A9N18372	A9N18391
A9N18350		A9N18367	A9N18388	A9N18354		A9N18373(1)	A9N18392
A9N18351		A9N18369	A9N18389	A9N18355		A9N18374	A9N18393
						A9N18375(1)	
						A9N18376	
						A9N18377(1)	
9				12			
Module CA907012 and CA907013				Module CA907012 and CA907013			

Protection

Circuit protection

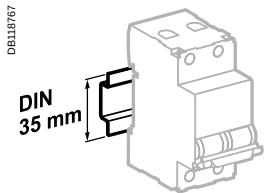
C120N circuit breakers (curves B, C, D) (cont.)

Connection

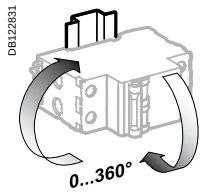


		Without access.		With accessories			
Rating	Tightening torque	Copper cables		50 mm ² Al Terminal	Screw-on connection for ring terminal ⁽¹⁾	Multi-cable terminal	
		Rigid/ semi-rigid	Flexible or with ferrule			Rigid cables	Flexible cables
		DB122945 	DB122946 	DB122935  Al	DB119789 	DB119787 	
63 to 125 A	3.5 N.m	1.5 to 50 mm ²	1.5 to 35 mm ²	16 to 50 mm ²	Ø 5 mm	3 x 16 mm ²	3 x 10 mm ²

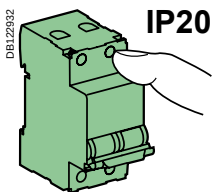
(1) For lugs up to 63 A, front or rear access.



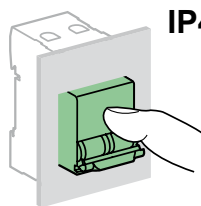
Clips onto 35 mm DIN rail.



Any installation position.



IP20



IP40

Technical data

Main characteristics

To IEC/EN 60947-2

Insulation voltage (U _i)	500 V AC
Degree of pollution	3
Rated impulse withstand voltage (U _{imp})	6 kV
Thermal tripping	Reference temperature
	50°C

To IEC/EN 60898-1

Magnetic tripping	Curve B	3 and 5 I _n
	Curve C	5 and 10 I _n
	Curve D	10 and 14 I _n
Limitation class		3

Additional characteristics

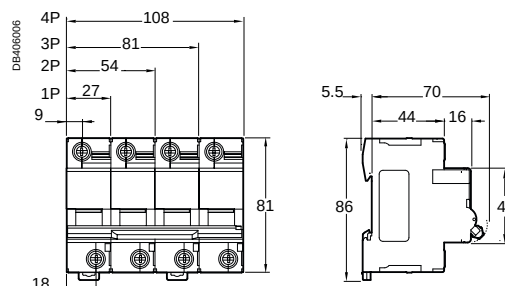
Degree of protection (IEC 60529)	Device only		IP20
	Device in a modular enclosure		IP40
Endurance (O-C)	Electrical	63 A	10000 cycles (O-C)
		80...125 A	5000 cycles (O-C)
	Mechanical		20000 cycles
Operating temperature			-30°C to +70°C
Storage temperature			-40°C to +80°C
Tropicalisation (IEC 60068-1)			Treatment 2 (relative humidity 95 % at 55°C)

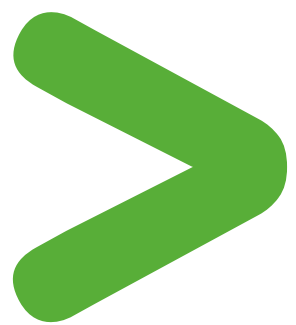
Weight (g)

Circuit breaker

Type	C120N
1P	205
2P	410
3P	615
4P	820

Dimensions (mm)

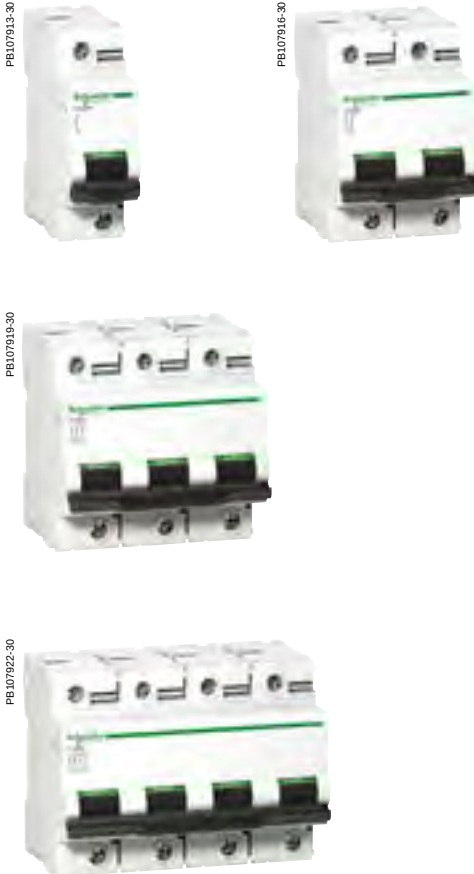




Protection

Circuit protection

C120H circuit breakers (curves B, C, D)



IEC/EN 60898-1

C120H circuit breakers are multistandard circuit breakers that combine the following functions:

- circuit protection against short-circuit currents
- circuit protection against overload currents
- suitability for isolation in the industrial sector to IEC/EN 60947-2
- fault tripping and indication by adding auxiliaries.

Alternating current (AC) 50/60 Hz

Breaking capacity (Icu) to IEC/EN 60947-2					Service breaking capacity (Ics)
Type	Voltage (V)				
1P	12 to 130 V	220 to 240 V	380 to 415 V	440 V	50 % of Icu
Rating (In) 63 to 125 A	30 kA	15 kA	4,5 kA ⁽¹⁾	-	
2P, 3P, 4P	12 to 130 V	220 to 240 V	380 to 415 V	440 V	50 % of Icu
63 to 125 A	-	30 kA	15 kA	10 kA	

Breaking capacity (Icn) to IEC/EN 60898-1

Type	Voltage (V)	Service breaking capacity (Ics)
1P, 2P, 3P, 4P	230 to 400 V	
Rating (In) 63 to 125 A	15000 A	50 % of Icn

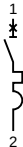
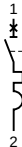
⁽¹⁾ One-pole breaking capacity in IT isolated neutral system (double fault).

Direct current (DC)

Breaking capacity (Icu) according to IEC/EN 60947-2					Service breaking capacity (Ics)	
	Voltage (Ue)					
Between +/-	12 to 125 V	≤ 144 V	≤ 250 V	≤ 375 V		≤ 500 V
Number of poles	1P		2P	3P		4P
Rating (In) 63 to 125 A	20 kA	15 kA	15 kA	15 kA	15 kA	100 % of Icu

Catalogue numbers

C120H circuit breaker

Type	1P	2P				
						
Auxiliaries	Remote indication and tripping, module CA907008 and CA907013	Remote indication and tripping, module CA907008 and CA907013				
Vigi C120	Vigi C120 add-on residual current device, module CA902016	Vigi C120 add-on residual current device, module CA902016				
Rating (In)	Curve	Curve				
	B	C	D	B	C	D
63 A	A9N18401	A9N18445	A9N18489	A9N18412	A9N18456	A9N18500
80 A	A9N18402	A9N18446	A9N18490	A9N18413	A9N18457	A9N18501
100 A	A9N18403	A9N18447	A9N18491	A9N18414	A9N18458	A9N18502
125 A	A9N18404	A9N18448	A9N18492	A9N18415	A9N18459	A9N18503
Width in 9 mm modules	3			6		
Accessories	Module CA907012 and CA907013			Module CA907012 and CA907013		

C120H circuit breakers (curves B, C, D) (cont.)

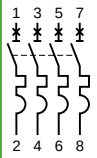
■ Terminals insulated to IP20

■ Location for 4 clip-on terminal markers

Positive contact indication

- Suitability for isolation in the industrial sector to IEC/EN 60947-2.
- The presence of the green strip guarantees that the contacts open physically and allows work to be carried out safely on the downstream circuit.

- Longer product service life thanks to:
 - good overvoltage withstand capacity: products designed to provide a high industrial performance level (degree of pollution, rated impulse withstand voltage and insulation voltage).
 - high limitation performances (see limitation curves).
 - fast closure independent of toggle operating speed.
- Remote indication of the open/closed/tripped state by auxiliary contacts (optional).
- Power supply from above or below.

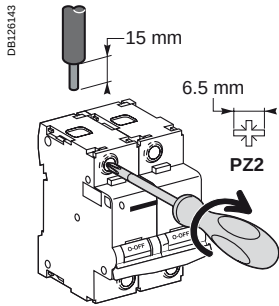
3P				4P			
							
Remote indication and tripping, module CA907008 and CA907013				Remote indication and tripping, module CA907008 and CA907013			
Vigi C120 add-on residual current device, module CA902016				Vigi C120 add-on residual current device, module CA902016			
Curve				Curve			
B		C	D	B		C	D
A9N18423		A9N18467	A9N18511	A9N18434		A9N18478	A9N18522
A9N18424		A9N18468	A9N18512	A9N18435		A9N18479	A9N18523
A9N18425		A9N18469	A9N18513	A9N18436		A9N18480	A9N18524
A9N18426		A9N18470	A9N18514	A9N18437		A9N18481	A9N18525
9				12			
Module CA907012 and CA907013				Module CA907012 and CA907013			

Protection

Circuit protection

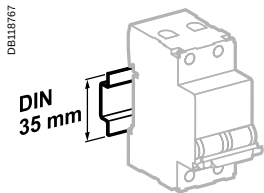
C120H circuit breakers (curves B, C, D) (cont.)

Connection

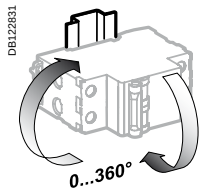


Rating	Tightening torque	Without access.		With accessories			
		Copper cables		50 mm ² Al term.	Screw-on connection for ring terminal ⁽¹⁾	Multi-cable terminal	
		Rigid	Flexible or with ferrule			Rigid cables	Flexible cables
		DB122945	DB122946	DB122935	DB118789	DB118787	
63 to 125 A	3.5 N.m	1.5 to 50 mm ²	1.5 to 35 mm ²	16 to 50 mm ²	Ø 5 mm	3 x 16 mm ²	3 x 10 mm ²

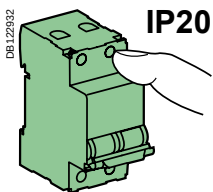
(1) For lugs up to 63 A, front or rear accessories.



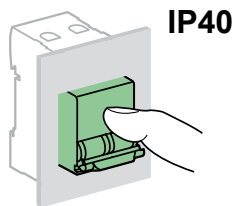
Clips onto 35 mm DIN rail.



Any installation position.



IP20



IP40

Technical data

Main characteristics

To IEC/EN 60947-2

Insulation voltage (Ui)	500 V AC
Degree of pollution	3
Rated impulse withstand voltage (Uimp)	6 kV
Thermal tripping	Reference temperature
	50°C

To IEC/EN 60898-1

Magnetic tripping	Curve B	3 and 5 In
	Curve C	5 and 10 In
	Curve D	10 and 14 In
Limitation class	3	

Additional characteristics

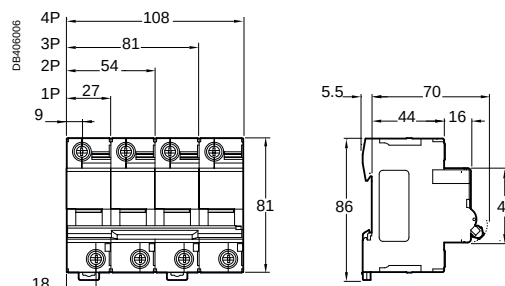
Degree of protection (IEC 60529)	Device only		IP20
	Device in a modular enclosure		IP40 (IPXXD)
Endurance (O-C)	Electrical	63 A	10000 cycles (O-C)
		80...125 A	5000 cycles (O-C)
	Mechanical		20000 cycles
Operating temperature	-30°C to +70°C		
Storage temperature	-40°C to +80°C		
Tropicalisation (IEC 60068-1)	Treatment 2 (relative humidity 95% at 55°C)		

Weight (g)

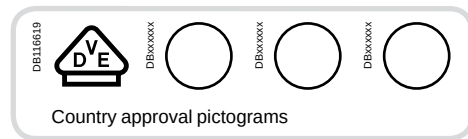
Circuit breaker

Type	C120H
1P	205
2P	410
3P	615
4P	820

Dimensions (mm)



NG125N circuit breakers (curves B, C, D)



IEC/EN 60947-2

- NG125N circuit breakers are circuit breakers which combine the following functions:
 - circuit protection against short-circuit currents,
 - circuit protection against overload currents,
 - suitability for isolation in the industrial sector to IEC/EN 60947-2,
 - tripping upon fault is indicated by a red mechanical state indicator light on the front face of the circuit breaker.



NG125N 1P



NG125N 2P



NG125N 3P



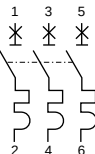
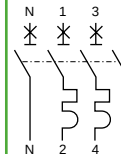
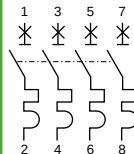
NG125N 4P

Alternating current (AC) 50/60 Hz								
Breaking capacity (Icu) to IEC/EN 60947-2								Service breaking capacity (Ics)
	Voltage (Ue)							
Ph/Ph (2P, 3P, 3P+N, 4P)	-	-	220 to 240 V	-	380 to 415 V	440 V	500 V	
Ph/N (1P)	110 to 130 V	220 to 240 V	-	380 to 415 V	-	-	-	
Rating 10 to 125 A (In)	50 kA	25 kA	50 kA	6 kA ⁽²⁾	25 kA	20 kA	10 kA	75 % of Icu

Direct current (DC)						
Breaking capacity (Icu) according to IEC/EN 60947-2						Service breaking capacity (Ics)
	Voltage (Ue)					
	12 to 125 V	≤ 144 V	≤ 250 V	≤ 375 V	≤ 500 V	
Number of poles	1P		2P	3P	4P	
Rating (In) 10 to 125 A	25 kA	20 kA	20 kA	20 kA	20 kA	100 % of Icu

Catalogue numbers

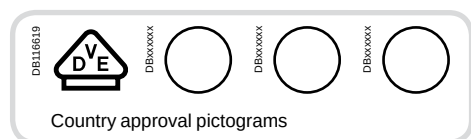
NG125N circuit breaker

Type										
Auxiliaries	Remote indication and tripping, module CM907004 and CM907005									
Vigi NG125	Vigi NG125 add-on residual current device, module CM902008									
Rating (In)	Quality label ⁽¹⁾	Curve C	Curve C	Curve B	C	D	Curve C	Curve B	C	D
10 A		18610	18621	-	18632	-	-	-	18649	-
16 A		18611	18622	-	18633	-	-	-	18650	-
20 A		18612	18623	-	18634	-	-	-	18651	-
25 A		18613	18624	-	18635	-	-	-	18652	-
32 A		18614	18625	-	18636	-	-	-	18653	-
40 A		18615	18626	-	18637	-	-	-	18654	-
50 A		18616	18627	-	18638	-	-	-	18655	-
63 A		18617	18628	-	18639	-	-	-	18656	-
80 A		18618	18629	18663	18641	18669	18646	18666	18657	18672
100 A		-	-	18664	18643	18670	18647	18667	18659	18673
125 A		-	-	18665	18645	18671	18648	18668	18661	18674
Width in 9 mm modules		3	6	9			12	12		
Accessories		Module CM907004 and CM907006								

(1) Information to be supplied by the country concerned.

(2) Breaking capacity under 1 pole in IT isolated neutral system (case of a double fault).

NG125N circuit breakers (curves B, C, D) (cont.)



IEC/EN 60947-2

- NG125N circuit breakers are circuit breakers which combine the following functions:
 - circuit protection against short-circuit currents,
 - circuit protection against overload currents,
 - suitability for isolation in the industrial sector to IEC/EN 60947-2,
 - tripping upon fault is indicated by a red mechanical state indicator light on the front face of the circuit breaker.



NG125N 1P



NG125N 2P



NG125N 3P



NG125N 4P

Alternating current (AC) 50/60 Hz

Breaking capacity (Icu) to IEC/EN 60947-2

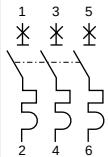
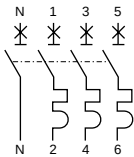
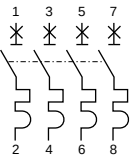
Breaking capacity (Icu) to IEC/EN 60947-2								Service breaking capacity (Ics)	
	Voltage (Ue)								
Ph/Ph (2P, 3P, 3P+N, 4P)	-	-	220 to 240 V	-	380 to 415 V	440 V	500 V		
Ph/N (1P)	110 to 130 V	220 to 240 V	-	380 to 415 V	-	-	-		
Rating (In)	10 to 125 A	50 kA	25 kA	50 kA	6 kA ⁽²⁾	25 kA	20 kA	10 kA	75 % of Icu

Direct current (DC)

Breaking capacity (Icu) according to IEC/EN 60947-2

Breaking capacity (Icu) according to IEC/EN 60947-2						Service breaking capacity (Ics)
	Voltage (Ue)					
	12 to 125 V	≤ 144 V	≤ 250 V	≤ 375 V	≤ 500 V	
Number of poles	1P		2P	3P	4P	
Rating (In)	10 to 125 A	25 kA	20 kA	20 kA	20 kA	100 % of Icu

Catalogue numbers

NG125N circuit breaker											
Type	1P		2P		3P			3P+N		4P	
	E45092 	E45094 	E45095 		DB122592 		E45097 				
Auxiliaries	Remote indication and tripping, module CM907004 and CM907005										
Vigi NG125	Vigi NG125 add-on residual current device, module CM902008										
Rating (In)	Quality label ⁽¹⁾	Curve C	Curve C	Curve B	C	D	Curve C	Curve B	C	D	
10 A		18610	18621	-	18632	-	-	-	18649	-	
16 A		18611	18622	-	18633	-	-	-	18650	-	
20 A		18612	18623	-	18634	-	-	-	18651	-	
25 A		18613	18624	-	18635	-	-	-	18652	-	
32 A		18614	18625	-	18636	-	-	-	18653	-	
40 A		18615	18626	-	18637	-	-	-	18654	-	
50 A		-	-	-	18638	-	-	-	18655	-	
63 A		-	18628	-	18639	-	-	-	18656	-	
80 A		-	18629	18663	18640	18669	18646	18666	18658	18672	
100 A		-	-	18664	18642	18670	18647	18667	18660	18673	
125 A		-	-	18665	18644	18671	18648	18668	18662	18674	
Width in 9 mm modules		3	6	9			12	12			
Accessories		Module CM907004 and CM907006									

(1) Information to be supplied by the country concerned.

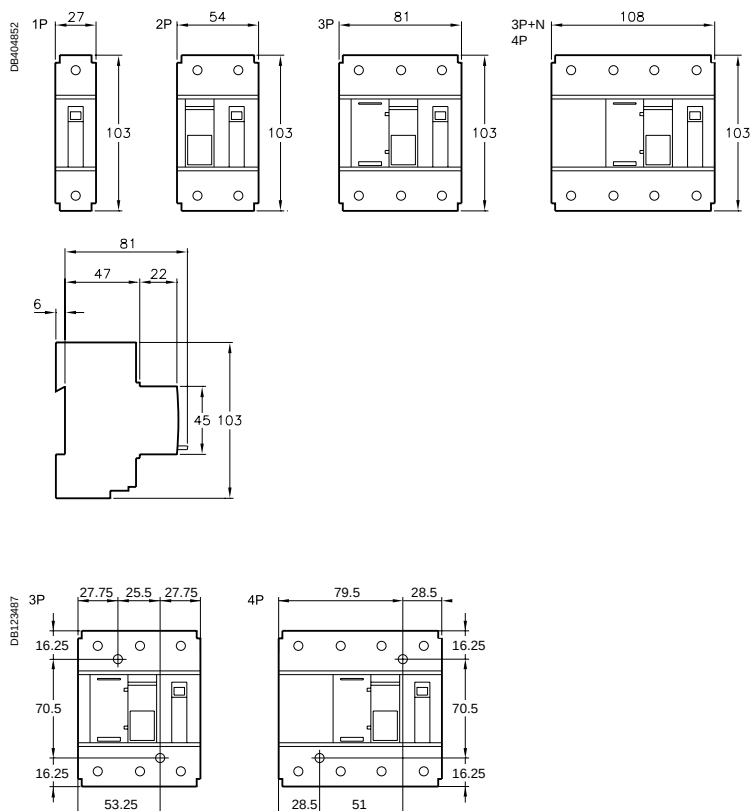
(2) Breaking capacity under 1 pole in IT isolated neutral system (case of a double fault).

NG125N circuit breakers (curves B, C, D) (cont.)

Weight (g)

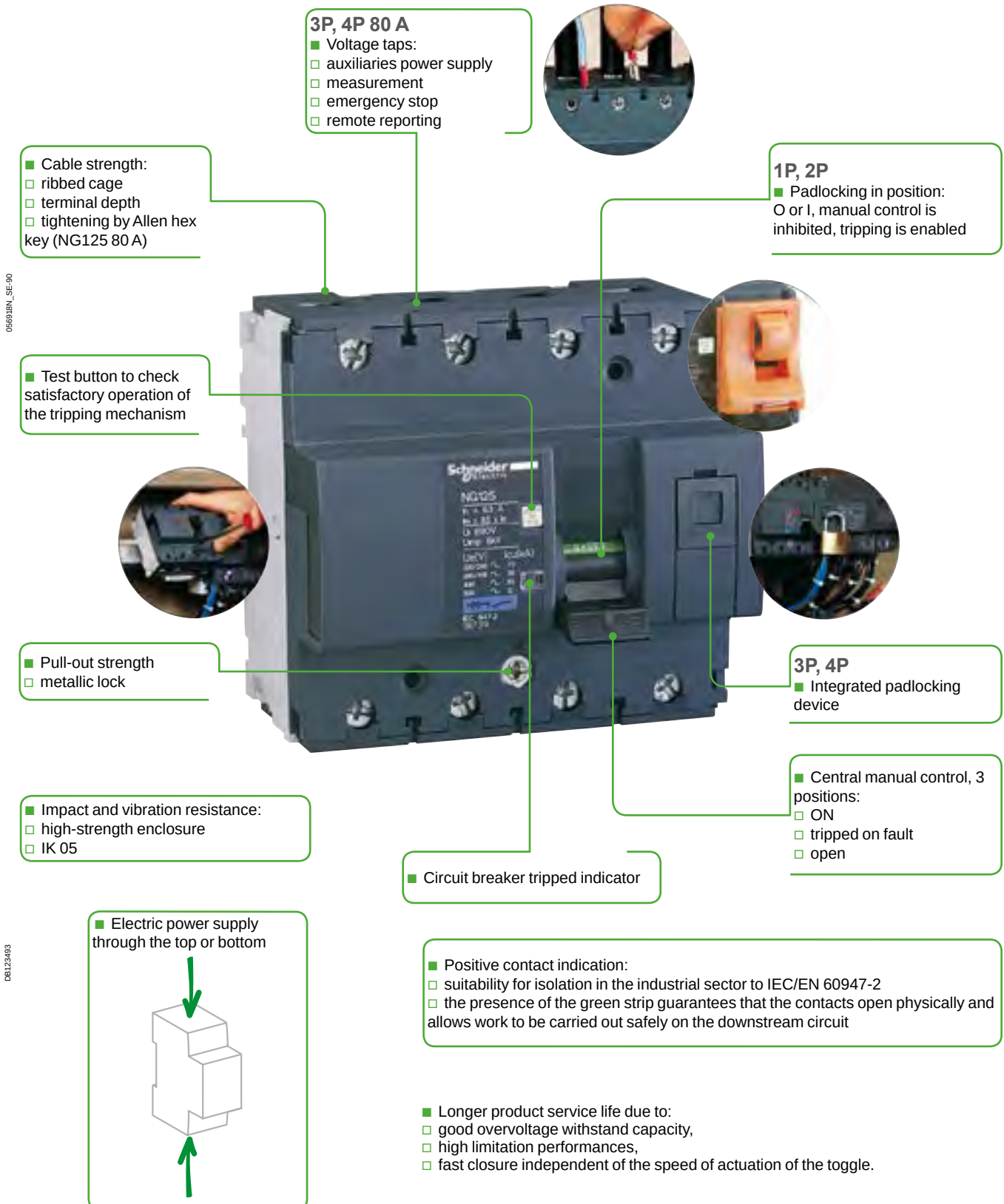
Circuit breaker	
Type	NG125N
1P	240
2P	480
3P	720
3P+N	960
4P	960

Dimensions (mm)



Spacing for mounting on panel

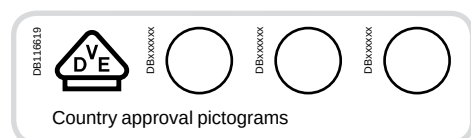
NG125N circuit breakers (curves B, C, D) (cont.)



Protection

Circuit protection

NG125H circuit breakers (curve C)



IEC/EN 60947-2

■ NG125H circuit breakers are circuit breakers which combine the following functions:

- circuit protection against short circuit currents,
- circuit protection against overload currents,
- suitability for isolation in the industrial sector to IEC/EN 60947-2,
- tripping upon fault is indicated by a red mechanical state indicator light on the front face of the circuit breaker.



NG125H 1P



NG125H 2P



NG125H 3P



NG125H 4P

Alternating current (AC) 50/60 Hz

Breaking capacity (Icu) to IEC/EN 60947-2

		Voltage (Ue)							breaking capacity (Ics)
Ph/Ph (2P, 3P, 4P)		-	-	220 to 240 V	-	380 to 415 V	440 V	500 V	
Ph/N (1P)		110 to 130 V	220 to 240 V	-	380 to 415 V	-	-	-	
Rating (In)	10 to 80 A	70 kA	36 kA	70 kA	9 kA ⁽²⁾	36 kA	30 kA	12 kA	75 % of Icu

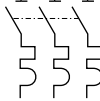
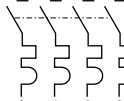
Direct current (DC)

Breaking capacity (Icu) according to IEC/EN 60947-2

	Voltage (Ue)					breaking capacity (Ics)
	12 to 125 V	≤ 144 V	≤ 250 V	≤ 375 V	≤ 500 V	
Number of poles	1P		2P	3P	4P	
Rating (In)	10 to 80 A	36 kA	25 kA	25 kA	25 kA	100 % of Icu

Catalogue numbers

NG125H circuit breaker

NG125 circuit breaker					
Type		1P	2P	3P	4P
		E45902 1  2 	E45904 1 3   2 4 	E45905 1 3 5    2 4 6 	E45907 1 3 5 7     2 4 6 8 
Auxiliaries		Remote indication and tripping, module CM907004 and CM907005			
Vigi NG125		Vigi NG125 add-on residual current device, module CM902008			
Rating (In)	Quality label (1)	Curve C	Curve C	Curve C	Curve C
10 A		18705	18714	18723	18732
16 A		18706	18715	18724	18733
20 A		18707	18716	18725	18734
25 A		18708	18717	18726	18735
32 A		18709	18718	18727	18736
40 A		-	18719	18728	18737
50 A		-	-	18729	18738
63 A		18712	18721	18730	18739
80 A		-	-	18731	18740
Width in 9 mm modules		3	6	9	12
Accessories		Module CM907004 and CM907006			

(1) Information to be supplied by the country concerned.

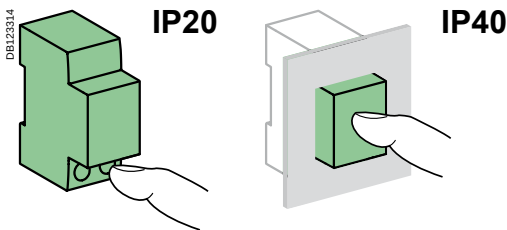
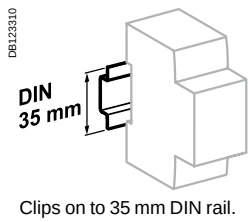
(2) Breaking capacity under 1 pole in IT isolated neutral system (case of a double fault).

NG125H circuit breakers (curve C) (cont.)

Connection

NG125 80 A 20 mm PZ2 6.5 mm NG125 ≤ 63 A	Rating	Tightening torque	Copper cables		70 mm ² Al terminal	Screw-on connection for ring terminal	Small ring terminal	Multi-cable terminal	
			Rigid	Flexible or with ferrule	Rigid single cables			Rigid cables	Flexible cables
			DB122945	DB122946	DB123410	DB123488	DB118789	DB118787	
							Ø 6 mm		
10 to 63 A	3.5 N.m	1.5 to 50 mm ²	1.5 to 35 mm ²	-	-	-	3 x 16 mm ²	3 x 10 mm ²	
1P, 2P 80 A	6 N.m	16 to 70 mm ²	10 to 50 mm ²	-	2 x 35 mm ²	1 x 70 mm ²			
3P, 4P 80 A				25 to 70 mm ²	1 x 50 mm ²				

■ On 3P and 4P 80 A: upstream voltage taps for each pole, by 6.35 mm Fast-on terminal.



Technical data

Main characteristics

According to IEC/EN 60947-2

Insulation voltage (U _i)	690 V AC
Degree of pollution	3
Rated impulse withstand voltage (U _{imp})	8 kV
Thermal tripping	Reference temperature 40°C
Magnetic tripping (I _i)	Curve C 8 I _n ± 20 %
Utilization category	A

Additional characteristics

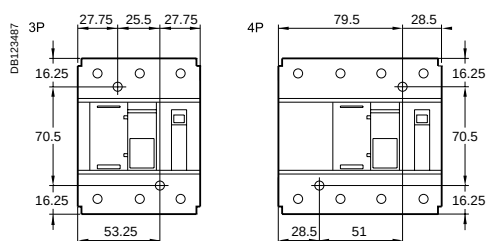
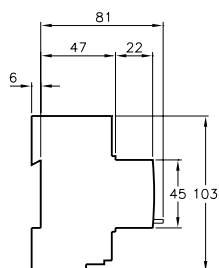
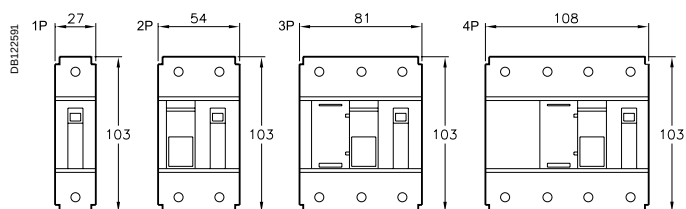
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
Endurance (O-C)	Electrical	≤ 63 A: 10,000 cycles ≥ 63 A: 5000 cycles
	Mechanical	20,000 cycles
Operating temperature		-30°C to +70°C
Storage temperature		-40°C to +70°C
Tropicalization (IEC 60068-1)		Treatment 2 (relative humidity of 95 % at 55°C)

NG125H circuit breakers (curve C) (cont.)

Weight (g)

Circuit breaker	
Type	NG125H
1P	240
2P	480
3P	720
4P	960

Dimensions (mm)

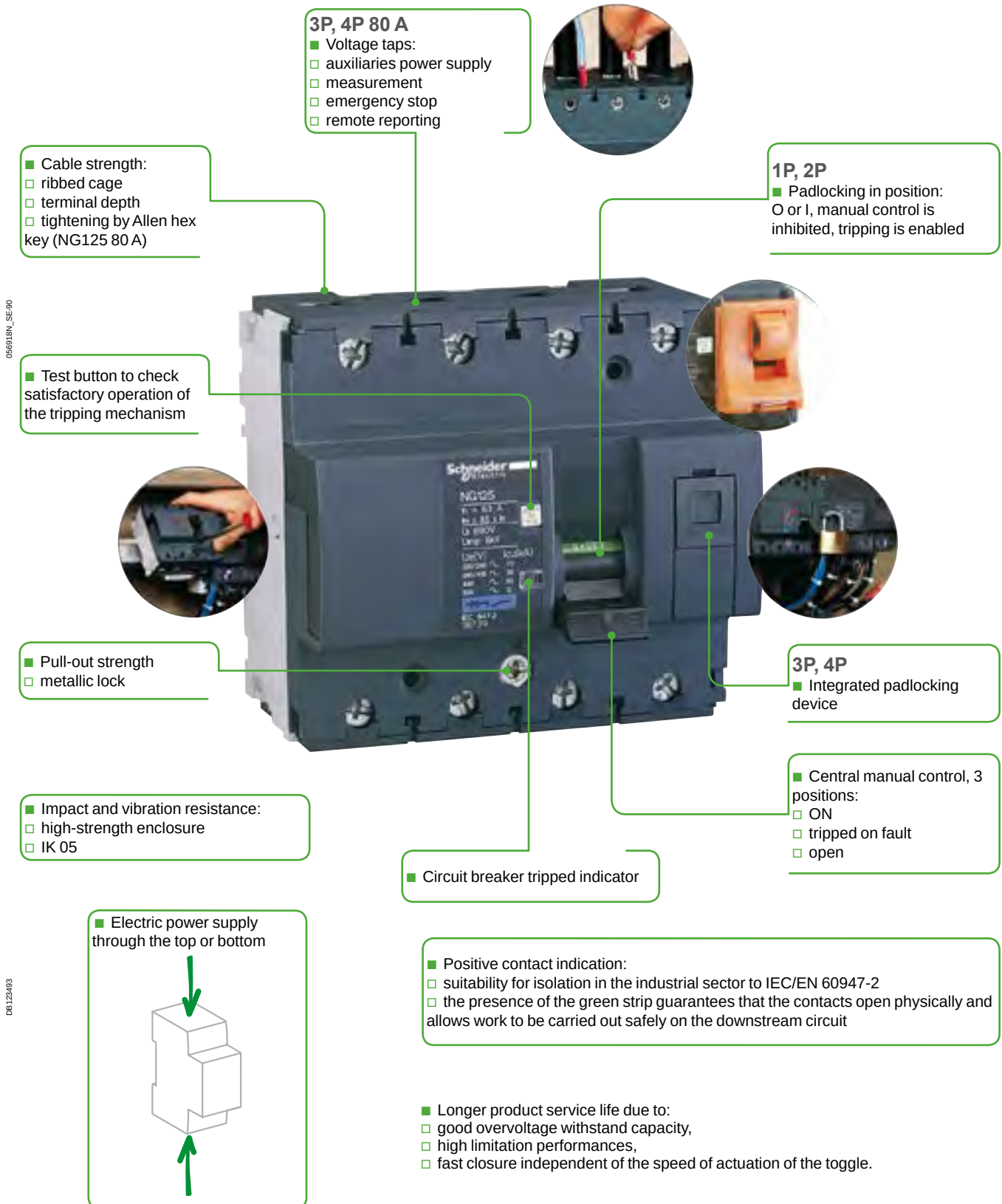


Spacing for mounting on panel

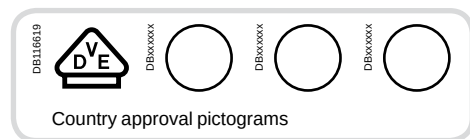
Protection

Circuit protection

NG125H circuit breakers (curve C) (cont.)



NG125L circuit breakers (curves B, C, D) (cont.)



IEC/EN 60947-2

■ NG125L circuit breakers are circuit breakers which combine the following functions:

- circuit protection against short-circuit currents;
- circuit protection against overload currents;
- suitability for isolation in the industrial sector to IEC/EN 60947-2;
- tripping upon fault is indicated by a red mechanical state indicator light on the front face of the circuit breaker.



NG125L 1P



NG125L 2P



NG125L 3P



NG125L 4P

Alternating current (AC) 50/60 Hz

Breaking capacity (Icu) to IEC/EN 60947-2

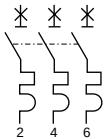
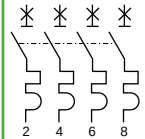
Voltage (Ue)	Voltage (Ue)						Service breaking capacity (Ics)
	110 to 130 V	220 to 240 V	220 to 240 V	380 to 415 V	440 V	500 V	
Ph/Ph (2P, 3P, 4P)	-	-	220 to 240 V	-	380 to 415 V	440 V	500 V
Ph/N (1P)	110 to 130 V	220 to 240 V	-	380 to 415 V	-	-	-
Rating (In)	10 to 80 A	100 kA	50 kA	100 kA	12.5 kA ⁽²⁾	50 kA	40 kA
							15 kA
							75 % of Icu

Direct current (DC)

Breaking capacity (Icu) according to IEC/EN 60947-2

	Voltage (Ue)					breaking capacity (Ics)
	12 to 125 V	≤ 144 V	≤ 250 V	≤ 375 V	≤ 500 V	
Number of poles	1P		2P	3P	4P	
Rating (In)	10 to 80 A	50 kA	36 kA	36 kA	36 kA	100 % of Icu

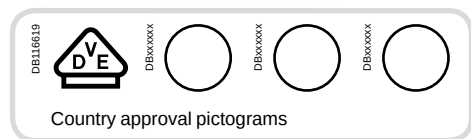
Catalogue numbers

NG125L circuit breaker															
Type	1P				2P			3P			4P				
	E45092				E45094			E45095				E45097			
Auxiliaries		Remote indication and tripping, module CM907004 and CM907005													
Vigi NG125		Vigi NG125 add-on residual current device, module CM902008													
Rating (In)	Quality label ⁽¹⁾	Curve			Curve			Curve			Curve				
		B	C	D	B	C	D	B	C	D	B	C	D		
10 A		-	18777	18830	18750	18788	18839	18759	18799	18848	18768	18821	18857		
16 A		-	18778	18831	18751	18789	18840	18760	18800	18849	18769	18822	18858		
20 A		18743	18779	18832	18752	18790	18841	-	18801	18850	18770	18823	18859		
25 A		-	18780	18833	18753	18791	18842	18762	18802	18851	18771	18824	18860		
32 A		-	18781	18834	18754	18792	18843	18763	18803	18852	18772	18825	18861		
40 A		18746	18782	18835	18755	18793	18844	18764	18804	18853	18773	18826	18862		
50 A		18747	18783	18836	18756	18794	18845	-	18805	18854	18774	18827	18863		
63 A		18748	18784	18837	18757	18795	18846	18766	18806	18855	18775	18828	18864		
80 A		18749	18785	18838	-	18796	18847	18767	18807	18856	18776	18829	18865		
Width in 9 mm modules		3			6			9			12				
Accessories		Module CM907004 and CM907006													

(1) Information to be supplied by the country concerned.

(2) Breaking capacity under 1 pole in IT isolated neutral system (case of a double fault).

NG125L circuit breakers (curves B, C, D)



IEC/EN 60947-2

- NG125L circuit breakers are circuit breakers which combine the following functions:
 - circuit protection against short-circuit currents;
 - circuit protection against overload currents;
 - suitability for isolation in the industrial sector to IEC/EN 60947-2;
 - tripping upon fault is indicated by a red mechanical state indicator light on the front face of the circuit breaker.



NG125L 1P



NG125L 2P



NG125L 3P



NG125L 4P

Alternating current (AC) 50/60 Hz

Breaking capacity (Icu) to IEC/EN 60947-2

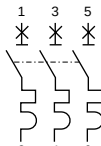
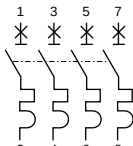
	Voltage (Ue)							breaking capacity (Ics)	
Ph/Ph (2P, 3P, 4P)	-	-	220 to 240 V	-	380 to 415 V	440 V	500 V		
Ph/N (1P)	110 to 130 V	220 to 240 V	-	380 to 415 V	-	-	-		
Rating (In)	10 to 80 A	100 kA	50 kA	100 kA	12.5 kA ⁽²⁾	50 kA	40 kA	15 kA	75 % of Icu

Direct current (DC)

Breaking capacity (Icu) according to IEC/EN 60947-2

	Voltage (Ue)					Service breaking capacity (Ics)
	12 to 125 V	≤ 144 V	≤ 250 V	≤ 375 V	≤ 500 V	
Number of poles	1P	2P	3P	4P		
Rating (In)	10 to 80 A	50 kA	36 kA	36 kA	36 kA	100 % of Icu

Catalogue numbers

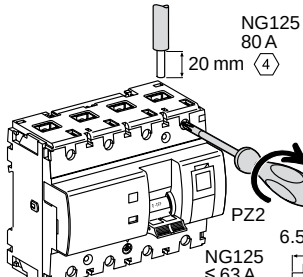
NG125L circuit breaker													
Type	1P				2P			3P			4P		
													
Auxiliaries	Remote indication and tripping, module CM907004 and CM907005												
Vigi NG125	Vigi NG125 add-on residual current device, module CM902008												
Rating (In)	Quality label ⁽¹⁾	Curve			Curve			Curve			Curve		
		B	C	D	B	C	D	B	C	D	B	C	D
10 A		18741	18777	18830	18750	18788	18839	18759	18799	18848	18768	18810	18857
16 A		18742	18778	18831	18751	18789	18840	18760	18800	18849	18769	18811	18858
20 A		18743	18779	18832	18752	18790	18841	18761	18801	18850	18770	18812	18859
25 A		18744	18780	18833	18753	18791	18842	18762	18802	18851	18771	18813	18860
32 A		18745	18781	18834	18754	18792	18843	18763	18803	18852	18772	18814	18861
40 A		18746	18782	18835	18755	18793	18844	18764	18804	18853	18773	18815	18862
50 A		18747	18783	18836	18756	18794	18845	18765	18805	18854	18774	18816	18863
63 A		18748	18784	18837	18757	18795	18846	18766	18806	18855	18775	18817	18864
80 A		18749	18785	18838	18758	18796	18847	18767	18807	18856	18776	18818	18865
Width in 9 mm modules		3			6			9			12		
Accessories	Module CM907004 and CM907006												

(1) Information to be supplied by the country concerned.

(2) Breaking capacity under 1 pole in IT isolated neutral system (case of a double fault).

NG125L circuit breakers (curves B, C, D) (cont.)

Connection

 NG125 80 A 20 mm PZ2 6.5 mm NG125 ≤ 63 A	Rating	Tightening torque	Copper cables	70 mm ² Al terminal	Screw-on connection for ring terminal	Small ring terminal	Multi-cable terminal		
			Rigid	Flexible or with ferrule	Rigid single cables			Rigid cables	Flexible cables
	10 to 63 A 80 A 80 A		 DBI122945	 DBI122946	 DBI123410	 DBI123488	 DBI18789	 DBI18787	
	3.5 N.m	1.5 to 50 mm ²	1.5 to 35 mm ²	-	-	-	3 x 16 mm ²	3 x 10 mm ²	
	6 N.m	16 to 70 mm ²	10 to 50 mm ²	 DBI123410	 DBI123488	 DBI18789	 DBI18787		

■ On 3P and 4P 80 A: upstream voltage taps for each pole, by 6.35 mm Fast-on terminal.

Technical data

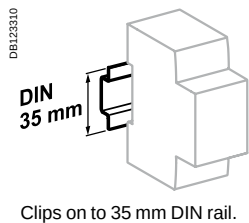
Main characteristics

According to IEC/EN 60947-2

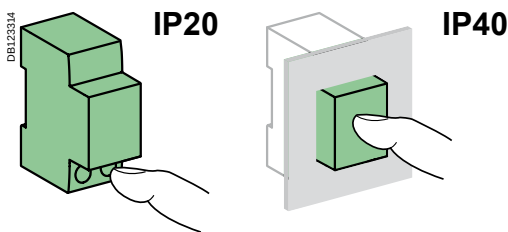
Insulation voltage (Ui)		690 V AC
Degree of pollution		3
Rated impulse withstand voltage (Uimp)		8 kV
Thermal tripping	Reference temperature	40°C
Magnetic tripping (Ii)	Curve B	4 In ± 20 %
	Curve C	8 In ± 20 %
	Curve D	12 In ± 20 %
Utilization category		A

Additional characteristics

Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
Endurance (O-C)	Electrical	≤ 63 A: 10,000 cycles
		≥ 63 A: 5000 cycles
	Mechanical	20,000 cycles
Operating temperature	-30°C to +70°C	
Storage temperature	-40°C to +70°C	
Tropicalization (IEC 60068-1)	Treatment 2 (relative humidity of 95 % at 55°C)	



Clips on to 35 mm DIN rail.

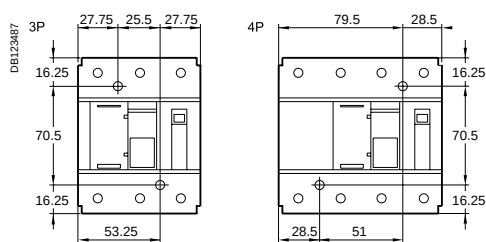
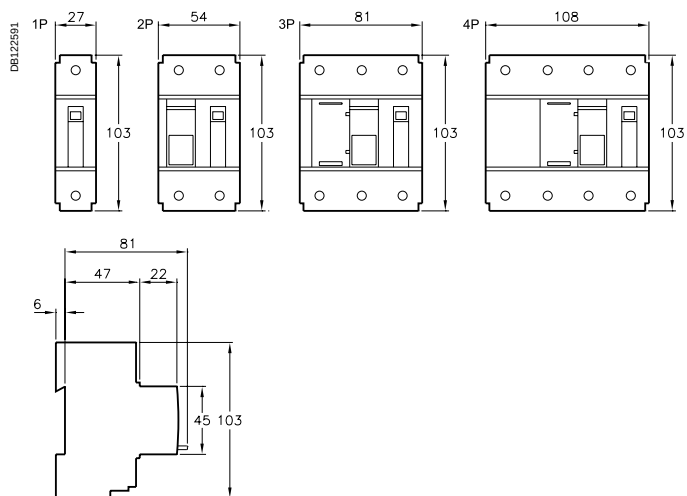


NG125L circuit breakers (curves B, C, D) (cont.)

Weight (g)

Circuit breaker	
Type	NG125L
1P	240
2P	480
3P	720
4P	960

Dimensions (mm)

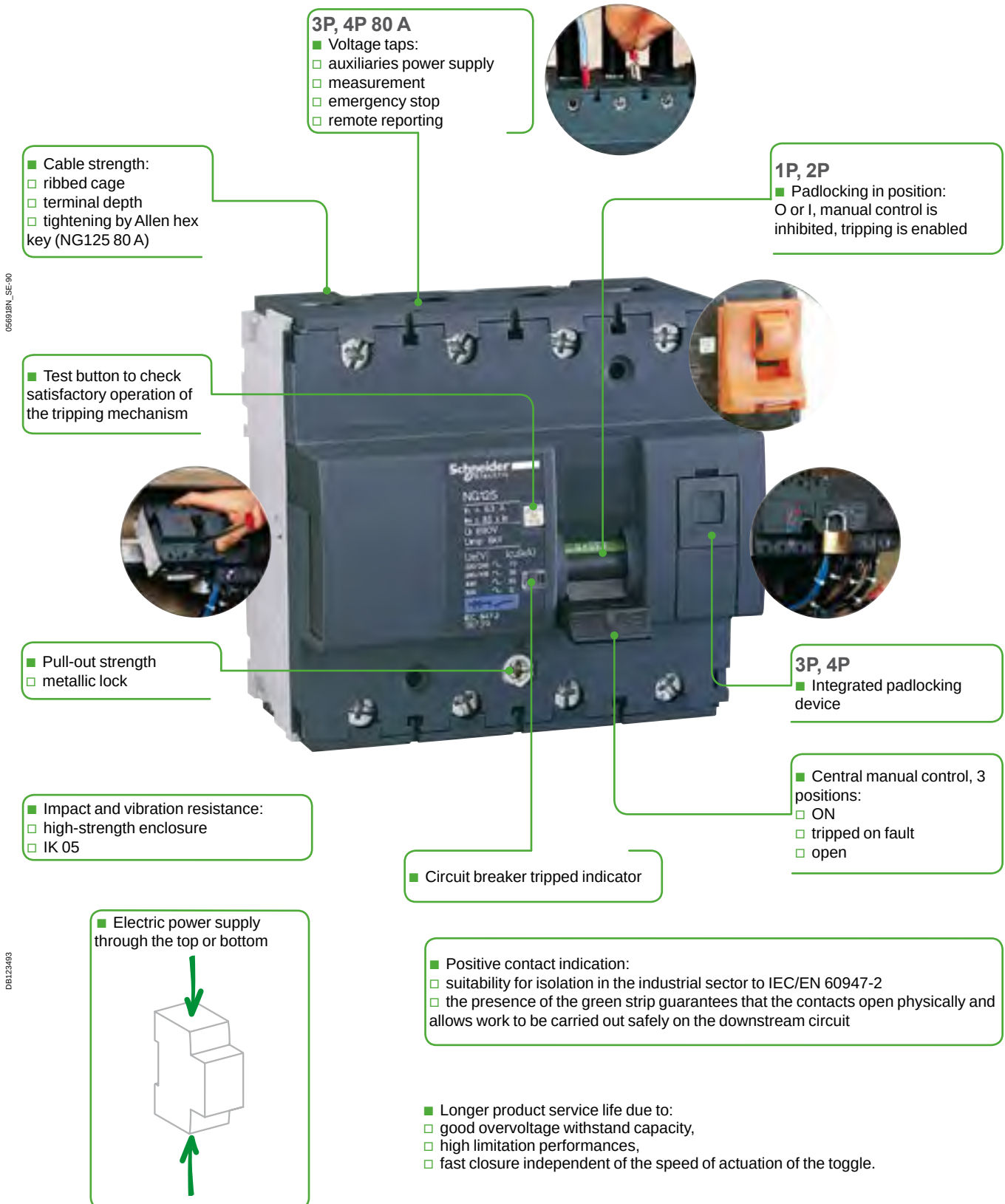


Spacing for mounting on panel

Protection

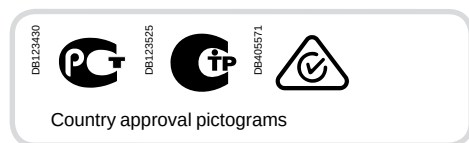
Circuit protection

NG125L circuit breakers (curves B, C, D) (cont.)



DC circuit supplementary protectors for feeders / distribution systems

C60H-DC, C curve



IEC 60947-2

The C60H-DC supplementary protectors are used in direct current circuits (Industrial control and automations, transport, renewable energy...). They combine the following functions of circuit protection against short-circuit and overload currents, control and isolation.



CE

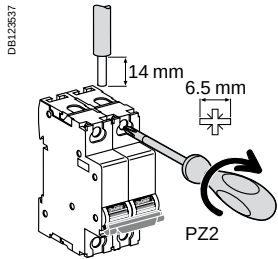
Direct current (DC)						
Breaking capacity (Icu) according to IEC 60947-2						Rated service breaking capacity (Ics)
Type	110 V	220 V	250 V	440 V	500 V	
1P						
Rating (In) 0.5 to 63 A	20 kA	10 kA	6 kA	-	-	75 % Icu
2P (in series)						
0.5 to 63 A	-	20 kA	20 kA	10 kA	6 kA	75 % Icu

Catalogue numbers

C60H-DC		
Type	1P	2P
	Supply from above or below, observing the polarity	Supply from above Supply from below
Auxiliaries	Remote signalisation and tripping, module CA907008	
Rating (In)	Curve C	Curve C
0.5 A	A9N61500	A9N61520
1 A	A9N61501	A9N61521
2 A	A9N61502	A9N61522
3 A	A9N61503	A9N61523
4 A	A9N61504	A9N61524
5 A	A9N61505	A9N61525
6 A	A9N61506	A9N61526
10 A	A9N61508	A9N61528
13 A	A9N61509	A9N61529
15 A	A9N61510	A9N61530
16 A	A9N61511	A9N61531
20 A	A9N61512	A9N61532
25 A	A9N61513	A9N61533
30 A	A9N61514	A9N61534
32 A	A9N61515	A9N61535
40 A	A9N61517	A9N61537
50 A	A9N61518	A9N61538
63 A	A9N61519	A9N61539
Number of modules of 9 mm	2	4
Accessories	Modules CA907013 and CA907012	

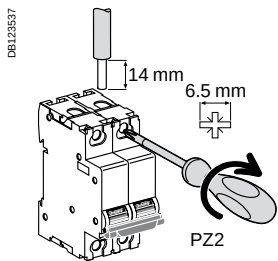
C60H-DC (cont.), C curve

Connection

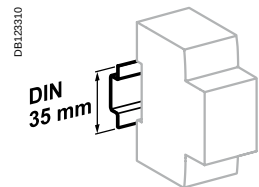


Rating	Tightening torque	Without accessory		With accessories			
		Copper cables		50 mm ² Al terminal	Screw-on connection for ring terminal	Multi-cables terminal	
		Rigid / Stranded	Flexible or with ferrule			Rigid cables	Flexible cables
		DB122945	DB122946	DB122935	DB118789	DB118787	
≤ 25 A	2.5 N.m	1 to 25 mm ²	1 to 16 mm ²	-	Ø 5 mm	-	-
> 25 A	3.5 N.m	1 to 35 mm ²	1 to 25 mm ²	50 mm ²		3 x 16 mm ²	3 x 10 mm ²

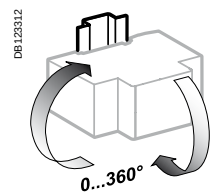
Multi-cables connection



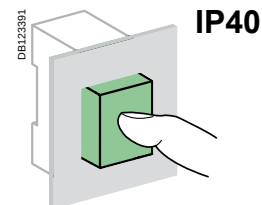
Rating	Tightening torque	Without accessory			
		2 Copper cables		3 Multi-cables / Different wires	
		Rigid / Stranded	Flexible or with ferrule	Flexible / Stranded	Flexible / Stranded / Rigid
		DB122945	DB122946	DB118787	
≤ 25 A	2.5 N.m	2 x 1 mm ² to 2 x 10 mm ²		3 x 1 mm ²	2 x 2.5 mm ² + 1 x 1.5 mm ²
> 25 A	3.5 N.m	2 x 1 mm ² to 2 x 16 mm ²		3 x 4 mm ²	2 x 10 mm ² + 1 x 6 mm ²



Clip on DIN rail 35 mm.



Indifferent position of installation.



IP40



Technical data

- Tripping curves: C curve - Overcurrent protection for any type of application.
- Positive break indication - the green strip indicates that all the poles are open and allows work to be carried out on the downstream circuit in complete safety.
- Suitable for isolation as defined in IEC 60947-2.
- Increase in the service life of the product: thanks to fast closure independent of the speed of action on the handle.
- Current limitation in the event of a fault: fast opening of the contacts prevents the loads from being destroyed in the event of a short-circuit.

Main characteristics

According to IEC 60947-2

Insulation voltage (Ui)	500 V DC
Rated voltage (Un)	1P 250 V DC 2P 500 V DC
Operating voltage (Ue)	1P 24...250 V DC 2P 24...500 V DC
Pollution degree	3
Rated impulse withstand voltage (Uimp) under frame	6 kV
Magnetic tripping (Ii)	8.5 In (± 20 %) (compatible with curve C)

Additional characteristics

Degree of protection (IEC 60529)	Device in modular enclosure	IP40
Utilization category		A (no delay in accordance with IEC 60947-2 standards)
Endurance (O-C)	Electrical	3,000 cycles (where L/R=2 ms) 6,000 cycles where the circuit is resistive
	Mechanical	20,000 cycles
Tropicalization (IEC 60068-2)		Treatment 2 (relative humidity 95 % at 55°C)
Operating temperature		-25°C to 70°C
Storage temperature		-40°C to 85°C



Failure to match polarity during connection may lead to a fire hazard and/or serious injury.

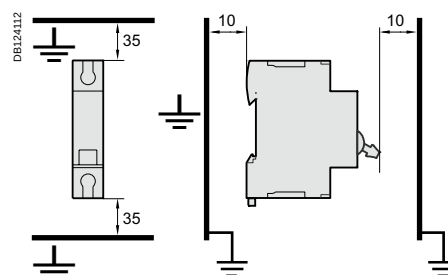
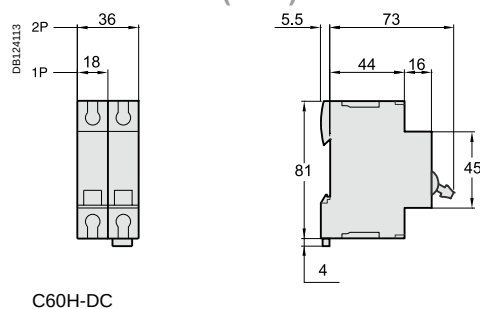
- The connection polarity must be observed (marked on the front panel).
- Use only with direct current.

C60H-DC (cont.), C curve

Weight (g)

Circuit-breaker	
Type	C60H-DC
1P	128 g
2P	256 g

Dimensions (mm)



Details of minimum distance between circuit-breaker and earthed metal parts for circuit-breaker intended for use without enclosure.

DC circuit supplementary protectors for photovoltaic installations

C60PV-DC

PB109403.50



The C60PV-DC is a DC circuit breaker dedicated to multi string photovoltaic installations.

This circuit breaker is designed to protect the cables located between each string of photovoltaic modules and the photovoltaic inverter against overloads and short circuits (see application diagram).

Combined with a switch (of the C60NA-DC type, for example), the C60PV-DC will be installed in a string PV protection enclosure at the end of each string of photovoltaic modules.

It can be locked (by a padlocking device) in OFF position as a safety measure for removal of the PV inverter.

Since a fault current can flow in the reverse direction to the operating current, the C60PV-DC can detect and protect against any bidirectional current.

To ensure the safety of the installation, it is necessary, depending on the various types of application, to combine the C60PV-DC with:

- a residual current device at the AC end,
- a fault passage detector (insulation monitoring device) at the DC end
- an earth protection circuit breaker at the DC end (see Practical Advice CA908035).

In all cases, fast action on site will be required to clear the fault (protection not ensured in the event of a double fault).

C60PV-DC is not polarity sensitive: (+) and (-) wires can be reversed without any risk.

The C60PV-DC is delivered with three inter-pole barriers to provide increased isolation distance between two adjacent connectors.

DB404840



IEC / EN 60947-2



Main characteristics

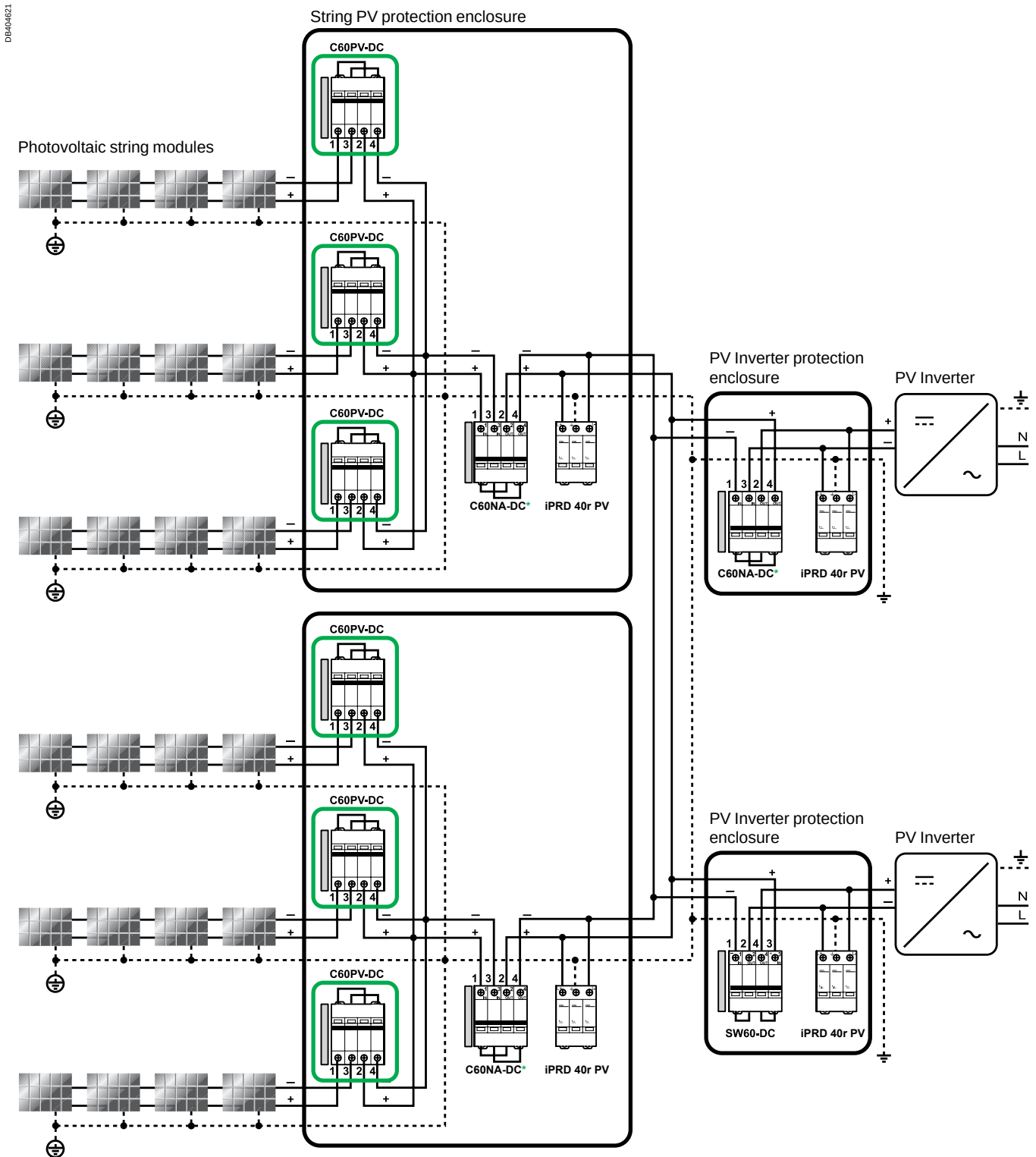
Operating voltage (Ue)	800 V DC
Rated insulation voltage (Ui)	1,000 V DC
Breaking capacity (Icu)	1.5 kA
Impulse voltage (Uimp)	6 kV
Electrical connection	By the bottom for In and Out
Number of poles	2P
Number of modules of 9 mm	8
Diagrams	

Standards	IEC 60947-2 EN 60947-2
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Rating (A)	Catalogue numbers	
	Curve B	Curve C
1	-	A9N61653
2	-	A9N61654
3	-	A9N61655
5	-	A9N61656
8	A9N61657	-
10	A9N61650	-
13	A9N61658	-
15	A9N61659	-
16	A9N61651	-
20	A9N61652	-
25	A9N61660	-
Auxiliaries	See modules CA907008 and CA907013	

DC circuit supplementary protectors for photovoltaic installations C60PV-DC (cont.)

Application diagram



*C60NA-DC:
20 A/1000 V DC or
32 A/800 V DC or
50 A/700 V DC

MN, MX, MNx, MN $\square$, MX+OF,
OF, SD, OF+SD/OF, OF+SD24

DC circuit supplementary protectors for photovoltaic installations C60PV-DC (cont.)

Technical data

- Position contact indication - suitability for isolation according to IEC/EN 60947-2 standard.
- The presence of the green strip guarantees physical opening of the contacts and allows operations to be performed on the downstream circuit in complete safety.
- Increased product service life thanks to fast closing independent of the speed of actuation of the toggle.
- Pre-wired product: Input / Output on the same side.

Main characteristics

Rated service breaking capacity (Ics)		100 % of the Icu
Magnetic tripping (Ii)	Ratings 1...5 A	8.5 In ($\pm 20\%$) (compatible with curve C)
	Ratings 8...25 A	5.7 In ($\pm 20\%$) (compatible with curve B)
Endurance (O-C)	Electrical	1,500 cycles (where L/R=2 ms)
	Mechanical	20,000 cycles
Mechanical		20,000 cycles
Degree of pollution		2
Category		A (no delay in accordance with IEC / EN 60947-2 standards)
Degree of protection (IEC 60529)	Device in modular enclosure	IP40
Tropicalisation		Relative humidity: 95 % at 55°C in accordance with IEC 60068-2 and GB 14048.2 standards
Temperature	Operating	-25°C to 70 °C
	Storage	-40°C to 85°C

Additional characteristics

Rating (A)	Voltage drop (mV)	Impedance (mΩ)	Power loss (W)
1	9200	9200	9.2
2	5104	2552	10.2
3	2980	993.3	8.9
5	2000	400	10
8	1384	173	11.1
10	680	68	6.8
13	572	44	7.4
15	600	40	9
16	648	40.5	10.4
20	588	29.4	11.8
25	488	19.5	12.2

Derating table (A)

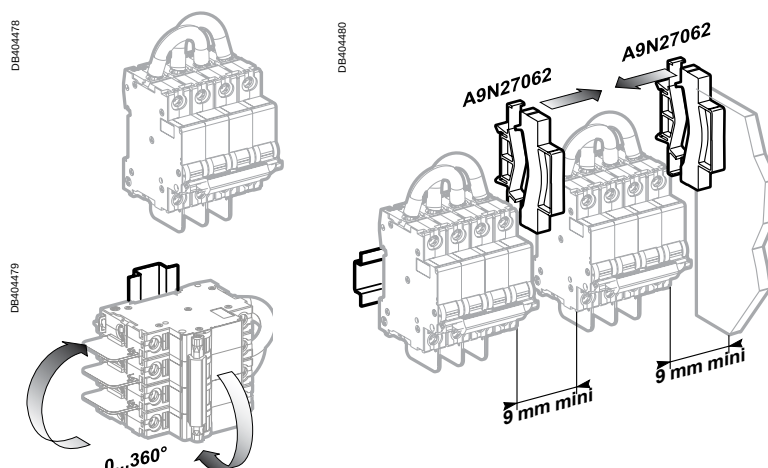
C60PV-DC	Ambient temperature (°C)																				
Rating	-30	-25	-20	-15	-10	-5	0	+5	+10	+15	+20	+25	+30	+35	+40	+45	+50	+55	+60	+65	+70
1 A	1.18	1.17	1.15	1.14	1.12	1.1	1.09	1.07	1.05	1.04	1.02	1	0.98	0.96	0.94	0.92	0.9	0.88	0.86	0.84	0.82
2 A	2.54	2.5	2.45	2.41	2.36	2.31	2.26	2.21	2.16	2.11	2.06	2	1.94	1.88	1.82	1.76	1.7	1.63	1.56	1.48	1.41
3 A	3.78	3.71	3.65	3.58	3.51	3.45	3.38	3.3	3.23	3.16	3.08	3	2.92	2.84	2.75	2.66	2.57	2.48	2.38	2.27	2.17
5 A	6	5.92	5.83	5.74	5.66	5.57	5.48	5.39	5.29	5.2	5.1	5	4.9	4.8	4.69	4.58	4.47	4.36	4.24	4.12	4
8 A	9.64	9.5	9.36	9.22	9.08	8.93	8.78	8.63	8.48	8.32	8.16	8	7.83	7.67	7.49	7.31	7.13	6.95	6.76	6.56	6.36
10 A	12.6	12.4	12.2	11.9	11.7	11.5	11.2	11	10.8	10.5	10.3	10	9.7	9.4	9.2	8.9	8.6	8.2	7.9	7.6	7.2
13 A	15.5	15.3	15.1	14.8	14.6	14.4	14.2	14	13.7	13.5	13.2	13	12.7	12.5	12.2	12	11.7	11.4	11.1	10.8	10.5
15 A	18.6	18.3	18	17.7	17.4	17.1	16.7	16.4	16.1	15.7	15.4	15	14.6	14.3	13.9	13.5	13.0	12.6	12.2	11.7	11.2
16 A	19.4	19.1	18.9	18.6	18.3	18.0	17.6	17.3	17.0	16.7	16.3	16	15.7	15.3	14.9	14.6	14.2	13.8	13.4	13.0	12.5
20 A	24.1	23.7	23.4	23.0	22.7	22.3	21.9	21.6	21.2	20.8	20.4	20	19.6	19.2	18.7	18.3	17.9	17.4	16.9	16.4	15.9
25 A	30.4	29.9	29.5	29.0	28.5	28.1	27.6	27.1	26.6	26.1	25.5	25	24.5	23.9	23.3	22.7	22.1	21.5	20.9	20.2	19.6

DC circuit supplementary protectors for photovoltaic installations C60PV-DC (cont.)

Technical data (cont.)

Moreover it is recommended to use:

- a terminal Screw Shield snaps onto the front of the C60PV-DC protective devices to provide greater insulation of the terminal screws
- a spacer clips 9 mm in each side to provide isolation.

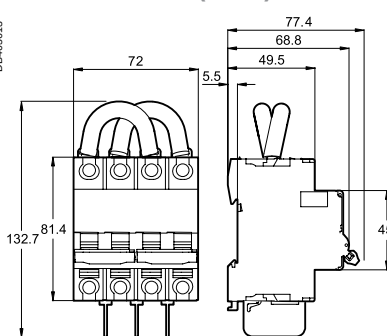


⚠ Required to have a 9 mm space isolation in each side"

Weight (g)

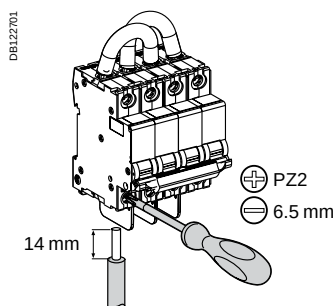
Circuit breaker	
Type	C60PV-DC
	545

Dimensions (mm)



C60PV-DC ≤ 25 A

Connection



		Without accessory		With accessories	
Rating	Tightening torque	Copper cables UL 486A file no. #E216919		50 mm ² Cu/Al Terminal	Ring tongue terminal screw connection
		Rigids	Flexibles with ferrule		
≤ 25 A	2.5 N.m	DB112804	DB112805	DB118755	DB118756
		1 to 25 mm ²	1 to 16 mm ²	50 mm ²	Ø 5 mm

DC main switch for photovoltaic installations

C60NA-DC

PB108404-50



The C60NA-DC is a direct current switch-disconnector dedicated to disconnection of the string of photovoltaic modules and the PV inverter.

It is designed to isolate the string of photovoltaic modules and the inverter from the rest of the photovoltaic installation for maintenance operations in complete safety.

Combined with a circuit breaker (of the C60PV-DC type, for example), the C60NA-DC will be installed in a string PV protection enclosure close to the strings of photovoltaic modules. It can also be installed near the PV inverter.

It can be locked (by a padlocking device) in OFF position to ensure safety during maintenance operations.
Since a fault current can flow in the reverse direction to the normal operating current, the C60NA-DC can switch a multi-directional current.

C60NA-DC is not polarity sensitive: (+) and (-) wires can inversed without any risk.

The C60NA-DC is delivered with three inter-pole barrier to provide increased isolation distance between two adjacent connectors.

IEC / EN 60947-3



DB404841



Main characteristics	
Operating voltage (Ue)	20 A: 1000 V CC
	32 A: 800 V CC
	50 A: 700 V CC
Rated insulation voltage (Ui)	1,000 V DC
Rated operational current (Ie)	50 A
Impulse voltage (Uimp)	6 kV
Permissible rated short-time withstand current (Icw)	600 A
Rated short-circuit closing current (Icm)	1 kA
Electrical connection	By the top for In and Out
Number of poles	2P
Number of modules of 9 mm	8
Diagrams	DB122606 DB122704
Standards	IEC 60947-3 EN 60947-3
Catalogue number	A9N61690
Auxiliaries	See modules CA907008 and CA907013

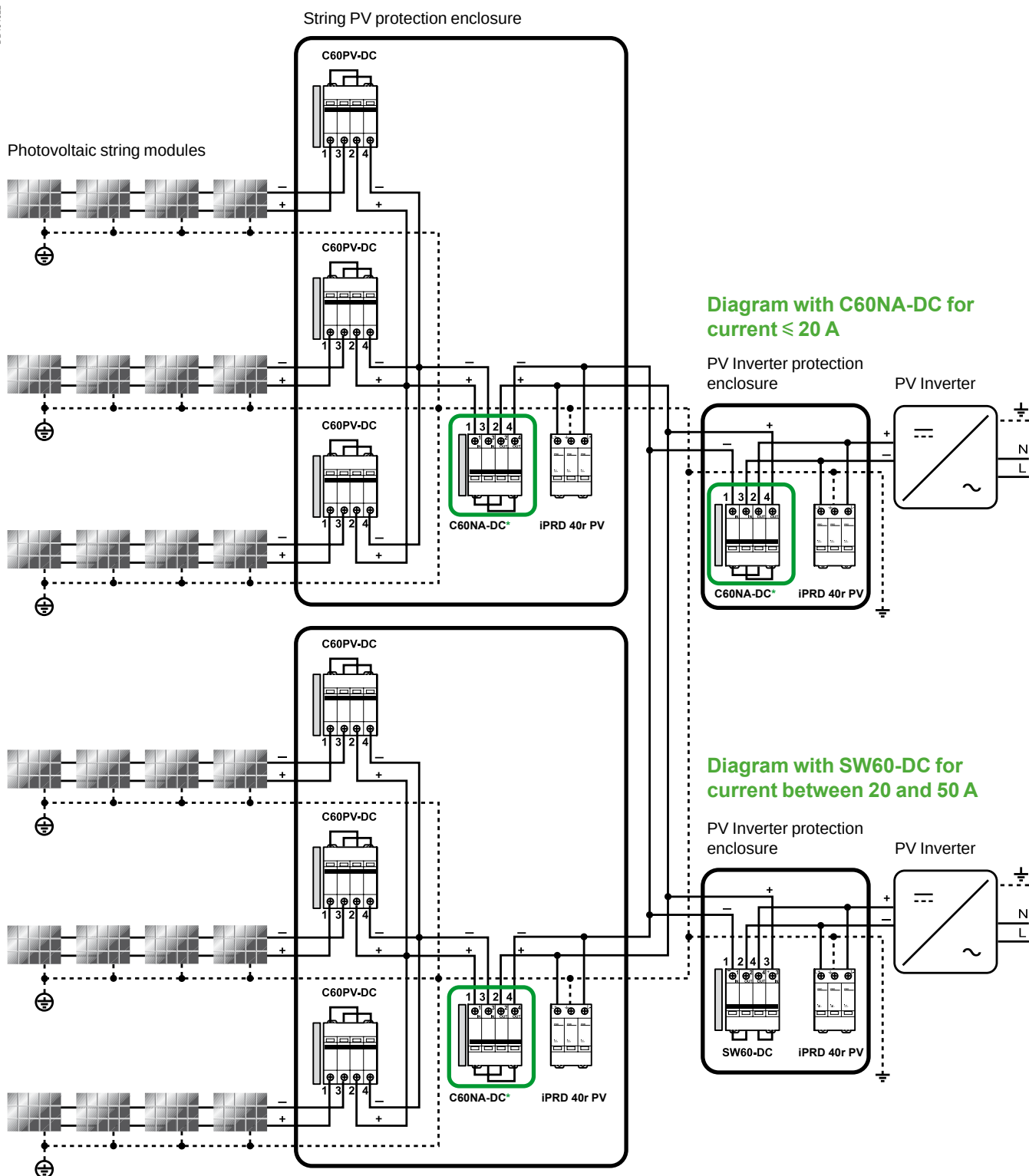
Additional characteristics			
Rating (A)	Voltage drop (mV)	Impedance (mΩ)	Power loss (W)
20 A	100	5.02	2
32 A	151	5.02	5.14
50 A	251	5.02	12.55

DC main switch for photovoltaic installations

C60NA-DC (cont.)

Application diagram

DB404622



*C60NA-DC:
20 A/1000 V DC or
32 A/800 V DC or
50 A/700 V DC

MN, MX, MNx, MN $\square$, MX+OF,
OF, SD, OF+SD/OF, OF+SD24

DC main switch for photovoltaic installations

C60NA-DC (cont.)

Technical data

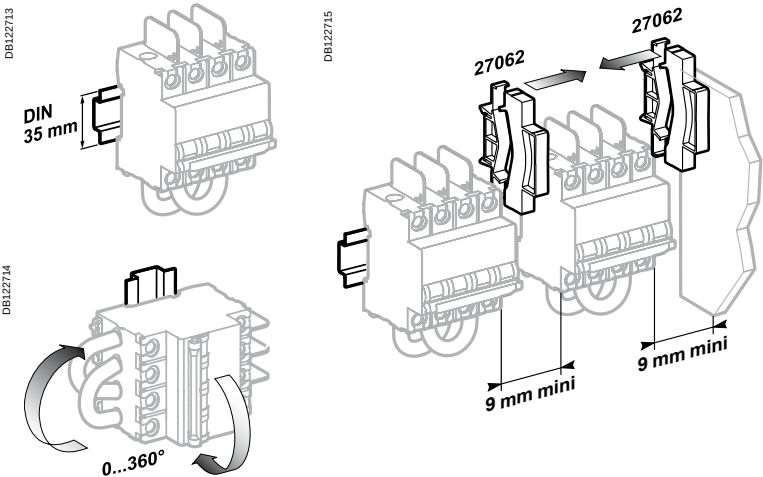
- Position contact indication - suitability for isolation according to IEC/EN 60947-3 standard.
- The presence of the green strip guarantees physical opening of the contacts and allows operations to be performed on the downstream circuit in complete safety.
- Increased product service life thanks to fast closing independent of the speed of actuation of the toggle.
- Pre-wired product: Input / Output on the same side.

Endurance (O-C)	Electrical	300 cycles
	Mechanical	20,000 cycles
Degree of pollution		2
Category		DC21B
Degree of protection (IEC 60529)	Device in modular enclosure	IP40
Tropicalisation		Relative humidity: 95 % at 55°C in accordance with IEC 60068-2 and GB 14048.2 standards
Temperature	Operating	-25°C to 70°C
	Storage	-40°C to 85°C

Derating table (A)												
C60NA-DC	Ambient temperature (°C)											
Rating	+5	+10	+15	+20	+25	+30	+35	+40	+45	+50	+60	+70
50 A	63	61	60	58	56	54	52	50	48	46	41	35

Moreover it is recommended to use:

- a terminal Screw Shield snaps onto the front of the C60NA-DC protective devices to provide greater insulation of the terminal screws
- a Spacer clips 9 mm in each side to provide isolation.



⚠ Required to have a 9 mm space isolation in each side"

DC main switch for photovoltaic installations

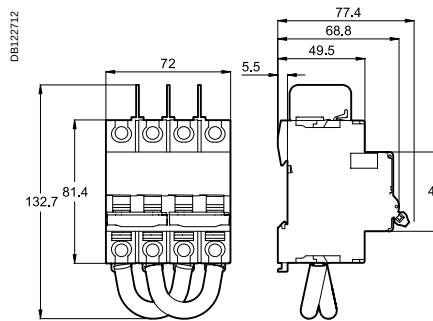
C60NA-DC (cont.)

Technical data (cont.)

Weight (g)

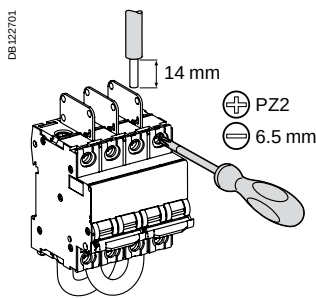
Switch disconnecter	
Type	C60NA-DC
	530

Dimensions (mm)



C60NA-DC

Connection



		Without accessory		With accessories			
Rating	Tightening torque	Copper cables UL 486A file no. #E216919		50 mm ² Cu/Al Terminal	Screw on connection for ring terminal	Multi-cables terminal	
		Rigids	Flexibles with ferrule			Rigid cables	Flexible cables
		DB112804 	DB112805 	DB118755 	DB118756 	DB118757 	
50 A	3.5 N.m	1 to 35 mm ²	1 to 25 mm ²	50 mm ²	Ø 5 mm	3 x 16 mm ²	3 x 10 mm ²

DC main switch for photovoltaic installations

Switch SW60-DC

PB108406-50



The SW60-DC is a direct current switch-disconnector dedicated to disconnection of the string of photovoltaic modules and the PV inverter.

It is designed to isolate the inverter from the rest of the photovoltaic installation for maintenance operations in complete safety.

Combined with a circuit breaker (of the C60PV-DC type, for example) and a switch (of the C60NA-DC type, for example), the SW60-DC will be installed in the string PV protection enclosure close to the PV inverter (see application diagram).

It can be locked (by a padlocking device) in OFF position to ensure safety when removing the PV inverter.

SW60-DC is polarity sensitive: (+) and (-) has to be respected for connection.

The SW60-DC is delivered with three inter-pole barrier to provide increased isolation distance between two adjacent connectors.

IEC / EN 60947-3



DB404842



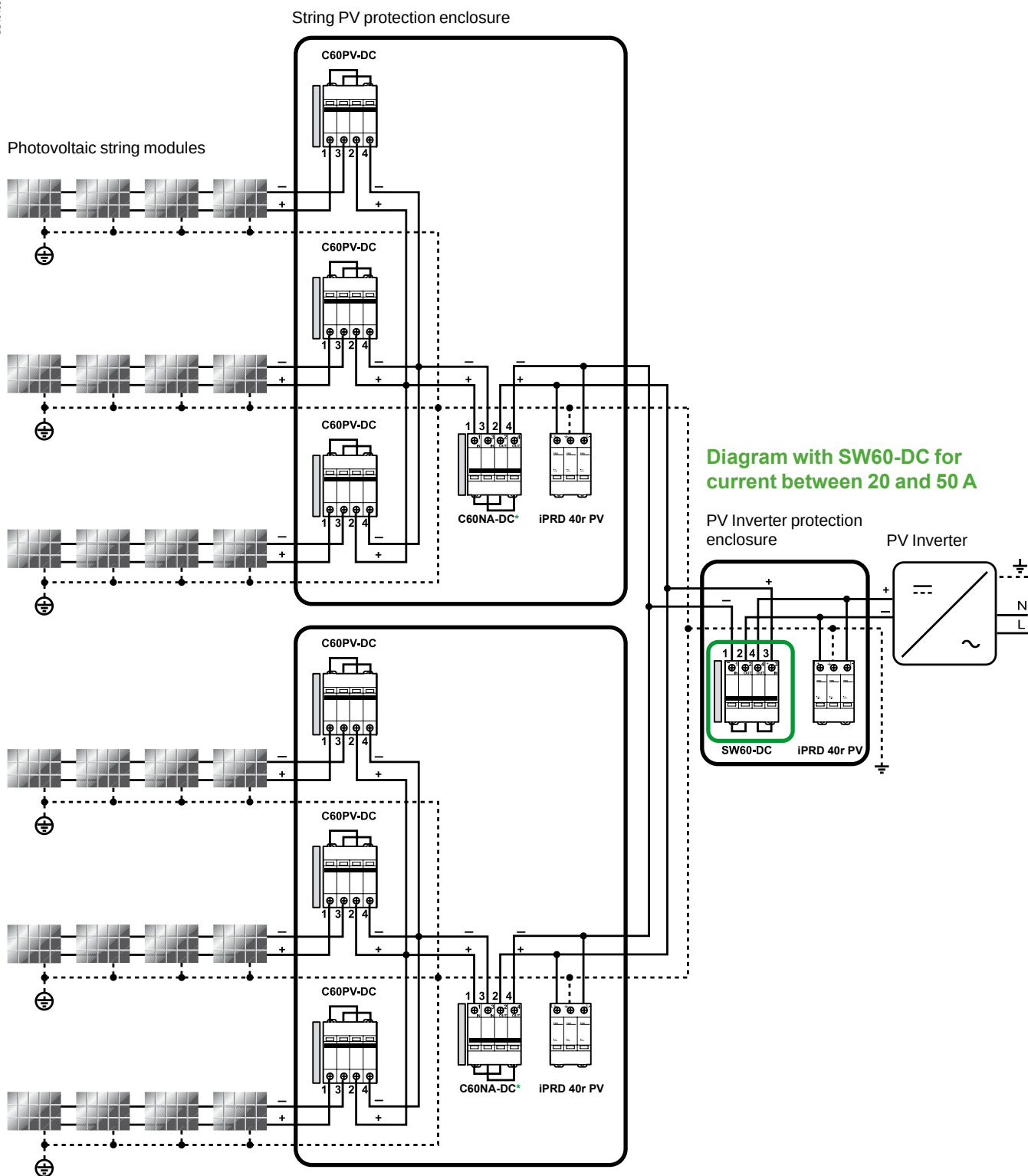
General technical data	
Operating voltage (Ue)	1000 V DC
Rated insulation voltage (Ui)	1000 V DC
Rated operational current (Ie)	50 A
Impulse voltage (Uimp)	6 kV
Permissible rated short-time withstand current (Icw)	600 A
Rated short-circuit closing current (Icm)	1 kA
Electrical connection	By the top for In and Out
Number of poles	2P
Number of modules of 9 mm	8
Diagrams	DB122699 DB122700
Standards	IEC 60947-3 EN 60947-3
Catalogue number	A9N61699

DC main switch for photovoltaic installations

Switch SW60-DC (cont.)

Applications

DE404639



*C60NA-DC:
20 A/1000 V DC or
32 A/800 V DC or
50 A/700 V DC

MN, MX, MNx, MN $\square$, MX+OF,
OF, SD, OF+SD/OF, OF+SD24

DC main switch for photovoltaic installations

Switch SW60-DC (cont.)

Technical data

- Position contact indication - suitability for isolation according to IEC/EN 60947-3 standard.
- The presence of the green strip guarantees physical opening of the contacts and allows operations to be performed on the downstream circuit in complete safety.
- Increased product service life thanks to fast closing independent of the speed of actuation of the toggle.
- Pre-wired product: Input / Output on the same side.

Main characteristics

Endurance (O-C)	Electrical	1,500 cycles
	Mechanical	20,000 cycles
Degree of pollution		2
Category		DC21A
Degree of protection (IEC 60529)	Device in modular enclosure	IP40
Tropicalisation		Relative humidity: 95 % at 55°C in accordance with IEC 60068-2 and GB 14048.2 standards
Temperature	Operating	-25°C to 70°C
	Storage	-40°C to 85°C
	Rating adjustment	40°C

Additional characteristics

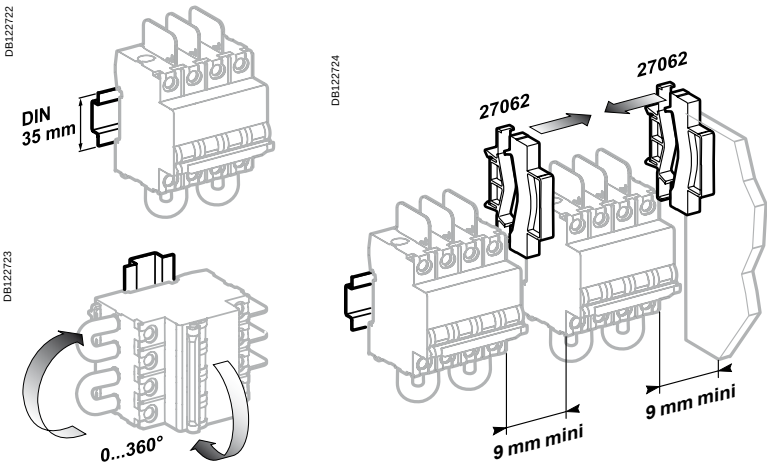
Rating (A)	Voltage drop (mV)	Impedance (mΩ)	Power loss (W)
50 A	251	5.02	12.54

Derating table (A)

SW60PV-DC	Ambient temperature (°C)											
Rating	+5	+10	+15	+20	+25	+30	+35	+40	+45	+50	+60	+70
50 A	63	61	60	58	56	54	52	50	48	46	41	35

Moreover it is recommended to use:

- a terminal Screw Shield snaps onto the front of the SW60-DC protective devices to provide greater insulation of the terminal screws.
- a Spacer clips 9 mm in each side to provide isolation.



⚠ 9 mm spacers must be used on both sides of the device to create a local ventilation space around the product.

⚠ Failure to match polarity during connection may lead to a fire hazard and/or serious injury. The connection polarity must be observed (marked on the front panel). Use only with direct current.

DC main switch for photovoltaic installations

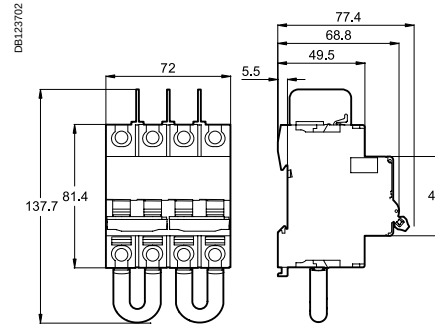
Switch SW60-DC (cont.)

Technical data (cont.)

Weight (g)

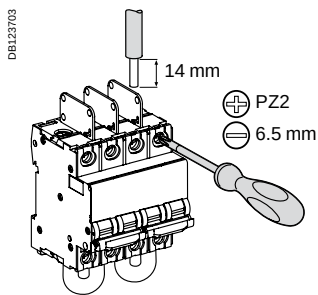
Switch disconnecter	
Type	SW60-DC
	530

Dimensions (mm)



SW60-DC

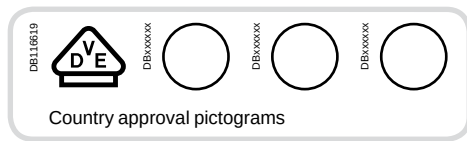
Connection



Rating	Tightening torque	Without accessory		With accessories			
		Copper cables UL 486A file no. #E216919		50 mm ² Cu/Al Terminal	screw on connection for ring terminal	Multi-cables terminal	
		Rigids	Flexibles with ferrule			Rigid cables	Flexible cables
50 A	3.5 N.m	 DE112804	 DE112805	 DE118755	 DE118756	 DE118757	
		1 to 35 mm ²	1 to 25 mm ²	50 mm ²	Ø 5 mm	3 x 16 mm ²	3 x 10 mm ²

Protection / Motor protection

iC60L circuit breakers instantaneous circuit breakers (ICB) (curve MA)



IEC/EN 60947-2

- iC60L curve MA circuit breakers combine the following functions:
 - circuit protection against short-circuit currents,
 - suitability for industrial isolation according to IEC/EN 60947-2, standard,
 - fault tripping indication by a red mechanical indicator in circuit breaker front face,
 - to be associated with overload protection for motor.



Alternating current (AC) 50/60 Hz

Breaking capacity (Icu) according to IEC/EN 60947-2

Ph/Ph (2P, 3P)	Voltage (Ue)			Service breaking capacity (Ics)
	220 to 240 V	380 to 415 V	440 V	
Rating (In)	1.6 to 16 A	40 kA	20 kA	15 kA
	25 à 40 A	30 kA	15 kA	10 kA
				50 % of Icu
				50 % of Icu

Catalogue numbers

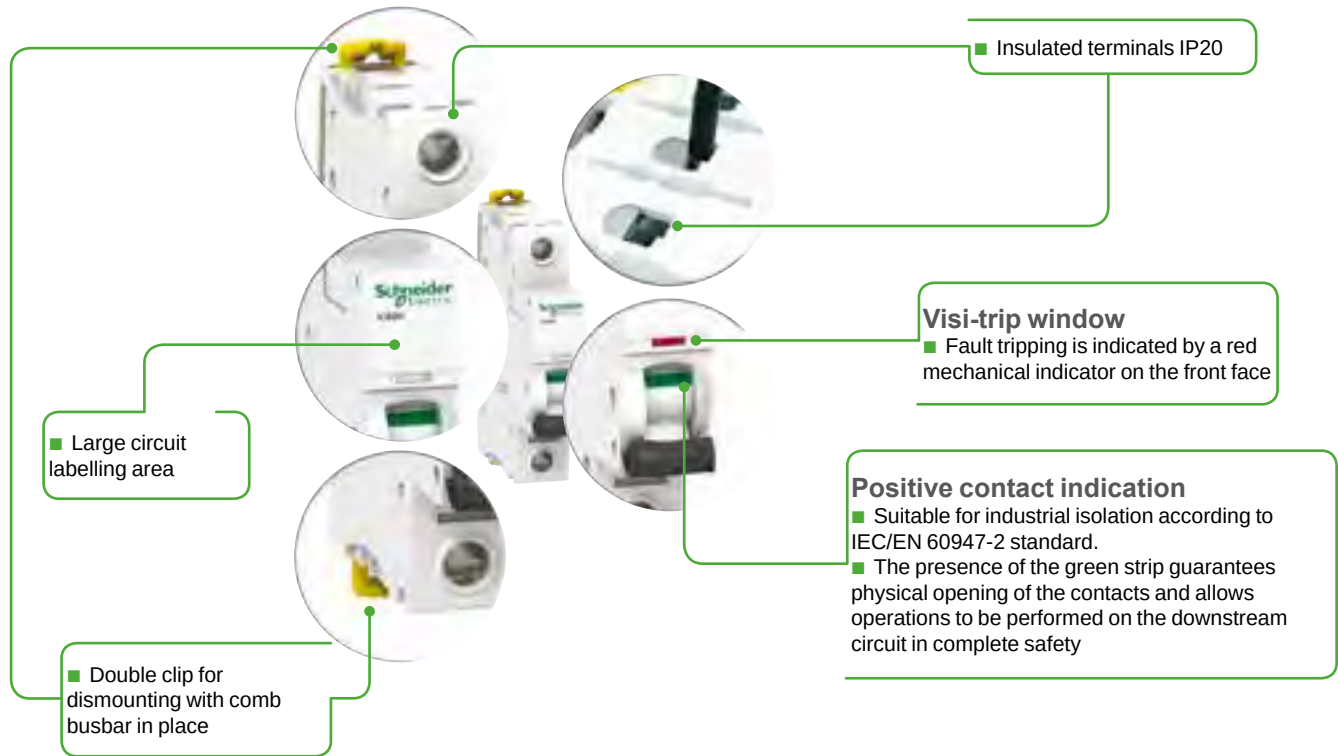
iC60L instantaneous trip circuit breaker

Type		2P	3P
Auxiliaries		Remote tripping and indication, module CA907000 and CA907002	Remote tripping and indication, module CA907000 and CA907002
Vigi iC60		Vigi iC60 add-on residual current device, module CA902005	Vigi iC60 add-on residual current device, module CA902005
Rating (In)	Quality label ⁽¹⁾	Curve MA	Curve MA
1.6 A		A9F90272	A9F90372
2.5 A		A9F90273	A9F90373
4 A		A9F90204	A9F90304
6.3 A		A9F90276	A9F90376
10 A		A9F90210	A9F90310
12.5 A		A9F90282	A9F90382
16 A		A9F90216	A9F90316
25 A		A9F90225	A9F90325
40 A		A9F90240	A9F90340
Width in 9-mm modules		4	6
Accessories		Module CA907000 and CA907001	Module CA907000 and CA907001

(1) Information to be provided by the country.

iC60L circuit breakers instantaneous circuit breakers (ICB) (curve MA) (cont.)

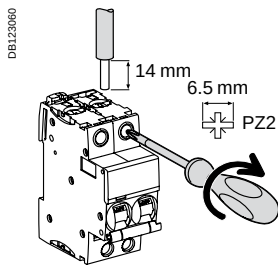
PB104434-40



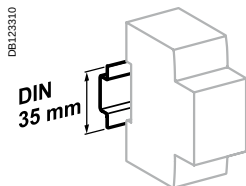
- Increased product service life thanks to:
 - overvoltage resistance by high level of industrial performances conception (pollution degree, rated impulse withstand voltage and insulation voltage),
 - high performance limitation (see limitation curves),
 - fast closing independent of the speed of actuation of the toggle.
- Remote indication, open/closed/tripped, by optional auxiliary contacts.
- Top or bottom electrical feeding.

iC60L circuit breakers instantaneous circuit breakers (ICB) (curve MA) (cont.)

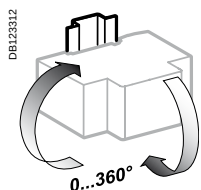
Connection



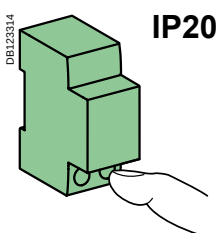
		Without accessory		With accessories			
Rating	Tightening torque	Copper cables		50 mm ² Al terminal	Screw-on connection for ring terminal	Multi-cables terminal	
		Rigid	Flexible or with ferrule			Rigid cables	Flexible cables
		DB122945 	DB122946 	DB122935 	DB118789 	DB118787 	
1.6 to 16 A	2 N.m	1 to 25 mm ²	1 to 16 mm ²	-	Ø 5 mm	-	-
25 to 40 A	3.5 N.m	1 to 35 mm ²	1 to 25 mm ²	50 mm ²		3 x 16 mm ²	3 x 10 mm ²



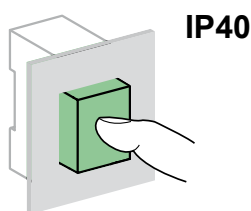
Clip on DIN rail 35 mm.



Indifferent position of installation.



IP20



IP40

Technical data

Main characteristics

According to IEC/EN 60947-2

Insulation voltage (Ui)	500 V AC
Pollution degree	3
Rated impulse withstand voltage (Uimp)	6 kV
Thermal tripping	Reference temperature
	Temperature derating
Magnetic tripping	MA curve
Utilization category	A

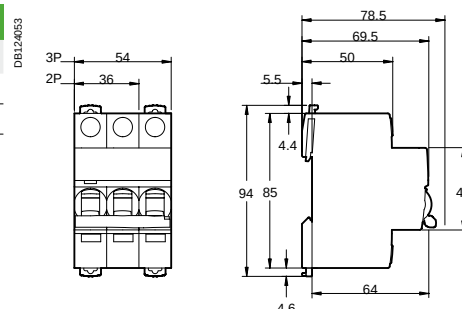
Additional characteristics

Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)		IV
Operating temperature		-35°C to +70°C
Storage temperature		-40°C to +85°C
Tropicalization (IEC 60068-1)		Treatment 2 (relative humidity 95 % to 55°C)

Weight (g)

Circuit-breaker	
Type	iC60L
2P	250
3P	375

Dimensions (mm)



NG125LMA circuit breakers (curve MA)



Country approval pictogram

IEC/EN 60947-2

■ NG125LMA circuit breakers combine the following functions:

- circuit protection against short-circuit currents,
- suitability for industrial isolation according to IEC/EN 60947-2, standard,
- fault tripping indication by a red mechanical indicator in circuit breaker front face,
- they must be associated with overload protection for motor.



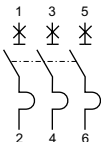
NG125LMA 2P



NG125LMA 3P

Alternating current (AC) 50/60 Hz					
Breaking capacity (Icu) to IEC/EN 60947-2					
Ph/Ph (2P, 3P)	Voltage (Ue)				
	220 to 240 V	380 to 415 V	440 V	500 V	
Rating (In) 4 to 80 A (trip units)	100 kA	50 kA	40 kA	15 kA	Service breaking capacity (Ics) 75 % of Icu

Catalogue numbers

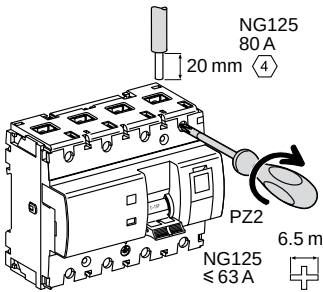
NG125LMA circuit breaker					
Type			2P	3P	
			DB123810 	DB123811 	
Auxiliaries			Remote indication and tripping, module CM907004 and CM907005		
Vigi NG125			Vigi NG125 add-on residual current device, module CM902008		
Rating (In)	Quality label (1)	Magn. I (A)	Curve MA	Curve MA	
4 A		50	18868	18879	
6.3 A		75	18869	18880	
10 A		120	18870	18881	
12.5 A		150	18871	18882	
16 A		190	18872	18883	
25 A		300	18873	18884	
40 A		480	18874	18885	
63 A		750	18875	18886	
80 A		960	18876	18887	
Width in 9 mm modules			6	9	
Accessories			Module CM907004 and CM907006		

(1) Information to be supplied by the country concerned.

NG125LMA circuit breakers (curve MA) (cont.)

Connection

DB122981

	Rating	Tightening torque	Copper cables		70 mm ² Al terminal	Screw-on connection for ring terminal	Small ring terminal	Multi-cable terminal	
			Rigid	Flexible or with ferrule				Rigid cables	Flexible cables
	NG125 80 A		 DB122945	 DB122946	 DB123410	 DB123488	 DB118789	 DB118787	
	4 to 63 A	3.5 N.m	1.5 to 50 mm ²	1.5 to 35 mm ²	-	-	-	3 x 16 mm ²	3 x 10 mm ²
	2P 80 A	6 N.m	16 to 70 mm ²	10 to 50 mm ²	-	2 x 35 mm ²	1 x 70 mm ²		
3P 80 A	80 A				25 to 70 mm ²	1 x 50 mm ²			

■ On 3P 80 A: upstream voltage taps for each pole, by 6.35 mm Fast-on terminal.

Technical data

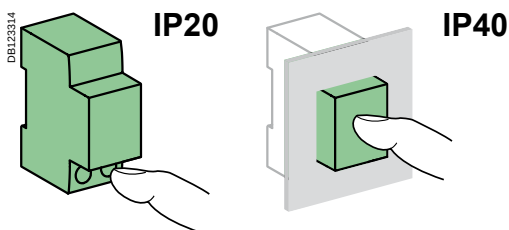
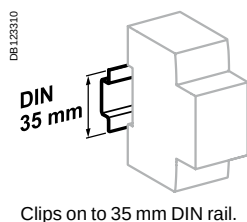
Main characteristics

According to IEC/EN 60947-2

Insulation voltage (Ui)	690 V AC
Degree of pollution	3
Rated impulse withstand voltage (Uimp)	8 kV
Thermal tripping	Reference temperature
Magnetic tripping (Ii)	MA curve
Utilization category	A

Additional characteristics

Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Operating temperature		-30°C to +70°C
Storage temperature		-40°C to +70°C
Tropicalization (IEC 60068-1)		Treatment 2 (relative humidity of 95 % at 55°C)

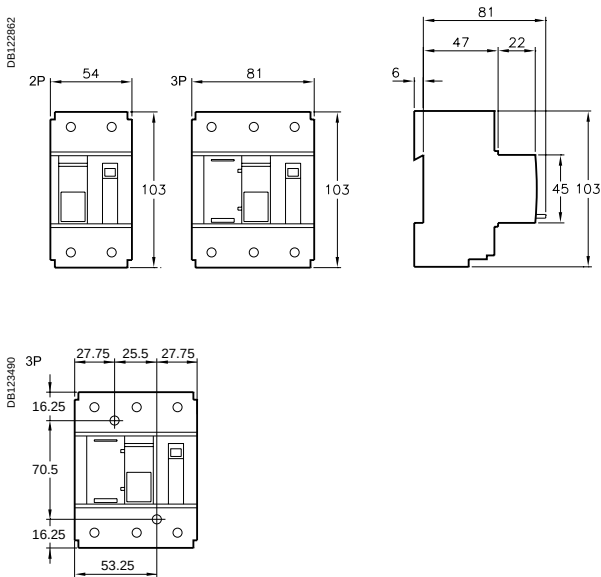


NG125LMA circuit breakers (curve MA) (cont.)

Weight (g)

Circuit breaker	
Type	NG125LMA
2P	480
3P	720

Dimensions (mm)



Spacing for mounting on panel

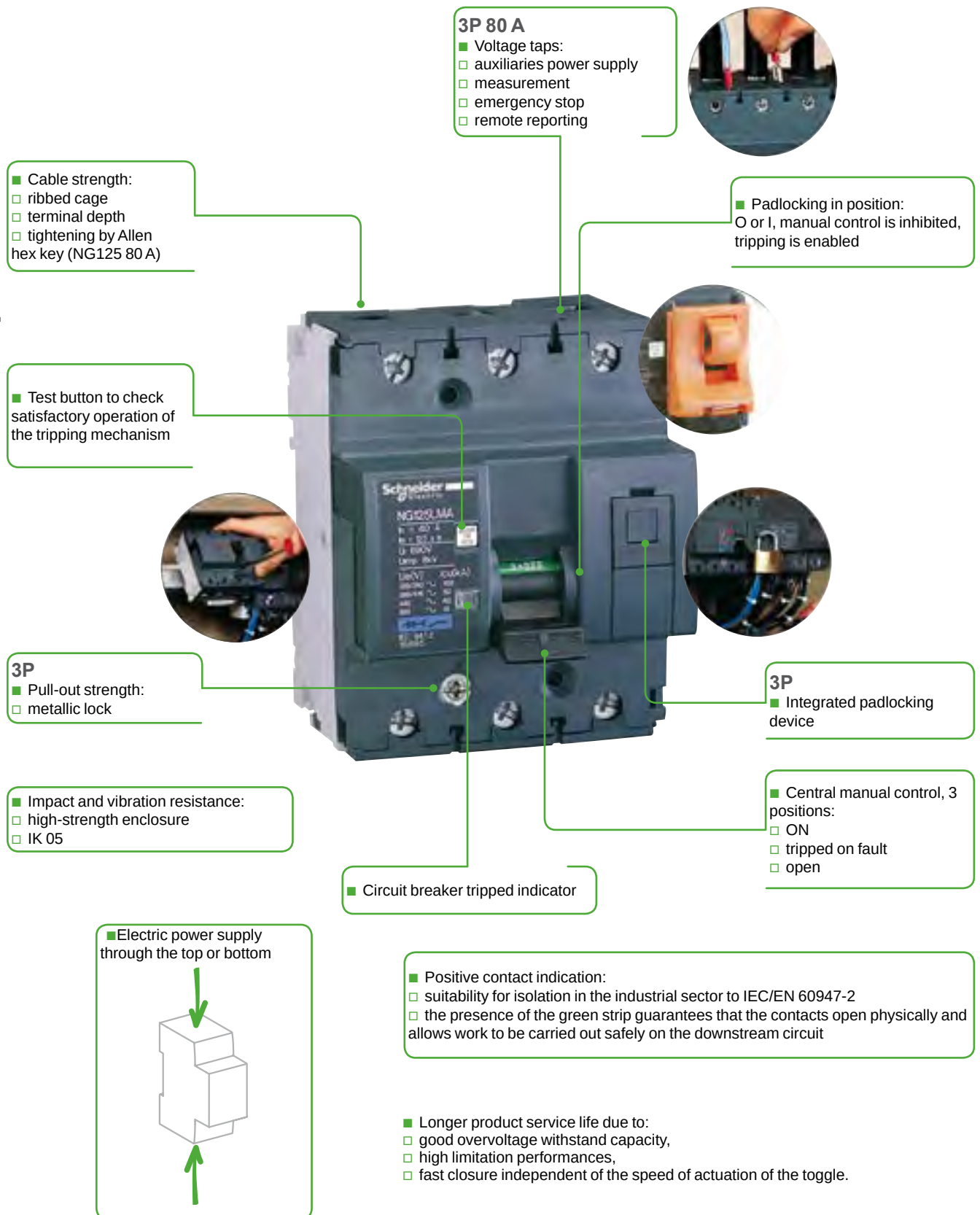
Protection

Motor protection

NG125LMA circuit breakers (curve MA) (cont.)

050918N_SE-90

DB123483



Circuit protection

Tertiary sector, Industry

D0 fuse disconnectors switches



Country approval pictograms

IEC/EN 60947-1, IEC/EN 60947-3, IEC 60269-1,
IEC 60269-3,
VDE 0660-100, VDE 0660-107

- The plug-in fuse switches disconnectors D01 and the switches disconnectors fuse D02 provide protection against overloads and short circuits.
- They are used for service sector and industrial applications.
- Depending on the versions, they should be provided with D01 or D02 type cartridges.

Accessories

- The D02 gauges allow you to limit the rating of the fuses, depending on the model used, from 20 A to 50 A.

Catalogue numbers

Fuse disconnectors switches									
Type	1P	1P+N	D02	2P	3P	D02	3P+N	D02	
	DB405042	DB405043	DB405438	DB405044	DB405045	DB405439	DB405046	DB405440	
D01 fuse switches disconnectors									
Rating (In)									
10 A	-	-		-	-		-		
13 A	-	-		-	-		-		
16 A	-	-		-	-		-		
Width in 9 mm modules	-	4		-	6		8		
D02 switches disconnectors fuse									
Rating (In)									
63 A	MGN02163	-		MGN02263	MGN02363		MGN02763		
Width in 9 mm modules	3	6		6	9		12		



Accessories for D02 switches disconnectors fuse

Type	Rating	Colour	
Fuse gauge	20 A	Blue	MGN09120
	25 A	Yellow	MGN09125
	32-35-40 A	Black	MGN09135
	50 A	White	MGN09150

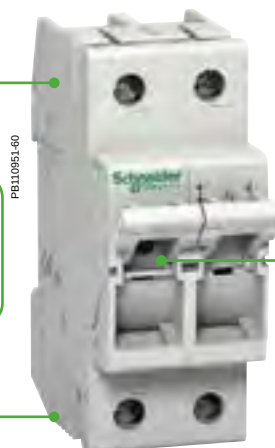
D02 : Gauges

- These allow fitting of fuses from 20 A to 50 A



Connection

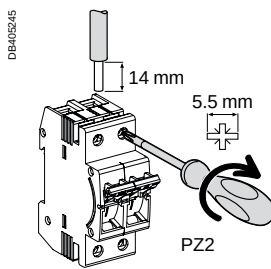
- Upstream/downstream by tunnel terminals
- For D01: by 18 mm forked comb busbar

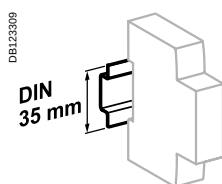


Blown-fuse indicator

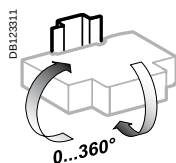
D0 fuse disconnectors switches (cont.)

Connection

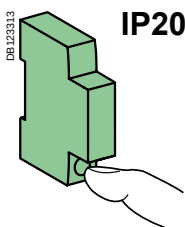
	Type	Tightening torque	Copper cables	
			Rigid	Flexible or with ferrule
	D01	2 N.m	1.5 to 25 mm ²	1.5 to 16 mm ²
	D02	3 N.m	1.5 to 35 mm ²	1.5 to 25 mm ²



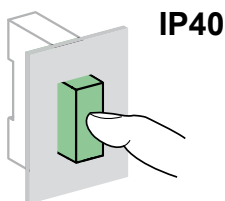
Clip on DIN rail 35 mm.



Indifferent position of installation.



IP20

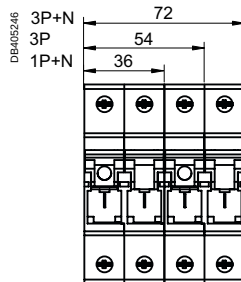


IP40

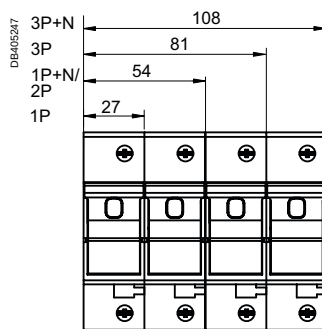
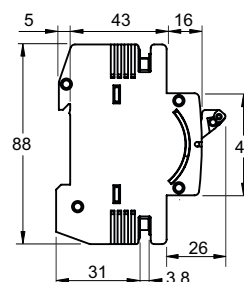
Technical data

Main characteristics		D01	D02
Operating voltage (Ue)		230/400 V AC	230/400 V AC 110 V DC (2P)
Operating frequency (Hz)		45-62 Hz	45-62 Hz
Service breaking capacity (Isc)	AC	50 kA	50 kA
	DC	-	8 kA
Rated insulation voltage (Ui)		400 V	400 V
Rated impulse withstand voltage (Ui)		6000 V	6000 V
Utilization category (IEC 60947-3)	400 V AC	AC-22A	AC-22A (63 A) AC-23A (35 A)
	110 V DC (2P)	-	DC-22B (63 A)
	48 V DC (1P)	-	DC-22A (63 A)
Endurance (O-C)	Electrical	1500 cycles	1500 cycles
	Mechanical	10,000 cycles	8500 cycles
Additional characteristics			
Degree of protection	Device only	IP20	
	Device in modular enclosure	IP40	
Operating temperature		-5°C to +40°C	
Storage temperature		-25°C to +55°C	

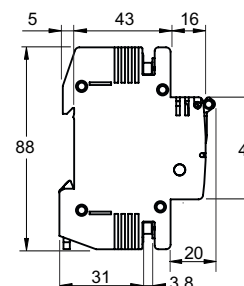
Dimensions (mm)



D01 fuse switches disconnectors



D02 switches disconnectors fuse



Choice of earth leakage protection devices

Choice of sensitivity

The sensitivity of an earth leakage protection device depends mainly on the function it has to perform:

- Protection from electric shock by direct contact.
- Protection from electric shock by indirect contact.
- Protection from fire due to current leakage.

The following table gives a reminder of:

- The circuits that must be protected against these various risks (obligation or recommendation).
- The type of earth leakage protection device to be used in each case, its sensitivity, and its location in the distribution diagram.

Type of protection	Standard requirements		Additional Schneider Electric recommendations	Sensitivity (IΔn)		
	National standard <i>To be filled in according to the country standard</i>	International standard IEC 60364		30 mA (*)	100 mA to 3000 mA (depending on the earthing system)	300 mA (or 500 mA)
Protection from electric shock by direct contact						
DB123167 	To be filled in according to the country standard	Power supply for ■ General-purpose power sockets, up to 20 A ■ Appliances in the vicinity of a bathtub, shower, pond or swimming pool ■ Portable appliances for outdoor use, up to 32 A ■ Lighting To be modified according to national obligations (above)	None	Setup in final distribution switchboard ■ Residual current device protecting a circuit ■ Residual current circuit breaker protecting a group of circuits		
Protection from electric shock by indirect contact						
DB123168 	To be filled in according to the country standard	The entire power distribution system, except for devices: ■ With class II insulation ■ Operating at Safety Extra Low Voltage (class III) To be modified according to national obligations (above)	None	If ground continuity is not ensured over the time	Setup in final distribution switchboard ■ Residual current circuit breaker or device, on incoming feeder Setup in subdistribution board or main switchboard ■ Residual current device protecting a circuit ■ Residual current device or circuit breaker protecting a group of circuits ■ On incoming feeder: residual current circuit breaker or device	
Protection from fire due to current leakage						
DB123169 	To be filled in according to the country standard	■ High-risk premises: □ explosion (BE3) □ fire (BE2) ■ Agricultural and horticultural buildings ■ Equipment for fairs, exhibitions and shows ■ Temporary outdoor recreational installations To be modified according to national obligations (above)	■ Dilapidated buildings or electrical installations ■ Humid atmospheres: agricultural buildings, public swimming pools ■ Presence of chemical agents		Setup in final distribution switchboard ■ Residual current circuit breaker or device, on incoming feeder Setup in subdistribution board or main switchboard ■ Residual current device protecting each circuit to a high-risk zone ■ Residual current device or circuit breaker protecting a group of circuits ■ On incoming feeder: residual current circuit breaker or device	

(*) The 10 mA sensitivity is useful for certain very specific applications, where there is a risk that someone could sustain a non-dangerous current (10 to 30 mA) without being able to get free. Example: healthcare equipment for hospital beds. Generally, devices with this very high sensitivity are liable to cause frequent tripping, due to the natural leakage currents of the installation.

Choice of earth leakage protection devices (cont.)

Interference immunity

Schneider Electric provides various equipment technologies capable of overcoming the consequences of interference of all kinds.

Operating conditions		Examples	Types				
			AC	A	A-SI	F	B
DB123165	Loads						
		With no special characteristics	■	■	■	■	■
		- General-purpose power sockets - Incandescent lighting - Household appliances: microwave oven, dishwasher, clothes dryer - Electric heating, water heater					
		Single phase	—	■	■	■	■
		Three phase	—	—	—	—	■
DB123166	Electrical environment						
		Vicinity of equipment generating transient overvoltages	—	—	■	■	■
		Circuits powered by an uninterruptible power supply	—	—	■	—	■
		"Isolated neutral" (IT) earthing system	—	—	■	—	■
		Major risk of lightning strokes	—	—	■	■	■
DB123164	Atmosphere						
		Ambient temperature which could be less than -5°C	—	■	■	■	■
		Severe environments whose code varies between AF2 and AF4 according to IEC 60364-5-51	—	—	■ (1)	—	—
		Indoor swimming pools	—	—	■	—	—
		Yacht harbours, marinas, camping grounds	—	—	■	—	—

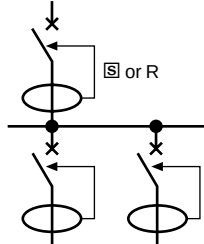
(1) Atmospheres with high concentrations of chemicals or dust: see tables 1 and 2 in the CA908015E catalog module for description of corrosive atmosphere classes and appropriate additional protection.

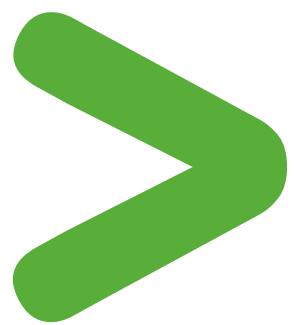
Selectivity

Residual current devices of average sensitivity (100 mA and more) are available in a selective (S) and delayed (R) version.

This option ensures that, in the event of an earth fault downstream of the installation, only the defective part is switched off.

The table below shows (in green) which upstream/downstream equipment combinations provide this selectivity.

Sensitivity (mA) - Downstream			Sensitivity (mA) - Upstream												
			Instantaneous						Selective S					Delayed R	
			30	100	300	500	1000	3000	100	300	500	1000	3000	1000	3000
DB123476 	Instantaneous	30	-	-	-	-	-	-							
		100	-	-	-	-	-	-	-						
		300	-	-	-	-	-	-	-	-					
		500	-	-	-	-	-	-	-	-	-		-		
		1000	-	-	-	-	-	-	-	-	-		-		
		3000	-	-	-	-	-	-	-	-	-	-	-	-	
	Selective S	100	-	-	-	-	-	-	-	-	-	-			
		300	-	-	-	-	-	-	-	-	-	-	-		
		500	-	-	-	-	-	-	-	-	-	-	-		
		1000	-	-	-	-	-	-	-	-	-	-	-		
		3000	-	-	-	-	-	-	-	-	-	-	-	-	
	Delayed R	1000	-	-	-	-	-	-	-	-	-	-	-	-	
		3000	-	-	-	-	-	-	-	-	-	-	-	-	



Overview of the earth leakage protection product range

Selection guide

Type		Residual current circuit breakers			
		iID		RCCB-ID 125 A	RCCB-ID type B
					
Standards		IEC/EN 61008		IEC/EN 61008-1 and VDE 0664	IEC/EN 61008 and VDE 0664
Voltage (V)		110/230		230/400	230/400
Number of poles		1P+N	—	—	—
		2P	■	■	—
		3P	—	—	—
		4P	■	■	■
Type		AC	—	■	—
		A	■	■	—
		S/	—	■	—
		B	—	—	■
Impulse voltage (kV)		U _{imp}	6	4	4
Insulation voltage (V)		U _i	500	400	400
Current rating (A)		I _n	63	125	25 to 125
Frequency (Hz)			50	50	50
Rated breaking capacity (A)		I _{cn}	—	—	—
Rated conditional short-circuit current		I _{nc}	10000	10000	10000
Rated residual breaking and making capacity (A)		(I Δ m)	1500	1250	10 I _n (500 A min.)
Sensitivity (mA)		(I Δ n)	10	—	—
		30	■	■	■
		100	—	■	—
		300	—	■	■
		500	—	■	■
		1000	—	—	—
		3000	—	—	—
		300 	—	■	■
		500 	—	—	—
		1000 	—	—	—
		3000 	—	—	—
Electrical characteristics					
Curves		B	—	—	—
		C	—	—	—
		D	—	—	—
		L	—	—	—
		K	—	—	—
		MA	—	—	—
For more details, see module		CA902002	CM902001	CM902002	
Accessories		CA907000, CA907001	CM902001	CM902002	
Auxiliaries		CA907000, CA907002	CM902001	CM902002	

***I_{nc}*: rated conditional short-circuit current**

Value of the alternating component of the prospective current that a residual current circuit breaker protected by an appropriate short-circuit protective device (SCPD) mounted in series can withstand in specified conditions of use.

***I Δ c*: rated residual short-circuit current**

Value of the alternating component of the prospective residual current that a residual current circuit breaker protected by an appropriate short-circuit protective device (SCPD) mounted in series can withstand in specified conditions of use.

***I_m*: rated making and breaking capacity**

Value of the alternating component of the prospective current that a residual current circuit breaker is capable of establishing or interrupting in specified conditions of use.

***I Δ m*: rated making and breaking capacity**

Value of the alternating component of the prospective residual current that a residual current circuit breaker is capable of establishing and withstanding during its opening time and interrupting in specified conditions of use and behaviour.

SCPD

Short-circuit protective device (a fuse in the case of our markings): this is the max. fuse that can be used to resist the value $I_{nc} = I_{\Delta c}$.

Protection
Earth leakage protection

Protection
Earth leakage protection

Protection

Earth leakage protection

iID double terminals residual current circuit breakers
(A type)

Country approval pictograms

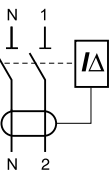
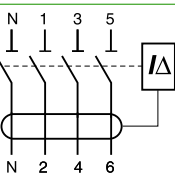
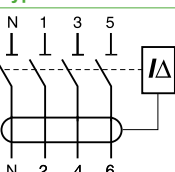
KEMA KEUR approval, only for 2P/4P 25 A to 63 A catalogue numbers.

IEC/EN 61008-1



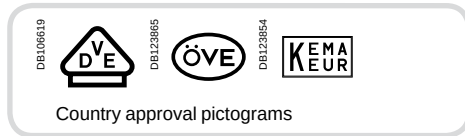
- The iID double tunnel terminals residual current circuit breakers provide:
 - protection of persons against electric shock by direct contact (≤ 30 mA),
 - protection of persons against electric shock by indirect contact (≥ 100 mA),
 - protection of installations against the risk of fire (300 mA or 500 mA).

Catalogue numbers

iID double terminals residual current circuit breakers												
Type Product		A  iID									Width in 9 mm module	
Auxiliaries		Can accept auxiliaries, module CA907002										
2P		Sensitivity	10 mA	30 mA	30 mA Type G	100 mA	100 mA 	100 mA Type G	300 mA	300 mA 	500 mA	
	Rating 16 A	A9Z20216	-	-	-	-	-	-	-	-	-	4
	25 A	A9Z20225	A9Z21225	-	-	-	-	A9Z24225	-	-	-	
	40 A	-	A9Z21240	A9Z81240	A9Z22240	-	A9Z82240	A9Z24240	A9Z25240	-	-	
	63 A	-	A9Z21263	A9Z81263	A9Z22263	-	-	A9Z24263	A9Z25263	-	-	
	80 A	-	A9Z21280	-	A9Z22280	-	-	A9Z24280	A9Z25280	-	-	
	100 A	-	A9Z21291	-	A9Z22291	-	-	A9Z24291	A9Z25291	-	-	
4P		Sensitivity	10 mA	30 mA	30 mA Type G	100 mA	100 mA 	100 mA Type G	300 mA	300 mA 	500 mA	
	Rating 25 A	-	A9Z21425	-	-	-	-	A9Z24425	-	A9Z26425	8	
	40 A	-	A9Z21440	-	A9Z22440	-	-	A9Z24440	A9Z25440	A9Z26440		
	63 A	-	A9Z21463	-	A9Z22463	-	-	A9Z24463	A9Z25463	A9Z26463		
	80 A	-	A9Z21480	A9Z81480	A9Z22480	-	-	A9Z24480	A9Z25480	A9Z26480		
	100 A	-	A9Z21491	A9Z81491	A9Z22491	-	A9Z82491	A9Z24491	A9Z25491	A9Z26491		
4P Type THV		Sensitivity	10 mA	30 mA	30 mA Type G	100 mA	100 mA 	100 mA Type G	300 mA	300 mA 	500 mA	
	Rating 40 A	-	A9Z81440	A9Z91440	A9Z82440	A9Z83440	A9Z92440	-	-	-	8	
	63 A	-	A9Z81463	A9Z91463	A9Z82463	A9Z83463	A9Z92463	-	-	-		
Voltage rating (Ue)		2P	230 - 240 V									
		4P	400 - 415 V									
Operating frequency		50/60 Hz										
Accessories		Module CA907000 and CA907001										

Protection

Earth leakage protection

iID double terminals residual current circuit breakers
(SI type)

KEMA KEUR approval, only for 2P/4P 25 A to 63 A catalogue numbers.

IEC/EN 61008-1

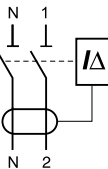
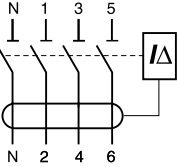
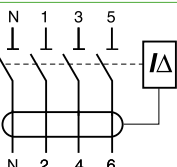


- The iID double tunnel terminals residual current circuit breakers provide:
 - protection of persons against electric shock by direct contact (≤ 30 mA),
 - protection of persons against electric shock by indirect contact (≥ 100 mA),
 - protection of installations against the risk of fire (300 mA).

The **SI** type provides increased immunity from electrical interference and polluted or corrosive environments.

Catalogue numbers

iID double terminals residual current circuit breakers

Type Product		SI  iID						Width in 9 mm module	
Auxiliaries		Can accept auxiliaries, module CA907002							
	Rating	Sensitivity	10 mA	30 mA	100 mA	100 mA 	300 mA 	4	
		25 A	A9Z30225	A9Z31225	-	-	-		
		40 A	-	A9Z31240	A9Z32240	-	A9Z35240		
		63 A	-	A9Z31263	A9Z32263	-	A9Z35263		
		80 A	-	A9Z31280	A9Z32280	-	A9Z35280		
		100 A		A9Z31291	A9Z32291	-	A9Z35291		
	Rating	Sensitivity	10 mA	30 mA	100 mA	100 mA 	300 mA 	8	
		25 A	-	A9Z31425	-	-	-		
		40 A	-	A9Z31440	A9Z32440	-	A9Z35440		
		63 A	-	A9Z31463	A9Z32463	-	A9Z35463		
		80 A	-	A9Z31480	A9Z32480	-	A9Z35480		
		100 A	-	A9Z31491	A9Z32491	-	A9Z35491		
	Rating	Sensitivity	10 mA	30 mA	100 mA	100 mA 	300 mA 	8	
		40 A	-	-	-	A9Z93440	A9Z95440		
		63 A	-	-	-	A9Z93463	A9Z95463		
Voltage rating (Ue)		2P	230 - 240 V						
		4P	400 - 415 V						
Operating frequency		50/60 Hz							
Accessoires		Module CA907000 and CA907001							

Protection

Earth leakage protection

iLD double terminals residual current circuit breakers
(A, SI types) (cont.)

Connection between double-terminal protection devices

With comb busbar at the back/cables at the front

Back

Front

Without comb busbar at the back/cables at the front

DB404815



Rating	Tightening torque	Comb busbar	Copper cables	
		Thickness of the teeth	Rigid	Flexible or with ferrule
All	3.5 N.m	1.5 mm	DB122945	DB122946
			1 to 35 mm ²	1 to 25 mm ²

Connection between double-terminal and single-terminal protection devices

Cables at the back/comb busbar at the front

Back

Front

DB404817



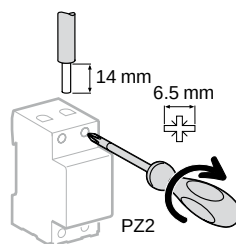
Rating	Tightening torque	Copper cables		Comb busbar
		Rigid	Flexible or with ferrule	Thickness of the teeth
All	3.5 N.m	DB122945	DB122946	1.5 mm
		1 to 25 mm ²	1 to 16 mm ²	

■ Connection by comb busbar or by cable (according to EN 50027).

Connection

With accessories

DB123947

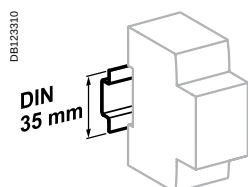


Rating	50 mm ² Al terminal	Screw-on connection for ring terminal	Multi-cables terminal	
			Rigid cables	Flexible cables
All	DB122935	DB118789	DB118787	
	50 mm ²	Ø 5 mm	3 x 16 mm ²	3 x 10 mm ²

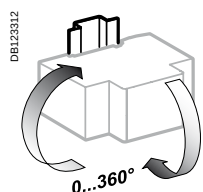
Protection

Earth leakage protection

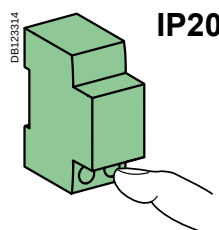
iLD double terminals residual current circuit breakers (A, SI types)



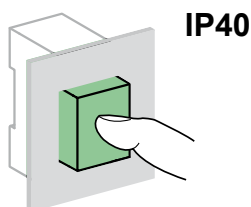
Clip on DIN rail 35 mm.



Indifferent position of installation.

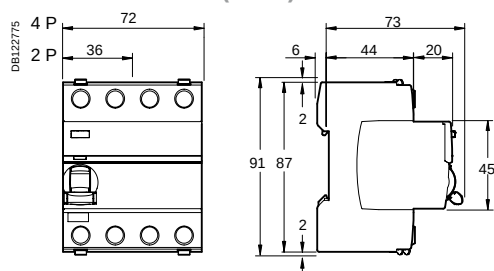


IP20



IP40

Dimensions (mm)



Technical data

Main characteristics

Insulation voltage (Ui)	500 V
Pollution degree	3
Rated impulse withstand voltage (Uimp)	6 kV

According to IEC/EN 61008-1

Making and breaking capacity (Im/IΔm)		1500 A
Surge current withstand (8/20 μs) without tripping	AC and A types (no selective )	250 Å
	AC, A types (selective )	3 kÅ
	SI type	3 kÅ
Conditional rated short circuit current (Inc/IΔc)	With iC60N/H/L	Equal to breaking capacity of iC60
	With fuse 	10,000 A

Behaviour in case of voltage drop



Residual current protection down to 0 V according to IEC/EN 61008-1 § 3.3.4

Additional characteristics

Degree of protection	Device only		IP20
	Device in modular enclosure		IP40 Insulation class II
Endurance (O-C)	Electrical (AC1)	16 to 63 A	15,000 cycles
		80 to 100 A	10,000 cycles
	Mechanical		20,000 cycles
Operating temperature	AC type		-5°C to +60°C
	A and SI types 		-25°C to +60°C
Storage temperature			-40°C to +85°C

Weight (g)

iLD double terminals residual current circuit breakers

Type	iLD
2P	210
4P	370

Protection

Earth leakage protection

ID double terminals residual current circuit breakers
(A, SI types) (cont.)

PB107413-60

■ Insulated terminals IP20

Double terminals

- For top or bottom connections:
 - by cable,
 - by comb busbar

■ Test button

■ Large circuit labelling area

■ Double clip locking
allowing tool-free removal,
front panel side, with the
comb busbar in position

Visi-trip window

- Fault tripping is indicated by a red
mechanical indicator on the front face

Positive contact indication

- Suitable for industrial isolation according
to IEC/EN 60947-3 standard
- The presence of the green strip
guarantees physical opening of the
contacts and allows operations to be
performed on the downstream circuit in
complete safety

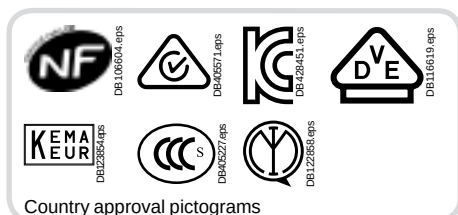
SI type

The **SI** type provides increased immunity from electrical interference and polluted or corrosive environments.

Protection

Earth leakage protection

Acti9 iID B-SI type residual current circuit breakers (RCCB)



IEC/EN 61008-2-1

IEC/EN 62423

IEC 61543

VDE 0664

As per the above standards:

- The Acti9 iID B-SI type residual current circuit breakers provide:
 - protection of persons against electric shock by direct contact (30 mA),
 - protection of persons against electric shock by indirect contact (≥ 300 mA),
 - protection of installations against the risk of fire (300 mA or 500 mA).

B-SI type

The Acti9 iID B-SI type residual current circuit breakers provide:

- protection in the event of a continuous earth fault current on networks generated by:
 - controllers and variable speed drives,
 - battery chargers and inverters, such as used in photovoltaic application,
 - backed-up power supplies.

- They include protection against earth fault currents:

- sinusoidal AC residual currents (AC type),
- pulsed DC residual currents (A type),
- multi frequency residual current (F type).

- The use of Acti9 iID B-SI type residual current circuit breaker can be made mandatory, according to standards applicable in country.

- For applications using 3-poles drives, such as:

- crane,
- lift,
- HVAC,
- pumping system.

B type is needed.

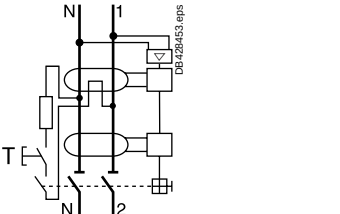
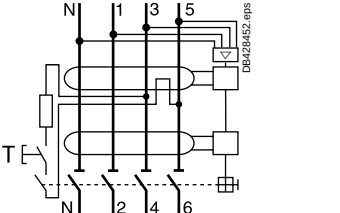
For more information, see earth leakage protection guide CA908066E.

- The Acti9 iID B-SI type works optimally with the variable speed drives manufactured by Schneider Electric, even with a long cable length between motor and variable speed drive (up to 50 m).

- **SI** technology is embedded in Acti9 iID B-SI type residual current circuit breaker, providing increased immunity from electrical interference and polluted environments.

- The Acti9 iID B-SI type is compatible with Schneider Electric AC and A types wired in parallel or in series in the installation, following coordination tables (refer to earth leakage protection guide CA908066E).

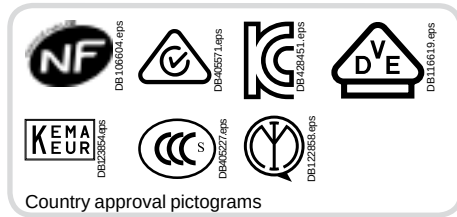
Catalog numbers

Acti9 iID B-SI type residual current circuit breakers									
Type			B-SI   				Width in 9 mm module		
2P			Sensitivity		30 mA	300 mA	300 mA 	500 mA	
	Rating	25 A	A9Z61225	A9Z64225	-	-	8		
		40 A	A9Z61240	A9Z64240	-	-			
		63 A	A9Z61263	A9Z64263	-	-			
Voltage rating (Ue)			230 V						
Operating frequency			50 Hz						
4P			Sensitivity		30 mA	300 mA	300 mA 	500 mA	
	Rating	25 A	A9Z61425	A9Z64425	-	-	8		
		40 A	A9Z61440	A9Z64440	A9Z65440	A9Z66440			
		63 A	A9Z61463	A9Z64463	A9Z65463	A9Z66463			
		80 A	A9Z61480	A9Z64480	A9Z65480	A9Z66480			
Voltage rating (Ue)			400 V						
Operating frequency			50 Hz						

Protection

Earth leakage protection

Acti9 iID B type EV residual current circuit breakers (RCCB) for Electric Vehicle



IEC/EN 61008-2-1

IEC/EN 62423

IEC 61543

VDE 0664

As per the above standards:

- The Acti9 iID B type EV residual current circuit breakers provide:
 - protection of persons against electric shock by direct contact (30 mA),
 - protection of persons against electric shock by indirect contact,
 - protection of installations against the risk of fire.

B type

The Acti9 iID B type EV residual current circuit breakers provide:

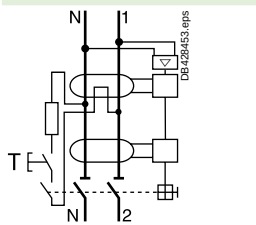
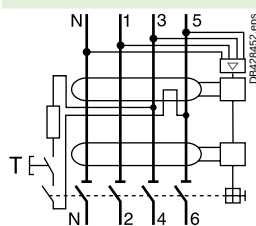
- protection in the event of a continuous earth fault current on networks generated by electric car charging station.

- The use of Acti9 iID B type EV residual current circuit breaker can be made mandatory, according to standards applicable in country.

- The Acti9 iID B type EV is compatible with Schneider Electric AC and A types wired in parallel or in series in the installation, following coordination tables (refer to earth leakage protection guide CA908066E).



Catalog numbers

Acti9 iID B type EV residual current circuit breakers			
Type		B	Width in 9 mm module
			
2P		Sensitivity	
Rating 16 A		30 mA	8
25 A		A9Z51216	
40 A		A9Z51225	
		A9Z51240	
Voltage rating (Ue)		230 V	
Operating frequency		50 Hz	
4P		Sensitivity	
		30 mA	8
Rating 40 A		A9Z51440	
63 A		A9Z51463	
Voltage rating (Ue)		400 V	
Operating frequency		50 Hz	

Protection

Earth leakage protection

Acti9 iID B-SI type residual current circuit breakers (RCCB)



A92B1225-40 eps



A92B1425-40 eps



PB104488-14 eps

IEC/EN 61008-2-1

IEC/EN 62423

IEC 61543

VDE 0664

As per the above standards:

- The Acti9 iID B-SI type residual current circuit breakers provide:
 - protection of persons against electric shock by direct contact (30 mA),
 - protection of persons against electric shock by indirect contact (≥ 300 mA),
 - protection of installations against the risk of fire (300 mA or 500 mA).

B-SI type

The Acti9 iID B-SI type residual current circuit breakers provide: protection in the event of a continuous earth fault current on networks generated by:

- controllers and variable speed drives,
- battery chargers and inverters, such as used in photovoltaic application,
- backed-up power supplies.

■ They include protection against earth fault currents:

- sinusoidal AC residual currents (AC type),
- pulsed DC residual currents (A type),
- multi frequency residual current (F type).

■ The use of Acti9 iID B-SI type residual current circuit breaker can be made mandatory, according to standards applicable in country.

■ For applications using 3-poles drives, such as:

- crane,
- lift,
- HVAC,
- pumping system.

B type is needed.

For more information, see earth leakage protection guide CA908066E.

■ The Acti9 iID B-SI type works optimally with the variable speed drives manufactured by Schneider Electric, even with a long cable length between motor and variable speed drive (up to 50 m).

■ **SI** technology is embedded in Acti9 iID B-SI type residual current circuit breaker, providing increased immunity from electrical interference and polluted environments.

■ The Acti9 iID B-SI type is compatible with Schneider Electric AC and A types wired in parallel or in series in the installation, following coordination tables (refer to earth leakage protection guide CA908066E).

Accessories

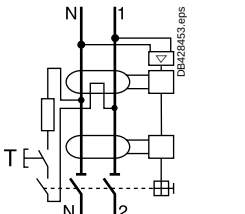
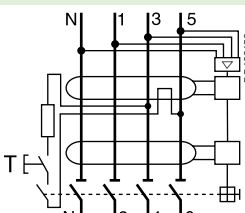
- 4P sealable screw shield.

Protection

Earth leakage protection

Acti9 iID B-SI type residual current circuit breakers (RCCB) (cont.)

Catalog numbers

Acti9 iID B-SI type residual current circuit breakers								
Type			B-SI   				Width in 9 mm module	
2P			Sensitivity	30 mA	300 mA	300 mA 	500 mA	
	Rating	25 A	A9Z61225	A9Z64225	-	-	8	
	40 A	A9Z61240	A9Z64240	-	-			
	63 A	A9Z61263	A9Z64263	-	-			
Voltage rating (Ue)			230 V					
Operating frequency			50 Hz					
4P			Sensitivity	30 mA	300 mA	300 mA 	500 mA	
	Rating	25 A	A9Z61425	A9Z64425	-	-	8	
	40 A	A9Z61440	A9Z64440	A9Z65440	A9Z66440			
	63 A	A9Z61463	A9Z64463	A9Z65463	A9Z66463			
	80 A	A9Z61480	A9Z64480	A9Z65480	A9Z66480			
Voltage rating (Ue)			400 V					
Operating frequency			50 Hz					
(*) Supplied with screw shield accessory.								

(*) Supplied with screw shield accessory.

Accessory

Type	Number of pole	Ref. no.
Screw shield (set of 20) for upstream or downstream	4P	A9A26981

Acti9 iID B type EV residual current circuit breakers (RCCB) for Electric Vehicle



A9Z51216-40.eps



A9Z51440-40.eps



PE104488-14.eps

IEC/EN 61008-2-1

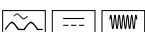
IEC/EN 62423

IEC 61543

VDE 0664

As per the above standards:

- The Acti9 iID B type EV residual current circuit breakers provide:
 - protection of persons against electric shock by direct contact (30 mA),
 - protection of persons against electric shock by indirect contact,
 - protection of installations against the risk of fire.

B type 

The Acti9 iID B type EV residual current circuit breakers provide:

- protection in the event of a continuous earth fault current on networks generated by:
 - electric car charging station.

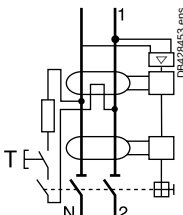
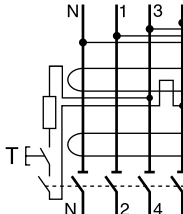
■ The use of Acti9 iID B type EV residual current circuit breaker can be made mandatory, according to standards applicable in country.

■ The Acti9 iID B type EV is compatible with Schneider Electric AC and A types wired in parallel or in series in the installation, following coordination tables (refer to earth leakage protection guide CA908066E).

Accessories

- 4P sealable screw shield.

Catalog numbers

Acti9 iID B type EV residual current circuit breakers			
Type			Width in 9 mm module
2P 	Sensitivity 30 mA		
	Rating 16 A	A9Z51216	8
	25 A	A9Z51225 A9Z52225*	
	40 A	A9Z51240	
Voltage rating (Ue)		230 V	
Operating frequency		50 Hz	
4P 	Sensitivity 30 mA		
	Rating 40 A	A9Z51440	8
	63 A	A9Z51463	
Voltage rating (Ue)		400 V	
Operating frequency		50 Hz	

(*) Supplied with screw shield accessory.

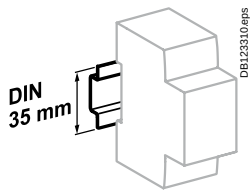
Accessory

Type	Number of pole	Ref. no.
Screw shield (set of 20) for upstream or downstream	4P	A9A26981

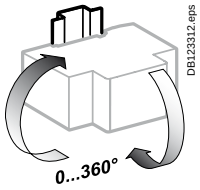
Protection

Earth leakage protection

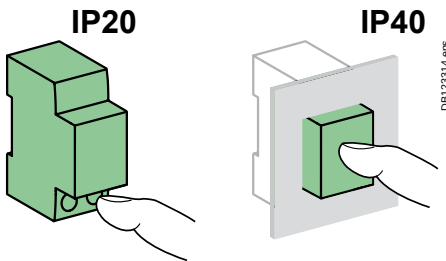
Acti9 iID B type EV and Acti9 iID B-SI type residual current circuit breakers (RCCB)



Clip on DIN rail 35 mm.



Indifferent position of installation.



Technical data

Electrical characteristics

Insulation voltage (Ui)	2P	250 V
	4P	500 V
Pollution degree		3
Rated impulse withstand voltage (Uimp)		6 kV

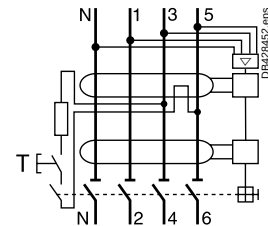
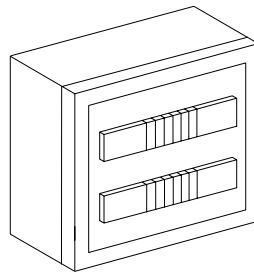
According to IEC/EN 61008-2-1

Making and breaking capacity (Im/IΔm)		1500 A
Surge current withstand (8/20 μs) without tripping	No selective	3 kA
	Selective	5 kA
Conditional rated short circuit current (Inc/IΔc)	With 100 A gG fuse	10,000 A

Additional characteristics

Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
		Insulation class II
Endurance (O-C)	Electrical	≤ 63 A: 15,000 cycles > 63 A: 10,000 cycles
	Mechanical	20,000 cycles
Range of test button operating voltage	30 mA	2P: 180...270 V AC 4P: 300...450 V AC
	300, 500 mA	2P: 140...330 V AC 4P: 220...450 V AC
Impulse withstand according to IEC 60068-2-27		15 g
Vibration withstand according to IEC 60068-2-6		3 g
Electromagnetic compatibility		According to IEC 61543
Operating temperature		-25°C to +60°C
Storage temperature		-40°C to +85°C
Dissipated power		Module CA908009

Dielectric test



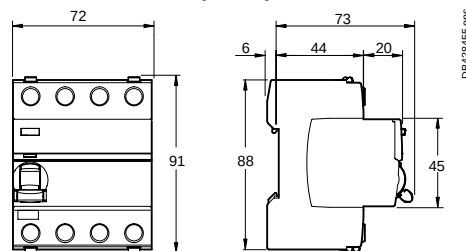
⚠ To perform the dielectric test, disconnect terminals:
4P: 1, 3, 5 and 2, 4, 6
2P: 1 and 2

Weight (g)

Residual current circuit breakers

Type	iID
2P	350
4P	415

Dimensions (mm)

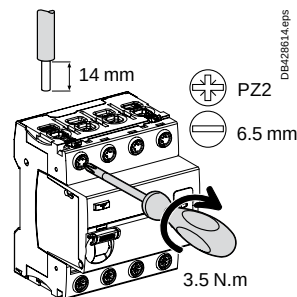


Protection

Earth leakage protection

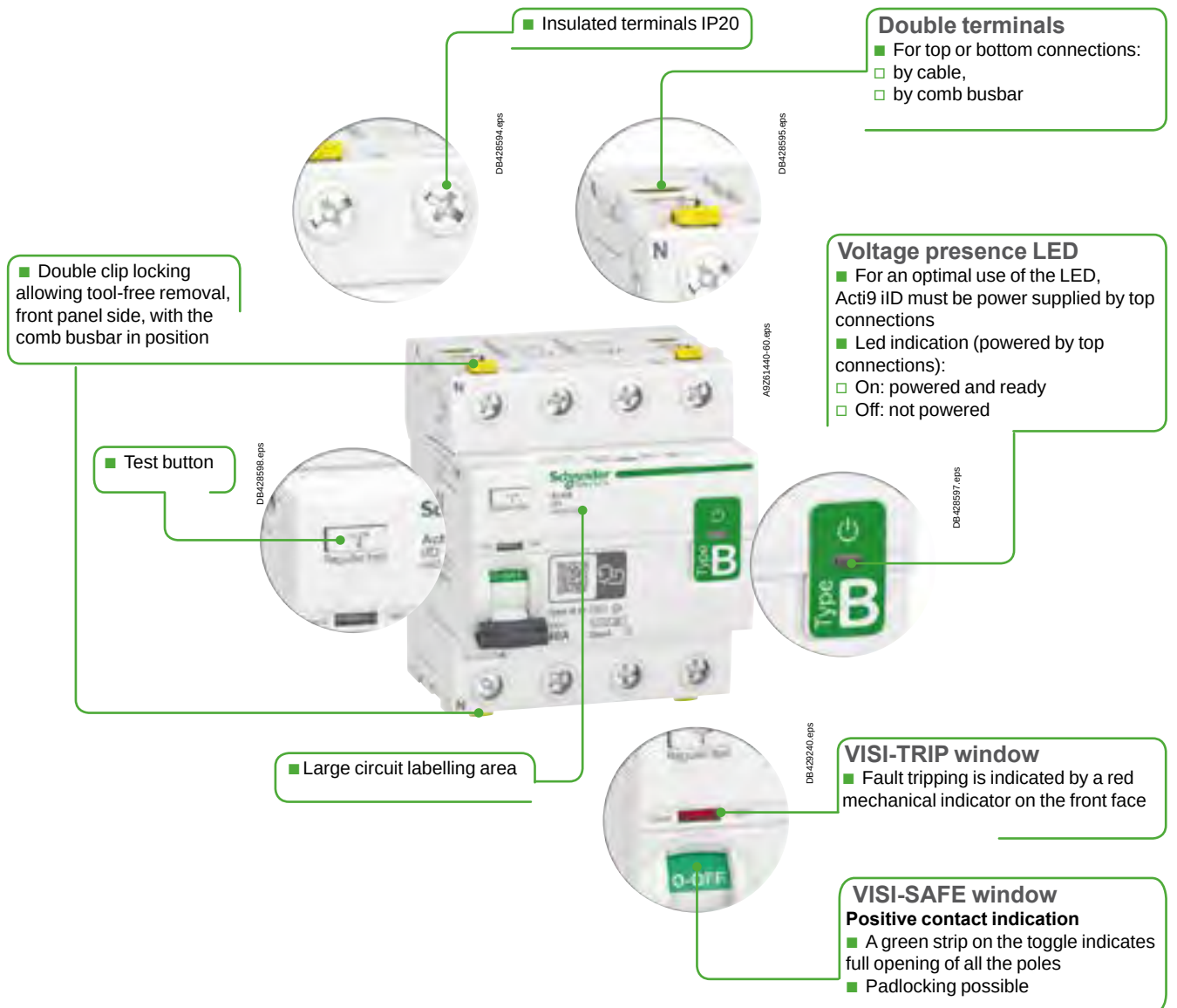
Acti9 iLD B type EV and Acti9 iLD B-SI type residual current circuit breakers (RCCB) (cont.)

Connection



	Without accessory				With accessories			
	Back		Front					
Rating	Copper cables		Copper cables		50 mm ² Al terminal	Screw-on connection for ring terminal	Multi-cables terminal	
	Rigid	Flexible or with ferrule	Rigid	Flexible or with ferrule			Rigid cables	Flexible cables
	 DB122945.eps	 DB122946.eps	 DB122945.eps	 DB122946.eps	 Al DB122935.eps	 DB118789.eps	 DB118787.eps	
All	1 to 25 mm ²	1 to 16 mm ²	1 to 35 mm ²	1 to 25 mm ²	50 mm ²	Ø 5 mm	3 x 16 mm ²	3 x 10 mm ²

Accessories: modules CA907000 and CA907001



Protection, Earth leakage protection

Acti9 iLD40 residual current circuit breakers bottom connection



Country approval pictograms



CEI/EN 61008-2-1

As per the above standard:

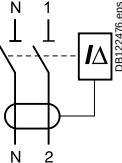
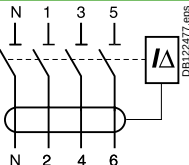
■ The residual current circuit breakers offer the following earth leakage protection functions:

- protection of persons against electric shock by direct contact (30 mA),
- protection of persons against electric shock by indirect contact (300 mA),
- protection of installations against the risk of fire (300 mA)

A-SI type

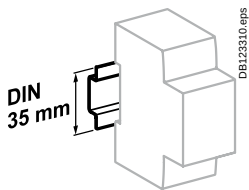
The A-SI type provides increased immunity from electrical interference and polluted or corrosive environments.

Catalog numbers

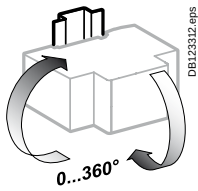
Acti9 iLD40 residual current circuit breakers						
Type			A 	A-SI 	Width in 9-mm modules	
Electrical auxiliaries, Remote control			Catalog modules CA907002 and CA904010			
1P+N	Sensitivity		30 mA	30 mA	300 mA	
	Rating	25 A	A9R43625	A9R83625	-	4
		40 A	A9R43640	A9R83640	-	
		63 A	-	-	-	
3P+N	Sensitivity		30 mA	30 mA	300 mA	
	Rating	25 A	A9R43725	A9R83725	-	8
		40 A	A9R43740	A9R83740	-	
		63 A	A9R43763	A9R83763	A9R93763	
Voltage rating (Ue)		1P+N	230 - 240 V AC			
		3P+N	400 - 415 V AC			
Operating frequency			50/60 Hz			
Accessories			Catalog modules CA907001 and CA907015			
Comb busbars			Catalog module CA907026			
PowerTag energy sensors			Catalog modules CA907029 and CA908058			

Protection, Earth leakage protection

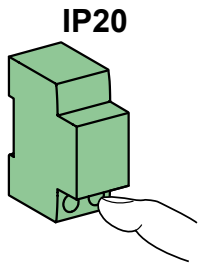
Acti9 iID40 residual current circuit breakers bottom connection



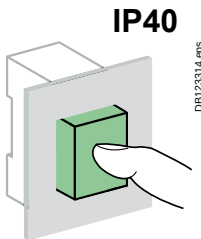
Clip on DIN rail 35 mm.



Indifferent position of installation.



IP20



IP40

Technical data

Main characteristics

Insulation voltage (Ui)	500 V AC
Voltage rating (Ue)	Phase-to-neutral 230 V AC
	Phase-to-phase 400 V AC
Rated impulse withstand voltage (Uimp)	6 kV

According to IEC/EN 61008-2-1

Rated residual breaking and making capacity (I _{Δm})	1.5 kA
Breaking and making capacity (I _m)	1.5 kA
Conditional rated short circuit current (I _{nc} /I _{Δc})	With circuit breaker 25/40 A With fuse 80 A 63 A With fuse 100 A
8/20 μs impulse withstand without tripping	AC and A types 250 Å A-SI type 3 kÅ

Behaviour in case of voltage drop

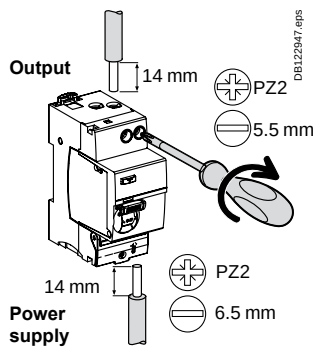


Residual current protection down to 0 V according to IEC/EN 61009-1 § 3.3.8

Additional characteristics

Degree of protection (IEC 60529)	Device only IP20
	Device in modular enclosure IP40
Endurance (O-C)	Electrical (AC1) 15000 cycles
	Mechanical 20000 cycles
Operating temperature	AC type -5°C to +60°C
	A, A-SI type -25°C to +60°C
Storage temperature	-40°C to +85°C

Connection



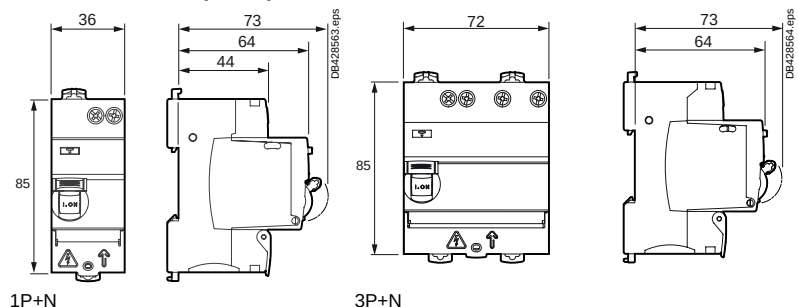
		Without accessory		With accessories*				
Comb busbar	Tightening torque	Copper cables		50 mm ² Al terminal	Screw-on connection for ring terminal	Multi-cables terminal		
		Rigid	Flexible or with ferrule			Rigid cables	Flexible cables	
		 DB122946.eps	 DB122946.eps	 Al DB122935.eps	 DB118789.eps	 DB118787.eps		
Top	■	2 N.m	1 to 16 mm ²	1 to 10 mm ²	-	Ø 5 mm	-	-
Bottom	-	3.5 N.m	1 to 35 mm ²	1 to 25 mm ²	50 mm ²	Ø 5 mm	3 x 16 mm ²	3 x 10 mm ²

* see Catalog modules CA907001 and CA907015

Weight (g)

Residual current circuit breakers	
Type	Acti9 iID40
1P+N	195
3P+N	360

Dimensions (mm)



1P+N

3P+N

Protection, Earth leakage protection

Acti9 iLD40 residual current circuit breakers bottom connection



PB119567-45.eps

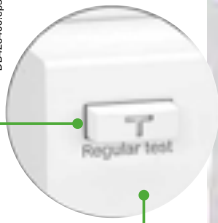
■ Insulated terminals IP20

■ Double clip for dismounting with comb busbar in place



PB119566-40.eps

■ Test button



DB423468.eps

■ Indication flap of connection direction
■ Sealing possible



DB423468.eps

Power supply terminals

■ 25 mm² flexible

■ Large circuit labelling area



DB423467.eps

Output terminals

- Direct power supply of the outgoers by comb busbar
- Compatible with Acti9 horizontal comb busbars with 9 mm modules (catalog module CA907026)

VISI-TRIP window

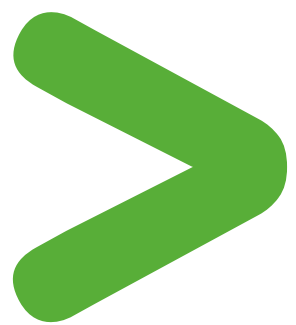
- Fault tripping is indicated by a red mechanical indicator on the front face

DB423469.eps

VISI-SAFE window

Positive contact indication

- A green strip on the toggle indicates full opening of all the poles
- Downstream maintenance operations can be carried out in better safety conditions
- Padlocking possible



Protection

Earth leakage protection

Acti9 RCCB-ID 125 A Residual Current Circuit Breakers (AC, A, A-SI, B types)



2P



4P



A9N16940



27145



16939

IEC/EN 61008-1
IEC/EN 61008-2-1
IEC/EN 62423
VDE 0664

As per the above standards:

- The Acti9 RCCB-ID 125 A Residual Current Circuit Breakers provide:
 - protection of persons against electric shock by direct contact (30 mA),
 - protection of persons against electric shock by indirect contact (≥ 100 mA),
 - protection of installations against the risk of fire (300 mA or 500 mA).

A-SI type

It provides increased immunity from electrical interference and polluted or corrosive environments.

B type

■ It provides specific protection of three-phase installations and people even in the presence of DC fault currents on the network generated by:

- 3-poles controllers and variable speed drives,
- 3-poles battery chargers and inverters,
- 3-poles backed-up power supplies.

Instantaneous

It ensures instantaneous tripping (without time delay).

Selective

It ensures total discrimination with a non-selective RCD placed downstream.



- Compatible with PowerTag Energy (4P only)

OFsp auxiliary

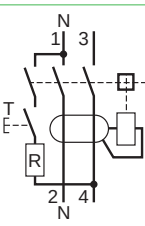
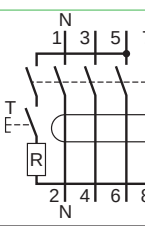
- Electrical indication: by OFsp auxiliary mounted to the left, it has a double changeover switch indicating the "open" or "closed" position of the RCCB-ID 125 A.

Accessories

- 2P and 4P sealable screw shield.
- Padlock to lock the RCCB-ID in OFF position.

Numbers

ID 125 A Residual Current Circuit Breakers

Type		AC 				A 				Width in 9 mm mod.
2P	Sensitivity	30 mA	100 mA	300 mA	500 mA	30 mA	300 mA	300 mA  ⁽¹⁾	500 mA	
	-	-	-	-	-	-	-	-	-	4
Type		AC 				A 				Width in 9 mm mod.
4P	Sensitivity	30 mA	100 mA	300 mA	500 mA	30 mA	300 mA	300 mA  ⁽¹⁾	500 mA	
	Rating 125 A					A9R21492	A9R24492	A9R25492	A9R26492	8
		A-SI 				B   				
		30 mA		300 mA		30 mA	300 mA	300 mA  ⁽¹⁾	500 mA	
		A9R31492		A9R34492		A9R41492	A9R44492	A9R45492	A9R46492	8
Voltage rating (Ue)		2P	230 V AC							
		4P	400 V AC							
Operating frequency		50 Hz								
PowerTag energy sensors		See PowerLogic catalog: PLSED309005EN								

(1):  for Selective protection

Acti9 RCCB-ID 125 A Residual Current Circuit Breakers (AC, A, A-SI, B types) (cont.)



A9N16940



27145



16938



16939

Catalog numbers

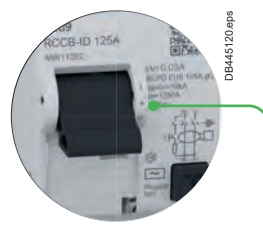
Auxiliary				
Type				Width in 9 mm module
Contact OFsp	Contact	Voltage	A9N16940	1
	1 A	110 V DC		
	6 A	230 V AC (AC15)		

Accessory

Type		
Screw shield (set of 10) for upstream or downstream	4P	16939
Padlocking device (set of 4)		27145
Diameter of the padlock: 8 mm max		

OFsp contact status, depending on the position of the Residual Current Circuit Breaker

Type				
RCCB-ID 125 A	Closed	■	-	-
	Open	-	■	-
	Tripped on fault	-	-	■
Contact OFsp	22/21	Open	Closed	Closed
	12/11			
	14/11	Closed	Open	Open

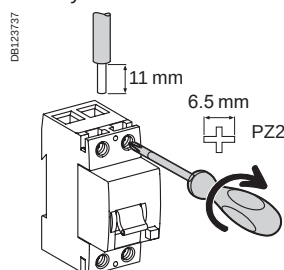


Indication of the status of the RCCB-ID via the 3-position toggle and front panel indicator

- Open (toggle in low position and green indicator)
- Closed (toggle in high position and red indicator)
- Tripped on fault (toggle in middle position and green indicator)

Connection

- By tunnel terminals for:



Type	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
RCCB-ID	3 N.m		
OFsp	0.8 N.m	1 to 1.5 mm ²	1 to 1.5 mm ²

Acti9 RCCB-ID 125 A Residual Current Circuit Breakers (AC, A, A-SI, B types) (cont.)

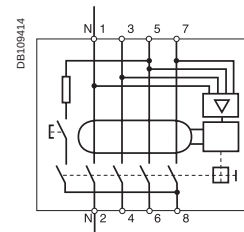
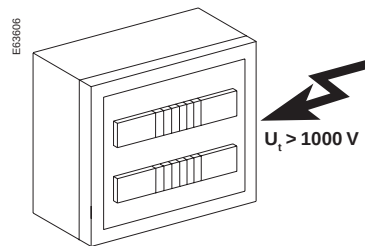
Technical data

Electrical characteristics		
Insulation voltage (Ui)		400 V AC
Pollution degree		3
Rated impulse withstand voltage (Uimp)		4 kV
According to IEC/EN 61008-2-1		
Making and breaking capacity (Im/IΔm)		1250 A
Surge current withstand (8/20 μs) without tripping	AC and A types (no selective )	250 A
	A-SI and B types (no selective )	3 kA
	AC, A, A-SI and B types (selective )	3 kA
Conditional rated short circuit current (Inc/IΔc)	With FU 125 A gG fuse	10 000 A
Behaviour in case of voltage drop		Residual current protection down to 0 V according to IEC/EN 61008-2-1 § 3.3.4
Additional characteristics		
Degree of protection	Device only	IP20 IP40 with screw shield
	Device in modular enclosure	IP40 Insulation class II
Endurance (O-C)	Electrical	> 2 000 cycles
	Mechanical	> 5 000 cycles
Operating temperature		-25°C to +40°C
Storage temperature	AC, A, A-SI types	-40°C to +85°C
	B type	-40°C to +60°C
Range of test button operating voltage	30 mA	2P
		4P
	100, 300, 500 mA	4P
		160...250 V AC 250...440 V AC 185...440 V AC

Weight (g)

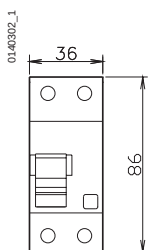
Residual Current Circuit Breakers and auxiliary		
Type	RCCB-ID 125 A	OFsp
2P	230	40
4P AC, A and A-SI types	420	
B type	500	

Dielectric test

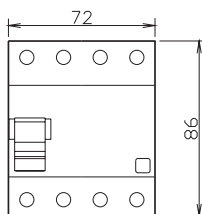


⚠ To perform the dielectric test, disconnect terminals 3, 5, 7 and 4, 6, 8.

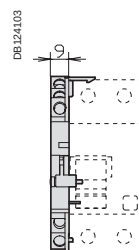
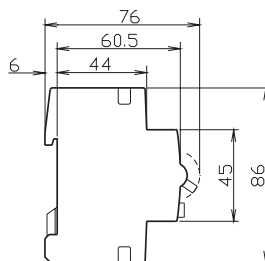
Dimensions (mm)



2P
RCCB-ID 125 A

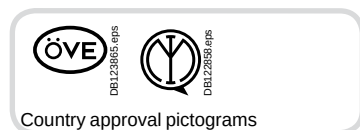


4P



OFsp contact

Acti9 Vigi iC40 add-on residual current devices "Outgoer"



IEC/EN 61009-2-1

As per the above standard:

The residual current devices offer the following earth leakage protection functions:

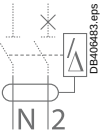
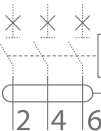
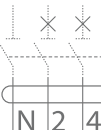
- protection of persons against electric shock by direct contact (30 mA),
- protection of persons against electric shock by indirect contact (300 mA),
- protection of installations against the risk of fire (300 mA)
- Circuit protection is ensured by a circuit breaker associated to the Vigi add-on.

A-SI type

The A-SI type provides increased immunity from electrical interference and polluted or corrosive environments.

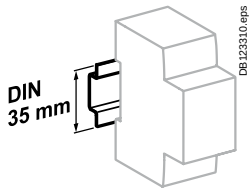


Catalog numbers

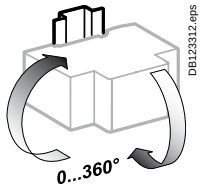
Acti9 Vigi iC40 add-on residual current devices "Outgoer"							
Type		A 		A-SI 		Width in 9 mm modules	
Auxiliaries		Without auxiliaries					
1P+N	Sensitivity	30 mA	300 mA	30 mA	300 mA		
	Rating	25 A	A9Y80625	A9Y81625	A9Y84625	A9Y85625	2
		25 A type G	A9Y87625	-	-	-	
		40 A	A9Y80640	A9Y81640	A9Y84640	A9Y85640	
3P	Sensitivity	30 mA	300 mA	30 mA	300 mA		
	Rating	25 A	A9Y80325	A9Y81325	A9Y84325	A9Y85325	4
		40 A	A9Y80340	A9Y81340	A9Y84340	A9Y85340	
3P+N	Sensitivity	30 mA	300 mA	30 mA	300 mA		
	Rating	25 A	A9Y80725	A9Y81725	A9Y84725	A9Y85725	4
		40 A	A9Y80740	A9Y81740	A9Y84740	A9Y85740	
Accessories		Catalog modules CA907001 and CA907015					
PowerTag energy sensors		Catalog modules CA907029 and CA908058					

Protection, Earth leakage protection

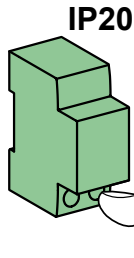
Acti9 Vigi iC40 add-on residual current devices "Outgoer"



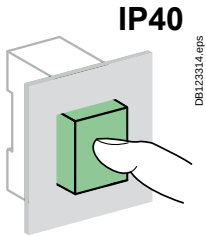
Clip on DIN rail 35 mm.



Indifferent position of installation.

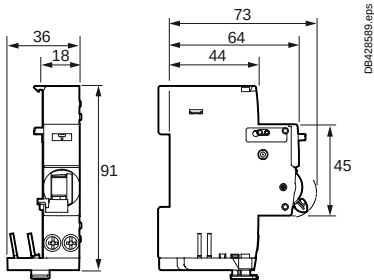


IP20

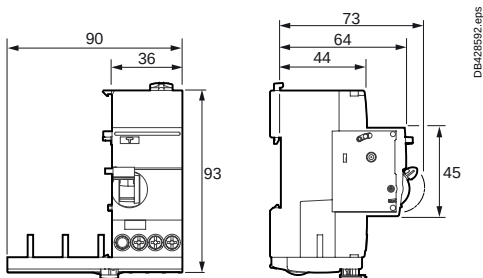


IP40

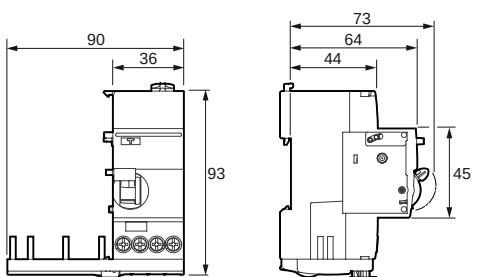
Dimensions (mm)



Acti9 Vigi iC40 "Outgoer" 1P+N



Acti9 Vigi iC40 "Outgoer" 3P



Acti9 Vigi iC40 "Outgoer" 3P+N

Technical data

Main characteristics

According to IEC/EN 61009-2-1

Insulation voltage (Ui)	Phase-to-neutral	400 V
	Phase-to-phase	440 V
Voltage rating (Ue)	Phase-to-neutral	230 V
	Phase-to-phase	400 V
Operating frequency		50/60 Hz
8/20 µs impulse withstand without tripping	AC, A types	250 Å
	A-SI type	3 kÅ
Pollution degree		3
Behaviour in case of voltage drop		Residual current protection down to 0 V according to IEC/ EN 61009-1 § 3.3.8



DB407011.eps

Rated impulse withstand voltage (Uimp)	4 kV
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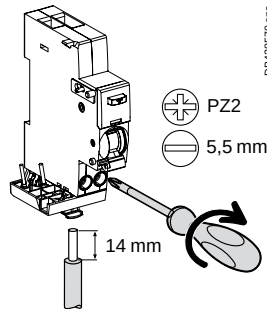
Additional characteristics

Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
Operating temperature		Insulation class II
	AC type	-5°C to +60°C
	A, A-SI types	-25°C to +60°C
Storage temperature		-40°C to +85°C

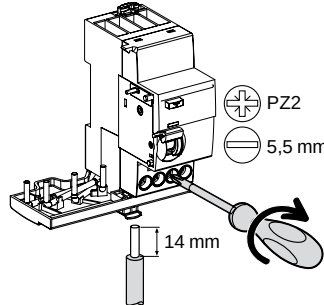


DB406521.eps

Connection



Acti9 Vigi iC40 1P+N



Acti9 Vigi iC40 3P, 3P+N

Tightening torque	Copper cables	
	Rigid	Flexible or with ferrule
2 N.m	DB122545.eps	DB122546.eps
	1 to 16 mm ²	1 to 10 mm ²
2 N.m		
	1 to 16 mm ²	1 to 10 mm ²

Weight (g)

Add-on residual current devices

Type	Acti9 Vigi iC40
1P+N	85
3P	155
3P+N	160

Protection, Earth leakage protection

Acti9 Vigi iC40 add-on residual current devices "Outgoer"



Circuit breaker + Vigi association

Circuit breaker	Vigi 25 A	Vigi 40 A
2 A to 25 A	■	■
32 A - 40 A	-	■

■ Double clip for dismounting with combi busbar in place



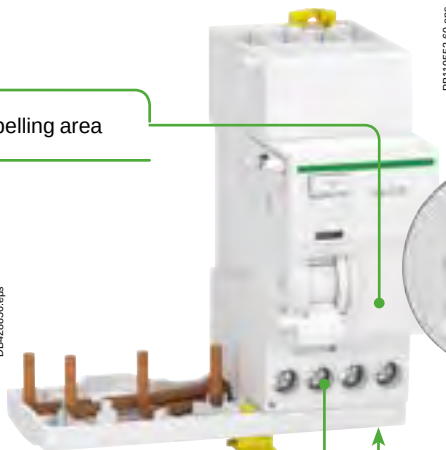
DB428853.eps

■ Clear space to allow combi busbar installation



DB428854.eps

■ Large circuit labelling area



P8119552-40.eps

VISI-TRIP window

■ Fault tripping is indicated by a red mechanical indicator on the front face



DB428855.eps

■ Test button



DB428856.eps

■ Insulated terminals IP20



Protection

Earth leakage protection

Vigi iC60 add-on residual current devices for iC60 double terminals (A type)



Country approval pictogram

IEC/EN 61009-1

- Combined with iC60 double tunnel terminals circuit breaker, the Vigi iC60 provide:
 - protection of persons against electric shock by direct contact (30 mA),
 - protection of persons against electric shock by indirect contact (≥ 100 mA),
 - protection of installations against the risk of fire (300 mA or 500 mA).

PB107416-40



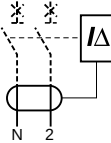
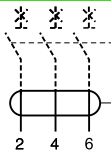
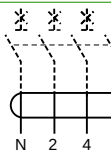
PB107418-40



PB107420-40



Catalogue numbers

Vigi iC60 add-on residual current devices									
Type	A 						Width in 9 mm modules		
Product	Vigi iC60								
Auxiliaries	Without auxiliaries								
2P		Sensitivity	30 mA	100 mA	300 mA	300 mA 	500 mA		
	Rating	25 A	A9W21225	A9W22225	A9W24225	-	A9W26225	3	
		63 A	A9W21263	A9W22263	A9W24263	A9W25263	A9W26263	4	
3P		Sensitivity	30 mA	100 mA	300 mA	300 mA 	500 mA		
	Rating	25 A	A9W21325	-	-	-	A9W26325	6	
		63 A	A9W21363	-	A9W24363	A9W25363	A9W26363	7	
4P		Sensitivity	30 mA	100 mA	300 mA	300 mA 	500 mA		
	Rating	25 A	A9W21425	A9W22425	-	-	A9W26425	6	
		63 A	A9W21463	A9W22463	A9W24463	A9W25463	A9W26463	7	
Voltage rating (Ue)		2P	230 - 240 V						
		3P-4P	400 - 415 V						
Operating frequency		50/60 Hz							
Accessories		Module CA907000							

Protection

Earth leakage protection

Vigi iC60 add-on residual current devices for iC60 double terminals (SI type)

IEC/EN 61009-1



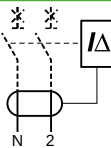
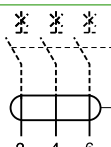
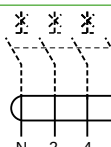
Country approval pictogram

- Combined with iC60 double tunnel terminals circuit breaker, the Vigi iC60 provide:
 - protection of persons against electric shock by direct contact (≤ 30 mA),
 - protection of persons against electric shock by indirect contact (≥ 300 mA),
 - protection of installations against the risk of fire (300 mA).

The **SI** type provides increased immunity from electrical interference and polluted or corrosive environments.



Catalogue numbers

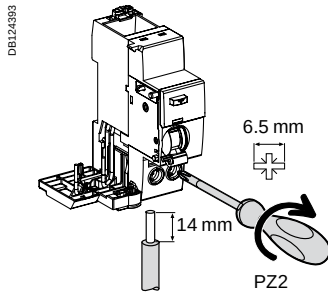
Vigi iC60 add-on residual current devices							
Type	SI 					Width in 9 mm modules	
Product	Vigi iC60						
Auxiliaries	Auxiliaries						
2P	Sensitivity	10 mA	30 mA	300 mA 			
	Rating	25 A	A9W31225	A9W31225	-	3	
		63 A	-	A9W31263	A9W35263	4	
3P	Sensitivity	10 mA	30 mA	300 mA 			
	Rating	25 A	-	-	-	6	
		63 A	-	A9W31363	A9W35363	7	
4P	Sensitivity	10 mA	30 mA	300 mA 			
	Rating	25 A	-	A9W31425	-	6	
		63 A	-	A9W31463	A9W35463	7	
Voltage rating (Ue)	2P	230 - 240 V					
	3P-4P	400 - 415 V					
Operating frequency		50/60 Hz					
Accessories		Module CA907000					

Protection

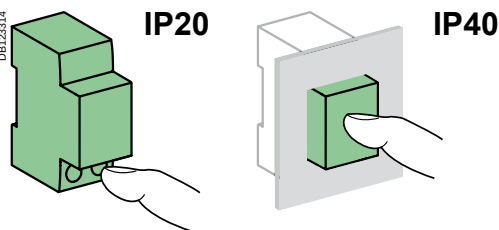
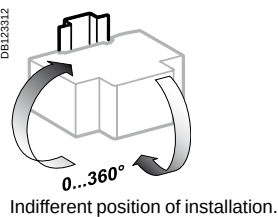
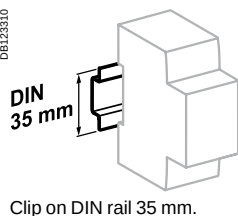
Earth leakage protection

Vigi iC60 add-on residual current devices for iC60 double terminals (A, SI types)

Connection



Type	Rating	Tightening torque	Copper cables	
			Rigid	Flexible or with ferrule
Vigi iC60	25 A	2 N.m	1 to 25 mm ²	1 to 16 mm ²
	63 A	3.5 N.m	1 to 35 mm ²	1 to 25 mm ²



Technical data

Main characteristics

Insulation voltage (U _i)	500 V
Pollution degree	3
Rated impulse withstand voltage (U _{imp})	6 kV

According to IEC/EN 61009-1

Surge current withstand (8/20 μs) without tripping	AC and A types (no selective)	250 Å
	AC, A types (selective )	3 kÅ
	SI type	3 kÅ

Behaviour in case of voltage drop		Residual current protection down to 0 V according to IEC/EN 61009-1 § 3.3.8
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Additional characteristics

Degree of protection	Device only	IP20
	Device in modular enclosure	IP40
Operating temperature	Insulation class II	
	AC type	-5°C to +60°C
	A and SI types	-25°C to +60°C
Storage temperature	-40°C to +85°C	



Protection

Earth leakage protection

Vigi iC60 add-on residual current devices for iC60 double terminals (A, SI types) (cont.)

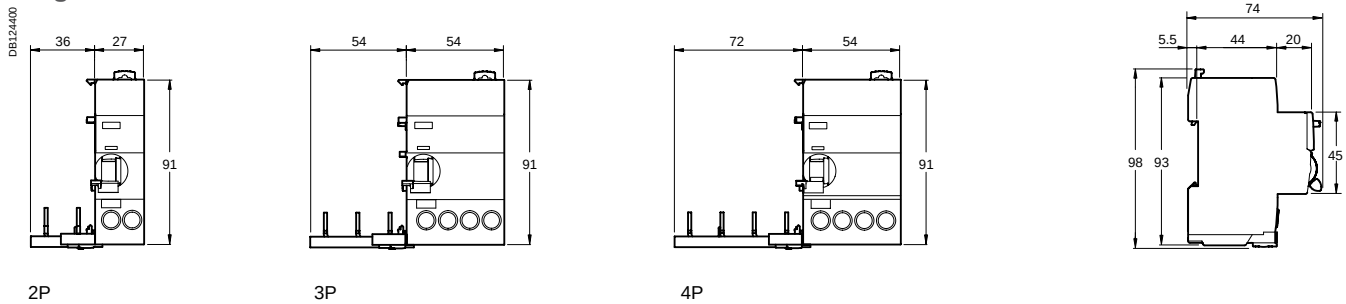
Weight (g)

Add-on residual current devices

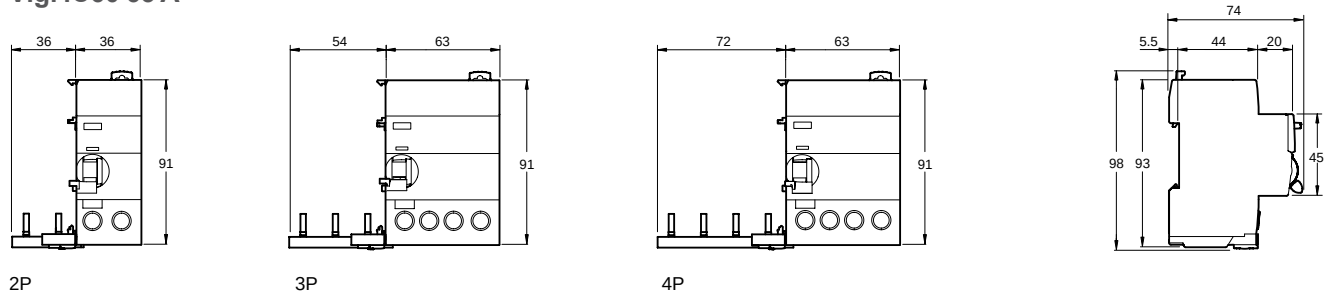
Type	Vigi iC60
2P	165
3P	210
4P	245

Dimensions (mm)

Vigi iC60 25 A



Vigi iC60 63 A



Protection

Earth leakage protection

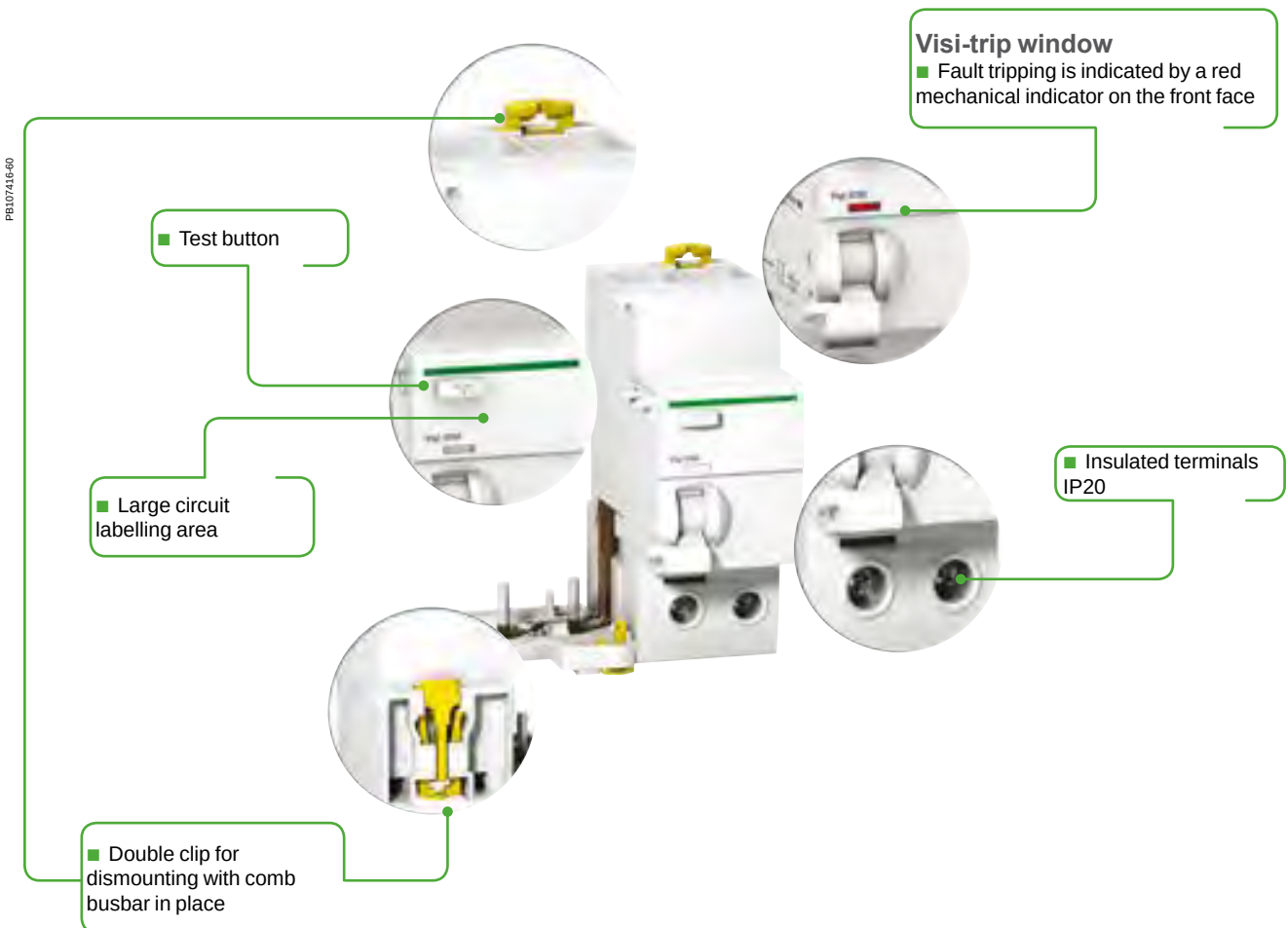
Vigi iC60 add-on residual current devices for iC60 double terminals (A, SI types) (cont.)

D0124394



Association iC60N, H + Vigi iC60

iC60	Vigi iC60 25 A	Vigi iC60 63 A
0.5 A to 25 A	■	■
32 A - 40 A	NO	■
50 A - 63 A	NO	■



Type SI

The SI type provides increased immunity from electrical interference and polluted or corrosive environments.

Protection

Earth leakage protection

Vigi C120 add-on residual current devices (type A)



Country approval pictograms

EN 61009

When a Vigi C120 device is combined with a C120 circuit breaker, it provides the following functions:

- protection of persons against electric shock by direct contact (30 mA),
- protection of persons against electric shock by indirect contact (≥ 300 mA),
- protection of installations against fire hazards (300 mA to 1000 mA).



2P

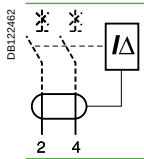
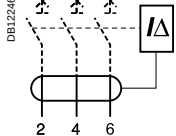
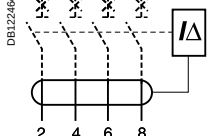


3P



4P

Catalogue numbers

Vigi C120 add-on residual current devices								
Type	A 						Width in 9 mm modules	
Product	Vigi C120							
Auxiliaries	Without auxiliary							
2P	Sensitivity	30 mA	300 mA	500 mA	300 mA 	500 mA 	1000 mA 	
		A9N18572	A9N18573	A9N18574	-	-	-	7
3P	Sensitivity	30 mA	300 mA	500 mA	300 mA 	500 mA 	1000 mA 	
		A9N18575	A9N18576	A9N18577	-	-	-	10
4P	Sensitivity	30 mA	300 mA	500 mA	300 mA 	500 mA 	1000 mA 	
		A9N18578	A9N18579	A9N18580	A9N18587	A9N18588	A9N18589	10
Operating voltage (Ue)	2P	230 - 240 V						
	3P-4P	400 - 415 V						
Operating frequency		50/60 Hz						
Accessories		Module CA907012 and CA907013						

Protection

Earth leakage protection

Vigi C120 add-on residual current devices (type A-SI)



Country approval pictograms

EN 61009

When a Vigi C120 device is combined with a C120 circuit breaker, it provides the following functions:

- protection of persons against electric shock by direct contact (30 mA),
- protection of persons against electric shock by indirect contact (≥ 300 mA),
- protection of installations against fire hazards (300 mA to 1000 mA).

Special feature of type A-SI

They are appropriate for operating in environments with:

- high risk of nuisance tripping: frequent lightning strikes, IT system, presence of electronic ballasts, frequency converters, presence of switchgear incorporating lighting type interference filters, computer system, etc.
- blind sources:
 - presence of harmonics or high frequency rejections
 - presence of DC components: diodes, diode bridges, switch-mode power supplies, etc.
- protected against nuisance tripping caused by transient voltage surges (lightning strike, operation of switchgear on the network, etc.)

PB107924-30



2P

PB107925-30



3P

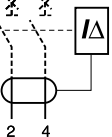
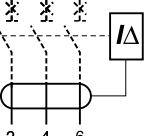
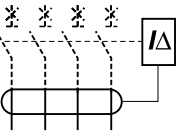
PB107926-30



4P

Catalogue numbers

Vigi C120 add-on residual current devices

Type	A-SI 						Width in 9 mm modules
Product	Vigi C120						
Auxiliaries	Without auxiliary						
2P	Sensitivity	30 mA	300 mA	500 mA	300 mA 	1000 mA 	
		A9N18591	A9N18592	-	A9N18556	A9N18557	7
3P	Sensitivity	30 mA	300 mA	500 mA	300 mA 	1000 mA 	
		A9N18594	A9N18595	-	A9N18558	A9N18559	10
4P	Sensitivity	30 mA	300 mA	500 mA	300 mA 	1000 mA 	
		A9N18597 A9N18554 ⁽¹⁾	A9N18598 A9N18555 ⁽¹⁾	A9N18599	A9N18560	A9N18561	10
Operating voltage (Ue)	2P	230 - 240 V					
	3P-4P	400 - 415 V					
Operating frequency		50 Hz					
Accessories		Module CA907012 and CA907013					

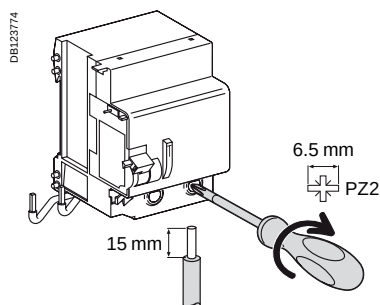
(1) specific offer for France

Protection

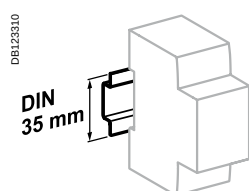
Earth leakage protection

Vigi C120 add-on residual current devices (types A and A-SI)

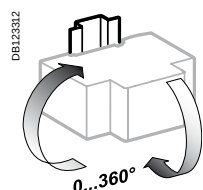
Connection



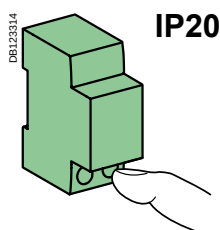
Type	Sensitivity	Tightening torque	Copper cables	
			Rigid	Flexible or with ferrule
Vigi C120	30...1000 mA	3.5 N.m	1 to 50 mm ²	1 to 35 mm ²



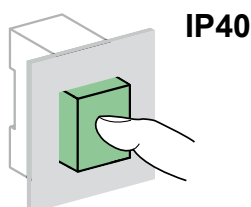
Clips onto 35 mm DIN rail.



Any installation position.



IP20



IP40

Technical data

Main characteristics

To IEC 60947-2

Insulation voltage (U _i)	500 V AC
Degree of pollution	3
Rated impulse withstand voltage (U _{imp})	6 kV

To EN 61009

Impulse current withstand (8/20 μs) without tripping	Types AC and A (non-selective ☒)	250 Å
	Types AC and A (selective ☒)	3 kÅ
	Types A-SI (non-selective ☒)	3 kÅ
	Types A-SI (selective ☒)	5 kÅ

Additional characteristics

Degree of protection	Device only	IP20
	Device in a modular enclosure	IP40
Operating temperature	Type AC	-5 °C to +60 °C
	Types A and A-SI	-25 °C to +60 °C
Storage temperature		-40 °C to +85 °C

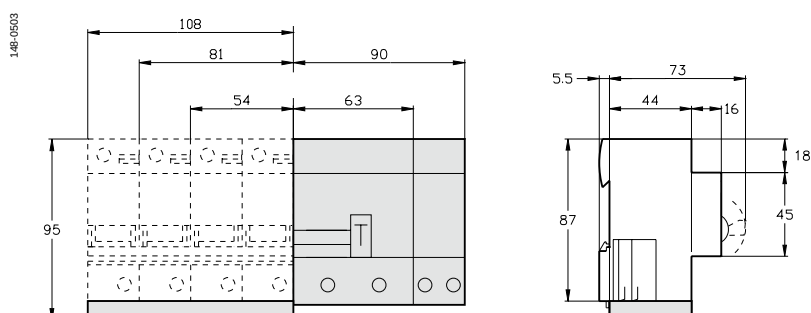
Weight (g)

Add-on residual current devices

Type	Vigi C120
2P	325
3P	500
4P	580

Dimensions (mm)

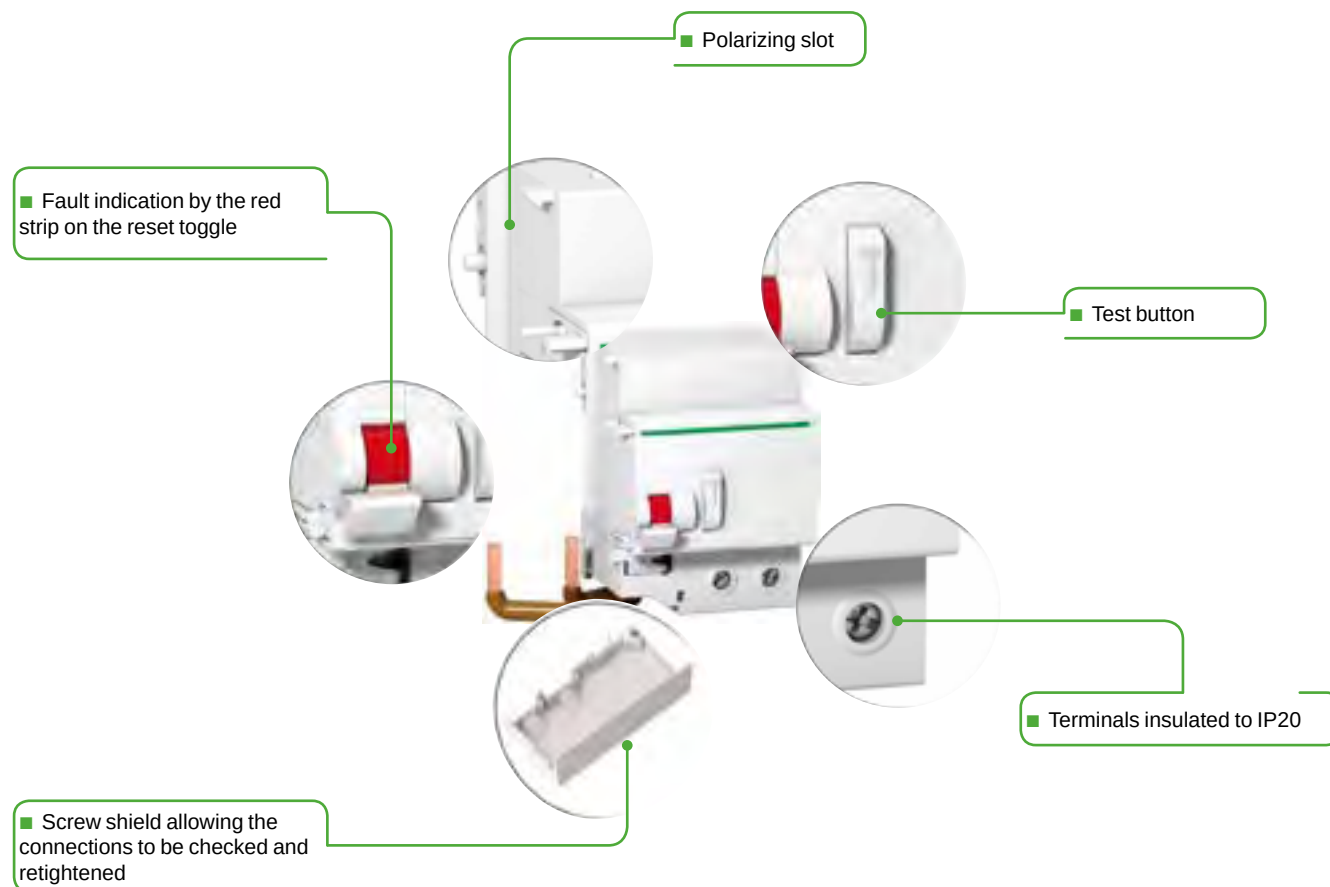
C120 + Vigi C120



Protection

Earth leakage protection

Vigi C120 add-on residual current devices (types A and A-SI) (cont.)



Type A-SI

The A-SI type provides increased immunity from electrical interference and polluted or corrosive environments.

Protection

Earth leakage protection

Vigi NG125 add-on residual current devices (A type)



Country approval pictogram

IEC/EN 61009-1

054383M-40

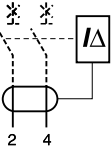
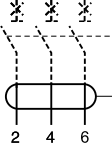
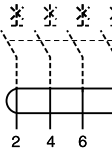


PB10398-40



- When it is combined with an NG125 circuit breaker, the Vigi NG125 add-on residual current device offers the following functions:
 - protection of persons against electric shocks by direct contact (30 mA),
 - protection of persons against electric shocks by indirect contact (≥ 300 mA),
 - protection of installations against fire risks (300 mA or 500 mA).

Catalogue numbers

Vigi NG125 add-on residual current devices								
Type	A 							Width in 9 mm modules
Product	Vigi NG125							
Auxiliaries	Module CM907005							
2P	Sensitivity	30 mA	300 mA	300 mA 	1000 mA 	300...1000 I/S	300...3000 I/S/R	
 DB122462	Rating	63 A	19010 19008 (1)	19012 19009 (1)	19030	19031	-	5
3P	Sensitivity	30 mA	300 mA	300 mA 	1000 mA 	300...1000 I/S	300...3000 I/S/R	
 DB122463	Rating	63 A	19013	19014	19032	19033	-	9
	125 A		19039	-	-	-	19044	11
							19036 19053 (2)	11
							19047 19055 (2)	
4P	Sensitivity	30 mA	300 mA	300 mA 	1000 mA 	300...1000 I/S	300...3000 I/S/R	
 DB122464	Rating	63 A	19015	19016	19034	19035	-	9
	125 A		19041	19042	-	-	19046	11
							19037 19054 (2)	11
							19049 19056 (2)	
Voltage rating (Ue)		230 - 240 V, 400 - 415 V Except: (1) 110...220 V and (2) 440...500 V						
Operating frequency		50/60 Hz						
Accessories		Module CM907006						

Protection

Earth leakage protection

Vigi NG125 add-on residual current devices (SI type)



Country approval pictogram

IEC/EN 61009-1

057484-40



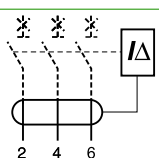
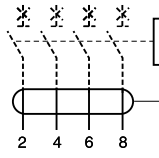
■ When it is combined with an NG125 circuit breaker, the Vigi NG125 add-on residual current device offers the following functions:

- protection of persons against electric shocks by direct contact (30 mA),
- protection of persons against electric shocks by indirect contact (≥ 300 mA),
- protection of installations against fire risks (300 mA or 500 mA).

SI types are appropriate for operating in environments with:

- High risk of nuisance tripping: frequent lightning strikes, IT system, presence of electronic ballasts, frequency converters, presence of switchgear incorporating lighting type interference filters, computer system, etc.
- Blind sources
- presence of harmonics or high frequency rejections,
- presence of DC components: diodes, diode bridges, switch-mode power supplies, etc.
- Protected against nuisance tripping caused by transient voltage surges (lightning strike, operation of switchgear on the network, etc.).

Catalogue numbers

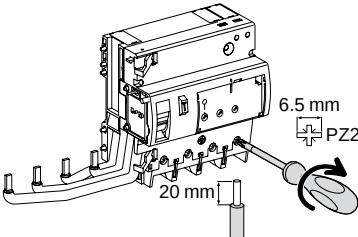
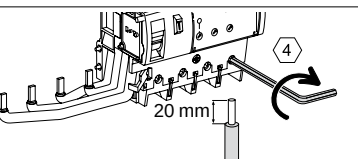
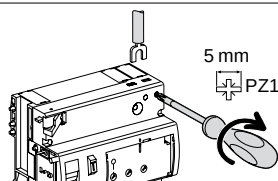
Vigi NG125 add-on residual current devices					
Type	SI 		Width in 9 mm modules		
Product	Vigi NG125				
Auxiliaries	Module CM907005				
3P	Sensitivity	30 mA	300...3000 I/S/R		
	Rating 125 A	19100	19106	11	
4P	Sensitivity	30 mA	300...3000 I/S/R		
	Rating 125 A	19101	19107	11	
Voltage rating (Ue)		230 - 240 V, 400 - 415 V			
Operating frequency		50/60 Hz			
Accessories		Module CM907006			

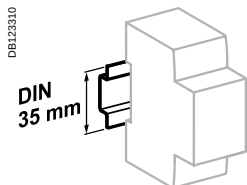
Protection

Earth leakage protection

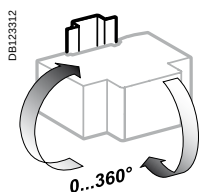
Vigi NG125 add-on residual current devices (A, SI types)

Connection

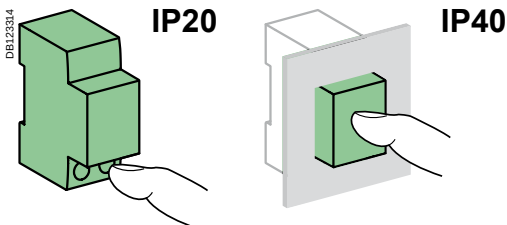
	Rating	Tightening torque	Without accessories			With accessories	
			Copper cables			70 mm ² Al terminal	Screw-on connection for ring terminal
			Rigid	Flexible or with ferrule	Screw clamp terminal		
DB123404			DB122945	DB122946	DB123409	DB123410	DB123488
	63 A	3.5 N.m	1.5 to 50 mm ²	1 to 35 mm ²	-	-	-
DB123405	125 A	6 N.m	16 to 70 mm ²	10 to 50 mm ²	-	25 to 70 mm ²	2 x 35 mm ² 1 x 50 mm ²
							
DB123408	Pre-alarm	1 N.m	2 x 2.5 mm ²	2 x 1.5 mm ²	2 x 1.5 mm ²	-	-
							



Clip on DIN rail 35 mm.



Indifferent position of installation.



Technical data

Main characteristics

Insulation voltage (U _i)	690 V
Pollution degree	3
Rated impulse withstand voltage (U _{imp})	8 kV

According to IEC/EN 61009-1

Surge current withstand (8/20 μs) without tripping	Selective  or R	5 kA
	Instantaneous	3 kA
Behaviour in case of voltage drop		Residual current protection down to 0 V according to IEC/EN 61009-1 § 3.3.8

Additional characteristics

Degree of protection	Device only	IP20
	Device in modular enclosure	IP40
Operating temperature	AC type	-5°C to +60°C
	A and SI types	-25°C to +60°C
Storage temperature		-40°C to +85°C

Additional characteristics

Vigi 125 A and adjustable

Plug-in auxiliaries	MXV	Remote tripping
	SDV	Indication of tripping upon earth fault

Adjustable Vigi

Sensitivity adjustable by notch (IΔn)		300, 500, 1000, 3000 mA
Tripping time	Instantaneous	
	Selective 	60 ms
	Time-delayed	150 ms
Leakage current indication on 3P and 4P 300...3000 I/S/R (pre-alarm)		On front face by LED
		Remote, by potential-free normally-open contact 250 V - 1 A (low level)
		Threshold setting by potentiometer from 10 % to 50 % of IΔn
Disconnection essential for dielectric test		By integral pushbutton

Protection

Earth leakage protection

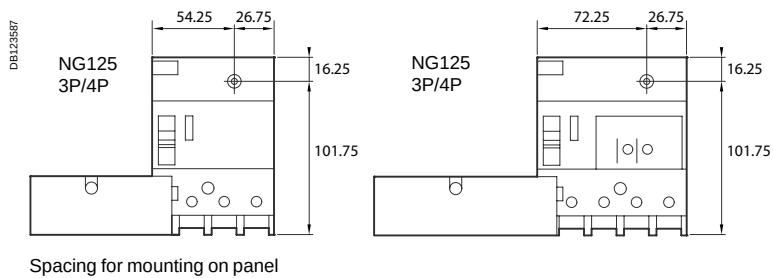
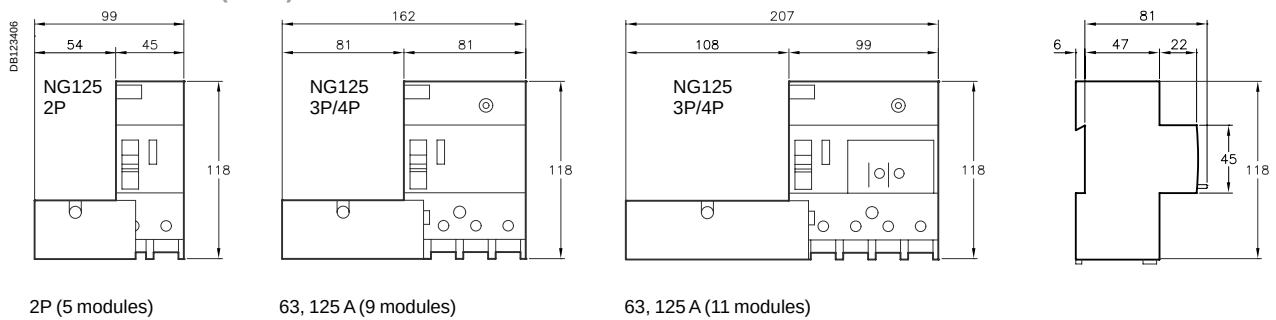
Vigi NG125 add-on residual current devices (A, SI types) (cont.)

Weight (g)

Add-on residual current devices

Number of 9 mm modules	2P	3P	4P
5 modules	250	-	-
9 modules	-	410	450
11 modules	-	750	800

Dimensions (mm)



Protection

Earth leakage protection

Vigi NG125 add-on residual current devices
(A, SI types) (cont.)

050341_SE-50

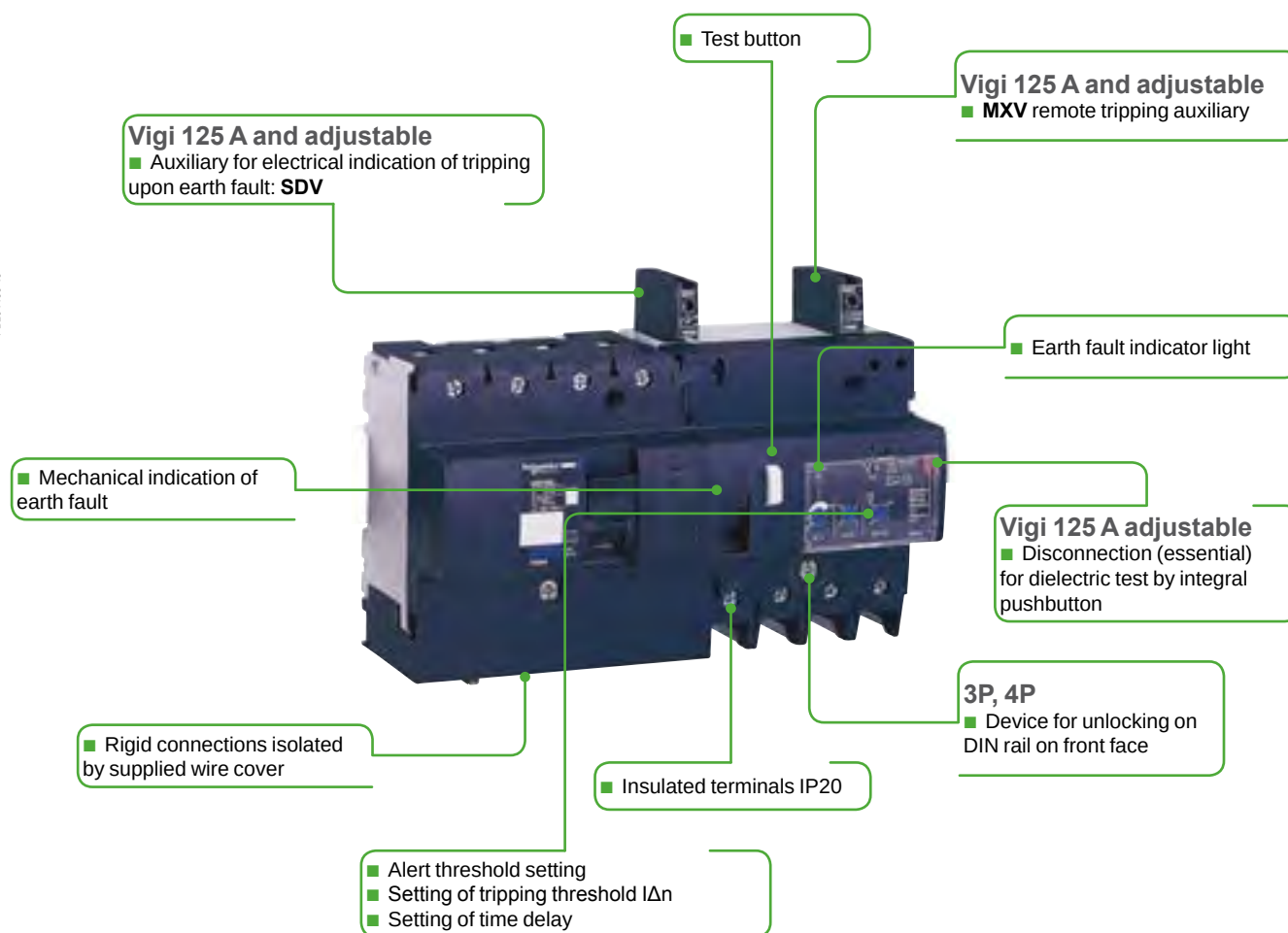


Association NG125 + Vigi NG125

	Vigi NG125 63 A	Vigi NG125 125 A
NG125 ≤ 63 A	■	NO
NG125 80...125 A*	NO	■

(*) No Vigi add-on residual current device for 2P circuit breakers of rating 80 A.

PB10466-40



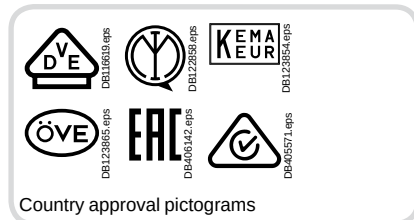
SI type

SI types are appropriate for operating in environments with:

- High risk of nuisance tripping: frequent lightning strikes, IT system, presence of electronic ballasts, frequency converters, presence of switchgear incorporating lighting type interference filters, computer system, etc.
- Blind sources
 - presence of harmonics or high frequency rejections,
 - presence of DC components: diodes, diode bridges, switch-mode power supplies, etc.
- Protected against nuisance tripping caused by transient voltage surges (lightning strike, operation of switchgear on the network, etc.).

Protection, Earth leakage protection

Acti9 iCV40N residual current devices RCBO 6000 A



CEI/EN 61009-2-1

As per the above standard:

The residual current devices offers the following functions of earth leakage protection and circuit protection.

■ Earth leakage protection:

- protection of persons against electric shock by direct contact (≤ 30 mA),
- protection of persons against electric shock by indirect contact (300 mA),
- protection of installations against the risk of fire (300 mA).

■ Circuit protection:

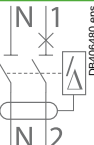
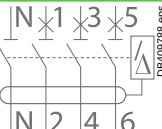
- circuit protection against short-circuit currents,
- circuit protection against overload currents,
- disconnection.

A-SI type

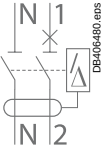
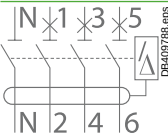
The A-SI type provides increased immunity from electrical interference and polluted or corrosive environments.

Catalog numbers

Acti9 iCV40N RCBO - B curve

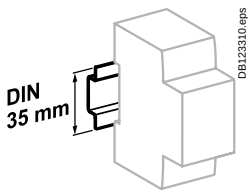
Type	A 			Width in 9-mm modules	
Auxiliaries	Catalog module CA907002				
1P+N	Sensitivity	10 mA	30 mA	100 mA	
	Rating 6 A	-	A9DG3606	-	4
	10 A	A9DGA610	A9DG3610	-	
	13 A	-	A9DG3613	-	
	16 A	A9DGA616	A9DG3616	-	
	20 A	-	-	-	
	25 A	-	-	-	
	32 A	-	-	A9DGB632	
	40 A	-	-	A9DGB640	
3P+N	Sensitivity	10 mA		100 mA	10
	Rating 10 A	-	A9DG3710	-	
	13 A	-	A9DG3713	-	
	16 A	-	A9DG3716	-	
Accessories	Catalog modules CA907001 and CA907015				
Comb busbars	Catalog module CA907026				
PowerTag energy sensors	Catalog modules CA907029 and CA908058				

Acti9 iCV40N RCBO - C curve

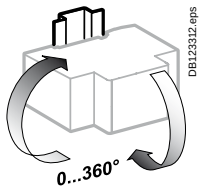
Type	A 	A-SI 	Width in 9-mm modules					
Auxiliaries	Catalog module CA907002							
1P+N	Sensitivity	10 mA	30 mA	100 mA	300 mA	30 mA	300 mA	
	Rating 6 A	-	A9DC3606	-	-	A9DF3606	A9DF7606	4
	10 A	A9DCA610	A9DC3610	-	A9DC7610	A9DF3610	A9DF7610	
	13 A	-	A9DC3613	-	A9DC7613	A9DF3613		
	13 A type G	-	A9DCG613	-	-	-		
	16 A	A9DCA616	A9DC3616	-	A9DC7616	A9DF3616	A9DF7616	
	20 A	-	A9DC3620	-		A9DF3620	A9DF7620	
	25 A	-	A9DC3625	-		A9DF3625	A9DF7625	
	32 A	-	A9DC3632	A9DCB632		A9DF3632	A9DF7632	
	40 A	-	A9DC3640	A9DCB640		A9DF3640	A9DF7640	
3P+N	Sensitivity	10 mA	30 mA	100 mA	300 mA	30 mA	300 mA	
	Rating 10 A	-	A9DC3710	-	A9DC7710	A9DF3710	-	10
	13 A	-	A9DC3713	-	-	A9DF3713	-	
	16 A	-	A9DC3716	-	A9DC7716	A9DF3716	-	
	20 A	-	A9DC3720	-	-	A9DF3720	-	
	25 A	-	A9DC3725	-	-	A9DF3725	-	
	32 A	-	A9DC3732	-	-	A9DF3732	-	
	40 A	-	A9DC3740	-	-	A9DF3740	-	
	Accessories	Catalog modules CA907001 and CA907015						
Comb busbars	Catalog module CA907026							
PowerTag energy sensors	Catalog modules CA907029 and CA908058							

Protection, Earth leakage protection

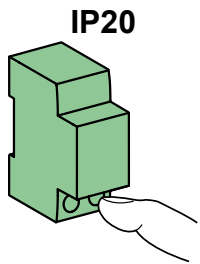
Acti9 iCV40N residual current devices RCBO 6000 A



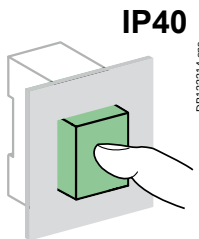
Clip on DIN rail 35 mm.



Indifferent position of installation.



IP20



IP40

Technical data

Main characteristics

Insulation voltage (Ui)	Phase-to-neutral	400 V
	Phase-to-phase	440 V
Voltage rating (Ue)	Phase-to-neutral	230 V
	Phase-to-phase	400 V
Operating frequency		50/60 Hz

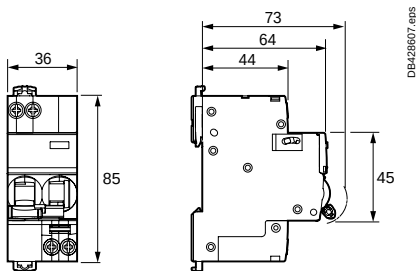
According to EN 61009-2-1

Rated impulse withstand voltage (Uimp)		4 kV
Magnetic tripping	B curve	3 to 5 In
	C curve	5 to 10 In
Operating temperature		30°C
Limitation class		3
Rated breaking capacity (Icn)		6000 A
Service breaking capacity (Ics)		100 % Icn
Rated residual breaking and making capacity (IΔm)	1P+N	IEC 61009-2-1 500 A
		EN 61009-2-1 4500 A
	3P+N	IEC/EN 61009-2-1 3000 A
8/20 μs impulse withstand without tripping	AC type	250 Å
	A type	250 Å
	A-SI type	3 kÅ
Pollution degree		3
Behaviour in case of voltage drop		Residual current protection down to 0 V according to NF/EN 61009-1 § 3.3.8

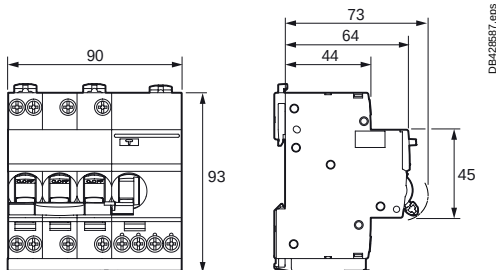
Additional characteristics

Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40 Insulation class II
Endurance (O-C)	Electrical	≤ 25 A 20000 cycles
		≥ 32 A 10000 cycles
	Mechanical	20000 cycles
Operating temperature	AC type	-5°C to +60°C
	A, A-SI types	-25°C to +60°C
Storage temperature		-40°C to +85°C

Dimensions (mm)



Residual current devices 1P+N



Residual current devices 3P+N

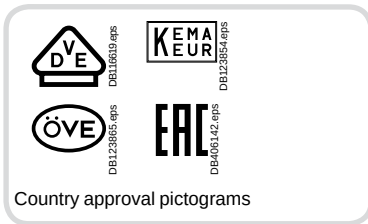
Weight (g)

Residual current devices

Type	Acti9 iCV40N RCBO
1P+N	210
3P+N	500

Protection, Earth leakage protection

Acti9 iCV40H residual current devices RCBO 10000 A



CEI/EN 61009-2-1

As per the above standard:

The residual current devices offers the following functions of earth leakage protection and circuit protection.

■ Earth leakage protection:

- protection of persons against electric shock by direct contact (30 mA),
- protection of persons against electric shock by indirect contact (300 mA),
- protection of installations against the risk of fire (300 mA).

■ Circuit protection:

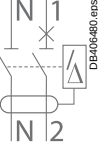
- circuit protection against short-circuit currents,
- circuit protection against overload currents,
- disconnection.

A-SI type

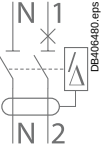
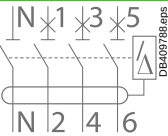
The A-SI type provides increased immunity from electrical interference and polluted or corrosive environments.



Catalog numbers

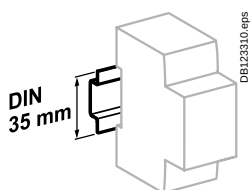
Acti9 iCV40H RCBO - B curve				
Type		A 	Width in 9-mm modules	
Auxiliaries		Catalog module CA907002		
1P+N	Sensitivity	30 mA		
	Rating	6 A	A9DG4606	4
		10 A	A9DG4610	
		16 A	A9DG4616	
		20 A	A9DG4620	
		25 A	A9DG4625	
		32 A	A9DG4632	
Accessories		Catalog modules CA907001 and CA907015		
Comb busbars		Catalog module CA907026		
PowerTag energy sensors		Catalog modules CA907029 and CA908058		

Catalog numbers

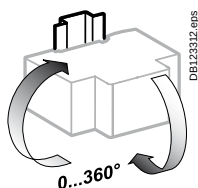
Acti9 iCV40H RCBO - C curve						
Type	A 		A-SI 		Width in 9-mm modules	
Auxiliaries	Catalog module CA907002					
1P+N	Sensitivity	30 mA	300 mA	30 mA	300 mA	
	Rating	6 A	A9DC4606	A9DC8606	A9DF4606	A9DF8606
		10 A	A9DC4610	A9DC8610	A9DF4610	A9DF8610
		16 A	A9DC4616	A9DC8616	A9DF4616	A9DF8616
		20 A	A9DC4620	A9DC8620	A9DF4620	A9DF8620
		25 A	A9DC4625	A9DC8625	A9DF4625	A9DF8625
		32 A	A9DC4632	A9DC8632	A9DF4632	A9DF8632
3P+N	Sensitivity	30 mA	300 mA	30 mA	300 mA	
	Rating	6 A	A9DC4706	-	-	-
		10 A	A9DC4710	-	-	-
		13 A	A9DC4713	-	-	-
		16 A	A9DC4716	-	-	-
		20 A	-	-	-	-
		25 A	-	-	-	-
		32 A	-	-	-	-
Accessories	Catalog modules CA907001 and CA907015					
Comb busbars	Catalog module CA907026					
PowerTag energy sensors	Catalog modules CA907029 and CA908058					

Protection, Earth leakage protection

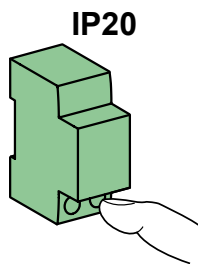
Acti9 iCV40H residual current devices RCBO 10000 A



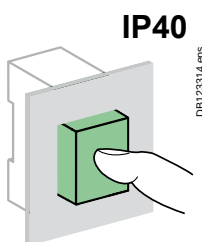
Clip on DIN rail 35 mm.



Indifferent position of installation.

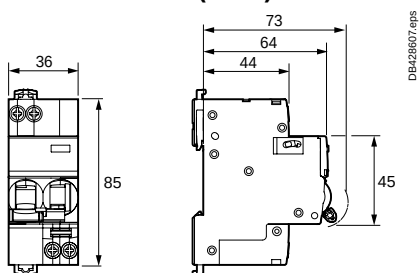


IP20

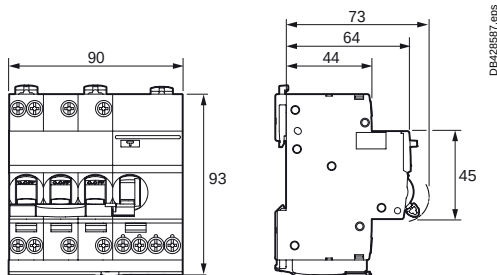


IP40

Dimensions (mm)



Residual current devices 1P+N



Residual current devices 3P+N

Technical data

Main characteristics

Insulation voltage (Ui)	Phase-to-neutral	400 V
	Phase-to-phase	440 V
Voltage rating (Ue)	Phase-to-neutral	230 V
	Phase-to-phase	400 V
Operating frequency		50/60 Hz

According to EN 61009-2-1

Rated impulse withstand voltage (Uimp)		4 kV
Magnetic tripping	B curve	3 to 5 In
	C curve	5 to 10 In
Operating temperature		30°C
Limitation class		3
Rated breaking capacity (Icn)		10000 A
Service breaking capacity (Ics)		75 % Icn
Rated residual breaking and making capacity (IΔm)	1P+N	IEC 61009-2-1 500 A
		EN 61009-2-1 4500 A
	3P+N	EC/EN 61009-2-1 3000 A
8/20 μs impulse withstand without tripping	AC type	250 A
	A type	250 A
	A-SI type	3 kA
Pollution degree		3

Behaviour in case of voltage drop



DB407011.eps

Residual current protection down to 0 V according to NF/EN 61009-1 § 3.3.8

Additional characteristics

Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40 Insulation class II
Endurance (O-C)	Electrical	≤ 25 A 32 A
		20000 cycles 10000 cycles
Operating temperature	Mechanical	20000 cycles
	AC type	-5°C to +60°C
	A, A-SI types	-25°C to +60°C
Storage temperature		-40°C to +85°C

Weight (g)

Residual current devices

Type	Acti9 iCV40H RCBO
1P+N	210
3P+N	500

Protection, Earth leakage protection

Acti9 iCV40 residual current devices RCBO

■ Automatic cable guiding in the correct position: terminals with guard

■ Reinforced cable pull-out strength: serrated terminals

■ Assembly and disassembly with comb busbar in place by operating toggle latches at the top and bottom of the products

■ Where there is a comb tooth, the connection of cables of cross section 16 mm² remains possible

■ Clear space to allow comb busbar installation

■ Insulated terminals IP20

Markings

■ Area for marking by 12 mm high label on the front panel

Markings

■ Area for 4 marking clips alongside the downstream terminal

VISI-TRIP window

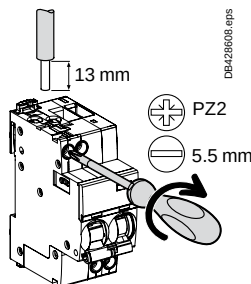
■ Fault tripping is indicated by a red mechanical indicator on the front face

VISI-SAFE window

Positive contact indication

- A green strip on the toggle indicates full opening of all the poles
- Downstream maintenance operations can be carried out in better safety conditions
- Padlocking possible

Connection



Type	Connection	Tightening torque	Comb busbar	Copper cables	
				Rigid	Flexible or with ferrule
Acti9 iCV40	Top	2 N.m	■	1 to 16 mm ²	1 to 10 mm ²
	Bottom		■		

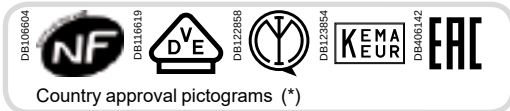
- Connection by comb busbar or cables (as per EN 50027).
- Where there is a comb busbar tooth, the connection of cables of cross section 16 mm² remains possible.
- See Comb busbars Choice guide (CA908048).

Protection

Earth leakage protection

Residual current device iC60 RCBO

6000 A



(*) Information to be supplied by the country.



IEC/EN 61009-1 IEC/EN 61009-2-1

As per the above standards:

The iC60 RCBO residual current device provides:

- protection of final circuits against overcurrents and short-circuits.
- protection for people against electric shocks by direct contacts.
- earth fault indication by a red mechanical indicator in front face.

The A-SI type provides increased immunity from electrical interference.

Catalogue numbers

iC60 RCBO [6000] 400 V AC				
Type	Curve	A	Width in 9-mm modules	
3P	Sensitivity (IΔn)	30 mA		
	Rating (In)	10 A	A9D67310	6
		13 A	A9D67313	
		16 A	A9D67316	
		20 A	A9D67320	
		25 A	A9D67325	
		32 A	A9D67332	
Voltage rating (Ue)		400 V CA		
Operating frequency		50 Hz		
Auxiliaries and accessories		Catalog module CA902045E		

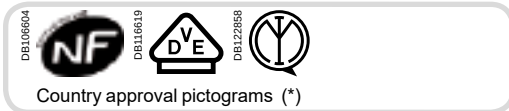
iC60 RCBO [6000] 400 V AC									
Type	AC	A			A-SI		Width in 9-mm modules		
	Curve	C	B	C	B	C			
4P	Sensitivity (IΔn)	30 mA	300 mA	30 mA	30 mA	300 mA	30 mA	30 mA	
	Rating (In)z	10 A		A9D87410	A9D67410	A9D52410	A9D97410	A9D77410	8
		13 A		A9D87413	A9D67413	-	A9D97413	A9D77413	
		16 A		A9D87416	A9D67416	A9D52416	A9D97416	A9D77416	
		20 A		A9D87420	A9D67420	A9D52420	A9D97420	A9D77420	
		25 A		A9D87425	A9D67425	A9D52425	A9D97425	A9D77425	
		32 A		A9D87432	A9D67432	A9D52432	A9D97432	A9D77432	
Voltage rating (Ue)		400 V CA							
Operating frequency		50 Hz							
Auxiliaries and accessories		Catalog module CA902045E							

Protection

Earth leakage protection

Residual current device iC60 RCBO

10000 A



(*) Information to be supplied by the country.



IEC/EN 61009-1

IEC/EN 61009-2-1

As per the above standards:

The iC60 RCBO residual current device provides:

- protection of final circuits against overcurrents and short-circuits.
- protection for people against electric shocks by direct contacts.
- earth fault indication by a red mechanical indicator in front face.

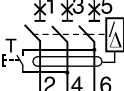
The A-SI type provides increased immunity from electrical interference.

Catalogue numbers

iC60 RCBO 10000 230 V AC

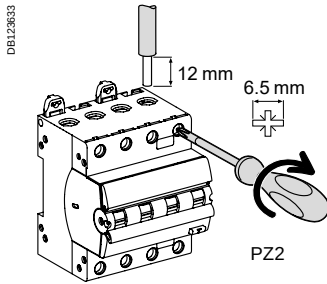
Type		AC		A			A-SI		Width in 9-mm modules
Curve		C		B	C		B	C	
Sensitivity (I _{Δn})		30 mA	300 mA	30 mA	30 mA	300 mA	30 mA	30 mA	
2P 	Rating (I _n)	10 A		A9D37210	A9D17210	A9D54210	A9D47210	A9D27210	4
		13 A		A9D37213	A9D17213	-	A9D47213	A9D27213	
		15 A, NEK 400		A9D34215	A9D14215	-	-	-	
		16 A		A9D37216	A9D17216	A9D54216	A9D47216	A9D27216	
		20 A		A9D37220	A9D17220	A9D54220	A9D47220	A9D27220	
		25 A		A9D37225	A9D17225	A9D54225	A9D47225	A9D27225	
		32 A		A9D37232	A9D17232	A9D54232	A9D47232	A9D27232	
Voltage rating (U _e)		230 V CA							
Operating frequency		50 Hz							
Auxiliaries and accessories		Catalog module CA902045E							

iC60 RCBO 10000 230 V AC

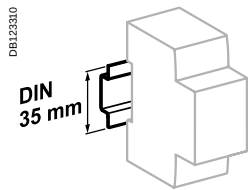
Type		A 		Width in 9-mm modules
Curve		C		
3P		Sensitivity (IΔn) 30 mA		
	Rating (In)	10 A	A9D17310	6
		13 A	A9D17313	
		16 A	A9D17316	
		20 A	A9D17320	
		25 A	A9D17325	
		32 A	A9D17332	
Voltage rating (Ue)		230 V CA		
Operating frequency		50 Hz		
Auxiliaries and accessories		Catalog module CA902045E		

Residual current device iC60 RCBO (cont.)

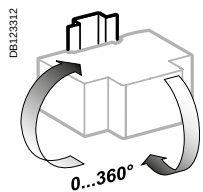
Connection



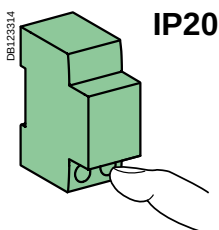
Rating	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
10 to 32 A	2 N.m	1 to 35 mm ²	1 to 25 mm ²



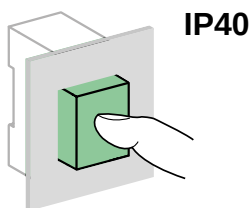
Clip on DIN rail 35 mm.



Indifferent position of installation.



IP20



IP40

Caractéristiques techniques

Main characteristics		6000 A	10000 A
Insulation voltage (Ui)		500 V	
Rated impulse withstand voltage (Uimp)		4 kV	
Rated residual operating current (IΔn)		30 mA, 300 mA	
Earth leakage protection type		AC, A, A-SI	
Thermal tripping	Reference temperature	30°C	
Magnetic tripping	Curve B	Between 3 and 5 In	
	Curve C	Between 5 and 10 In	
Limitation class	2P	3	
	3P, 4P	1	
Surge current withstand (8/20 μs) without tripping	AC Type	250 Â	
	A Type	250 Â	
	A-SI Type	3 kÂ	

According to IEC/EN 61009-1 and IEC/EN 61009-2-1

Rated breaking capacity (Icn)	6000 A	10000 A
Service breaking capacity (Ics)	1 x Icn	0,75 x Icn
Rated residual breaking and making capacity phase/earth (IΔm)	6000 A	6000 A
Behaviour in case of voltage drop	Residual current protection down to 0 V according to IEC/EN 61008-1 § 3.3.4	

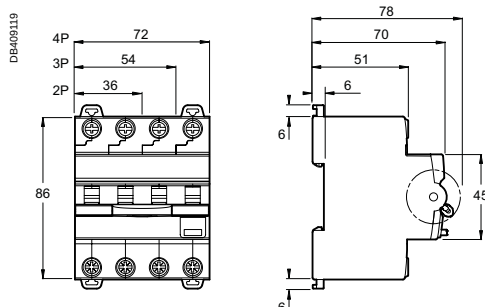
According to IEC/EN 60947-2

Ultimate breaking capacity (Icu)	6 kA	15 kA
Service breaking capacity (Ics)	100 % of Icu	50 % of Icu

Additional characteristics

Degree of protection	Device only	IP20
	Device in modular enclosure	IP40
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)		III
Operating temperature		-25°C to +60°C
Storage temperature		-40°C to +70°C
Range of test button operating voltage	2P	-
	3P	195.5...253 V AC
	4P	195.5...253 V AC
Tropicalization		Treatment 2 (relative humidity 95 % to 55°C)

Dimensions (mm)

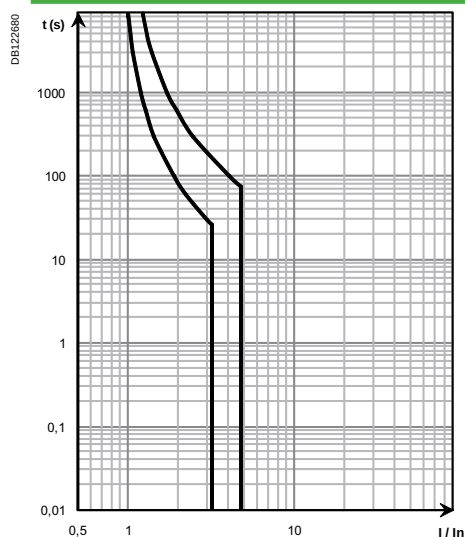


Weight (g)

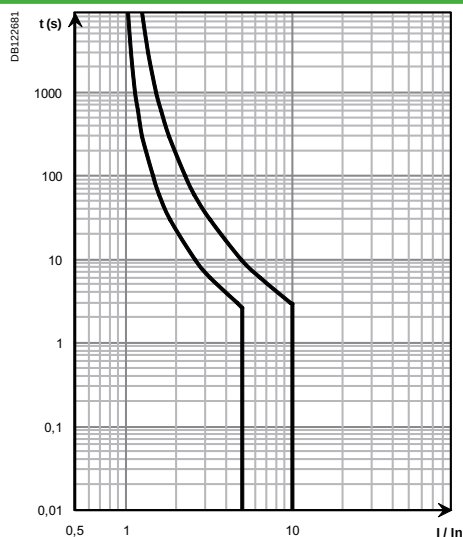
Residual current device	
Type	iC60 RCBO
2P	234
3P	334
4P	445

Residual current device iC60 RCBO (cont.)

Tripping curves

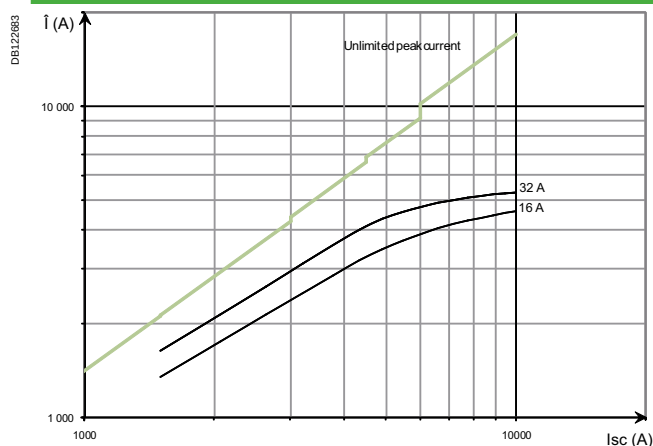


B curve

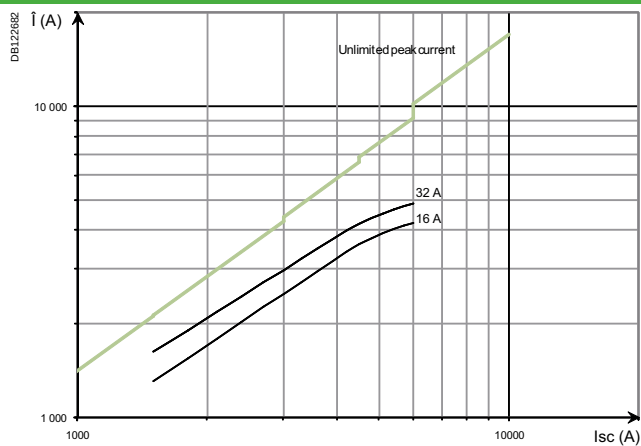


C curve

Peak limitation curves

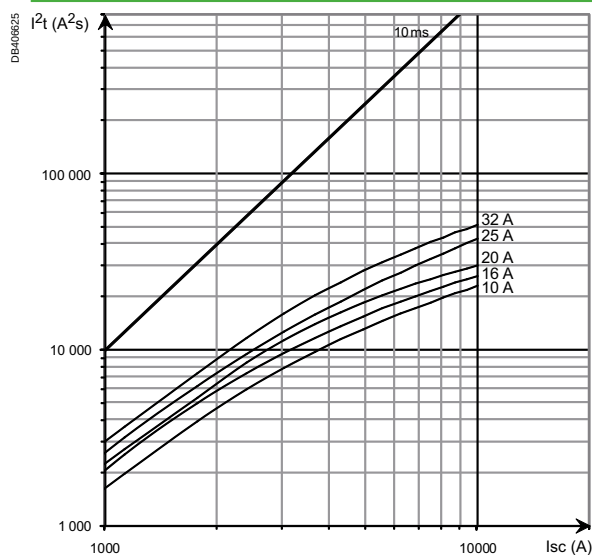


iC60 RCBO 10000 A - 2P/3P - 230 V

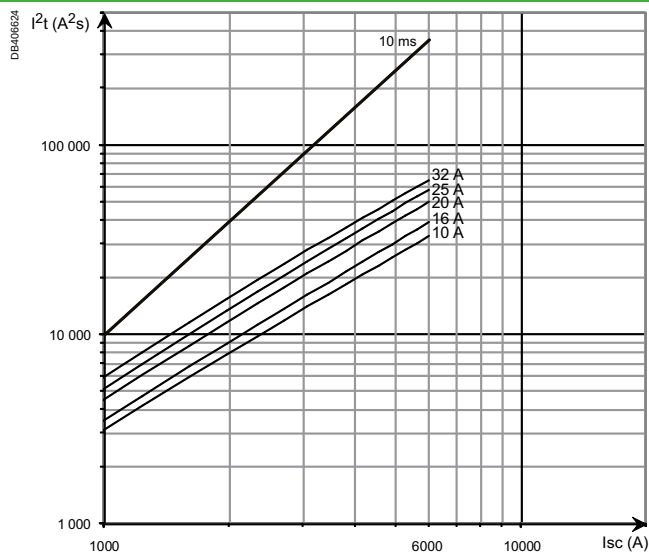


iC60 RCBO 6000 A - 3P/4P - 400 V

Energy curves



iC60 RCBO 10000 A - 2P/3P - 230 V



iC60 RCBO 6000 A - 3P/4P - 400 V

Protection
Earth leakage protection
Acti9 REDtest, REDm



REDtest 2P



REDtest 4P



REDm 4P

EN 50557 / EN 63024 (REDtest)
EN 61008-1 / EN 61008-2-1 (REDm)

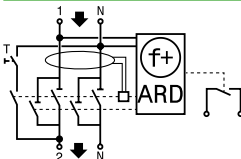
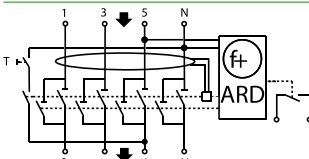
As per the above standard:

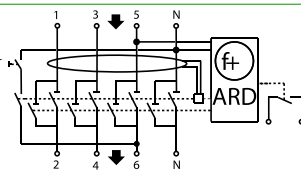
- REDtest and REDm** are residual current devices that provide :
- protection of people against direct and indirect contacts
 - protection of installations against insulation faults
 - automatic monthly test of downstream installation insulation without switching it off
 - an auxiliary contact to monitor (O/C) status remotely.

In addition, as long as the default exists, REDtest will automatically attempt to reclose after checking insulation of downstream circuit.

REDtest and REDm can only be used with TT and TN-S methods of earthing.

Catalog numbers

REDtest residual current circuit breakers					
A-SI type 				Width in mod. of 9 mm	
	2P	Sensitivity		10	
		30 mA			
		Rating 25 A	18280		
		40 A	18281		
Voltage rating (Ue)		230 V			
Frequency rating		50 Hz			
A-SI type 				Width in mod. of 9 mm	
	4P	Sensitivity		14	
		30 mA			
		Rating 40 A	A9CR6440		
		63 A	A9CR6463		
Voltage rating (Ue)		400 V			
Frequency rating		50 Hz			
		300 mA			
		Rating 40 A	A9CR7440		
			A9CR7463		

REDm residual current circuit breakers				
A-SI type 				Width in mod. of 9 mm
4P		Sensitivity		
	Rating 40 A	30 mA	300 mA	14
		A9CR8440	A9CR9440	
	Voltage rating (Ue)	400 V		
	Frequency rating	50 Hz		

Protection

Earth leakage protection

Acti9 REDtest, REDm

REDtest & REDm Coordination Table with circuit breakers and fuses

2P: $U_e \leq 220-240 \text{ V AC}$

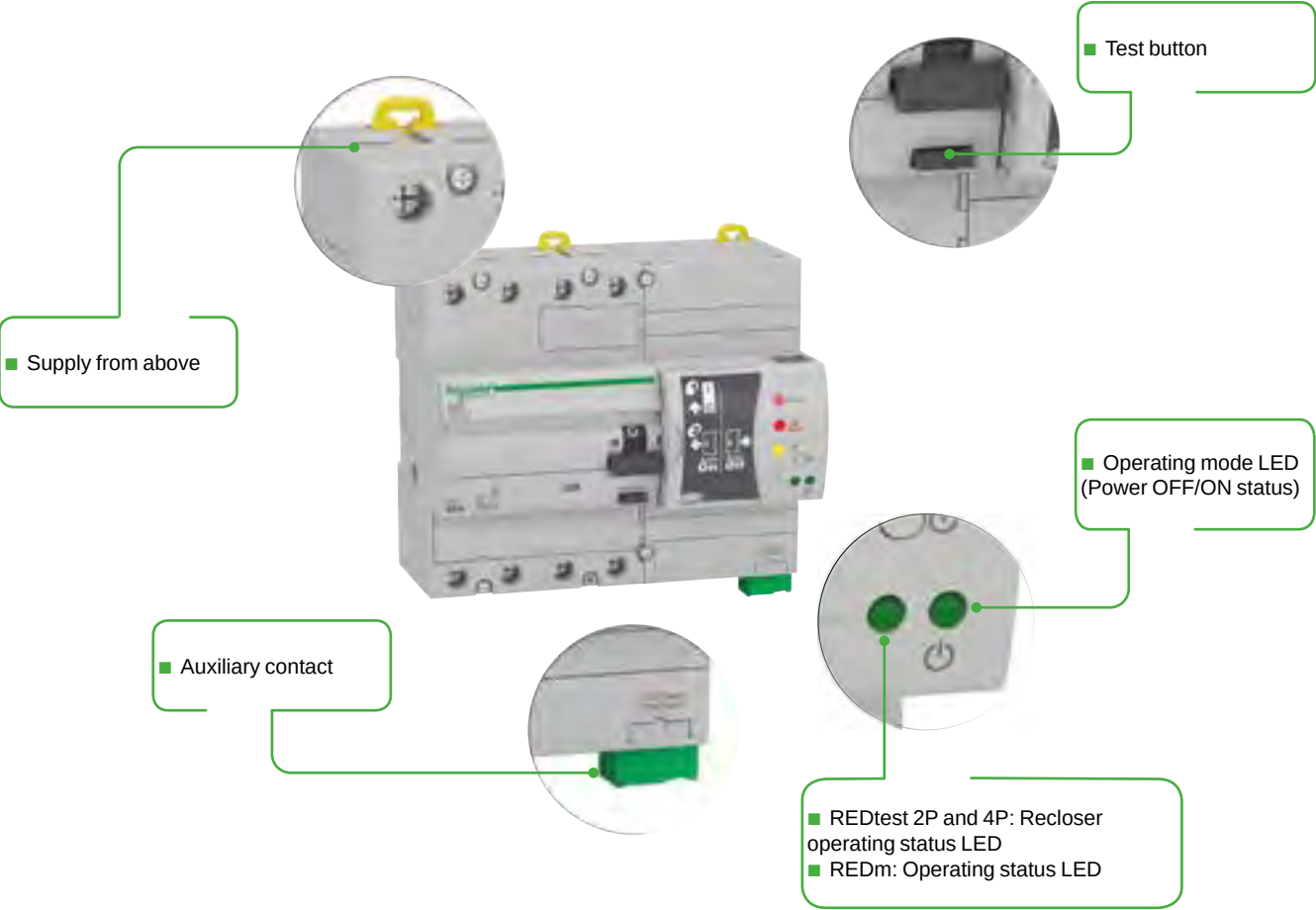
4P: $U_e \leq 415 \text{ V AC}$

Conditional short-circuit current I_{cn} (kA)

Upstream		Circuit-breakers or Fuse																	
Downstream		Fuse			iC40 / DPN	iC60N			iC60H, L			C120N, H			NG125 N,H, L				
Products	Ratings (A)	63 gG	80 gG	100 gG	≤ 40	≤ 25	40	63	≤ 25	40	63	63	80	100	25	40	63	80	100
REDtest A-SI type 2P																			
	25	10	-	-	6	10	10	10	15	10	10	10	10	10	15	10	10	10	10
	40	10	-	-	6	-	10	10	-	10	10	10	10	10	-	10	10	10	10
REDtest A-SI type 4P																			
	40	10	-	-	6	-	10	10	-	10	10	10	10	10	-	10	10	10	10
	63	10	10	10	-	-	-	10	-	-	10	10	10	10	-	-	10	10	10
REDm A-SI type 4P																			
	40	10	-	-	6	-	10	10	-	10	10	10	10	10	-	10	10	10	10

Protection
Earth leakage protection
Acti9 REDtest, REDm

REDtest 2P - REDtest - REDm 4P



Protection

Earth leakage protection

Acti9 REDtest, REDm

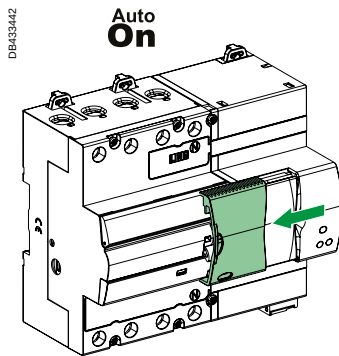


Fig. 1

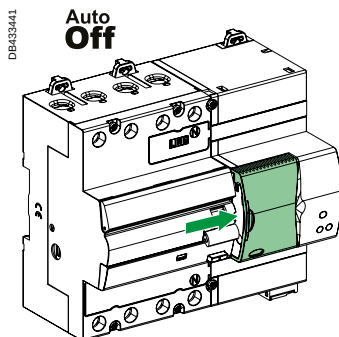


Fig. 2

Operation

REDtest and REDm are residual current circuit breakers and will trip upon detecting an earth leakage fault.

Automatic mode

REDtest and REDm are in automatic mode when the flap is in Auto On position (Fig.1).

The automatic mode allows:

- monthly test of the downstream circuit insulation
- automatic reclosing of REDtest (not REDm).

Automatic testing

When in Auto On mode, REDtest and REDm will carry out automatic tests on a monthly basis without switching off the downstream installation to ensure the continuity of service of the installation.

Automatic reclosing

When in Auto On mode, REDtest will automatically reclose after checking the insulation of the downstream circuit according to the following table:

$I\Delta n$	30 mA	300 mA
Rd	16 kΩ	5 kΩ
Rdo	8 kΩ	2.5 kΩ

If $R > R_d$ (higher threshold of insulation resistance) then REDtest recloses.

If $R < R_{do}$ (lower threshold of insulation resistance) then REDtest does not reclose.

Manual testing

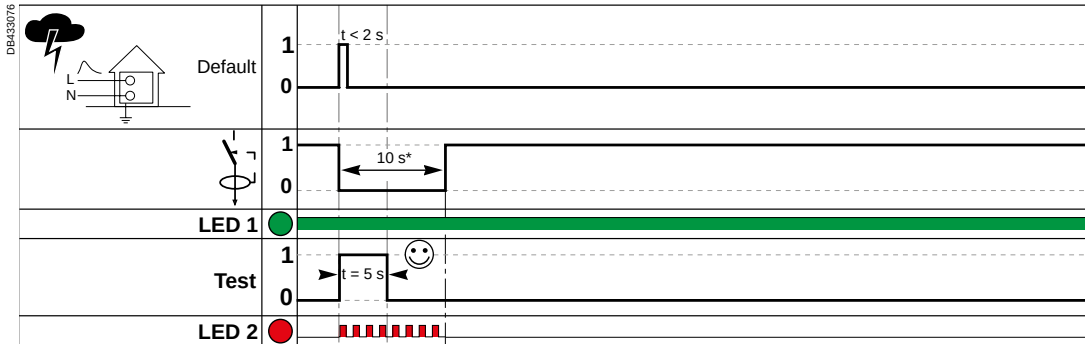
REDtest and REDm can be manually tested by pressing the test button when in the Auto Off position (Fig. 2). The downstream circuit is then powered off.

To power back the downstream circuits:

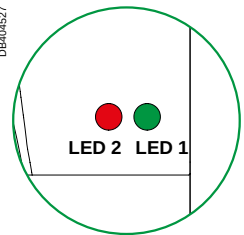
- in Auto Off position, use the O-I lever to reclose manually
- in Auto On position, REDtest (not REDm) automatically recloses.

REDtest 2P and 4P: reclosing and testing modes

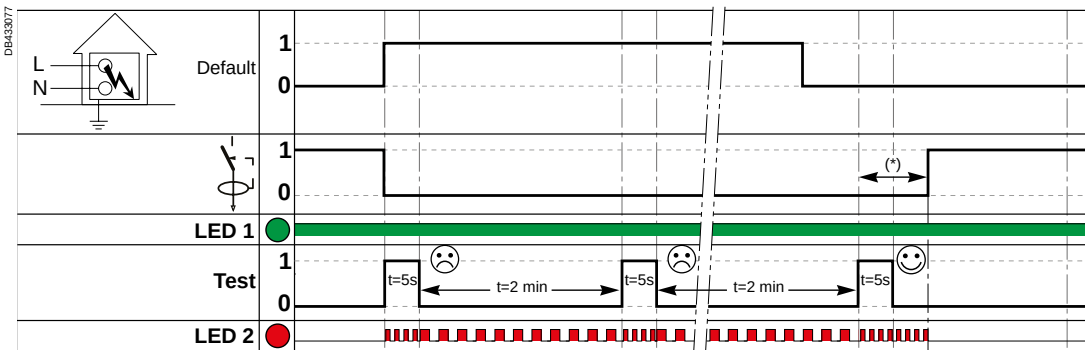
Operation ON mode: temporary network fault



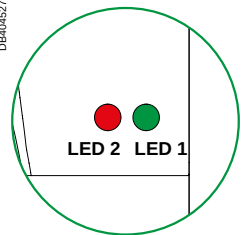
(*) Reclosing time



Operation ON mode: long network fault

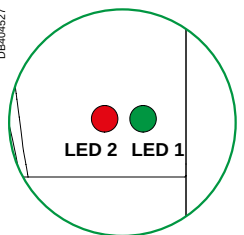
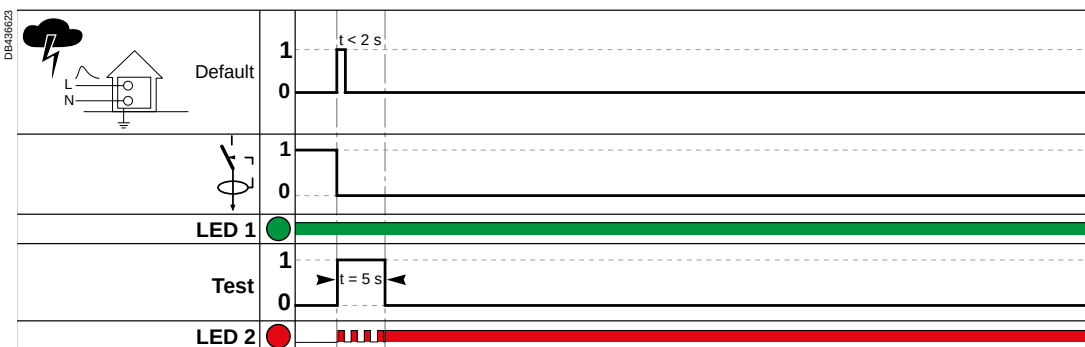


(*) Reclosing time: < 10 s

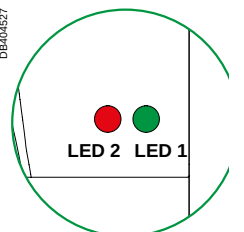
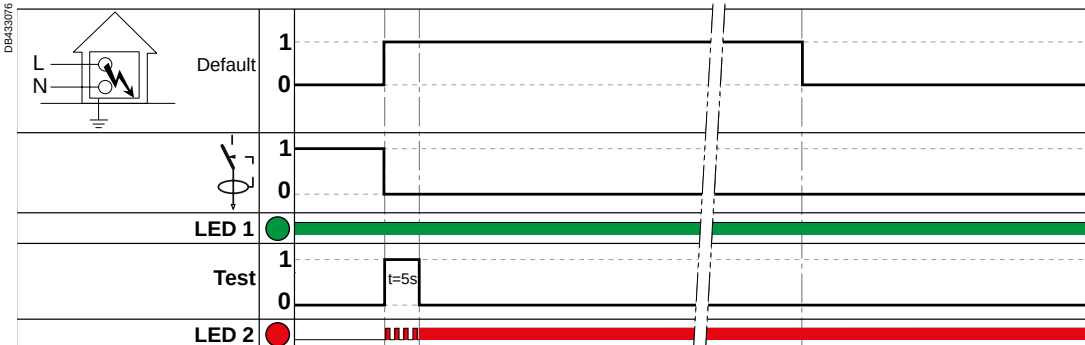


REDm: testing modes

Operation ON mode: temporary network fault



Operation ON mode: long network fault

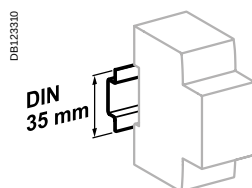


Protection

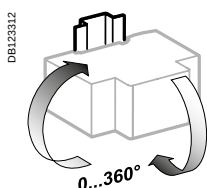
Earth leakage protection

Automatic recloser

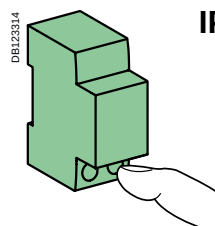
Acti9 REDtest, REDm



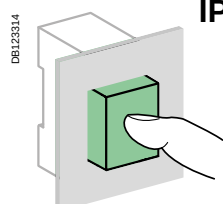
Clip on DIN rail 35 mm.



Indifferent position of installation.



IP20



IP40

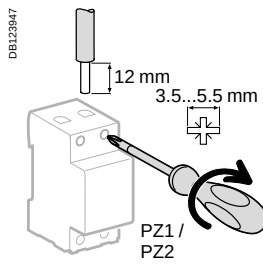
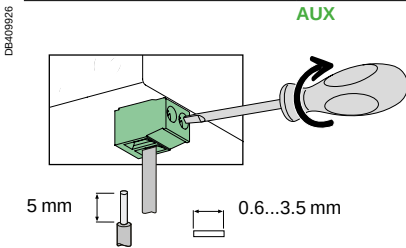
Technical data.

Main characteristics		2P	4P	
Common technical data		REDtest	REDtest	REDm
Earthing grounding systems		TT and TN-S only		
Making and breaking capacity, rated residual current (IΔm = Im)		630 A		
Impulse withstand voltage (Uimp)		4 kV		
Insulation voltage (Ui)		500 V		
8/20 μs impulse withstand without tripping		3 kÂ		
Operating temperature (max peak values)		-25°C (*) to +60°C		
Storage temperature		-40°C to +70°C		
Protection class		IP20 at terminals		
Additional characteristics				
Residual current device				
Tripping time		IΔn: ≤ 300 ms 5 IΔn: ≤ 40 ms		
Endurance (O-C)	Mechanical	4 000 cycles		
	Electrical recloser	4 000 cycles (30 operations by hour) (*)		
Fixed sensitivity releases for all ratings		Instantaneous release		
Test button min operating voltage		195 V		
Behaviour in case of voltage drop		Residual current protection down to 0 V according to IEC/EN 61008-2-1 § 3.3.4		
				
Recloser				
Reclosing time		< 10 s	-	
Maximum operational frequency		30/hour	-	
Maximum number of consecutive restart attempts (if no earth fault)		3	-	
Min interval between 2 closings		180 s	-	
Insulation fault presence monitoring		Yes	-	
Insulation fault diagnosis		If fault: stopping of the restart cycle	-	
Stopping restart cycle if insulation fault present		Yes, during 15 minutes	-	
Higher level of insulation resistance (Rd)		16 kΩ (30 mA), 5 kΩ (300 mA)	-	
Lower level of insulation resistance (Rdo)		8 kΩ (30 mA), 2.5 kΩ (300 mA)	-	
Power absorbed during automatic reclosing		41 VA (cos φ=0,5)	-	
Indication				
Status indication		Mechanical: by O-I (open-closed) 2-position lever ■ Electrical: by indicator lights on the front panel: 2 LEDs Remote: by 1 built-in auxiliary contact		
Auxiliary contact				
Voltage rating (Ue)		5...230 V AC/DC		
Insulation voltage (Ui)		350 V		
Current rating (In)		Min: 0.6 mA Max: 100 mA (cos φ=1)		
Utilization category		AC12		
Type	Configurable	NO or NC or NC + impulse		

(*): To reach 4000 operations, if conditions are below -5°C and above 10% humidity, add an appropriate heating system to your installation

Protection
Earth leakage protection
Automatic recloser
Acti9 REDtest, REDm

Connection

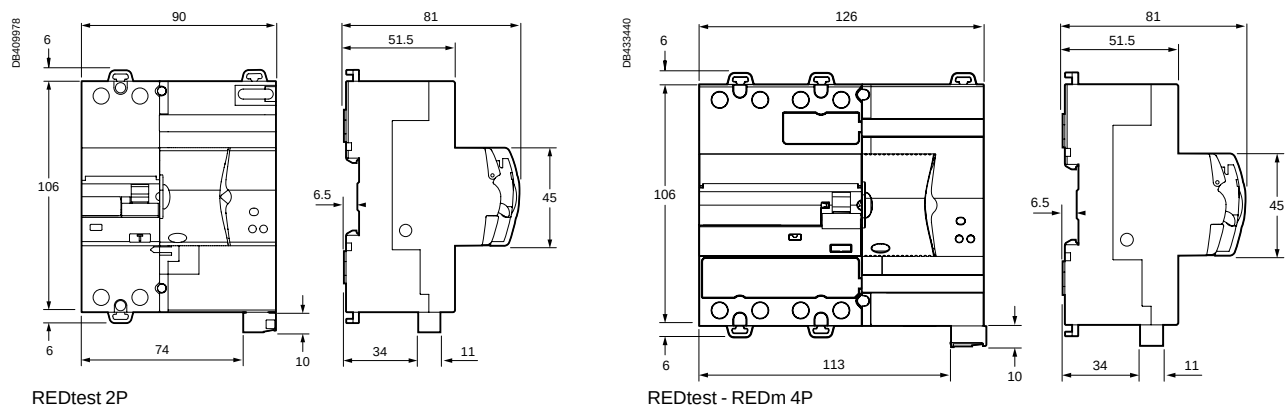
 DB123947	Type	Tightening torque	Copper cables	
			Rigid	Flexible or with ferrule
 DB409926	N, L	3 N.m	35 mm ²	35 mm ²
	AUX	0.5 N.m	2.5 mm ²	2.5 mm ²

Connection by tunnel terminal with guard

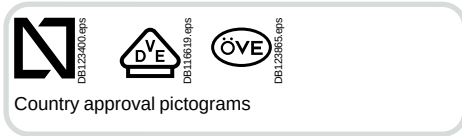
Weight (g)

Reclosers	2P	4P
REDtest	370	970
REDm	-	■ 30 mA: 955 ■ 300 mA: 985

Dimensions (mm)



Acti9 iC40N ARC Arc fault detection device



Acti9 iC40N ARC is an arc fault detection device with overload and short-circuit protection, which aims to reduce the risk of electrical fire. By continuously analysing a large number of electrical parameters, it detects the appearance of electric arcs that are responsible for starting fires.

It isolates the circuit concerned which reduces flame appearance occurrence.

The European installation standard IEC 60364-4-42 recommends the use of AFDD to protect against arc fault in final circuit:

- in locations with sleeping accommodations (e.g. hotels, nursing homes, bedrooms in homes)
- in locations with risks of fire due to high quantities of flammable materials (e.g. barns, wood-working shops, stores of combustible materials)
- in locations with combustible constructional materials (e.g., wooden buildings)
- in fire propagating structures (e.g. high rise buildings)
- in locations where irreplaceable goods are housed (e.g. museums).

More specifically, the installation of Acti9 iC40N ARC is highly recommended to protect circuits with highest risk of fire, such as:

- protruding cables (risk of knocks)
- outside cables (greater risk of deterioration)
- unprotected cables in secluded areas (like storage rooms)
- ageing, deteriorating wiring or wiring for which the connection boxes are inaccessible.

Acti9 iC40N ARC must not be installed on circuits requiring a high level of continuity of service.

Acti9 iC40N ARC is not compatible with ATEX regulations.

IEC/EN 62606
IEC/EN 60947-2
IEC/EN 60898-1

As per the above standard:

In addition to protection against overloads and short-circuits, the Acti9 iC40N ARC monitors electric arcs that occur in cables and connections and may cause a fire. These arcs are the result of localised cable deterioration or loose connections.

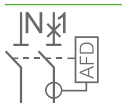
- It is used for three types of situations that can result in a fire:
 - parallel arc detection: insulation problems between two live conductors that cause a resistive short-circuit, too weak to be detected by a circuit breaker and with no earth leakage that would be detected by an earth-leakage protection device,
 - series arc detection: a damaged conductor or connection will cause a local rise in temperature,
 - overheating of electronic components in loads, when exposed to an overvoltage for several seconds.

- It combines the following functions:
 - circuit protection against overload and short-circuit currents (circuit breaker function),
 - protection against fire hazards by detection of abnormal electric arcs,
 - protection against load fire hazards due to slow overvoltages (network overvoltage),
 - fire hazard tripping indication via the front panel indicator,
 - positive contact indication (green strip),
 - tripping faults diagnosis by LED blinking in front face.

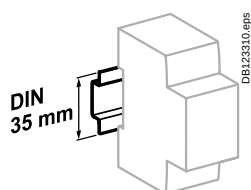
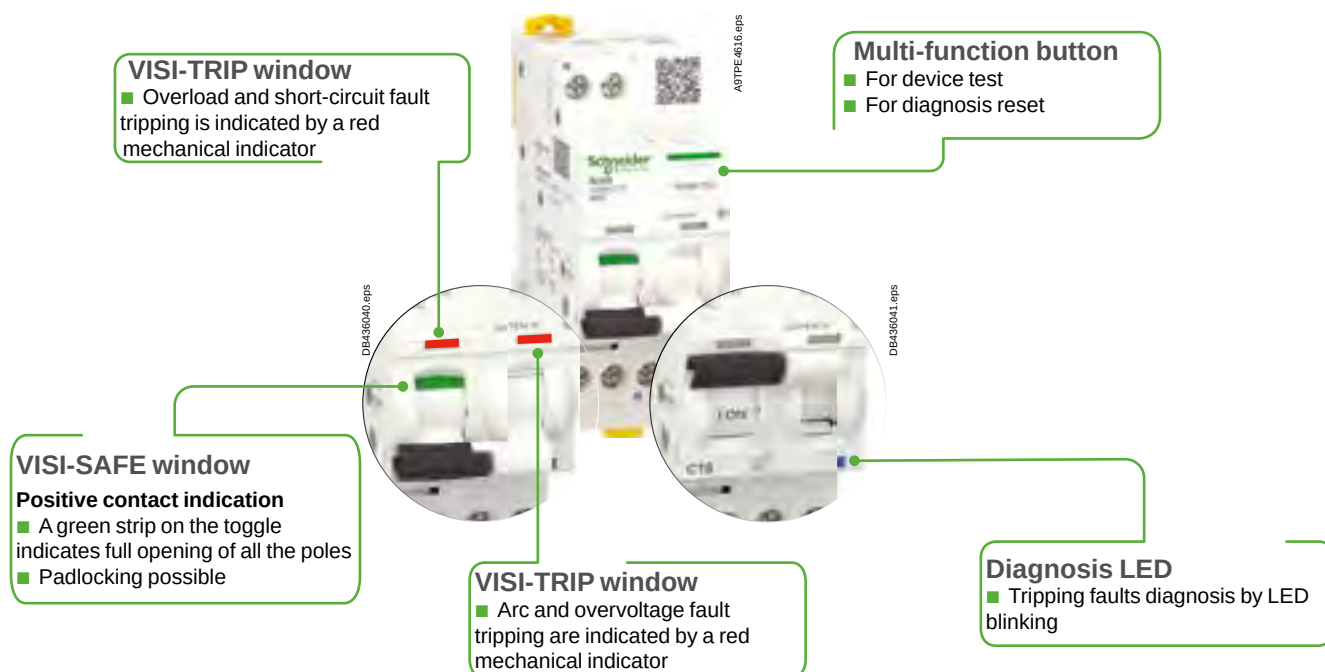
- The Acti9 iC40 ARC should be installed as the circuit's final protection device.

- Product is reverse feeding: it can be supplied either by the top or the bottom.

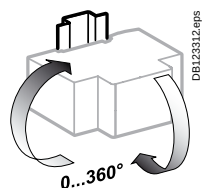
Catalog numbers

Acti9 iC40N ARC					
Arc Fault Detection Device to IEC/EN 62606					Width in 9 mm modules
1P+N		B curve		C curve	
 DB456087.015	Rating (In)	6 A	A9TPD4606	A9TPE4606	4
		10 A	A9TPD4610	A9TPE4610	
		13 A	A9TPD4613	A9TPE4613	
		16 A	A9TPD4616	A9TPE4616	
Operating voltage		230 V AC			
Operating frequency		50 Hz			

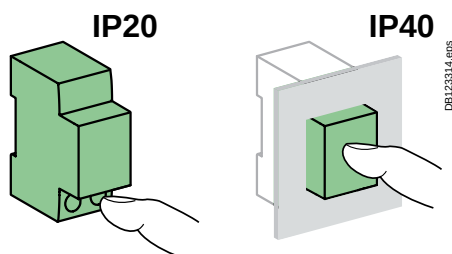
Acti9 iC40N ARC Arc fault detection device (cont.)



Clip on DIN rail 35 mm.



Indifferent position of installation.



Technical data

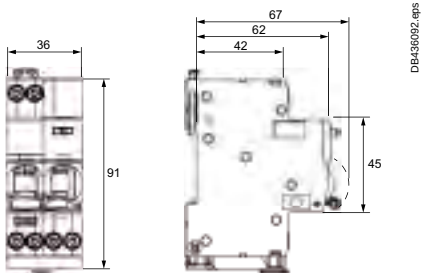
Main characteristics						
Tripping time/arc current value with Un = 230 V AC (to IEC/EN 62606)	Arc current	2.5 A	5 A	10 A	16 A	40 A
	Max. operating time	1 s	0.5 s	0.25 s	0.15 s	0.12 s
Overvoltage time limits	Voltage (V AC)	255	275	300	350	400
	Max. operating time	No tripping	15 s	5 s	0.75 s	0.20 s
	Min. non-response time		3 s	1 s	0.25 s	0.07 s
Insulation voltage (Ui)		250 V AC				
According to IEC/EN 60898						
Limitation class		3				
Rated breaking capacity (Icn)		6000 A				
Service breaking capacity (Ics)		100 % Icn				
Rated breaking and making capacity on a single pole (Icn1)		3000 A				
Magnetic tripping	B curve	3 to 5 In				
	C curve	5 to 10 In				
Operating temperature		30°C				
According to IEC/EN 60947-2						
Rated impulse withstand voltage (Uimp)		4 kV				
Breaking capacity (Icu)		10 kA				
Service breaking capacity (Ics)	≤ 25 A	75 % Icu				
	≥ 32 A	50 % Icu				
Magnetic tripping	B curve	4 In ±20 %				
	C curve	8 In ±20 %				
Operating temperature		50°C				
Degree of pollution		2				
Additional characteristics						
Degree of protection	Unit alone	IP20				
	Unit in a modular enclosure	IP40 Insulation class II				
Endurance (O-C)	Electrical	≤ 25 A	20,000 cycles			
		≥ 32 A	10,000 cycles			
	Mechanical		20,000 cycles			
Operating temperature		-25°C to +60°C				
Storage temperature		-40°C to +85°C				
Tropicalization (to IEC 62606)		Severity B (to IEC 60068-2-30) during 28 days				

Protection / Arc fault detection

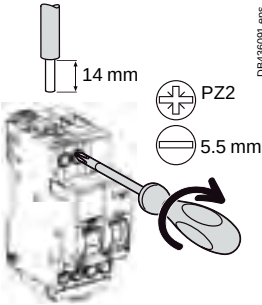
Acti9 iC40N ARC Arc fault detection device



Dimensions (mm)



Connection

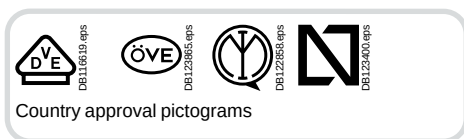


Tightening torque	Copper cables only	
	Rigid	Flexible or with ferrule
2 N.m	 DB122946_eps	 DB122946_eps
	1 x 1 to 16 mm ²	1 x 1 to 10 mm ²

Weight (g)

Arc fault detection device	
Type	Acti9 iC40N ARC
1P+N	210

Acti9 iCV40N VigiARC Arc fault detection device



Acti9 iCV40N VigiARC is an arc fault detection device with overload, short circuit and residual current protection, which aims to reduce the risk of electrical fire.

By continuously analyzing a large number of electrical parameters, it detects the appearance of electric arcs that are responsible for starting fires. It isolates the circuit concerned which reduces flame appearance occurrence.

The European installation standard IEC 60364-4-42 recommends the use of AFDD to protect against arc fault in final circuit:

- in locations with sleeping accommodations (e.g. hotels, nursing homes, bedrooms in homes)
- in locations with risks of fire due to high quantities of flammable materials (e.g. barns, wood-working shops, stores of combustible materials)
- in locations with combustible constructional materials (e.g. wooden buildings)
- in fire propagating structures (e.g. high rise buildings)
- in locations where irreplaceable goods are housed (e.g. museums).

More specifically, the installation of Acti9 iCV40N VigiARC is highly recommended to protect circuits with highest risk of fire, such as:

- protruding cables (risk of knocks)
- outside cables (greater risk of deterioration)
- unprotected cables in secluded areas (like storage rooms)
- ageing, deteriorating wiring or wiring for which the connection boxes are inaccessible.

Acti9 iCV40N VigiARC must not be installed on circuits requiring a high level of continuity of service.

Acti9 iCV40N VigiARC is not compatible with ATEX regulations.

IEC/EN 62606
IEC/EN 61009-2-1
IEC/EN 60947-2
IEC/EN 60898-1

As per the above standard:

- The Acti9 iCV40N VigiARC provides a protection for final circuits against overcurrents and insulation faults (protection for people against electric shocks).
- In addition to these protections, the Acti9 iCV40N VigiARC monitors for electric arcs that occur in cables and connections, that may cause a fire. These arcs are the result of localised cable deterioration or loose connections.

- It is used for three types of situations that can result in a fire:
 - parallel arc detection: insulation problems between two live conductors that cause a resistive short-circuit, too weak to be detected by a circuit breaker and with no earth leakage to be detected by a residual current circuit breaker,
 - series arc detection: a damaged conductor or connection will cause a local rise in temperature,
 - overheating of electronic components in loads, when exposed to an overvoltage for several seconds.

- It combines the following functions:
 - circuit protection against overload and short-circuit currents (circuit breaker function),
 - protection for people against electric shocks by direct contacts and indirect contacts (30 mA),
 - protection against fire hazards by detection of abnormal electric arcs,
 - protection against load fire hazards due to slow overvoltages (network overvoltage),
 - fire hazard tripping indication via the front panel indicator,
 - tripping faults diagnosis by LED blinking in front face.

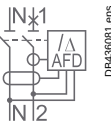
- The Acti9 iCV40N VigiARC should be installed in the place of the circuit's final protection device.

- Product is reverse feeding: it can be supplied either by the top or the bottom.

A-SI type

The A-SI type provides increased immunity from electrical interference and polluted or corrosive environments.

Catalog numbers

Acti9 iCV40N VigiARC, 30 mA, A-SI type 				
Arc Fault Detection Device to IEC/EN 62606 Residual Current Device to IEC/EN 61009-2-1 and 60947-2				Width in 9 mm modules
1P+N		B curve	C curve	
	Rating (In)	6 A	-	4
		10 A	A9TDE3610	
		13 A	A9TDE3613	
		16 A	A9TDE3616	
Operating voltage		230 V AC		
Operating frequency		50 Hz		

Acti9 iCV40N VigiARC Arc fault detection device (cont.)



VISI-TRIP window

- Overload and short-circuit fault tripping is indicated by a red mechanical indicator

VISI-SAFE window

Positive contact indication

- A green strip on the toggle indicates full opening of all the poles
- Padlocking possible

VISI-TRIP window

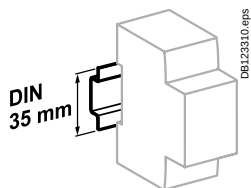
- Earth leakage, arc and overvoltage fault tripping are indicated by a red mechanical indicator

Multi-function button

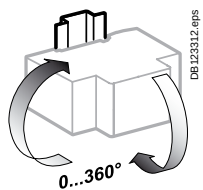
- For device test
- For diagnosis reset

Diagnosis LED

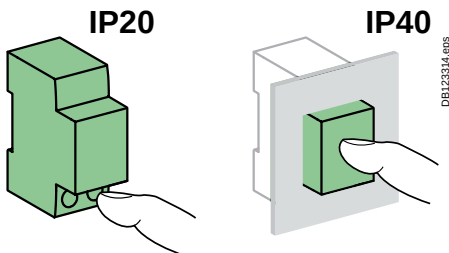
- Tripping faults diagnosis by LED blinking



Clip on DIN rail 35 mm.



Indifferent position of installation.



Technical data

Main characteristics

Tripping time/arc current value with $U_n = 230 \text{ V AC}$ (to IEC/EN 62606)	Arc current	2.5 A	5 A	10 A	16 A	40 A
Max. operating time		1 s	0.5 s	0.25 s	0.15 s	0.12 s
Overvoltage time limits	Voltage (V AC)	255	275	300	350	400
Max. operating time		No tripping	15 s	5 s	0.75 s	0.20 s
Min. non-response time			3 s	1 s	0.25 s	0.07 s

Insulation voltage (U_i) 250 V AC

According to IEC/EN 61009-2-1

Limitation class	3
Rated breaking capacity (I_{cn})	6000 A
Service breaking capacity (I_{cs})	100 % I_{cn}
Rated breaking and making capacity on a single pole (I_{cn1})	3000 A
Magnetic tripping	B curve 3 to 5 I_n C curve 5 to 10 I_n
8/20 μs impulse withstand without tripping	A-SI type 3 kA
Behaviour in case of voltage drop	Residual current protection down to 0 V according to NF/EN 61009-2-1 § 3.3.8

Operating temperature 30°C

According to IEC/EN 60947-2

Rated impulse withstand voltage (U_{imp})	4 kV
Breaking capacity (I_{cu})	10 kA
Service breaking capacity (I_{cs})	$\leq 25 \text{ A}$ 75 % I_{cu} $\geq 32 \text{ A}$ 50 % I_{cu}
Magnetic tripping	B curve 4 $I_n \pm 20 \%$ C curve 8 $I_n \pm 20 \%$
Operating temperature	50°C
Degree of pollution	2

Additional characteristics

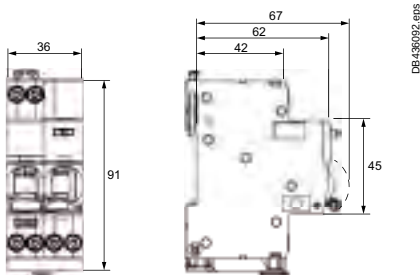
Degree of protection	Unit alone IP20 Unit in a modular enclosure IP40
Endurance (O-C)	Electrical $\leq 25 \text{ A}$ 20,000 cycles $\geq 32 \text{ A}$ 10,000 cycles Mechanical 20,000 cycles
Operating temperature	-25°C to +60°C
Storage temperature	-40°C to +85°C
Tropicalization (to IEC 62606)	Severity B (to IEC 60068-2-30) during 28 days

Protection / Arc fault detection

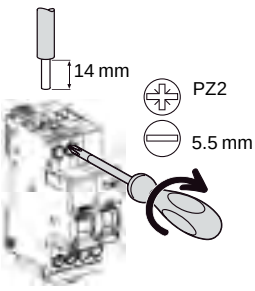
Acti9 iCV40N VigiARC Arc fault detection device



Dimensions (mm)



Connection

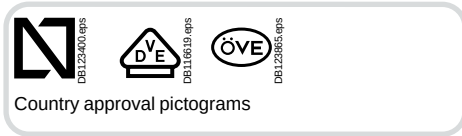


Tightening torque	Copper cables only	
	Rigid	Flexible or with ferrule
2 N.m	 DB122945.eps	 DB122946.eps
	1 x 1 to 16 mm ²	1 x 1 to 10 mm ²

Weight (g)

Arc fault detection device	
Type	Acti9 iCV40N VigiARC
1P+N	220

Acti9 iC40N ARC Active Arc fault detection device



Acti9 iC40N ARC Active is an arc fault detection device with overload and short-circuit protection, which aims to reduce the risk of electrical fire.

By continuously analysing a large number of electrical parameters, it detects the appearance of electric arcs that are responsible for starting fires.

It isolates the circuit concerned which reduces flame appearance occurrence.

The European installation standard IEC 60364-4-42 recommends the use of AFDD to protect against arc fault in final circuit:

- in locations with sleeping accommodations (e.g. hotels, nursing homes, bedrooms in homes)
- in locations with risks of fire due to high quantities of flammable materials (e.g. barns, wood-working shops, stores of combustible materials)
- in locations with combustible constructional materials (e.g., wooden buildings)
- in fire propagating structures (e.g. high rise buildings)
- in locations where irreplaceable goods are housed (e.g. museums).

More specifically, the installation of Acti9 iC40N ARC Active is highly recommended to protect circuits with highest risk of fire, such as:

- protruding cables (risk of knocks)
- outside cables (greater risk of deterioration)
- unprotected cables in secluded areas (like storage rooms)
- ageing, deteriorating wiring or wiring for which the connection boxes are inaccessible.

Acti9 iC40N ARC Active must not be installed on circuits requiring a high level of continuity of service.

Acti9 iC40N ARC Active is not compatible with ATEX regulations.

IEC/EN 62606
IEC/EN 60947-2
IEC/EN 60898-1

As per the above standard:

In addition to protection against overloads and short-circuits, the Acti9 iC40N ARC Active monitors electric arcs that occur in cables and connections and may cause a fire.

These arcs are the result of localised cable deterioration or loose connections.

- It is used for three types of situations that can result in a fire:
 - parallel arc detection: insulation problems between two live conductors that cause a resistive short-circuit, too weak to be detected by a circuit breaker and with no earth leakage that would be detected by an earth-leakage protection device,
 - series arc detection: a damaged conductor or connection will cause a local rise in temperature,
 - overheating of electronic components in loads, when exposed to an overvoltage for several seconds.

- It combines the following functions:

- circuit protection against overload and short-circuit currents (circuit breaker function),
- protection against fire hazards by detection of abnormal electric arcs,
- protection against load fire hazards due to slow overvoltages (network overvoltage),
- fire hazard tripping indication via the front panel indicator,
- positive contact indication (green strip),
- tripping faults diagnosis by LED blinking in front face.

- The Acti9 iC40 ARC should be installed as the circuit's final protection device.

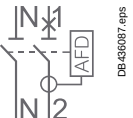
- Product is reverse feeding: it can be supplied either by the top or the bottom.

Wireless-communication device

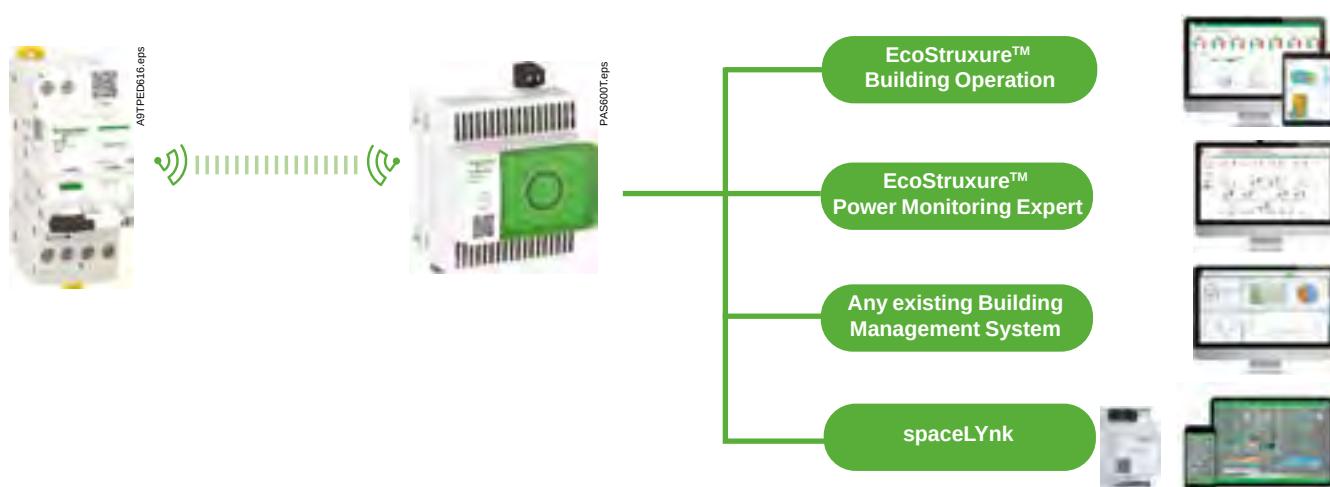
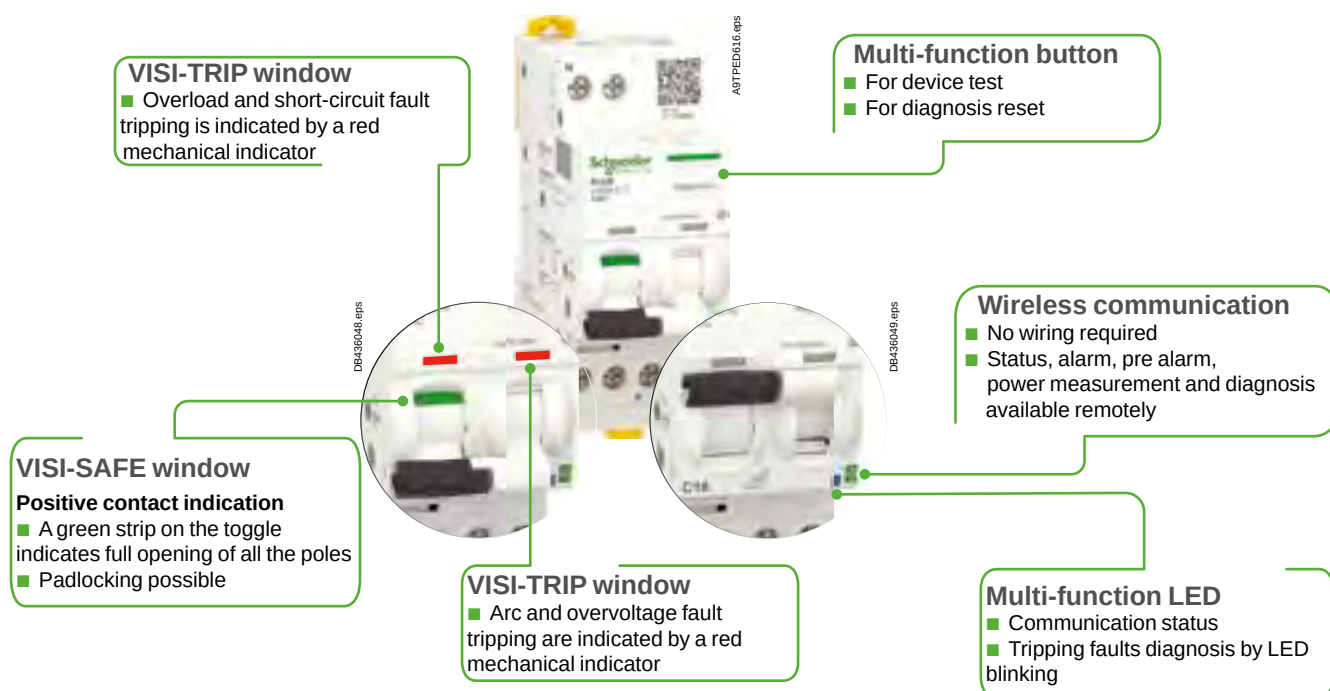
- Used together with a concentrator or a gateway to collect and process the data, Acti9 iC40N ARC Active AFDD provides circuit monitoring and diagnosis down to load level.
- Wireless-communication technology simplifies switchboard wiring and commissioning operations: no wiring is required for the Acti9 iC40N ARC Active AFDD to communicate with the concentrator or the gateway.

Catalog numbers

Acti9 iC40N ARC Active

Arc Fault Detection Device to IEC/EN 62606					Width in 9 mm modules
1P+N			B curve	C curve	
	Rating (In)	10 A	A9TPDD610	A9TPED610	4
		13 A	A9TPDD613	A9TPED613	
		16 A	A9TPDD616	A9TPED616	
Operating voltage		230 V AC			
Operating frequency		50 Hz			

Acti9 iC40N ARC Active Arc fault detection device



Acti9 Active „All-in-One“ overview of available data:

- Device status (open/close/trip).
- Diagnostics: Reason for tripping (short-circuit, overload, serial arc, parallel arc, overvoltage).
- Customizable Pre-alarming (overload, overvoltage).
- Measurement: U, I, P, Power Factor, internal temperature, time of use.
- Protection log (date of 1st operation ON, date of last push on test button, number & reasons for tripping).

Associated concentrators / gateways

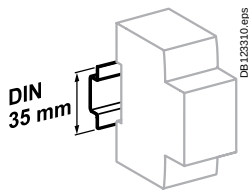


EcoStruxure Panel Server

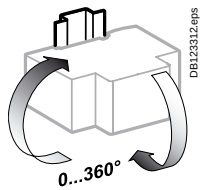


Entry	100-227VACDC	PAS400
	24VDC	PAS600L
Universal	100-240VACDC	PAS600T
	POE	PAS600P
	24DC	PAS800L
	POE	PAS800P
Advanced	100-277VACDC	PAS800

Acti9 iC40N ARC Active arc fault detection device

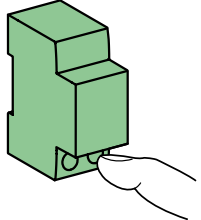


Clip on DIN rail 35 mm.

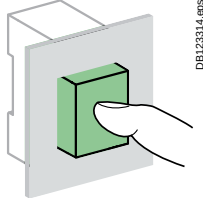


Indifferent position of installation.

IP20



IP40



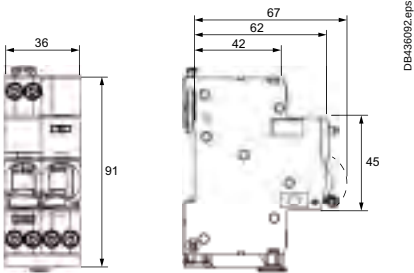
Technical data

Main characteristics						
Tripping time/arc current value with Un = 230 V AC (to IEC/EN 62606)	Arc current	2.5 A	5 A	10 A	16 A	40 A
	Max. operating time	1 s	0.5 s	0.25 s	0.15 s	0.12 s
Overvoltage time limits	Voltage (V AC)	255	275	300	350	400
	Max. operating time	No tripping	15 s	5 s	0.75 s	0.20 s
	Min. non-response time		3 s	1 s	0.25 s	0.07 s
Insulation voltage (Ui)		250 V AC				
Starting current	Ist	100 mA				
According to IEC/EN 60898						
Limitation class		3				
Rated breaking capacity (Icn)		6000 A				
Service breaking capacity (Ics)		100 % Icn				
Rated breaking and making capacity on a single pole (Icn1)		3000 A				
Magnetic tripping	B curve	3 to 5 In				
	C curve	5 to 10 In				
Operating temperature		30°C				
According to IEC/EN 60947-2						
Rated impulse withstand voltage (Uimp)		4 kV				
Breaking capacity (Icu)		10 kA				
Service breaking capacity (Ics)	≤ 25 A	75 % Icu				
	≥ 32 A	50 % Icu				
Magnetic tripping	B curve	4 In ±20 %				
	C curve	8 In ±20 %				
Operating temperature		50°C				
Degree of pollution		2				
Radio-frequency communication						
ISM band 2.4 GHz		2.4 GHz to 2.4835 GHz				
Channels	As per IEEE 802.15.4	11 to 26				
Isotropic Radiated Power	Equivalent (EIRP)	0 dBm				
Maximum transmission time		< 5 ms				
Channel occupancy	Messages sent every	5 seconds minimum				
Additional characteristics						
Degree of protection	Unit alone	IP20				
	Unit in a modular enclosure	IP40 Insulation class II				
Endurance (O-C)	Electrical ≤ 25 A	20,000 cycles				
	≥ 32 A	10,000 cycles				
	Mechanical	20,000 cycles				
Operating temperature		-25°C to +60°C				
Storage temperature		-40°C to +85°C				
Tropicalization (to IEC 62606)		Severity B (to IEC 60068-2-30) during 28 days				

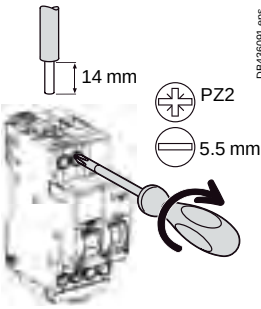
Acti9 iC40N ARC Active Arc fault detection device



Dimensions (mm)



Connection

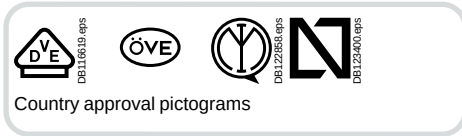


Tightening torque	Copper cables only	
	Rigid	Flexible or with ferrule
2 N.m	 DB122945.eps	 DB122946.eps
	1 x 1 to 16 mm ²	1 x 1 to 10 mm ²

Weight (g)

Arc fault detection device	
Type	Acti9 iC40N ARC Active
1P+N	210

Acti9 iCV40N VigiARC Active Arc fault detection device



Acti9 iCV40N VigiARC Active is an arc fault detection device with overload, short circuit and residual current protection, which aims to reduce the risk of electrical fire.

By continuously analyzing a large number of electrical parameters, it detects the appearance of electric arcs that are responsible for starting fires. It isolates the circuit concerned which reduces flame appearance occurrence.

The European installation standard IEC 60364-4-42 recommends the use of AFDD to protect against arc fault in final circuit:

- in locations with sleeping accommodations (e.g. hotels, nursing homes, bedrooms in homes)
- in locations with risks of fire due to high quantities of flammable materials (e.g. barns, wood-working shops, stores of combustible materials)
- in locations with combustible constructional materials (e.g. wooden buildings)
- in fire propagating structures (e.g. high rise buildings)
- in locations where irreplaceable goods are housed (e.g. museums).

More specifically, the installation of Acti9 iCV40N VigiARC Active is highly recommended to protect circuits with highest risk of fire, such as:

- protruding cables (risk of knocks)
- outside cables (greater risk of deterioration)
- unprotected cables in secluded areas (like storage rooms)
- ageing, deteriorating wiring or wiring for which the connection boxes are inaccessible.

Acti9 iCV40N VigiARC Active must not be installed on circuits requiring a high level of continuity of service.

Acti9 iCV40N VigiARC Active is not compatible with ATEX regulations.

IEC/EN 62606
IEC/EN 61009-2-1
IEC/EN 60947-2
IEC/EN 60898-1

As per the above standard:

- The Acti9 iCV40N VigiARC Active provides a protection for final circuits against overcurrents and insulation faults (protection for people against electric shocks).
- In addition to these protections, the Acti9 iCV40N VigiARC Active monitors for electric arcs that occur in cables and connections, that may cause a fire. These arcs are the result of localised cable deterioration or loose connections.

- It is used for three types of situations that can result in a fire:
 - parallel arc detection: insulation problems between two live conductors that cause a resistive short-circuit, too weak to be detected by a circuit breaker and with no earth leakage to be detected by a residual current circuit breaker,
 - series arc detection: a damaged conductor or connection will cause a local rise in temperature,
 - overheating of electronic components in loads, when exposed to an overvoltage for several seconds.

- It combines the following functions:
 - circuit protection against overload and short-circuit currents (circuit breaker function),
 - protection for people against electric shocks by direct contacts and indirect contacts (30 mA),
 - protection against fire hazards by detection of abnormal electric arcs,
 - protection against load fire hazards due to slow overvoltages (network overvoltage),
 - fire hazard tripping indication via the front panel indicator,
 - tripping faults diagnosis by LED blinking in front face.

- The Acti9 iCV40N VigiARC Active should be installed in the place of the circuit's final protection device.

- Product is reverse feeding: it can be supplied either by the top or the bottom.

A-SI type

The A-SI type provides increased immunity from electrical interference and polluted or corrosive environments.

Wireless-communication device

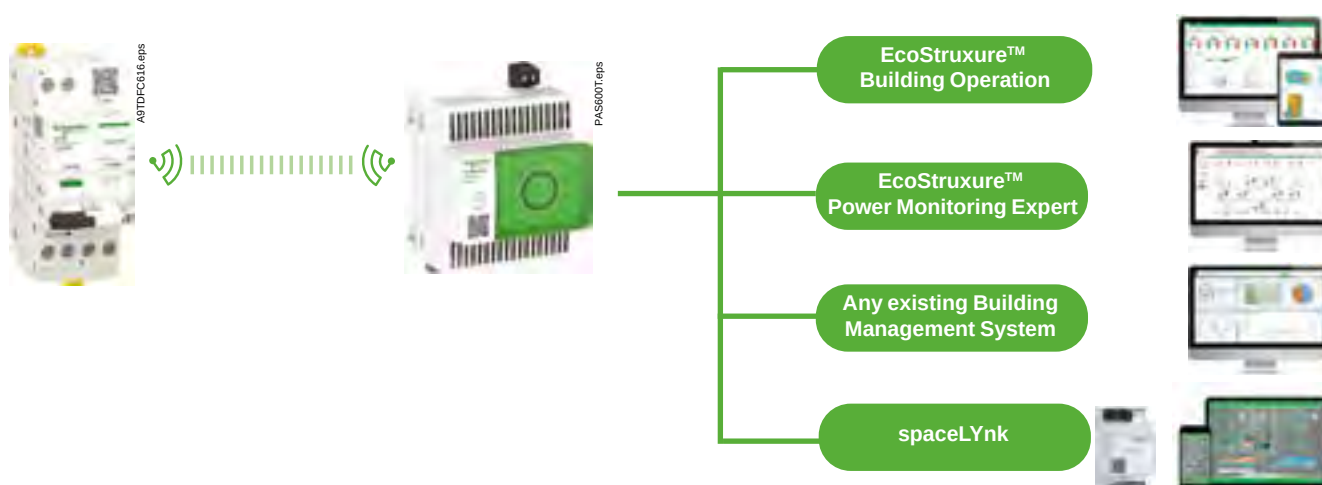
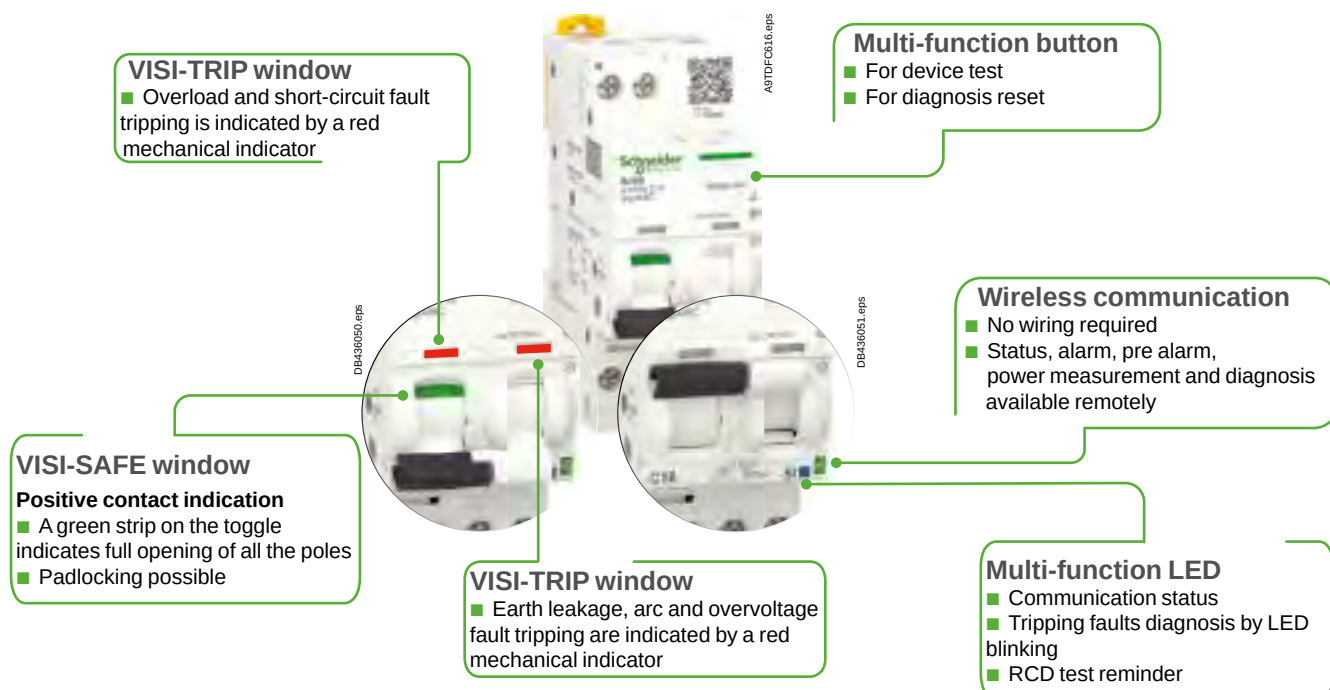
- Used together with a concentrator or a gateway to collect and process the data, Acti9 iCV40N VigiARC Active AFDD provides circuit monitoring and diagnosis down to load level.
- Wireless-communication technology simplifies switchboard wiring and commissioning operations: no wiring is required for the Acti9 iCV40N VigiARC Active AFDD to communicate with the concentrator or the gateway.

Catalog numbers

Acti9 iCV40N VigiARC Active, 30 mA, A-SI type

Arc Fault Detection Device to IEC/EN 62606 Residual Current Device to IEC/EN 61009-2-1 and 60947-2				Width in 9 mm modules
1P+N	B curve	C curve		
	Rating 6 A	-	A9TDFC606	4
	10 A	A9TDEC610	A9TDFC610	
	13 A	A9TDEC613	A9TDFC613	
	16 A	A9TDEC616	A9TDFC616	
Operating voltage	230 V AC			
Operating frequency	50 Hz			

Acti9 iCV40N VigiARC Active Arc fault detection device



Acti9 Active „All-in-One“ overview of available data:

- Device status (open/close/trip).
- Diagnostics: Reason for tripping (short-circuit, overload, earth leakage fault, serial arc, parallel arc, overvoltage).
- Customizable Pre-alarming (overload, earth leakage fault, overvoltage).
- Measurement: U, I, P, Power Factor, earth leakage %, internal temperature, time of use.
- Protection log (date of 1st operation ON, date of last push on test button, number & reasons for tripping).
- RCD test reminder.

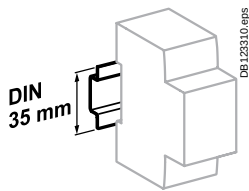
Associated concentrators / gateways

EcoStruxure Panel Server

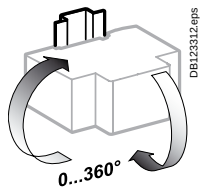


Entry	100-227VACDC	PAS400
Universal	24VDC	PAS600L
	100-240VACDC	PAS600T
	POE	PAS600P
Advanced	24DC	PAS800L
	POE	PAS800P
	100-277VACDC	PAS800

Acti9 iCV40N VigiARC Active Arc fault detection device

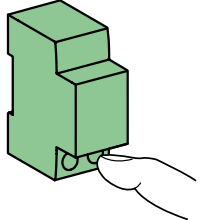


Clip on DIN rail 35 mm.

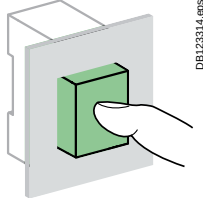


Indifferent position of installation.

IP20



IP40



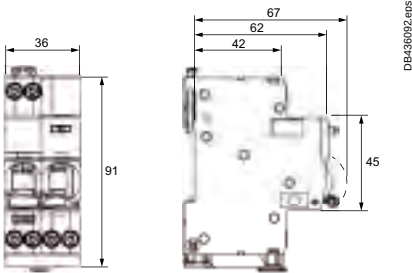
Technical data

Main characteristics						
Tripping time/arc current value with Un = 230 V AC (to IEC/EN 62606)	Arc current	2.5 A	5 A	10 A	16 A	40 A
	Max. operating time	1 s	0.5 s	0.25 s	0.15 s	0.12 s
Overvoltage time limits	Voltage (V AC)	255	275	300	350	400
	Max. operating time	No tripping	15 s	5 s	0.75 s	0.20 s
	Min. non-response time		3 s	1 s	0.25 s	0.07 s
Insulation voltage (Ui)		250 V AC				
Starting current Ist		100 mA				
According to IEC/EN 61009-2-1						
Limitation class		3				
Rated breaking capacity (Icn)		6000 A				
Service breaking capacity (Ics)		100 % Icn				
Rated breaking and making capacity on a single pole (Icn1)		3000 A				
Magnetic tripping	B curve	3 to 5 In				
	C curve	5 to 10 In				
8/20 µs impulse withstand without tripping	A-SI type	3 kA				
Behaviour in case of voltage drop		Residual current protection down to 0 V according to NF/EN 61009-2-1 § 3.3.8				
Operating temperature		30°C				
According to IEC/EN 60947-2						
Rated impulse withstand voltage (Uimp)		4 kV				
Breaking capacity (Icu)		10 kA				
Service breaking capacity (Ics)	≤ 25 A	75 % Icu				
	≥ 32 A	50 % Icu				
Magnetic tripping	B curve	4 In ±20 %				
	C curve	8 In ±20 %				
Operating temperature		50°C				
Degree of pollution		2				
Radio-frequency communication						
ISM band 2.4 GHz		2.4 GHz to 2.4835 GHz				
Channels	As per IEEE 802.15.4	11 to 26				
Isotropic Radiated Power	Equivalent (EIRP)	0 dBm				
Maximum transmission time		< 5 ms				
Channel occupancy	Messages sent every	5 seconds minimum				
Additional characteristics						
Degree of protection	Unit alone	IP20				
	Unit in a modular enclosure	IP40 Insulation class II				
Endurance (O-C)	Electrical ≤ 25 A	20,000 cycles				
	≥ 32 A	10,000 cycles				
Operating temperature	Mechanical	20,000 cycles				
		-25°C to +60°C				
Storage temperature		-40°C to +85°C				
Tropicalization (to IEC 62606)		Severity B (to IEC 60068-2-30) during 28 days				

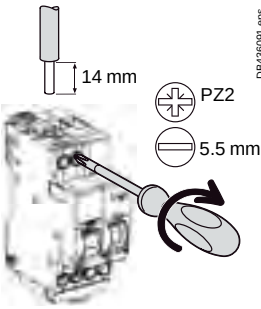
Acti9 iCV40N VigiARC Active Arc fault detection device



Dimensions (mm)



Connection



Tightening torque	Copper cables only	
	Rigid	Flexible or with ferrule
2 N.m	 DB122945.eps	 DB122946.eps
	1 x 1 to 16 mm ²	1 x 1 to 10 mm ²

Weight (g)

Arc fault detection device	
Type	Acti9 iCV40N VigiARC Active
1P+N	220

Protection

Load protection

iPRF1 12.5r/PRD1 35r/PRD1 25r/PRD1 Master Type 1 and 2 LV surge arresters

The Type 1 range of surge arresters meets the normative withstand capability of current wave type 10/350 μ s (8/20 μ s for Type 2 surge arresters).

It is suitable for use with TT, TN-S, TN-C and IT earthing connection systems (neutral point connection).

In addition, the PRD1 35r surge arrester covers the 400 V IT system.

iPRF1 12.5r and PRD1 surge arresters are fitted with a remote transfer contact to send "end-of-life indication" information.

PRD1 surge arresters are fitted with easy-to-replace withdrawable cartridges.

iPRF1 12.5r/PRD1 35r/PRD1 25r/PRD1 Master

The Type 1 surge arrester is recommended for electrical installations in the service sector and industrial buildings protected by a lightning conductor or by a meshed cage.

It protects electrical installations against direct lightning strikes.

It is used to conduct the direct lightning current, propagating from the earth conductor to the network conductors.

It must be installed with an upstream disconnection device, such as a fuse or circuit-breaker, whose breaking capacity must be at least equal to the maximum prospective short-circuit current at the installation point.

iPRF1 12.5r and PRD1 25r surge arresters also provide Type 2 protection and protect the electrical installation by finely clipping the lightning wave overvoltages.

PB104275-35-b



iPRF1 12.5r (3P+N)

DB408470



PRD1 35r (1P)

PB104260-35

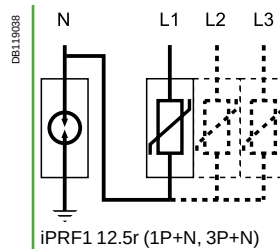


PRD1 25r (3P+N)

PB104264-35

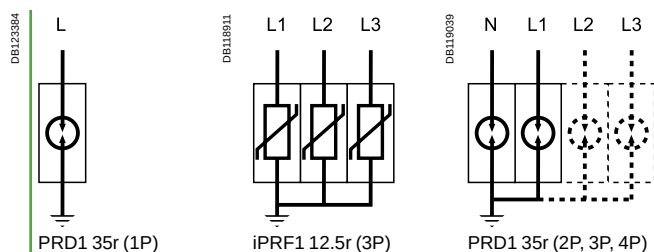


PRD1 Master (3P+N)

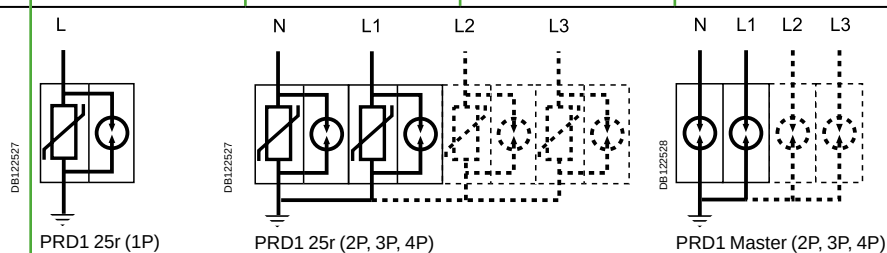


Type	Product solution	
Fixed surge arrester	1P+N	3P+N
	iPRF1 12.5r T1, T2	A9L16632 A9L16634
Cartridge surge arrester	PRD1 25r (1P+N, 3P+N)	
	1P+N	3P+N
	PRD1 25r T1 + T2	16330 16332
	PRD1 Master T1	16361 16363
PRD1 35r T1	PRD1 Master (1P+N, 3P+N)	
	1P+N	3P+N
	PRD1 35r T1	

iPRF1 12.5r/PRD1 35r/PRD1 25r/PRD1 Master Type 1 and 2 LV surge arresters (cont.)



	1P	2P	3P	4P	Earthing system	Recommended accessory
					TT, TN-S	
			A9L16633		TN-C	



	1P	2P	3P	4P		
					TT, TN-S	
	16329	2 x 16329		4 x 16329	TT, TN-C	
			16331		TN-C	
					TT, TN-S	
	16360	2 x 16360		4 x 16360	TT, TN-C	
			16362		TN-C	
		2 x 16649			IT distributed neutral, TT, TN-S	16643
	16649		3 x 16649		IT non-distributed neutral, TN-C	16644
				4 x 16649	IT distributed neutral	16645

iPRF1 12.5r/PRD1 35r/PRD1 25r/PRD1 Master

Type 1 and 2 LV surge arresters (cont.)

Type	Nb. of poles	Width	I imp (kA) (10/350) Impulse current	I max (kA) (8/20) Maximum discharge current	In - kA Nominal discharge current	Up - kV Voltage protection level	Un - (V) Rated voltage network	Uc - V Maximum continuous operating voltage	Cat. no.
Fixed surge arrester		9 mm modules						(L-N)/(N-PE)	
iPRF1 12.5r Type 1 + 2									
	1P+N	4	12.5 (L-N)/50 (N-PE)	50	25	≤ 1.5	230	350/255	A9L16632
	3P	8	12.5	50	25	≤ 1.5	230/400	350	A9L16633
	3P+N	8	12.5 (L-N)/50 (N-PE)	50	25	≤ 1.5	230/400	350/255	A9L16634
Withdrawable surge arrester									
PRD1 25r Type 1 + 2									
	1P	4	25	40	25	≤ 1.5	230	350	16329
	1P+N	8	25 (L-N)/100 (N-PE)	40	25	≤ 1.5	230	350/350	16330
	3P	12	25	40	25	≤ 1.5	230/400	350	16331
	3P+N	16	25 (L-N)/100 (N-PE)	40	25	≤ 1.5	230/400	350/350	16332
PRD1 Master Type 1									
	1P	4	25	50	25	≤ 1.5	230	350	16360
	1P+N	8	25 (L-N)/100 (N-PE)	50	25	≤ 1.5/2.5	230	350/350	16361
	3P	12	25	50	25	≤ 1.5	230/400	350	16362
	3P+N	16	25 (L-N)/100 (N-PE)	50	25	≤ 1.5/2.5	230/400	350/350	16363
PRD1 35r Type 1									
	1P	4	35	50	35	≤ 2.5	400/690 (TN) 400 (IT)	440	16649
Spare cartridge									
C1 Master-350	-	4	-	-	25	≤ 1.5	-	350	16314
C1 25-350	-	23 mm	-	-	25	≤ 1.5	-	350	16315
C2 40-350	-	12 mm	-	-	20	≤ 1.5	-	350	16316
C1 Neutral-350	-	4	-	-	-	-	-	350	16317
C1 35-440	-	4	-	-	35	≤ 2.5	-	440	16318

PE104268-30



C1 Neutral-350

DB123370



Surge arresters	Spare cartridge		
	Phase		Neutral
	Type 1	Type 2	
PRD1 25r			
PRD1 25r 1P	16315	16316	-
PRD1 25r 1P+N	16315	16316	16317
PRD1 25r 3P	3 x 16315	3 x 16316	-
PRD1 25r 3P+N	3 x 16315	3 x 16316	16317
PRD1 Master			
PRD1 Master 1P	16314	-	-
PRD1 Master 1P+N	16314	-	16317
PRD1 Master 3P	3 x 16314	-	-
PRD1 Master 3P+N	3 x 16314	-	16317
PRD1 35r			
PRD1 35r 1P	1 x 16318	-	-
PRD1 35r 2P	2 x 16318	-	-
PRD1 35r 3P	3 x 16318	-	-
PRD1 35r 4P	4 x 16318	-	-

Accessories		
Type	Number of poles (18 mm)	
Wiring comb busbars for 2 x 1P	4	16643
Wiring comb busbars for 3 x 1P	6	16644
Wiring comb busbars for 4 x 1P	8	16645
200 mm flexible cable	-	16646

iPRF1 12.5r/PRD1 35r/PRD1 25r/PRD1 Master Type 1 and 2 LV surge arresters (cont.)

Technical data

		iPRF1 12.5r	PRD1 35r	PRD1 25r	PRD1 Master
Operating frequency		50 Hz	50/60 Hz	50 Hz	50 Hz
Degree of protection	Front panel	IP40	IP40	IP40	IP40
	Terminals	IP20	IP20	IP20	IP20
	Impacts	IK05	IK05	IK05	IK05
Response time		≤ 25 ns	≤ 100 ns	≤ 25 ns	≤ 100 ns
Short circuit withstand (I _{sc})		50 kA	50 kA	25 kA	50 kA
Temporary overvoltage withstand (U _T)	U _T (L-N)	335 V AC/5 s	580 V AC/5 s	415 V AC/5 s	415 V AC/5 s
	U _T (N-PE)	1200 V AC/200 ms	800 V AC/120 min	1200 V AC/200 ms	1200 V AC/200 ms
Temporary overvoltage Safe failure mode (U _T)	U _T (L-N)	440 V AC/120 min	1640 V AC/200 ms	440 V AC/120 min	440 V AC/120 min
Ground residual current (I _{PE})	I _{PE} (N-PE)	0.004 mA	≤ 0.005 mA	≤ 0.01 mA for 1P+N, 3P+N	≤ 0.01 mA for 1P+N, 3P+N
Follow current interrupting rating (I _P)	I _h (L-N)	-	50 kA	25 kA/264 V AC 3 kA/350 V AC	50 kA
	I _h (N-PE)	100 A	-	100 A	100 A
End-of-life indication		Green: correct operation Red: at end of life	White: correct operation Red: at end of life	White: correct operation Red: at end of life	White: correct operation Red: at end of life
	Remote notification	1.5 A/250 V AC	1 A/250 V AC ≤ 1 A/30 V DC	1 A/250 V AC ≤ 1 A/30 V DC	1 A/250 V AC ≤ 1 A/30 V DC
By tunnel terminal	Rigid cable	10...35 mm ²	16...35 mm ²	10...35 mm ²	10...35 mm ²
	Flexible cable	10...25 mm ²	10...25 mm ²	10...25 mm ²	10...25 mm ²
Operating temperature		-25°C to +60°C	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C
Humidity range		5 % to 95 %	5 % to 95 %	5 % to 95 %	5 % to 95 %
Standards		IEC 61643-11: 2011 <u>T1</u> , <u>T2</u> EN 61643-11: 2012 Type 1 + Type 2	IEC 61643-11 <u>T1</u> EN 61643-11 Type 1	IEC 61643-11: 2011 <u>T1</u> , <u>T2</u> EN 61643-11: 2012 Type 1 + Type 2	IEC 61643-11: 2011 <u>T1</u> EN 61643-11: 2012 Type 1
Approvals		CE, EAC	CE	CE, KEMA-KEUR	CE, KEMA-KEUR

Choice of disconnector / surge arrester

Type	I imp: impulse current	Isc: prospective short-circuit current at the installation point				
		10 kA		15 kA	25 kA	36 kA
						50 kA
iPRF1 12.5r	12.5 kA	C120N 80 A curve C or Compact NSX100B 100 A *	C120H 80 A curve C or Compact NSX100B 100 A *	NG125N 80 A curve C or Compact NSX100B 100 A *	NG125H 80 A curve C or Compact NSX100F 100 A *	NG125L 80 A curve C or Compact NSX100N 100 A *
PRD1 35r	35 kA	Compact NSX160B 160 A			Compact NSX160F 160 A	Compact NSX160N 160 A
PRD1 25r	25 kA	Compact NSX100B 100 A			-	
PRD1 Master	25 kA	Compact NSX100B 100 A			Compact NSX100F 100 A	Compact NSX100N 100 A

(*) For lightning impulse current withstand

PRD1 25r / PRD1 Master / PRD1 35r Reversible

■ The surge arrester base can be turned over to allow the phase/neutral/earth cables to enter through either the top or the bottom



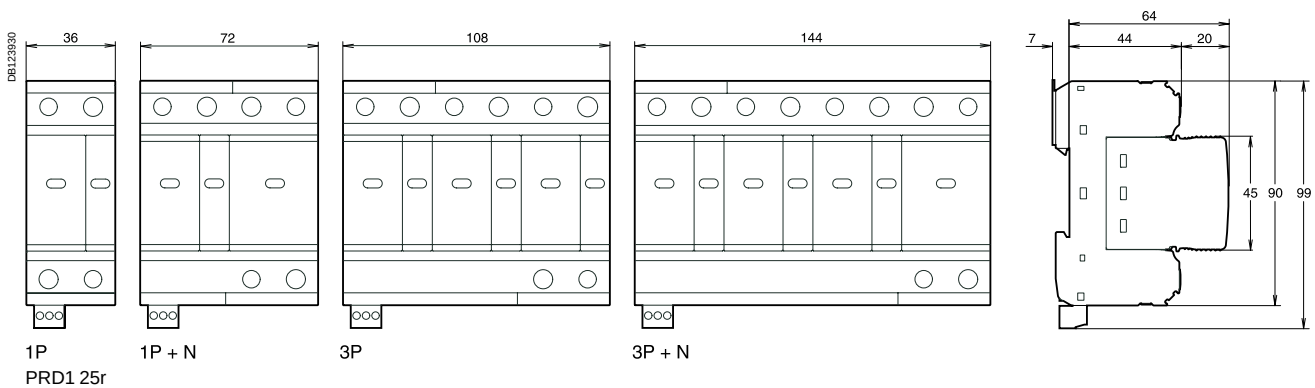
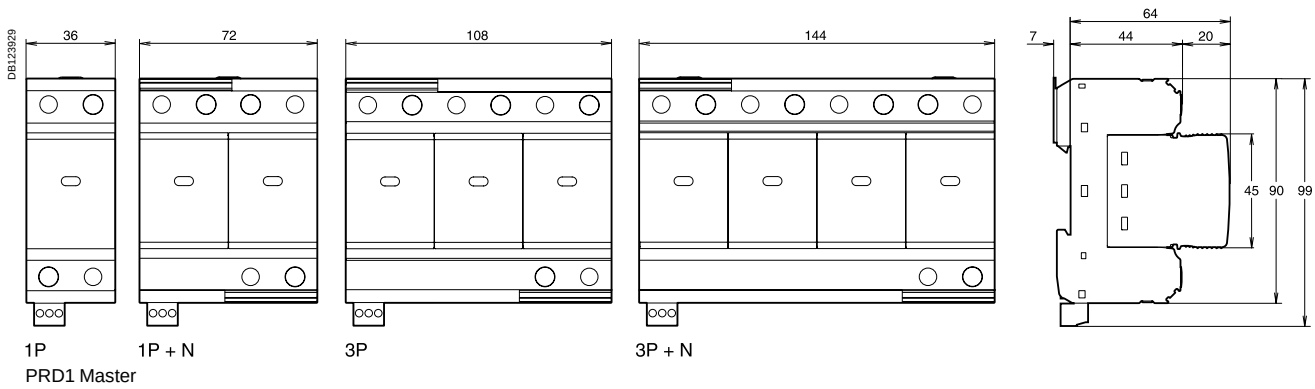
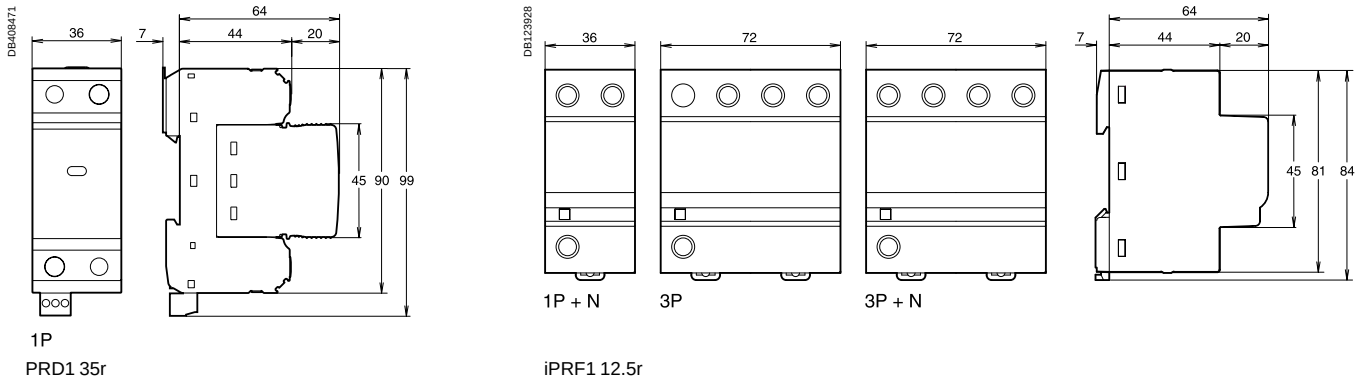
Protection

Load protection

iPRF1 12.5r/PRD1 35r/PRD1 25r/PRD1 Master

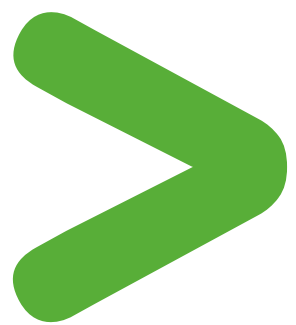
Type 1 and 2 LV surge arresters (cont.)

Dimensions (mm)



Weight (g)

Surge arresters				
Type	iPRF1 12,5r	PRD1 35r	PRD1 25r	PRD1 Master
1P	-	401	334	394
1P+N	290	-	725	774
3P	590	-	1010	1175
3P+N	590	-	1338	1535
Cartridge	Neutral	-	229	229
	Phase	245	-	242



Protection

Load protection

iPF surge arresters

Type 2 or 3 LV surge arresters

The iPF multi-pole single-piece surge arrester range is adapted for earthing systems: TT, TN-S, TN-C.

Type 2 surge arresters are tested with a 8/20 μ s current wave.

Type 3 surge arresters are tested with a 12/50 μ s and 8/20 μ s combined wave.

Each surge arrester in the range has a specific application:

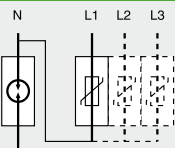
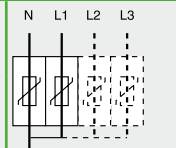
■ **incoming protection (type 2):**

- the iPF65(r) is recommended for a very high risk level (strongly exposed site)
- the iPF40(r) is recommended for a high risk level
- the iPF20 is recommended for a medium risk level

■ **secondary protection (type 2 or 3):**

- the iPF8 ensures secondary protection of loads to be protected and is placed in cascade with the incoming surge arresters. This surge arrester is required when the loads to be protected are at a distance of more than 10 m from the incoming surge arrester.

The iPF surge arresters with "r" indication have remote transfer of the information: "surge arrester to be replaced".

Rated discharge current (I _{max}) / Nominal discharge current (I _n)	Type of protection		Network							
										
	Incoming	Secondary (type 2 or 3)	1P+N	3P+N	1P	2P	3P	4P		
65 kA / 20 kA										
Very high risk level	iPF65				A9L15683					
			A9L15684			A9L15584				
							A9L15581			
				A9L15685						
				A9L15586						
									A9L15585	
40 kA / 15 kA										
High risk level	iPF40				A9L15686					
			A9L15687			A9L15587				
							A9L15582			
				A9L15690						
				A9L15688						
									A9L15590	
							A9L15588			
20 kA / 5 kA										
Medium risk level	iPF20				A9L15691					
			A9L15692			A9L15592				
							A9L15597			
				A9L15693					A9L15593	
8 kA / 2.5 kA										
Secondary protection: placed near the loads to be protected when they are at a distance of more than 10 m from the incoming surge arrester		iPF8								

Surge arrester/circuit breaker association

Type of surge arrester	Associated circuit breaker
iPF65	Curve C 50 A
iPF40	Curve C 40 A
iPF20	Curve C 25 A
iPF8	Curve C 20 A

Protection

Load protection

iPF surge arresters

Type 2 or 3 LV surge arresters (cont.)

	Earthing system	Transfer	Surge arrester name	Width in mod. of 9 mm	Up - (kV) Voltage protection level			Un - (V) Rated voltage network	Uc - (V) Maximum continuous operating voltage		
					CM*		DM*		CM*		DM*
					L/⊥	N/⊥	L/N			L/⊥	N/⊥
iPF65											
	TT & TN		iPF65 1P	2	≤ 1.5	-	-	230	340	-	-
	TT & TN-S		iPF65 1P+N	4	-	≤ 1.5	≤ 1.5		-	260	340
	TN-C		iPF65 2P	8	≤ 1.5	≤ 1.5	-		340	340	-
	TN-C		iPF65 3P		≤ 1.5	-	-	230/400	340	-	-
	TT & TN-S	■	iPF65r 3P+N		-	≤ 1.5	≤ 1.5		-	260	340
	TT & TN-S		iPF65 3P+N		-	≤ 1.5	≤ 1.5		-	260	340
	TN-C	■	iPF65r 4P		≤ 1.5	≤ 1.5	-		340	340	-
iPF40											
	TT & TN		iPF40 1P	2	≤ 1.5	-	-	230	340	-	-
	TT & TN-S		iPF40 1P+N	4	-	≤ 1.5	≤ 1.5		-	260	340
	TN-C		iPF40 2P	8	≤ 1.5	≤ 1.5	-		340	340	-
	TN-C		iPF40 3P		≤ 1.5	-	-	230/400	340	-	-
	TT & TN-S	■	iPF40r 3P+N		-	≤ 1.5	≤ 1.5		-	260	340
	TT & TN-S		iPF40 3P+N		-	≤ 1.5	≤ 1.5		-	260	340
	TN-C	■	iPF40r 4P		≤ 1.5	≤ 1.5	-		340	340	-
	TN-C		iPF40 4P		≤ 1.5	≤ 1.5	-	340	340	-	
iPF20											
	TT & TN		iPF20 1P	2	≤ 1.1	-	-	230	340	-	-
	TT & TN-S		iPF20 1P+N	4	-	≤ 1.5	≤ 1.1		-	260	340
	TN-C		iPF20 2P	8	≤ 1.1	≤ 1.1	-		340	340	-
	TN-C		iPF20 3P		≤ 1.1	-	-	230/400	340	-	-
	TT & TN-S		iPF20 3P+N		-	≤ 1.5	≤ 1.1		-	260	340
	TN-C		iPF20 4P		≤ 1.1	≤ 1.1	-		340	340	-
iPF8 (1) Type 2 / Type 3											
	TT & TN		iPF8 1P	2	≤ 1 / ≤ 1.1	-	-	230	340	-	-
	TT & TN-S		iPF8 1P+N	4	-	≤ 1.5 / ≤ 1.2	≤ 1 / ≤ 1.1		-	260	340
	TN-C		iPF8 2P	8	≤ 1 / ≤ 1.1	≤ 1 / ≤ 1.1	-		340	340	-
	TN-C		iPF8 3P		≤ 1 / ≤ 1.1	-	-	230/400	340	-	-
	TT & TN-S		iPF8 3P+N		-	≤ 1.5 / ≤ 1.2	≤ 1 / ≤ 1.1		-	260	340
	TN-C		iPF8 4P		≤ 1 / ≤ 1.1	≤ 1 / ≤ 1.1	-		340	340	-

* **CM**: common mode (phase to earth and neutral to earth). * **DM**: differential mode (phase to neutral). **(1) Uoc**: combined waveform voltage: 10 kV.

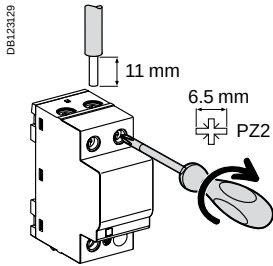
Protection

Load protection

iPF surge arresters

Type 2 or 3 LV surge arresters (cont.)

Connection



Type	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
iPF	3.5 N.m	DB122945 	DB122946
		25 mm ² max.	16 mm ² max.

Technical data

Main characteristics

Operating frequency		50/60 Hz
Operating voltage (Ue)		230/400 V AC
Permanent operating current (Ic)		< 1 mA
Response time		< 25 ns
End of life indication: by green/red indicator light	Green	In operation
	Red	At end of life
End of life remote indication		By contact NO, NC 250 V / 0.25 A

Additional characteristics

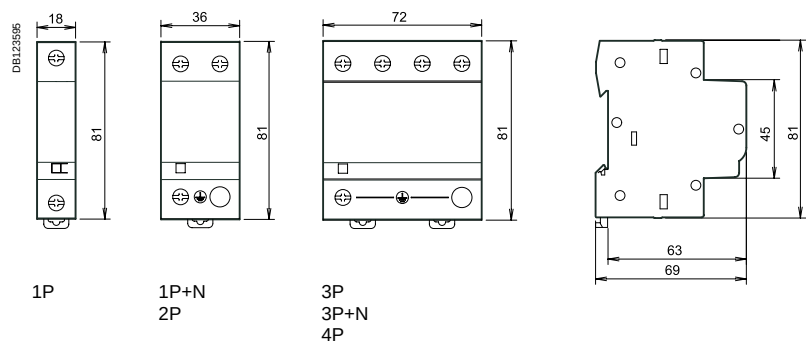
Operating temperature	-25°C to +60°C
Type of connection terminals	Tunnel terminals, 2.5 to 35 mm ²
Standards	IEC 61643-1 <u>T2</u> and EN 61643-11 Type 2

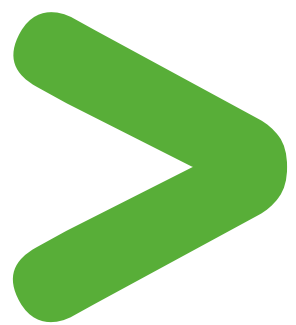
Weight (g)

Surge arrester

Type	iPF
1P	125
2P	210
3P	335
4P	420

Dimensions (mm)





Protection

Load protection

iPRD surge arresters

Type 2 or 3 LV withdrawable surge arresters



Country approval pictograms

iPRD withdrawable surge arresters allow quick replacement of damaged cartridges.

Type 2 surge arresters are tested with a 8/20 μ s current wave.

Type 3 surge arresters are tested with a 1.2/50 μ s and 8/20 μ s combined wave.

Each surge arrester in the range has a specific application:

■ **incoming protection (type 2):**

- the iPRD65r is recommended for a very high risk level (strongly exposed site)
- the iPRD40(r) is recommended for a high risk level
- the iPRD20(r) is recommended for a medium risk level

■ **secondary protection (type 2 or 3):**

- the iPRD8(r) ensures secondary protection of loads to be protected and is placed in cascade with the incoming surge arresters. This surge arrester is required when the loads to be protected are at a distance of more than 10 m from the incoming surge arrester.

The iPRD surge arresters with "r" indication have remote transfer of the information: "cartridge to be replaced".

Catalogue number iPRD surge arresters

Rated discharge current (Imax)	Nominal discharge current (In)	Type of protection		Network						
		Incoming	Secondary	DB122942	DB122943					
				1P+N	3P+N	1P	2P	3P	4P	
iPRD65										
65 kA Very high risk level (strongly exposed site)	20 kA	iPRD65				A9L65101				
						A9L65121				
				A9L65501			A9L65201			
							A9L65301			
							A9L65321			
					A9L65601					A9L65401
iPRD40										
40 kA High risk level	15 kA	iPRD40				A9L40101				
						A9L40100				
				A9L40501						
				A9L40500						
						A9L40201				
						A9L40200				
							A9L40301			
							A9L40321			
							A9L40300			
					A9L40601					
					A9L40600					
						A9L40401				
						A9L40421				
						A9L40400				
iPRD20										
20 kA Medium risk level	5 kA	iPRD20				A9L20100				
				A9L20501						
				A9L20500						
						A9L20200				
							A9L20300			
							A9L20321			
					A9L20601					
					A9L20600					
						A9L20400				
						A9L20421				
iPRD8										
8 kA Secondary protection: placed near the loads to be protected when they are at a distance of more than 10 m from the incoming surge arrester	2.5 kA	iPRD8				A9L08100				
				A9L08501						
				A9L08500						
						A9L08200				
							A9L08300			
							A9L08321			
					A9L08601					
					A9L08600					
						A9L08400				
						A9L08421				

PB110274-35



2P

PB110280-35



4P

Protection

Load protection

iPRD surge arresters

Type 2 or 3 LV withdrawable surge arresters (cont.)



Cartridge

Spare cartridges iPRD

Type	Spare cartridges for	Cat. no
iPRD 65-350	iPRD65r	A9L65102
iPRD 40-350	iPRD40r, iPRD40r	A9L40102
iPRD 20-350	iPRD20r, iPRD20r	A9L20102
iPRD 8-350	iPRD8r, iPRD8r	A9L08102
iPRD Neutral	All products (1P+N, 3P+N)	A9L00002

Spare cartridges iPRD IT

Type	Spare cartridges for	Cat. no
C 65-460	iPRD65r IT	A9L65122
C 40-460	iPRD40r IT	A9L40122
C 20-460	iPRD20r IT	A9L20122
C 8-460	iPRD8r IT	A9L08122

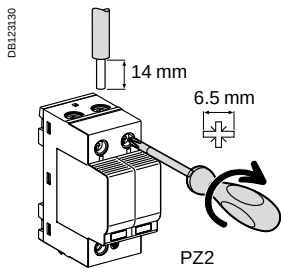
	Earthing system	Transfer	Surge arrester name	Width in mod. of 9 mm	Up - (kV) Voltage protection level			Un - (V) Rated voltage network	Uc - (V) Maximum continuous operating voltage		
					CM*	DM*			CM*	DM*	
					L/±	N/±	L/N		L/±	N/±	L/N
iPRD65											
A9L65101	TT & TN	■	iPRD65r 1P	2	≤ 1.5	-	-	230	350	-	-
A9L65121	IT	■	iPRD65r 1P IT		≤ 2.3	-	-		460	-	-
A9L65501	TT & TN-S	■	iPRD65r 1P+N	4	-	≤ 1.4	≤ 1.5		-	260	350
A9L65201	TN-C-S	■	iPRD65r 2P		≤ 1.5	≤ 1.5	-		350	350	-
A9L65301	TN-C	■	iPRD65r 3P	6	≤ 1.5	-	-	230/400	350	-	-
A9L65321	IT	■	iPRD65r 3P IT		≤ 2.3	-	-		460	-	-
A9L65601	TT & TN-S	■	iPRD65r 3P+N	8	-	≤ 1.4	≤ 1.5		-	260	350
A9L65401	TN-C-S	■	iPRD65r 4P		≤ 1.5	≤ 1.5	-		350	350	-
iPRD40											
A9L40101	TT & TN	■	iPRD40r 1P	2	≤ 1.6	-	-	230	350	-	-
A9L40100	TT & TN		iPRD40 1P		≤ 1.6	-	-		350	-	-
A9L40501	TT & TN-S	■	iPRD40r 1P+N	4	-	≤ 1.4	≤ 1.6		-	260	350
A9L40500	TT & TN-S		iPRD40 1P+N		-	≤ 1.4	≤ 1.6		-	260	350
A9L40201	TN-C-S	■	iPRD40r 2P		≤ 1.6	≤ 1.6	-		350	350	-
A9L40200	TN-C-S		iPRD40 2P		≤ 1.6	≤ 1.6	-		350	350	-
A9L40301	TN-C	■	iPRD40r 3P	6	≤ 1.6	-	-	230/400	350	-	-
A9L40321	IT	■	iPRD40r 3P IT		≤ 2.2	-	-		460	-	-
A9L40300	TN-C		iPRD40 3P		≤ 1.6	-	-		350	-	-
A9L40601	TT & TN-S	■	iPRD40r 3P+N	8	-	≤ 1.4	≤ 1.6		-	260	350
A9L40600	TT & TN-S		iPRD40 3P+N		-	≤ 1.4	≤ 1.6		-	260	350
A9L40401	TN-C-S	■	iPRD40r 4P		≤ 1.6	≤ 1.6	-		350	350	-
A9L40421	IT	■	iPRD40r 4P IT		≤ 2.2	≤ 2.2	-		460	-	-
A9L40400	TN-C-S		iPRD40 4P		≤ 1.6	≤ 1.6	-		350	350	-
iPRD20											
A9L20100	TT & TN		iPRD20 1P	2	≤ 1.2	-	-	230	350	-	-
A9L20501	TT & TN-S	■	iPRD20r 1P+N	4	-	≤ 1.4	≤ 1.2		-	260	350
A9L20500	TT & TN-S		iPRD20 1P+N		-	≤ 1.4	≤ 1.2		-	260	350
A9L20200	TN-C-S		iPRD20 2P		≤ 1.2	≤ 1.2	-		350	350	-
A9L20300	TN-C		iPRD20 3P	6	≤ 1.2	-	-	230/400	350	-	-
A9L20321	IT	■	iPRD20r 3P IT		≤ 1.8	-	-		460	-	-
A9L20601	TT & TN-S	■	iPRD20r 3P+N	8	-	≤ 1.4	≤ 1.2		-	260	350
A9L20600	TT & TN-S		iPRD20 3P+N		-	≤ 1.4	≤ 1.2		-	260	350
A9L20400	TN-C-S		iPRD20 4P		≤ 1.2	≤ 1.2	-		350	350	-
A9L20421	IT	■	iPRD20r 4P IT		≤ 1.8	≤ 1.8	-		460	-	-
iPRD8 (1)											
Type 2 / Type 3 (1)											
A9L08100	TT & TN		iPRD8 1P	2	≤ 1.2	-	-	230	350	-	-
A9L08501	TT & TN-S	■	iPRD8r 1P+N	4	-	≤ 1.4	≤ 1.2		-	260	350
A9L08500	TT & TN-S		iPRD8 1P+N		-	≤ 1.4	≤ 1.2		-	260	350
A9L08200	TN-C-S		iPRD8 2P		≤ 1.2	≤ 1.2	-		350	350	-
A9L08300	TN-C		iPRD8 3P	6	≤ 1.2	-	-	230/400	350	-	-
A9L08321	IT	■	iPRD8r 3P IT		≤ 1.6 / ≤ 1.8	-	-		460	-	-
A9L08601	TT & TN-S	■	iPRD8r 3P+N	8	-	≤ 1.4	≤ 1.2		-	260	350
A9L08600	TT & TN-S		iPRD8 3P+N		-	≤ 1.4	≤ 1.2		-	260	350
A9L08400	TN-C-S		iPRD8 4P		≤ 1.2	≤ 1.2	-		350	350	-
A9L08421	IT	■	iPRD8r 4P IT		≤ 1.6 / ≤ 1.8	≤ 1.6 / ≤ 1.8	-		460	-	-

* **CM**: common mode (phase to earth and neutral to earth). * **DM**: differential mode (phase to neutral). (1) **Uoc**: combined waveform voltage: 10 kV.

iPRD surge arresters

Type 2 or 3 LV withdrawable surge arresters

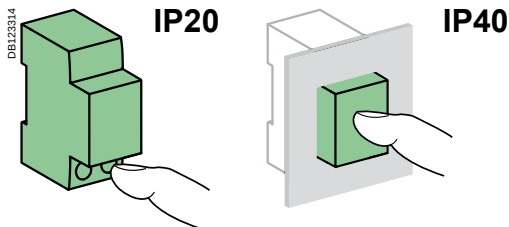
Connection iPRD surge arresters



Type	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
iPRD	3.5 N.m	2.5 to 25 mm ²	4 to 16 mm ²

Technical data iPRD surge arresters

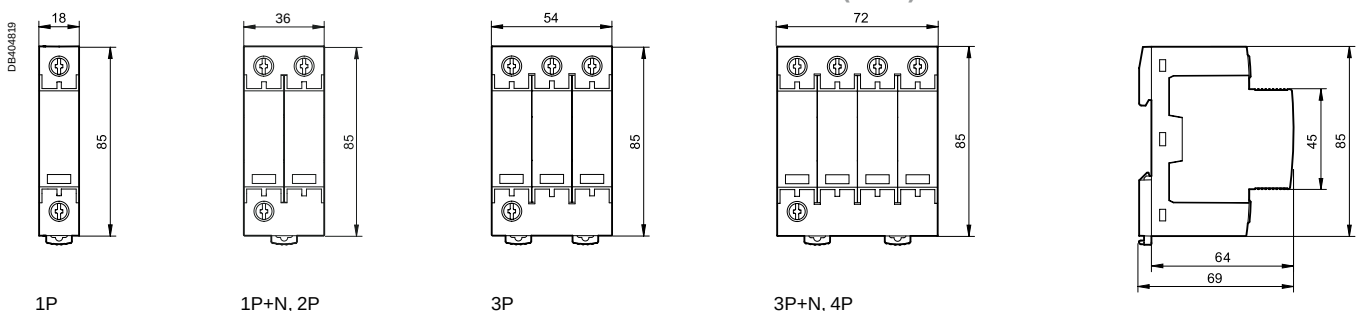
Main characteristics		iPRD	iPRD IT
Operating frequency		50/60 Hz	
Operating voltage (U _e)		230/400 V AC ±10 %	
Permanent operating current (I _c)		< 1 mA	
Response time		< 25 ns	
Short circuit current rating (I _{sc})		50 kA (50 Hz)	-
Short circuit current rating (I _{sc}), case of double fault		-	5 kA (50 Hz)
Temporary overvoltage withstand (U _T)	U _T (L-N)	337 V AC / 5 s	337 V AC / 5 s
	U _T (L-PE)	442 V AC / 120 min	-
Temporary overvoltage	U _T (N-PE)	1200 V AC / 200 ms	1455 V AC / 200 ms
Safe failure mode (U _T)	U _T (L-PE)	1455 V AC / 200 ms	1455 V AC / 200 ms
Ground residual current (I _{PE})	I _{PE} (L-PE)	600 µA for 1P, 2P, 3P, 4P	
	I _{PE} (N-PE)	3 µA for 1P+N, 3P+N	-
Satisfactory operation indication:	White	In operation	
by mechanical indicator	Red	Cartridge must be replaced	
Remote indication of satisfactory operation		By contact NO, NC 250 V / 0.25 A	
Additional characteristics			
Degree of protection (IEC 60529)	Device only	IP20 (built-in)	
	Device in modular enclosure	IP40	
Operating temperature		-25°C to +60°C	
Storage temperature		-40°C to +85°C	
Humidity range		5 % to 95 %	
Type of connection terminals		Tunnel terminals, 2.5 to 35 mm ²	
Standards		IEC 61643-11: 2011 T2 , T3 and EN 61643-11: 2012 Type 2, Type 3	



Surge arrester/circuit breaker association

Surge arrester	Associated circuit breaker		
	iPRD	iPRD IT	
	I _{sc} ≤ 25 kA	I _{sc} ≤ 50 kA	I _{sc} (IT 400 V AC) ≤ 5 kA
iPRD65	Curve C 50 A	Curve C 63 A	Curve C 25 A
iPRD40	Curve C 40 A	Curve C 63 A	Curve C 20 A
iPRD20	Curve C 20 A	Curve C 63 A	Curve C 10 A
iPRD8	Curve C 10 A	Curve C 63 A	Curve C 10 A

iPRD dimensions (mm)



Weight (g)

Surge arrester	
Type	iPRD
1P	119
1P+N, 2P	220
3P	340
3P+N, 4P	450

Protection

Load protection

iPRD surge arresters

Type 2 or 3 LV withdrawable surge arresters (cont.)

iPRD surge arresters

PB110281-60

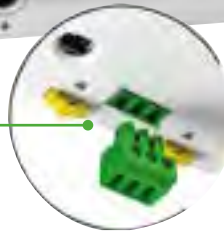
Satisfactory operation indication

- By mechanical indicator
- white: operating
- red: cartridge must be replaced



Terminals
■ IP20

■ Transfer to Acti 9 Smartlink



Connection iPRD surge arrester with its short circuit disconnecter

TT / TN-S

Power supply through the top
Connection with cables

PB110289-50



Surge arrester iPRD 3P+N + iC60N 3P+N

Reversible

- The surge arrester base can be turned over to allow the phase/neutral/earth cables to enter through either the top or the bottom

TT / TN-S

Power supply through the bottom
Connection with comb busbar

PB110793-50



Surge arrester iPRD 3P+N + iC60N 3P+N

IT/TNC-S with neutral

Power supply through the top
Connection with comb busbar

PB110287-40



Surge arrester iPRD 4P + iC60N 4P

IT/TNC-S with neutral

Power supply through the bottom
Connection with comb busbar

PB110794-50



Surge arrester iPRD 4P + iC60N 4P

Protection

Load protection

iPRC, iPRI surge arresters

Country approval pictograms

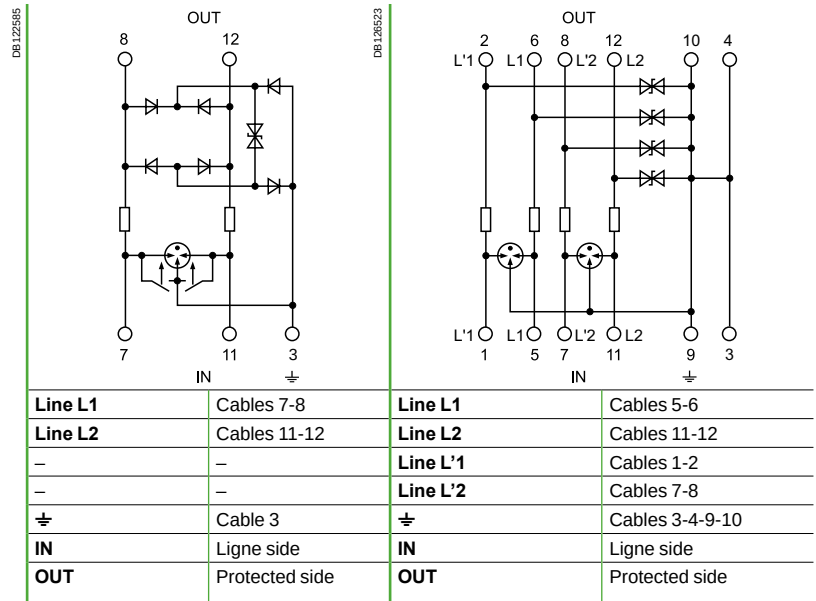
Protection against overvoltages related to lightning strikes.



Analogue telephone line protection: the iPRC surge arrester wired in series to the private installation input protects the telephones, the PABX, the modems (including ADSL), etc.

Protection for 2 low-current lines without common potential or 4 lines with common reference potential: the iPRI protects the measuring instrument and PLC "sensor" inputs and the DC power supply inputs up to 53 V and AC power supply inputs up to 37 V.

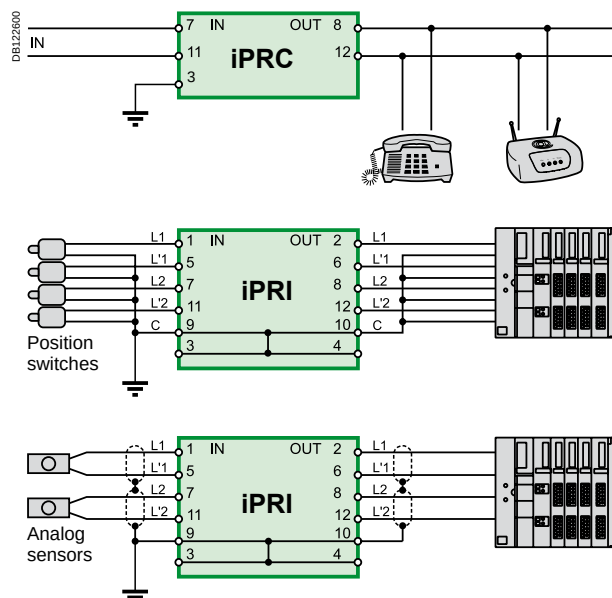
The input current must not exceed 300 mA.



Catalogue numbers

Surge arresters	iPRC	iPRI
Mains voltage (Un)	<130 V AC	48 V DC
Analogue telephone system	■	—
Telephone transmitter	■	—
Digital telephone system	—	■
Automation network	—	■
VLV load power supply (12...48 V)	—	■
xDSL compatibility	■	—
Cat. no..	A9L16337	A9L16339
Width in 9 mm modules	2	2

Diagrams

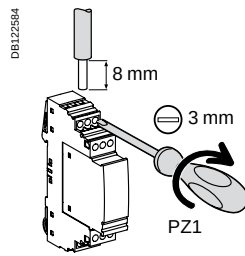


Protection

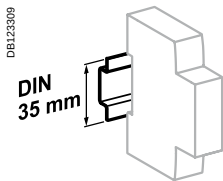
Load protection

iPRC, iPRI surge arresters (cont.)

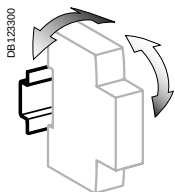
Connection



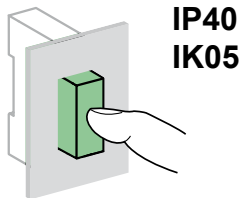
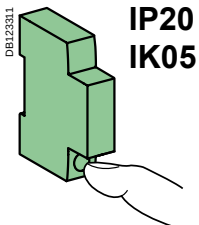
Tightening torque	Copper cables	
	Rigid	Flexible or with ferrule
0.8 N.m	DB122945  0.2 to 4 mm ²	DB122946  0.2 to 2,5 mm ²



Clip on DIN rail 35 mm.



± 30° vertical.



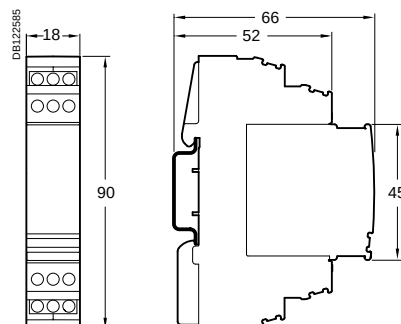
Technical data

Main characteristics			
		iPRC	iPRI
Number of protected lines		2	2
Test category	IEC/EN	C1, C2, C3, D1, B2	C1, C2, C3, D1, B2
Maximum continuous voltage (Uc)		180 V DC, 130 V AC	53 V DC, 37 V AC
Limitation voltage (Up)		300 V	70 V
Rated discharge current (8/20) (In)		10 kA	10 kA
Maximum discharge current (8/20) (Imax)		18 kA	10 kA
Response time		< 500 ns	≤ 1 ns
Nominal impulse current		100 A	70 A
Rated current (In)		450 mA (up to 45°C)	300 mA (up to 45°C)
Series resistor		2.2 Ω	4.7 Ω
End-of-life information by		Loss of dialling tone	Loss of transmission
Additional characteristics			
Degree of protection	Device only	IP20	IP20
	Device in modular enclosure	IP40	IP40
	IK	05	05
Operating temperature		-25°C to +60°C	-25°C to +60°C
Storage temperature		-40°C to +85°C	-40°C to +85°C

Weight (g)

Surge arresters		
Type	iPRC	iPRI
	25	65

Dimensions (mm)



Protection

Load protection

Acti9 iPRE surge arrester

Surge arrester for Ethernet RJ45 sockets

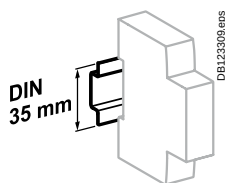


Country approval pictograms

Fine surge protection of Ethernet line Cat. 6



iPRE

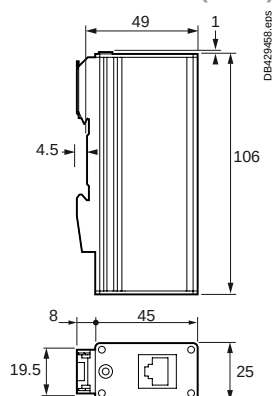


Clip on DIN rail 35 mm.

Weight (g)

Surge arresters	
Type	Acti9 iPRE
	105

Dimensions (mm)



IEC/EN 61643-21

As per the above standard:

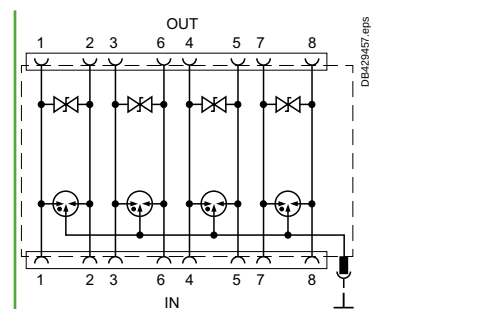
iPRE Ethernet line protection

The Acti9 iPRE RJ45 surge arrester protects the Internet line for residential, buildings and industry applications.

Telecommunication equipment are very exposed to lightning overvoltages as they often have long cables which behave like antennas to such surge lightnings and electrostatic discharges created by switching transients in buildings. The interfaces operate with low signal levels at high frequencies. This makes them particularly sensitive to surge voltages and can lead to the destruction of IT systems.

Short response times are essential to quickly limit the surge voltages without deteriorating signal quality. Wired in series to the private installation input, it allows better data exchange between computers and peripheral devices.

- Acti9 iPRE is suitable for category 5 & 6 Ethernet cabling system, high speed data networks up to 250 MHz.
- Acti9 iPRE is delivered with an earthing cable which provides protective grounding in computer rooms.
- Acti9 iPRE is DIN rail mounted.
- RJ45 system-specific connection.



IN	Line side
OUT	Protected side

Catalog number

Surge arresters	Acti9 iPRE
Catalog number	A9L16441

Technical data

Main characteristics	
	Acti9 iPRE
Connections (input - output)	RJ45/RJ45
Test category	IEC/EN C1, C2, D1
Maximum continuous operating voltage (Uc)	6.5 V DC
Voltage protection level at In Line-Line (Up)	35 V
Voltage protection level at In Line-Ground	500 V
Rated discharge current (8/20 μs) (In)	2.5 kA
Maximum discharge current (8/20 μs) (Imax)	10 kA
Nominal impulse current (10/350 μs) (Iimp)	1 kA
Rated load current (I _L)	300 mA (up to 45°C)
Response time	1 ns
Insertion attenuation at 250 MHz	3 db
End-of-life information by	Loss of transmission
Additional characteristics	
Degree of protection (IEC 60529)	IP20
Operating temperature	-40°C to +70°C
Storage temperature	-40°C to +70°C

iPRD PV-DC surge arresters

Withdrawable surge arresters type 2 for photovoltaic applications



DB123854



Country approval pictograms

UTE C 61740-51 T2
EN 50539-11: 2013 T2



iPRD 40r 800PV

iPRD PV-DC direct current surge arresters are designed to protect against overvoltages due to a lightning strike: of the "DC" input to the inverter and of photovoltaic panels.

It should be installed in a switchboard inside the building. If the switchboard is located outside, it must be weatherproof.

Withdrawable iPRD PV-DC surge arresters allow damaged cartridges to be replaced quickly.

The surge arrester base can be turned over to allow the phase/neutral/earth cables to enter through either the top or the bottom

They offer remote reporting of the "cartridge must be changed" message.

Catalogue numbers

Internal diagram	I_{Total} (kA) Total discharge current	I_n (kA) Nominal discharge current	U_p (kV) Protection level L+/-, L-/±, L+/L-	U_{CPV} (V) ⁽¹⁾ Maximum continuous operating voltage L+/-, L-/±, L+/L-	Width in module of 9 mm	Cat. no.
iPRD 40r 800PV						
DB124052 	40	15	3	800	6	A9L40271
iPRD 40r 1000PV						
DB124052 	40	15	3.9	1000	6	A9L40281

(1) $U_{cpv} \geq 1.2 \times U_{oc\ stc}$ ($U_{oc\ stc}$: maximum no-load voltage of the photovoltaic generator "photovoltaic module manufacturer's data")



Replacement cartridges

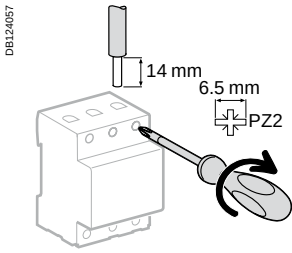
Replacement cartridges

Type	Replacement cartridges for	Cat. no.
C 40-800PV	iPRD 40r 800PV	A9L40172
C 40-1000PV	iPRD 40r 1000PV	A9L40182

iPRD PV-DC surge arresters

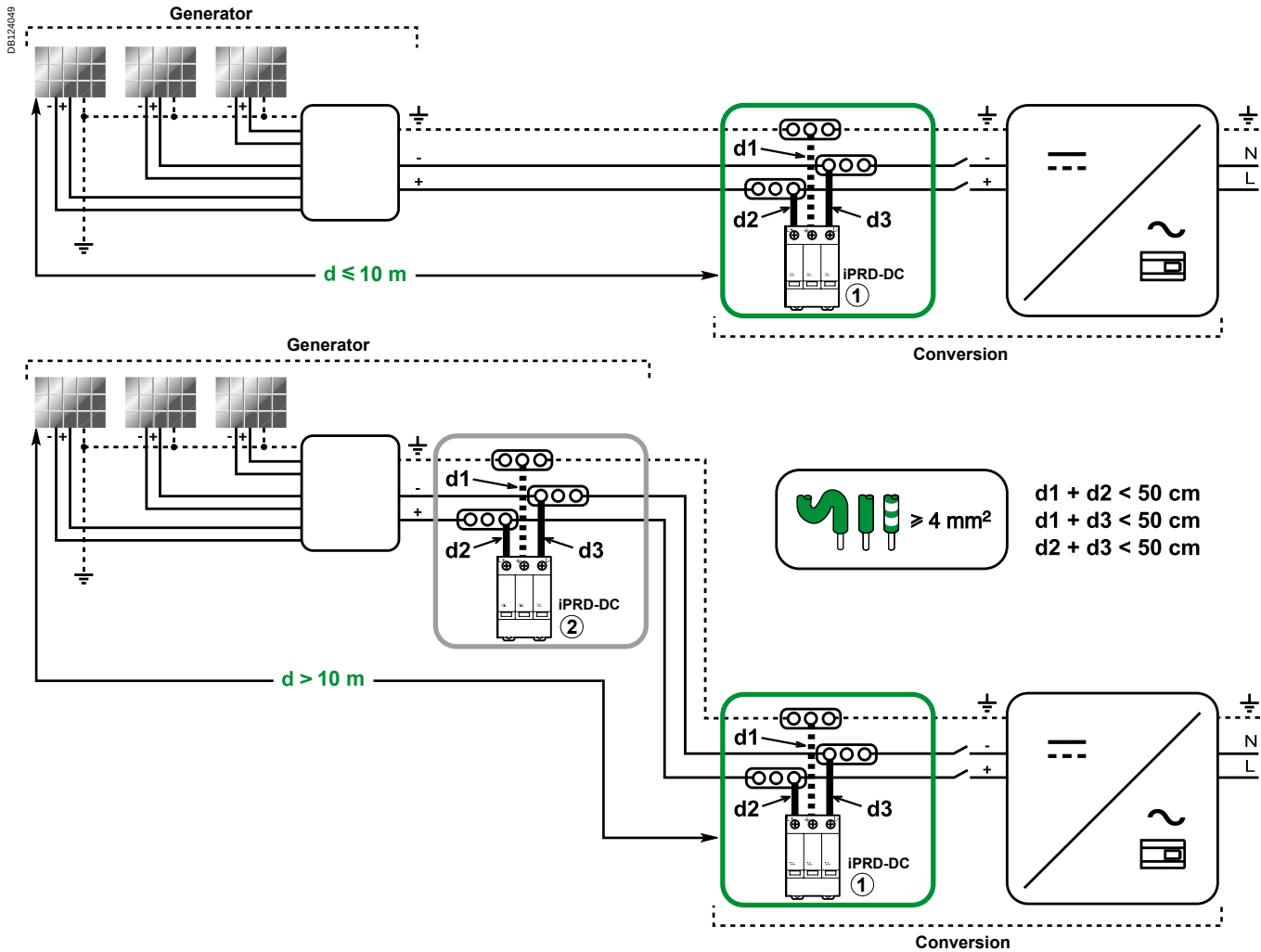
Withdrawable surge arresters type 2 for photovoltaic applications (cont.)

Connection



Type	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
iPRD PV-DC	3.5 N.m	2.5 to 25 mm ²	2.5 to 16 mm ²

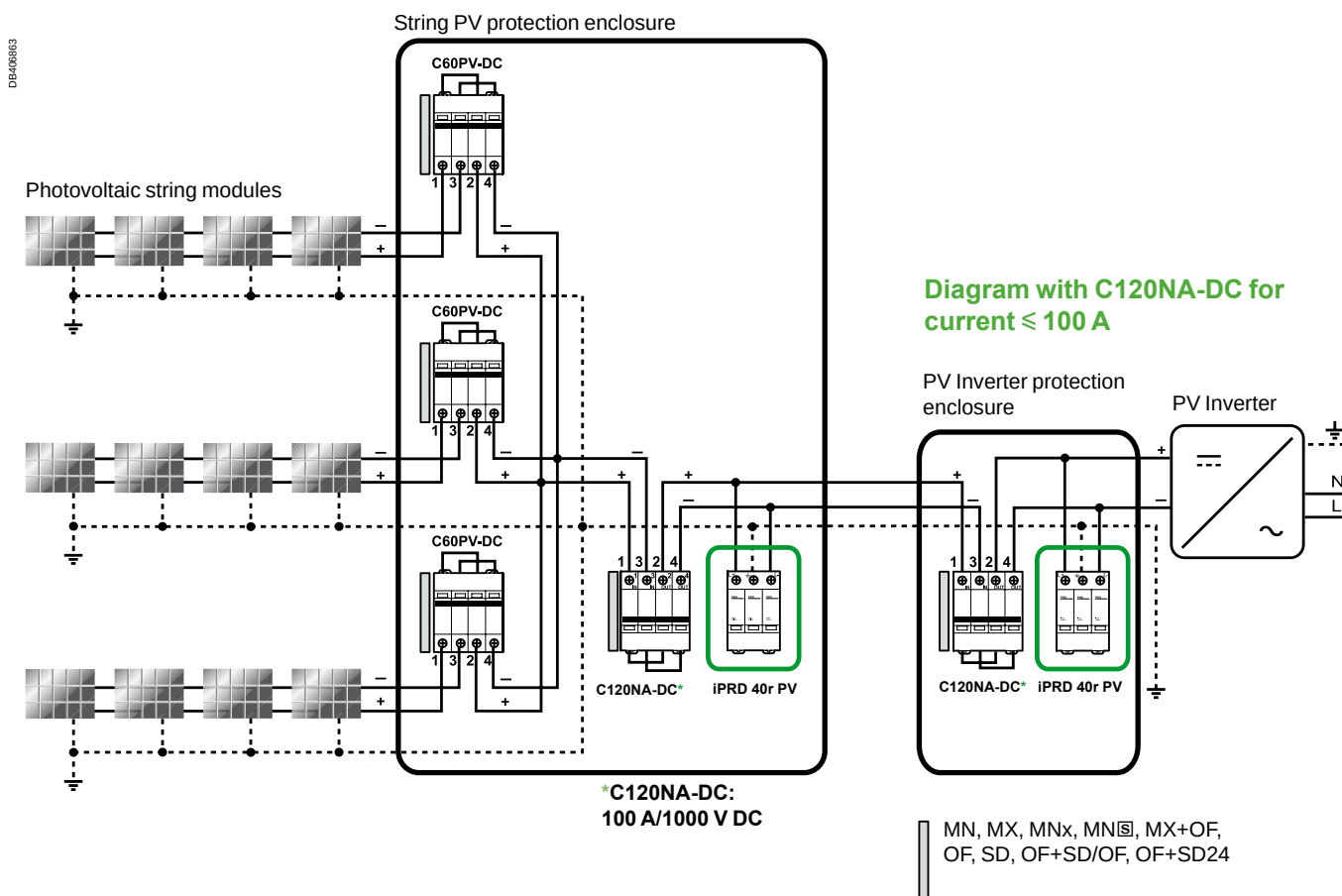
Depending on the distance between the "generator" part and the "conversion" part, it may be necessary to install two surge arresters or more, to ensure protection of each of the two parts.



iPRD PV-DC surge arresters

Withdrawable surge arresters type 2 for photovoltaic applications

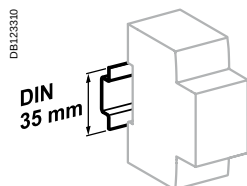
Application diagram



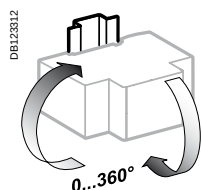
Protection / Load protection

iPRD PV-DC surge arresters

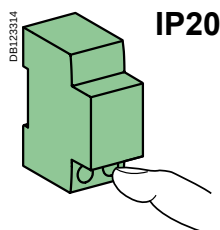
Withdrawable surge arresters type 2 for photovoltaic applications



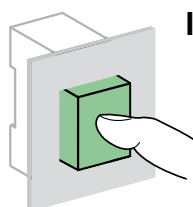
Clip on DIN rail 35 mm.



Indifferent position of installation.



IP20



IP40

Technical data

Main characteristics

Type of network	Isolated direct current	
Maximum continuous operating voltage (U_{CPV})	iPRD 40r 800PV	800 V
	iPRD 40r 1000PV	1000 V
Response time	< 25 ns	
Permanent operating current (I_c)	< 1 mA	
Short circuit current (I_{SCP})	200 A	
Type of surge arresters	Type 2	
Ground residual current	I_{PE} (AC)	600 μ A
	I_{PE} (DC)	60 μ A
End-of-life indication mode	Circuit opened by integrated thermal disconnecter	

Additional characteristics

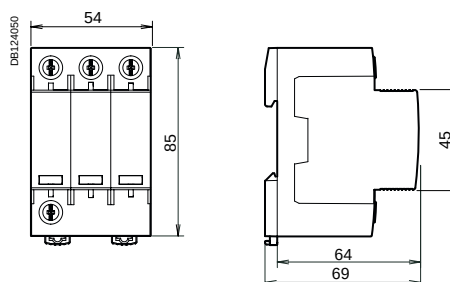
Degree of protection (IEC 60529)	Device only	IP20	
	Device in modular enclosure	IP40	
	Chocs	IK03	
Satisfactory operation indication	By the cartridges	White	Operational
		Red	Cartridge must be replaced
	By the NO/NC remote indication contact 250 V AC / 0.25 A		
Operating temperature	-25°C to +60°C		
Storage temperature	-40°C to +85°C		
Humidity range	5 % to 95 %		
Standards	UTE C 61740-51 T2 EN 50539-11: 2013 T2		

Weight (g)

Surge arresters

Type	
iPRD 40r 800PV	400
iPRD 40r 1000PV	400

Dimensions (mm)



Control
Local control
iSW switches



IEC/EN 60947-3
As per the above standard:

The switch-disconnectors combine the following functions:

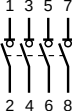
- Control (opening and closing of circuits under load).

iOF auxiliary

- Mounted on the left, it indicates the "open" or "closed" position of the switch and has a normally open (NO) or normally closed (NC) contact.



Catalog numbers

40 to 125 A iSW switch-disconnectors				
Type				Width in 9 mm modules
1P	Rating	Voltage (Ue)		
	40 A	240 V AC	A9S65140	2
	63 A	240 V AC	A9S65163	
	100 A	240 V AC	A9S65191	
	125 A	240 V AC	A9S65192	
2P				
	40 A	415 V AC	A9S65240	4
	63 A	415 V AC	A9S65263	
	100 A	415 V AC	A9S65291	
	125 A	415 V AC	A9S65292	
3P				
	40 A	415 V AC	A9S65340	6
	63 A	415 V AC	A9S65363	
	100 A	415 V AC	A9S65391	
	125 A	415 V AC	A9S65392	
4P				
	40 A	415 V AC	A9S65440	8
	63 A	415 V AC	A9S65463	
	100 A	415 V AC	A9S65491	
	125 A	415 V AC	A9S65492	
Operating frequency		50/60 Hz		
Accessories		Catalog modules CA907000 and CA907001		



Auxiliary			
Type			Width in 9 mm modules
iOF	Voltage (Ue)		
	240...415 V AC	A9A26924	1
	24...130 V DC		

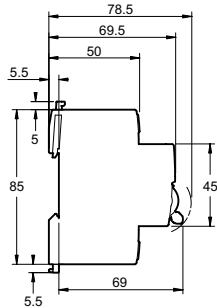
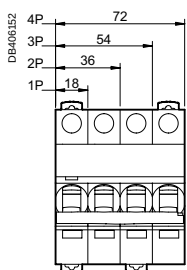
Control

Local control

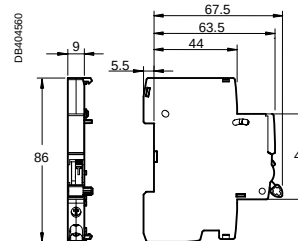
iSW switches (cont.)



Dimensions (mm)



iSW



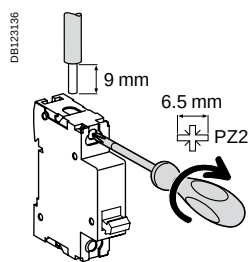
iOF

Control

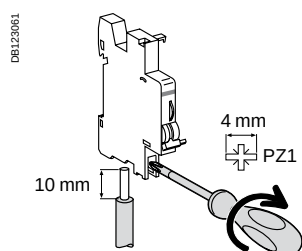
Local control

iSW switches (cont.)

Connection



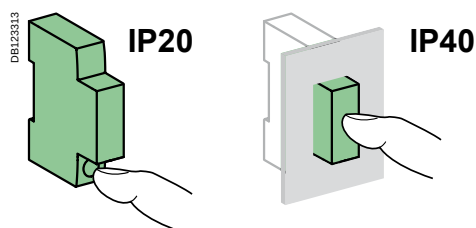
Type	Rating	Tightening torque	Copper cables	
			Rigid	Flexible or with ferrule
iSW	40 to 125 A	3.5 N.m	DB122945 ≤ 50 mm ²	DB122946 ≤ 35 mm ²



Type	Tightening torque	Copper cables		Multi-cables terminal	
		Rigid	Flexible	Rigid cables	Cables with ferrule
iOF	1 N.m	DB122945 1 to 4 mm ²	DB123007 0.5 to 2.5 mm ²	DB123011 2 x 2.5 mm ²	DB123008 2 x 1.5 mm ²

Technical data

Main characteristics			
Insulation voltage (Ui)		500 V AC	
Pollution degree		3	
Power circuit			
Rated impulse withstand voltage (Uimp)		6 kV	
Operating category		AC - 22 A	
Permissible rated short-time withstand current (Icw)		1500 A	
Conditional rated short-circuit current (Inc)		10 kA according to IEC 60947-3	
Rated short-circuit closing current (Icm)		5 kA	
Direct current use		iSW 40/63 A	
Operating category		DC-22A	
Voltage rating (Ue)		48 V DC	
		110 V DC with 2 poles in series	
Additional characteristics			
Degree of protection	Device only	IP20	
	Device in modular enclosure	IP40 Insulation class II	
Endurance (O-C)	Mechanical	20,000 cycles	
	Electrical	40 A - 63 A	15,000 cycles
		80 A - 100 A	10,000 cycles
		125 A	2 500 cycles
Operating temperature		-25°C to +60°C	
Storage temperature		-40°C to +85°C	
Tropicalization		Treatment 2 (relative humidity 95% at 55°C)	

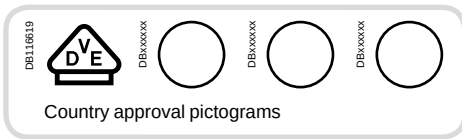


iOF characteristics		
Rated voltage (Ue)	240...415 V AC	
	24...130 V DC	
Operating frequency	50/60 Hz	
Operating current	24 V DC	6 A
	48 V DC	2 A
	60 V DC	1.5 A
	130 V DC	1 A
	240 V AC	6 A
	415 V AC	3 A
Number of contacts	1 NO/NC	
Operating temperature	-35°C to +70°C	
Storage temperature	-40°C to +85°C	

Protection

Switch up to 125 A

NG125NA switches (cont.)



IEC/EN 60947-3

- The NG125NA is a switch-disconnector with free tripping for making and breaking under load.
- It is especially suitable for the modular enclosure incoming feeder with remote breaking (e.g. emergency cutoff).

056908N_SE-2011-35



NG125NA 3P

056909N_SE-2011-35



NG125NA 4P

Catalogue numbers

NG125NA switch			
Type		3P	3P+N
Auxiliaries		Remote indication and tripping, module CM907005	
Rating (In)	Quality label (1)		
63 A		18889	18893
80 A		18890	18894
100 A		18891	18895
125 A		18892	18896
Width in 9 mm modules		9	12
Accessories		Module CM907006	

(1) Information to be supplied by the country concerned.

Protection

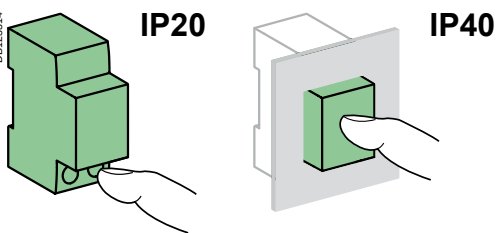
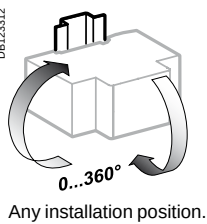
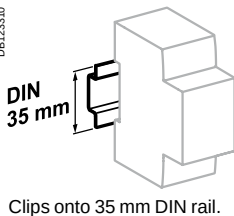
Switch up to 125 A

NG125NA switches (cont.)

Connection

Rating	Tightening torque	Without accessories			With accessories				
		Copper cables			70 mm ² Al terminal	Screw-on connection for ring terminal	Small ring terminal	Multi-cable terminal	
		Rigid	Flexible or with ferrule					Rigid cables	Flexible cables
		DB122945	DB122946	DB123410	DB123488	DB118789	DB118787		
63 A	3.5 N.m	1.5 to 50 mm ²	1.5 to 35 mm ²	-	-	-	-	3 x 16 mm ²	3 x 10 mm ²
80 to 125 A	6 N.m	16 to 70 mm ²	10 to 50 mm ²	25 to 70 mm ²	2 x 35 mm ² 1 x 50 mm ²	1 x 70 mm ²			

■ For rating ≥ 80 A: upstream voltage taps for each pole, by 6.35 mm Fast-on terminal.



Technical data

Main characteristics

According to IEC/EN 60947-3

Max. voltage rating (Ue)	500 V AC
Insulation voltage (Ui)	690 V AC
Degree of pollution	3
Rated impulse withstand voltage (Uimp)	8 kV
Short time withstand current (50 ms) Icw	1.5 kA
Rated short-circuit closing current (Icm)	2 kA
Utilization category	AC22A/B - AC23B

Additional characteristics

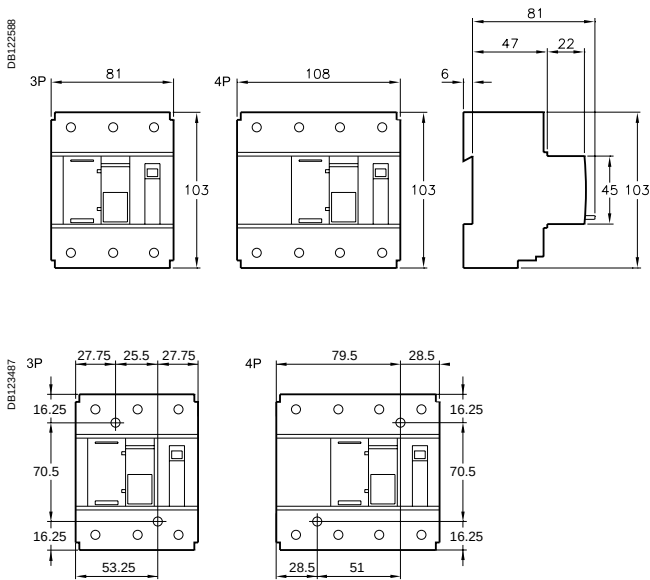
Degree of protection (IEC 60529)	Device only	IP20	
	Device in modular enclosure	IP40	
Endurance (O-C)		Category A	Category B
		1500 cycles	300 cycles
	Electrical (except AC20 and DC20)	≤ 100 A	1500 cycles
		125 A	200 cycles
Mechanical		20,000 cycles	
Operating temperature		-30°C to +70°C	
Storage temperature		-40°C to +70°C	
Tropicalization (IEC 60068-1)		Treatment 2 (relative humidity of 95% at 55°C)	

Protection
Switch up to 125 A
NG125NA switches (cont.)

Weight (g)

Switch	
Type	NG125NA
3P	720
4P	960

Dimensions (mm)



Spacing for mounting on panel

Protection

Switch up to 125 A

NG125NA switches (cont.)



Protection

Circuit protection / Earth leakage protection

Accessories and auxiliaries for iC40, iCV40

Connection accessories

See module CA907001

7	Screw-on connection for ring terminal	27053
8	Comb busbar	See module CA907026

Mounting accessories

See module CA907001

9	Padlocking device	A9A26970
19	Padlocking devices (left)	A9A26380
	(right)	A9A26381(1)
10	Clip-on terminal markers	See module CA907001
(1) only for iC40		

Security accessories

See module CA907001

11	9 mm spacer	A9A27062
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Spare part

See module CA907001

12	Locking clip	A9A27052
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Electrical auxiliaries

See module CA907002

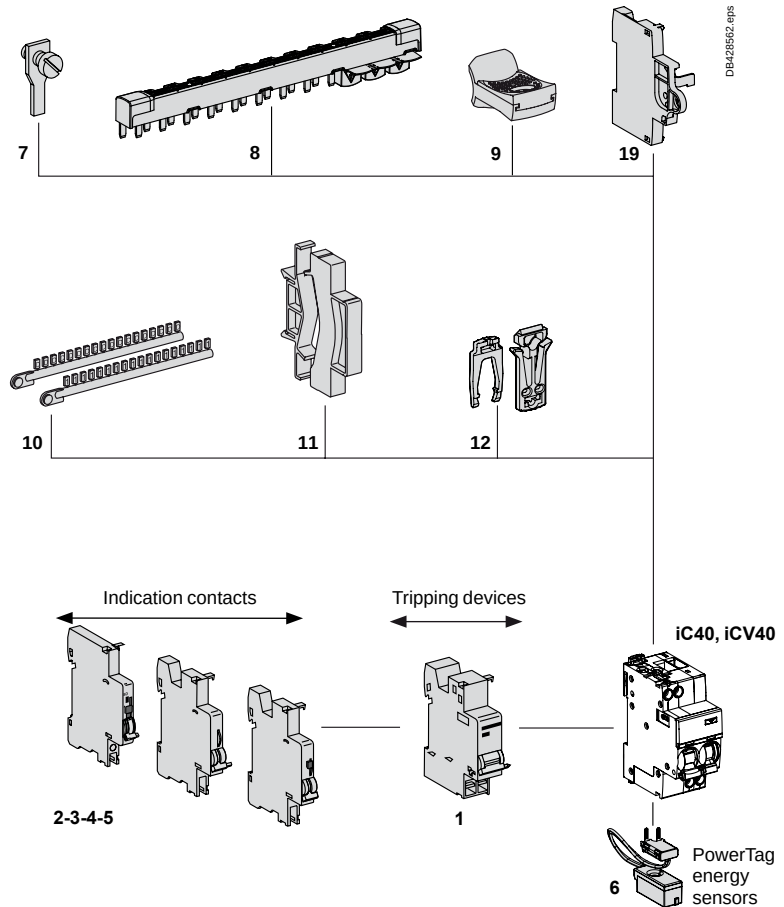
Indication		
2	iSD fault indicating contact	A9A26927
3	iOF open/close auxiliary contact	A9A26924
4	iOF/SD+OF auxiliary contact (OF+SD or OF+OF)	See module CA907002
5	iOF+SD24 auxiliary contact	See module CA907002

Tripping devices

1	iMN undervoltage release or iMNs undervoltage release delayed or iMNx undervoltage release with external feeding or shunt release iMX, iMX+OF overvoltage release iMSU	See module CA907002
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PowerTag energy sensors

6	Energy sensors PowerTag A9 P63	See module CA907029
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Note Tripping devices must be installed first.
If two tripping devices: the iMN must be installed first
Indication auxiliaries: respect specified position for SD functions.

Assembly rule

The mounting order and the number for the various auxiliaries must be complied with.

The tripping auxiliaries iMN, iMX, iMSU...) must be mounted first **1** as close as possible to the main device.

Then at the left, the indicating auxiliaries (iOF, iSD...) must be mounted **2** then **3**, complying with the following association table.

Indicating auxiliaries		Tripping auxiliaries	Device
3	+ 2	+ 1	
1 (iOF/SD+OF or iOF+SD24 or iSD)	1 iOF/SD+OF	1 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU)	iC40, iCV40
1 iOF	1 (iSD or iOF or iOF/SD+OF)	2 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU)	
–	1 iOF+SD24	2 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU)	
–	–	3 iMSU	
1 iSD	1 iSD	1 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU)	

Protection

Circuit protection / Earth leakage protection

Accessories and auxiliaries iID40

Connection accessories

See module CA907001

7	Screw-on connection for ring terminal	27053
8	Comb busbar	See module CA907026
13	Multi-cable terminal	See module CA907001
14	Al terminal	27060

Mounting accessories

See module CA907001

9	Padlocking device	A9A26970
19	Padlocking device (left)	A9A26380
10	Clip-on terminal markers	See module CA907001

Security accessories

See module CA907001

11	9 mm spacer	A9A27062
15	Interpole barrier	See module CA907001
16	Screw shield	See module CA907001
17	Terminal shield	See module CA907001

Spare parts

See module CA907001

12	Locking clip	A9A27052
18	Flap	See module CA907001

Electrical auxiliaries

See module CA907002

Signalisation

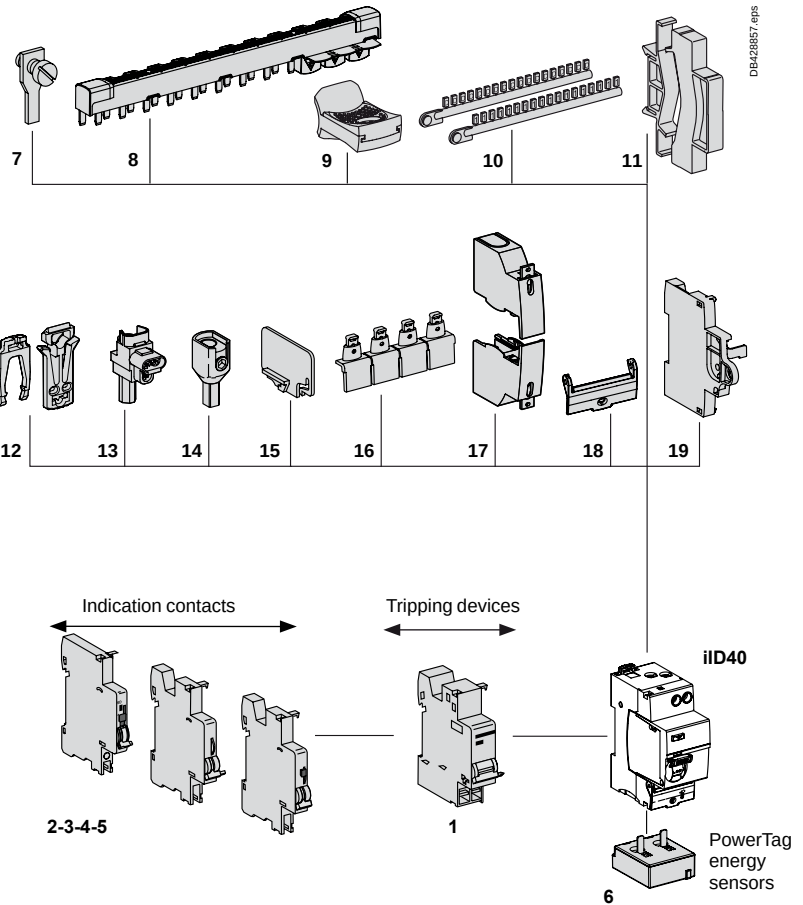
2	iSD fault indicating contact	A9A26927
3	iOF open/close auxiliary contact	A9A26924
4	iOF/SD+OF auxiliary contact (OF+SD or OF+OF)	See module CA907002
5	iOF+SD24 auxiliary contact	See module CA907002

Déclencheurs

1	iMN undervoltage release or iMNs undervoltage release delayed or iMNx undervoltage release with external feeding or shunt release iMX, iMX+OF overvoltage release iMSU	See module CA907002
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PowerTag energy sensors

6	Energy sensors PowerTag A9 P63	See module CA907029
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Note Tripping devices must be installed first.
If two tripping devices: the iMN must be installed first
Indication auxiliaries: respect specified position for SD functions.

Assembly rule

The mounting order and the number for the various auxiliaries must be complied with.

The tripping auxiliaries iMN, iMX, iMSU...) must be mounted first **1** as close as possible to the main device.

Then at the left, the indicating auxiliaries (iOF, iSD...) must be mounted **2** then **3**, complying with the following association table.

Indicating auxiliaries		Tripping auxiliaries	Device
3	+ 2	+ 1	
1 (iOF/SD+OF or iOF+SD24 or iSD)	1 iOF/SD+OF	1 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU)	iID40
1 iOF	1 (iSD or iOF or iOF/SD+OF)	2 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU)	
–	1 iOF+SD24	2 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU)	
–	–	3 iMSU	
1 iSD	1 iSD	1 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU)	

Protection

Circuit protection / Earth leakage protection

Accessorisation / Auxiliarisation iC60, iLD, Vigi iC60, iSW-NA

Connection accessories

See module CA907001

9	Splitter blocks	Linery FM	See module	LIN022
		Linery DX	See module	LIN003
10	50 mm ² Al terminal			27060
11	Screw-on connection for ring terminal			27053
12	Multi-cables terminal	4 parts		19091
		3 parts		19096
13	Comb busbar		See modules	CA907026, CA907027

Mounting accessories

See module CA907001

14	Sealable terminal shields for top and bottom connection	1P (set of 2)	A9A26975
		2P (set of 2)	A9A26976
		3P	1P + 2P
		4P	2P + 2P
15	Interpole barrier	(set of 10)	A9A27001
16	Screw shields	4P (set of 20)	A9A26981
16"	Screw shields	Vigi iC60 (set of 12)	A9A26982
17	Clip-on terminal markers		See module CA907001
18	9 mm spacer		A9A27062
19	Padlocking device	(set of 10)	A9A26970
20	Plug-in base		A9A27003
21	Rotary handle		
	Black handle		A9A27005
	Red handle		A9A27006
	No handle		A9A27008

Electrical auxiliaries

See module CA907002

Indication

4	iOF/SD+OF auxiliary contact (OF+SD or OF+OF combination switch)	A9A26929
5	iSD fault indicating contact	A9A26927
6	iOF open/close auxiliary contact	A9A26924
7	iOF+SD24 auxiliary contact	See module CA907002

Control

8	iMDU voltage matching auxiliary	A9C18195
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Tripping devices

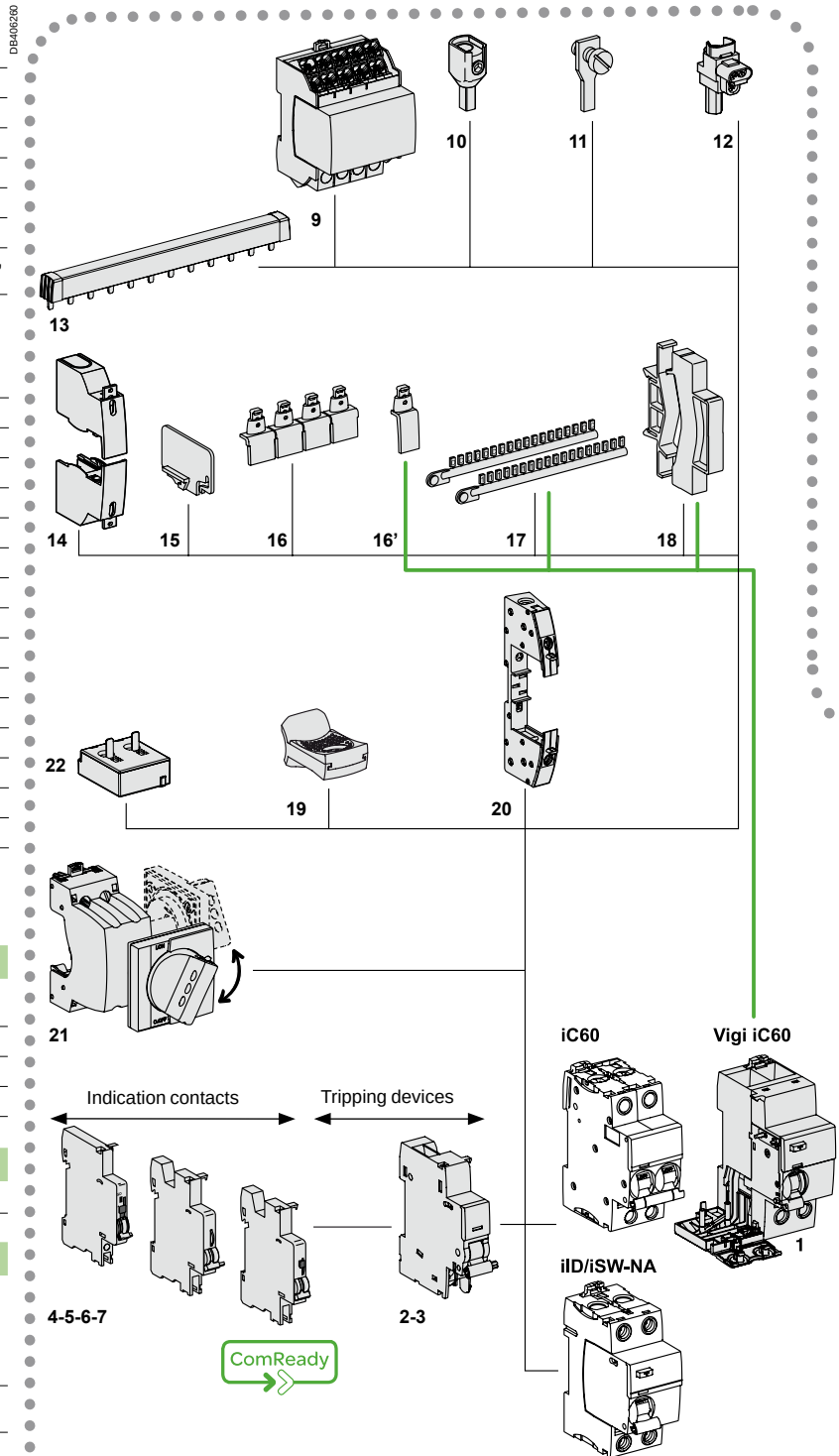
2	iMN undervoltage release or iMNs undervoltage release delayed or iMNx undervoltage release with external feeding	See module CA907002
3	Shunt release iMX, iMX+OF overvoltage release iMSU	See module CA907002

PowerTag energy sensors

22	Energy sensors PowerTag A9 M63, F63	See module CA907029
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Vigi iC60

1	Vigi iC60 add-on residual current device	See module CA902005
	Double terminals Vigi iC60 add-on residual current device	See module CA902019



Tripping devices must be installed first.

If two tripping devices are used: the iMN must be installed first
 Indication auxiliaries: respect specified position for SD functions.
 iSW-NA: when installing a tripping device (iMN, iMX, iMSU...), an
 iSD auxiliary contact must be associated, which indicates that the
 iSW-NA has been tripped open.

Protection

Circuit protection / Earth leakage protection

Accessorisation / Auxiliarisation iC60, iLD, Vigi iC60, iSW-NA (cont.)

Assembly rule

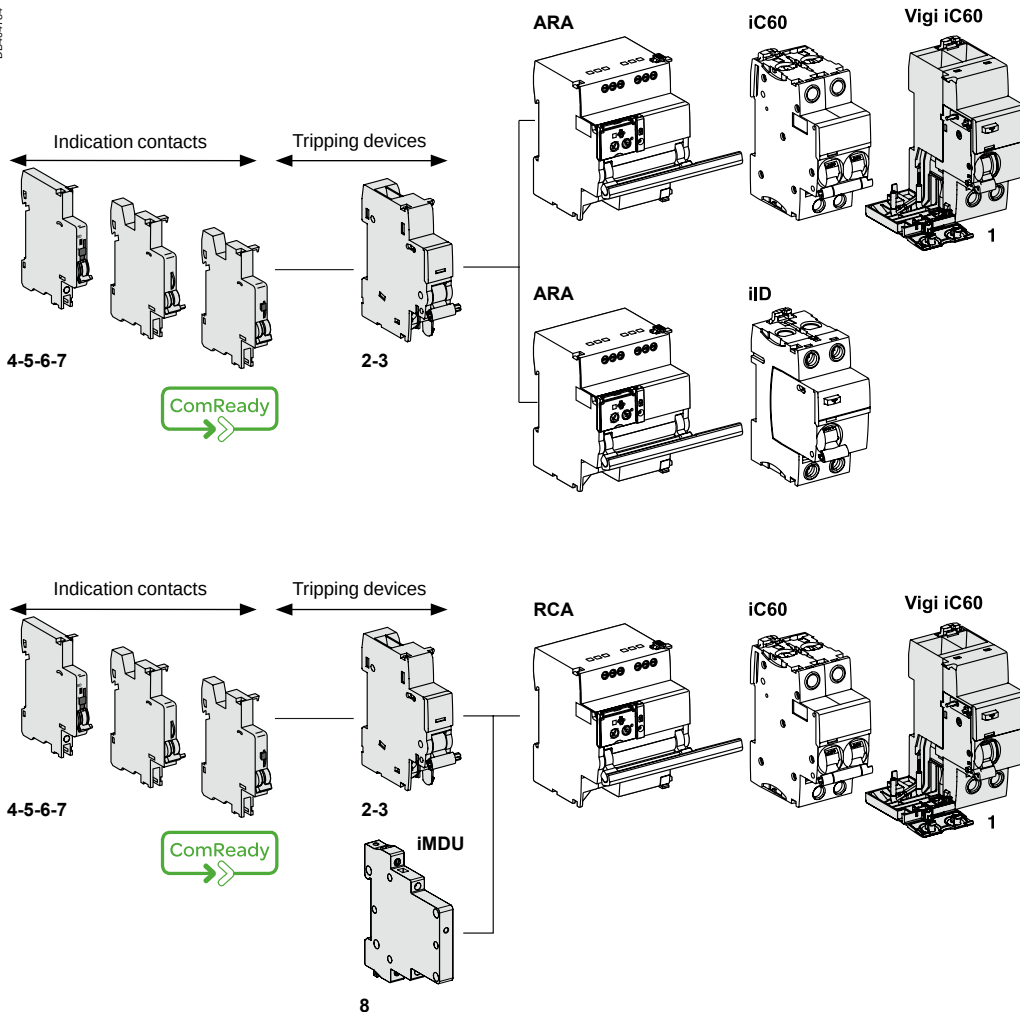
The mounting order and the number for the various auxiliaries must be complied with.

The tripping auxiliaries iMN, iMX, iMSU...) should be mounted first **1** as close as possible to the main device.

Then at the left, the indicating auxiliaries (iOF, iSD) should be mounted **2** then **3** complying with the following association table.

Indicating auxiliaries 3	+ 2	Tripping auxiliaries + 1	Remote control	Device	Vigi iC60
1 (iOF/SD+OF or iOF+SD24 or iSD)	1 iOF/SD+OF	1 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU)	–	iC60, iLD, iSW-NA	Vigi iC60
1 iOF	1 (iSD or iOF or iOF/SD+OF)	2 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU)			
–	1 iOF+SD24	2 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU)			
–	–	3 iMSU			
1 iSD	1 iSD	1 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU)	ARA, RCA	iC60	Vigi iC60
–	1 (iSD or iOF or iOF/SD+OF or iOF+SD24)	1 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU)			
1 iOF	1 (iSD or iOF or iOF/SD+OF)	–	ARA	iLD	–
–	1 (iSD or iOF or iOF/SD+OF or iOF+SD24)	1 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU) maxi			
1 iOF	1 (iSD or iOF or iOF/SD+OF)	–			

DB404784



Protection

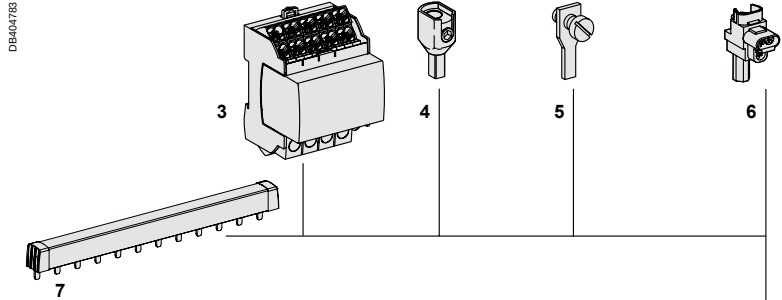
Circuit protection / Earth leakage protection

Accessorisation / Auxiliarisation Reflex iC60

Connection accessories

See module CA907001

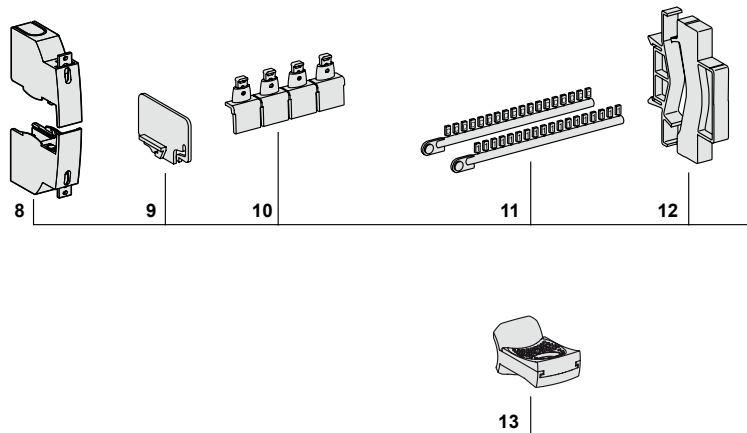
3	Splitter blocks	Lineryg FM	See module	LIN022
		Lineryg DX	See module	LIN003
4	50 mm² Al terminal			27060
5	Screw-on connection for ring terminal			27053
6	Multi-cables terminal	4 parts		19091
		3 parts		19096
7	Comb busbar		See modules	CA907026, CA907027



Mounting accessories

See module CA907001

8	Sealable terminal shields for top and bottom connection	1P (set of 2)	A9A26975
		2P (set of 2)	A9A26976
		3P	1P + 2P
		4P	2P + 2P
9	Interpole barrier	(set of 10)	A9A27001
10	Screw shields	4P (set of 20)	A9A26981
11	Clip-on terminal markers		See module CA907001
12	9 mm spacer		A9A27062
13	Padlocking device	(set of 10)	A9A26970



Electrical auxiliary

See module CA907002

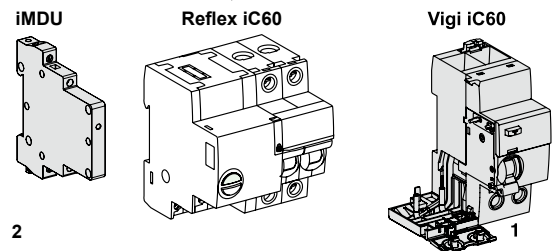
Control

2	iMDU voltage matching auxiliary	A9C18195
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Vigi iC60

See module CA907005

1	Vigi iC60 add-on residual current device	See module CA902005
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Accessorisisation / Auxiliarisation iSW

Connection accessories

See module CA907001

2	Splitter blocks	Linergy FM	See module	LIN022
		Linergy DX	See module	LIN003
3	50 mm² Al terminal			27060
4	Screw-on connection for ring terminal			27053
5	Multi-cables terminal	4 parts		19091
		3 parts		19096
6	Comb busbar		See modules	CA907026, CA907027

Mounting accessories

See module CA907001

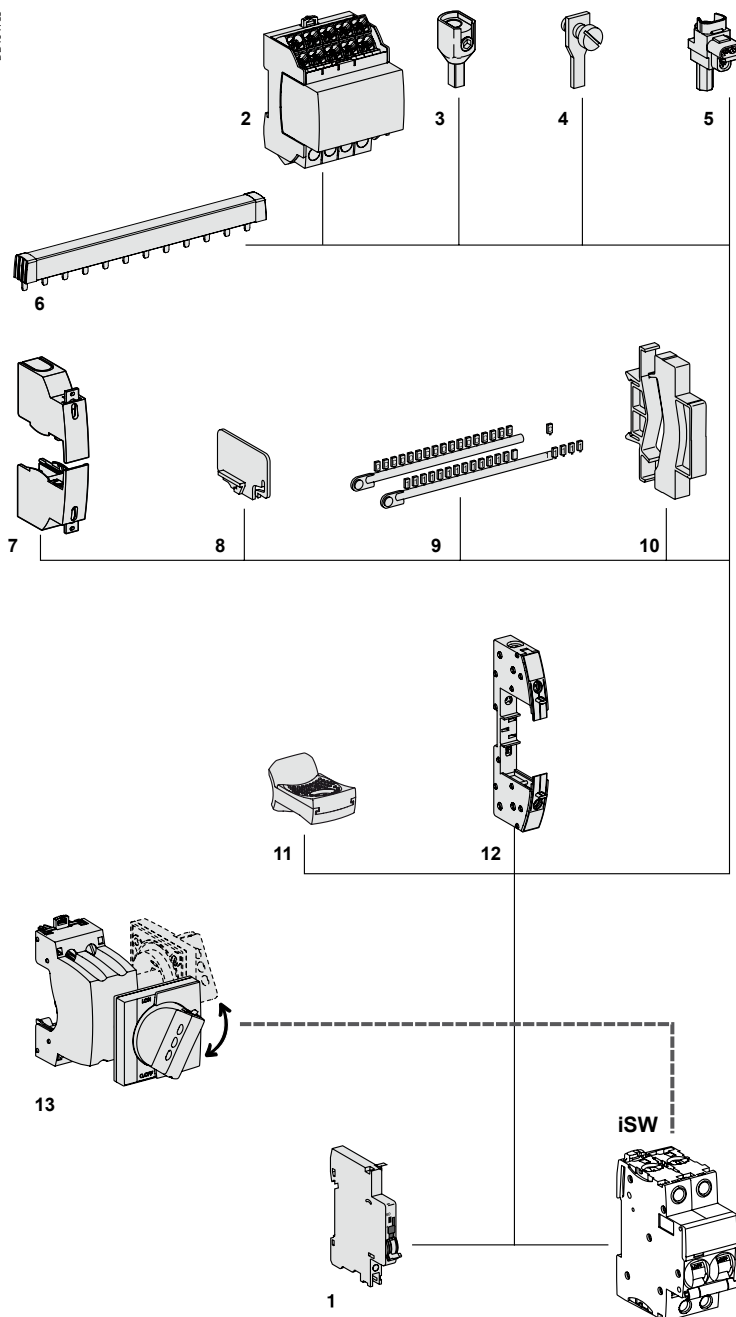
7	Sealable terminal shields for top and bottom connection	1P (set of 2)	A9A26975
		2P (set of 2)	A9A26976
		3P	1P + 2P
		4P	2P + 2P
8	Interpole barrier	(set of 10)	A9A27001
9	Clip-on terminal markers		See module CA907001
10	9 mm spacer		A9A27062
11	Padlocking device	(set of 10)	A9A26970
12	Plug-in base		A9A27003
13	Rotary handle		
		Black handle	A9A27005
		Red handle	A9A27006
		No handle	A9A27008

Electrical auxiliaries

See module CA907002

Indication		
1	iOF open/close auxiliary contact	A9A26924

DB40A785



Protection

Circuit protection / Earth leakage protection

Accessories and Auxiliaries for C120, Vigi C120 devices

Connection accessories

See module CA907012

7	Multi-cable terminal	4 parts	19091
		3 parts	19096
8	Screw-on connection for ring terminal	8 parts	27053
9	Terminal for rear connector		18528
10	50 mm ² Al terminal		27060
11	Comb busbar	See module	LIN001

Mounting accessories

See module CA907012

12	Sealable terminal shields for top and bottom connection	1P (set of 2)	18526
13	Interpole barrier	(set of 10)	27001
14	Screw shields	4P (set of 2)	18527
15	Clip-on terminal markers	See module	CA907012
16	9 mm spacer		A9N27062
17	Padlocking device		27145
18	Plug-in base ⁽¹⁾		26997
19	Rotary handle		
	Removable extended handle		27047
	Fixed handle		27048
	Operating sub-assembly ⁽²⁾		27046

(1) For 1P, centreline between two rows: 200 mm

(2) A complete rotary handle consists of a circuit-breaker operating sub-assembly, cat. no. 27046, a handle cat. no. 27047 or a handle cat. no. 27048.

Electrical auxiliaries

See module CA907008

Indication

3	SD fault indicating contact	A9N26927
4	OF+SD24 auxiliary contact	A9N26899
5	OF open/close auxiliary contact	A9N26924
6	OF+SD/OF auxiliary contact (OF+SD or OF+OF combination switch)	A9N26929

Tripping

2	MN, MNx, MN $\overline{\text{S}}$ undervoltage release, MSU overvoltage release or MX, MX + OF shunt release	See module	CA907008
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Vigi C120

See module CA902016

1	Vigi C120 add-on residual current device	See module	CA902016
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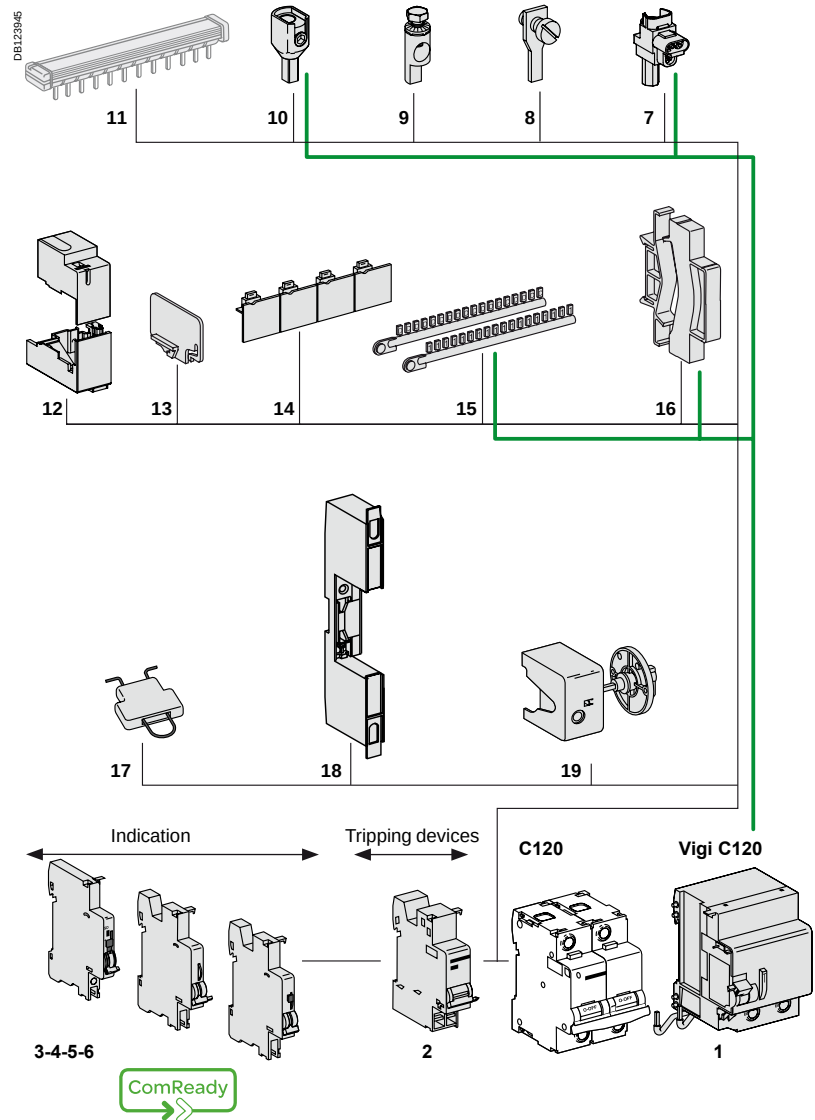
Assembly rule

The mounting order and the number for the various auxiliaries must be complied with.

The tripping auxiliaries MN, MX, MSU...) should be mounted first **1** as close as possible to the main device.

Then at the left, the indicating auxiliaries (OF, SD) should be mounted **2** then **3** complying with the following association table.

Indicating auxiliaries		Tripping auxiliaries	Device	Vigi C120
3	+ 2	+ 1		
1 (OF+SD/OF or OF+SD24)	1 OF+SD/OF	1 (MN, MNx, MN $\overline{\text{S}}$ or MX, MX+OF or MSU)	C120	Vigi C120
1 OF	1 (OF+SD/OF or SD or OF)	2 (MN, MNx, MN $\overline{\text{S}}$ or MX, MX+OF or MSU)		
–	1 OF+SD24	2 (MN, MNx, MN $\overline{\text{S}}$ or MX, MX+OF or MSU)		
–	–	3 MSU		



Tripping devices must be installed first.

If two tripping devices are used: the MN must be installed first
Indication auxiliaries: respect specified position for SD functions.

Protection

Circuit protection / Earth leakage protection

Accessories and Auxiliaries for C120NA-DC devices

Connection accessories

See module CA907012

6	50 mm ² Al terminal	27060
7	Terminal for rear connector	18528
8	Screw-on connection for ring terminal	8 parts 27053
9	Multi-cable terminal	4 parts 19091
		3 parts 19096

Mounting accessories

See module CA907012

10	Sealable terminal shields for top and bottom connection	1P (set of 2) 18526
11	Interpole barrier	(set of 10) 27001
12	Screw shields	4P (set of 2) 18527
13	Clip-on terminal markers	See module CA907012
14	9 mm spacer	A9N27062
15	Padlocking device	27145
16	Rotary handle	
	Removable extended handle	27047
	Fixed handle	27048
	Operating sub-assembly ⁽¹⁾	27046

(1) A complete rotary handle consists of a circuit-breaker operating sub-assembly, cat. no. 27046, a handle cat. no. 27047 or a handle cat. no. 27048.

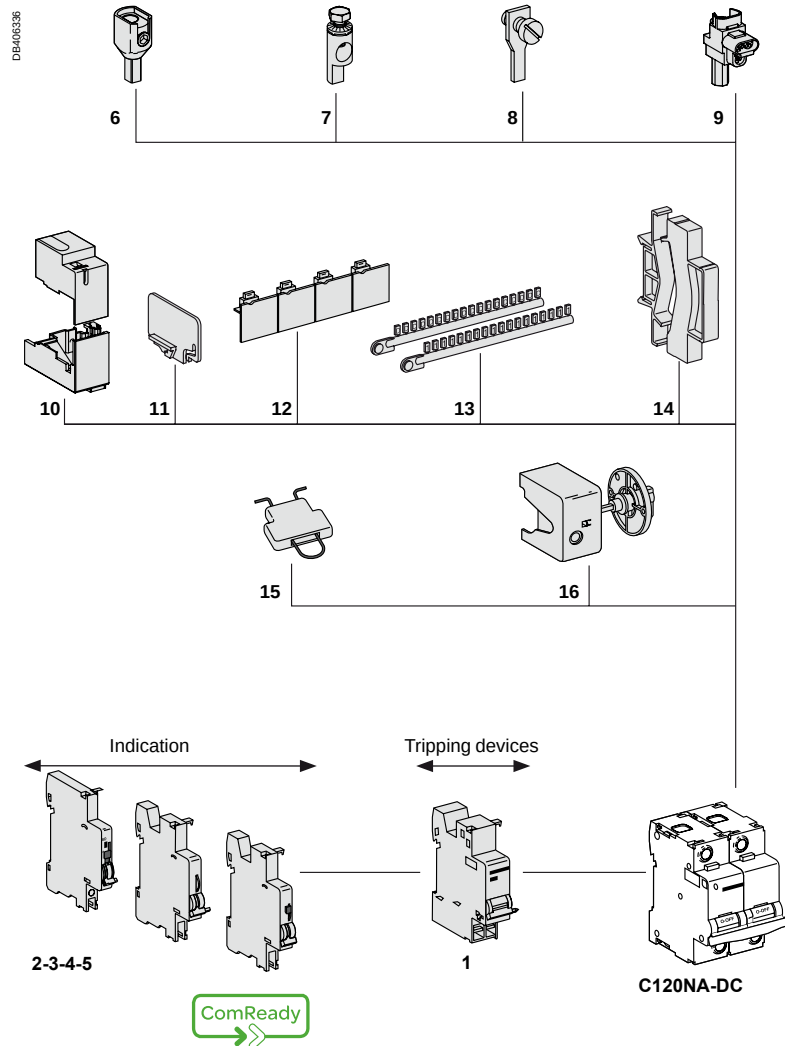
Electrical auxiliaries

See module CA907008

Indication		
2	SD fault indicating contact	A9N26927
3	OF+SD24 auxiliary contact	A9N26899
4	OF open/close auxiliary contact	A9N26924
5	OF+SD/OF auxiliary contact (OF+SD or OF+OF combination switch)	A9N26929

Tripping

1	MN, MNx, MN [Ⓢ] undervoltage release or MX, MX + OF shunt release	See module CA907008
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Tripping devices must be installed first.

If two tripping devices are used: the MN must be installed first
Indication auxiliaries: respect specified position for SD functions.

Assembly rule

The mounting order and the number for the various auxiliaries must be complied with.

The tripping auxiliaries (MN, MX...) should be mounted first **1** as close as possible to the main device.

Then at the left, the indicating auxiliaries (OF, SD) should be mounted **2** then **3** complying with the following association table.

Indicating auxiliaries		Indicating auxiliaries	Device
3	+ 2	+ 1	
1 (OF+SD/OF or OF+SD24)	1 OF+SD/OF	1 (MN, MNx, MN [Ⓢ] or MX, MX+OF)	C120NA-DC
1 OF	1 (OF+SD/OF or SD or OF)	2 (MN, MNx, MN [Ⓢ] or MX, MX+OF)	
–	1 OF+SD24	2 (MN, MNx, MN [Ⓢ] or MX, MX+OF)	

Accessories and Auxiliaries for C60 devices

Connection accessories

See module CA907012

6	Insulated connector	See module	LIN001
7	Comb busbar	See module	LIN001
8	50 mm ² Al terminal		27060
9	Ring tongue terminal screw connection		27053
10	Ring tongue terminal connections kit Ø 5 mm, (upstream/downstream)		17400
11	Insulated distribution terminal	4 parts	19091
		3 parts	19096

Mounting accessories

See module CA907012

12	Sealable terminal shield	See module	CA907012
13	Inter-pole barrier		27001
14	Rotary handle		
	Switching sub-assembly		27046
	Disconnectable handle		27047
	Fixed handle		27048
15	Screw shield	See module	26981
16	Padlocking accessory (to be locked in the "open" position)		26970
17	Spacer		A9N27062
18	Plug-in base		26996
19	Marker strip	See module	CA907012

(1) A complete rotary handle consists of a circuit-breaker operating sub-assembly, cat. no. **27046**, a handle cat. no. **27047** or a handle cat. no. **27048**.

Electrical auxiliaries

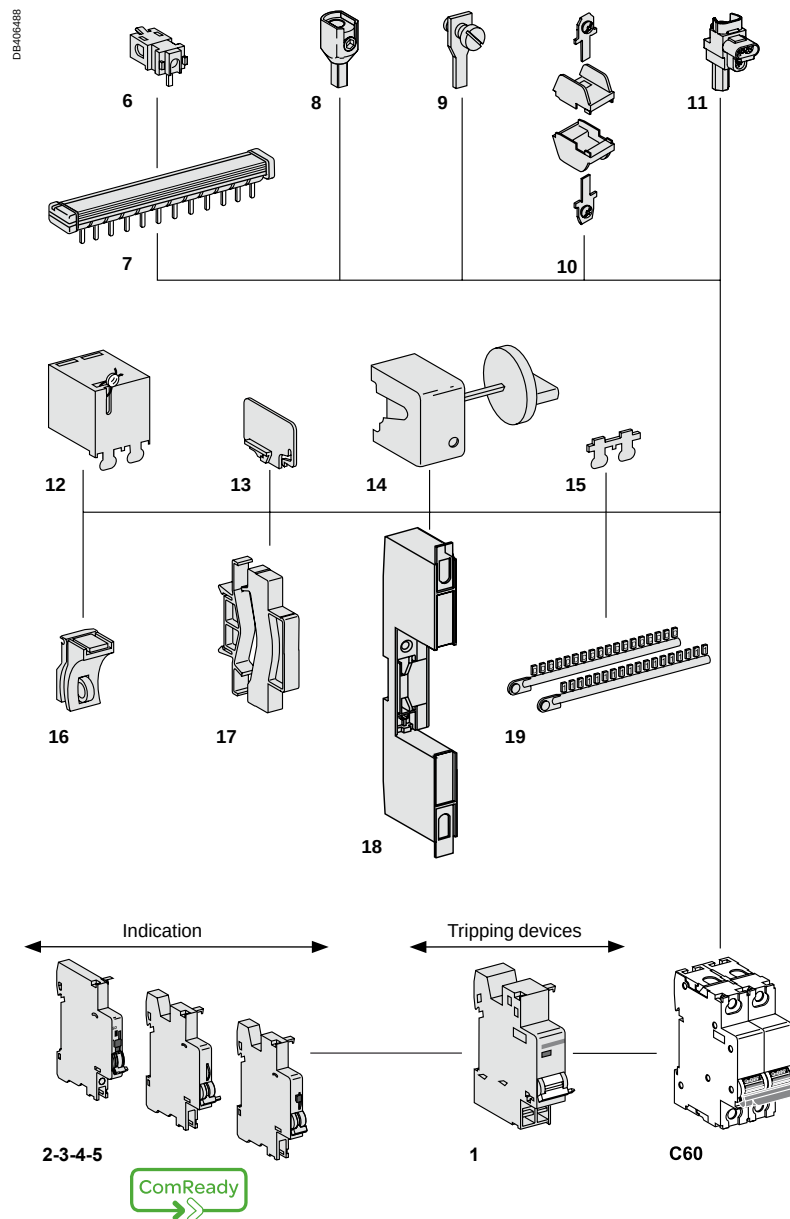
See module CA907008

Indication

2	SD fault indicating contact	A9N26927
3	OF+SD24 auxiliary contact	A9N26899
4	OF open/close auxiliary contact	A9N26924
5	OF+SD/OF auxiliary contact (OF+SD or OF+OF combination switch)	A9N26929

Tripping

1	MN, MNx, MN [®] undervoltage release, MSU overvoltage release or MX, MX + OF shunt release	See module	CA907008
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Tripping devices must be installed first.
If two tripping devices are used: the MN must be installed first
Indication auxiliaries: respect specified position for SD functions.

Assembly rule

The mounting order and the number for the various auxiliaries must be complied with.

The tripping auxiliaries (MN, MX...) should be mounted first **1** as close as possible to the main device.

Then at the left, the indicating auxiliaries (OF, SD) should be mounted **2** then **3** complying with the following association table.

Indicating auxiliaries		Indicating auxiliaries	Device
3	+ 2	+ 1	
1 (OF+SD/OF or OF+SD24)	1 OF+SD/OF	1 (MN, MNx, MN [®] or MX, MX+OF or MSU)	C60
1 OF	1 (OF+SD/OF or SD or OF)	2 (MN, MNx, MN [®] or MX, MX+OF or MSU)	
—	1 OF+SD24	2 (MN, MNx, MN [®] or MX, MX+OF or MSU)	
—	—	3 MSU	

Protection

Earth leakage protection

Accessories and Auxiliaries for ID devices

Connection accessories

See module CA907012

7	Insulated connector	See module	LIN001
8	Comb busbar	See module	LIN001
9	50 mm² Al terminal		27060
10	Ring tongue terminal screw connection		27053
11	Ring tongue terminal connections kit Ø 5 mm, (upstream/downstream)		17400
12	Insulated distribution terminal	4 parts	19091
		3 parts	19096

Mounting accessories

See module CA907012

13	Sealable terminal shield	See module	CA907012
14	Inter-pole barrier		27001
15	Screw shield		26981
16	Padlocking accessory (to be locked in the "open" position)		26970
17	Spacer		A9N27062
18	Plug-in base		26996
19	Marker strip	See module	CA907012

Electrical auxiliaries

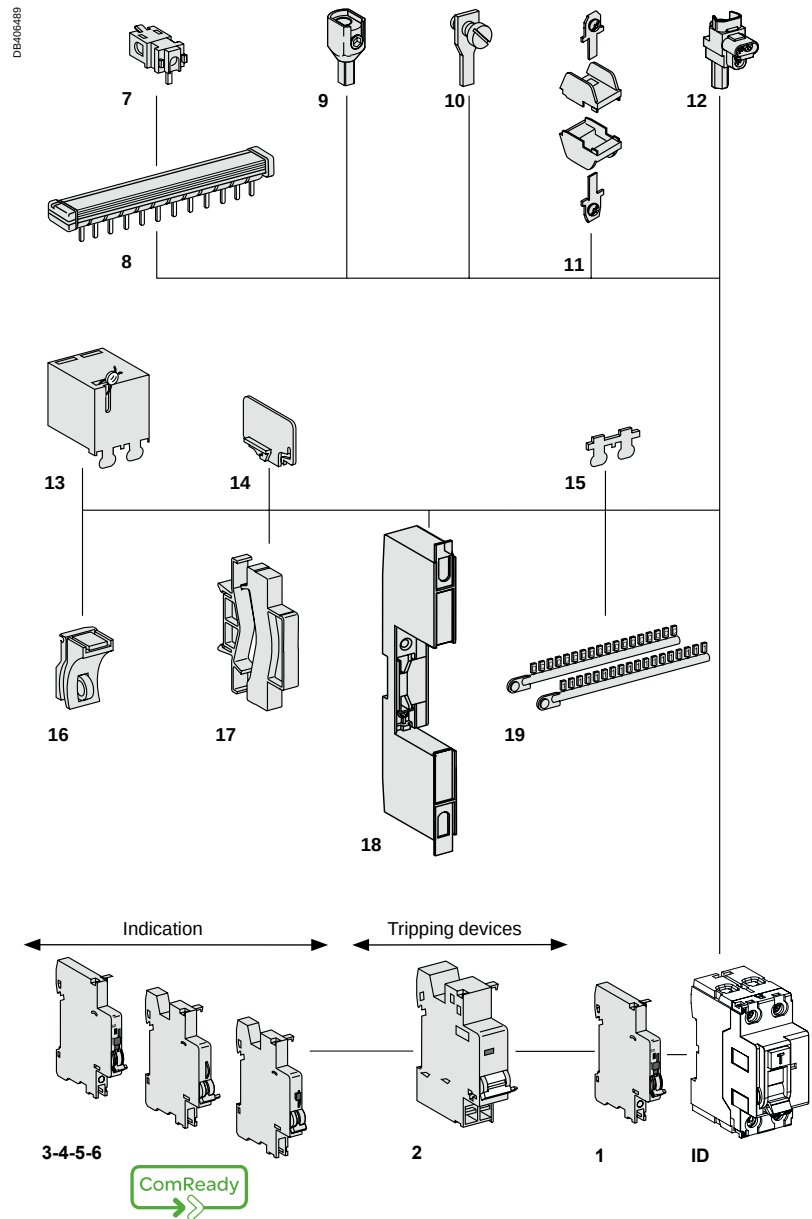
See module CA907008

Indication

1	OF.S auxiliary contact	A9N26923
3	SD fault indicating contact	A9N26927
4	OF+SD24 auxiliary contact	A9N26899
5	OF open/close auxiliary contact	A9N26924
6	OF+SD/OF auxiliary contact (OF+SD or OF+OF combination switch)	A9N26929

Tripping

2	MN, MNx, MN $\overline{\text{N}}$ undervoltage release, MSU overvoltage release or MX, MX + OF shunt release	See module	CA907008
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Tripping devices must be installed first.
If two tripping devices are used: the MN must be installed first
Indication auxiliaries: respect specified position for SD functions.

Assembly rule

The mounting order and the number for the various auxiliaries must be complied with.

The tripping auxiliaries MN, MX...) should be mounted first **1** as close as possible to the main device.

Then at the left, the indicating auxiliaries (OF, SD) should be mounted **2** then **3** complying with the following association table.

Indicating auxiliaries		Indicating auxiliaries	Device
3	+ 2	+ 1	
–	1 (OF+SD/OF or OF or OF+SD24)	2 (MN, MNx, MN $\overline{\text{N}}$ or MX, MX+OF or MSU)	OF.S + ID
1 OF	1 OF	1 (MN, MNx, MN $\overline{\text{N}}$ or MX, MX+OF or MSU)	

Protection

Circuit protection / Earth leakage protection

Accessories and Auxiliaries for C60H-DC devices

Connection accessories

See module CA907012

7	Insulated connector	See module LIN001
8	Comb busbar	See module LIN001
9	50 mm ² Al terminal	27060
10	Ring tongue terminal screw connection	27053
11	Ring tongue terminal connections kit Ø 5 mm, (upstream/downstream)	17400
12	Insulated distribution terminal	4 parts 19091 3 parts 19096

Mounting accessories

See module CA907012

13	Sealable terminal shield	See module CA907012
14	Inter-pole barrier	27001
15	Rotary handle	
	Switching sub-assembly	27046
	Disconnectable handle	27047
	Fixed handle	27048
16	Screw shield	See module CA907012
17	Padlocking accessory (to be locked in the "open" position)	26970
18	Spacer	A9N27062
19	Plug-in base	26996
20	Marker strip	See module CA907012

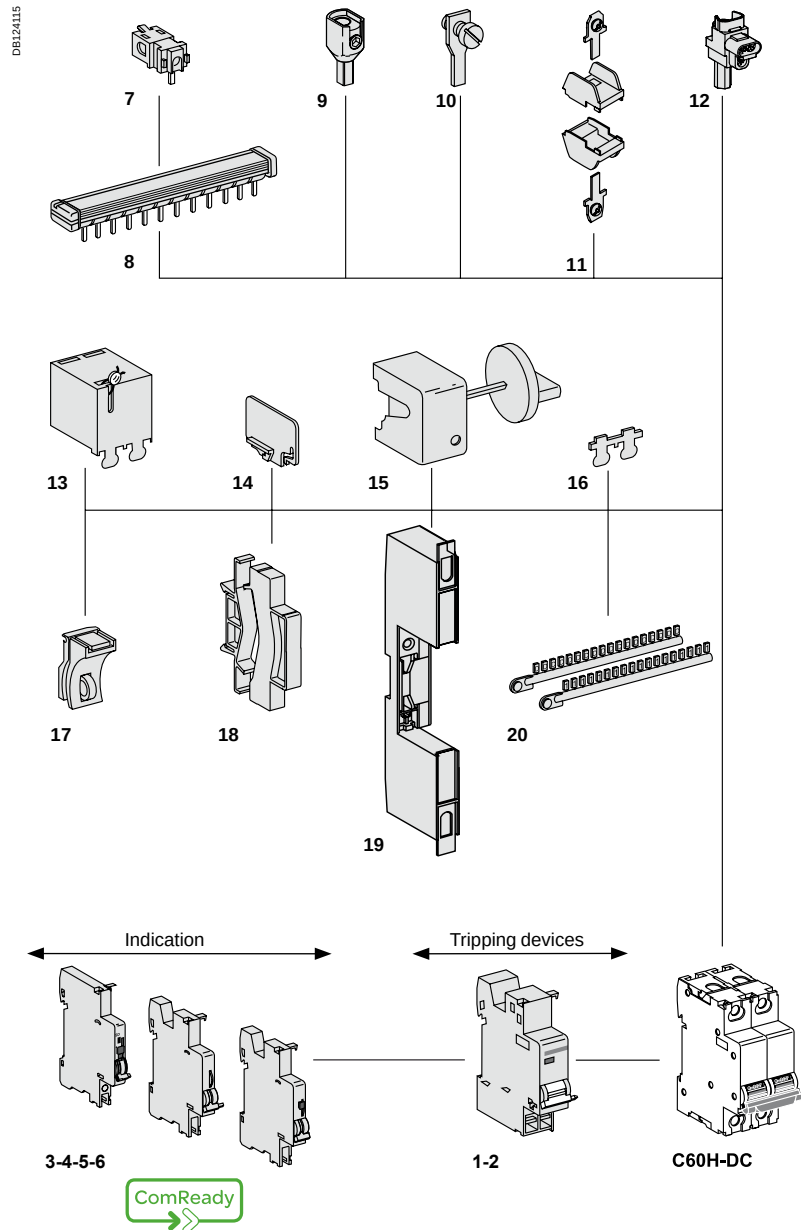
(1) A complete rotary handle consists of a circuit-breaker operating sub-assembly, cat. no. 27046, a handle cat. no. 27047 or a handle cat. no. 27048.

Electrical auxiliaries

See module CA907008

Indication		
3	SD fault indicating switch	A9N26927
4	OF+SD24 auxiliary contact	A9N26899
5	OF open/closed contact	A9N26924
6	OF+SD/OF auxiliary contact (OF+SD or OF+OF combination switch)	A9N26929

Tripping		
1	MN, MNx, MN $\overline{\text{N}}$ undervoltage release	See module CA907008
2	MX, MX + OF shunt release	See module CA907008



Tripping devices must be installed first.

If two tripping devices are used: the MN must be installed first
Indication auxiliaries: respect specified position for SD functions.

Assembly rule

The mounting order and the number for the various auxiliaries must be complied with.

The tripping auxiliaries MN, MX...) should be mounted first **1** as close as possible to the main device.

Then at the left, the indicating auxiliaries (OF, SD) should be mounted **2** then **3** complying with the following association table.

Indicating auxiliaries		Indicating auxiliaries	Device
3	+ 2	+ 1	
1 (OF+SD/OF or OF+SD24)	1 OF+SD/OF	1 (MN, MNx, MN $\overline{\text{N}}$ or MX, MX+OF)	C60H-DC
1 OF	1 (OF+SD/OF or SD or OF)	2 (MN, MNx, MN $\overline{\text{N}}$ or MX, MX+OF)	
–	1 OF+SD24	2 (MN, MNx, MN $\overline{\text{N}}$ or MX, MX+OF)	

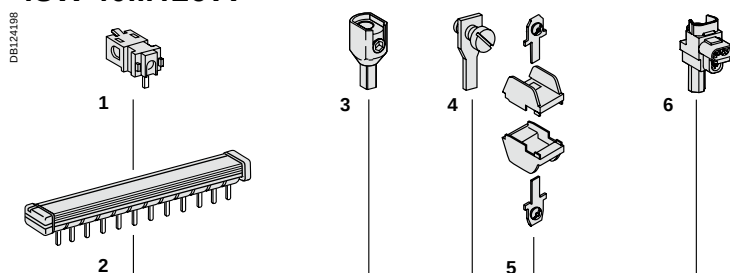
Accessories and Auxiliaries for iSW devices

Connection accessories

See module CA907012

1	Insulated connector	See module LIN001
2	Comb busbar	See module LIN001
3	50 mm ² Al terminal	27060
4	Ring tongue terminal screw connection	27053
5	Ring tongue terminal connections kit Ø 5 mm, (upstream/downstream)	17400
6	Insulated distribution terminal	4 parts 19091 3 parts 19096

iSW 40...125 A

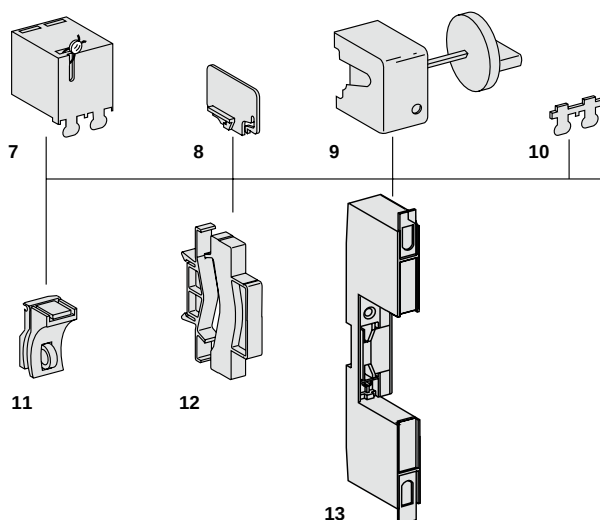


Mounting accessories

See module CA907012

7	Sealable terminal shield	See module CA907012
8	Inter-pole barrier	27001
9	Rotary handle	
	Switching sub-assembly	27046
	Disconnectable handle	27047
	Fixed handle	27048
10	Screw shield	See module CA907012
11	Padlocking accessory (to be locked in the "open" position)	26970
12	Spacer	A9N27062
13	Plug-in base	26996

(1) A complete rotary handle consists of a circuit-breaker operating sub-assembly, cat. no. 27046, a handle cat. no. 27047 or a handle cat. no. 27048.

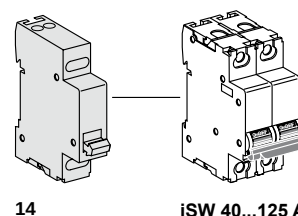


Electrical auxiliary

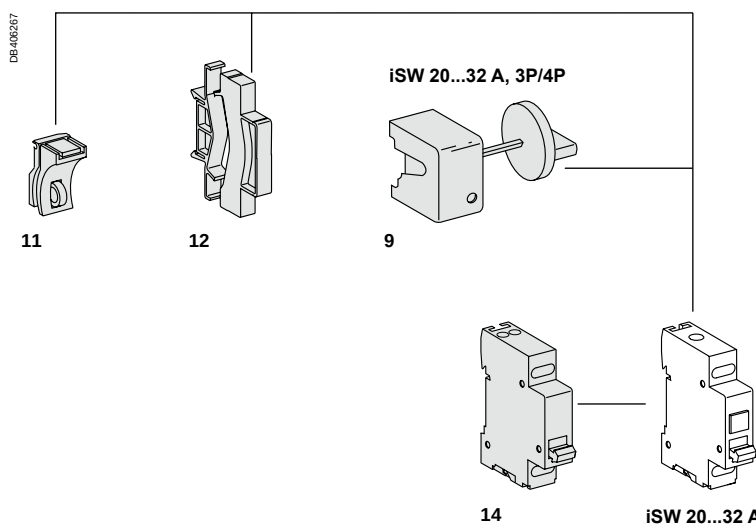
See module iSW CA904005

Indication

14	OF iSW open/closed contact	A9A15096
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iSW 20...32 A



Protection

Circuit protection

Accessories and Auxiliaries for SW60-DC, C60NA-DC, C60PV-DC devices

Connection accessories

See module CA907012

7	50 mm ² Al terminal	27060
8	Ring tongue terminal screw connection	27053
9	Insulated distribution terminal 4 parts	19091
	3 parts	19096

Mounting accessories

See module CA907012

10	Inter-pole barrier	27001
11	Screw shield	26981
12	Padlocking accessory (to be locked in the "open" position)	26970
13	Spacer	A9N27062
14	Marker strip	See module CA907012

Electrical auxiliaries

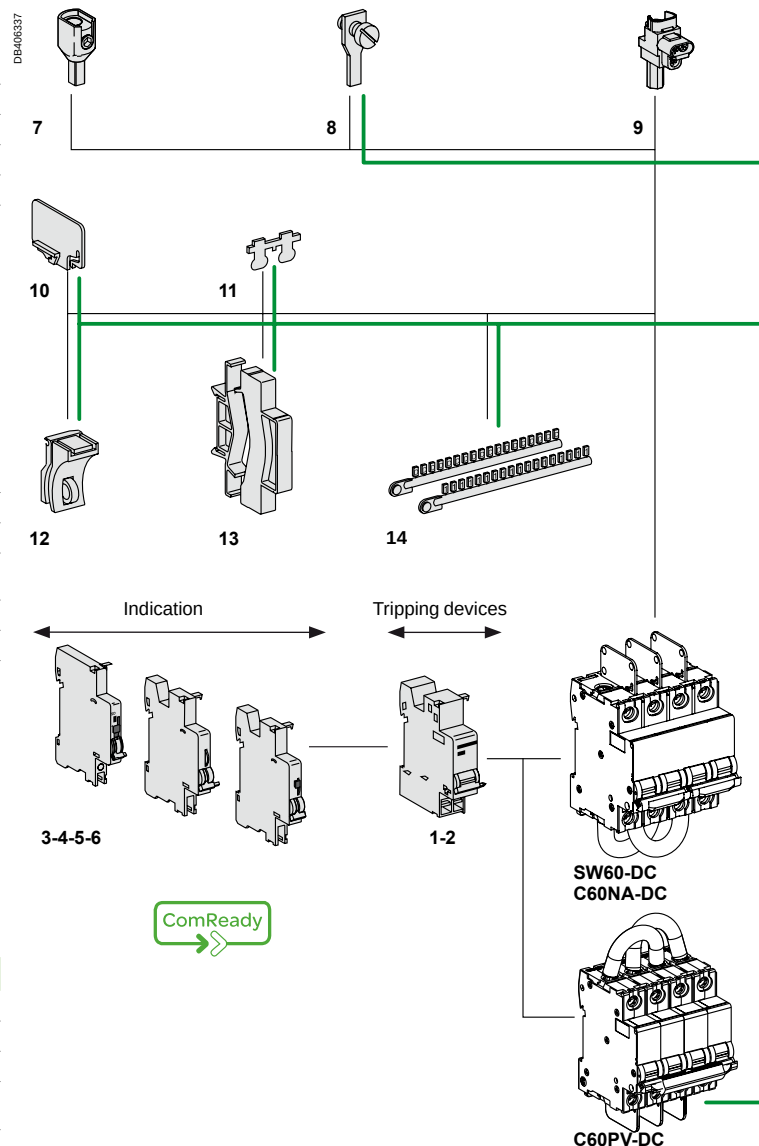
See module CA907008

Indication

3	SD fault indicating switch	A9N26927
4	OF+SD24 auxiliary contact	A9N26899
5	OF open/closed contact	A9N26924
6	OF+SD/OF auxiliary contact (OF+SD or OF+OF combination switch)	A9N26929

Tripping

1	MN, MNx, MN $\square$ undervoltage release	See module CA907008
2	MX, MX + OF shunt release	See module CA907008



Tripping devices must be installed first.

If two tripping devices are used: the MN must be installed first
Indication auxiliaries: respect specified position for SD functions.

Assembly rule

The mounting order and the number for the various auxiliaries must be complied with.

The tripping auxiliaries MN, MX...) should be mounted first **1** as close as possible to the main device.

Then at the left, the indicating auxiliaries (OF, SD) should be mounted **2** then **3** complying with the following association table.

Indicating auxiliaries 3		Indicating auxiliaries 1		Device
	+ 2		+ 1	
1 (OF+SD/OF or OF+SD24)	1 OF+SD/OF	1 (MN, MNx, MN $\square$ or MX, MX+OF)		SW60-DC, C60NA-DC, C60PV-DC
1 OF	1 (OF+SD/OF or SD or OF)	2 (MN, MNx, MN $\square$ or MX, MX+OF)		
–	1 OF+SD24	2 (MN, MNx, MN $\square$ or MX, MX+OF)		

Protection

Circuit protection / Earth leakage protection

Accessories and auxiliaries for NG125 devices

Connection

6	Comb busbar	see cat. no.	CA907026, CA907027
7	Splitter blocks	Linery DX 125 A	LIN003
8	70 mm ² Al terminal		19095
9	Multi-cable terminal	4 parts	19091
		3 parts	19096
10	Screw-on connection for ring	125 A (pack of 4)	19093
11	Small ring terminal	(pack of 4)	19094

Mounting accessories

12	Sealable terminal shield (upstream/downstream)	1P	19080
		2P	19081
		3P	19082
		4P	19083
13	Residual current device terminal shield (upstream of circuit breaker / downstream of Vigi device)	63 A 2P	19074
		3P	19075
		3P adjustable	19077
		4P	19076
		4P adjustable	19078
		125 A 3P	19077
		4P	19078
14	Circuit breaker screw shield	1P (pack of 10)	19084
		2P	19085
		3P	19086
		4P	19087
15	Rotary handle		
	Extended standard	Black	19088
	Extended safety	Red handle, yellow	19089
	Direct standard	Black	19092
	Direct safety	Red handle, yellow background	19097
16	Padlocking device	(pack of 10)	19090
17	White toggle	(pack of 10)	19099

Electrical auxiliaries

Indication

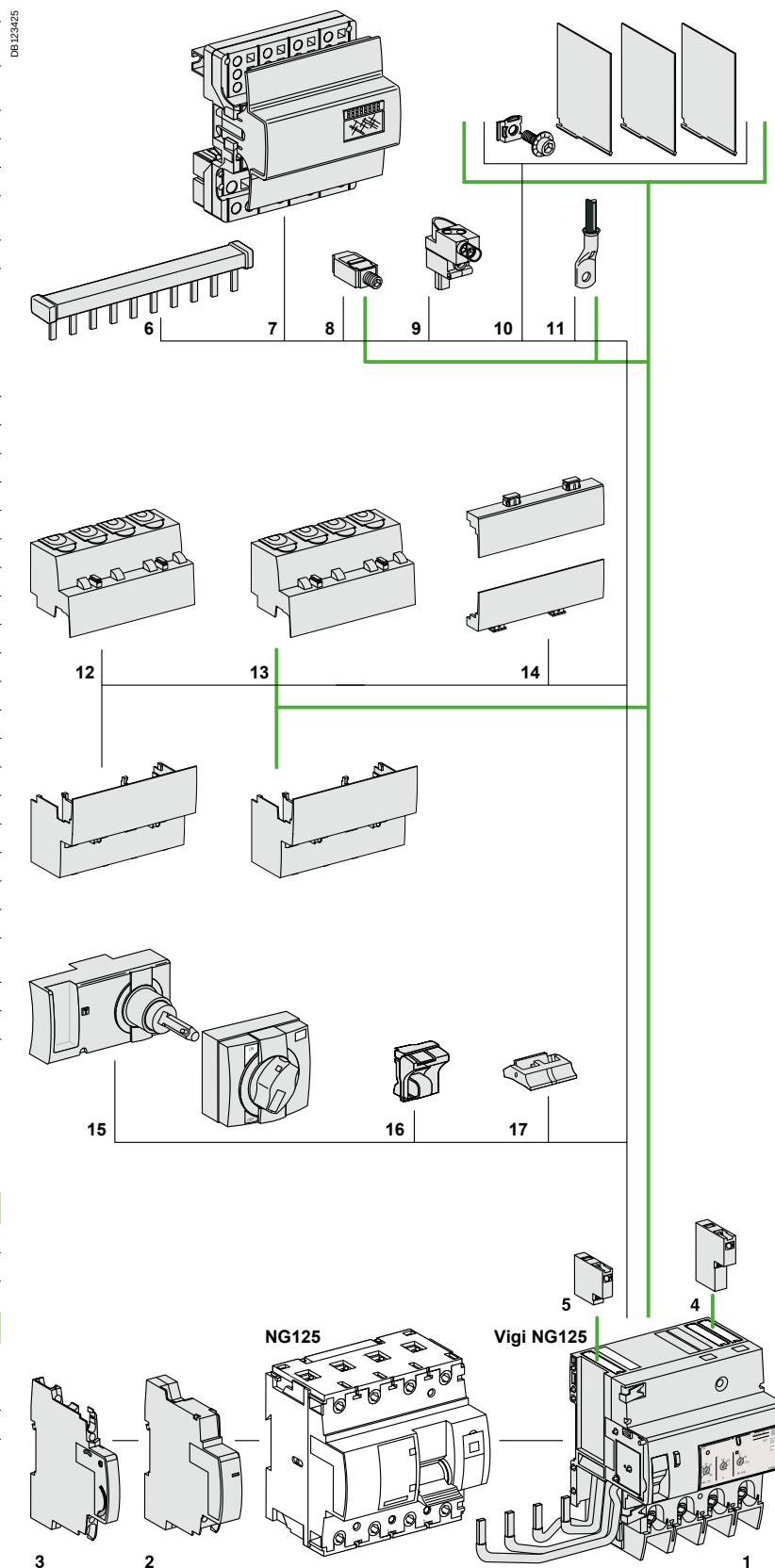
3	Fault indicating auxiliary contact OF+SD	19072
	Open/closed auxiliary contact OF+OF	19071

Tripping devices

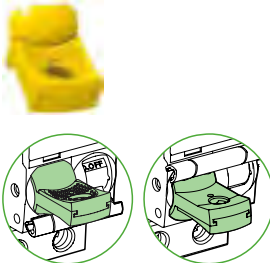
2	Undervoltage release MN or undervoltage release with external power supply MNx	see cat. no.	CM907005
	Shunt release MX+OF	see cat. no.	CM907005

Vigi NG125

1	Vigi NG125 add-on residual current device	see cat. no.	CM902008
4	MXV	see cat. no.	CM907005
5	SDV	see cat. no.	CM907005



Accessories for iC60, iID, iC40, iCV40, iID40, iSW-NA, Reflex iC60, RCA, iSW

Mounting			
Accessories	Rotary handle	Plug-in base	Padlocking device
			
	PE104608-35	PE104608-35	PE104402-15 DB123599
	PE106207_10		
Function	Front or side-mounted control - Degree of protection: IP55 rotary handle - Installation: - the control mechanism is mounted on the device - the rotary handle is fixed to the front or side of the enclosure - Front-mounted (on door or faceplate) - Prevents the door from opening when the device is in the ON position (can be deactivated) - Can be padlocked when the device is in the "open" position (can be padlocked with the device in the "closed" position subject to adaptation) - Can be locked by padlock of (dia. 5 to 8 mm), not supplied with the device - Pushbutton: iID test available in the front face of the rotary handle		
	Allows a breaker to be removed or replaced quickly, without handling the connections - Degree of protection: IP20 - Consists of: - a base to be fastened on a rail (or panel) 2 "blades" to be fastened in the device's terminals - Connection: tunnel terminals for cable up to 35 mm² rigid, 25 mm² flexible, - Installation: - in universal enclosure - on horizontal rail - Height: 178 mm - Not compatible with Vigi iC60 and auxiliaries - Can be locked by padlock of (dia. 6 mm), not supplied with the device		
	Used to padlock a breaker in open or closed position - Padlock diameter: 3 to 6 mm - Sealable (max. diameter: 1.2 mm) - Locking in ON position does not prevent tripping of the breaker in the event of faults - Suitable for IEC/EN 60947-2 compliant disconnection		
Catalogue numbers	A9A27005	A9A27006	A9A27008
	Operating sub-assembly		
	+	+	
	Black handle	Red handle	No handle
Set of	1	1	1
Suitability			
iC60	■ 2P, 3P, 4P		
iSW	■ 2P, 3P, 4P		
iC60 + Vigi iC60	■ 2P, 3P, 4P		
iID	■		
iC40, iC40 XA	—		
iCV40, iCV40 XA	—		
iDPN Vigi	—		
iID40	—		
Reflex iC60 or RCA+iC60 or ARA+iC60	—		
ARA+iID	—		
iSW-NA	■		
	■ ≤ 63 A		

Protection

Circuit protection / Earth leakage protection

Accessories for iC60, iLD, iC40, iCV40,
iLD40, iSW-NA, Reflex iC60, RCA, iSW (cont.)

			Wall mounting	Spare part Locking clips
Side				
A9A26380-40	A9A26381-40	PB10482-15		A9A27052-25
				
Can be used to padlock a breaker in open position ■ Attached directly to the circuit breaker, it cannot be lost ■ Padlock diameter: 6 mm			Can be used for wall mounted installation of any 18 mm DIN rail devices ■ Degree of protection: IP40 ■ Sealable: (max. diameter: 1.5 mm)	
A9A26380	A9A26381	15359	A9A27052	
Left-hand mounting	Right-hand mounting			
1	1	1	10	
■	■	■ All products up to 18 mm ■ Except ICT	■	
—	—		—	
—	—		—	
■	—		—	
■	■ (1)		■	
■	—		■	
—	—		—	
■	—		■	
—	—		—	
—	—		—	

(1) iC40 XA compatible only with bottom screw connections.

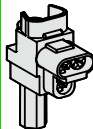
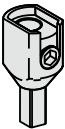
Security						
Accessories	Screw shield		Terminal shield		Inter-pole barrier	Spacer
						
Function						
	Prevents any contact with the connecting screws - Upgrades degree of protection to IP20D - Sealable, max. diameter 1.2 mm		Prevents any contact with the terminals - Upgrades degree of protection to IP20D - Sealable, max. diameter 1.2 mm - Set of two, for power supply and output terminals - For 3 poles: A9A26975 + A9A26976 - For 4 poles: 2 X A9A26976		Enhances insulation between connections: cables, terminals, lugs, etc	- Used to: - complete rows - separate devices. - Width: 1 x 9 mm module - Allows cable routing from one row to another, (above and below), up to 6 mm²
Catalogue numbers	A9A26982	A9A26981	A9A26975	A9A26976	A9A27001	A9A27062
Set of	12 x 1 pole	20 x 4 poles (splittable)	2 x 1 pole	2 x 2 poles	10	5
Suitability						
iC60	–	■	■	■	■	■
iSW	–	–	■	■	■	■
Vigi iC60	■	–	–	–	–	■
Vigi iC40, Vigi iCG40	–	–	–	–	–	■
iID	–	■	–	■	■	■
iC40, iC40 XA	–	–	–	–	–	■
iCV40, iCV40 XA	–	–	–	–	–	■
iDPN Vigi	–	–	–	–	–	■
iID40	–	■ (2)	–	■ (2)	■ only on power supply terminals (bottom)	■
Reflex iC60 or RCA+iC60 or ARA+iC60	–	■	■	■	■	■
ARA+iID	–	■	–	■	■	■
iSW-NA	–	■	–	■	■	■

(2) compatible only with power supply terminals (bottom), having removed the indication flap of connection direction.

Protection

Circuit protection / Earth leakage protection

Accessories for iC60, iID, iC40, iCV40, iID40, iSW-NA, Reflex iC60, RCA, iSW (cont.)

Connection				
Accessories	Multi-cable terminal		50 mm² Al terminal	Screw-on connection for ring terminal
	DB118780 		DB118781 	DB118783 
Function				
	For 3 copper cables: ■ Rigid up to 16 mm² ■ Flexible up to 10 mm²		For aluminium cables from 16 to 50 mm²	For lug tipped cables, front or rear mounting
	DB118787 		DB122935  Al	DB118789  Ø 5 mm
Catalogue numbers	19091	19096	27060	27053
Set of	4	3	1	8
Suitability				
iC60 ≤ 25 A Reflex iC60 ≤ 25 A	—	—	—	■
iC60 >25 A Reflex iC60 40 A, iSW	■	■	■	■
Vigi iC60	—	—	—	—
iID	■	■	■	■
iC40, iC40 XA	—	—	—	■ (3)
iCV40, iCV40 XA	—	—	—	■ (4)
iDPN Vigi	—	—	—	■
iID40	■ only on power supply terminals (bottom)	■ only on power supply terminals (bottom)	■ only on power supply terminals (bottom)	■
iSW-NA	■	■	■	■
Tightening torque	2 N.m		10 N.m	2 N.m
Lenght stripping	11 mm		13 mm	—
Tools to use	Dia. 5 mm or PZ2		Hc 1/5" or 5 mm	Dia. 5mm

(3) only with screw connections.

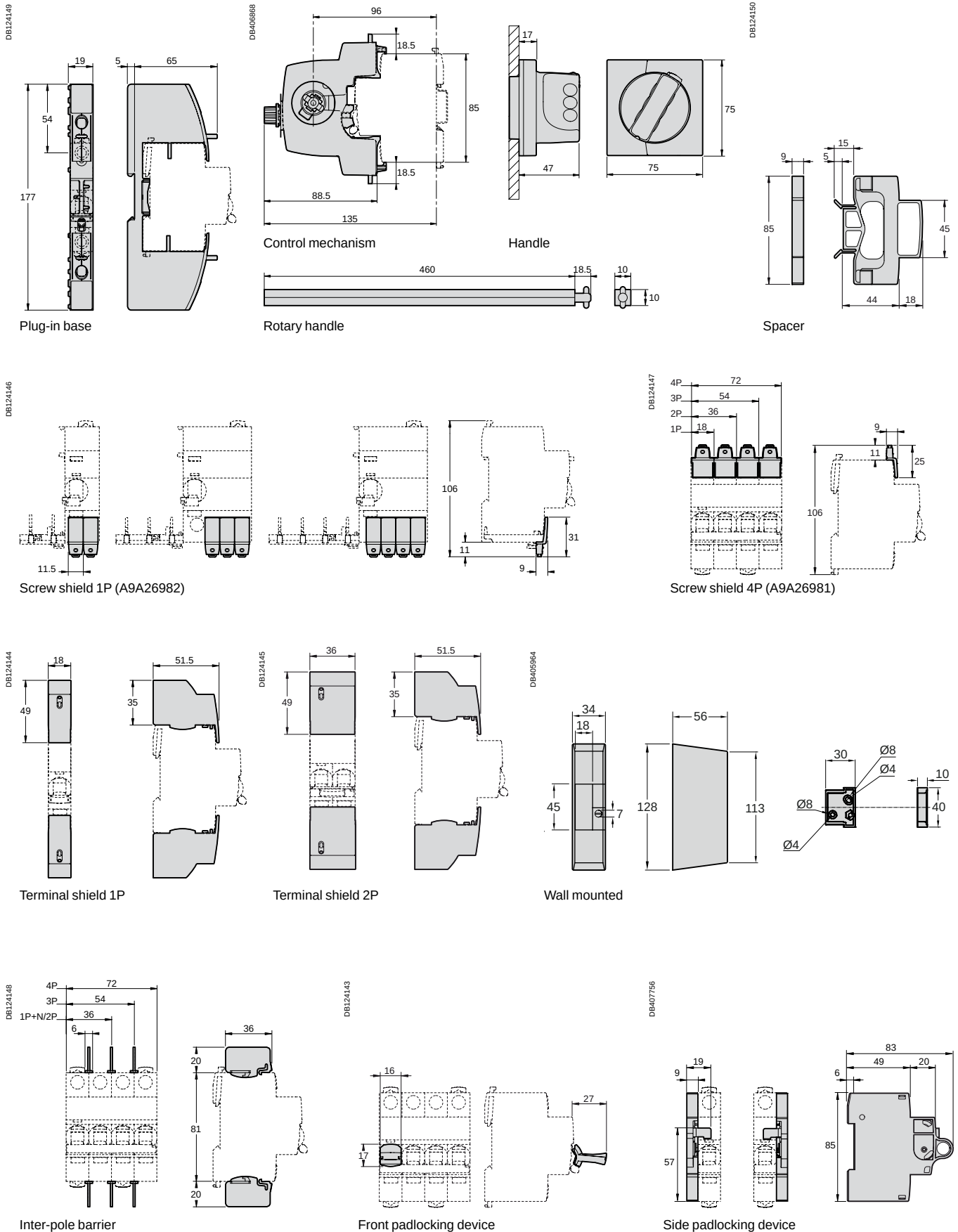
(4) only with screw connections on MCB side and on Vigi side for iCV40 1P+N.

Protection

Circuit protection / Earth leakage protection

Accessories for iC60, iLD, iC40, iCV40, iLD40, iSW-NA, Reflex iC60, RCA, iSW (cont.)

Dimensions (mm)



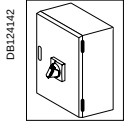
Protection

Circuit protection / Earth leakage protection

Accessories for iC60, iID, iC40, iCV40, iID40, iSW-NA, Reflex iC60, RCA, iSW (cont.)

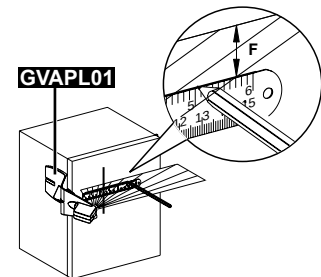
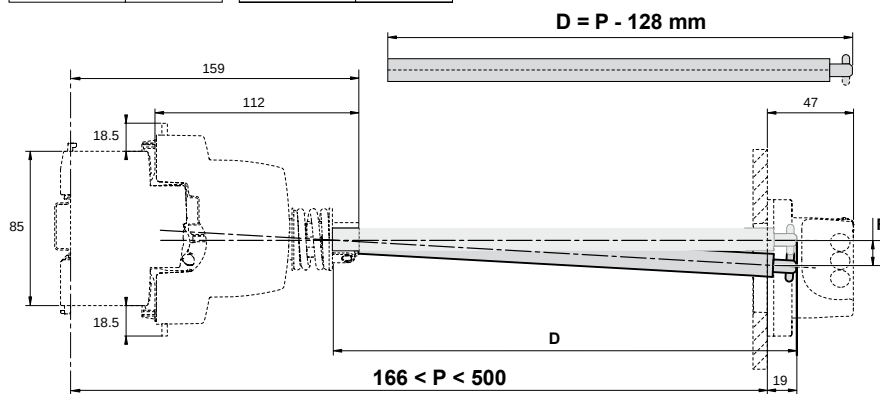
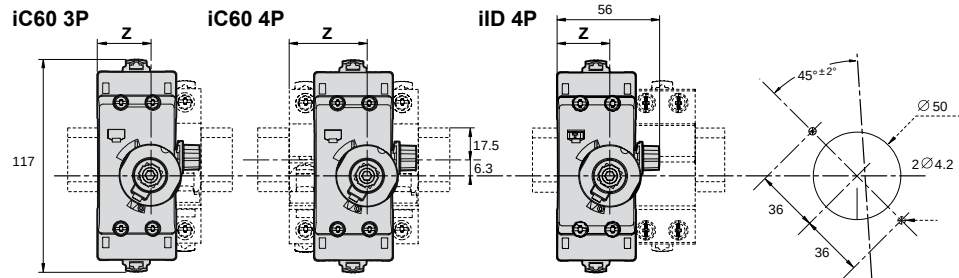
Rotary handle installation

Dimensions (mm)



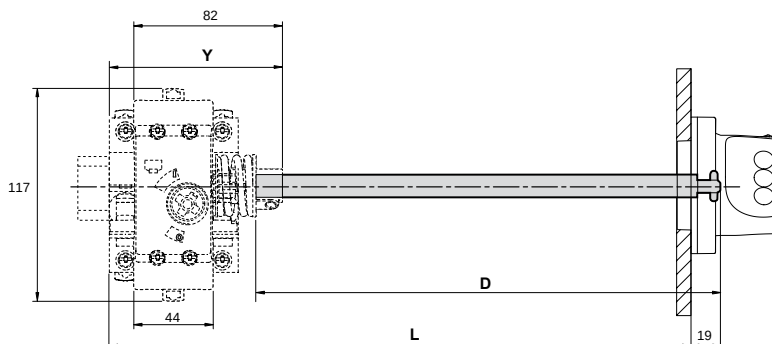
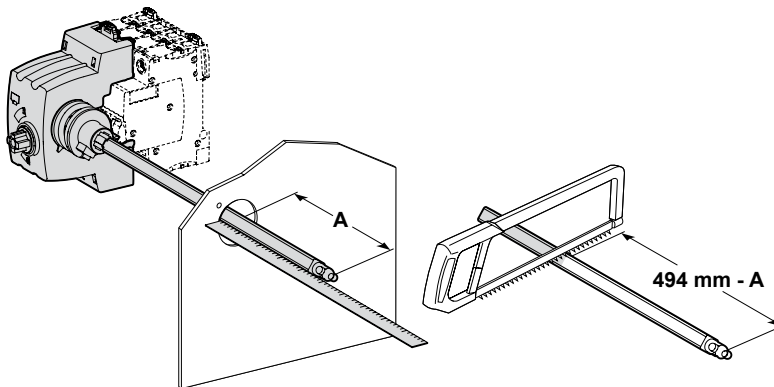
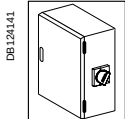
iC60	Z (mm)
2P	25.3
2P + Vigi	25.3
3P	25.3
3P + Vigi	43
4P	43
4P + Vigi	43

iID	Z (mm)
2P	25.3
4P	25.3



P (mm)	F (mm)
300	5
500	11

Rotary handle: front mounted control



iC60	X (mm)	Y (mm)
2P	44.5	76.8
2P + Vigi	44.5	76.8
3P	44.5	76.8
3P + Vigi	62	94.5
4P	62	94.5
4P + Vigi	62	94.5

iID/iSW-NA	X (mm)	Y (mm)
2P	44.5	76.8
4P	44.5	76.8



Rotary handle: side mounted control

Accessories for C60, C120, C60H-DC, SW60-DC, C60NA-DC, C60PV-DC, ID, iSW devices

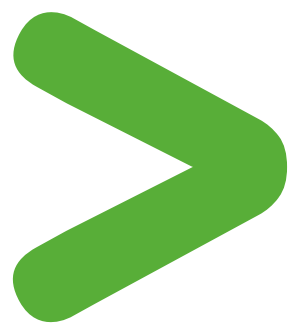
Installation							
Accessories	Rotary handle			Plug-in base		Padlocking device	
PB100137_SE-24 PB100138_SE-24							
	PB111764-40					056886 SE 057209J_SE-20	
Function	Front or side control of 2, 3 and 4-pole circuit breakers - Degree of protection: IP40 - A complete rotary handle consists of: - a circuit-breaker operating sub-assembly, cat. no. 27046, - a handle cat. no. 27047 or a handle cat. no. 27048 - Installation: - the circuit-breaker operating sub-assembly cat. no. 27046 is fixed to the circuit breaker - the removable handle cat. no. 27047 is mounted on the removable front panel or on the enclosure door - the fixed handle cat. no. 27048 is fixed to the front or side panel of the enclosure			Allows a circuit breaker to be quickly removed or replaced, without touching the connections - Degree of protection: IP20 - It consists of: - a base to be fixed to a rail (or panel) 2 "blades" to be fixed in the device terminals - Connection: tunnel terminals for cables up to 50 mm² (rigid) or 35 mm² (flexible) - Installation: - on backplate - on a horizontal rail - Centreline between two rows: 200 mm - Only on the circuit breaker, without a Vigi device or auxiliary - Padlocking option (8 mm dia. padlock not supplied)		Used to padlock a circuit breaker in the "open" or "closed" position - Diameter of the padlock: 8 mm max. - Locking in the ON position does not prevent the circuit breaker from tripping in the event of a fault - Isolation: in conformity with IEC/EN 60947-2.	
Cat. numbers	27047 Removable extended handle	27048 Fixed handle	27046 Operating sub-assembly	26996 (1 per pole)	26997 (1 per pole)	27145	26970
Set of	1	1	1	1	1	4	2
Suitable for the following devices:							
C60	■ 2P, 3P, 4P			■	—	—	■
C120, C120NA-DC	■ 2P, 3P, 4P			—	■ ≤ 63 A	■	—
C120 + Vigi C120	■ 2P, 3P, 4P			—	—	■	—
DPN, DPN Vigi	■ 3P, 4P			—	—	—	■
C60H-DC	■ 2P			■	—	—	■
SW60-DC, C60NA-DC, C60PV-DC	—			—	—	—	■
ID	—			■ ≤ 63 A	—	—	■
iSW	■ iSW ≥ 4 modules of 9 mm			■ iSW 40 to 63 A	—	—	■

Accessories for C60, C120, C60H-DC, SW60-DC, C60NA-DC, C60PV-DC, ID, iSW devices (cont.)

Safety							
Accessories	Screw shield		Terminal shield		Interpole barrier	Spacer	
	056870_SE-33  PB124114  056889_SE-38  DB123898  PB104483-35 						
Function	Prevents all contact with the fixing screws - The degree of protection becomes IP40 - Sealable, max. diameter 1.2 mm - Dividable		Prevents all contact with the terminals - Degree of protection becomes IP40 - Sealable, max. diameter 1.2 mm 1P 1P 2P 3P: 1 x 26975 + 1 x 26976 4P: 2 x 26976		Improves the insulation between the connections: cables, terminals, lugs, etc.		- Used to: - complete the rows - separate the devices - Width: 1 x 9 mm module - Allows that 2 cables are routed from one row to another (above and below), up to 6 mm²
Cat. numbers	18527	26981	18526	26975	26976	27001	A9N27062
Set of	2 (4P dividable)		2 (for upstream/downstream terminal)		10	1	
Suitable for the following devices:							
C60	—	■	—	■	■	■	■
C120, C120NA-DC	■	—	■	—	—	■	■
Vigi C120	—	—	—	—	—	—	■
DPN, DPN Vigi	—	—	—	—	—	—	■
C60H-DC	—	■	—	■	■	■	■
SW60-DC, C60NA-DC, C60PV-DC	—	■	—	—	—	■	■
ID	—	■	—	■	■	■	■
iSW	—	■ iSW 40 to 125 A	—	■ iSW 40 to 125 A	■ iSW 40 to 125 A	■ iSW 40 to 125 A	■

Accessories for C60, C120, C60H-DC, SW60-DC, C60NA-DC, C60PV-DC, ID, iSW devices (cont.)

Connection						
Accessories	Multi-cable terminal	50 mm ² Al terminal	Screw-on connection for ring terminal	Connection kit for ring terminals	Terminal for rear connector	
DB118780		DB118782 	DB128897 	058867N-23 	DB118784 	
Function						
DB118787 	For 3 copper cables: ■ Rigid up to 16 mm² ■ Flexible up to 10 mm²	For 16 to 50 mm² aluminium cables  Al	For lug tipped cables, front or rear mounting  Ø 5 mm	For terminal up to 63 A, front or rear access (screw Ø 5 mm) ■ It incorporates a "conductive" part and an "insulating" part which ensures the phase-to-phase clearance	For cable up to 50 mm² or by terminal ■ Supplied with a 1P terminal shield	
Cat. numbers	19091	19096	27060	27053	17400	18528
Set of	4	3	1	8	2	2
Suitable for the following devices:						
C60 ≤ 25 A	—	—	—	■	■	—
C60 > 25 A	■	■	■	■	■	—
C120, C120NA-DC	■	■	■	■	—	■
Vigi C120	■	■	■	—	—	—
DPN, DPN Vigi	—	—	—	■	—	—
C60H-DC, ID	■	■	■	■	■	—
iSW 40 to 125 A	■	■	■	■	—	—
SW60-DC, C60NA-DC	■	■	■	■	—	—
C60PV-DC	—	—	—	■	—	—
Tightening torque	2 N.m		10 N.m	2 N.m	—	—
Stripping length	11 mm		13 mm	—	—	—
Tools to be used	Diameter 5 mm or PZ2		Hc 1/5" or 5 mm	Diameter 5 mm	Diameter 5 mm	13 mm spanner



Protection

Circuit protection

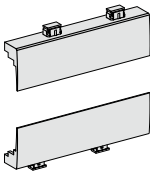
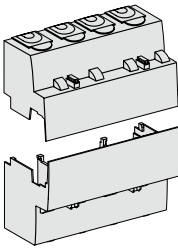
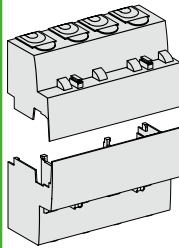
Earth leakage protection

Accessories for NG125 devices

Mounting					
Accessories	Rotary handle		Toggle		Padlocking device
Function	Extended rotary handle - Degree of protection: rotary button IP55 - Front installation: - Prevents door opening when the circuit breaker is in position O - Keeps disconnection - Padlocking possible when the device is in position O - Padlock diameter: 3 to 6 mm		Direct rotary handle - Front installation - Keeps disconnection - Padlocking possible when the device is in position O - Padlock diameter: 3 to 6 mm		White toggle Allows visual distinction of a switchboard incoming device
					Allows padlocking: - In position I or O of NG125 1P or 2P circuit breakers - In position I of NG125 3P or 4P circuit breakers or switches - Padlock: dia. 5 to 8 mm (not supplied) Note: NG125 3P/4P circuit breakers and switches are provided with padlocking in position O (disconnected) as original equipment.
	- Two versions: - standard black - red handle and yellow front plate for machine tool control				
Catalogue numbers	19088 Extended standard black	19089 Extended safety	19092 Direct standard black	19097 Direct safety red handle yellow background	19099 White toggle
Pack of	1		1	1	10
Suitable for the following devices:					
NG125	■ 3P, 4P		■	■ 3P, 4P	■
Vigi NG125	—	—	—	—	—

Connection					
Accessories	Multi-cable terminal	70 mm ² Al terminal	Screw-on connection for ring terminal	Small ring terminal	
Function	For 3 copper cables: - Rigid up to 16 mm² - Flexible up to 10 mm²		For single rigid aluminium cables from 25 to 70 mm²		Installation: - Upstream or downstream - Connection ratings 80 to 125 A: - copper terminal: - flexible cable up to 35 mm² - rigid cable up to 50 mm² - bars: 16 x 3 mm, 15 x 4 mm, 16 x 4 mm - small ring terminal - Phase-to-phase insulation voltage: U_i = 1000 V
Cat. nos.	19091	19096	19095	19093	19094
Pack of	4	3	4	4	4
NG125	■	■	■ 3P, 3P+N, 4P: 80, 100, 125 A	■ 80, 100, 125 A	■ 80, 100, 125 A
Vigi NG125	—	—	■ 125 A	■ 125 A	■ 125 A
Tightening torque	2 N.m		6 N.m	6 N.m	6 N.m
Stripping length	11 mm		—	—	—
Tools to be used	Diameter 5 mm or PZ2		Hc 4 mm	Hc 4 mm	—

Safety

Accessories		Screw shield				Circuit breaker terminal shield				RCD terminal shield						
																
Function		■ Prevents any contact with the connection screws ■ Protection against direct contact: □ IP40: on front panel □ IP20: at the connection level ■ Class II in steel or plastic enclosures ■ Sealing possible (max. diameter: 1.2 mm).				■ Prevents any contact with the terminals ■ Installation: mounted upstream and downstream of circuit breaker ■ Phase-to-phase insulation voltage $U_i = 1000\text{ V}$ ■ Protection against direct contact IP40 ■ Class II in steel or plastic enclosures (up to 440 V) ■ Sealing possible (max. diameter: 1.2 mm)				■ Installation: is mounted upstream of the circuit breaker and downstream of the Vigi device ■ Phase-to-phase insulation voltage $U_i = 1000\text{ V}$ ■ Protection against direct contact: IP40 ■ Class II in steel or plastic enclosures (up to 440 V) ■ Sealing possible (max. diameter: 1.2 mm)						
		1P	2P	3P	4P	1P	2P	3P	4P	63 A				125 A		
										2P	3P	3P adjustable	4P	4P adjustable	3P	4P
	Catalogue numbers	19084	19085	19086	19087	19080	19081	19082	19083	19074	19075	19077	19076	19078	19077	19078
	Pack of	10				Set of 1 upstream / 1 downstream				Set of 1 upstream / 1 downstream						
Suitable for the following devices:																
	NG125	■				■				■				■		
	Vigi NG125	—				—				■				■		

Horizontal comb busbars 18 mm modules for Acti9: iC60



IEC 60947-7-1, IEC 61439-2

Acti9 iC60, iK60	18 mm poles, cuttable				
Number of poles	1P	1P+N	3P	4P	3 (N+P)
Type	L1, ...	NL, ...	L1L2L3, ...	NL1L2L3, ...	NL1NL2NL3, ...
Set of	1	1	1	1	1
Catalogue numbers					
6 modules of 18 mm	A9XPH106	A9XPH206 (*)	A9XPH306	-	-
8 modules of 18 mm	-	A9XPH208 (*)	-	A9XPH408	-
9 modules of 18 mm	-	-	A9XPH309	-	-
10 modules of 18 mm	-	A9XPH210 (*)	-	-	-
12 modules of 18 mm	A9XPH112	A9XPH212 (*)	A9XPH312	A9XPH412	A9XPH512
16 modules of 18 mm	-	-	A9XPH316	A9XPH416	-
18 modules of 18 mm	-	A9XPH218 (*)	A9XPH318	-	A9XPH518
20 modules of 18 mm	-	-	A9XPH320	-	-
24 modules of 18 mm	A9XPH124	A9XPH224 (*)	A9XPH324	A9XPH424	A9XPH524
57 modules of 18 mm	A9XPH157	A9XPH257 (*)	A9XPH357	A9XPH457	A9XPH557

(*)

CAUTION

INCOMPATIBILITY BETWEEN TWO-POLE COMB BUSBARS AND FOUR-POLE DEVICES

- Never connect a two-pole comb busbar to a four-pole device, as this will result in a multi-phase bolted short circuit.
- Always check that the head of group circuit breaker is in good working condition before connecting a comb busbar.

Failure to follow these instructions can result in injury or equipment damage.

Technical data

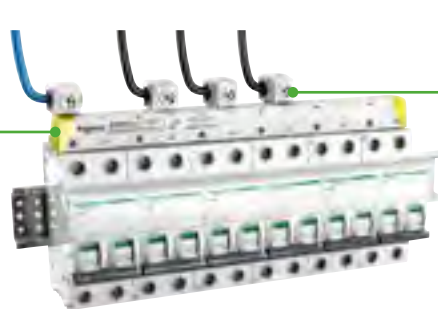
Operating current (Ie)	100 A
at 40°C	
Short circuit current (Isc)	Compatible with the breaking capacity of Schneider Electric circuit breakers
Rated insulation voltage (Ui)	500 V AC
Operating voltage (Ue)	415 V AC
Pollution degree	3
Fire resistance IEC 60695-2-1	Self-extinguishing at 960°C 30 secondes
Color	RAL9003

Horizontal comb busbars 18 mm modules for Acti9: iC60



Cuttable comb busbars, 18 mm modules, with 9 mm auxiliary						
Aux+1P	Aux+2P	Aux+3P	Aux+4P	3 (Aux+1P)	3 (Aux+N+1P)	
AuxL1, ...	AuxL1L2, ...	AuxL1L2L3, ...	AuxNL1L2L3, ...	AuxL1AuxL2AuxL3, ...	AuxNL1AuxNL2AuxNL3, ...	
1	1	1	1	1	1	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
A9XAH157	A9XAH257	A9XAH357	A9XAH457	A9XAH657	A9XAH557	

End-pieces
■ insulate end of comb busbar



Connectors

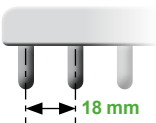
■ facilitate comb busbar power supply

Accessories

Number of poles	1P Aux+1P	1P+N Aux+2P	3P Aux+3P 3 (Aux+1P)	4P/3 (N+P) Aux+4P 3 (Aux+N+1P)	-	-
	End-pieces				Tooth covers	Connectors
	Lateral end-pieces providing IP20 protection				Insulate teeth that have been left free	Monoconnect Comb busbar power supply. Horizontal in-come on each side. For 35 mm ² cable. Tightening torque 4 N.m
Set of	10	10	10	10	20	4
Catalogue numbers	A9XPE110	A9XPE210	A9XPE310	A9XPE410	A9XPT920	A9XPCM04

Complementary technical information

Horizontal comb busbars 18 mm modules for Acti9: iC60 + Vig iC60



IEC 60947-7-1, IEC 61439-2



+



25 A

40 A-63 A

Acti9 Vig iC60 1P+N		18 mm poles, cuttable	
Number of poles		3 (N+P)	
Type	NL1NL2NL3, ...	NL1NL2NL3, ...	NL1NL2NL3, ...
Set of	1	1	1
Rating of Vig iC60	25 A	40 A - 63 A	40 A - 63 A
Catalogue numbers			
21 modules of 18 mm	A9XPF521	-	A9XPF524
24 modules of 18 mm	-	-	A9XPF524

Technical data	
Operating current at (Ie) 40°C	100 A
Short circuit current (Isc)	Compatible with the breaking capacity of Schneider Electric circuit breakers
Rated insulation voltage (Ui)	500 V AC
Operating voltage (Ue)	415 V AC
Pollution degree	3
Fire resistance IEC 60 695-2-1	Self-extinguishing at 960°C 30 secondes
Color	RAL9003



End-pieces
■ insulate end of comb busbar

Accessories			
Number of poles	3 (N+P)	-	-
	End-pieces	Tooth covers	Connectors
	Lateral end-pieces providing IP20 protection	Insulate teeth that have been left free	Monoconnect Comb busbar power supply. Horizontal incomer on each side. For 35 mm² cable. Tightening torque 4 N.m
Set of	10	20	4
Catalogue numbers	A9XPE410	A9XPT920	A9XPCM04

Horizontal comb busbars 9 mm modules for Acti9: iC40, iCV40, Vigi iC40



Acti9 iC40, iC40 XA, iCV40, iCV40 XA, iDPN, iDPN Vigi, Vigi iC40, Vigi iCG40	9 mm poles, cuttable					
Number of poles	1P+N			3 (N+P)		
Number of 18 mm modules	12	24	48	12	24	48
Supplied accessories Tooth covers (for 3 modules of 18 mm)	1	2	-	1	2	-
End-pieces	4	4	-	4	4	-
Catalogue numbers	A9XPC612 (*)	A9XPC624 (*)	A9XPC648 (*)	A9XPC712	A9XPC724	A9XPC748

(*)

CAUTION

INCOMPATIBILITY BETWEEN TWO-POLE COMB BUSBARS AND FOUR-POLE DEVICES

- Never connect a two-pole comb busbar to a four-pole device, as this will result in a multi-phase bolted short circuit.
- Always check that the head of group circuit breaker is in good working condition before connecting a comb busbar.

Failure to follow these instructions can result in injury or equipment damage.

Acti9 iC40, iC40 XA, iCV40, iCV40 XA, iDPN, iDPN Vigi, Vigi iC40, Vigi iCG40	With 9 mm auxiliary			
Number of poles	Aux+N+1P	3 (Aux+N+1P)	Aux+N+1P+Vigi	3 (Aux+N+1P+Vigi)
Number of 18 mm modules	48	48	48	48
Catalogue numbers	A9XPA648	A9XPA748	A9XPV648	A9XPV748

Technical data

Operating current at 40°C	(Ie)	80 A
Short circuit current	(Isc)	Compatible with the breaking capacity of Acti9 Schneider Electric circuit breakers
Rated insulation voltage	(Ui)	400 V AC (Ph/N) - 440 V AC (Ph/Ph)
Operating voltage	(Ue)	230 V AC (Ph/N) - 400 V AC (Ph/Ph)
Degree of protection		IP20
Pollution degree		3
Fire resistance IEC 60695-2-1		Self-extinguishing at 960°C 30 secondes
Color		RAL 9003

Complementary technical information

Horizontal comb busbars 9 mm modules for Acti9: iC40, iCV40, Vigi iC40 (cont.)

■ Allows the mix of devices with different number of poles (1P+N, 3P, 3P+N)

End-pieces
■ insulate end of comb busbar



Tooth covers
■ insulate teeth that have been left free

Accessories				
Number of poles	1P+N	3 (N+P)		
				
	End-pieces		Tooth covers (3 x 18 mm modules)	Connectors
Set of	40	40	12	4
Catalogue numbers	A9X21094	A9X21095	A9X21096	A9XPCM04

Connectors
■ facilitate comb busbar power supply



End-pieces
■ insulate end of comb busbar

Horizontal comb busbars with integrated connectors, 9 mm modules for Acti9: iC40, iCV40



Acti9 iC40, iC40 XA, iCV40, iCV40 XA	9 mm poles, cuttable				
Number of poles	1P+N			3 (N+P)	
Number of 18 mm modules	6	12	24	12	24
Supplied accessories					
Tooth covers (for 3 modules of 18 mm)	-	1	2	1	2
End-pieces	4	4	4	4	4
Catalogue numbers	A9XPP606 (*)	A9XPP612 (*)	A9XPP624 (*)	A9XPP712	A9XPP724

(*)

CAUTION

INCOMPATIBILITY BETWEEN TWO-POLE COMB BUSBARS AND FOUR-POLE DEVICES

- Never connect a two-pole comb busbar to a four-pole device, as this will result in a multi-phase bolted short circuit.
- Always check that the head of group circuit breaker is in good working condition before connecting a comb busbar.

Failure to follow these instructions can result in injury or equipment damage.

Technical data

Operating current at 40°C	(Ie)	63 A
Short circuit current	(Isc)	Compatible with the breaking capacity of Acti9 Schneider Electric circuit breakers
Rated insulation voltage	(Ui)	400 V AC (Ph/N) - 440 V AC (Ph/Ph)
Operating voltage	(Ue)	230 V AC (Ph/N) - 400 V AC (Ph/Ph)
Degree of protection		IP20
Pollution degree		3
Fire resistance IEC 60695-2-1		Self-extinguishing at 960°C 30 secondes
Color		RAL 9003

Horizontal comb busbars with integrated connectors, 9 mm modules for Acti9: iC40, iCV40 (cont.)

Lock

- reinforces the holding of the comb busbar on the products during the operations of screwing on connectors

Connectors

- integrated into the comb busbar
- direct supply of outgoing without head of group, with 25 mm² cable
- allow power to be drawn off to another row

End-pieces

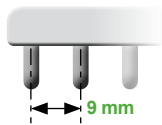
- insulate end of comb busbar

Tooth covers

- insulate teeth that have been left free

Accessories			
Number of poles	1P+N	3 (N+P)	
			
	End-pieces		Tooth covers (3 x 18 mm modules)
Set of	40	40	12
Catalogue numbers	A9X21094	A9X21095	A9X21096

Horizontal comb busbars 9 mm modules for Acti9: iCT



IEC 61439-1

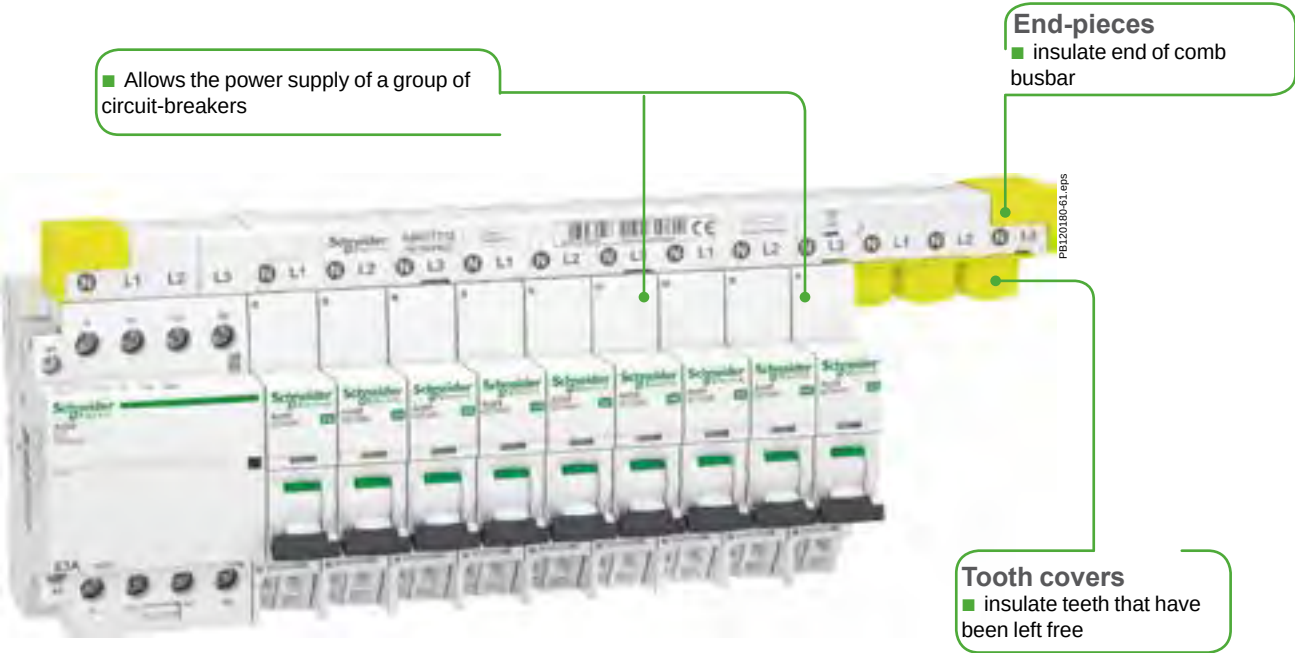


Acti9 iCT		9 mm poles, cuttable
Number of poles		Head of group 4P + 3 (N+P)
		 N L1 L2 L3 NL1 N L2 NL3
Number of 18 mm modules		12
Supplied accessories		Tooth covers (for 3 modules of 18 mm) 1 End-pieces 4
Catalogue numbers		A9XCT712

Technical data		
Operating current at 40°C	(Ie)	80 A
Short circuit current	(Isc)	Compatible with the breaking capacity of Acti9 Schneider Electric circuit breakers
Rated insulation voltage	(Ui)	400 V AC (Ph/N) - 440 V AC (Ph/Ph)
Operating voltage	(Ue)	230 V AC (Ph/N) - 400 V AC (Ph/Ph)
Degree of protection		IP20
Pollution degree		3
Fire resistance IEC 60695-2-1		Self-extinguishing at 960°C 30 secondes
Color		RAL 9003

Complementary technical information

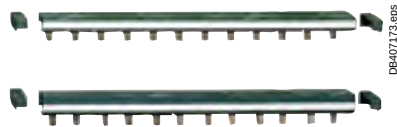
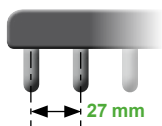
Horizontal comb busbars 9 mm modules for Acti9: iCT (cont.)



Accessories		
Number of poles	3 (N+P)	
		
	End-pieces	Tooth covers (3 x 18 mm modules)
Set of	40	12
Catalogue numbers	A9X21095	A9X21096

Complementary technical information

Horizontal comb busbars 27 mm modules for C120, NG125



IEC 60664-1



C120, NG125	27 mm poles, cuttable			
Number of poles	1P	2P	3P	4P
	 L1	 L1 L2	 L1 L2 L3	 N L1 L2 L3
Number of 27 mm modules	16	16	15	16
Set of	1			
Catalogue numbers	14811	14812	14813	14814

Technical data		
Operating current at 40°C (Ie)	125 A	
Short circuit current (Isc)	Compatible with the breaking capacity of Schneider Electric circuit breakers	
Rated insulation voltage (Ui)	620 V AC	
Operating voltage (Ue)	500 V AC	
Pollution degree	3	
Fire resistance IEC 60695-2-1	Self-extinguishing at 960°C 30 secondes	
Color	RAL 7016 (anthracite grey)	

Power supply

- directly in the circuit breaker terminals



End-pieces

- insulate end of comb busbar

Tooth covers

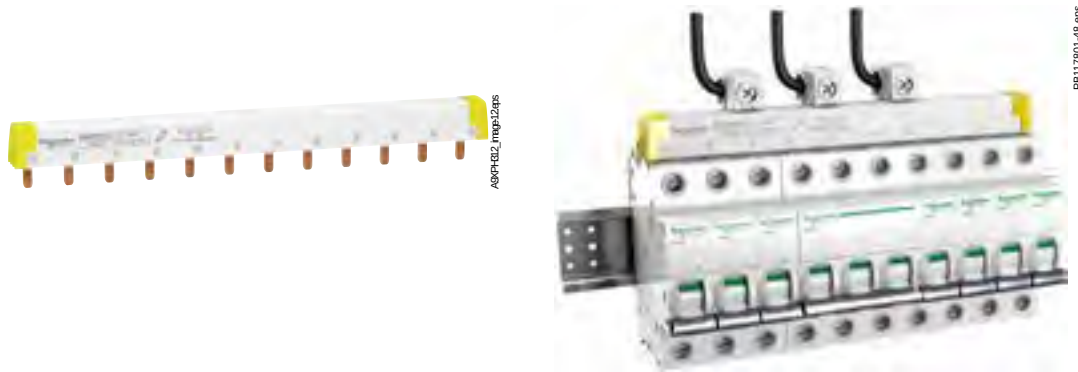
- insulate teeth that have been left free

Accessories

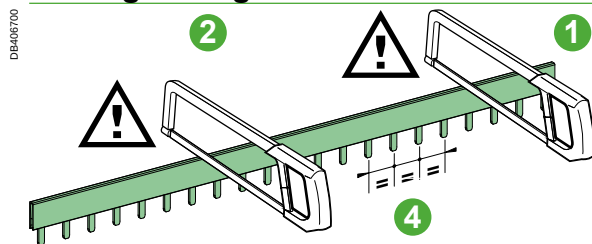
Number of poles	1P, 2P, 3P, 4P
	 Tooth covers Insulate teeth that have been left free
Set of	20
Catalogue numbers	14818

Comb busbar assembly recommendation

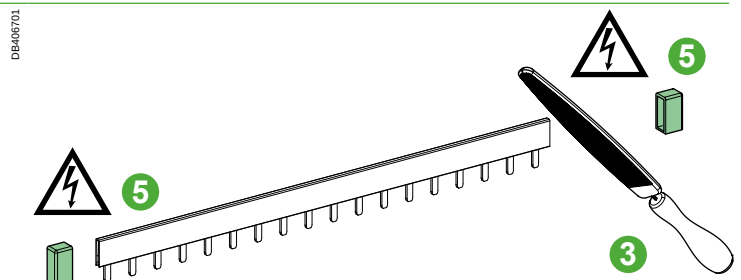
Acti9



Cutting to length

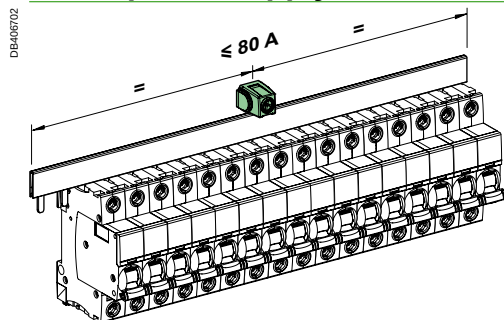


- 1- Cut perpendicularly (no angle $> 10^\circ$) to the desired length using a circular miter saw for cutting metals.
- 2- Maintain the direction of cutting from left to right. If this recommendation is not complied with, the copper busbar holding system is no longer active.

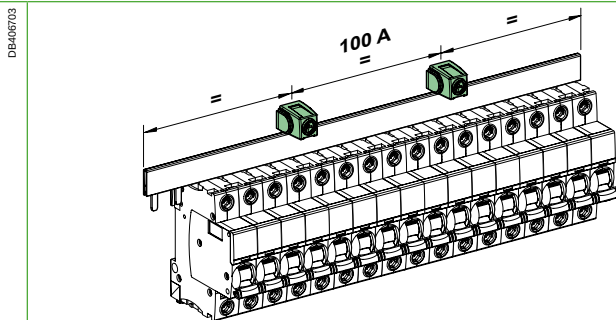


- 3- It is recommended to deburr after cutting.
- 4- Check the regularity of the teeth spacing. Do not extract the copper terminals.
- 5- Mandatory end-pieces after cutting the comb busbar.

Direct power supply

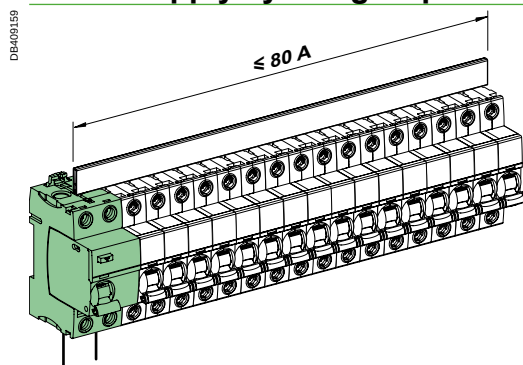


- Power supply ≤ 80 A by 1 connection point.
- Preferably choose the center of the comb busbar.



- 100 A power supply by 2 connection points mandatory.

Power supply by iID "group feeder" ≤ 80 A



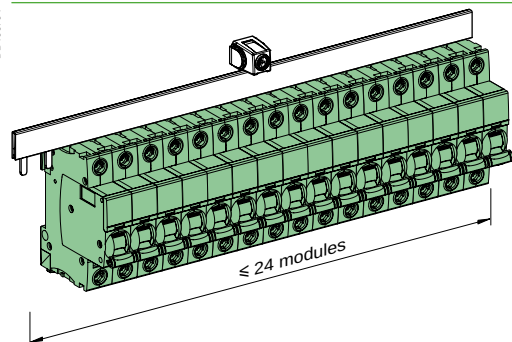
- RCCB "group feeder" ≤ 80 A: direct power supply by the RCCB.

Comb busbar assembly recommendation

Acti9 (cont.)

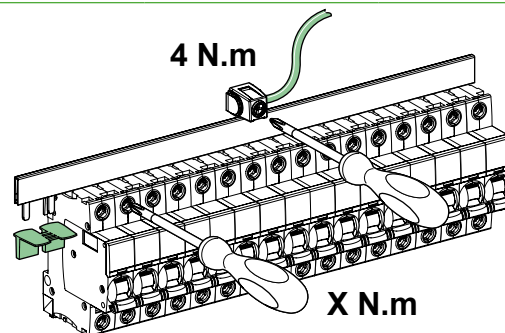
General

DB406704



■ The quantity of products is not infinite, after 24 modules it is not possible to guarantee assembly.

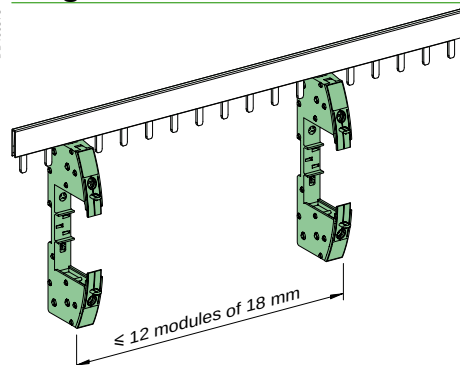
DB406705



- Tightening to the recommended torque.
- Avoid tinning on the cable terminations, since tin has high resistivity.
- The comb teeth left unassigned should be isolated with tooth-cover end-pieces.

Plug-in base

DB40678



■ Special case: plug-in base (Cat. no. A9A27003), ≤ 12 x 18 mm modules.

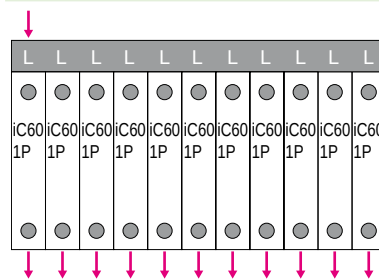
Choice guide

Connection to the top

Circuit breakers iC60: 1P and 3P

Circuit breakers iC60 1P

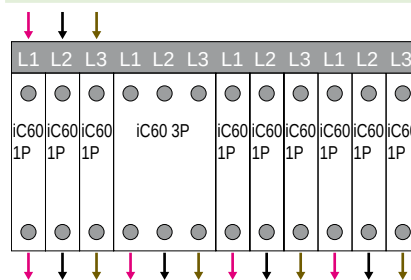
Type: L, ...



Number of 18 mm modules	Cat. no.
6	A9XPH106
12	A9XPH112
24	A9XPH124
57	A9XPH157

Circuit breakers iC60 1P or 3P (3 phases)

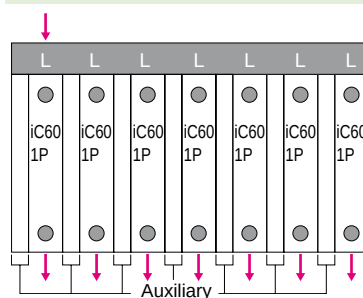
Type: L1L2L3, ...



Number of 18 mm modules	Cat. no.
6	A9XPH306
9	A9XPH309
12	A9XPH312
16	A9XPH316
18	A9XPH318
20	A9XPH320
24	A9XPH324
57	A9XPH357

Circuit breakers iC60 1P + Auxiliaries 9 mm

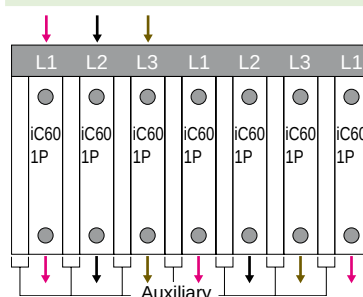
Type: L, ...



Number of 18 mm modules	Cat. no.
57	A9XAH157

Circuit breakers iC60 1P + Auxiliaries 9 mm

Type: AuxL1AuxL2AuxL3, ...



Number of 18 mm modules	Cat. no.
57	A9XAH657

Choice guide

Connection to the top

Circuit breakers iC60: 1P and 3P (cont.)



Circuit breakers iC60 3P with Auxiliaries 9 mm		
Type: AuxL1L2L3, ...	Number of 18 mm modules	Cat. no.
L1 L2 L3 ● ● ● iC60 3P ● ● ● ● ● ● iC60 3P ● ● ● ● ● ● iC60 3P ● ● ● ● ● ● Auxiliary	57	A9XAH357

Choice guide

Connection to the top

Circuit breakers iC60: 1P+N, 2P and 4P



PB117804-47 eps

(*)

CAUTION**INCOMPATIBILITY BETWEEN 1P+N COMB BUSBARS AND 3P+N DEVICES**

- Never connect a 1P+N comb busbar to a 3P+N device, as this will result in a multi-phase bolted short circuit.
 - Always check that the head of group circuit breaker is in good working condition before connecting a comb busbar.
- Failure to follow these instructions can result in injury or equipment damage.**



PB117805-48 eps



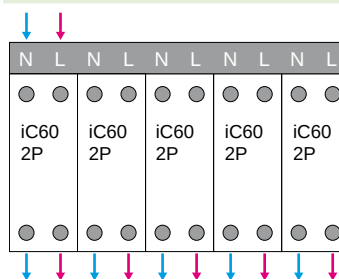
Montage ATHEMA 01.jpg



PB117821-37 eps

Circuit breakers 1P+N, 2P

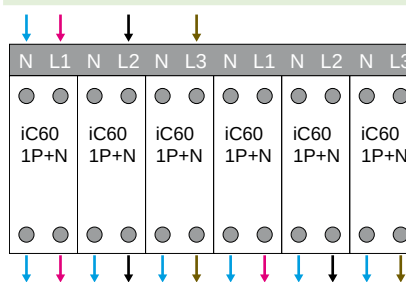
Type: NL, ...



Number of 18 mm modules	Cat. no.
6	A9XPH206 (*)
8	A9XPH208 (*)
10	A9XPH210 (*)
12	A9XPH212 (*)
18	A9XPH218 (*)
24	A9XPH224 (*)
57	A9XPH257 (*)

Circuit breakers 1P+N (Neutral + 3 phases)

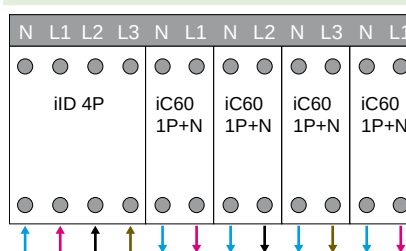
Type: NL1NL2NL3, ...



Number of 18 mm modules	Cat. no.
12	A9XPH512
18	A9XPH518
24	A9XPH524
57	A9XPH557

RCCB 3P+N + circuit breakers iC60 1P+N

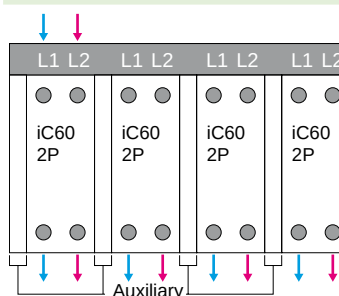
Type: NL1L2L3NL1NL2NL3, ...



Number of 18 mm modules	Cat. no.
10	A9XPH810
12	A9XPH812
14	A9XPH814
16	A9XPH816

Circuit breakers 2P + Auxiliaries 9 mm (Aux + Neutral + Phase)

Type: AuxL1L2, ...



Number of 18 mm modules	Cat. no.
57	A9XAH257

Choice guide

Connection to the top

Circuit breakers iC60: 1P+N, 2P and 4P (cont.)

Circuit breakers 1P+N + Auxiliaries 9 mm (Aux + Neutral + 3 phases)

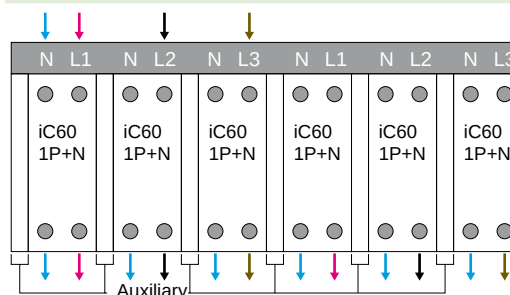
Type: AuxNL1AuxNL2AuxNL3, ...

Number of
18 mm
modules

Cat. no.

57

A9XAH557



Circuit breakers 1P+N + Vig iC60 25 A

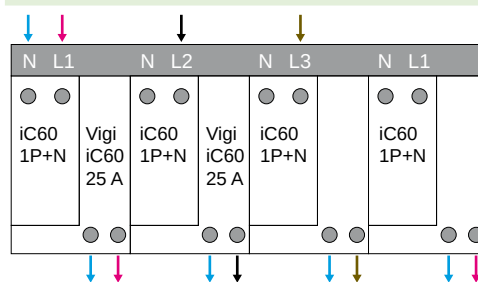
Type: NL1NL2NL3, ...

Number of
18 mm
modules

Cat. no.

21

A9XPF521



Circuit breakers 1P+N + Vig iC60 40 or 63 A

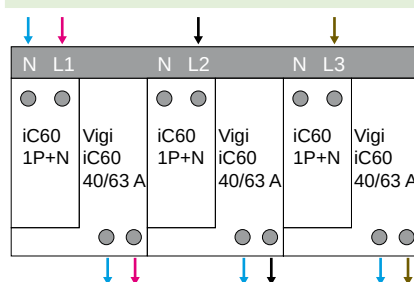
Type: NL1NL2NL3, ...

Number of
18 mm
modules

Cat. no.

24

A9XPF524



Circuit breakers 1P+N + Vig iC60 25 A + Auxiliaries 9 mm

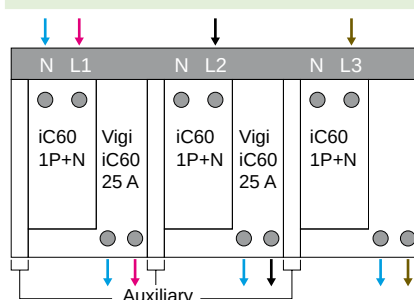
Type: AuxNL1AuxNL2AuxNL3, ...

Number of
18 mm
modules

Cat. no.

24

A9XPF524



Choice guide

Connection to the top

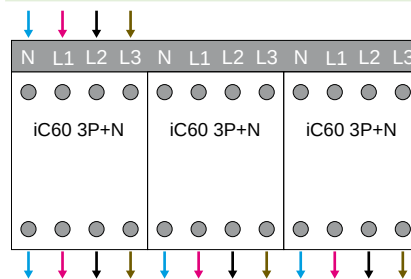
Circuit breakers iC60: 1P+N, 2P and 4P (cont.)



PB117809-42-095

Circuit breakers 3P+N

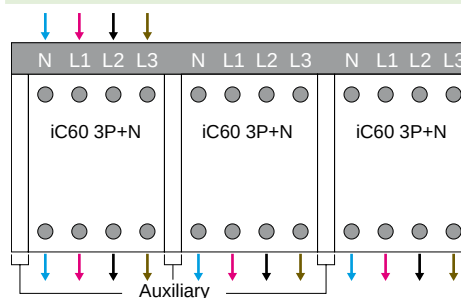
Type: NL1L2L3, ...



Number of 18 mm modules	Cat. no.
8	A9XPH408
12	A9XPH412
16	A9XPH416
24	A9XPH424
57	A9XPH457

Circuit breakers 3P+N + Auxiliaries 9 mm

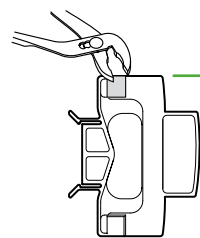
Type: AuxNL1L2L3, ...



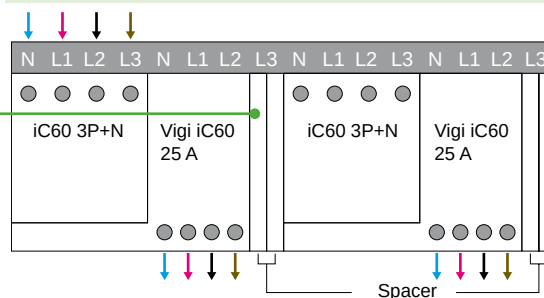
Number of 18 mm modules	Cat. no.
57	A9XAH457

Circuit breakers 3P+N + Vigì iC60 25 A (3 modules) + 2 spacers

Type: NL1L2L3, ...



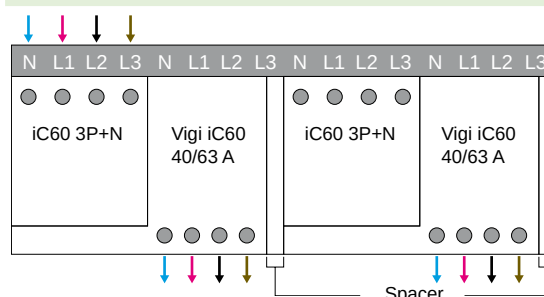
Remove the partition of the spacer of the center



Number of 18 mm modules	Cat. no.
12	A9XPH412
24	A9XPH424
57	A9XPH457

Circuit breakers 3P+N + Vigì iC60 40 or 63 A (3.5 modules) + 1 spacer

Type: NL1L2L3, ...



Number of 18 mm modules	Cat. no.
12	A9XPH412
24	A9XPH424
57	A9XPH457

Choice guide

Connection to the top - Circuit breakers

Acti9 iC40, iCV40, Vigi iC40

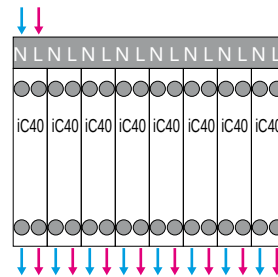
(*)

CAUTION**INCOMPATIBILITY BETWEEN 1P+N COMB BUSBARS AND 3P+N DEVICES**

- Never connect a 1P+N comb busbar to a 3P+N device, as this will result in a multi-phase bolted short circuit.
 - Always check that the head of group circuit breaker is in good working condition before connecting a comb busbar.
- Failure to follow these instructions can result in injury or equipment damage.**

Circuit breakers iC40, iC40 XA, iDPN 1P+N

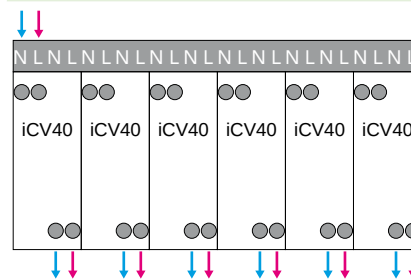
Type: NL, ...



No. of 18 mm modules	Cat. no.
12	A9XPC612 (*)
24	A9XPC624 (*)
48	A9XPC648 (*)

Circuit breakers iCV40, iCV40 XA, iDPN Vigi, Vigi iC40, Vigi iCG40 1P+N

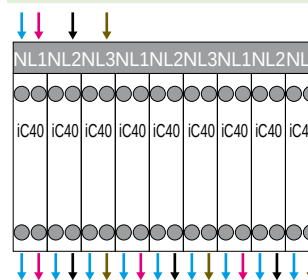
Type: NL, ...



No. of 18 mm modules	Cat. no.
12	A9XPC612 (*)
24	A9XPC624 (*)
48	A9XPC648 (*)

Circuit breakers iC40, iC40 XA, iDPN 1P+N with comb busbar 3P+N

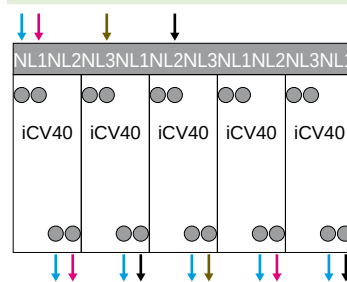
Type: NL1L2L3, ...



No. of 18 mm modules	Cat. no.
12	A9XPC712
24	A9XPC724
48	A9XPC748

Circuit breakers iCV40, iCV40 XA, iDPN Vigi, Vigi iC40, Vigi iCG40 1P+N with comb busbar 3P+N

Type: NL1L2L3, ...



No. of 18 mm modules	Cat. no.
12	A9XPC712
24	A9XPC724
48	A9XPC748



Choice guide

Connection to the top - Circuit breakers

Acti9 iC40, iCV40

(*)

CAUTION
INCOMPATIBILITY BETWEEN 1P+N COMB BUSBARS AND 3P+N DEVICES - Never connect a 1P+N comb busbar to a 3P+N device, as this will result in a multi-phase bolted short circuit. - Always check that the head of group circuit breaker is in good working condition before connecting a comb busbar. Failure to follow these instructions can result in injury or equipment damage.

Circuit breakers iC40, iC40 XA, iDPN 1P+N		
Type: NL, ... with integrated connectors	No. of 18 mm modules	Cat. no.
	6	A9XPP606 (*)
	12	A9XPP612 (*)
	24	A9XPP624 (*)

Circuit breakers iCV40, iCV40 XA, iDPN Vigi, Vigi iC40, Vigi iCG40 1P+N		
Type: NL, ... with integrated connectors	No. of 18 mm modules	Cat. no.
	6	A9XPP606 (*)
	12	A9XPP612 (*)
	24	A9XPP624 (*)

Circuit breakers iC40, iC40 XA, iDPN 1P+N with comb busbar 3P+N		
Type: NL1L2L3, ... with integrated connectors	No. of 18 mm modules	Cat. no.
	12	A9XPP712
	24	A9XPP724



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Circuit breakers iCV40, iCV40 XA, iDPN Vigi, Vigi iC40, Vigi iCG40 1P+N with comb busbar 3P+N		
Type: NL1L2L3, ... with integrated connectors	No. of 18 mm modules	Cat. no.
	12	A9XPP712
	24	A9XPP724

Choice guide

Connection to the top - Circuit breakers

Acti9 iC40, iCV40, Vigi iC40 (cont.)



Circuit breakers iC40, iC40 XA, iDPN 1P+N + Auxiliaries 9 mm

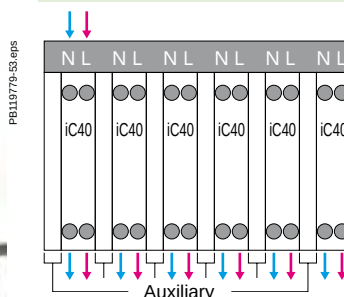
Type: AuxNL, ...

No. of 18 mm modules

Cat. no.

48

A9XPA648



Circuit breakers iC40, iC40 XA, iDPN 1P+N with comb busbar 3P+N + Auxiliaries 9 mm

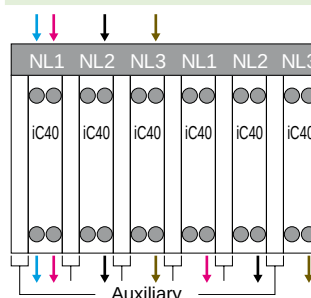
Type: AuxNL1AuxNL2AuxNL3, ...

No. of 18 mm modules

Cat. no.

48

A9XPA748



Circuit breakers iCV40, iCV40 XA, (iC40+Vigi), (iC40 XA+Vigi), (iDPN+Vigi), Vigi iC40, Vigi iCG40 1P+N + Auxiliaries 9 mm

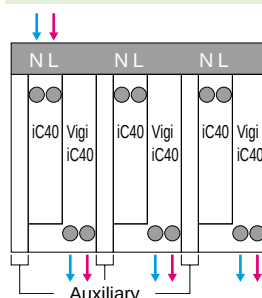
Type: AuxNL, ...

No. of 18 mm modules

Cat. no.

48

A9XPV648



Circuit breakers iCV40, iCV40 XA, (iC40+Vigi), (iC40 XA+Vigi), (iDPN+Vigi), Vigi iC40, Vigi iCG40 1P+N with comb busbar 3P+N + Auxiliaries 9 mm

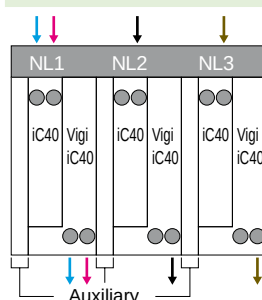
Type: AuxNL1AuxNL2AuxNL3, ...

No. of 18 mm modules

Cat. no.

48

A9XPV748

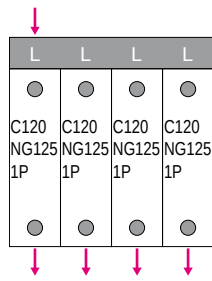


Choice guide

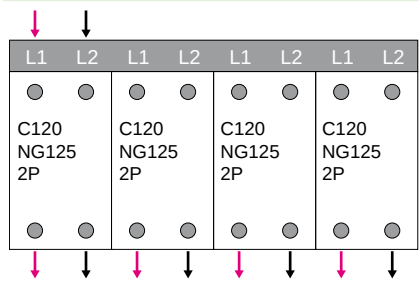
Connection to the top

Circuit breakers C120 and NG125

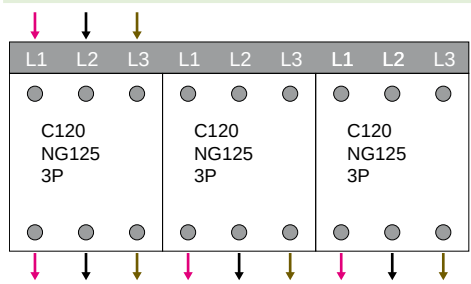
Circuit breakers C120 or NG125 1P

Type: L, ...	Number of 27 mm modules	Cat. no.
 Diagram showing 4 single-pole circuit breakers (C120 or NG125 1P) connected in a row. A pink arrow points to the top terminal of the first breaker.	16	14811

Circuit breakers C120 or NG125 2P

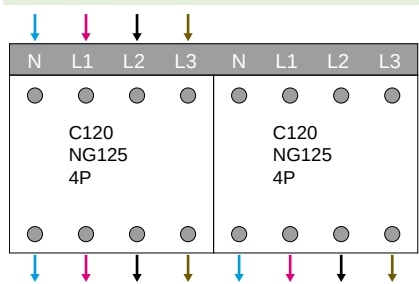
Type: L1L2, ...	Number of 27 mm modules	Cat. no.
 Diagram showing 4 double-pole circuit breakers (C120 or NG125 2P) connected in a row. Pink and black arrows point to the top terminals of the first breaker.	16	14812

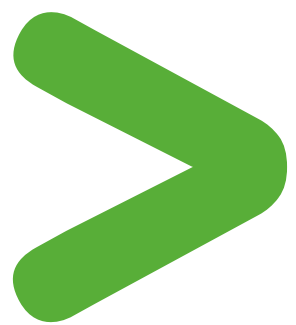
Circuit breakers C120 or NG125 3P

Type: L1L2L3, ...	Number of 27 mm modules	Cat. no.
 Diagram showing 3 three-pole circuit breakers (C120 or NG125 3P) connected in a row. Pink, black, and yellow arrows point to the top terminals of the first breaker.	15	14813



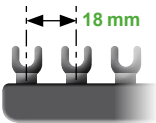
Circuit breakers C120 or NG125 4P

Type: NL1L2L3, ...	Number of 27 mm modules	Cat. no.
 Diagram showing 2 four-pole circuit breakers (C120 or NG125 4P) connected in a row. Blue, pink, black, and yellow arrows point to the top terminals of the first breaker.	16	14814



Complementary technical information

Biconnect horizontal comb busbars 18 mm modules



IEC 60664-1



Acti9 K60 biconnect		18 mm poles, cuttable					
Number of poles		1P			2P		
		L1 			L1 L2 		
Type		L1,...			L1L2,...		
Set of		1			1		
Number of 18 mm modules		12	18	57	12	18	57
Catalogue numbers		R9XFH112	R9XFH118	R9XFH157	R9XFH212	R9XFH218	R9XFH257

Technical data	
Operating current at 40°C (Ie)	63 A
Cross section	10 mm²
Short circuit current (Isc)	Compatible with the breaking capacity of Schneider Electric circuit breakers
Rated insulation voltage (Ui)	500 V AC
Operating voltage (Ue) L/N	230 V AC
	400 V AC
Pollution degree	3
Fire resistance IEC 695-2-1	Self-extinguishing at 960°C 30 secondes
Color	RAL 9003



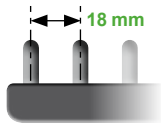
Biconnect horizontal comb busbars 18 mm modules (cont.)

3P						4P			Head of group + 3 (N+P)	3 (N+P)		
L1 L2 L3 						N L1 L2 L3 				N L1 N L2 N L3 		
L1L2L3,...						NL1L2L3,...			NL1L2L3 / NL1NL2NL3,...	NL1NL2NL3,...		
1						1			1	1		
6						12			12	12		
9						18			18	18		
11						57			57	57		
12						12			12	12		
18						18			18	18		
57						57			57	57		
R9XFH306 R9XFH309 R9XFH311 R9XFH312 R9XFH318 R9XFH357						R9XFH412 R9XFH418 R9XFH457			R9XFH518G	R9XFH512 R9XFH518 R9XFH557		

Accessories

Number of poles	1P	2P	3P	4P	
					
	End-pieces				Tooth covers
Set of	10				20
Catalogue numbers	R9XE110	R9XE210	R9XE310	R9XE410	R9XT20

Horizontal comb busbars 18 mm modules for Acti9: iC60



IEC 60947-7-1, IEC 61439-2



Acti9 iC60	18 mm poles, cuttable				
Number of poles	1P	1 (N+P)	3P	4P	3 (N+P)
	L1	N L1	L1 L2 L3	N L1 L2 L3	N L1 N L2 N L3
Type	L1,...	NL1,...	L1L2L3,...	NL1L2L3,...	NL1NL2NL3,...
Set of	1	1	1	1	1
Catalogue numbers					
6 modules of 18 mm	A9XPH106	A9XPH206	A9XPH306	-	-
8 modules of 18 mm	-	A9XPH208	-	A9XPH408	-
9 modules of 18 mm	-	-	A9XPH309	-	-
10 modules of 18 mm	-	A9XPH210	-	-	-
11 modules of 18 mm	-	-	A9XPH311	-	-
12 modules of 18 mm	A9XPH112	A9XPH212	A9XPH312	A9XPH412	A9XPH512
16 modules of 18 mm	-	-	A9XPH316	A9XPH416	-
18 modules of 18 mm	-	A9XPH218	A9XPH318	-	A9XPH518
20 modules of 18 mm	-	-	A9XPH320	-	-
24 modules of 18 mm	A9XPH124	A9XPH224	A9XPH324	A9XPH424	A9XPH524
57 modules of 18 mm	A9XPH157	A9XPH257	A9XPH357	A9XPH457	A9XPH557

Technical data

Operating current at 40°C (Ie)	100 A
Cross section	16 mm ²
Short circuit current (Isc)	Compatible with the breaking capacity of Schneider Electric circuit breakers
Rated insulation voltage (Ui)	500 V AC
Operating voltage (Ue)	415 V AC
Pollution degree	3
Fire resistance IEC 695-2-1	Self-extinguishing at 960°C 30 secondes
Color	RAL 9003

End-pieces

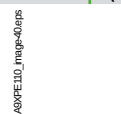
- essential to ensure the correctly comb busbars insulation



Tooth covers

- Insulate teeth that have been left free

Accessories

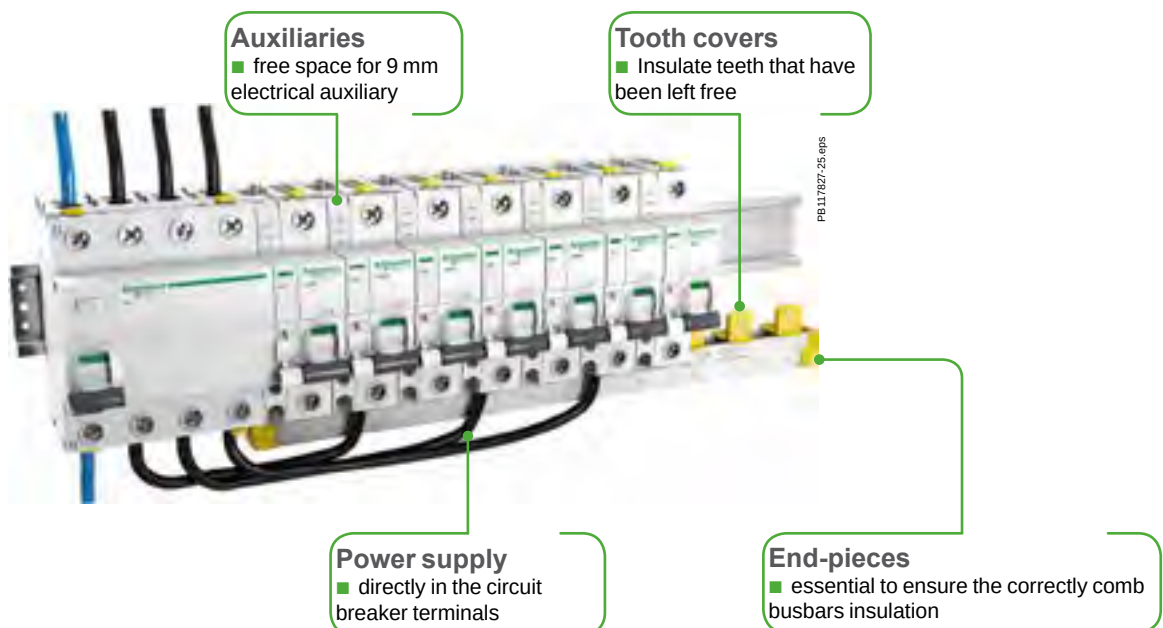
Number of poles	1P Aux+1P	2P Aux+2P	3P Aux+3P 3 (Aux+1P)	4P Aux+4P 3 (Aux+N+1P)		
						
	End-pieces				Tooth covers	Connectors
	Lateral end-pieces providing IP20 protection				Insulate teeth that have been left free	Double terminal
						Comb busbar power supply. Horizontal incomer on each side. For 35 mm ² cable. Tightening torque 4 N.m
Set of	10	10	10	10	20	4
Catalogue numbers	A9XPE110	A9XPE210	A9XPE310	A9XPE410	A9XPT920	A9XPCD04

Horizontal comb busbars 18 mm modules for Acti9: iC60 (cont.)



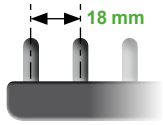
Cuttable comb busbars, 18 mm modules, with 9 mm auxiliary

Aux+1P	Aux+2P	Aux+3P	Aux+4P	3 (Aux+1P)	3 (Aux+N+1P)
AuxL1,...	AuxL1L2,...	AuxL1L2L3,...	AuxNL1L2L3,...	AuxL1AuxL2AuxL3,...	AuxNL1AuxNL2AuxNL3,...
1	1	1	1	1	1
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A9XAH157	A9XAH257	A9XAH357	A9XAH457	A9XAH657	A9XAH557



Complementary technical information

Horizontal comb busbars 18 mm modules for Acti9: iLD



IEC 60947-7-1, IEC 61439-1



Acti9 iLD		18 mm poles, iLD 4P / iC60 1P+N				
Number of poles		Head of group + 3 (N+P) N L1 L2 L3 N L1 N L2 L3 				
Type		NL1L2L3 / NL1NL2NL3,...				
Set of		1				
Number of 18 mm modules		10	12	14	16	22
Cat. no.		A9XPH810	A9XPH812	A9XPH814	A9XPH816	A9XPH822

Technical data		
Operating current at 40°C	(Ie)	80 A
Cross section		16 mm ²
Short circuit current	(Isc)	Compatible with the breaking capacity of Schneider Electric circuit breakers
Rated insulation voltage	(Ui)	500 V AC
Operating voltage	(Ue)	230 V AC (Ph/N) / 400 V AC (Ph/Ph)
Rated impulse withstand voltage	(Uimp)	6 kV
Degree of protection IEC 60529		IP20
Pollution degree		3
Fire resistance IEC 695-2-1		Self-extinguishing at 960°C 30 secondes
Colour		RAL 9003

End-pieces

- essential to ensure the correctly comb busbars insulation



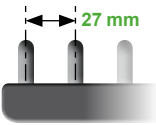
PB117829-24.eps

Accessories

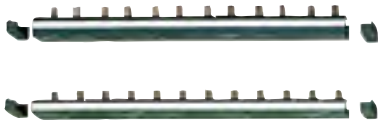
	End-pieces	Tooth covers
Use	Lateral end-pieces providing IP20 protection mounted on each side of the comb busbar	Insulate teeth that have been left free
Set of	10	20
Cat. no.	A9XPE410	A9XPT920

Complementary technical information

Horizontal comb busbars 27 mm modules for C120, NG125



IEC 60664-1



C120, NG125		27 mm poles, cuttable			
Number of poles	1P	2P	3P	4P	
	L1	L1 L2	L1 L2 L3	N L1 L2 L3	
Type	L1,...	L1L2,...	L1L2L3,...	NL1L2L3,...	
Set of	1				
Number of 27 mm modules	16	16	15	16	
Catalogue numbers	14811	14812	14813	14814	

Technical data		
Operating current at 40°C	(Ie)	125 A
Short circuit current	(Isc)	Compatible with the breaking capacity of Schneider Electric circuit breakers
Rated insulation voltage	(Ui)	620 V AC
Operating voltage	(Ue)	500 V AC
Degree of protection		3
Fire resistance IEC 695-2-1		Self-extinguishing at 960°C 30 secondes
Color		RAL 7016 (anthracite grey)

End-pieces
■ essential to ensure the correctly comb busbars insulation



Power supply
■ directly in the circuit breaker terminals

Tooth covers
■ Insulate teeth that have been left free

Accessories	
Number of poles	1P, 2P, 3P, 4P
	Tooth covers Insulate teeth that have been left free
Set of	20
Catalogue numbers	14818

IEC 60947-7-1, IEC 61439-2



Description

- Downstream circuits are connected from the front, to spring terminals.
- Contact pressure automatically adapts to the size of the conductor.
- Contacts are insensitive to vibrations and thermal variations.
- Only one cable (flexible or rigid) can be inserted per terminal.

Quick distribution blocks

Number of poles	4P, incomers from top	4P, incomers from bottom
Rated operational current at 40 °C (Ie)	63 A	63 A
Rated conditional short-circuit current of an assembly (Isc)	The reinforced breaking capacity due to cascading in circuit breaker combinations is maintained. The worst-case situations have been tested.	The reinforced breaking capacity due to cascading in circuit breaker combinations is maintained. The worst-case situations have been tested.
Rated insulation voltage (Ui)	500 V AC	500 V AC
Rated operational voltage (Ue)	440 V AC	440 V AC
Rated impulse withstand voltage (Uimp)	6 kV	6 kV
Rated short-time withstand current (Icw)	-	-
Rated operational frequency	50/60 Hz	50/60 Hz
Degree of protection	IPxxB	IPxxB
Incoming terminals	1 tunnel terminal 25 ² /phase	1 tunnel terminal 25 ² /phase
Total connection capacity, outgoing terminals	24 connections: 4 x 6 ² /phase 12 x 6 ² /neutral	24 connections: 4 x 6 ² /phase 12 x 6 ² /neutral
Dimensions (H x W x D)	96.5 x 72 x 62 8 x 9 mm pitch	96.5 x 72 x 62 8 x 9 mm pitch
Installation	Clipped onto a DIN rail	Clipped onto a DIN rail
Other		
Standard for installation inside Prisma	IEC 61439-2	IEC 61439-2
Glow-wire 60695-2-11	960 °C	960 °C
Degree of pollution	3	3
References	04040	04041

Accessories

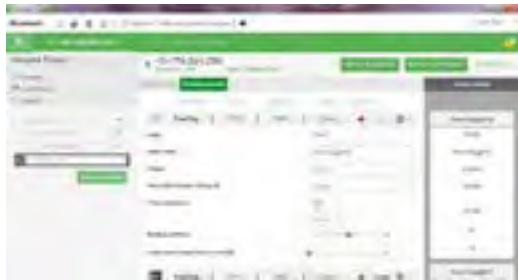
References	-	-
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Acti9 Smartlink SI B



DB429005



Functions (cont.)

Transmission of additional data collected by Acti9 Smartlink SI B

- Power meters (Modbus slaves).
- Analog sensors:
 - CO₂ sensor,
 - light sensor,
 - humidity sensor,
 - temperature sensor,
 - any 0..10 V or 4..20 mA compatible sensor.
- PowerTag wireless-communication energy sensors (Compact NSX, Acti9 iC60, iC40, DT60, DT40 ranges):
 - total and partial energy,
 - active power, phase-to-phase voltage, phase-to-neutral,
 - currents I1, I2, I3,
 - power factor,
 - voltage loss and overload information.
- Load monitoring:
 - alarm sent by the sensor in the event of a voltage loss,
 - pre-alarms on predefined thresholds (50 %, 80 %) or customized thresholds (thresholds on currents, power, voltages and cumulative energies),
 - load running time counter.
- Alarm management on current/voltage/load level thresholds by e-mail.
- Display of alarms and pre-alarms on Acti9 Smartlink SI B embedded web pages.
- Easy integration into any upper system using Com'X 210, Com'X 510 and other Schneider Electric software and third-party Building Management Systems (BMS's) thanks to the EcoStruxure Power Commission report in pdf format. A report provides dynamically all the Modbus registers and associated meanings for an easy integration into the system.
- Remote metering capability using the Acti9 Smartlink SI B monitoring page.

All the data are stored in memory: number of cycles, consumption, period of operation, even in the event of a power interruption.

Acti9 Smartlink can also exchange data with any device having 24 V DC digital inputs/outputs (e.g. low-level contacts 29452 for position of the Compact NSX). No configuration of the products connected to the Ti24 channels is required.

At power up, Acti9 Smartlink Modbus adapts automatically to the communication parameters of the Modbus master (PLC, supervisor, etc.).

Installation

- Assembly in switchboards:
 - width 24 modules per row,
 - minimum spacing between rails 150 mm.
- Mounting on:
 - DIN rail with mounting kit **A9XMFA04**,
 - Linergy FM 80 A, with bolts provided,
 - Linergy FM 200 A, with mounting kit **A9XM2B04**,
 - back of enclosure with mounting kit **A9XMBP02**,
 - Installation in Pragma and Kaedra enclosures with mounting kit **A9XMVA01**.

Test

- The communication and cabling test on the connected devices can be performed using the EcoStruxure Power Commission software.

DB 405140

Commissioning software:
EcoStruxure Power Commission (*)

- Configuration and communication test of wired and wireless devices
- Editing of a complete test report (pdf) with the Modbus communication registers for easy integration into a supervision system
- Windows XP, Windows 7, Windows 8 and Windows 10 compatible
- Downloadable from:
https://www.schneider-electric.com/www/en/download/document/Ecoreach_Installer



(*): new name of Ecoreach software

Page 243 - 267 is empty.

Protection

Circuit protection / Earth leakage protection

Acti9 Electrical auxiliaries for iC60, iLD, iC40, iC40 XA, iC40 ARC, iCV40, iCV40 XA, iCV40 VigiARC, iLD40, iDPN ARC, iDPN Vigi, iDPN VigiARC, iSW-NA

- The electrical auxiliaries are combined with iC60, iC40, iC40 XA, iC40 ARC, iCV40, iCV40 XA, iCV40 VigiARC, iDPN ARC, iDPN Vigi, iDPN VigiARC circuit breakers, iLD, iLD40 residual current circuit breakers, remote tripping switch disconnecter iSW-NA; they enable tripping or remote indication of their position (open/closed/tripped) upon a fault.
- They are fastened by clips (without tools) to the left side of the breaker.
- The iOF/SD+OF auxiliary is a 2-in-1 product: via a mechanical selector switch, it provides two contacts, OF+SD or OF+OF.
- The low current auxiliaries iOF, iSD, iSD+OF (2 to 100 mA) are especially dedicated to low current application to report status information to a Programmable Logic Controller (Industry) or a Controller (Building/BMS).
- The iOF+SD24 auxiliary can report open/closed (OF) status information and intentional or fault tripping of the associated device (SD) to the Acti9 Smartlink, a Programmable Logic Controller (Industry) or a Controller (Building/BMS), via the Ti24 interface (24 V DC).

Tripping auxiliaries:

IEC/EN 60947-1

- iMN: undervoltage release
- iMNs: delayed undervoltage release
- iMNx: undervoltage release, independant from supply voltage
- iMX: shunt release
- iMX+OF: shunt release with open/close contact.

EN 50550

- iMSU: overvoltage release.

Indication auxiliaries:

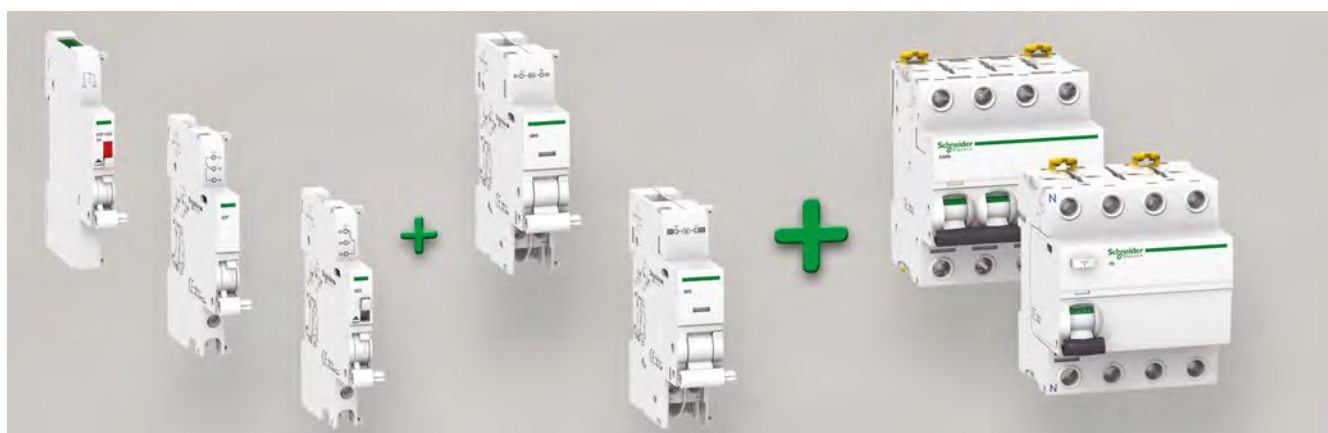
IEC/EN 60947-5-1

- iOF: open/close contact
- iSD: fault indicating contact
- iOF/SD+OF: open/close contact and switchable OF or SD function

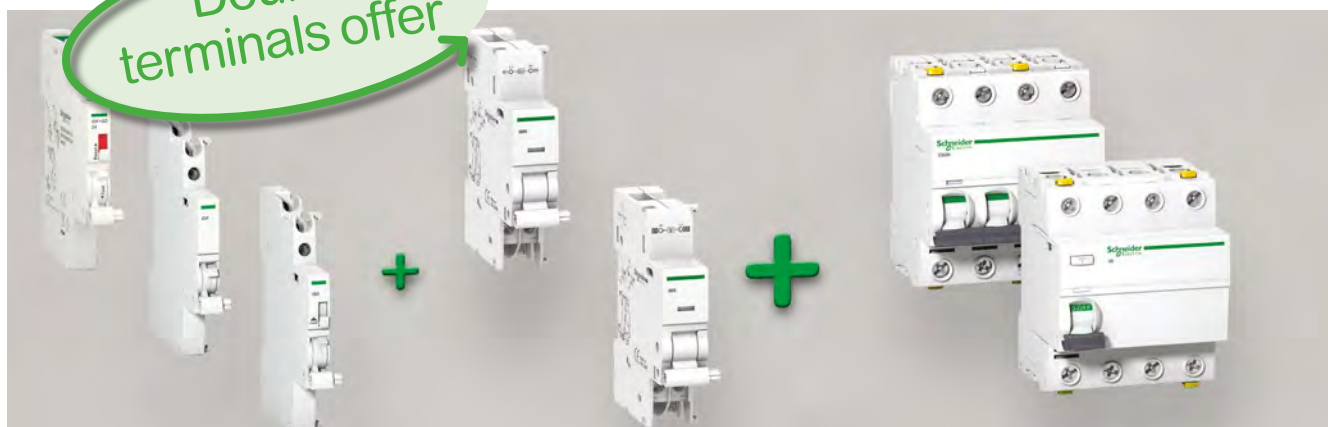
IEC/EN 60947-5-4

- Auxiliaries dedicated to low current applications (PLC...)
- iOF Low Current: open/close contact
- iSD Low Current: fault indicating contact
- iSD+OF Low Current: open/close contact and fault indicating SD contact
- iOF+SD24: open/close contact OF and fault indicating contact SD with Ti24 interface.

DB404939



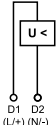
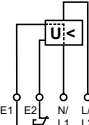
DB404940



Circuit protection / Earth leakage protection

Acti9 Electrical auxiliaries for iC60, iID, iC40, iC40 XA, iC40 ARC, iCV40, iCV40 XA, iCV40 VigiARC, iID40, iDPN ARC, iDPN Vigi, iDPN VigiARC, iSW-NA

Tripping

Auxiliaries	iMN				iMNs	iMNx	
Type	Undervoltage release						
PB104477-35 	Instantaneous				Delayed	Independent of the supply voltage	
	PB104478-35 				PB104480-35 		
Function	■ Trips the device with which it is combined when its input voltage decreases (between 70 % and 35 % Un). ■ Prevents device closing again until its input voltage is restored				■ Not tripping on transient voltage dip (up to 0.2 s)	■ Tripping of the associated device by opening of the control circuit (e.g. push-button, dry contact) ■ A drop in the supply voltage does not trip the associated device ■ A locking push-button control allows the circuit protected (e.g. machine control) to be placed in safety configuration	
Wiring diagrams	DB118804 				DB106847 		
Use	■ Emergency stoppage by normally closed push button ■ Improve the safety of power supply circuits for several machines by preventing "uncontrolled" restarting				■ Emergency stoppage with fail-safe principle ■ Insensitive to control circuit voltage variation to increase service continuity Important: Before any servicing operation switch off the mains power supply (voltage presence at terminals E1/E2)		
Catalog numbers	A9A26960	A9A27108	A9A26961	A9A26959	A9A26963	A9A26969	A9A26971
iC60, iID, iID40, iDPN ARC, iDPN Vigi, iDPN VigiARC, iSW-NA	■	■	■	■	■	■	■
iC40, iC40 ARC, iCV40, iCV40 VigiARC	■	■	■	■	■	■	■
iC40 XA, iCV40 XA	■	■	■	■	■	■	■
iC60, iID double terminals	■	■	■	■	■	■	■
iC60 RCBO, iKQE RCBO	■	■	■	■	■	■	■
Technical specifications							
Rated voltage (Ue)	220...240 V AC	24 V AC	48 V AC	115 V AC	220...240 V AC	220...240 V AC	380...415 V AC
	—	24 V DC	48 V CC	—	—	—	—
Standardised operating and non-response to voltage times (Ua)*	—	—	—	—	—	—	—
Maximum operating time	—	—	—	—	—	—	—
Minimum non-response time	—	—	—	—	—	—	—
Operating frequency	50/60 Hz			400 Hz	50/60 Hz	50/60 Hz	
Red mechanical indicator	On front face				On front face	On front face	
Test function	—				—	—	
Width in 9 mm modules	2				2	2	
Operating current	—				—	—	
Number of contacts	—				—	—	
Busbar compatibility	Top and bottom				Top and bottom	Top	
Operating temperature	-35...+70°C				-35...+70°C	-35...+70°C	
Storage temperature	-40...+85°C				-40...+85°C	-40...+85°C	

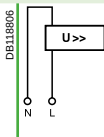
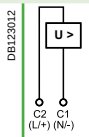
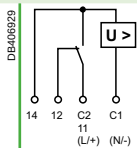
*(U_a)

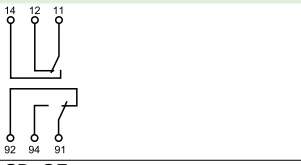
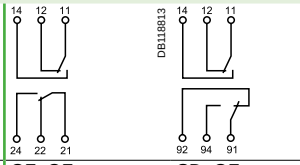
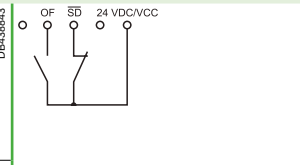
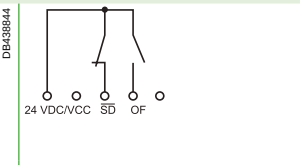
Voltages measured between the phase and the neutral conductor, at which the iMSU device must control the associated protective device.

Protection

Circuit protection / Earth leakage protection

Acti9 Electrical auxiliaries for iC60, iLD, iC40, iC40 XA, iC40 ARC, iCV40, iCV40 XA, iCV40 VigiARC, iLD40, iDPN ARC, iDPN Vigi, iDPN VigiARC, iSW-NA

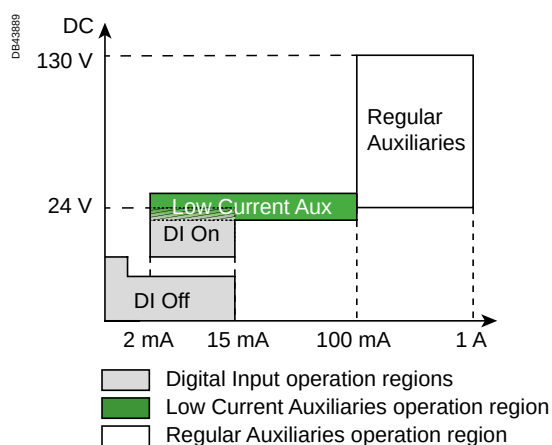
iMSU						iMX			iMX+OF		
Overvoltage release						Shunt release			With Open/Close auxiliary contact		
											
Switches off the power supply by opening the breaker with which it is combined, in the event that the phase/neutral voltage is exceeded (loss of neutral). For a four-phase network, use three iMSU tripping auxiliaries.						Trips the associated device when it is powered on			Includes an open/close contact (OF) to indicate the "open" or "closed" position of the device		
											
- Protection of equipment against overvoltages on the electrical network (neutral conductor break) - Voltage monitoring between phase and neutral conductors						Emergency stoppage by normally open push button			- Emergency stoppage by normally open push button - Remote indication of the position of the associated device		
A9A26500						A9A26476	A9A26477	A9A26478	A9A26946	A9A26947	A9A26948
■						■	■	■	■	■	■
■						■	■	■	■	■	■
■						■	■	■	■	■	■
■						■	■	■	■	■	■
■						■	■	■	■	■	■
230 V AC						100...415 V AC			100...415 V AC		
—						110...130 V DC			110...130 V DC		
255 V AC						—			—		
275 V AC						—			—		
300 V AC						—			—		
350 V AC						—			—		
400 V AC						—			—		
No tripping						—			—		
15 s						—			—		
3 s						—			—		
5 s						—			—		
0.75 s						—			—		
0.20 s						—			—		
0.25 s						—			—		
0.07 s						—			—		
50/60 Hz						50/60 Hz			50/60 Hz		
On front face						On front face			On front face		
—						—			—		
2						2			2		
—						—			100 mA mini, 6 A maxi		
—						—			≤ 130 V DC 1 A 48 V AC 2 A ≤ 24 V AC 6 A		
—						—			≤ 240 V AC 6 A 48 V DC 2 A ≤ 24 V DC 6 A		
—						—			415 V AC 3 A		
—						—			1 NO/NC		
Top and bottom						Top and bottom			Top		
-35...+70°C						-35...+70°C			-35...+70°C		
-40...+85°C						-40...+85°C			-40...+85°C		

iSD+OF	iOF/SD+OF	iOF+SD24	
Open/close and fault indicating contact	Double open/close or fault indicating contact	Double open/close and fault indicating contact	
 PBL04475-35	 PBL07750-35	 A9A26898-35	
- The iSD+OF auxiliary is a 2-in-1 product: it provides an OF+SD contact 2 contacts (2 NO/NC) can report the signalling information of the associated device to a Programmable Logic Controller (Industry) or a Controller (Building/BMS)	The iOF/SD+OF auxiliary is a 2-in-1 product: via a mechanical selector switch, it provides 2 contacts, OF+SD or OF+OF	2 contacts (1 NO + 1 NC) can report the signalling information of the associated device to the Acti9 Smartlink, a Programmable Logic Controller (Industry) or a Controller (Building/BMS): - electrical fault - actuation of the tripping auxiliary "Open" or "Closed" position of the associated device	
 SD+OF	 OF+OF	 SD+OF	 SD+OF
Remote indication of position and tripping upon a fault of the associated device A9A26919	Remote indication of position and/or tripping upon a fault of the associated device A9A26929	Remote indication of position and tripping upon a fault of the associated device A9A26897	A9A26898
if no comb busbar	if no comb busbar		
-	-	-	
			-
-	-	-	-
24...250 V AC	24...415 V AC	-	
24...220 V DC	24...130 V DC	24 V DC	
50/60 Hz	50/60 Hz	-	
On front face	On front face	On front face	
On toggle	On toggle	On toggle	
1	1	1	
2 mA to 100 mA	100 mA to 6 A	2 mA to 100 mA	
	100 mA to 2 A	-	
	100 mA to 1.5A	-	
	100 mA to 1 A	-	
	-	-	
	100 mA to 6 A	-	
-	100 mA to 3 A	-	
1 NO (OF) / NC	1 NO (OF) / NC	1 NO (OF) + 1 NC (SD)	
1 NO / NC (SD)	1 NO (OF) / NC		
1 NO / NC (SD)			
Screw clamp	Screw clamp	Spring-loaded Ti24 (sold separately)	
Top and bottom	Top and bottom	Top	Bottom
-	-	Bottom	Top
-25...+70°C	-35...+70°C	-25...+70°C	
-40...+85°C	-40...+85°C	-40...+85°C	

Protection

Circuit protection / Earth leakage protection

Acti9 Electrical auxiliaries for iC60, iID, iC40, iC40 XA, iC40 ARC, iCV40, iCV40 XA, iCV40 VigiARC, iID40, iDPN ARC, iDPN Vigi, iDPN VigiARC, iSW-NA



How to generate summary data using OF or SD contacts of low current electrical auxiliaries

- Electrical summary of the OF signals or electrical summary of the SD signals can be generated with low current indication auxiliaries (2 mA to 100 mA) wired as a daisy chain
- The OF connections and the SD connections must not be connected on the same daisy chain: 2 separate daisy chains are required to report OF information on the one hand and SD information on the other
- A daisy chain is made of up to 100 OF contacts or 100 SD contacts
- A daisy chain is connected locally to the PLC or the Controller (inside the same switchboard).

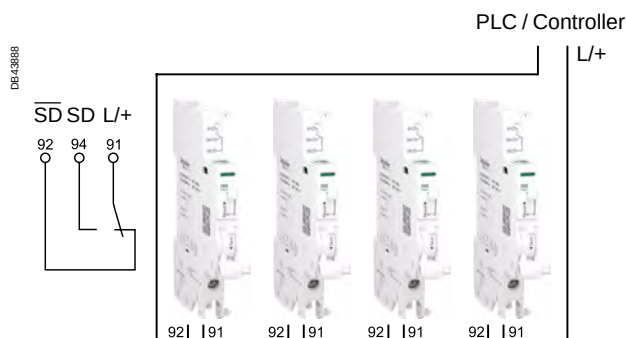
OF contacts within a daisy chain

- OF contacts are Normally Open (NO)
- The electrical summary of the OF signals can be done by cabling in series all OF signals
- Any open position opens the daisy chain and can be detected.



SD contacts within a daisy chain

- SD contacts are Normally Closed (NC)
- The electrical summary of the SD signals can be done by cabling in series all SD signals
- Any SD signal opens the daisy chain and can be detected.

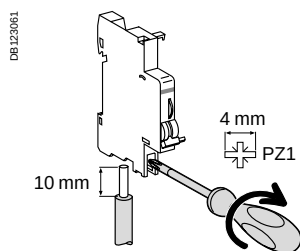


Protection

Circuit protection / Earth leakage protection

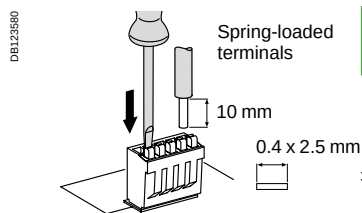
Acti9 Electrical auxiliaries for iC60, iLD, iC40, iC40 XA, iC40 ARC, iCV40, iCV40 XA, iCV40 VigiARC, iLD40, iDPN ARC, iDPN Vigi, iDPN VigiARC, iSW-NA

Connection



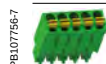
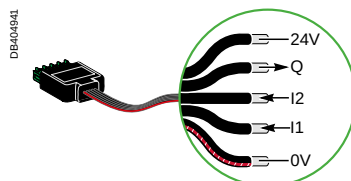
Type	Tightening torque	Copper cables		Multi-cables	
		Rigid	Flexible	Rigid	Cables with ferrule
Indication auxiliaries	1 N.m	1 to 4 mm ²	0.5 to 2,5 mm ²	2 x 2.5 mm ²	2 x 1.5 mm ²
Tripping auxiliaries	1 N.m	1 to 6 mm ²	0.5 to 4 mm ²	2 x 2.5 mm ²	2 x 2.5 mm ²

Ti24 connector connection



Type	Catalog numbers	Copper cables	
		Rigid	Flexible
Ti24 interface	A9XC2412	1 x 0.5 to 1.5 mm ²	1 x 0.5 to 1.5 mm ²

Ti24 prefabricated cables connection



Type	Catalog numbers	Length
Connection for Acti9 Smartlink		
6 prefabricated	A9XCAS06	100 mm
	A9XCAM06	160 mm
	A9XCAH06	450 mm
	A9XCAL06	870 mm
Connection for PLC type terminals		
6 long prefabricated on a single side	A9XCAU06	870 mm
1 long prefabricated on a single side	A9XCAC01	4000 mm
12 connectors, 5-pins (Ti24)	A9XC2412	-

Protection

Circuit protection / Earth leakage protection

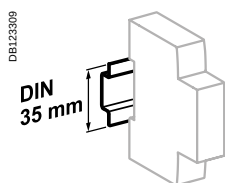
Acti9 Electrical auxiliaries for iC60, iID, iC40, iC40 XA, iC40 ARC, iCV40, iCV40 XA, iCV40 VigiARC, iID40, iDPN ARC, iDPN Vigi, iDPN VigiARC, iSW-NA

Technical data

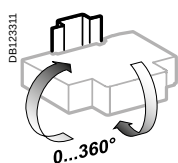
Weight (g)

Electrical auxiliaries

Type	
iMN	69
iMNs	72
iMNx	79
iMSU	68
iMX	64
iMX+OF	68
iOF	2 mA to 100 mA
	100 mA to 6 A
	double terminals
iSD	2 mA to 100 mA
	100 mA to 6 A
	double terminals
iOF/SD+OF	43
iSD+OF	2 mA to 100 mA
iOF+SD24	25

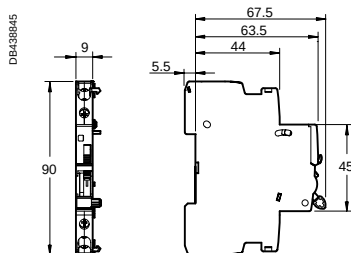


Clip on DIN rail 35 mm.

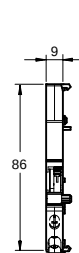


Indifferent position of installation.

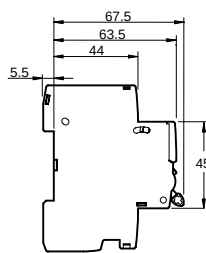
Dimensions (mm)



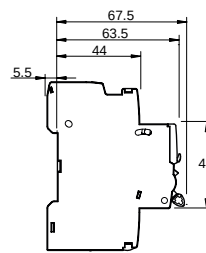
iOF+SD
iOF/SD+OF



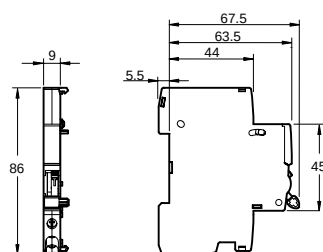
iOF, iSD



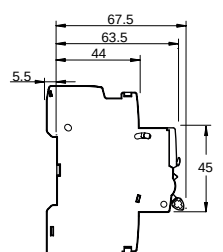
iOF, iSD



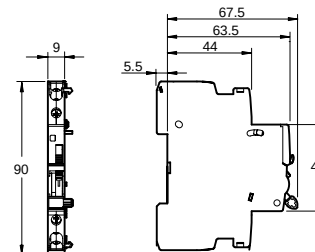
iOF, iSD - double terminal
(A9A26869, A9A26855)



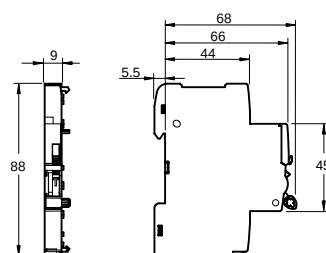
iOF, iSD - 2 to 100 mA



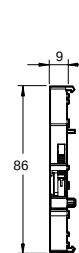
iOF, iSD - 2 to 100 mA - double terminal
(A9A26915, A9A26916)



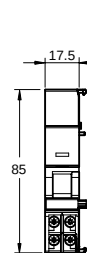
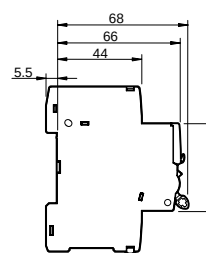
iSD+OF 2 to 100 mA



iOF+SD24 (A9A26897)



iOF+SD24 (A9A26898)



iMN, iMNs, iMNx, iMSU, iMX, iMX+OF

Acti9 iMDU electrical auxiliary for Reflex iC60 or RCA iC60



A9C18195

The voltage matching module allows safety voltages of 24 and 48 V AC/DC to be used on the control inputs.

- Only connects to the Reflex iC60 circuit breakers remote controlled by a 220-240 V control voltage
- Galvanic isolation 6000 V
- Maximum combined power between terminals P and Y1/Y2: 100 mA at 230 V and 25°C.

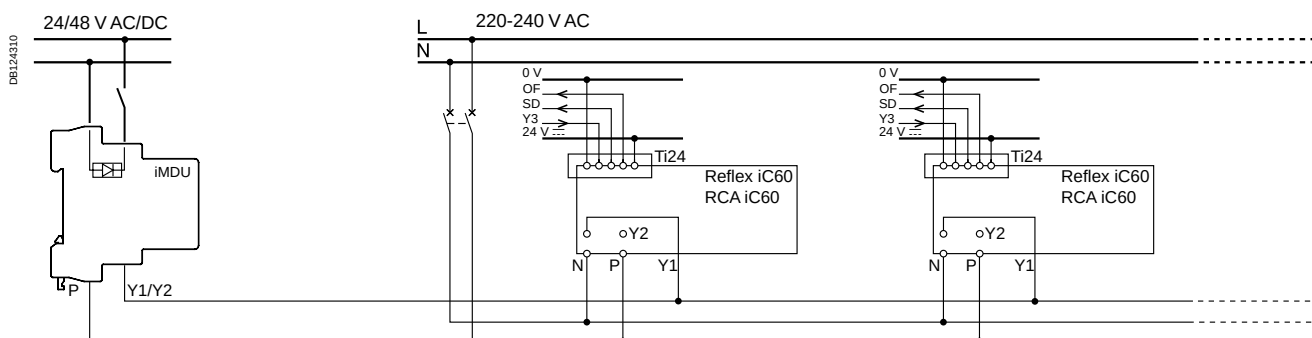
Catalog numbers

Auxiliary iMDU

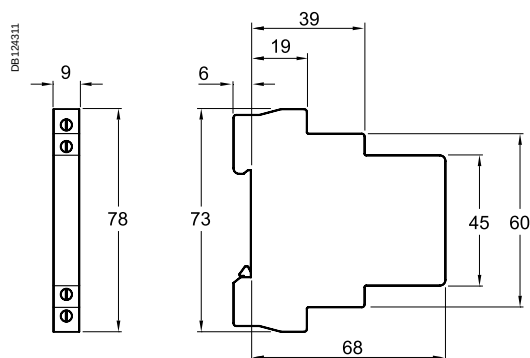
Type	Width in 9 mm modules
iMDU	A9C18195 1

Diagram

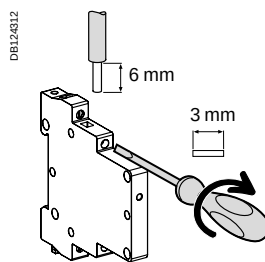
An iMDU electrical auxiliary allows up to a maximum of five Reflex iC60 to be controlled simultaneously at the same input Y1 or Y2.



Dimensions (mm)



Connection



Type	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
iMDU	1 N.m	1.5 mm ²	1.5 mm ²

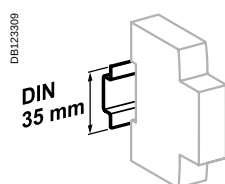
Technical data

Main characteristics

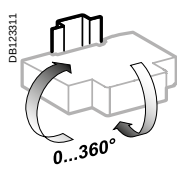
Control circuit voltage	24...48 V AC/DC
Insulation voltage (Ui)	500 V

Additional characteristics

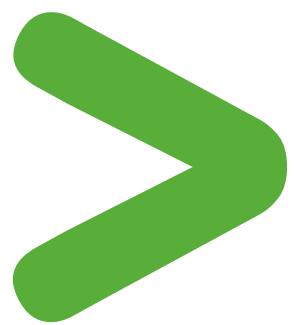
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
Operating temperature	-20°C to +60°C	
Storage temperature	-40°C to +80°C	
Tropicalization	Treatment 2 (relative humidity 95 % at 55°C)	
Weight	53 g	



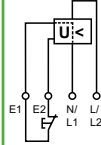
Clip on DIN rail 35 mm.



Indifferent position of installation.



Electrical auxiliaries for iC60, iID, iC40, iCV40, iID40, iSW-NA (cont.)

Tripping																																																																																																																													
Auxiliaries	iMN				iMNs		iMNx																																																																																																																						
Type	Undervoltage release																																																																																																																												
PB104477-35 	Instantaneous				Delayed		Independent of the supply voltage																																																																																																																						
	PB104478-35 				PB104480-35 																																																																																																																								
	Function - Trips the device with which it is combined when its input voltage decreases (between 70 % and 35 % U_n). - Prevents device closing again until its input voltage is restored - Not tripping on transient voltage dip (up to 0.2 s) - Tripping of the associated device by opening of the control circuit (e.g. push-button, dry contact) - A drop in the supply voltage does not trip the associated device - A locking push-button control allows the circuit protected (e.g. machine control) to be placed in safety configuration																																																																																																																												
Wiring diagrams DB118804  DB408947 																																																																																																																													
Use - Emergency stoppage by normally closed push button - Improve the safety of power supply circuits for several machines by preventing "uncontrolled" restarting - Emergency stoppage with fail-safe principle - Insensitive to control circuit voltage variation to increase service continuity Important: Before any servicing operation switch off the mains power supply (voltage presence at terminals E1/E2)																																																																																																																													
Catalogue numbers	A9A26960	A9A27108	A9A26961	A9A26959	A9A26963	A9A26969	A9A26971																																																																																																																						
iC60, iID, iID40, iDPN Vigi, iSW-NA																																																																																																																													
iC40, iCV40																																																																																																																													
iC40 XA, iCV40 XA																																																																																																																													
iC60, iID double terminals																																																																																																																													
iC60 RCBO, iKQE RCBO																																																																																																																													
Technical specification <table><tr><td>Rated voltage (U_e)</td><td>220...240 V AC</td><td>24 V AC</td><td>48 V AC</td><td>115 V AC</td><td>220...240 V AC</td><td>220...240 V AC</td><td colspan="2">380...415 V AC</td></tr><tr><td></td><td>—</td><td>24 V DC</td><td>48 V CC</td><td></td><td>—</td><td>—</td><td colspan="2">—</td></tr><tr><td>Standardised operating and non-response to voltage times (U_a)*</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td><td colspan="2">—</td></tr><tr><td>Maximum operating time</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td><td colspan="2">—</td></tr><tr><td>Minimum non-response time</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td><td colspan="2">—</td></tr><tr><td>Operating frequency</td><td colspan="3">50/60 Hz</td><td>400 Hz</td><td>50/60 Hz</td><td colspan="3">50/60 Hz</td></tr><tr><td>Red mechanical indicator</td><td colspan="4">On front face</td><td colspan="2">On front face</td><td colspan="2">On front face</td></tr><tr><td>Test function</td><td colspan="4">—</td><td colspan="2">—</td><td colspan="2">—</td></tr><tr><td>Width in 9 mm modules</td><td colspan="4">2</td><td colspan="2">2</td><td colspan="2">2</td></tr><tr><td>Operating current</td><td colspan="4">—</td><td colspan="2">—</td><td colspan="2">—</td></tr><tr><td>Number of contacts</td><td colspan="4">—</td><td colspan="2">—</td><td colspan="2">—</td></tr><tr><td>Operating temperature</td><td colspan="4">-35...+70°C</td><td colspan="2">-35...+70°C</td><td colspan="2">-35...+70°C</td></tr><tr><td>Storage temperature</td><td colspan="4">-40...+85°C</td><td colspan="2">-40...+85°C</td><td colspan="2">-40...+85°C</td></tr></table>									Rated voltage (U_e)	220...240 V AC	24 V AC	48 V AC	115 V AC	220...240 V AC	220...240 V AC	380...415 V AC			—	24 V DC	48 V CC		—	—	—		Standardised operating and non-response to voltage times (U_a)*	—	—	—	—	—	—	—		Maximum operating time	—	—	—	—	—	—	—		Minimum non-response time	—	—	—	—	—	—	—		Operating frequency	50/60 Hz			400 Hz	50/60 Hz	50/60 Hz			Red mechanical indicator	On front face				On front face		On front face		Test function	—				—		—		Width in 9 mm modules	2				2		2		Operating current	—				—		—		Number of contacts	—				—		—		Operating temperature	-35...+70°C				-35...+70°C		-35...+70°C		Storage temperature	-40...+85°C				-40...+85°C		-40...+85°C	
Rated voltage (U_e)	220...240 V AC	24 V AC	48 V AC	115 V AC	220...240 V AC	220...240 V AC	380...415 V AC																																																																																																																						
	—	24 V DC	48 V CC		—	—	—																																																																																																																						
Standardised operating and non-response to voltage times (U_a)*	—	—	—	—	—	—	—																																																																																																																						
Maximum operating time	—	—	—	—	—	—	—																																																																																																																						
Minimum non-response time	—	—	—	—	—	—	—																																																																																																																						
Operating frequency	50/60 Hz			400 Hz	50/60 Hz	50/60 Hz																																																																																																																							
Red mechanical indicator	On front face				On front face		On front face																																																																																																																						
Test function	—				—		—																																																																																																																						
Width in 9 mm modules	2				2		2																																																																																																																						
Operating current	—				—		—																																																																																																																						
Number of contacts	—				—		—																																																																																																																						
Operating temperature	-35...+70°C				-35...+70°C		-35...+70°C																																																																																																																						
Storage temperature	-40...+85°C				-40...+85°C		-40...+85°C																																																																																																																						

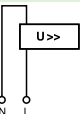
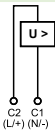
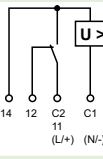
*(U_a)

Voltages measured between the phase and the neutral conductor, at which the iMSU device must control the associated protective device.

Protection

Circuit protection / Earth leakage protection

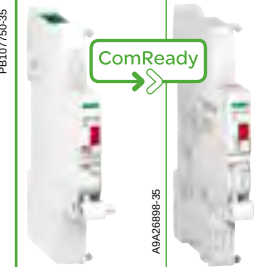
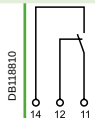
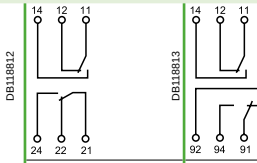
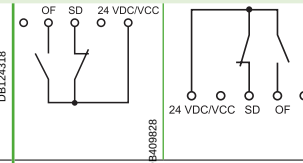
Electrical auxiliaries for iC60, iLD, iC40, iCV40, iLD40, iSW-NA (cont.)

iMSU					iMX			iMX+OF		
Overvoltage release					Shunt release			With Open/Close auxiliary contact		
PB104479-35					PB104486-35			PB104481-35		
										
Switches off the power supply by opening the breaker with which it is combined, in the event that the phase/neutral voltage is exceeded (loss of neutral). For a four-phase network, use three iMSU tripping auxiliaries.					Trips the associated device when it is powered on			Includes an open/close contact (OF) to indicate the "open" or "closed" position of the device		
DB118806					DB123012			DB106929		
										
- Protection of equipment against overvoltages on the electrical network (neutral conductor break) - Voltage monitoring between phase and neutral conductors					Emergency stoppage by normally open push button			- Emergency stoppage by normally open push button - Remote indication of the position of the associated device		
A9A26500					A9A26476	A9A26477	A9A26478	A9A26946	A9A26947	A9A26948
■					■	■	■	■	■	■
■					■	■	■	■	■	■
■					■	■	■	■	■	■
■					■	■	■	■	■	■
■					■	■	■	■	■	■
230 V AC					100...415 V AC 48 V AC 12...24 V AC			100...415 V AC 48 V AC 12...24 V AC		
—					110...130 V DC 48 V DC 12...24 V DC			110...130 V DC 48 V DC 12...24 V DC		
255 V AC	275 V AC	300 V AC	350 V AC	400 V AC	—	—	—	—	—	—
No tripping	15 s	5 s	0.75 s	0.20 s	—	—	—	—	—	—
	3 s	1 s	0.25 s	0.07 s	—	—	—	—	—	—
50/60 Hz					50/60 Hz			50/60 Hz		
On front face					On front face			On front face		
—					—			—		
2					2			2		
—					—			10 mA mini, 6 A maxi		
								≤ 24 V DC 6 A		
								48 V DC 2 A		
								≤ 130 V DC 1 A		
								≤ 240 V AC 6 A		
								415 V AC 3 A		
—					—			1 NO/NC		
-35...+70°C					-35...+70°C			-35...+70°C		
-40...+85°C					-40...+85°C			-40...+85°C		

Protection

Circuit protection / Earth leakage protection

Electrical auxiliaries for iC60, iID, iC40, iCV40, iID40, iSW-NA (cont.)

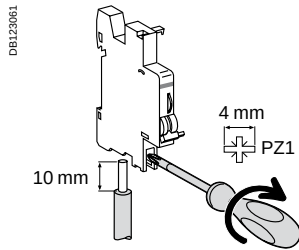
Indication									
Auxiliaries		iOF		iSD		iOF/SD+OF		iOF+SD24	
Type		Open/close auxiliary contact		Fault indicating contact		Double open/close or fault indicating contact		Double open/close and fault indicating contact	
									
		PBL04475-35		PBL04475-35		PBL04475-35		PBL07750-35 A9A26898-35	
Function									
		■ Changeover contact indicates "open" or "closed" position of the device		■ Changeover contact indicates position of the device; upon: □ electrical fault □ action on tripping auxiliary ■ Same indication as VISI-TRIP		■ The iOF/SD+OF auxiliary is a 2-in-1 product: via a mechanical selector switch, it provides two contacts, OF+SD or OF+OF		■ 2 contacts (1 NO + 1 NC) can report the signalling information of the associated device to the Acti9 Smartlink or a programmable logic controller: □ electrical fault □ actuation of the tripping auxiliary □ "Open" or "Closed" position of the associated device	
Wiring diagrams									
									
		DBL18810		DBL18811		DBL18812 OF position		DBL124318 SD position DBA09828	
Use									
		■ Remote indication of the position of the associated device		■ Remote indication of tripping upon a fault of the associated device		■ Remote indication of position and/or tripping upon a fault of the associated device		■ Remote indication of position and tripping upon a fault of the associated device	
Catalogue numbers		A9A26924	A9A26869	A9A26927	A9A26855	A9A26929	A9A26897	A9A26898	
iC60, iID, iID40, iDPN Vigi, iSW-NA		■	—	■	—	■	■	■	
iC40, iCV40		■	—	■	—	■ if no comb busbar	■	■	
iC40 XA, iCV40 XA		■	—	■	—	—	—	■	
iC60, iID double terminals		—	■	—	■	■	■	—	
iC60 RCBO, iKQE RCBO		■	—	■	—	—	—	—	
Technical specification									
Rated voltage (Ue)		24...415 V AC		24...415 V AC		24...415 V AC		-	
		24...130 V DC		24...130 V DC		24...130 V DC		24 V DC	
Operating frequency		50/60 Hz		50/60 Hz		50/60 Hz		-	
Red mechanical indicator		—		On front face		On front face		On front face	
Test function		On toggle		On toggle		On toggle		On toggle	
Width in 9 mm modules		1		1		1		1	
Operating current		10 mA mini, 6 A maxi						2 mA mini, 100 mA maxi	
		24 V DC 6 A						-	
		48 V DC 2 A						-	
		60 V DC 1,5 A						-	
		130 V DC 1 A						-	
		24...240 V AC 6 A						-	
		415 V AC 3 A						-	
Number of contacts		1 NO/NC		1 NO/NC		1 NO/NC + 1 NO/NC		1 NO/NC	
Operating temperature		-35...+70°C		-35...+70°C		-35...+70°C		-25...+70°C	
Storage temperature		-40...+85°C		-40...+85°C		-40...+85°C		-40...+85°C	

Protection

Circuit protection / Earth leakage protection

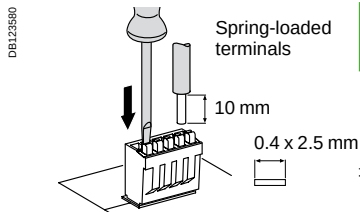
Electrical auxiliaries for iC60, iID, iC40, iCV40, iID40, iSW-NA (cont.)

Connection



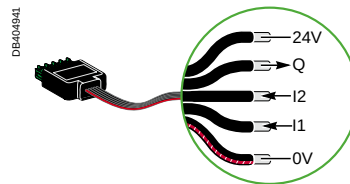
Type	Tightening torque	Copper cables		Multi-cables	
		Rigid	Flexible	Rigid	Cables with ferrule
		DB122945	DB123007	DB123011	DB123008
Indication auxiliaries	1 N.m	1 to 4 mm ²	0.5 to 2,5 mm ²	2 x 2.5 mm ²	2 x 1.5 mm ²
Tripping auxiliaries	1 N.m	1 to 6 mm ²	0.5 to 4 mm ²	2 x 2.5 mm ²	2 x 2.5 mm ²

Ti24 connector connection



Type	Catalogue numbers	Copper cables	
		Rigid	Flexible
		DB122945	DB123553
Ti24 interface	A9XC2412	1 x 0.5 to 1.5 mm ²	1 x 0.5 to 1.5 mm ²

Ti24 prefabricated cables connection



Type	Catalogue numbers	Length
Connection for Acti9 Smartlink		
6 prefabricated	A9XCAS06	100 mm
	A9XCAM06	160 mm
	A9XCAH06	450 mm
	A9XCAL06	870 mm
Connection for PLC type terminals		
6 long prefabricated on a single side	A9XCAU06	870 mm
1 long prefabricated on a single side	A9XCAC01	4000 mm
12 connectors, 5-pins (Ti24)	A9XC2412	-

Protection

Circuit protection / Earth leakage protection

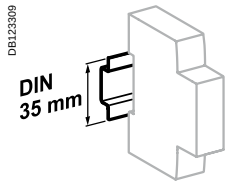
Electrical auxiliaries for iC60, iLD, iC40, iCV40, iLD40, iSW-NA (cont.)

Technical data

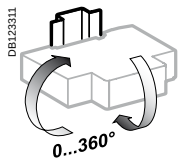
Weight (g)

Electrical auxiliaries

Type	
iMN	69
iMNs	72
iMNx	79
iMSU	68
iMX	64
iMX+OF	68
iOF	32
iSD	33
iOF/SD+OF	43
iOF+SD24	25

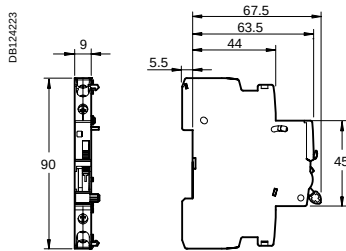


Clip on DIN rail 35 mm.

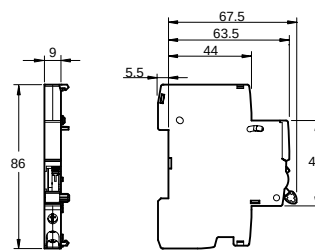


Indifferent position of installation.

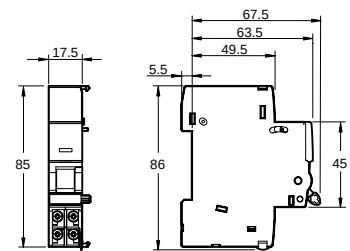
Dimensions (mm)



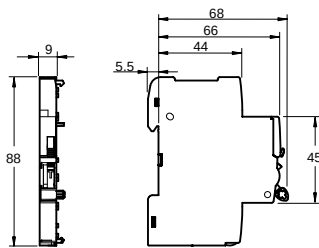
iOF/SD+OF



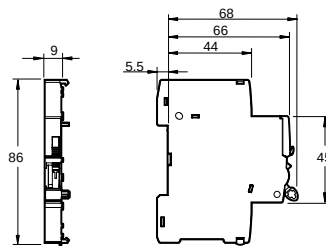
iOF, iSD



iMN, iMNs, iMNx, iMSU, iMX, iMX+OF



iOF+SD24 (A9A26897)



iOF+SD24 (A9A26898)

iMDU electrical auxiliary for Reflex iC60 or RCA iC60



A9C18195

The voltage matching module allows safety voltages of 24 and 48 V AC/DC to be used on the control inputs.

- Only connects to the Reflex iC60 circuit breakers remote controlled by a 220-240 V control voltage
- Galvanic isolation 6000 V
- Maximum combined power between terminals P and Y1/Y2: 100 mA at 230 V and 25°C.

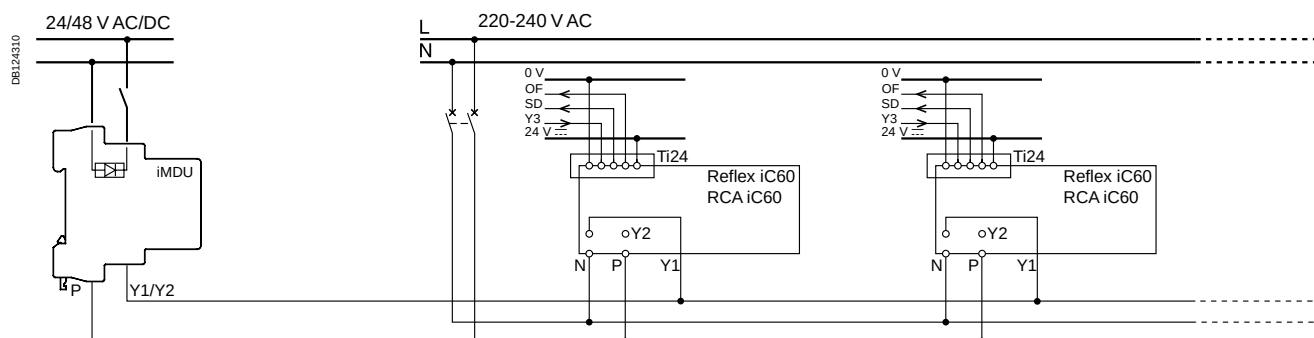
Catalogue numbers

Auxiliary iMDU

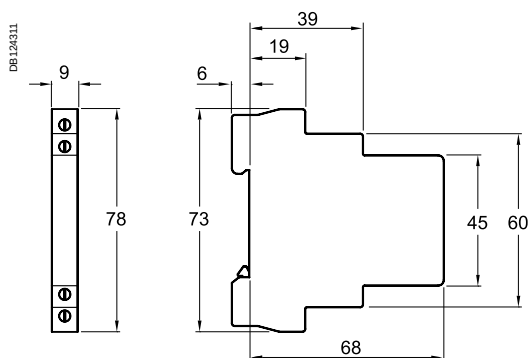
Type	Width in 9 mm modules
iMDU	A9C18195 1

Diagram

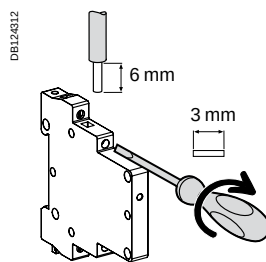
An iMDU electrical auxiliary allows up to a maximum of five Reflex iC60 to be controlled simultaneously at the same input Y1 or Y2.



Dimensions (mm)



Connection



Type	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
iMDU	1 N.m	1.5 mm ²	1.5 mm ²

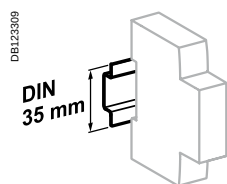
Technical data

Main characteristics

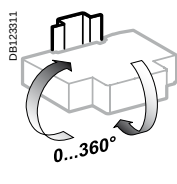
Control circuit voltage	24...48 V AC/DC
Insulation voltage (Ui)	500 V

Additional characteristics

Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
Operating temperature	-20°C to +60°C	
Storage temperature	-40°C to +80°C	
Tropicalization	Treatment 2 (relative humidity 95 % at 55°C)	
Weight	53 g	



Clip on DIN rail 35 mm.



Indifferent position of installation.

Protection

Circuit protection / Earth leakage protection

Electrical auxiliaries for C60, C120, ID, C60H-DC, SW60-DC, C60PV-DC, C60NA-DC, C120NA-DC

■ The electrical auxiliaries provide the remote tripping or position (open/closed/tripped) indication functions of these devices in the event of a fault.

■ They clip on (no tool required) to the left-hand side of the associated device.

■ The OF+SD/OF auxiliary is a two-in-one product: a mechanical selector switch is used to select one of two contacts: OF+SD or OF+OF.

■ The OF+SD24 auxiliary can report open/closed (OF) status information and intentional or fault tripping of the associated device (SD) to the Acti 9 Smartlink or a programmable logic controller via the Ti24 interface (24 V DC).



■ The electrical auxiliaries are not compatible with ID residual current circuit breakers of type B.

Tripping auxiliaries:

IEC/EN 60947-1

- MN: undervoltage release
- MN $\overline{\text{S}}$: delayed undervoltage release
- MNx: undervoltage release, independent of the supply voltage
- MX: shunt release
- MX+OF: shunt release with open/closed contact.

EN 50550

- MSU: overvoltage release.

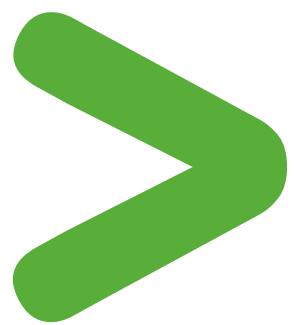
Indication auxiliaries:

IEC/EN 60947-5-1

- OF.S: open/closed contact for ID
- OF: open/closed contact
- SD: fault indicating contact
- OF+SD/OF: choice of open/closed contact and OF or SD contact via the selector switch
- OF+SD24: open/close contact OF and cfault indicating contact SD with Ti24 interface.

IEC/EN 60947-5-4

- OF+SD24: open/close contact OF and cfault indicating contact SD with Ti24 interface.



Electrical auxiliaries for C60, C120, ID, C60H-DC, SW60-DC, C60PV-DC, C60NA-DC, C120NA-DC (cont.)

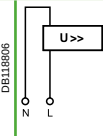
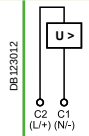
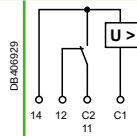
Auxiliaries		MN		MN [□]		MNx	
Type		Undervoltage release					
		Instantaneous		Delayed		Independent of the supply voltage	
		PB107151-30		PB107152-30		PB107149-30	
Function		■ Causes the device with which it is associated to trip when its input voltage decreases (between 70 % and 35 % of Un). Prevents the device from closing until its input voltage has been restored				■ Tripping of the associated device by opening of the control circuit (e.g. push-button, dry contact) ■ A drop in the supply voltage does not trip the associated device ■ A locking push-button control allows the circuit protected (e.g. machine control) to be placed in safety configuration	
		■ No tripping in the event of transient voltage dips (up to 0.2 s)					
Wiring diagrams							
		DB118804				DB4008A7	
Utilization							
		■ Emergency stop via a normally-closed pushbutton ■ Ensures the safety of the power supply circuits of several machines by preventing accidental startups				■ Fail-safe emergency stop ■ Insensitive to the variation in the control circuit voltage to improve continuity of service Important: Before any servicing operation switch off the mains power supply (voltage presence at terminals E1/E2)	
Catalogue numbers		A9N26960	A9N26961	A9N26959	A9N26963	A9N26969	A9N26971
C60, C120, DPN, DPN Vigi, ID		■	■	■	■	■	■
C60H-DC, SW60-DC, C60PV-DC, C60NA-DC, C120NA-DC		■	■	■	■	■	■
Technical specification							
Rated voltage		V AC	220...240	48	115	220...240	230
(Ue)		V DC	—	48	—	—	400
Standardised operating and non-response to voltage times (Ua)*			—	—	—	—	—
Maximum operating time			—	—	—	—	—
Minimum non-response time			—	—	—	—	—
Operating frequency		Hz	50/60	400	50/60	50/60	
Mechanical state indicator light, red			On front face		On front face	On front face	
Test function			—		—	—	
Width in 9 mm modules			2		2	2	
Operating current			—		—	—	
Number of contacts			—		—	—	
Operating temperature		°C	-25...+50		-25...+50	-25...+50	
Storage temperature		°C	-40...+85		-40...+85	-40...+85	
Standards							
IEC/EN 60947-1			■		■	■	
IEC/EN 60947-5-1			—		—	—	
EN 60947-2			■		■	—	
EN 62019-2 ⁽¹⁾			—		—	—	

(1) For C120, DPN.

*(Ua): Voltages measured between the phase and the neutral conductor, at which the MSU device must control the associated protective device.

Circuit protection / Earth leakage protection

Electrical auxiliaries for C60, C120, ID, C60H-DC, SW60-DC, C60PV-DC, C60NA-DC, C120NA-DC (cont.)

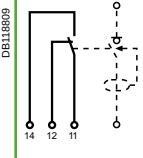
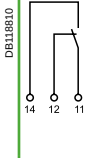
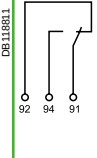
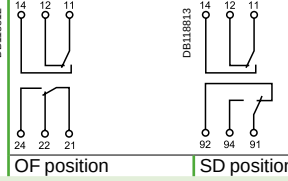
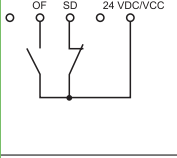
MSU					MX			MX+OF		
Voltage threshold release					Shunt release			With Open/Close auxiliary contact		
PB107153-30					PB107150-30			PB107148-30		
■ Cuts off the power supply by opening the device with which it is associated when the phase/neutral voltage is exceeded (loss of neutral). For a four-phase network, use three MSU tripping auxiliaries					■ Trips the associated device when it is powered on			■ Includes an open/close contact (OF) to indicate the "open" or "closed" position of the breaker		
										
■ Protection of the devices against overvoltages on the electrical network (break in the neutral conductor) ■ Monitoring the voltage between the phase conductor and the neutral conductor					■ Emergency stop via a normally-open pushbutton.			■ Emergency stop via a normally-open pushbutton ■ Remote indication of the position of the associated device		
A9N26500					A9N26476	A9N26477	A9N26478	A9N26946	A9N26947	A9N26948
■					■	■	■	■	■	■
—					■	■	■	■	■	■

230					100...415	48	12...24	100...415	48	12...24
—					110...130	48	12...24	110...130	48	12...24
255 V AC	275 V AC	300 V AC	350 V AC	400 V AC	—	—	—	—	—	—
No tripping	15 s	5 s	0.75 s	0.20 s	—	—	—	—	—	—
	3 s	1 s	0.25 s	0.07 s	—	—	—	—	—	—
50/60					50/60			50/60		
On front face					On front face			On front face		
—					—			—		
2					2			2		
—					—			10 mA mini, 6 A maxi		
								≤ 24 V DC 6 A		
								48 V DC 2 A		
								≤ 130 V DC 1 A		
								≤ 240 V AC 6 A		
								415 V AC 3 A		
—					—			1 NO/NC		
-25...+50					-25...+50			-25...+50		
-40...+85					-40...+85			-40...+85		

■					■			■		
—					—			—		
—					—			—		
—					—			—		

Circuit protection / Earth leakage protection

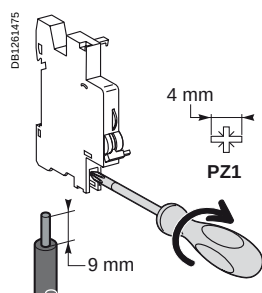
Electrical auxiliaries for C60, C120, ID, C60H-DC, SW60-DC, C60PV-DC, C60NA-DC, C120NA-DC (cont.)

		Indication				
Auxiliaries		OF.S	OF	SD	OF+SD/OF	OF+SD24
Type		Open/closed auxiliary contact	Open/closed auxiliary contact	Fault indicating contact	Double open/closed or fault indicating contact	Double open/close and fault indicating contact
	PB100629_SE-30-b		PB107146-30 	PB107146-30 	PB100625_SE-30-b 	PB107760-35 
Function		Changeover contact indicating the "open" or "closed" position of the associated device ⚠ Compulsory for the addition of tripping or indication auxiliaries on a residual current circuit breaker ID	Changeover contact indicating the "open" or "closed" position of the associated device	- Changeover contact indicating the position of the associated device in the event of: □ electrical fault □ action on the tripping auxiliary ⚠ Not compatible with a ID residual current circuit breaker, use an OF+SD/OF in the SD position	The OF+SD/OF auxiliary is a two-in-one product: choice of OF + SD or OF + OF contact via the selector switch	2 contacts (1 NO + 1 NC) can report the signalling information of the associated device to the Acti 9 Smartlink or a programmable logic controller: □ electrical fault □ actuation of the tripping auxiliary □ "Open" or "Closed" position of the associated device
Wiring diagrams						
Utilization		Remote indication of the position of the associated device	Remote indication of the position of the associated device	Remote fault tripping indication of the associated device	Remote position and/or fault tripping indication of the associated device	Remote indication of position and tripping upon a fault of the associated breaker
Catalogue numbers		A9N26923	A9N26924	A9N26927	A9N26929	A9N26899
ID		■	■	■	■	■
C60, C120, DPN, DPN Vigi, C60H-DC, C60H-DC, SW60-DC, C60PV-DC, C60NA-DC, C120NA-DC		—	■	■	■	■
Technical specification						
Rated voltage (Ue)	V AC	24...415	24...415	24...415	24...415	—
	V DC	24...130	24...130	24...130	24...130	24
Operating frequency	Hz	50/60	50/60	50/60	50/60	—
Mechanical state indicator		—	—	On front face	On front face	On front face
Test function		—	On front face	On front face	On front face	On toggle
Width in 9 mm modules		1	1	1	1	1
Operating current	10 mA mini, 6 A maxi					
	24 V DC	6 A				2 mA mini, 100 mA maxi
	48 V DC	2 A				—
	60 V DC	1.5 A				—
	130 V DC	1 A				—
	24...240 V AC	6 A				—
	415 V AC	3 A				—
Number of contacts		1 NO/NC	1 NO/NC	1 NO/NC	1 NO/NC + 1 NO/NC	1 NO + 1 NC
Operating temperature	°C	-25...+50	-25...+50	-25...+50	-25...+50	-25...+70
Storage temperature	°C	-40...+85	-40...+85	-40...+85	-40...+85	-40...+85
Standards						
IEC/EN 60947-1		—	—	—	—	—
IEC/EN 60947-5-1		■	■	■	■	■ IEC 60947-5-4
EN 60947-2		—	—	—	—	—
EN 62019-2 ⁽¹⁾		■	■	■	■	—

(1) For C120, DPN.

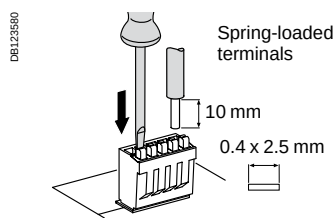
Electrical auxiliaries for C60, C120, ID, C60H-DC, SW60-DC, C60PV-DC, C60NA-DC, C120NA-DC (cont.)

Connection



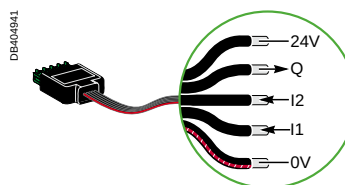
Type	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
Indication and tripping auxiliaries	1 N.m	0.5 to 2.5 mm ²	2 x 1.5 mm ²

Ti24 connector connection



Type	Catalogue numbers	Copper cables	
		Rigid	Flexible
Ti24 interface	A9XC2412	1 x 0.5 to 1.5 mm ²	1 x 0.5 to 1.5 mm ²

Ti24 prefabricated cables connection



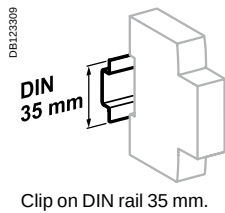
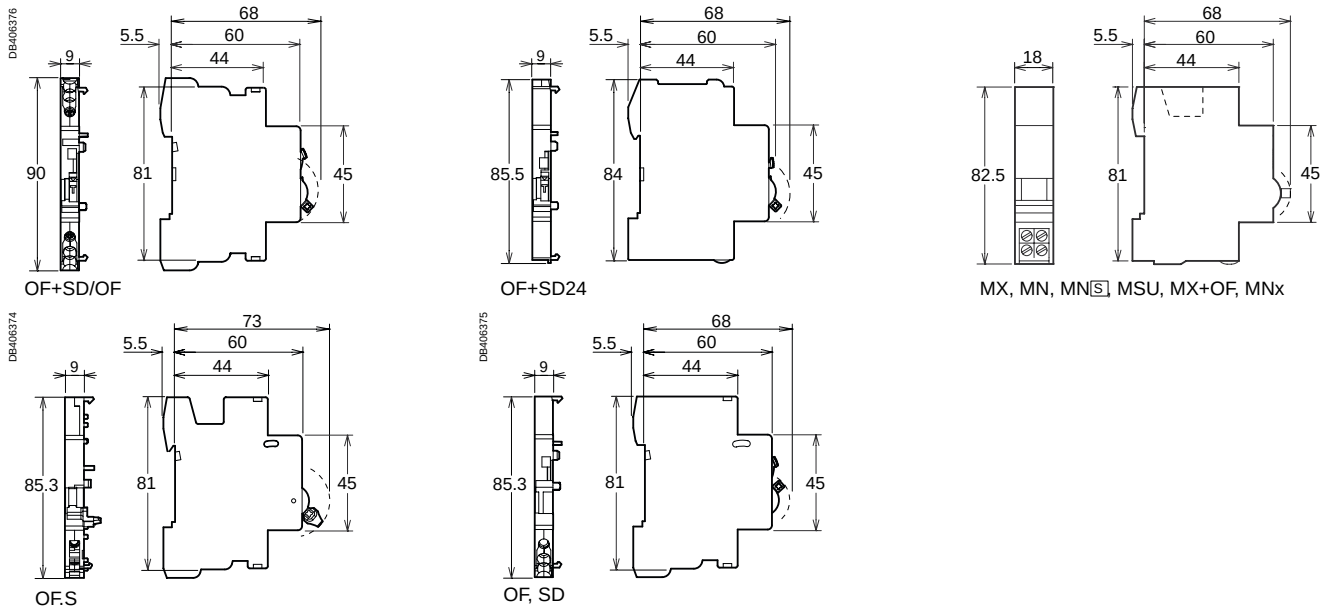
Type	Catalogue numbers	Length
Connection for Acti 9 Smartlink		
6 prefabricated	A9XCAS06	100 mm
	A9XCAM06	160 mm
	A9XCAH06	450 mm
	A9XCAL06	870 mm
Connection for PLC type terminals		
6 long prefabricated on a single side	A9XCAU06	870 mm
1 long prefabricated on a single side	A9XCAC01	4000 mm
12 connectors, 5-pins (Ti24)	A9XC2412	-

Protection

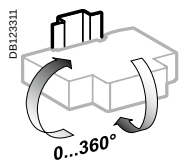
Circuit protection / Earth leakage protection

Electrical auxiliaries for C60, C120, ID, C60H-DC, SW60-DC, C60PV-DC, C60NA-DC, C120NA-DC (cont.)

Dimensions



Clip on DIN rail 35 mm.



Indifferent position of installation.

Weight (g)

Electrical auxiliaries

Type	
MN	66
MN(S)	66
MNx	73
MSU	66
MX	60
MX+OF	65
OF.S	33
OF	30
SD	30
OF+SD/OF	38
OF+SD24	28

Electrical auxiliaries for NG125 devices

- The electrical auxiliaries are combined with NG125 circuit breakers and NG125 switch-disconnectors; they provide the remote tripping or position (open/closed/tripped) indication functions of these devices in the event of a fault.
- They clip on (no tool required) to the left-hand side of the associated device.

IEC/EN 60947-2

- Tripping auxiliaries:
 - MN: undervoltage release
 - MNx: undervoltage release, independent of the supply voltage
 - **MX**+OF: shunt release with open/closed contact
 - MXV: shunt release for Vigi add-on residual current device.

IEC/EN 60947-5-1

- Indication contacts:
 - OF+OF: open/closed contact
 - OF+SD: fault indicating contact
 - **MX**+OF: shunt release with open/closed contact.

DB123424

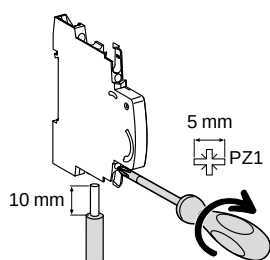


Combination table

Electrical auxiliaries		Device
Indication auxiliaries	Tripping auxiliaries	 NG125
	Max. quantity	
2 (OF+OF or OF+SD)	+ 1 (MX+OF or MN or MNx)	

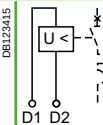
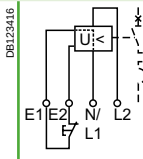
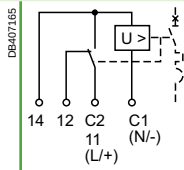
Connection

DB123413



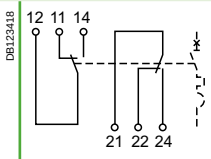
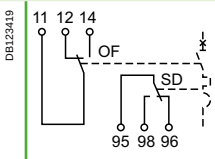
Type	Tightening torque	Copper cables		Multi-cable terminal	
		Rigid	Flexible or with ferrule	Flexible or rigid cables	Cables with ferrule
Indication contacts	1 N.m	 DB12345	 DB123411	 DB123011	 DB123412
Tripping auxiliaries	1 N.m	0.5 to 2.5 mm ²	0.5 to 1.5 mm ²	2 x 2.5 mm ²	2 x 1.5 mm ²

Electrical auxiliaries for NG125 devices and for Vigi NG125 add-on residual current devices (cont.)

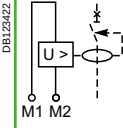
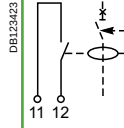
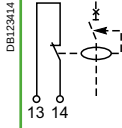
Tripping									
Auxiliaries	MN			MNx	MX+OF				
Type	Undervoltage release			Independent of the supply voltage			Shunt release		
	Instantaneous			Independent of the supply voltage			With open/closed auxiliary contact		
									
Function	Causes tripping of the device with which it is combined when its input voltage decreases (between 70% and 35% of U_n). Prevents closing of the device until its input voltage has been restored			- Tripping of the associated device by opening of the control circuit (e.g. push-button, dry contact) - A drop in the supply voltage does not trip the associated device - A locking push-button control allows the circuit protected (e.g. machine control) to be placed in safety configuration			- Causes tripping of the associated device when powered - Includes an open/closed contact (OF) to indicate the "open" or "closed" position of the associated device		
Wiring diagrams									
Utilization	- Emergency stop by normally-closed pushbutton - Ensures safety of the power supply circuits for several machines by preventing untimely restarting			- Fail-safe emergency stop - Insensitive to variations in the control circuit voltage for improved continuity of service Important: Before any servicing operation switch off the mains power supply (voltage presence at terminals E1/E2)			Provided with a self-interrupting contact		
Catalogue numbers	19067	19069	19070	19061	19064	19065	19066	19063	
Technical specification									
Rated voltage (U_e)	V AC	230...240	48	—	220...240	230...415	48...130	24	12
	V DC	—	—	48	—	110...130	48	24	12
Operating frequency	Hz	50/60			50/60	50/60			
Mechanical state indicator light, red		On front face			On front face	On front face			
Width in 9 mm modules		2			4	2			
Current rating		—			—			415 V AC	3 A
								≤ 240 V AC	6 A
								130 V DC	1 A
								≤ 48 V DC	3 A
Number of contacts		—			—	—			
Operating temperature	°C	-25...+60			-25...+60	-25...+60			
Storage temperature	°C	-40...+85			-40...+85	-40...+85			

Electrical auxiliaries for NG125 devices and for Vigi NG125 add-on residual current devices (cont.)

Indication

OF+OF		OF+SD	
Auxiliary contact		Fault indicating contact	
			
■ Double changeover contact indicating "open" or "closed" position of the associated device		■ Double changeover contact indicating: □ the position of the associated device in the event of: - electrical fault - actuation of the tripping auxiliary □ the "open" or "closed" position of the associated device	
			
■ Remote indication of the position of the associated device		■ Remote indication of tripping upon a fault of the associated device	
19071		19072	
—		—	
—		—	
50/60		50/60	
—		—	
1		1	
415 V AC 3 A		415 V AC 3 A	
≤ 240 V AC 6 A		≤ 240 V AC 6 A	
130 V DC 1 A		130 V DC 1 A	
≤ 48 V DC 3 A		≤ 48 V DC 3 A	
2 NO/NC		2 NO/NC	
-25...+60		-25...+60	
-40...+85		-40...+85	

Electrical auxiliaries for NG125 devices and for Vigi NG125 add-on residual current devices (cont.)

		Indication	
Auxiliaries		MXV	SDV
Type		Shunt release	Vigi fault indicating contact
	054647_90250E_SE-35		054648_90250E_SE-35 
Function		- At power up, actuates tripping of a circuit breaker or residual current circuit breaker - It is provided with a self-interrupting contact	Normally-closed or normally-open contact indicating tripping upon an earth fault (including tripped by MXV)
Wiring diagrams			 
Utilization		- Adaptable to 125 A Vigi add-on residual current device, all types, and to 63 A Vigi add-on residual current device, adjustable - Impulse withstand voltage: 6 kV - High-impedance input: use an iACTp if the leakage current in the control unit exceeds 1 mA (e.g. illuminated pushbutton)	
Catalogue numbers		19060	19058 19059
Suitable for the following devices:			
NG125		—	—
Vigi NG125		■	■
Technical specification			
Rated voltage (Ue)	V AC	110...240	250
	V DC	110	—
Operating frequency	Hz	50/60	50/60
Number of contacts		—	1 NO 1 NC
Current rating		—	0.1 to 1 A (AC14)
Operating temperature	°C	-25...+60	-25...+60
Storage temperature	°C	-40...+85	-40...+85

Control

Remote control

RCA remote controls

For iC60 circuit breakers



The RCA remote control system allows:

- Remote electrical control (opening and closing) of circuit breakers with or without Vigi add-on RCD, with or without auxiliary.
- Circuit-breaker resetting after tripping, in accordance with safety principles and the regulations in force.
- Local control by operating handle.
- Circuit placing in safety configuration by padlocking.

2 choices of operation after tripping:

- A: Enabling of remote circuit-breaker resetting;
- B: Inhibition of remote resetting.

The version with Ti24 interface allows:

- Direct interfacing of remote control with a programmable logic controller (PLC), a supervision system and any other communication device, having inputs/outputs in 24 V DC (control, OF and SD indications).
- Fast, reliable connection of the remote control to the Acti 9 Smartlink thanks to the prefabricated cables.
- Remote indication by "OF" potential-free contact.
- Provision of 2 operating modes, "1 and 3".

The iMDU auxiliary allows RCA control in 24/48 V AC/DC.

Catalogue numbers

RCA remote control			
Type			Width in 9 mm modules
For circuit breakers 1P, 1P+N, 2P	Voltage		
Without Ti24 interface	230 V AC, 50/60 Hz	A9C70112	7
With Ti24 interface	230 V AC, 50/60 Hz	A9C70122	7
For 3P, 4P circuit breakers			
Without Ti24 interface	230 V AC, 50/60 Hz	A9C70114	7
With Ti24 interface	230 V AC, 50/60 Hz	A9C70124	7
Auxiliaries			See module CA907000 and CA907002



Without Ti24 interface



DE123572



With Ti24 interface

Legend		
Type	Application	
OFF	All remote control inhibited	
auto	A	Circuit breaker remote reclosing after tripping allowed
	B	Circuit breaker remote reclosing after tripping inhibited
Green indicator lamp	Remote control possible	
Orange indicator lamp	Remote control impossible	
1 (Ti24)	Mode 1	
3 (Ti24)	Mode 3	
Y1	Latched order local control	
Y2	Impulse-type or latched order local control (depending on mode)	
Y3	Latched order centralized control	

Control

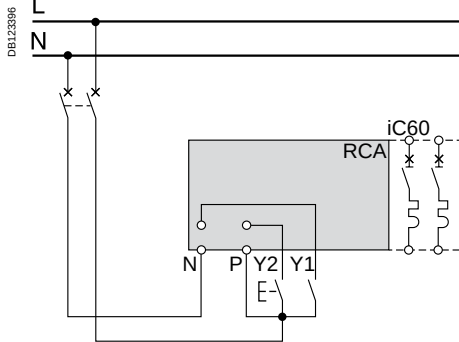
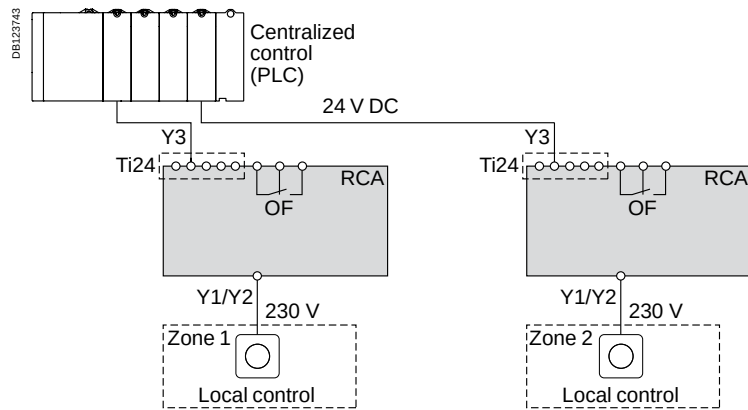
Remote control

RCA remote controls (cont.)

For iC60 circuit breakers

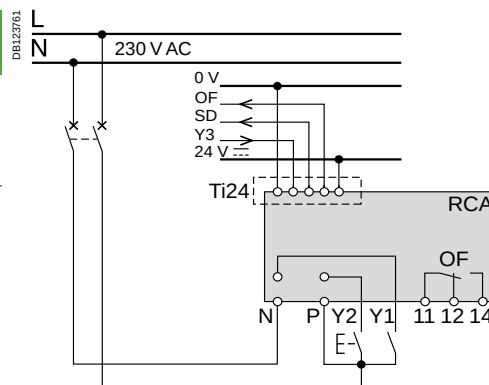
Standard RCA

■ The orders received on terminals Y1 and Y2 are taken into account progressively in their order of arrival.

**RCA Ti24****Mode 1: Locally or centrally controlled circuit-breaker opening/closing**

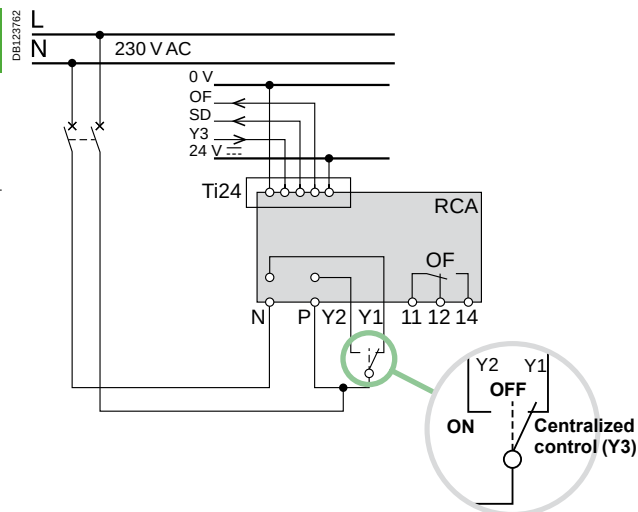
■ The orders come from various control points, and they are taken into account in their order of arrival

- Y1: Latched order local control
- Y2: Impulse-type local control
- Y3: Latched order centralized control

RCA Ti24 mode 1**Mode 3: Centrally controlled opening/closing + local override**

■ 3 positions allowing a choice between override and centralized control:

- Y1: Latched order local control
- Y2: Latched order local control
- Y3: Latched order centralized control

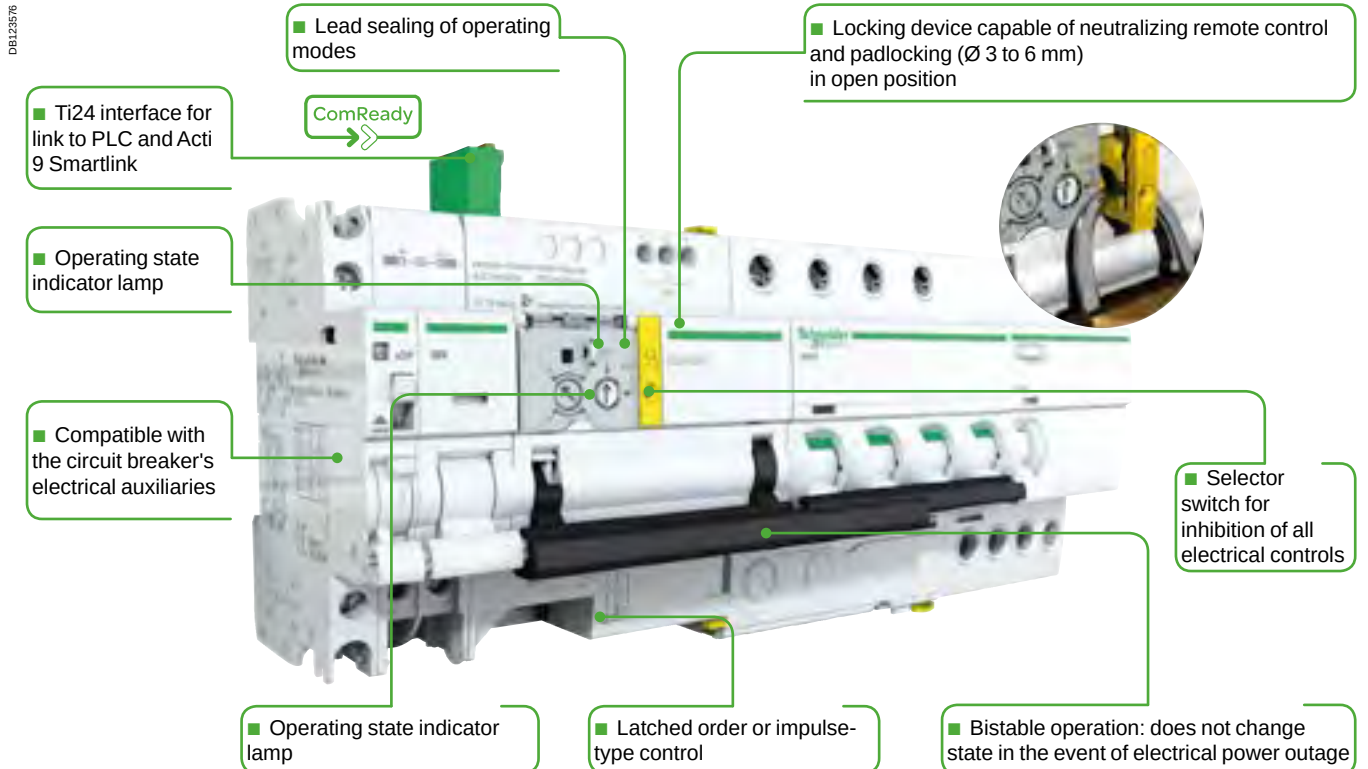
RCA Ti24 mode 3

Control

Remote control

RCA remote controls (cont.)

For iC60 circuit breakers



DB123763



DB123579



DB123578



Legend

Type	Application
+24VDC	V DC power supply
Y3	Latched order centralized control
SD	Circuit-breaker tripping information
OF	Control circuit state information (open/closed)
0 V	V DC power supply
Y1	Latched order local control
Y2	Impulse-type or latched order local control (depending on mode)
N	230 V AC power supply
P	
OF	Circuit-breaker state indication contact (open/closed)

11 12 14

Control

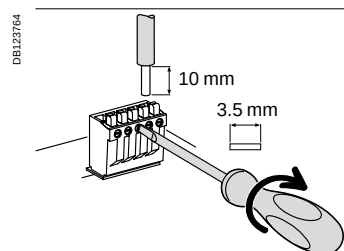
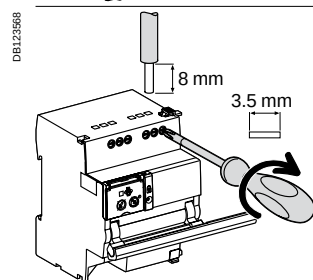
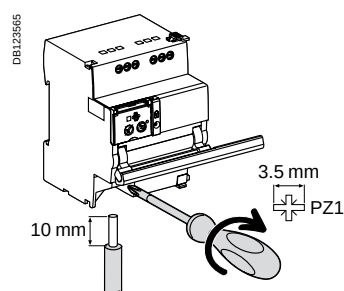
Remote control

RCA remote controls (cont.)

For iC60 circuit breakers

Connection

Without accessories



Terminal	Tightening torque	Copper cables		
		Rigid	Flexible	Flexible with ferrule
Power supply (N/P) Inputs (Y1/Y2)	1 N.m	DB123545 	DB123553 	DB123554 
Outputs (OF)	0.7 N.m	0.5 to 10 mm ² 2 x 0.5 to 2 x 2.5 mm ²	0.5 to 6 mm ² 2 x 0.5 to 2 x 2.5 mm ²	0.5 to 4 mm ² 2 x 0.5 to 2 x 2.5 mm ²
Ti24 interface	Spring-loaded terminals	0.5 to 2.5 mm ² 2 x 0.5 to 2 x 1.5 mm ²	0.5 to 2.5 mm ² 2 x 0.5 to 2 x 1.5 mm ²	0.5 to 1.5 mm ² 2 x 0.5 to 2 x 1.5 mm ²
		0.5 to 1.5 mm ²	0.5 to 1.5 mm ²	-

Technical data

Control circuit

Supply voltage (Ue) (N/P)	230 V AC, 50/60 Hz
Control voltage (Uc) Type 1 inputs (Y1/Y2)	230 V AC (as per IEC 61131-2)
Min. duration of control order (Y2)	≥ 200 ms
Response time (Y2)	< 500 ms
Consumption	≤ 1 W

Thermal self-protection with automatic Reset against overheating of the control circuit due to an abnormal number of operations

Endurance (O-C) (RCA combined with a circuit breaker)

Electrical/Mechanical	10,000 cycles
-----------------------	---------------

Indication / Remote control

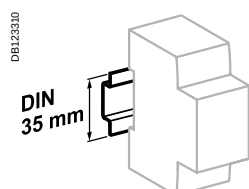
Potential free changeover contact output (OF)	Min.	24 V AC/DC, 10 mA
	Max.	230 V AC, 1 A
Input (Y1/Y2)	230 V AC	5 mA

Ti24 interface (as per IEC 61131)

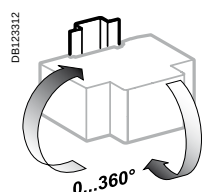
Type 1 input (Y3)	24 V DC	5.5 mA
Output (OF and SD)	24 V DC	In max.: 100 mA

Additional characteristics

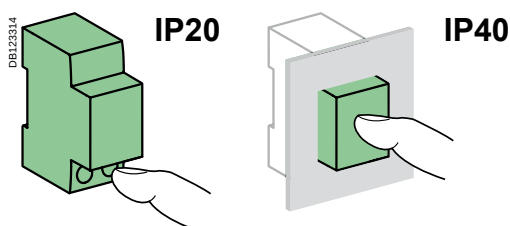
Degree of protection (IEC 60529)	Device only	IP20
	Device in a modular enclosure	IP40 Insulation class II
Insulation voltage (Ui)	400 V	
Degree of pollution (IEC 60947)	3	
Rated impulse withstand voltage (Uimp)	6 kV	
Operating temperature	-25°C to +60°C	
Storage temperature	-40°C to +70°C	
Tropicalization	Treatment 2 (relative humidity of 93 % at +40°C)	



Clip on DIN rail 35 mm.



Indifferent position of installation.



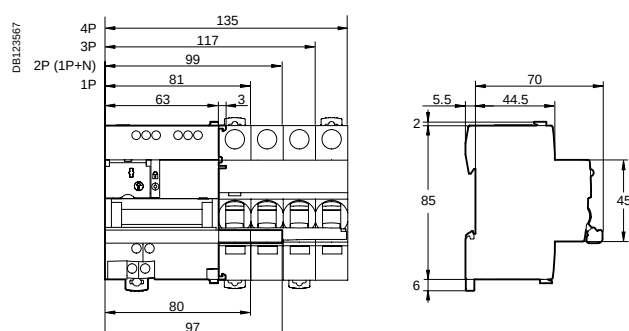
RCA remote controls (cont.)

For iC60 circuit breakers

Weight (g)

Remote controls	
Type	RCA
For 1P, 1P+N, 2P circuit breakers	400
For 3P, 3P+N, 4P circuit breakers	430

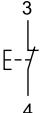
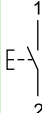
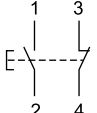
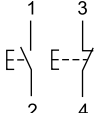
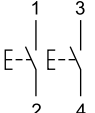
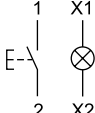
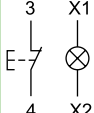
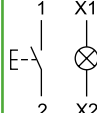
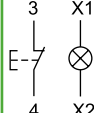
Dimensions (mm)



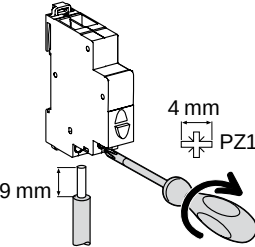
IEC 60669-1 and IEC 60947-5-1

■ iPB pushbuttons are used to control electric circuits by means of pulses.

Catalogue numbers

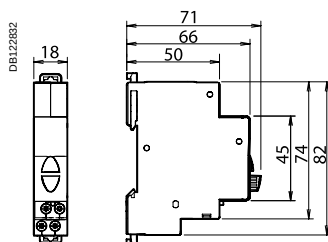
iPB pushbuttons											
Type	Single				Double		Single + indicator light				
	PB105259-40 				PB105260-40 		PB105261-40 				
Diagram	1 NC 		1 NO 	1 NO + 1 NC 	1 NO / 1 NC 	1 NO / 1 NO 	1 NO 	1 NC 	1 NO 	1 NC 	
Pushbutton Colour	Grey	Red	Grey	Grey	Green/red	Grey/grey	Grey	Grey	Grey	Grey	
Indicator light	-	-	-	-	-	-	110...230 V AC		12...48 V AC/DC		
Power supply Colour	-	-	-	-	-	-	Green	Red	Green	Red	
Cat. no.	A9E18030	A9E18031	A9E18032	A9E18033	A9E18034	A9E18035	A9E18036	A9E18037	A9E18038	A9E18039	
Width in 9 mm modules	2				2		2				

Connection

Tightening torque	Copper cables	
	Rigid	Flexible or with ferrule
 1 N.m	 0.5 mm ² min. 2 x 2.5 mm ² max.	 0.5 mm ² min. 2 x 2.5 mm ² max.

- Phase-separated wall that can be divided to allow the teeth of all types of comb busbar to pass through.
- Staggered terminals to simplify connection.

Dimensions (mm)



Technical data

Main characteristics	
Pollution degree	3
Power circuit	
Voltage rating (Ue)	250 V AC
Current rating (Ie)	20 A
Additional characteristics	
Endurance (O-C)	30,000 operations AC22 (cos φ = 0.8)
Operating temperature	-35°C... +70°C
Storage temperature	-40°C... +80°C
Tropicalization	Treatment 2 (relative humidity 95 % at 55°C)
LED indicator light	Consumption: 0.3 W Service life: 100,000 hours of constant lighting efficiency Maintenance-free indicator light (non-interchangeable LEDs)

Control

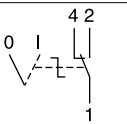
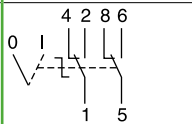
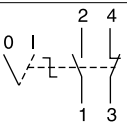
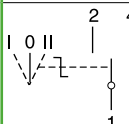
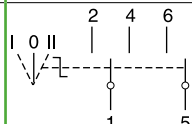
Local control

iSSW linear switches

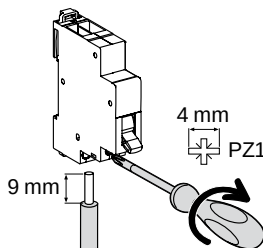
IEC 60669-1 and IEC 60947-5-1

- iSSW linear switches are used for the manual control of electric circuits.

Catalogue numbers

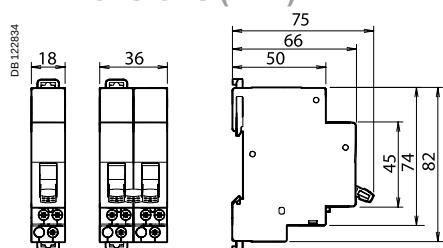
iSSW linear switches					
Type	2 positions			3 positions	
					
Contact	1 changeover switch	2 changeover switches	1 NO + 1NC	1 changeover switch	2 changeover switches
Diagram					
Cat. no.	A9E18070	A9E18071	A9E18072	A9E18073	A9E18074
Width in 9 mm modules	2	4	2	2	4

Connection

	Tightening torque		Copper cables	
	Rigid	Flexible or with ferrule	Rigid	Flexible or with ferrule
	DB122945	DB122946		
1 N.m	0.5 mm ² min. 2 x 2.5 mm ² max.	0.5 mm ² min. 2 x 2.5 mm ² max.		

- Phase-separated wall that can be divided to allow the teeth of all types of comb busbar to pass through.
- Staggered terminals to simplify connection.

Dimensions (mm)

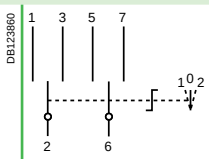
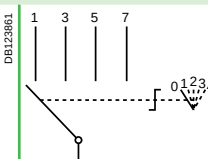
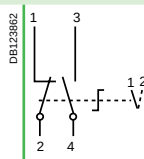


Technical data

Main characteristics	
Pollution degree	3
Power circuit	
Voltage rating (Ue)	250 V AC
Current rating (Ie)	20 A
Additional characteristics	
Endurance (O-C)	30,000 cycles AC22 (cos φ = 0.8)
Operating temperature	-20°C... +50°C
Storage temperature	-40°C... +70°C
Tropicalization	Treatment 2 (relative humidity 95 % at 55°C)

DIN rail selector switches

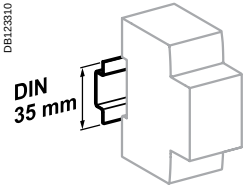
iCMB, iCMD, iCME, iCMC, iCMV and iCMA

		Control																													
Selector switches		iCMB	iCMD	iCME																											
Type	Two-pole with zero setting		4-way	2-way for electronic circuits																											
In compliance with standards	IEC 60947-3 (EN 60947-3) VDE 0660 part. 107 UL		IEC 60947-3 (EN 60947-3) VDE 0660 part. 107 UL	IEC 60947-3 (EN 60947-3) VDE 0660 part. 107 UL																											
																															
Function																															
	■ This two-pole selector switch with zero setting allows manual control of a circuit with 2-way operation (non-locking) with a stop position		■ This 4-way selector switch allows control of a circuit with operating priorities	■ This 2-way selector switch is used specially for the control of electronic circuits of low voltage and current level																											
Wiring diagrams																															
																															
Use																															
	Example: electrically controlled metal screen: ■ position 1 = raising ■ position 0 = stop ■ position 2 = lowering Zero setting product, positions 1 and 2 must be maintained on the rotative handle by the operator		Example: fan control: ■ position 0 = stop ■ position 1 = override operation, slow speed ■ position 2 = override operation, high speed ■ position 3 = remote control ■ position 4 = automatic operation	■ Voltage range from 30 mV to 600 V AC																											
Catalogue numbers		A9E15120	A9E15121	A9E15122																											
Technical specification																															
Rated voltage (Ue)	V AC	415	415	See following table																											
Maximum operating voltage	V	440	440	440																											
Rating	A	10	10	See following table																											
Operating frequency	Hz	50/60	50/60	50/60																											
Width in 9-mm modules		4	4	4																											
Breaking capacity (resistive load)		–	–	<table><tr><th></th><th>V AC</th><th>V DC</th></tr><tr><td>1 V</td><td>5 A</td><td>3 A</td></tr><tr><td>12 V</td><td>1.2 A</td><td>0.7 A</td></tr><tr><td>24 V</td><td>0.7 A</td><td>0.4 A</td></tr><tr><td>48 V</td><td>0.45 A</td><td>0.25 A</td></tr><tr><td>110 V</td><td>0.25 A</td><td>0.13 A</td></tr><tr><td>240 V</td><td>0.15 A</td><td>0.08 A</td></tr><tr><td>300 V</td><td>0.13 A</td><td>0.07 A</td></tr><tr><td>440 V</td><td>0.1 A</td><td>0.05 A</td></tr></table>		V AC	V DC	1 V	5 A	3 A	12 V	1.2 A	0.7 A	24 V	0.7 A	0.4 A	48 V	0.45 A	0.25 A	110 V	0.25 A	0.13 A	240 V	0.15 A	0.08 A	300 V	0.13 A	0.07 A	440 V	0.1 A	0.05 A
	V AC	V DC																													
1 V	5 A	3 A																													
12 V	1.2 A	0.7 A																													
24 V	0.7 A	0.4 A																													
48 V	0.45 A	0.25 A																													
110 V	0.25 A	0.13 A																													
240 V	0.15 A	0.08 A																													
300 V	0.13 A	0.07 A																													
440 V	0.1 A	0.05 A																													
Operating temperature	°C	-20...+55	-20...+55	-20...+55																											
Storage temperature	°C	-25...+80	-25...+80	-25...+80																											

iCMB, iCMD, iCME, iCMC, iCMV and iCMA (cont.)

Panel indicators

DIN rail selector switches
iCMB, iCMD, iCME, iCMC, iCMV and iCMA (cont.)



Clip on DIN rail 35 mm.

Connection

PH1

Tightening torque	Copper cables Flexible or rigid with ferrule
0.35 N.m	 < 1.5 mm ²

■ Connection by jumper terminals with captive screws.

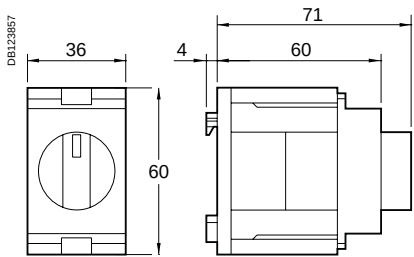
Technical data

Additional characteristics		
Degree of protection	Device only	IP20
Endurance (O-C)	Electrical	1,000,000 switching operations
	Mechanical	2,000,000 switching operations (AC21A-3 x 440 V)

Weight (g)

Selector switches	
Type	
iCMA	58
iCMB	58
iCMC	70
iCMD	58
iCME	44
iCMV	58

Dimensions (mm)



Local control Control Button holders

They can be attached to a symmetrical 35 mm rail, in modular cabinets or enclosures, for control and indications auxiliaries: push-buttons, emergency stops, switches, light indicators; for tertiary and industrial applications.



A9A15151



A9A15152

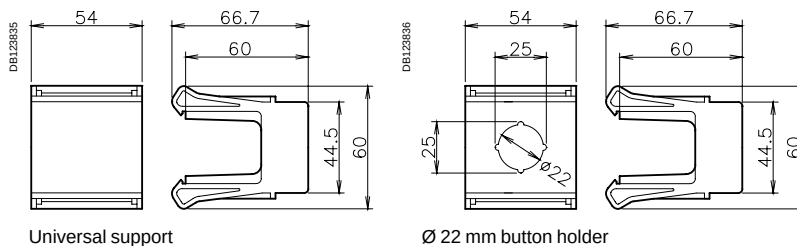
Catalogue numbers

Button holders		
Type		Width in 9 mm modules
Ø 22 mm button holder	A9A15151	6
Universal support	A9A15152	6

Technical data

Main characteristics	Button holder	Universal support
For buttons, switches and indicators with metal or plastic flange Ø 22 of the Schneider Electric XB4 / XB5 type	■	-
For buttons, indicators, light emitting diodes (LED), potentiometers	-	■
Drilling diameter	Ø 22.3 mm	Easy drilling, to be adapted depending on use
Colour	White RAL 9003	
Self-extinguishing insulating material		
Depth under rail 60 mm (same as products)		

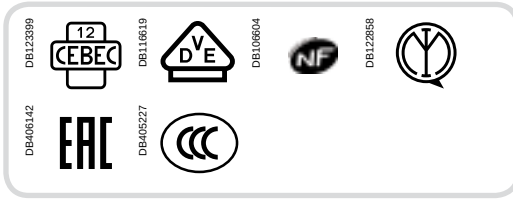
Dimensions (mm)



Control

Remote control

Acti9 iCT contactors (cont.)



IEC/EN 61095

As per the above standards:

Acti9 iCT contactors are available in two versions:

- Contactors without manual operation
- Contactors with manual operation.

The breadth of the Acti9 iCT contactor range satisfies most application cases.

Acti9 iCT contactors can be combined with auxiliary control, protection and indication functions.

- Acti9 iCT contactors can be used to remote control applications in alternating current:
 - lighting, heating, ventilation, roller blinds, sanitary hot water,
 - mechanical ventilation systems, etc,
 - load-shedding of non-priority circuits.

> Contactors

Acti9 iCT 2P



manual control

Acti9 iCT 4P



> Contactor auxiliaries



Indication Acti9 iACTs

- This auxiliary allows indication of the "open" or "closed" position of the contactor power contacts



Interference filterin Acti9 iACTp

- This auxiliary is an interference suppressor which limits overvoltages on the control circuit



Dual control Acti9 iACTc

- Used to control a contactor in impulse-type mode or to combine latched or impulse-type control orders



Control and indication 24 V DC Acti9 iACT24

- Allows control and indication of a 230 V AC contactor from the Acti9 Smartlink or by a PLC, by 24 V DC signals
- Also allows control by a maintained signal



Time delay Acti9 iATEt

- This auxiliary is used to time delay for Acti9 iCT and iTL. According to cabling, there are 5 possible time delay types:
 - 1 for iTL
 - 4 for iCT

Function type A: late closing

Delay energizing of contactor

Function type B: time delay

- Energize the contactor by closing a push button

- The time delay starts as soon as the control contacts are closed

Function type C: late opening

- Energize the contactor by closing a push button

- The time delay starts when the control contacts are opened

Function type H: fixed time operation

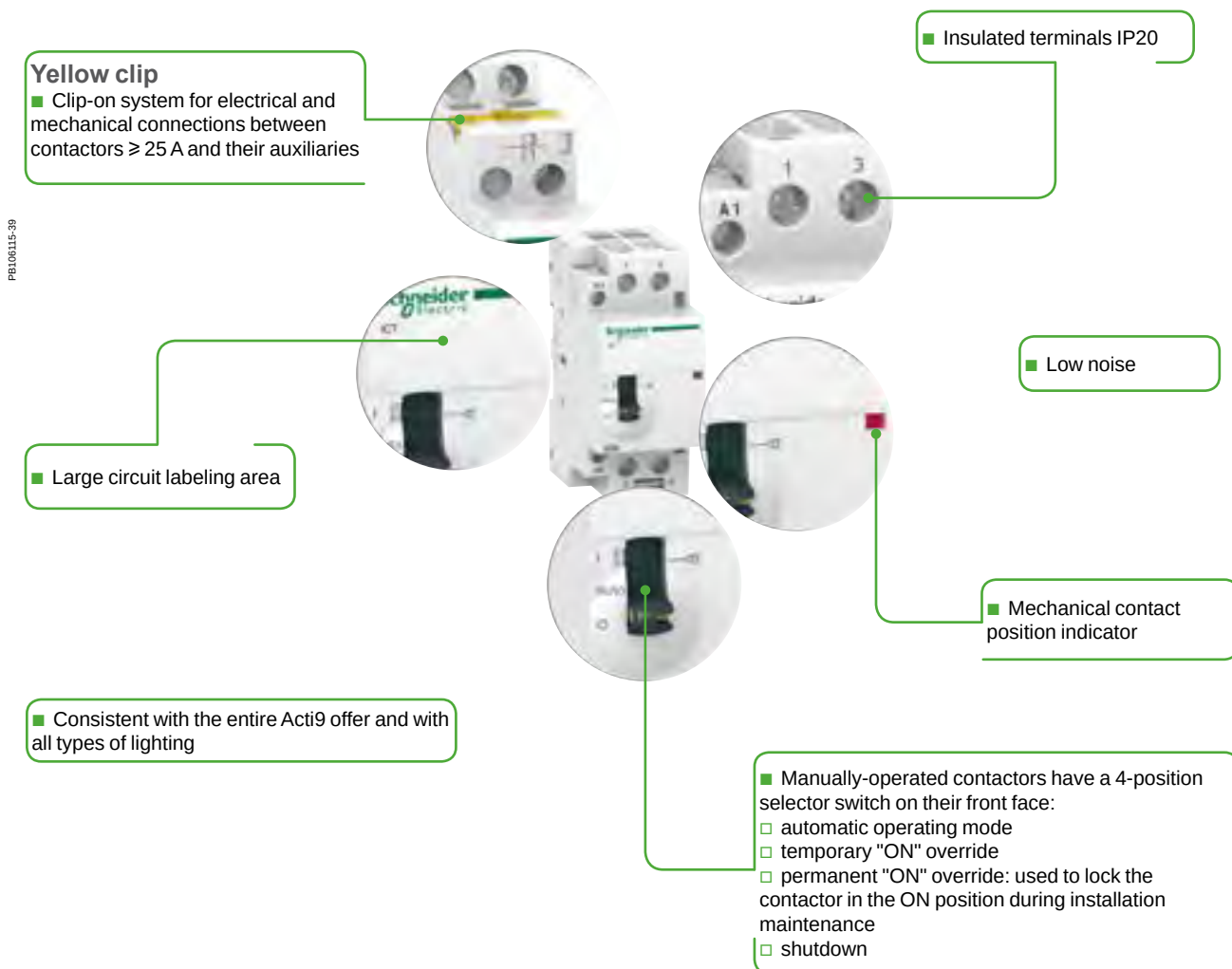
- Operate the contactor for a pre-determined time from the moment of energizing

Choice of 50 Hz contactors											
Type		Contactor						Manually-operated contactors			
Rating	A	16	20	25	40	63	100	16	25	40	63
Auxiliaries		Contactors that can be equipped with auxiliaries									
iACTs indication auxiliary		Yes	Yes	Yes				Yes			
iACTp protection auxiliary	By yellow clips	No	No	Yes				No	Yes		
iACTc, iATEt control auxiliary	By yellow clips	No	No	Yes				No	Yes		
iACT24 control auxiliary		No	No	Yes (for contactors 230 V - 50 Hz)				No	Yes (for contactors 230 V - 50 Hz)		

Control

Remote control

Acti9 iCT contactors (cont.)



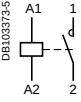
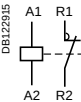
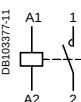
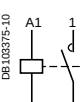
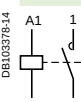
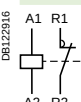
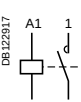
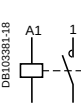
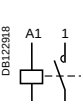
Choice of 60 Hz contactors				
Contactor				Manually-operated contactors
16	25	40	63	40
Contactors that can be equipped with auxiliaries				
Yes				Yes
No	Yes			Yes
No	Yes			Yes
No	Yes			No

Control

Remote control

Acti9 iCT contactors (cont.)

Catalog numbers

Acti9 iCT contactors - 50 Hz						
Type						Width in 9 mm modules
1P	Rating (In)		Control voltage (V AC) (50 Hz)	Contact		
AC7a	AC7b					
	16 A	6 A	12	1NO	A9C22011	2
			24	1NO	A9C22111	2
			48	1NO	A9C22211	2
			220	1NO	A9C22511	2
			230...240	1NO	A9C22711	2
	25 A	8.5 A	220	1NO	A9C20531	2
			230...240	1NO	A9C20731	2
2P						
	16 A	6 A	12	2NO	A9C22012	2
			24	2NO	A9C22112	2
			48	2NO	A9C22212	2
			220	2NO	A9C22512	2
			230...240	2NO	A9C22712	2
			12	1NO+1NC	A9C22015	2
			24	1NO+1NC	A9C22115	2
			220	1NO+1NC	A9C22515	2
			230...240	1NO+1NC	A9C22715	2
	20 A	-	230...240	2NO	A9C22722	2
	25 A	8.5 A	24	2NO	A9C20132	2
			48	2NO	A9C20232	2
			220	2NO	A9C20532	2
			230...240	2NO	A9C20732	2
			220	2NC	A9C20536	2
	40 A	15 A	230...240	2NC	A9C20736	2
	63 A	20 A	24	2NO	A9C20162	4
			220...240	2NO	A9C20862	4
	100 A (*)	-	220...240	2NO	A9C20882	6
3P						
	16 A	6 A	220...240	3NO	A9C22813	4
	25 A	8.5 A	220...240	3NO	A9C20833	4
	40 A	15 A	220...240	3NO	A9C20843	6
	63 A	20 A	220...240	3NO	A9C20863	6
4P						
	16 A	6 A	24	4NO	A9C22114	4
			220...240	4NO	A9C22814	4
			220...240	2NO+2NC	A9C22818	4
	20 A	-	220...240	4NO	A9C22824	4
	25 A	8.5 A	24	4NO	A9C20134	4
			220...240	4NO	A9C20834	4
			24	4NC	A9C20137	4
			220...240	4NC	A9C20837	4
			220...240	2NO+2NC	A9C20838	4
	40 A	15 A	220...240	4NO	A9C20844	6
			220...240	4NC	A9C20847	6
	63 A	20 A	24	4NO	A9C20164	6
			220...240	4NO	A9C20864	6
			24	4NC	A9C20167	6
			220...240	4NC	A9C20867	6
			220...240	2NO+2NC	A9C20868	6
			220...240	3NO+1NC	A9C20869	6
	100 A (*)	-	220...240	4NO	A9C20884	12

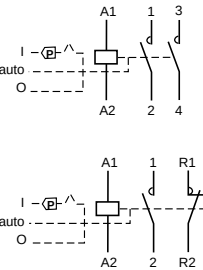
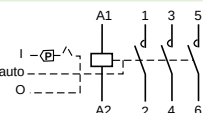
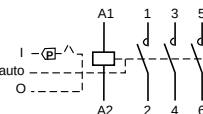
(*) do not use for lighting applications

Control

Remote control

Acti9 iCT contactors (cont.)

Catalog numbers

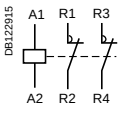
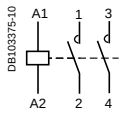
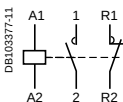
Acti9 iCT manual control contactor 50 Hz							
Type						Width in 9 mm modules	
2P 	Rating (In)		Control voltage (V AC) (50 Hz)	Contact			
	AC7a	AC7b					
	16 A	6 A	220	2NO	A9C23512	2	
			230...240	2NO	A9C23712	2	
			220	1NO+1NC	A9C23515	2	
			230...240	1NO+1NC	A9C23715	2	
	25 A	8,5 A	24	2NO	A9C21132	2	
			220	2NO	A9C21532	2	
			230...240	2NO	A9C21732	2	
	40 A	15 A	24	2NO	A9C21142	2	
			220...240	2NO	A9C21842	4	
	63 A	20 A	24	2NO	A9C21162	4	
			220...240	2NO	A9C21862	4	
	3P						
		25 A	8,5 A	220...240	3NO	A9C21833	4
		40 A	15 A	220...240	3NO	A9C21843	6
4P							
	25 A	8,5 A	24	4NO	A9C21134	4	
			220...240	4NO	A9C21834	4	
	40 A	15 A	24	4NO	A9C21144	6	
			220...240	4NO	A9C21844	6	
	63 A	20 A	24	4NO	A9C21164	6	
			220...240	4NO	A9C21864	6	

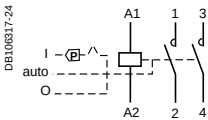
Control

Remote control

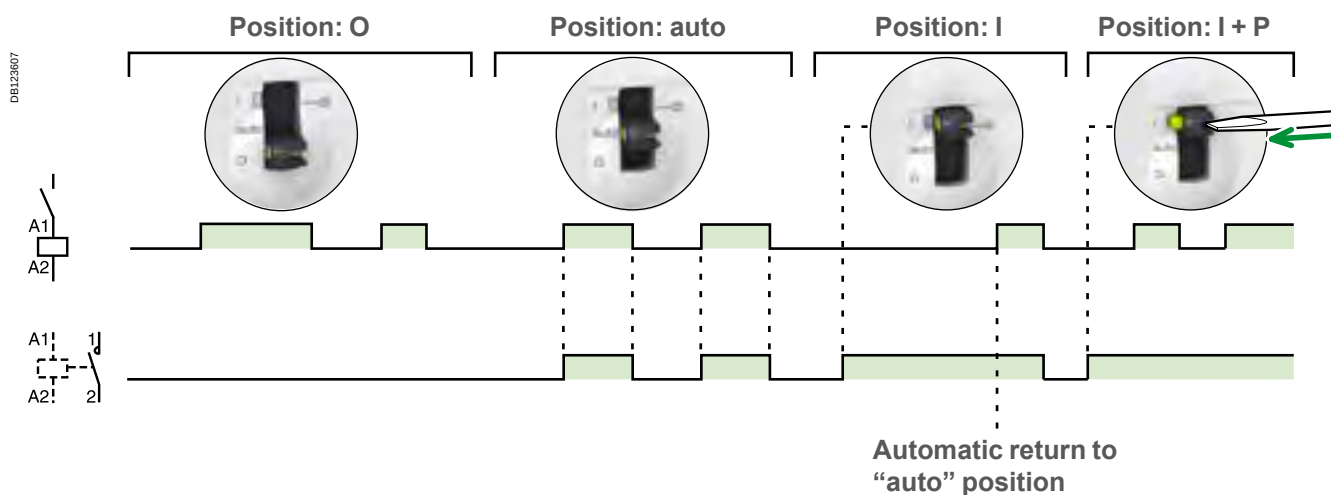
Acti9 iCT contactors (cont.)

Catalog numbers

Acti9 iCT contactors - 60 Hz						
Type						Width in 9 mm modules
1P	Rating (In)	Control voltage (V AC) (60 Hz)	Contact			
AC7a	AC7b					
	25 A	8.5 A	127	1NO	A9C20431	2
			220...240	1NO	A9C20631	2
 	16 A	6 A	127	1NO+1NC	A9C22415	2
			220...240	1NO+1NC	A9C22615	2
	25 A	8.5 A	127	2NO	A9C20432	2
			220...240	2NO	A9C20632	2
			127	2NC	A9C20436	2
			220...240	2NC	A9C20636	2
	40 A	15 A	127	2NO	A9C20442	4
			220...240	2NO	A9C20642	4
	25 A	8.5 A	127	3NO	A9C20433	4
			220...240	3NO	A9C20633	4
	40 A	15 A	127	3NO	A9C20443	6
			220...240	3NO	A9C20643	6
	63 A	20 A	127	3NO	A9C20463	6
			220...240	3NO	A9C20663	6

Acti9 iCT manual control contactor 60 Hz						
Type						Width in 9 mm modules
2P	Rating (In)	Control voltage (V AC) (60 Hz)	Contact			
AC7a	AC7b					
	40 A	15 A	127	2NO	A9C21442	4
			220...240	2NO	A9C21642	4

Operation (Manual control contactor)

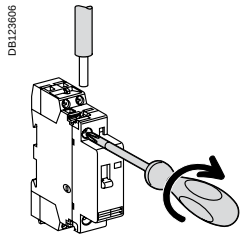


Control

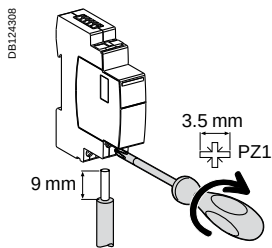
Remote control

Acti9 iCT contactors (cont.)

Connection

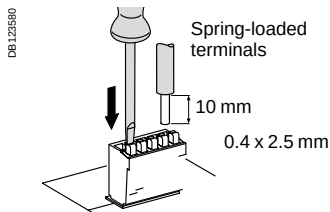


Type	Circuit	Rating	Length tripping	Tightening torque	Copper cables	
					Rigid	Flexible or with ferrule
Acti9 iCT	PZ1: 4 mm	Control	16 - 100 A	9 mm	0.8 N.m	1.5 to 2.5 mm: 2 x 1.5 mm ²
		Power	16 and 25 A			
	PZ2: 6 mm	40 A - 63 A	14 mm	3.5 N.m	6 to 25 mm ²	6 to 16 mm ²
		100 A				
iACTs, iACTp, iACTc, iATEt	PZ1: 4 mm	-	9 mm	0.8 N.m	1.5 to 2.5 mm: 2 x 1.5 mm ²	1.5 to 2.5 mm: 2 x 2.5 mm ²



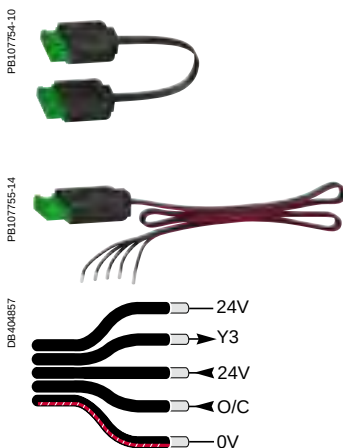
Type	Terminals	Tightening torque	Copper cables		
			Rigid	Flexible	Flexible or with ferrule
iACT24	Power supply (N/P) Input (Y1/Y2)	1 N.m	0.5 to 10 mm ² 2 x 0.5 to 2 x 2.5 mm ²	0.5 to 6 mm ² 2 x 0.5 to 2 x 2.5 mm ²	0.5 to 4 mm ² 2 x 0.5 to 2 x 2.5 mm ²

Ti24 connector connection



Type	Catalog numbers	Copper cables	
		Rigid	Flexible
Ti24 Interface	A9XC2412	1 x 0.5 to 1.5 mm ²	1 x 0.5 to 1.5 mm ²

Ti24 prefabricated cables connection

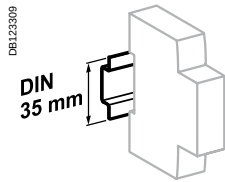


Type	Catalog numbers	Length
Connection for Acti9 Smartlink		
6 short prefabricated	A9XCAS06	100 mm
6 medium-sized prefabricated	A9XCAM06	160 mm
6 long prefabricated	A9XCAL06	870 mm
Connection for PLC type terminals		
6 long prefabricated on a single side	A9XCAU06	870 mm

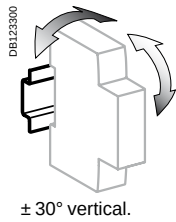
Control

Remote control

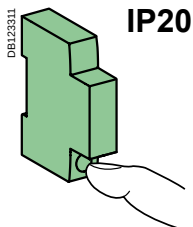
Acti9 iCT contactors (cont.)



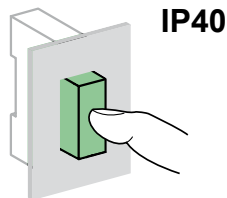
Clip on DIN rail 35 mm.



± 30° vertical.



IP20



IP40

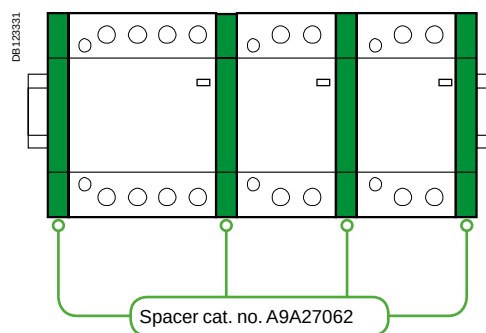
Technical data

Power circuit		
Voltage rating (Ue)	1P, 2P	250 V AC
	3P, 4P	400 V AC
Frequency	50 Hz or 60 Hz	
Type of load	See module CA908026	
Endurance (O-C)		
Electrical	100,000 cycles	
Maximum number of switching operations per day	100	
Additional characteristics		
Insulation voltage (Ui)	440 V AC	
Pollution degree	2	
Rated impulse withstand voltage (Uimp)	2.5 kV (4 kV for 12/24/48 V AC)	
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
Operating temperature	-5°C to +60°C	
Storage temperature	-40°C to +70°C	
Tropicalization (IEC 60068-2-30)	Treatment 2 (relative humidity 95 % at 55°C)	
ELSV compliance (Extra Low Safety Voltage) for 12/24/48 V AC versions		
The product control conforms to the SELV (safety extra low voltage) requirements		

Temperature derating table

Acti9 iCT	Ambient temperature (°C)		
Rating (A)	≤ 40	50	60
63	63	59.8	50
40	40	38	32
25	25	23.8	20
16	16	15.2	12.8

If multiple iCTs side by side: install spacer and apply 0.8 coefficient on upper current values.



Control

Remote control

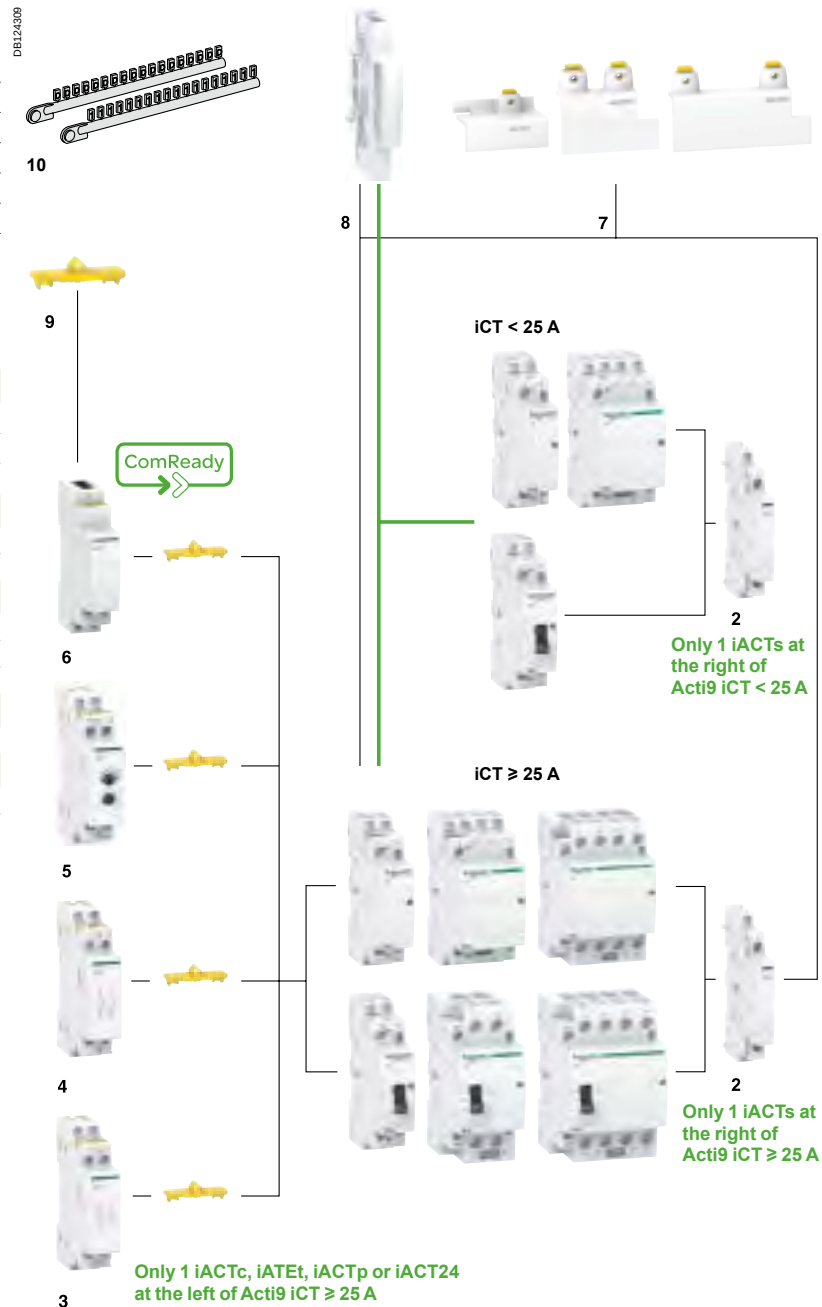
Acti9 iCT contactors (cont.)

Mounting accessories

7	Sealable screw shields for top and bottom	3P, 4P 25 A	A9A15921
		2P 40/63 A	A9A15922
		3P, 4P 40/63 A	A9A15923
8	9 mm spacer		A9A27062
9	Yellow clips		A9C15415
10	Clip-on terminal markers	see module	CA907001

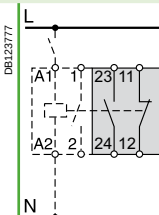
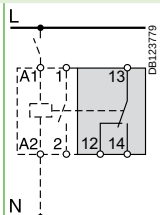
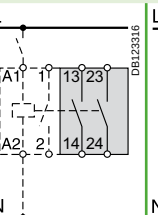
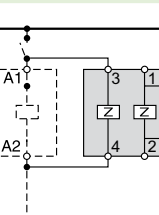
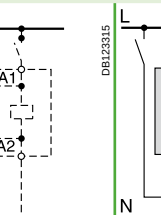
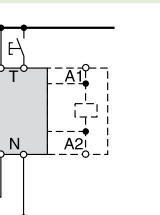
Auxiliaries

Indication			
2	Acti9 iACTs	1NO + 1NC	A9C15914
		1CO	A9C15915
		2NO	A9C15916
Double control inputs			
3	Acti9 iACTc	230 V AC	A9C18308
		24 V AC	A9C18309
Coil suppression blocs			
4	Acti9 iACTp	12...48 V AC	A9C15919
		48...127 V AC	A9C15918
		220...240 V AC	A9C15920
Time delay			
5	Acti9 iATEt	24...240 V AC	A9C15419
Control and indication			
6	Acti9 iACT24	230 V AC	A9C15924



Acti9 iCT contactors

Electrical auxiliaries for Acti9 iCT

Indication				Protection			Control																
Auxiliaries				Acti9 iACTp			Acti9 iACTc																
Type				Interference filterin			Impulse/latched control																
With Open/Close auxiliary contact				2 protection circuits																			
																							
Function				Function			Function																
■ This auxiliary allows indication of the "open" or "closed" position of the contactor power contacts				■ This auxiliary is an interference suppressor which limits overvoltages on the control circuit			■ This auxiliary, combined with contactors, enables them to be controlled by 2 order types: □ impulse order for local control (input T) □ latched order for centralised control (input X) □ the last order received takes priority																
Wiring diagrams																							
																							
																							
Mounting																							
■ Mounted to the right of Acti9 iCT				■ Mounted to the left of Acti9 iCT by yellow clips ⁽¹⁾ ■ By wires			■ Mounted to the left of Acti9 iCT by yellow clips ⁽¹⁾																
Use																							
				■ The iACTp has 2 separate and identical circuits, allowing it to be combined with 2 different one on the Acti9 iCT the other by wires			■ Mains power outages: □ < 70 ms: keeps its initial status □ > 80 ms: reset □ put back into operation by manual operation on input X or T. ■ Minimum impulse duration: 250 ms																
Catalog numbers				A9C15914		A9C15915		A9C15916		A9C15918		A9C15919		A9C15920		A9C18308		A9C18309					
Technical specifications																							
Control voltage (Ue)		V AC	24...240						48 ...127		12 ...48		220 ...240		230...240		24...48						
		V DC	24...130						—														
Control voltage frequency		Hz	50/60						50/60						50/60								
Width in 9 mm modules			1						2						2								
Auxiliary contact (breaking capacity)			■ Minimum: 10 mA at 24 V DC/AC ■ Maximum: □ 5 A at 230 V AC, AC12 □ 2 A at 230 V AC, AC15 □ 1 A at 130 V DC, DC13						—						—								
Number of contacts			1NO + 1NC		1CO		2NO		—						—								
Operating temperature		°C	-5°C to +50°C																				
Storage temperature		°C	-40°C to +70°C																				
Consumption			—						—						OFF load: 3 VA Inrush ⁽²⁾ : 2 VA Holding ⁽²⁾ : 0.2 VA								

(1) Electrical and mechanical link.

(2) Maximum consumption of all contactors controlled

Acti9 iCT contactors

Electrical auxiliaries for Acti9 iCT (cont.)

Control (cont.)

Acti9 iATEt

Time delay

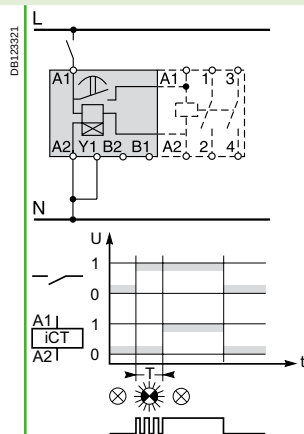
PB106125-34



- This auxiliary is used to time delay for Acti9 iCT and iTL. According to cabling, there are 5 possible time delay types:
- 1 for iTL
- 4 for iCT.

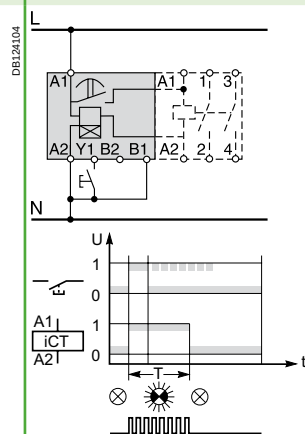
Function type A: late closing

- Delay energizing of contactor.



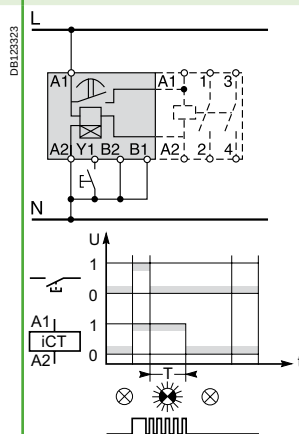
Function type B: time delay

- Energize the contactor by closing a push button.
- The time delay starts as soon as the control contacts are closed.



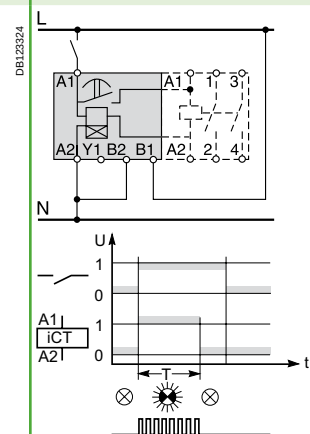
Function type C: late opening

- Energize the contactor by closing a push button.
- The time delay starts when the control contacts are opened.



Function type H: fixed time operation

- Operate the contactor for a pre-determined time from the moment of energizing.



- Mounted to the left of Acti9 iCT by yellow clips ⁽¹⁾

A9C15419

24...240

24...110

50/60

2

—

—

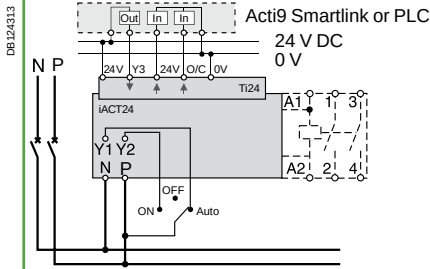
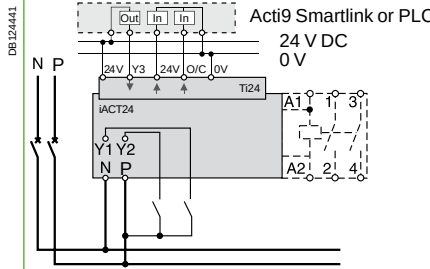
-20°C to +50°C

-40°C to +80°C

Off-load: 5 VA
Inrush ⁽²⁾: 3 A
Holding ⁽²⁾: 0.2 A

Acti9 iCT contactors

Electrical auxiliaries for Acti9 iCT (cont.)

Control and indication	
Auxiliary	Acti9 iACT24
Type	Control and indication 24 V DC
	With Ti24 connector
	
Function	- This auxiliary allows a contactor to be interfaced with the Acti9 Smartlink interface or a programmable logic controller (PLC) in 24 V DC (control, O/C indication) 230 V AC control
Wiring diagrams	 Wiring with exclusive selector 230 V AC control (Y1 = 0) / 24 V DC control (Y1 = 1)  Wiring for non-exclusive 230 V AC and 24 V DC controls
Mounting	- To the left of the Acti9 iCT contactor using the yellow clips ⁽¹⁾. - When an iACT24 is used, the A1/A2 terminals of the contactors should not be wired. Only the yellow clips integral with the iACT24 should be used for connection to the coil.
Utilization	230 V AC interface: - Y1: enabling of 24 V DC control (Y1 = 1) or inhibition of 24 V DC control (Y1 = 0). - Y2: 230 V pulse control "Ti24" 24 V DC interface: - Y3: 24 V DC control of Acti9 iCT closing on rising edge and opening on falling edge - reading of the contactor status (opened or closed) from the position of the integrated O/C auxiliary contact - monitoring of connection of the "Ti24" terminal block by the upstream system (PLC, supervision system) via the 24 V terminal (in the centre of the Ti24 terminal block)
Catalog numbers	A9C15924
Technical specification	
Control voltage (Ue)	V AC 230, +10 %, -15 % (Y2)
	V DC 24, ± 20 % (Y3)
Control voltage frequency	Hz 50/60
Insulation voltage (Ui)	V AC 250
Rated impulse withstand voltage (Uimp)	kV 8 (OVC IV)
Pollution degree	3
Degree of protection	IP20B device only IP40 device in modular enclosure
Width in 9 mm modules	2
Auxiliary contact (O/C) Ti24	24 V DC protected output, min. 2 mA, max. 100 mA
Contact	1 O/C operating category AC 14
Operating temperature	°C -25°C to +60°C
Storage temperature	°C -40°C to +80°C
Consumption	<1 W
Standard	IEC/EN 60947-5-1

(1) Mechanical and electrical link.

Acti9 iCT contactors

Accessories for Acti9 iCT

Security					
Accessories	Sealable screw shields			Yellow clips	Spacer
					
	PB1044B5-15	PB1044B6-15	PB1044B7-15	PB106143-10	PB1044B3-40
Function					
	■ Designed to cover terminals to avoid contact with device screws. ■ Allow sealing			■ Ensure the mechanical and/or electrical link between contactors and their auxiliaries.	■ Required to reduce temperature rise of modular devices installed side by side. ■ Recommended to separate electronic devices (thermostat, programmable clock, etc.) from electromechanical devices (relays, contactors).
	■ For Acti9 iCT: 3P, 4P - 25 A	■ For Acti9 iCT: 2P - 40/63 A	■ For Acti9 iCT: 3P, 4P - 40/63 A	■ For Acti9 iCT: ≥ 25 A	
Set of	10 upstream / 10 downstream			10	5
Catalog numbers	A9A15921	A9A15922	A9A15923	A9C15415	A9A27062
Technical specification					
Width in 9 mm modules	4	4	6	—	1
Number of poles	3P, 4P	2P	3P, 4P	—	—

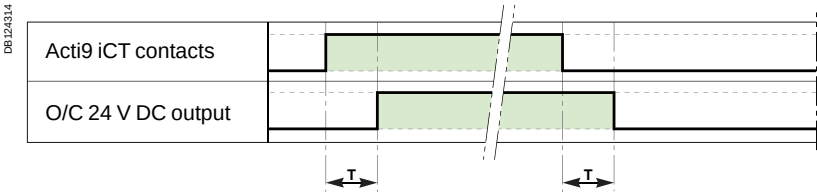
Acti9 iCT contactors

Technical advice for Acti9 iCT (cont.)



Operation of the iACT24

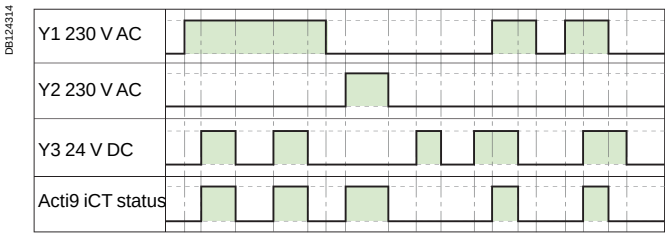
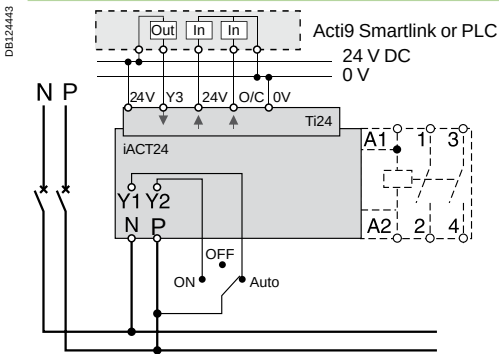
O/C 24 V DC output



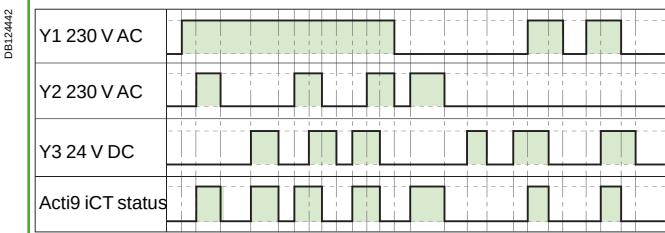
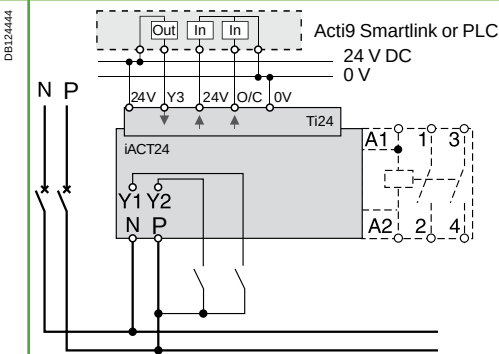
	Parameter	Min	Max
T	Time delay between iACT24 closing and indication	100 ms	200 ms

- Minimum duration of 230 V AC pulse (Y2): 200 ms.
- 30 iACT24 closing or opening actuations are authorized per minute: Minimum time delay between 2 actuations on the iACT4 via Y1, Y2, Y3 (closing or opening of the Acti9 iCT coil): 220 ms.
- 10 closing or opening actuations spaced 440 milliseconds apart are authorized following no loading of the iACT24 during a period of 20 seconds.

Wiring with exclusive selector
230 V AC control (Y1 = 0) / 24 V DC control (Y1 = 1)



Wiring for non-exclusive 230 V AC and 24 V DC controls



Acti9 iCT contactors

Technical advice for Acti9 iCT (cont.)

Consumption

Acti9 iCT contactors - 50 Hz							
Type							
1P	Rating (In)		Control voltage (V AC) (50 Hz)	Consumption		Max. power	
	AC7a	AC7b		Holding	Inrush		
	16 A	5 A	12	3.8 VA	15 VA	1.3 W	A9C22011
			24	3.8 VA	15 VA	1.3 W	A9C22111
			48	3.8 VA	15 VA	1.3 W	A9C22211
			220	3.8 VA	15 VA	1.3 W	A9C22511
			230...240	2.7 VA	9.2 VA	1.2 W	A9C22711
	25 A	8.5 A	220	3.8 VA	15 VA	1.3 W	A9C20531
			230...240	2.7 VA	9.2 VA	1.2 W	A9C20731
2P							
16 A	5 A		12	3.8 VA	15 VA	1.3 W	A9C22012
			24	3.8 VA	15 VA	1.3 W	A9C22112
			48	3.8 VA	15 VA	1.3 W	A9C22212
			220	3.8 VA	15 VA	1.3 W	A9C22512
			230...240	2.7 VA	9.2 VA	1.2 W	A9C22712
			12	3.8 VA	15 VA	1.3 W	A9C22015
			24	3.8 VA	15 VA	1.3 W	A9C22115
			220	3.8 VA	15 VA	1.3 W	A9C22515
			230...240	2.7 VA	9.2 VA	1.2 W	A9C22715
	20 A	6.4 A	230...240	2.7 VA	9.2 VA	1.2 W	A9C22722
	25 A	8.5 A	24	3.8 VA	15 VA	1.3 W	A9C20132
			48	3.8 VA	15 VA	1.3 W	A9C20232
			220	3.8 VA	15 VA	1.3 W	A9C20532
			230...240	2.7 VA	9.2 VA	1.2 W	A9C20732
			220	3.8 VA	15 VA	1.3 W	A9C20536
			230...240	2.7 VA	9.2 VA	1.2 W	A9C20736
	40 A	15 A	220...240	4.6 VA	34 VA	1.6 W	A9C20842
	63 A	20 A	24	4.6 VA	34 VA	1.6 W	A9C20162
			220...240	4.6 VA	34 VA	1.6 W	A9C20862
	100 A (*)	-	220...240	6.5 VA	53 VA	2.1 W	A9C20882
3P							
16 A	5 A		220...240	4.6 VA	34 VA	1.6 W	A9C22813
25 A	8.5 A		220...240	4.6 VA	34 VA	1.6 W	A9C20833
40 A	15 A		220...240	6.5 VA	53 VA	2.1 W	A9C20843
63 A	20 A		220...240	6.5 VA	53 VA	2.1 W	A9C20863
4P							
16 A	5 A		24	4.6 VA	34 VA	1.6 W	A9C22114
			220...240	4.6 VA	34 VA	1.6 W	A9C22814
			220...240	4.6 VA	34 VA	1.6 W	A9C22818
	20 A	6.4 A	220 ...240	4.6 VA	34 VA	1.6 W	A9C22824
	25 A	8.5 A	24	4.6 VA	34 VA	1.6 W	A9C20134
			220...240	4.6 VA	34 VA	1.6 W	A9C20834
			24	4.6 VA	34 VA	1.6 W	A9C20137
			220...240	4.6 VA	34 VA	1.6 W	A9C20837
			220...240	4.6 VA	34 VA	1.6 W	A9C20838
	40 A	15 A	220...240	6.5 VA	53 VA	2.1 W	A9C20844
			220...240	6.5 VA	53 VA	2.1 W	A9C20847
	63 A	20 A	24	6.5 VA	53 VA	2.1 W	A9C20164
			220...240	6.5 VA	53 VA	2.1 W	A9C20864
			24	6.5 VA	53 VA	2.1 W	A9C20167
			220...240	6.5 VA	53 VA	2.1 W	A9C20867
			220...240	6.5 VA	53 VA	2.1 W	A9C20868
			220...240	6.5 VA	53 VA	2.1 W	A9C20869
	100 A (*)	-	220...240	13 VA	106 VA	4.2 W	A9C20884

(*) do not use for lighting applications

Acti9 iCT contactors

Technical advice for Acti9 iCT (cont.)

Consumption

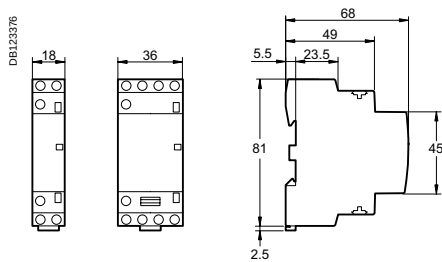
Acti9 iCT manual control contactor 50 Hz							
Type							
2P	Rating (In)		Control voltage (V AC) (50 Hz)	Consumption		Max. power	
	AC7a	AC7b		Holding	Inrush		
	16 A	5 A	220	2.7 VA	9.2 VA	1.2 W	A9C23512
			230...240	2.7 VA	9.2 VA	1.2 W	A9C23712
			220	3.8 VA	15 VA	1.3 W	A9C23515
			230...240	2.7 VA	9.2 VA	1.2 W	A9C23715
	25 A	8.5 A	24	3.8 VA	15 VA	1.3 W	A9C21132
			220	2.7 VA	9.2 VA	1.2 W	A9C21532
			230...240	2.7 VA	9.2 VA	1.2 W	A9C21732
	40 A	15 A	24	4.6 VA	34 VA	1.6 W	A9C21142
			220...240	4.6 VA	34 VA	1.6 W	A9C21842
	63 A	20 A	24	4.6 VA	34 VA	1.6 W	A9C21162
			220...240	4.6 VA	34 VA	1.6 W	A9C21862
	3P						
	25 A	8.5 A	220...240	4.6 VA	34 VA	1.6 W	A9C21833
	40 A	15 A	220...240	6.5 VA	53 VA	2.1 W	A9C21843
4P							
	25 A	8.5 A	24	4.6 VA	34 VA	1.6 W	A9C21134
			220...240	4.6 VA	34 VA	1.6 W	A9C21834
	40 A	15 A	24	6.5 VA	53 VA	2.1 W	A9C21144
			220...240	6.5 VA	53 VA	2.1 W	A9C21844
	63 A	20 A	24	6.5 VA	53 VA	2.1 W	A9C21164
			220...240	6.5 VA	53 VA	2.1 W	A9C21864

Acti9 iCT contactors - 60 Hz							
Type							
1P	Rating (In)		Control voltage (V AC) (60 Hz)	Consumption		Max. power	
	AC7a	AC7b		Holding	Inrush		
	25 A	8.5 A	127	3.8 VA	15 VA	1.3 W	
			220 ...240	2.7 VA	9.2 VA	0.9 W	A9C20431
							A9C20631
2P							
	16 A	5 A	127	3.8 VA	15 VA	1.3 W	A9C22415
			220...240	2.7 VA	9.2 VA	0.9 W	A9C22615
	25 A	8.5 A	127	3.8 VA	15 VA	1.3 W	A9C20432
			220...240	2.7 VA	9.2 VA	0.9 W	A9C20632
			127	3.8 VA	15 VA	1.3 W	A9C20436
			220...240	2.7 VA	9.2 VA	0.9 W	A9C20636
	40 A	15 A	127	4.6 VA	34 VA	1.6 W	A9C20442
			220...240	4.6 VA	34 VA	1.6 W	A9C20642
3P							
	25 A	8.5 A	127	4.6 VA	34 VA	1.6 W	A9C20433
			220...240	4.6 VA	34 VA	1.6 W	A9C20633
	40 A	15 A	127	6.5 VA	53 VA	2.1 W	A9C20443
			220...240	6.5 VA	53 VA	2.1 W	A9C20643
	63 A	20 A	127	6.5 VA	53 VA	2.1 W	A9C20463
			220...240	6.5 VA	53 VA	2.1 W	A9C20663

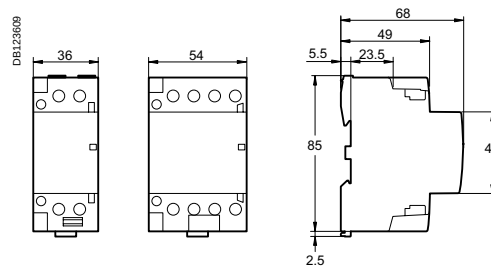
Acti9 iCT contactors

Dimensions for Acti9 iCT

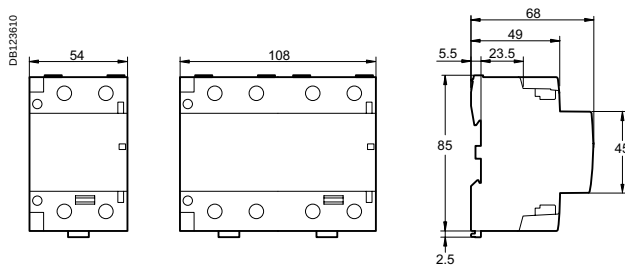
Dimensions (mm)



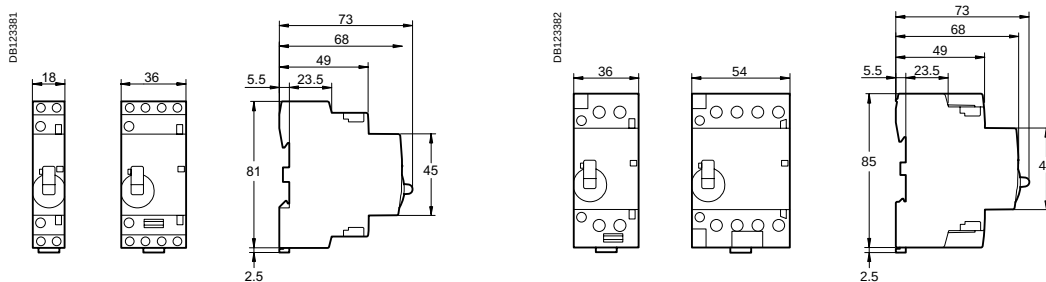
Acti9 iCT 16/25 A



Acti9 iCT 40/63 A

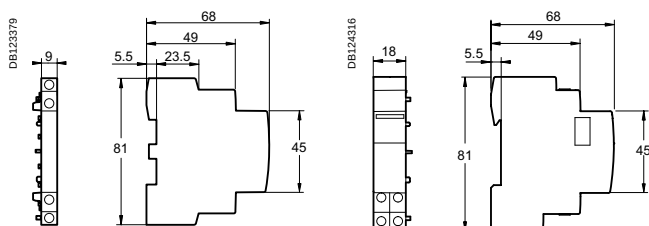


Acti9 iCT 100 A



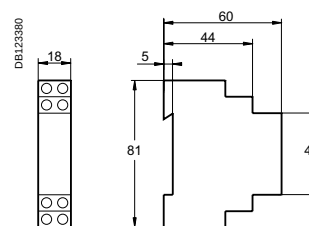
Acti9 iCT manual control contactor 16/25 A

Acti9 iCT manual control contactor 40/63 A



iACTs

iACT24



iATEt
iACTp
iACTc

Control

Remote control

iTL impulse relays

DB12399



DB116619



iTL, iTLI, iTLs, iTLc, iTLm

Country approval pictograms

IEC/EN 60669-2-2

iTLs: IEC/EN 60947-5-1



Impulse relays

PB106126-34



PB106128-34



iTL

- The impulse relays are used to control, by means of pushbuttons, lighting circuits consisting of:
 - incandescent lamps, low-voltage halogen lamps, etc. (resistive loads)
 - fluorescent lamps, discharge lamps, etc. (inductive loads)



Remote indication

PB106133-34



iTLs

- Allows remote indication of its operating state (open/closed)

PB106139-34



Indication iATLs

- Allows remote indication of the associated impulse relay



Centralised control

PB106130-34



iTLc

- Allows centralised control of a group of TLc impulse relays, whilst at the same time retaining local impulse-type control

PB106137-34



Centralised control iATLc

- Used for centralised control, thanks to a "pilot line", of a group of impulse relays controlling separate circuit, while at the same time maintaining local individual control of each impulse relay



Latched control

PB106132-34



iTLm

- Operated by latched orders from a changeover contact (switch, time switch, thermostat). Manual control does not work

PB106138-34



Latched control iATLm

- Controls the associated impulse relay by latched orders from a changeover contact

Impulse relays

Control

Remote control

iTL impulse relays (cont.)

Impulse relays are used:

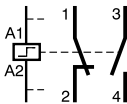
- Closing of the impulse relay pole(s) is triggered by an impulse on the coil.
- Having two stable mechanical positions, the pole(s) will be opened by the next impulse. Each impulse received by the coil reverses the position of the pole(s).
- Can be controlled by an unlimited number of pushbuttons.
- Zero energy consumption.

PB106131-34



Changeover contact iTLi

- This impulse relay has a changeover contact

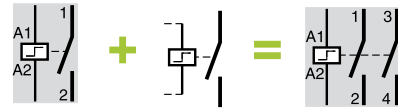


PB106134-34



Extensions iETL

- Used to increase the number of impulse relay poles
- Can be installed on the iTL, iTLi, iTLc, iTLm and iTLs



PB106140-34



Centralised control + indication iATLc+s

- Used for centralised control, thanks to a "pilot line", of a group of impulse relays controlling separate circuit, while at the same time maintaining local individual control of each impulse relay
- Remote indication of the mechanical status of each relay

PB106136-34



Multi-level centralised control iATLc+c

- Allows centralised control of a group of iTLc or "iTL + ATLc" impulse relays

PB107752-34



ComReady

Control and indication 24 V DC iATL24

- Allows control and indication of a 230 V AC impulse relay from the Acti 9 Smartlink or by a PLC, by 24 V DC signals
- Also allows control by a pulsed signal

PB106125-34



Time delay iATEt

- Combined with an impulse relay, it automatically disconnects the circuit after a preset time

PB106141-34



Control iATLz

- Must be used when installing several illuminated PBs in parallel to control an impulse relay (prevents operating malfunctions)

PB106142-63



Step by step control iATL4

- Allows step-by-step control of two circuits via a single pushbutton

Impulse relays auxiliaries

Specific auxiliaries

Control

Remote control

iTL impulse relays (cont.)

Mounting accessories

11	Yellow clips	A9C15415
12	9 mm spacer	A9A27062
13	Clip-on terminal markers	see module CA907001

DB123631



Auxiliaries

Centralised control	Control voltage	Cat. no.
2 iATLc ^{(1), (3)}	24...240 V AC	A9C15404
Indication		
3 iATLs ⁽¹⁾	-	A9C15405
Centralised control + indication		
4 iATLc+s ⁽³⁾	24...240 V AC	A9C15409
Multi-level centralised control		
5 iATLc+c ^{(2), (3)}	24...240 V AC	A9C15410
Step by step control		
6 iATL4	230 V AC	A9C15412
Control by illuminated push-buttons		
7 iATLz	230...240 V AC	A9C15413
Latched control		
8 iATLm ⁽¹⁾	12...240 V AC	A9C15414
Time delay control		
9 iATEt ⁽⁴⁾	24...240 V AC	A9C15419
Control and indication		
10 iATL24	230 V AC	A9C15424

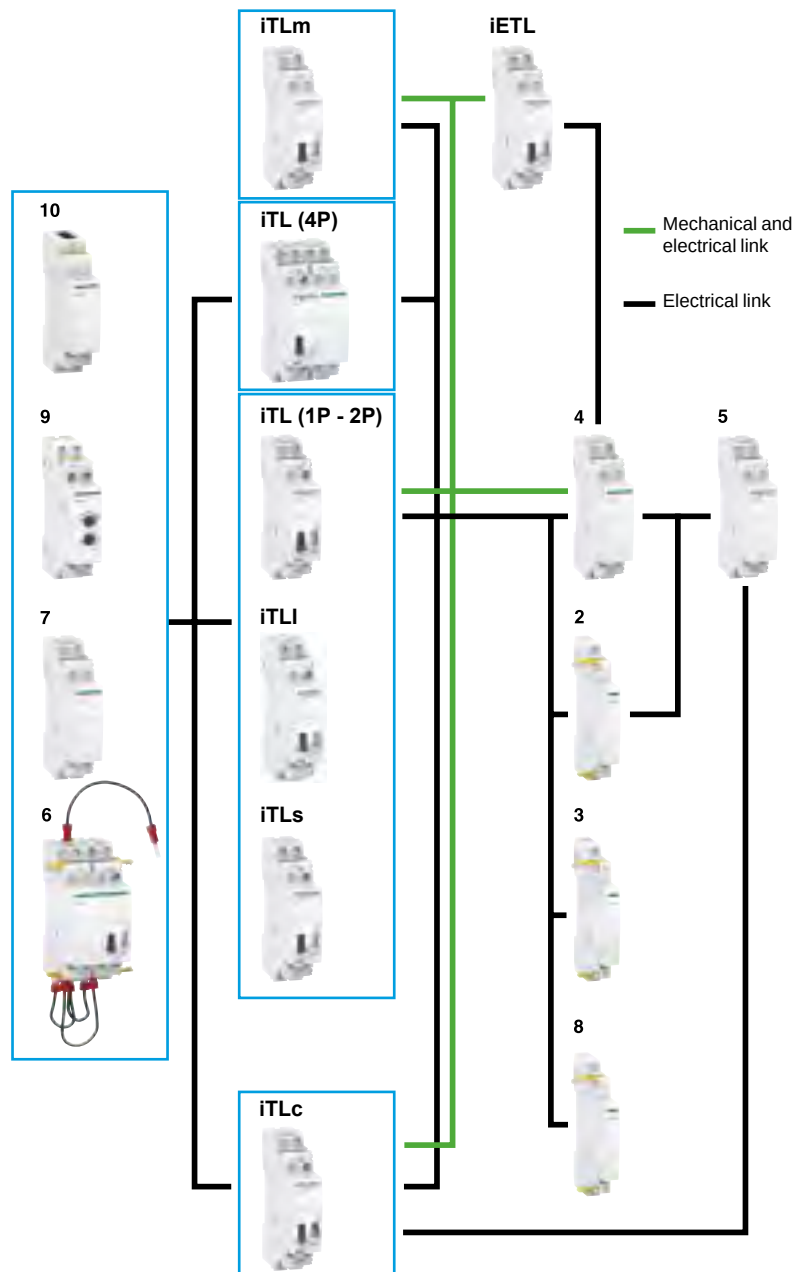
(1) The iATLc, iATLs and iATLm 9 mm auxiliaries must be mounted to the right of an impulse relay.

(2) Connection by traditional cabling.

The iATLc+c must be mounted to the right of an iATLc+s or an iATLc.

(3) The centralised control functions (iTLc, iATLc, iATLc+s, iATLc+c) only operate on AC voltage networks.

(4) iATEt: control voltage: 24...240 V AC, 24...110 V DC.



Control

Remote control

iTL impulse relays (cont.)

PE100128-41

Yellow clip

- A simple clip-on system for flexible auxiliaries combination and improved robustness
- For electrical and mechanical connections

- Insulated terminals IP20

- Large circuit labeling area

- Consistent with the entire Acti 9 offer and with all types of lighting

- Disconnection of remote control by selector switch (except for 4P single-piece iTL) for maintenance operation

- Manual controls on front face: direct and priority manual control by O-I toggle
- Mechanical contact position indicator

- Built-in or optional auxiliary function: state indication, centralised control, latched control, control for illuminated pushbutton, step-by-step control, time delay



iTL impulse relays (cont.)

Auxiliaries choice in V AC and V DC

V AC		Choice impulse relays auxiliaries																		
Type		Standard iTL					Changeover iTLI					iTLc centralised control			iTLm control on latched order		iTLs remote indication			
Rating	A	16					32	16					16			16		16		
Control voltage (Uc)	V AC	230/240	130	48	24	12	230/240	230/240	130	48	24	12	230/240	48	24	230/240		230/240	48	24
Auxiliaries																				
Extension																				
iETL		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■
Centralised control + indication																				
iATLc+s		■	■	■	■	-	■	■	■	■	-	-	-	-	-	-		■	■	■
Centralised control																				
iATLc		■	■	■	■	-	■	■	■	■	-	-	-	-	-	-		■	■	■
Indication																				
iATLs		■	■	■	■	-	■	■	■	■	■	■	■	■	■	■		■	■	■
Multi-level centralised control																				
iATLc+c		■	■	■	■	-	■	■	■	■	-	-	■	■	■	-		■	■	■
Latched control																				
iATLm		■	■	■	■	■	■	■	■	■	■	■	-	-	-	-		■	■	■
Control for illuminated Pushbutton																				
iATLz		■	-	-	-	-	■	■	-	-	-	-	■	-	-	-		■	-	-
Step by step control																				
iATL4		■	-	-	-	-	■	■	-	-	-	-	■	-	-	-		■	-	-
Time delay control																				
iATEt		■	■	■	■	-	■	■	■	■	■	-	-	-	-	-		■	■	■
Control and indication																				
iATL24		■	-	-	-	-	■	■	-	-	-	-	■	-	-	-		■	-	-

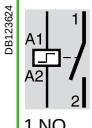
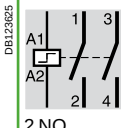
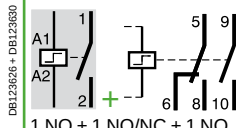
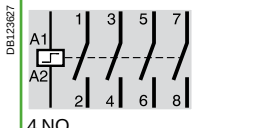
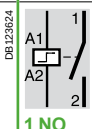
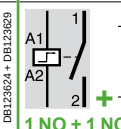
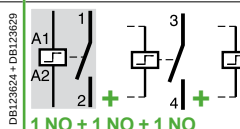
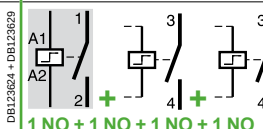
V DC		Choice impulse relays auxiliaries																		
Type		Standard iTL					Changeover iTLI					iTLc centralised control			iTLm control on latched order		iTLs remote indication			
Rating	A	16					32	16					16			16		16		
Control voltage (Uc)	V DC	110	48	24	12	6	110	110	48	24	12	6	-			110		110 24 12		
Auxiliaries																				
Extension																				
iETL		■	■	■	■	■	■	■	■	■	■	■	-	-	-	-	■	■	■	
Indication																				
iATLs		■	■	■	■	-	■	■	■	■	■	■	-	-	-	-	■	■	■	
Time delay control																				
iATEt		■	■	■	-	-	■	■	■	■	-	-	-	-	-	-	■	■	-	

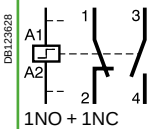
Control

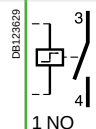
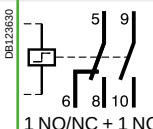
Remote control

iTL impulse relays (cont.)

Catalogue numbers

iTL impulse relays				
Type	1P	2P	3P	4P
	 1 NO	 2 NO	 1 NO + 1 NO/NC + 1 NO	 4 NO
Rating (In)	Control voltage (Uc)			
	(V AC) (50/60 Hz)	(V DC)		
16 A	12	6	A9C30011	A9C30012
	24	12	A9C30111	A9C30112
	48	24	A9C30211	A9C30212
	130	48	A9C30311	A9C30312
	230...240	110	A9C30811	A9C30812
Width in 9 mm modules			2	2
	 1 NO	 1 NO + 1 NO	 1 NO + 1 NO + 1 NO	 1 NO + 1 NO + 1 NO + 1 NO
32 A	230...240	110	A9C30831	A9C30831 + A9C32836
Width in 9 mm modules			2	4

iTLI impulse relays				
Type	2P			
	 1 NO + 1 NC			
Rating (In)	Control voltage (Uc)			
	(V AC) (50/60 Hz)	(V DC)		
16 A	12	6	A9C30015	
	24	12	A9C30115	
	48	24	A9C30215	
	130	48	A9C30315	
	230...240	110	A9C30815	
Width in 9 mm modules			2	

iETL extensions for iTL and iTLI				
Type	1P	2P		
	 1 NO	 1 NO/NC + 1 NO		
Rating (In)	Control voltage (Uc)			
	(V AC) (50/60 Hz)	(V DC)		
16 A	12	6	-	A9C32016
	24	12	-	A9C32116
	48	24	-	A9C32216
	130	48	-	A9C32316
	230...240	110	-	A9C32816
32 A	230...240	110	A9C32836	-
Width in 9 mm modules			2	2

Control

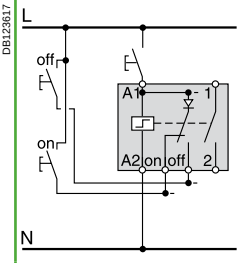
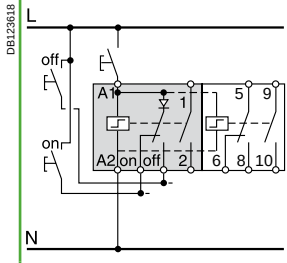
Remote control

iTl impulse relays (cont.)

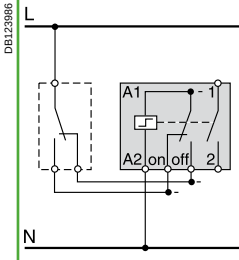
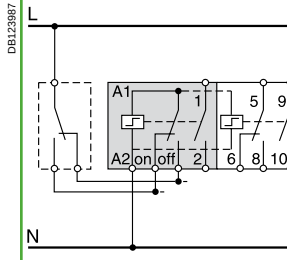
iTlC, iTlM, iTlS with built-in auxiliary function

Catalogue numbers (cont.)

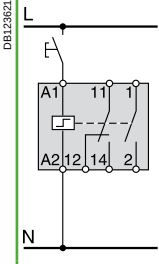
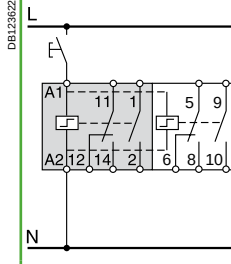
iTlC impulse relay with centralised control

Type		1P	3P
			
		1NO	1 NO + 1 NO/NC + 1 NO
Rating (In)	Control voltage (Uc) (V AC) (50/60 Hz)		
16 A	24	A9C33111	A9C33111 + A9C32116
	48	A9C33211	A9C33211 + A9C32216
	230...240	A9C33811	A9C33811 + A9C32816
Width in 9 mm modules		2	4

iTlM impulse relay with latched control

Type		1P	3P
			
		1NO	1 NO + 1 NO/NC + 1 NO
Rating (In)	Control voltage (Uc) (V AC) (50/60 Hz)		
16 A	230...240	A9C34811	A9C34811 + A9C32816
Width in 9 mm modules		2	4

iTlS impulse relay with remote indication*

Type		1P	3P
			
		1NO	1 NO + 1 NO/NC + 1 NO
Rating (In)	Control voltage (Uc) (V AC) (50/60 Hz) (V DC)		
16 A	24 12	A9C32111	A9C32111 + A9C32116
	48 24	A9C32211	A9C32211 + A9C32216
	230...240 110	A9C32811	A9C32811 + A9C32816
Width in 9 mm modules		2	4

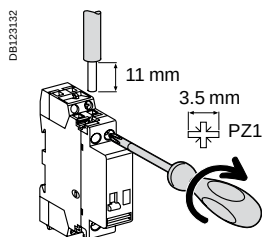
(*) Short circuit protection device for indication contacts : 6 A gG fuse.

Control

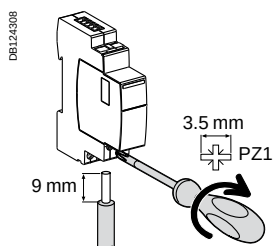
Remote control

iTL impulse relays (cont.)

Connection

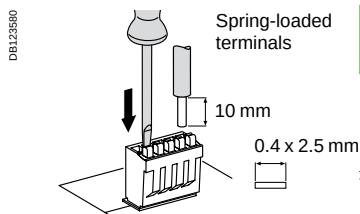


Type	Rating	Circuit	Tightening torque	Copper cables	
				Rigid or with ferrule	Flexible or with ferrule
iTL, iTLi, iTLc, iTLm, iTLs, iETL	16 A	Control	1 N.m	0.5 to 4 mm ²	1 to 4 mm ²
		Power		1.5 to 4 mm ²	1.5 to 4 mm ²
iTL, iETL	32 A	Control		0.5 to 4 mm ²	1 to 4 mm ²
		Power	1.2 N.m	1.5 to 10 mm ²	1.5 to 10 mm ²
iATLs, iATLc, iATLc+s, iATLc+c, iATLm, iATet, iATL4, iATLz			1 N.m	0.5 to 4 mm ²	1 to 4 mm ²



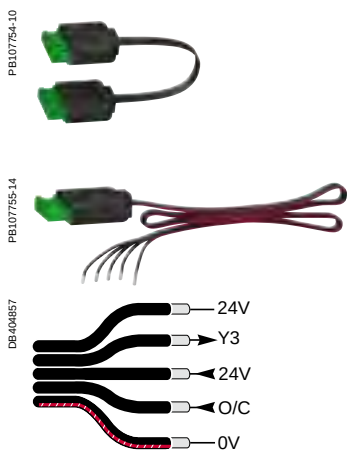
Type	Terminals	Tightening torque	Copper cables		
			Rigid	Flexible	Flexible or with ferrule
iATL24	Power supply (N/P) Input (Y1/Y2)	1 N.m	0.5 to 10 mm ² 2 x 0.5 to 2 x 2.5 mm ²	0.5 to 6 mm ² 2 x 0.5 to 2 x 2.5 mm ²	0.5 to 4 mm ² 2 x 0.5 to 2 x 2.5 mm ²

Ti24 connector connection



Type	Catalogue numbers	Copper cables	
		Rigid	Flexible
Ti24 interface	A9XC2412	1 x 0.5 to 1.5 mm ²	1 x 0.5 to 1.5 mm ²

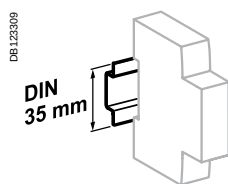
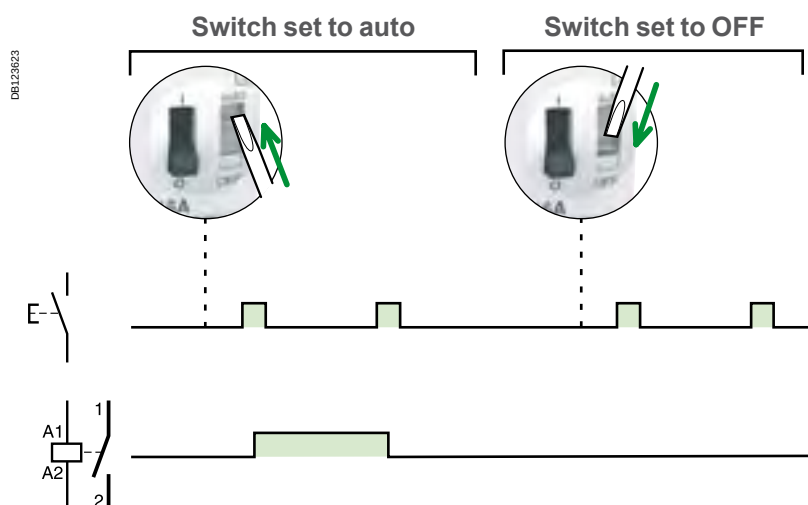
Ti24 prefabricated cables connection



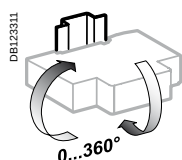
Type	Catalogue numbers	Length
Connection for Acti 9 Smartlink		
6 short prefabricated	A9XCAS06	100 mm
6 medium-sized prefabricated	A9XCAM06	160 mm
6 long prefabricated	A9XCAL06	870 mm
Connection for PLC type terminals		
6 long prefabricated on a single side	A9XCAU06	870 mm

iTL impulse relays (cont.)

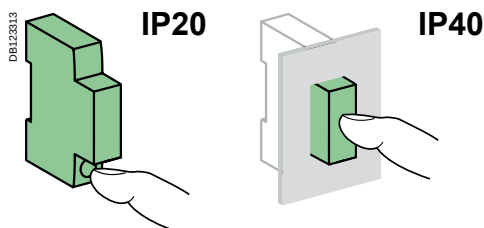
Operation



Clip on DIN rail 35 mm.

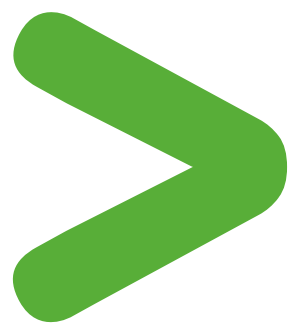


Indifferent position of installation.



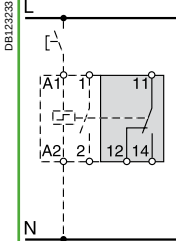
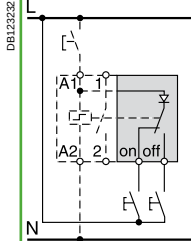
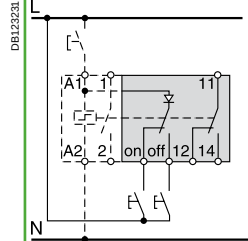
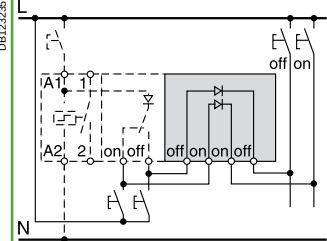
Technical data

Control circuit			
		iTL and iTLm 16 A iTLc, iTLm, iTLs, iETL 16 A	iTL 32 A, iETL 32 A
Control voltage (Uc)	Tolerance at 50 Hz	+6 %, -15 %	
	Tolerance at 60 Hz	±6 %,	
	Tolerance V DC	+6 %, -10 %	
Dissipated power (during the impulse)	1, 2, 3P: 19 VA	19 VA	
	4P: 38 VA		
Illuminated PB control		Max. current 3 mA (if > use an ATLz)	
Operating threshold		Min. 85 % of Un in conformance with IEC/EN60669-2-2	
Duration of the control order		50 ms to 1 s (200 ms recommended)	
Response time		50 ms	
Power circuit			
Voltage rating (Ue)	1P, 2P	24 ...250 V AC	
	3P, 4P	24....415 V AC	
Frequency		50 Hz or 60 Hz	
Maximum number of operations per minute		5	
Maximum number of switching operation a day		100	
Additional characteristics			
Insulation voltage (Ui)		440 V AC	
Pollution degree		3	
Rated impulse withstand voltage (Uimp)		6 kV	
Overvoltage category		IV	
Endurance (O-C)			
Electrical		200,000 cycles (AC21)	50,000 cycles (AC21)
		100,000 cycles (AC22)	20,000 cycles (AC22)
Other characteristics			
Degree of protection (IEC 60529)	Device only	IP20	
	Device in modular enclosure	IP40 Insulation class II	
Operating temperature		-20°C to +50°C	
Storage temperature		-40°C to +70°C	
Tropicalization (IEC 60068-1)		Treatment 2 (relative humidity 95 % at 55°C)	



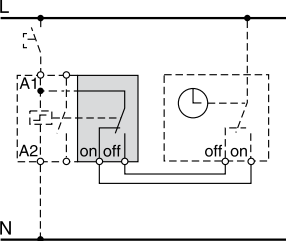
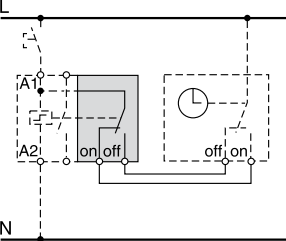
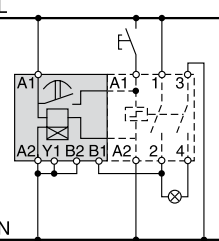
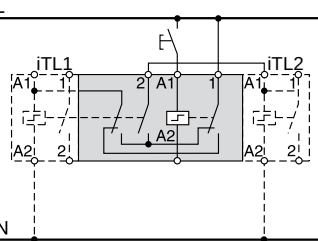
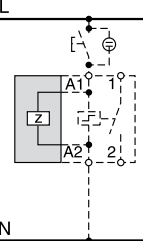
iTL impulse relays (cont.)

Electrical auxiliaries for iTL impulse relays

		Indication	Control		
Auxiliaries		iATLs	iATLc	iATLc+s	iATLc+c
Type		Indication	Centralised control	Centralised control + indication	Multi-level centralised control
					
					
Function		Allows remote indication of the associated impulse relay	Used for centralised control, thanks to a "pilot line", of a group of impulse relays controlling separate networks, while at the same time maintaining local individual control of each impulse relay	And for remote indication of the mechanical status of each relay	Used to control the centralised controls of a number of impulse relay groups, while at the same time maintaining local individual control and centralised control by level
Wiring diagrams					- Each group, made up of iTLc or (iTL or iTLI or iTLs) + iATLc+s, must only contain a single iATLc+c - Maximum number of impulse relays that can be controlled: 230 V AC: 24 130 V AC: 12 48 V AC: 5
Mounting		Mounted to the right of iTL by yellow clips	Mounted to the right of iTL by yellow clips	Mounted to the right of iTL by yellow clips	Without mechanical link with impulse relays and auxiliaries
Catalogue numbers		A9C15405	A9C15404	A9C15409	A9C15410
Technical specifications					
Control voltage (Uc)	V AC	—	24...240	24...240	24...240
	V DC	—	—	—	—
Control voltage frequency	Hz	—	50/60	50/60	50/60
		—	—	—	—
Width in 9 mm modules		1	1	2	2
Auxiliary contact (breaking capacity)		- Minimum: 10 mA at 24 V AC/DC - Maximum (IEC 60947-5-1): 12...240 V AC 6 A 12...24 V DC 6 A 15...240 V AC 2 A 13...24 V DC 2 A	—	- Minimum: 10 mA at 24 V AC/DC - Maximum (IEC 60947-5-1): 12...240 V AC 6 A 12...24 V DC 6 A 15...240 V AC 2 A 13...24 V DC 2 A	—
		—	—	—	—
		—	—	—	—
		—	—	—	—
		—	—	—	—
Number of contacts		—	—	—	—
Operating temperature	°C	—20°C to +50°C	—	—	—
Storage temperature	°C	—40°C to +70°C	—	—	—

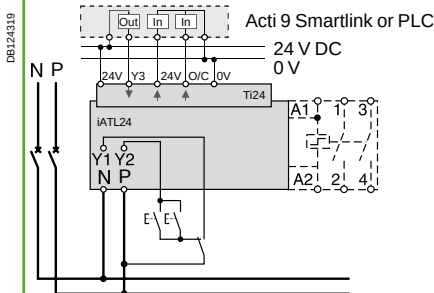
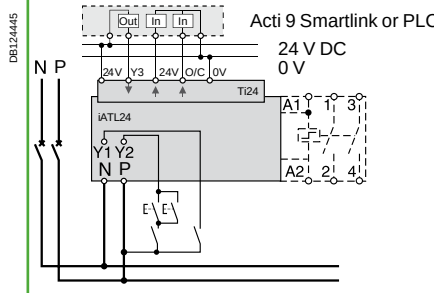
iTL impulse relays (cont.)

Electrical auxiliaries for iTL impulse relays (cont.)

Control				
	iATLm	iATEt	iATL4	iATLz
	Latched control	Time delay	Step by step control	Control by illuminated push-buttons
PB106138-34		PB106125-34	PB106142-63	PB106141-34
				
	Combined with an impulse relay, it operates on latched orders	Combined with an impulse relay, it automatically disconnects the circuit after a preset time	Allows the step by step sequence over 2 circuits	Used to control impulse relays by illuminated push-buttons, without operating risks
DB408601		DB123237	DB123552	DB123230
				
	—	5 time setting ranges: 1 to 10 s 6 to 60 s 2 to 10 min 6 to 60 min 2 to 10 h	- The cycle is as follows: 1st impulse - iTL 1 closed, iTL 2 open 2nd impulse - iTL 1 open, iTL 2 closed 3rd impulse - iTL 1 and 2 closed 4th impulse - iTL 1 and 2 open 5th impulse - iTL 1 closed, iTL 2 open, etc	- Provide an iATLz when the current drawn up by the illuminated push-buttons is higher than 3 mA (this current is sufficient to keep the coils energised). Above this value, fit one extra iATLz per 3 mA. - For example: for 7 mA, fit 2 iATLz
	Mounted to the right of iTL by yellow clips	Mounted to the left of iTL by yellow clips	Assembled between 2 impulse relays: according to the auxiliarisation table by yellow clips	Mounted to the left of iTL by yellow clips
	A9C15414	A9C15419	A9C15412	A9C15413
	12...240	24...240	230	230...240
	—	24...110	—	—
	50/60	50/60	50/60	50/60
	1	2	4	2
	—	—	—	—
	—	—	—	—
	-20°C to +50°C	—	—	—
	-40°C to +70°C	—	—	—

iTL impulse relays (cont.)

Electrical auxiliaries for iTL impulse relays (cont.)

		Control and indication
Auxiliaire	iATL24	
Type	Control and indication 24 V DC	
		With Ti24 connector
		
Function	- This auxiliary allows a impulse relay to be interfaced with the Acti 9 Smartlink interface or a programmable logic controller (PLC) in 24 V DC (control, O/C indication) 230 V AC control	
Wiring diagrams	 Wiring with exclusive selector 230 V AC and 24 V DC controls  Wiring for non-exclusive 230 V AC and 24 V DC controls	
Mounting	- To the left of the iTL impulse relay using the yellow clips⁽¹⁾. - When an iATL24 is used, the A1/A2 terminals of the impulse relay should not be wired. Only the yellow clips integral with the iATL24 should be used for connection to the coil.	
Utilization	230 V AC interface: - Y1: enabling of 24 V DC control (Y1 = 1) or inhibition of 24 V DC control (Y1 = 0). - Y2: 230 V pulse control "Ti24" 24 V DC interface: - Y3: 24 V DC control of iTL closing on rising edge and opening on falling edge - reading of the impulse relay status (opened or closed) from the position of the integrated O/C auxiliary contact - monitoring of connection of the "Ti24" terminal block by the upstream system (PLC, supervision system) via the 24 V terminal (in the centre of the Ti24 terminal block)	
Catalogue numbers	A9C15424	
Technical specification		
Control voltage (Uc)	V AC	230, +10 %, -15 % (Y2)
	V DC	24, ± 20 % (Y3)
Control voltage frequency	Hz	50/60
Insulation voltage (Ui)	V AC	250
Rated impulse withstand voltage (Uimp)	kV	8 (OVC IV)
Pollution degree		3
Degree of protection		IP20B device only IP40 device in modular enclosure
Width in 9 mm modules		2
Auxiliary contact (O/C) Ti24		24 V DC protected output, min. 2 mA, max. 100 mA
Contact		1 O/C operating category AC 14
Operating temperature	°C	-25°C to +60°C
Storage temperature	°C	-40°C to +80°C
Consumption		<1 W
Standard		IEC/EN 60947-5-1

(1) Mechanical and electrical connection.

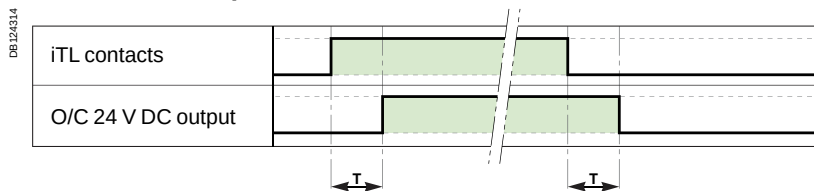
iTL impulse relays (cont.)

Electrical auxiliaries for iTL impulse relays (cont.)



Operation of the iATL24

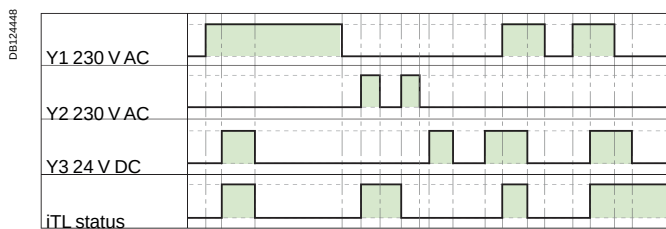
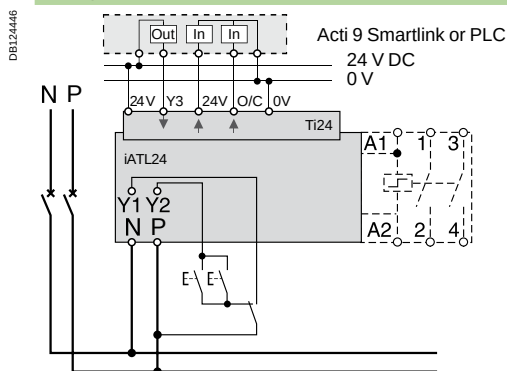
O/C 24 V DC output



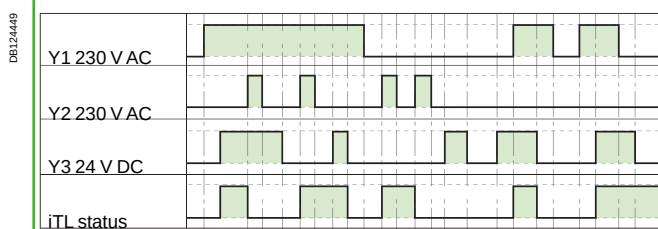
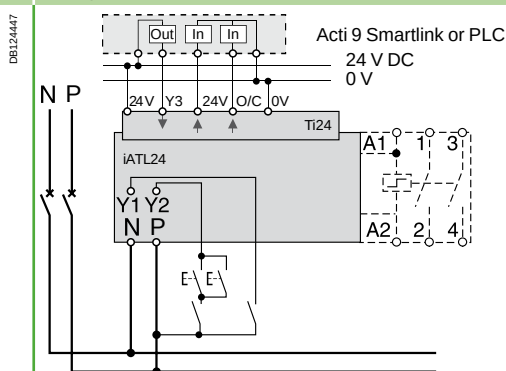
Parameter	Min	Max
T Time delay between iATL24 closing and indication	100 ms	200 ms

- Minimum duration of 230 V AC pulse (Y2): 200 ms.
- 30 iATL24 closing or opening actuations are authorized per minute: Minimum time delay between 2 actuations on the iATL24 via Y1, Y2, Y3 (closing or opening of the iTL coil): 440 ms.
- 10 closing or opening actuations spaced 440 milliseconds apart are authorized following no loading of the iATL24 during a period of 20 seconds.

Wiring with exclusive selector 230 V AC and 24 V DC controls



Wiring for non-exclusive 230 V AC and 24 V DC controls



Control

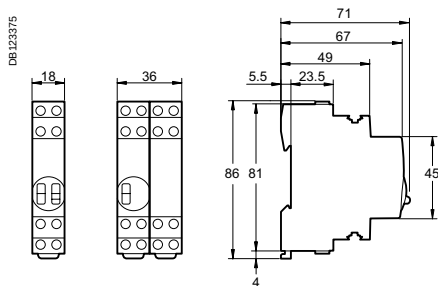
Remote control

iTL impulse relays (cont.)

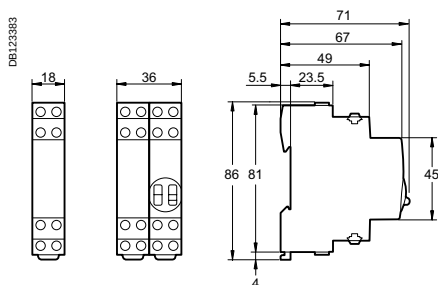
Accessories for iTL impulse relays

Security		
Accessories	Yellow clips	Spacer
		
Function		
	Ensure the mechanical and/or electrical link between impulse relays and their auxiliaries (set of 10).	- Required to reduce temperature rise of modular devices installed side by side. - Recommended to separate electronic devices (thermostat, programmable clock, etc.) from electromechanical devices (relays, contactors).
Catalogue numbers	A9C15415	A9A27062
Technical specifications		
Width in 9 mm modules	—	1

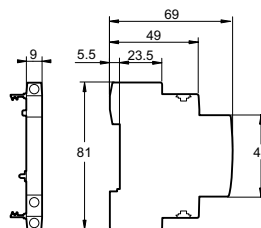
Dimensions (mm)



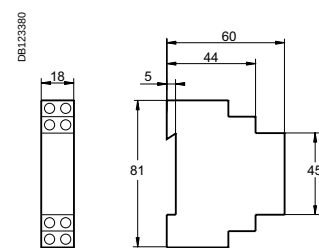
iTL 1P
iTLc
iTLm
iTLs
iTLi
iETL



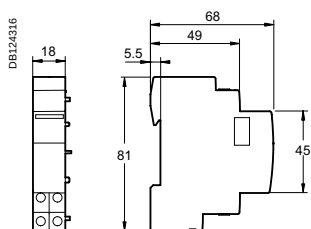
iATLc+s
iATLc+c
iATLz
iATL4



iATLc
iATLs
iATLm



iATEt



iATL24

Control

Remote control

iTL+ high-performance impulse relays

DB10604



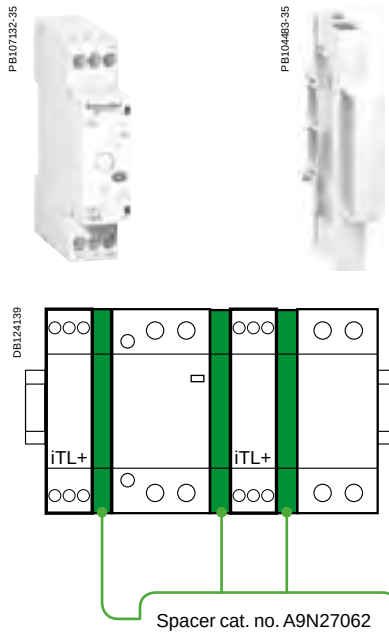
Country approval pictograms

EN 60669-2-2

The iTL+ high-performance impulse relay allows remote control of single-phase circuits. It is designed for demanding applications.

The iTL+ high-performance impulse relay is used for push-button control of lighting circuits consisting of:

- incandescent lamps, low-voltage halogen lamps, etc. (resistive loads)
- fluorescent tubes, discharge lamps, etc. (inductive loads).



iTL+			
Type	Rating		Width in 9 mm modules
1P+N			
	16 A	A9C15032	2+1 ⁽¹⁾

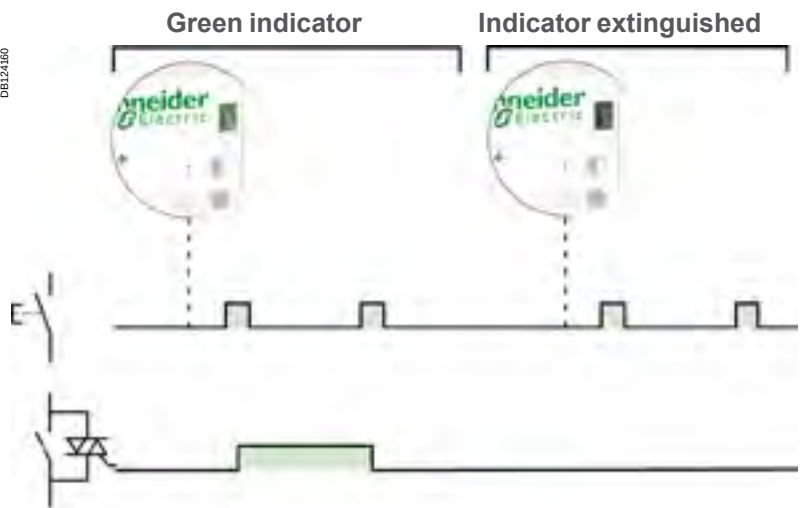
(1) Supplied with a 9 mm spacer (cat. no. **A9N27062**): to be used for mounting the iTL+ alongside a circuit breaker, contactor, impulse relay, etc., in order to maintain optimal operation.



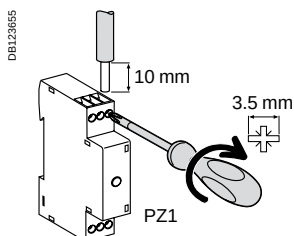
It is compulsory:

- to connect the neutral
- to keep the same control circuit connection "A1: phase", "A2: neutral"
- to use the same phase for connection of the power and control functions.

Operation



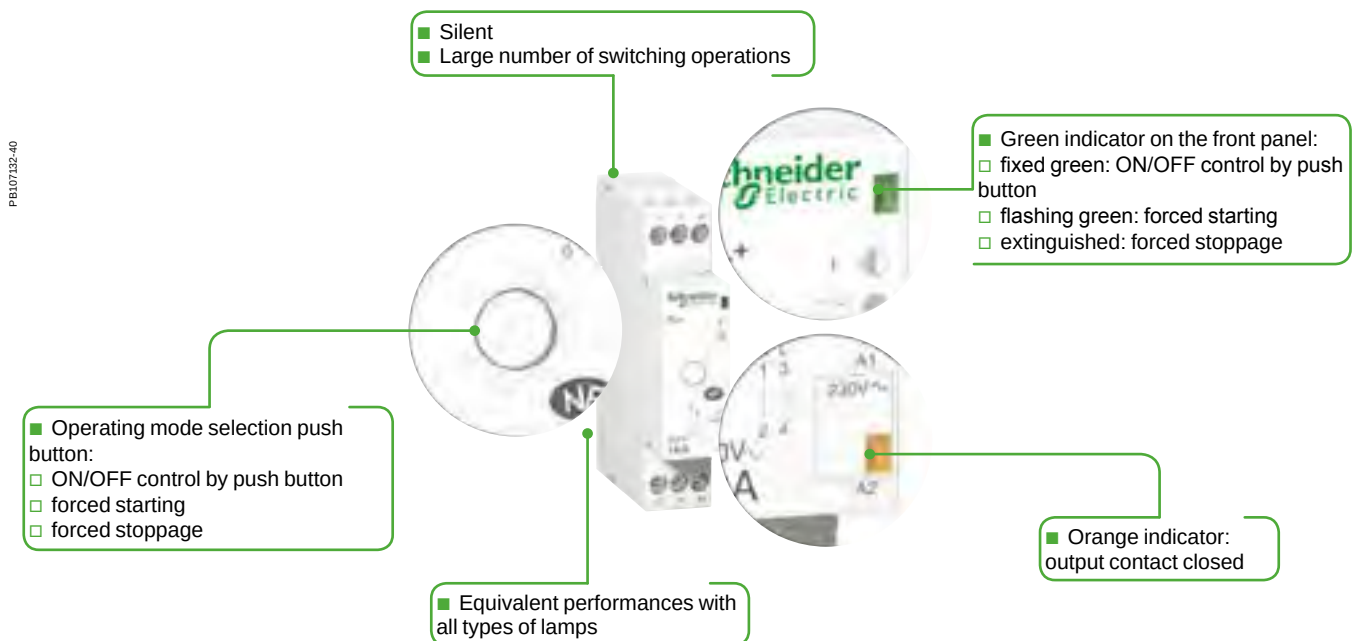
Connection



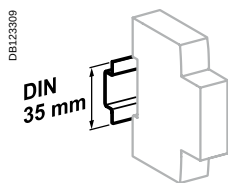
Type	Rating	Tightening torque	Copper cables	
			Rigid or flexible with ferrule	Rigid or flexible without ferrule
iTL+	16 A	1 N.m	 2 x 1.5 mm ²	 2 x 2.5 mm ² 1 x 4 mm ²

iTL+ high-performance impulse relays (cont.)

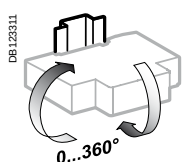
They combine the benefits of static switching and electromechanical technology: small size, little temperature rise.



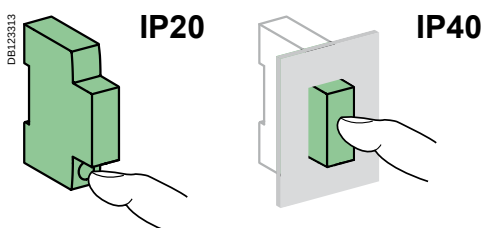
Following a mains failure, the iTL+ returns to 0 position (forced stoppage) irrespective of its initial state.



Clip on DIN rail 35 mm.



Indifferent position of installation.



Technical data

Control circuit		
Coil voltage (Uc)		230 V AC
Frequency		50 Hz
Inrush power		11 VA
Holding power		1.1 VA
Control by luminous push button		Max. current 5 mA
Control order duration		50 ms to 1 s (recommended 200 ms)
Power circuit		
Voltage rating (Ue)		230 V AC
Frequency		50 Hz
Electrical load	Minimum	20 W
	Maximum	3600 W
Max. number of switching operations per minute		6
Other characteristics		
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
		Insulation class II
Endurance (O-C)	Electrical	5.000.000 cycles (AC21 - AC22)
Noise level at activation		< 30 dBA
Operating temperature		-5°C to +55°C
Storage temperature		-40°C to +60°C
Tropicalization (IEC 60068-1)		Treatment 2 (relative humidity of 95 % at 55°C)

Weight (g)

High-performance impulse relays	
Type	iTL+
1P+N	70

Control

Remote control

iCT+ high-performance contactors

DB10604



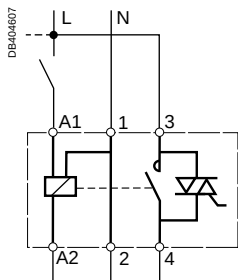
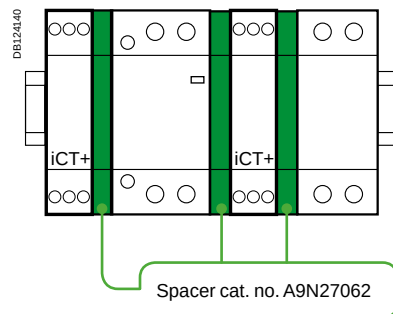
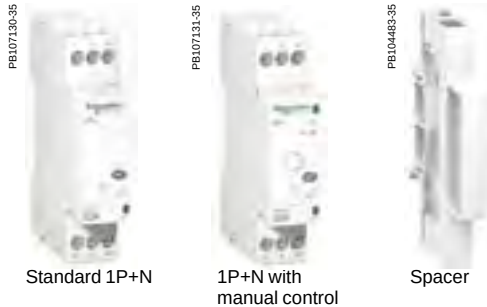
Country approval pictograms

iCT+ high-performance contactors allow remote control of single-phase circuits. They are designed for demanding applications.

EN 60669-2-2

iCT+ high-performance contactors can be used for remote control of applications on AC networks:

- lighting, heating, ventilation, roller blinds, domestic hot water
- mechanical ventilation systems, etc.
- load shedding on non-priority circuits.



iCT+				
Type	Rating	Contact		Width in 9-mm modules
Standard 1P+N				
	20 A	1 NO	A9C15030	2+1 ⁽¹⁾
1P+N with manual control				
	20 A	1 NO	A9C15031	2+1 ⁽¹⁾

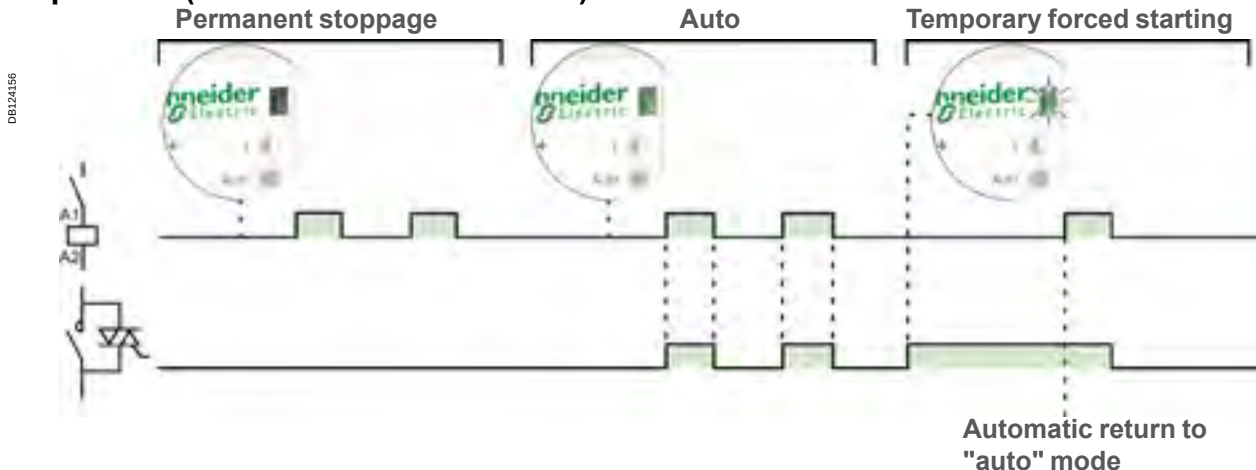
(1) Supplied with a 9 mm spacer (cat. no. **A9N27062**): to be used for mounting the iCT+ alongside a circuit breaker, contactor, impulse relay, etc., in order to maintain optimal operation.



It is compulsory:

- to connect the neutral
- to keep the same control circuit connection
- "A1: phase", "A2: neutral"
- to use the same phase for connection of the power and control functions.

Operation (manual-control contactor)



Control

Remote control

iCT+ high-performance contactors (cont.)

They combine the benefits of static switching and electromechanical technology: small size, little temperature rise.

- Silent
- Large number of switching operations

- Green indicator on the front panel:
 - fixed green: auto operation
 - flashing green: temporary forced starting
 - extinguished: permanent stoppage

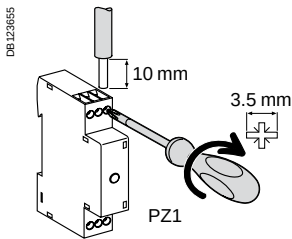
- Operating mode selection push button:
 - auto operation
 - temporary forced starting*
 - permanent stoppage

- Equivalent performances with all types of lamps
- No derating

- Orange indicator: output contact closed

Following a mains failure, the iCT+ returns to "auto" operating mode irrespective of its initial state.

Connection



Type	Tightening torque	Copper cables	
		Rigid or flexible with ferrule	Rigid or flexible without ferrule
		DB123656 	DB123657
iCT+	1 N.m	2 x 1.5 mm ²	2 x 2.5 mm ² 1 x 4 mm ²

Technical data

Control circuit

Coil voltage (U _c)	230 V AC (± 10 %)
Frequency	50 Hz
Inrush power	11 VA
Holding power	1.1 VA

Power circuit

Voltage rating (U _e)	230 V AC (± 10 %)
Frequency	50 Hz
Electrical load	Minimum Maximum
	20 W 3600 W
Max. number of switching operations per minute	6

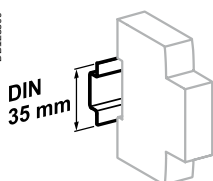
Other characteristics

Endurance (O-C)	Electrical	5.000.000 cycles
Pollution degree		3
Degree of protection (IEC 60529)	Device only Device in modular enclosure	IP20 IP40 Insulation class II
Operating temperature		-5°C to +55°C
Storage temperature		-40°C to +60°C
Tropicalization (IEC 60068-1)		2 (relative humidity of 95 % at 55°C)

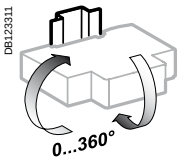
Weight (g)

High-performance contactors

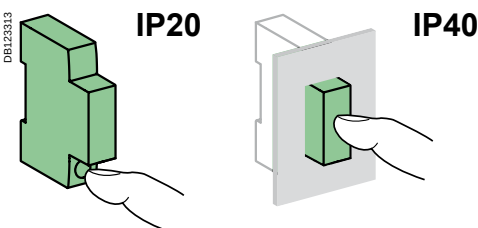
Type	iCT+
Standard 1P+N	70
1P+N with manual control	70



Clip on DIN rail 35 mm.



Indifferent position of installation.

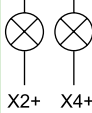
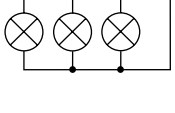


Monitor Indication iLL indicator lights

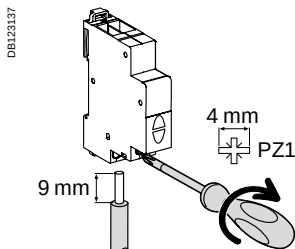
IEC 60947-5-1

■ iLL indicator lights light up to indicate that a voltage is present.

Catalogue numbers

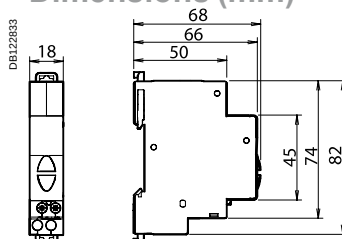
iLL indicator lights										
Type	Single					Double		Flashing light	Three-phase voltage presence indicator light	
										
Diagram										
Colour	Red	Green	White	Blue	Yellow	Green/red	White/white	Red	Red/red/red	
Cat. no.										
12...48 V AC/DC	A9E18330	A9E18331	A9E18332	A9E18333	A9E18334	A9E18335	-	-	-	
110...230 V AC	A9E18320	A9E18321	A9E18322	A9E18323	A9E18324	A9E18325	A9E18328	-	-	
110...130 V DC	-	-	-	-	-	-	-	A9E18326	-	
110...230 V AC	-	-	-	-	-	-	-	-	-	
230...400 V AC (3 phases)	-	-	-	-	-	-	-	-	A9E18327	
Width in 9 mm modules	2					2		2	2	

Connection

	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
	1 N.m	 0.5 mm ² min. 2 x 2.5 mm ² max.	 0.5 mm ² min. 2 x 2.5 mm ² max.

- Phase-separated wall that can be divided to allow the teeth of all types of comb busbar to pass through.
- Staggered terminals to simplify connection.

Dimensions (mm)



Technical data

Main characteristics	
Pollution degree	3
Power circuit	
Operating frequency	50...60 Hz
Flashing frequency	2 Hz
Additional characteristics	
Operating temperature	-35°C... +70°C
Storage temperature	-40°C... +80°C
Tropicalization	Treatment 2 (relative humidity 95 % at 55°C)
LED indicator light	Consumption per indicator light: 0.3 W Service life: 100,000 hours of constant lighting efficiency Maintenance-free indicator light (non-interchangeable LEDs)

Measurement and indication

iSO bells and iRO buzzers

www.schneider-electric.com

iSO and iRO

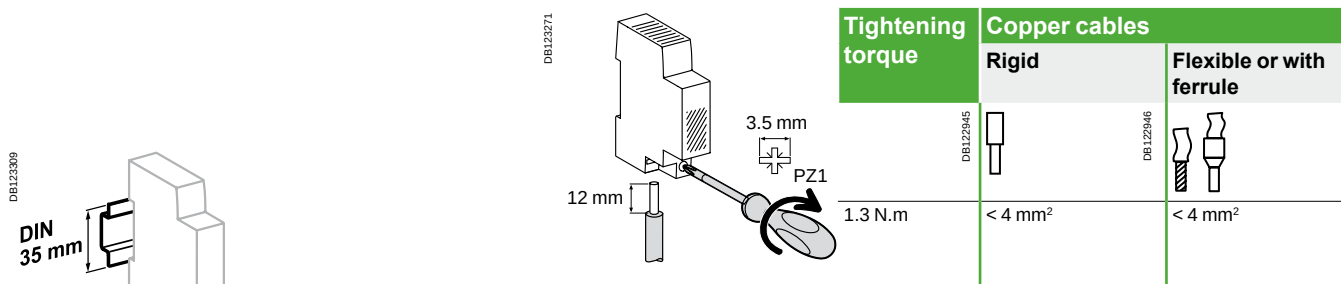
Audible indication in housing and the tertiary sector.

Catalogue numbers

Bell and buzzer			
Type			Width in 9 mm modules
iSO bell 	Voltage (Ue)		
	230 V AC	A9A15320	2
	8...12 V AC	A9A15321	2
iRO buzzer 	230 V AC	A9A15322	2
	8...12 V AC	A9A15323	2
Operating frequency		50...60 Hz	

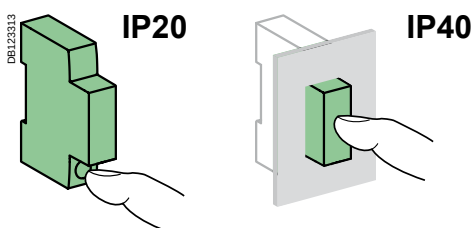
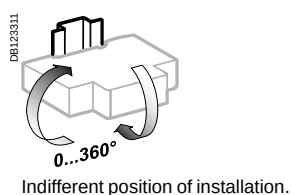


Connection



Technical data

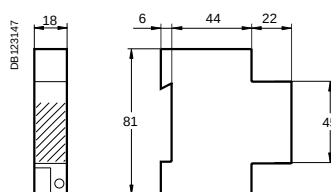
Main characteristics		iSO	iRO
Consumption	8...12 V AC	3.6 VA	
	220...240 V AC	5 VA	
Additional characteristics			
Degree of protection (IEC 60529)	Device only	IP40	
	Device in modular enclosure	IP20	
Operating temperature		-10°C to +40°C	
Storage temperature		-25°C to +60°C	
Sound level (at a distance of 60 cm)		80 dBA	70 dBA



Weight (g)

Bell and buzzer	
Type	
iSO	77
iRO	64

Dimensions (mm)



iSO bell and iRO buzzer



Country approval pictogram

PB107156-35



PB107156-35



Bell transformers: EN/IEC 61558-2-8.

Safety transformers: EN/IEC 61558-2-6.

Bell transformers and safety transformers allow for a very low voltage (ELV 8 V, 12 V or 24 V) to be obtained from a low voltage network (LV 230 V).

All Schneider Electric transformers are:

- Safe: primary and secondary circuits are perfectly insulated by each other
- Resistant to short-circuit currents thanks to the built-in device
- Class II with terminal shield (optional).

Catalogue numbers

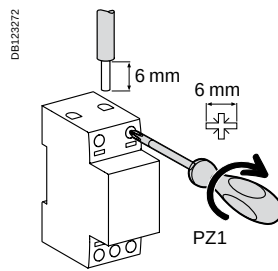
Bell transformer				
Type	Power	Secondary voltage		Width in 9 mm modules
E56759 	4 VA	8 V AC	R9C15408	4
E56760 	4 VA	8-12 V AC	R9C15412	4
	8 VA	8-12 V AC	R9C15812	4
	16 VA	8-12 V AC	A9A15212	4
E56761 	25 VA	12-24 V AC	A9A15215	6
Safety transformer				
Type	Power	Secondary voltage		Width in 9 mm modules
DB124153 	16 VA	12-24 V AC	A9A15218	10
	25 VA	12-24 V AC	A9A15219	10
DB124154 	40 VA	12-24 V AC	A9A15220	10
	63 VA	12-24 V AC	A9A15222	10
DB124155 				
Operating frequency	50/60 Hz			

Terminal shield

Type	Width in 9 mm modules
15228	4
15229	6

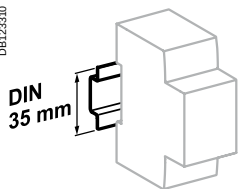
Connection

Tightening torque	Copper cables	
	Rigid	Flexible or with ferrule
0.5 N.m	DB122946 	DB122946 
	< 2.5 mm ²	< 2.5 mm ²

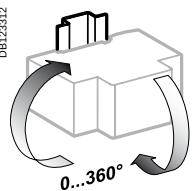


Technical data

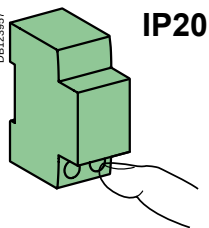
Main characteristics		
Primary voltage		230 V AC ±10 %
Secondary voltage on load	For bell transformers	8-12-24 V AC ±15 %
	For safety transformers	12-24 V AC ±5 %
Transformer catalogue numbers	Rated secondary voltage	Off load voltage
R9C15408	8 V	12 V
R9C15412	8 V	12 V
	12 V	16 V
R9C15812	8 V	13 V
	12 V	18 V
A9A15212	8 V	13 V
	12 V	18 V
A9A15215	12 V	16 V
	24 V	32 V
A9A15218	12 V	14 V
	24 V	28 V
A9A15219	12 V	14 V
	24 V	28 V
A9A15220	12 V	14 V
	24 V	28 V
A9A15222	12 V	14 V
	24 V	28 V
Additional characteristics		
Degree of protection	Device only (IEC 60529)	IP20 with terminal shield
Operating temperature		-20°C to +55°C
Storage temperature		-25°C to +80°C



Clip on DIN rail 35 mm.



Bell transformer: indifferent position of installation.
Safety transformer: vertical position.

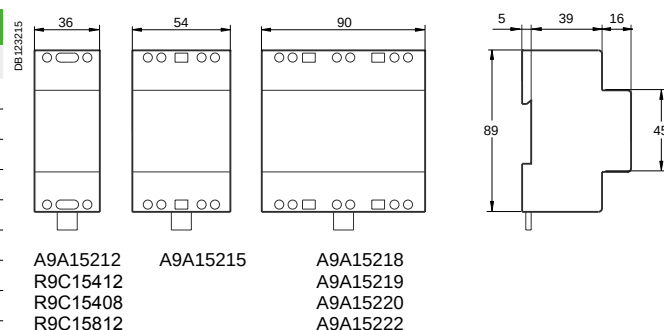


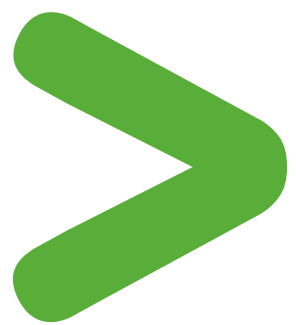
Note: Transformers have an off load operating voltage that is higher than the rated voltage. For loads that are sensitive to overloads (electro-magnetic circuits), the transformer must be made to operate at In. After operation of the protection device upon an overload, cut-off the power supply and let the transformer cool down before restart.

Weight (g)

iTR		
Type	Cat. no.	Weight
Bell	A9A15212	384
	R9C15412	240
	R9C15408	237
	A9A15215	633
	R9C15812	275
Safety	A9A15218	1082
	A9A15219	1125
	A9A15220	1190
	A9A15222	1309

Dimensions (mm)





Monitoring Control / Remote control Relays

Time delay relays are used in service sector and industrial buildings for small automatic control systems: ventilation, heating, animation, roller blind servo controls, escalators, pumps, lighting, signalling, monitoring, etc.



Time delay relays

PB11159L-35



iRTA

■ Delays energizing of a load

PB11159C-35



iRTB

■ Delays de-energizing of a load upon closing of an auxiliary contact (push button)

PB11159C-35



iRTC

■ Delays de-energizing of a load upon opening of an auxiliary contact (push button)

Time delay

iRBN and iRTBT relays can interface automatic control system inputs/outputs with low-voltage devices.



Interface relays

PB107144-35



iRBN

Low level relay

■ Actuation of low-amperage electronic circuits upon receiving an LV electrical order

PB107164-35



iRTBT

Extra low voltage relay

■ Actuation of LV circuits based on an extra low voltage order

Control

Control relays monitor electrical parameters and indicate when they are exceeded



Control relays

PB107124-35



iRCP

Phase control

■ Monitors the order and asymmetry of phases and the presence of voltage on the 3 phases of a three-phase circuit (power supply of a motor, etc.)

PB107125-35



iRCI

Current control

■ Monitors the current flowing in a circuit and indicates any crossing of the set threshold

Monitoring

Monitoring Control / Remote control Relays (cont.)



iRTH

- Applies a time delay to de-energizing of a load



iRTL

- Applies a time delay to energizing and de-energizing of a load during different times, repeatedly (flasher)



iRTMF

- Allows one of the four types of time delay to be selected: A, B, C or H

iRLI and iERL relays are used to relay ON or OFF information to the auxiliary circuits and actuate low-power loads



Changeover relays



iRLI Changeover

- Relays ON or OFF information to the auxiliary circuits
- Actuates low-power loads



iERL extension

▲ Relaying and control



iRCU Voltage control

- Monitors the potential difference of a circuit and indicates any crossing of the set threshold

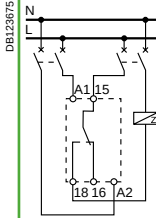
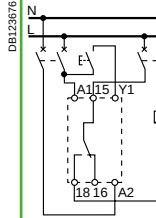
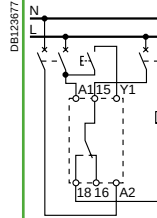
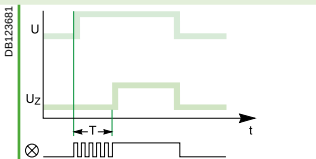
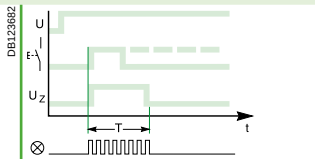
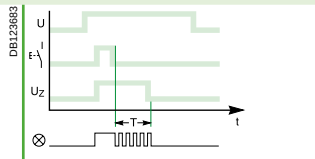


iRCC Compressor control

- Monitors the compressor power supply and prevents its immediate restarting upon detection of a power cut or voltage dip

Time delay relays

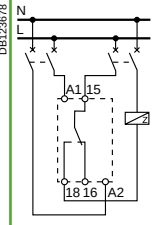
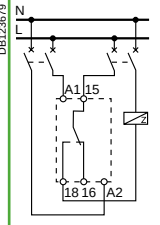
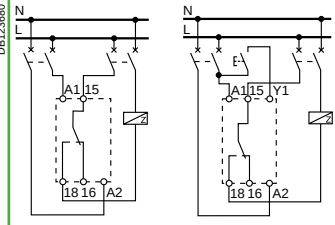
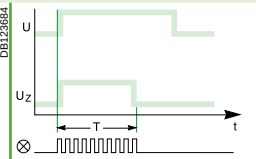
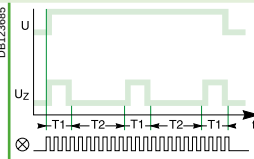
iRTA, iRTB, iRTC, iRTH, iRTL and iRTMF

Time delay relays				
Type	iRTA	iRTB	iRTC	
	PB111581-35 	PB111582-35 	PB111583-35 	
Function	■ Delays energizing of a load	■ Delays de-energizing of a load upon closing of an auxiliary contact (push button)	■ Delays de-energizing of a load upon opening of an auxiliary contact (push button)	
Wiring diagrams	DB123675 	DB123676 	DB123677 	
Use	DB123681  ■ The single time delay cycle starts at switching on of the iRTA relay power supply ■ The load is energized at the end of time delay T	DB123682  ■ The single time delay cycle starts at closing of an auxiliary contact (push button) ■ The load is de-energized at the end of time delay T	DB123683  ■ The single time delay cycle starts only upon release of an auxiliary contact (push button) ■ The load is de-energized at the end of time delay T	
Catalogue numbers	A9E16065	A9E16066	A9E16067	
Technical specification				
Control and power supply voltage (Uc)	V AC	24...240, ±10 %	24...240, ±10 %	24...240, ±10 %
	V DC	24, ±10 %	24, ±10 %	24, ±10 %
Operating frequency	Hz	50/60	50/60	50/60
Time delay range		0.1 s to 100 h	0.1 s to 100 h	0.1 s to 100 h
Precision		±10 % of full scale	±10 % of full scale	±10 % of full scale
Minimum duration of control impulse		100 ms	100 ms	100 ms
Insensitive to brownouts		≤ 20 ms	≤ 20 ms	≤ 20 ms
Max. resetting time per voltage interruption		100 ms	100 ms	100 ms
Accuracy of repetition		±0.5 % at constant parameters	±0.5 % at constant parameters	±0.5 % at constant parameters
Changeover contact (cadmium free)	Mini	Rating 10 mA/5 V DC	Rating 10 mA/5 V DC	Rating 10 mA/5 V DC
	Maxi	Rating 8 A/250 V AC/DC	Rating 8 A/250 V AC/DC	Rating 8 A/250 V AC/DC
Endurance	Mechanical	> 5 x 10 ⁶ switching operations	> 5 x 10 ⁶ switching operations	> 5 x 10 ⁶ switching operations
	Electrical	> 10 ⁵ switching operations (utilization category AC1)	> 10 ⁵ switching operations (utilization category AC1)	> 10 ⁵ switching operations (utilization category AC1)
Display of contact status by green indicator lamp		Flashing during time delay	Flashing during time delay	Flashing during time delay
Degree of protection	Device only	IP20	IP20	IP20
Connection by tunnel terminals	Without ferrule	2 x 2.5 mm ² single-strand	2 x 2.5 mm ² single-strand	2 x 2.5 mm ² single-strand
	With ferrule	2 x 1.5 mm ² multi-strand	2 x 1.5 mm ² multi-strand	2 x 1.5 mm ² multi-strand
Width in 9-mm modules		2	2	2
Operating temperature	°C	-5 ... +55	-5 ... +55	-5 ... +55
Storage temperature	°C	-40 ... +70	-40 ... +70	-40 ... +70

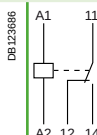
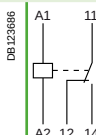
Monitoring Control / Remote control

Time delay relays

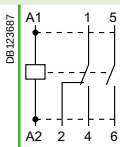
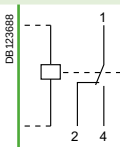
iRTA, iRTB, iRTC, iRTH, iRTL and iRTMF (cont.)

	iRTH	iRTL	iRTMF
			
	■ Applies a time delay to de-energizing of a load	■ Applies a time delay to energizing and de-energizing of a load during different times, repeatedly (flasher)	■ Allows one of the four types of time delay to be selected: A, B, C or H
			
			
	■ The single time delay cycle starts at switching on of the iRTH relay power supply ■ The load is de-energized at the end of time delay T	■ The time delay cycle starts at energizing ■ The load is energized during an adjustable time T1 and then de-energized during an adjustable time T2. This cycle is reproduced until de-energizing of the iRTL relay power supply	■ Depending on the choice, the iRTMF generates time delay cycles for the iRTA, iRTB, iRTC or iRTH relays
	A9E16068	A9E16069	A9E16070
	24...240, ±10 %	24...240, ±10 %	12...240, ±10 %
	24, ±10 %	24, ±10 %	12...240, ±10 %
	50/60	50/60	50/60
	0.1 s to 100 h	0.1 s to 100 h	0.1 s to 100 h
	±10 % of full scale	±10 % of full scale	±10 % of full scale
	100 ms	100 ms	100 ms
	≤ 20 ms	≤ 20 ms	≤ 20 ms
	100 ms	100 ms	100 ms
	±0.5 % at constant parameters	±0.5 % at constant parameters	±0.5 % at constant parameters
	Rating 10 mA/5 V DC	Rating 10 mA/5 V DC	Rating 10 mA/5 V DC
	Rating 8 A/250 V AC/DC	Rating 8 A/250 V AC/DC	Rating 8 A/250 V AC/DC
	> 5 x 10 ⁶ switching operations	> 5 x 10 ⁶ switching operations	> 5 x 10 ⁶ switching operations
	> 10 ⁵ switching operations (utilization category AC1)	> 10 ⁵ switching operations (utilization category AC1)	> 10 ⁵ switching operations (utilization category AC1)
	Flashing during time delay	Flashing during time delay	Flashing during time delay
	IP20	IP20	IP20
	2 x 2.5 mm ² single-strand	2 x 2.5 mm ² single-strand	2 x 2.5 mm ² single-strand
	2 x 1.5 mm ² multi-strand	2 x 1.5 mm ² multi-strand	2 x 1.5 mm ² multi-strand
	2	2	2
	-5 ... +55	-5 ... +55	-5 ... +55
	-40 ... +70	-40 ... +70	-40 ... +70

Monitoring Control / Remote control Interface relays iRBN, iRTBT

Interface relays			
		iRBN	iRTBT
Type		Low level	Extra low voltage
			
Standard		IEC/EN 61810-1	IEC/EN 61810-1
Function		■ Actuation of low-amperage electronic circuits upon receiving an LV electrical order	■ Actuation of LV circuits based on an extra low voltage order
Wiring diagrams			
Use		■ Inputs of programmable logic controllers, of measuring or supervision circuits, etc.	■ ELV orders can be issued by a programmable logic controller (24 V DC static outputs), a central fire detection unit, a regulation system, etc.
Catalogue numbers		A9A15393	A9A15416
Technical specification			
Input control voltage (Uc)	V AC	230, ±10 %	12...24, -15 to +10 %
	V DC	-	12...24, ±20 %
Output contact rating	Mini	5 mA/5 V DC (DC12) 5 mA/5 V AC	10 mA/10 V DC (DC12) 10 mA/10 V AC
	Maxi	1 A/24 V DC (DC12) 5 A/250 V AC	1 A/24 V DC (DC12) 5 A/250 V AC
Operating frequency	Hz	50/60	0...60
Strengthened insulation between ELV/LV circuits		4 kV	4 kV
Consumption	At inrush	5 VA	0.22 W
	At holding	2.5 VA	0.11 W
Endurance	Electrical	100,000 switching operations	100,000 switching operations
Display of voltage presence on the control circuit		By green indicator lamp	By green indicator lamp
Degree of protection	Device only	IP20	IP20
Connection by tunnel terminals		0.5 x 6 mm ²	0.5 x 6 mm ²
Width in 9-mm modules		2	2
Operating temperature	°C	-5 ... +55	-5 ... +55
Storage temperature	°C	-40 ... +70	-40 ... +70

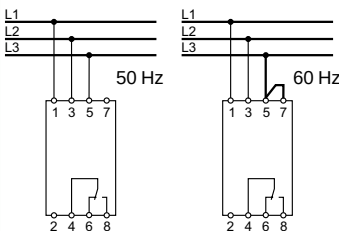
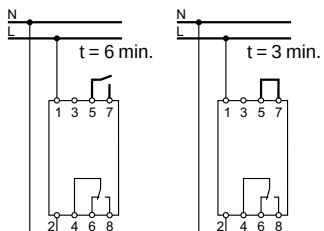
iRLI changeover and iERL extension relays

Changeover and extension relays									
		iRLI				iERL			
Type		Changeover relay				Extension for RLI			
									
Standard		IEC/EN 61810-1 and NF C 45-250				IEC/EN 61810-1 and NF C 45-250			
Function		Relaying of ON or OFF information to the auxiliary circuits and actuation of low-power loads				Extension allowing additional contacts to be added to the iRLI changeover relays			
Wiring diagrams									
Use		The iRLI relay contains 1 changeover contact (O-C) and 1 normally open contact (N/O)				- The iERL extension (max. 3 iERLs for 1 iRLI) contains 1 changeover contact (O-C) and 1 normally open contact (N/O) - Can be mounted without any tool and without additional cabling using a yellow clip which performs mechanical assembly and electrical connection between the coils			
Catalogue numbers		A9E15535	A9E15536	A9E15537	A9E15538	A9E15539	A9E15540	A9E15541	A9E15542
Technical specification									
Control voltage (Uc)	V AC	230...240	48	24	12	230...240	48	24	12
Voltage rating (Ue)	V AC	230				230			
Insulation voltage (Ui)	V AC	250				250			
Rating (In)	A	10, cos φ = 1				10, cos φ = 1			
Operating frequency	Hz	50/60				50/60			
Inrush and holding power		4 VA				iRLI + iERL : 8 VA			
Endurance	Electrical	100,000 cycles AC21 (cos φ = 1)				100,000 cycles AC21 (cos φ = 1)			
Direct front face control	Power	By push button				By push button			
	Coil	By selector switch (disconnection)				By selector switch (disconnection)			
Position indicator		Mechanical indicator				Mechanical indicator			
Marking		Clip-on markers on the front panel				Clip-on markers on the front panel			
Degree of protection	Device only	IP20				IP20			
Connection by tunnel terminals		0.5 x 6 mm ²				0.5 x 6 mm ²			
Width in 9-mm modules		2				2			
Operating temperature	°C	-5 ... +55				-5 ... +55			
Storage temperature	°C	-40 ... +70				-40 ... +70			

iRCP phase control, iRCI current control, iRCU voltage control and iRCC compressor control relays

Control relays		
Type	iRCI	iRCU
	Current control PB1U7125-35 	Voltage control PB1U7126-35 
Function	■ Monitors the current (I_r) flowing in an AC or DC circuit and indicates any crossing of the set threshold	■ Monitors the voltage variation (U_r) of an AC or DC circuit and indicates any crossing of the set threshold
Wiring diagrams	DB405266 N $0.15\text{ A} \leq I_r \leq 1.5\text{ A}$ AC/DC 1357 +- 2 468 1357 +- 2 468 N $1\text{ A} \leq I_r \leq 10\text{ A}$ AC/DC 1357 +- 2 468 1357 +- 2 468	DB405266 N $10\text{ V} \leq U_r \leq 100\text{ V}$ $\sim$ 1357 +- 2 468 N $50\text{ V} \leq U_r \leq 500\text{ V}$ $\sim$ 1357 +- 2 468
Catalogue numbers	A9E21181	A9E21182
Common technical specification		
Supply voltage (U_c)	V AC	230, -15 % à +10 %
Frequency	Hz	50/60
Parameter setting	■ On the front panel, by direct scale, using a screwdriver	
Precision of display	±10 % of full scale	
Output by changeover contact	8 A under 250 V AC ($\cos \varphi = 1$)	
Indications by LED	Green	Voltage presence
	Red	Fault
Consumption	VA	3
Dissipated power	W	2
Degree of protection	Device only	IP20
Connection by tunnel terminals	Rigid cable	1.5 x 6 mm ²
Width in 9-mm modules	4	
Operating temperature	°C	-5 ... +55
Storage temperature	°C	-40 ... +80
Particular technical specification		
Threshold adjustable from 10 % to 100 % of I_r		Threshold adjustable from 10 % to 100 % of U_r
Hysteresis adjustable from 5 % to 50 % of I_r		Hysteresis adjustable from 5 % to 50 % of U_r
Monitoring of overcurrent and undercurrent (selection by selector switch)		
Fail-safe contact		
De-energized		
Energized with fault		
Energized without fault		
Time delay on crossing threshold: 0.1 s to 10 s		
Possibility of memorizing fault with resetting		
Compatible with current transformers (CTs) of ratio X/5		■ Automatic recognition of AC voltage or DC voltage. ■ 2 measuring ranges selected by cabling: □ 10 V to 50 V □ 50 V to 500 V
■ Automatic recognition of alternating or direct current.		
■ 2 measuring ranges selected by cabling:		
□ 0.15 A to 1.5 A		
□ 1 A to 10 A		

iRCP phase control, iRCI current control, iRCU voltage control and iRCC compressor control relays (cont.)

iRCP		iRCC	
Phase control		Compressor control	
PB107124-35		PB107127-35	
■ Monitors phases and the presence of voltage on the 3 phases of a three-phase circuit (power supply of a motor, etc.). It indicates any phase loss or inversion		■ Monitors the compressor's power supply and prevents its immediate restarting upon detection of a power cut or voltage dip	
DB405266		DB405267	
A9E21180		A9E21183	
400, ±15 %		230, -15 % à +10 %	
50/60			
■ On the front panel, by direct scale, using a screwdriver			
±10 % of full scale			
8 A under 250 V AC (cos φ = 1)			
Voltage presence			
Fault			
3			
3 (total on the 3 phases)		2	
IP20			
1.5 x 6 mm²			
4			
-5 ... +55			
-40 ... +80			
Setting of phase asymmetry threshold: 5 % to 25 % of 400 V		Threshold setting: ±5 % to ±15 % of 230 V	
Hysteresis: fixed, 5 % of asymmetry threshold			
Monitoring of direction of phase rotation			
Monitoring of presence of the 3 phases			
Fail-safe contact		Fail-safe contact	
De-energized		De-energized	
Energized with fault		Energized with fault	
Energized without fault		Energized without fault	
Time delay on tripping: 0.3 s		Time delay on overshoot: 3 or 6 minutes (selection by cabling)	

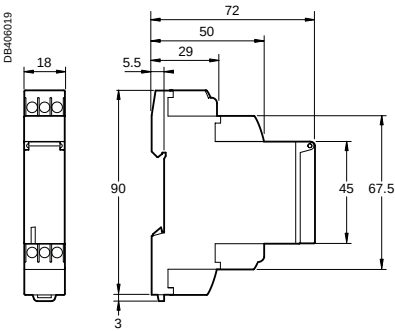
Monitoring
Control / Remote control
Relays

Technical data

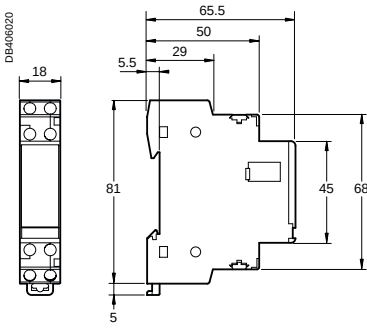
Weight (g)

Relays	
Type	
iRTA, iRTB, iRTC, iRTH, iRBN	65
iRTL	66
iRTMF	68
iRTBT	63
iRLI, iERL	112
iRCP, iRCC	210
iRCI, iRCU	215

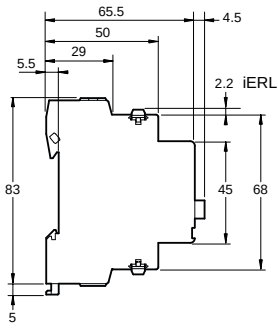
Dimensions (mm)



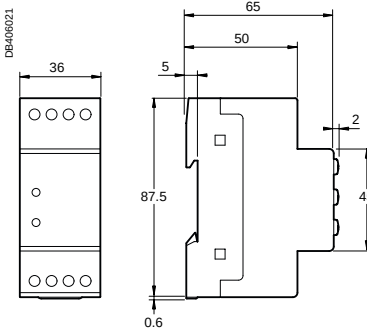
iRTA, iRTB, iRTC, iRTH, iRTL, iRTMF



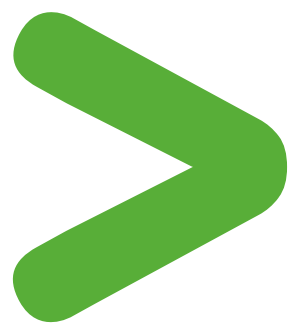
iRBN, iRTBT



iRLI, iERL



iRCP, iRCI, iRCU, iRCC



Life Is On



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