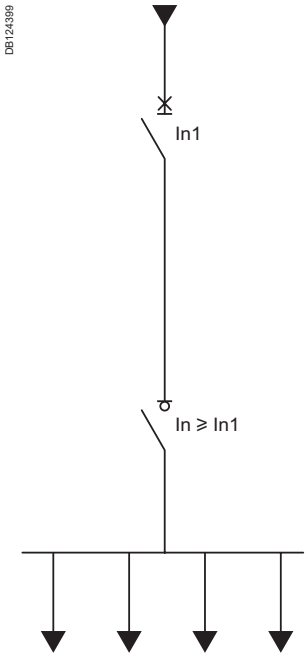
Coordination

Switches and Residual Current Circuit Breakers (RCCBs) protection



Introduction

The following coordination data is valid only for Schneider Electric products.

Protection of switches and RCCBs

Switches and RCCBs must be protected in the same way as all the components of the electrical installation:

- against overloads;
- against short-circuits;
- against high earth fault currents in TN earthing systems.

Coordination between switches or RCCBs and its protection device must be guaranteed and proven by the manufacturer.

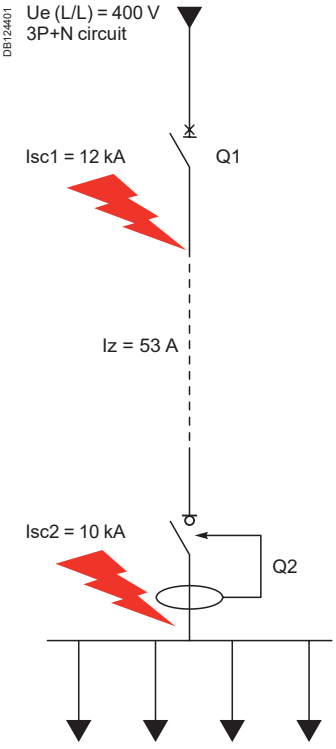
Overload protection

- The current rating of the switches and RCCBs is the maximum current that it can withstand without being damaged.
- They must be protected against overloads by the circuit breaker located upstream on its power supply line (1).

As a consequence:

The rating of the switches and RCCBs must be equal to or greater than the rating of the circuit breaker located upstream.

Example: on a circuit protected by an iC60 32 A circuit breaker upstream, a switch or a RCCB of 40 A or 63 A must be installed.



Short-circuit protection

- The switches and RCCBs are protected against short-circuits by the circuit breaker (or fuse) located upstream (2).
- To prevent any damage, the circuit breaker must sufficiently limit any short-circuit current that could pass through the switch or the RCCB (up to the max. prospective short-circuit current Isc at its installation point).

The short-circuit withstand of the switches and RCCBs is given in the following tables.
It must be greater than or equal to the prospective short-circuit current Isc at its installation point.

See examples below

Example 1:
Choice of protection devices Q1 and Q2 in the diagram:

Circuit breaker Q1	Criteria	Choice
Overload protection	Rated current less than or equal to the cable withstand **In ≤ Iz** (= 53 A)	In = 50 A
Short-circuit protection	Breaking capacity greater than or equal to the prospective short-circuit current at its installation point **Icu ≥ Isc1** (= 12 kA)	iC60H 4P 50 A Icu = 15 kA 400 V AC

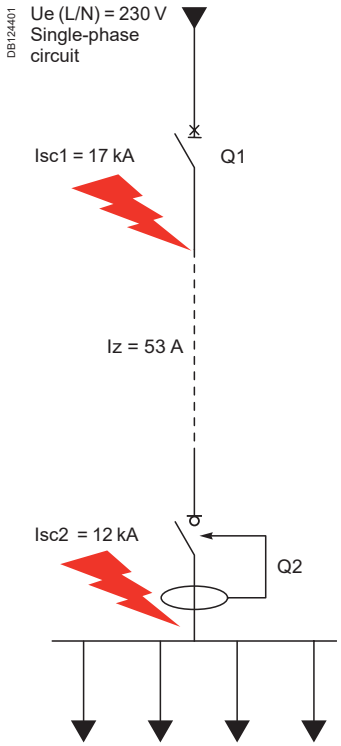
RCCB Q2	Criteria	Choice
Overload protection	Rated current greater than or equal to Q1 rated current **In Q2 ≥ In Q1** (= 50 A)	In = 63 A
Short-circuit protection	Coordination with Q1 (rated conditional short-circuit current) in tables suitable up to the prospective short-circuit current at its installation point **≥ Isc2** (= 10 kA)	iID 4P 63A is totally coordinated up to Icu = 15kA with iC60H upstream

Downstream		RCCB	iID40			iID (1) (2)				
		Rating (A)	25	40	63	25	40	63	80	100
		I∆m (A)	500	800	1260	500	800	1260	1200	1500
		Icm (kAp)	5	5	5	5	5	5	5	5
Upstream Circuit breaker	Rating (A)	Icu (kA) at 415 V	Conditionnal short-circuit current and related making capacity:							
iC40	≤ 25	6	T	T	T	T	T	T	T	T
B, C, D curves	32 to 40	6	T*	T	T	T*	T	T	T	T
iC40N	≤ 25	10	T	T	T	T	T	T	T	T
B, C, D curves	32 to 40	10	T*	T	T	T*	T	T	T	T
iC60N	≤ 25	10	T	T	T	T	T	T	T	T
B, C, D curves	32	10		T	T	T*	T	T	T	T
	40	10		T	T	T*	T	T	T	T
	50 to 63	10			T	T*	T*	T	T	T
iC60H	≤ 25	15	T	T	T	T	T	T	T	T
B, C, D curves	32	15		T	T	T*	T	T	T	T
	40	15		T	T	T*	T	T	T	T
	50 to 63	15			T	T*	T*	T	T	T

(1) In some countries, the installation standards consider that overload protection can be provided by all the downstream circuit breakers, if the sum of their ratings is less than or equal to the rating of upstream switch or RCCB.
(2) Exception in case of special installation with upstream and downstream coordination are described at the end of this document.

Coordination

Switches and Residual Current Circuit Breakers (RCCBs) protection



Short-circuit protection

Example 2:
Optimized configuration in the diagram by using MCB 2P in single phase circuit and associated Ue: 220-240 V AC tables to check the Line to Neutral fault (Ik1) only (and not Line to earth (If) fault).

Circuit breaker Q1	Criteria	Choice
Overload protection	Rated current less than or equal to the cable withstand **In ≤ Iz** (= 53 A)	In = 50 A
Short-circuit protection	Breaking capacity greater than or equal to the prospective short-circuit current at its installation point **Icu ≥ Isc1** (= 17 kA Line to Neutral fault)	You can use iC60N 2P 50 A or C120N 2P 63 A Icu = 20 kA 230 V AC with associated table

RCCB Q2	Criteria	Choice
Overload protection	Rated current greater than or equal to Q1 rated current **In Q2 ≥ In Q1** (= 50 A)	In = 63 A
Short-circuit protection	Coordination with Q1 (rated conditional short-circuit current) in tables suitable up to the prospective short-circuit current at its installation point **≥ Isc2** (= 12 kA Line to Neutral fault)	iID 2P 63 A is totally coordinated up to Icu = 20 kA 230 V AC with iC60N 2P 50 A or C120N 2P 63 A upstream

High earth fault currents protection in TN earthing systems

In the event of an insulation fault in the TN earthing system, the line-to-earth fault current is equal to the line-to-neutral fault current.

- The RCCB interrupts this current if it does not exceed its specific residual making and breaking capacity (I∆m).
- If the fault current exceeds this value, it must be interrupted by the circuit breaker located upstream.

Therefore, the magnetic tripping threshold (instantaneous tripping threshold) of the circuit breaker must always be less than or equal to the residual making and breaking capacity (I∆m) of the RCCB.

Example: Table for maximum residual making and breaking capacity I∆m = 1500 A for Acti9 RCCBs iID 100 A

Downstream	RCCB	iID40			iID (1) (2)					RCCB ID				
	Rating (A)	25	40	63	25	40	63	80	100	25	40	63	100	125
	I∆m (A)	500	800	1260	500	800	1260	1200	1500	500	500	630	800	1250
	Icm (kAp)	5	5	5	5	5	5	5	5	5	5	5	5	5

The combination of Acti9 iID RCCBs and a suitably rated Acti9 iC60 circuit breaker naturally fulfils this condition.

Example:
- Acti9 iID40 residual current circuit breaker, rating 63 A: I∆m = 1260 A.
- Acti9 iC60N circuit breaker, rating 63 A: (12.In +20% of IEC 60947-2 = 907 A)

Since 907 A < 1250 A, the condition is met and a Acti9 iC60 up to 63A will protect a Acti9 iID40 by tripping first.

Other switch-disconnector characteristics given for information

- Rated short-circuit making capacity (Icm):

It's the making capacity of the switch-disconnector in short-circuit condition expressed as the maximum prospective peak current.

- Rated short time withstand current (Icw):

It's the thermal withstand capacity of the switch disconnector during 1s.

Coordination

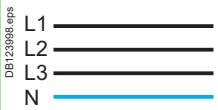
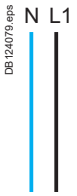
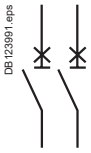
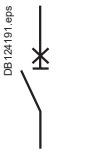
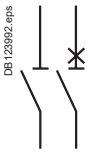
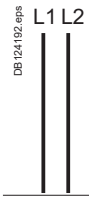
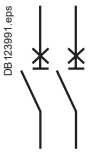
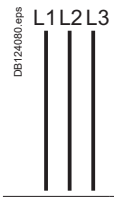
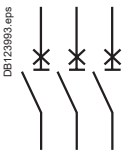
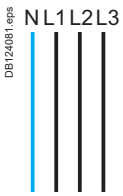
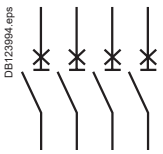
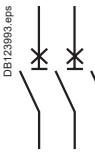
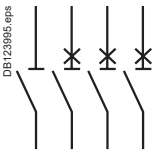
Switches and Residual Current Circuit Breakers (RCCBs) protection

Using the coodination tables

This table takes in account:
- all types of faults: between phases, phase and neutral and between phase and earth.
- all earthing systems except IT.

See comment here below.
Depending on the network and the type of protection, the selection table below indicates which table should be consulted to find out the coordination value.

Selection table

		Upstream network					
							
Type of Downstream network	**Type of protection device**	**Ph/N 110-130 V**	**Ph/N 220-240 V**	**Ph/N 110-130 V** **Ph/Ph 220-240 V**	**Ph/N 220-240 V** **Ph/Ph 380-415 V**	**Ph/Ph 220-240 V**	**Ph/Ph 380-415 V**
	 2P		(1)		(1)		
		See table Ue: 220-240 V	See table Ue: 220-240 V	See table Ue: 220-240 V	See table Ue: 220-240 V		
	 1P  1P + N		(2)		(2)		
		See table Ue: 220-240 V	See table Ue: 380-415 V	See table Ue: 220-240 V	See table Ue: 380-415 V		
	 2P			See table Ue: 220-240 V	See table Ue: 380-415 V	See table Ue: 220-240 V	See table Ue: 380-415 V
	 3P			See table Ue: 220-240 V	See table Ue: 380-415 V	See table Ue: 220-240 V	See table Ue: 380-415 V
	 4P			See table Ue: 220-240 V	See table Ue: 380-415 V		
	 3P  3P+N			See table Ue: 220-240 V	See table Ue: 380-415 V		

(1) For fault phase-earth please consult the table Ue: 380-415 V.
(2) For iC60 1P+N circuit breaker connected between phase and neutral under 220-240 V, consult the table Ue: 220-240 V (only for faults between phase and neutral).

Circuit breaker / RCCB coordination

Upstream: Acti9 iC40, iC60, C120, NG125

Downstream: Acti9 iID40, iID, RCCB ID B type

Ue: 380-415 V AC

(Ph/N 220-240 V AC)

Downstream		RCCB	iID40			iID (1) (2)					RCCB ID				
		Rating (A)	25	40	63	25	40	63	80	100	25	40	63	100	125
		IΔm (A)	500	800	1260	500	800	1260	1200	1500	500	500	630	800	1250
		Icm (kAp)	5	5	5	5	5	5	5	5	5	5	5	5	5
Upstream Circuit breaker	**Rating (A)**	**Icu (kA) at 415 V**	Conditionnal short-circuit current and related making capacity:												
iC40	**≤ 25**	6	T	T	T	T	T	T	T	T	T	T	T	T	T
B, C, D curves	**32 to 40**	6	T*	T	T	T*	T	T	T	T		T	T	T	T
iC40N	**≤ 25**	10	T	T	T	T	T	T	T	T	T	T	T	T	T
B, C, D curves	**32 to 40**	10	T*	T	T	T*	T	T	T	T		T	T	T	T
iC60N	**≤ 25**	10	T	T	T	T	T	T	T	T	T	T	T	T	T
B, C, D curves	**32**	10		T	T	T*	T	T	T	T		T	T	T	T
	40	10		T	T	T*	T	T	T	T		T	T	T	T
	50 to 63	10			T	T*	T*	T	T	T			T	T	T
iC60H	**≤ 25**	15	T	T	T	T	T	T	T	T	T	T	T	T	T
B, C, D curves	**32**	15		T	T	T*	T	T	T	T		T	T	T	T
	40	15		T	T	T*	T	T	T	T		T	T	T	T
	50 to 63	15			T	T*	T*	T	T	T			T	T	T
iC60L	**≤ 25**	25	T	T	T	T	T	T	T	T	T	T	T	T	T
B, C, D, K, Z curves	**32**	20		T	T	T*	T	T	T	T		T	T	T	T
	40	20		T	T	T*	T	T	T	T		T	T	T	T
	50 to 63	15			T	T*	T*	T	T	T			T	T	T
C120N	**63**	10			T	T*	T*	T	T	T			7/12	7/12	7/12
B, C, D curves	**80**	10				6/9*	6/9*	6/9*	T	T				7/12	7/12
	100	10				6/9*	6/9*	6/9*	T*	T				5/8	5/8
	125	10				6/9*	6/9*	6/9*	T*	T*					5/8
C120H	**63**	15			T	T*	T*	T	T	T			7/12	7/12	7/12
B, C, D curves	**80**	15				6/9*	6/9*	6/9*	10/17	10/17				7/12	7/12
	100	15				6/9*	6/9*	6/9*	10/17*	10/17'				5/8	5/8
	125	15					6/9*	6/9*	10/17*	10/17*					5/8
NG125N	**≤ 40**	25		16/32	16/32	16/32*	16/32	16/32	16/32	16/32		15/30	15/30	15/30	15/30
B, C, D curves	**50 to 63**	25			16/32	16/32*	16/32*	16/32	16/32	16/32			15/30	15/30	15/30
	80	25				6/9*	6/9*	6/9*	10/17	10/17				10/17	10/17
	100	25				6/9*	6/9*	6/9*	10/17*	10/17				10/17	10/17
	125	25					6/9*	6/9*	10/17*	10/17*					10/17
NG125H	**≤ 40**	36		16/32	16/32	16/32*	16/32	16/32	16/32	16/32		15/30	15/30	15/30	15/30
C curves	**50 to 63**	36			16/32	16/32*	16/32*	16/32	16/32	16/32			15/30	15/30	15/30
	80	36					6/9*	6/9*	10/17	10/17				10/17	10/17
NG125L	**≤ 40**	50		16/32	16/32	16/32*	16/32	16/32	16/32	16/32		15/30	15/30	15/30	15/30
B, C, D curves	**50 to 63**	50			16/32	16/32*	16/32*	16/32	16/32	16/32			15/30	15/30	15/30
	80	50					6/9*	6/9*	10/17	10/17				10/17	10/17

(1): Include Acti9 iID AC type, A type, ASI type and B-SI type
(2): For Acti9 iID B type EV, please contact Schneider Electric

T or 16/32	Protection is ensured but combination not optimized as Switch & RCBB rating is high compared to upstream circuit breaker
T	Totally coordinated up to Icu of circuit breaker installed on supply side
16/32	Protected up to 16 kA rms / 32 kA peak
T* or 16/32*	Only if the installation standards consider that overload protection can be provided by all the downstream circuit breakers, if the sum of their ratings is less than or equal to the rating of upstream Switch or RCCB
	Protection is not ensured

Circuit breaker / RCCB coordination

Upstream: NSXm, NSX100, NSX160

Downstream: Acti9 iID40, iID, RCCB ID B type

Ue: 380-415 V AC

(Ph/N 220-240 V AC)

Downstream		RCCB	iID40			iID (1) (2)					RCCB ID				
		Rating (A)	25	40	63	25	40	63	80	100	25	40	63	100	125
		IΔm (A)	500	800	1260	500	800	1260	1200	1500	500	500	630	800	1250
		Icm (kAp)	5	5	5	5	5	5	5	5	5	5	5	5	5
Upstream Circuit breaker	**Rating (A)**	**Icu (kA) at 415 V**	Conditionnal short-circuit current and related making capacity:												
NSXm	**≤ 25**	*	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8
Icu 415V:	**32**	*		5/8	5/8	5/8*	5/8	5/8	5/8	5/8		5/8	5/8	5/8	5/8
E/B/F/N/H	**40**	*		5/8	5/8	5/8*	5/8	5/8	5/8	5/8		5/8	5/8	5/8	5/8
16/25/36/50/70 (kA)	**50**	*			5/8	5/8*	5/8*	5/8	5/8	5/8			5/8	5/8	5/8
	63	*			5/8	5/8*	5/8*	5/8	5/8	5/8			5/8	5/8	5/8
	80	*				4/6*	4/6*	4/6*	5/8	5/8				5/8	5/8
	100	*				4/6*	4/6*	4/6*	5/8*	5/8				5/8	5/8
	125	*				4/6*	4/6*	4/6*	5/8*	5/8*					5/8
NSX100	**≤ 25**	*	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8
Icu 415V:	**32**	*		5/8	5/8	5/8*	5/8	5/8	5/8	5/8		5/8	5/8	5/8	5/8
B/F/N/H/S/L	**40**	*		5/8	5/8	5/8*	5/8	5/8	5/8	5/8		5/8	5/8	5/8	5/8
25/36/50/70 (kA)	**50**	*			5/8	5/8*	5/8*	5/8	5/8	5/8			5/8	5/8	5/8
100/150 (kA)	**63**	*			5/8	5/8*	5/8*	5/8	5/8	5/8			5/8	5/8	5/8
	80	*				4/6*	4/6*	4/6*	5/8	5/8				5/8	5/8
	100	*				4/6*	4/6*	4/6*	5/8*	5/8				5/8	5/8
NSX160 B/F/N/H/S/L	**125**	*													5/8

(1): Include Acti9 iID AC type, A type, ASI type and B-SI type
(2): For Acti9 iID B type EV, please contact Schneider Electric

5/8	Protection is ensured but combination not optimized as Switch & RCBB rating is high compared to upstream circuit breaker
5/8	Protected up to 5 kA rms / 8 kA peak
5/8*	Only if the installation standards consider that overload protection can be provided by all the downstream circuit breakers, if the sum of their ratings is less than or equal to the rating of upstream Switch or RCCB
	Protection is not ensured

Circuit breaker / RCCB coordination

Upstream: Acti9 iC40, iC60, C120

Downstream: Acti9 RED, REDs, REDtest, REDm

Ue: 400 V AC

(Ph/N 230 V AC)

Downstream		RCCB	RED			REDs				REDtest			REDm
		Rating (A)	25	40	63	25	40	63	100	25	40	63	40
		IΔm (A)	630	630	630	630	630	630	630	630	630	630	630
Upstream Circuit breaker	**Rating (A)**	**Icu (kA) at 400 V**	Conditionnal short-circuit current and related making capacity:										
iC40	**≤ 25**	6	T	T	T	T	T	T	T	T	T	T	T
B, C, D curves	**32 to 40**	6		T	T		T	T	T		T	T	T
iC40N	**≤ 25**	10	T	T	T	T	T	T	T	T	T	T	T
B, C, D curves	**32 to 40**	10		T	T		T	T	T		T	T	T
iC60N	**≤ 25**	10	T	T	T	T	T	T	T	T	T	T	T
B, C, D curves	**32 to 40**	10		T	T		T	T	T		T	T	T
	50 to 63	10			T			T	T			T	
iC60H	**≤ 25**	15	T	T	T	T	T	T	T	T	T	T	T
B, C, D curves	**32 to 40**	15		10/17	10/17		10/17	10/17	10/17		10/17	10/17	10/17
	50 to 63	15			10/17			10/17	10/17			10/17	
C120N B, C, D curves	**80-100**	10							T				

T or 10/17	Protection is ensured but combination not optimized as Switch & RCBB rating is high compared to upstream circuit breaker
T	Totally coordinated up to Icu of circuit breaker installed on supply side
10/17	Protected up to 10 kA rms / 17 kA peak
	Protection is not ensured

Circuit breaker / Switch disconnector coordination

Upstream: Acti9 iC40, iC60, C120, NG125

Downstream: Acti9 iSW-NA, iSW, NG125NA

Ue: 380-415 V AC

(Ph/N 220-240 V AC)

Downstream	Switch disconnector		iSW-NA				iSW				NG125NA			
		Rating (A)	40	63	80	100	40	63	100	125	63	80	100	125
		Icw (A)	800	1260	1200	1500	1500	1500	1500	1500	1500	1500	1500	1500
		Icm (kAp)	5	5	5	5	5	5	5	5	2	2	2	2
Upstream Circuit breaker	**Rating (A)**	**Icu (kA) at 415 V**	Conditionnal short-circuit current and related making capacity:											
iC40	**≤ 25**	6	T	T	T	T	T	T	T	T	T	T	T	T
B, C, D curves	**32 to 40**	6	T	T	T	T	T	T	T	T	T	T	T	T
iC40N	**≤ 25**	10	T	T	T	T	T	T	T	T	T	T	T	T
B, C, D curves	**32 to 40**	10	T	T	T	T	T	T	T	T	T	T	T	T
iC60N/H/L	**≤ 25**	10/15/25	T	T	T	T	T	T	T	T	T	T	T	T
All curves	**32**	10/15/20	T	T	T	T	T	T	T	T	T	T	T	T
	40	10/15/20	T	T	T	T	T	T	T	T	T	T	T	T
	50	10/15/15	T*	T	T	T	T*	T	T	T	T	T	T	T
	63	10/15/15	T*	T	T	T	T*	T	T	T	T	T	T	T
C120N	**63**	10	T*	T	T	T	T*	T	T	T	T	T	T	T
B, C, D curves	**80**	10	6/9*	6/9*	T	T	T*	T*	T	T	T*	T	T	T
	100	10	6/9*	6/9*	T*	T	T*	T*	T	T	T*	T*	T	T
	125	10	6/9*	6/9*	T*	T*	T*	T*	T*	T	T*	T*	T*	T
C120H	**63**	15	T*	T	T	T	T*	T	T	T	T	T	T	T
B, C, D curves	**80**	15	6/9*	6/9*	10/17	10/17	10/17*	10/17*	10/17	10/17	T*	T	T	T
	100	15	6/9*	6/9*	10/17*	10/17	10/17*	10/17*	10/17	10/17	T*	T*	T	T
	125	15	6/9*	6/9*	10/17*	10/17*	10/17*	10/17*	10/17*	10/17	T*	T*	T*	T
NG125N	**≤ 40**	25	16/32	16/32	16/32	16/32	16/32	16/32	16/32	16/32	T	T	T	T
B, C, D curves	**50 to 63**	25	16/32*	16/32	16/32	16/32	16/32*	16/32	16/32	16/32	T	T	T	T
	80	25	6/9*	6/9*	10/17	10/17	10/17*	10/17*	10/17	10/17	T*	T	T	T
	100	25	6/9*	6/9*	10/17*	10/17	10/17*	10/17*	10/17	10/17	T*	T*	T	T
	125	25	6/9*	6/9*	10/17*	10/17*	10/17*	10/17*	10/17*	10/17	T*	T*	T*	T
NG125H	**≤ 40**	36	16/32	16/32	16/32	16/32	16/32	16/32	16/32	16/32	T	T	T	T
C curve	**50 to 63**	36	16/32*	16/32	16/32	16/32	16/32*	16/32	16/32	16/32	T	T	T	T
	80	36	6/9*	6/9*	10/17	10/17	10/17*	10/17*	10/17	10/17	T*	T	T	T
NG125L	**≤ 40**	50	16/32	16/32	16/32	16/32	16/32	16/32	16/32	16/32	T	T	T	T
B, C, D curves	**50 to 63**	50	16/32*	16/32	16/32	16/32	16/32*	16/32	16/32	16/32	T	T	T	T
	80	50	6/9*	6/9*	10/17	10/17	10/17*	10/17*	10/17	10/17	T*	T	T	T

T or 16/32	Protection is ensured but combination not optimized as Switch & RCBB rating is high compared to upstream circuit breaker
T	Totally coordinated up to Icu of circuit breaker installed on supply side
16/32	Protected up to 16 kA rms / 32 kA peak
T* or 16/32*	Only if the installation standards consider that overload protection can be provided by all the downstream circuit breakers, if the sum of their ratings is less than or equal to the rating of upstream Switch or RCCB
	Protection is not ensured

Circuit breaker / Switch disconnector coordination

Upstream: Compact NSXm, NSX100, NSX160

Downstream: Acti9 iSW-NA, iSW, NG125NA

Ue: 380-415 V AC

(Ph/N 220-240 V AC)

Downstream		Switch disconnector	iSW-NA				iSW				NG125NA			
		Rating (A)	40	63	80	100	40	63	100	125	63	80	100	125
		Icw (A)	800	1260	1200	1500	1500	1500	1500	1500	1500	1500	1500	1500
		Icm (kAp)	5	5	5	5	5	5	5	5	2	2	2	2
Upstream Circuit breaker	**Rating (A)**	**Icu (kA) at 415 V**	Conditionnal short-circuit current and related making capacity:											
NSXm	**≤ 40**	*	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	T	T	T	T
Icu 415V:	**50**	*	5/8*	5/8	5/8	5/8	5/8*	5/8	5/8	5/8	T	T	T	T
E/B/F/N/H	**63**	*	5/8*	5/8	5/8	5/8	5/8*	5/8	5/8	5/8	T	T	T	T
16/25/36/50/70 (kA)	**80**	*	4/6*	4/6*	5/8	5/8	5/8*	5/8*	5/8	5/8	T*	T	T	T
	100	*	4/6*	4/6*	5/8*	5/8	5/8*	5/8*	5/8	5/8	T*	T*	T	T
	125	*	4/6*	4/6*	5/8*	5/8*	5/8*	5/8*	5/8*	5/8	T*	T*	T*	T
NSX100	**≤ 40**	*	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	T	T	T	T
Icu 415V:	**50**	*	5/8*	5/8	5/8	5/8	5/8*	5/8	5/8	5/8	T	T	T	T
B/F	**63**	*	5/8*	5/8	5/8	5/8	5/8*	5/8	5/8	5/8	T	T	T	T
25/36 (kA)	**80**	*	4/6*	4/6*	5/8	5/8	5/8*	5/8*	5/8	5/8	T*	T	T	T
	100	*	4/6*	4/6*	5/8*	5/8	5/8*	5/8*	5/8	5/8	T*	T*	T	T
NSX160 B/F	**125**	*	4/6*	4/6*	5/8*	5/8*	5/8*	5/8*	5/8*	5/8	T*	T*	T*	T
NSX100	**≤ 40**	*	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	36/76	36/76	36/76	36/76
Icu 415V:	**50**	*	5/8*	5/8	5/8	5/8	5/8*	5/8	5/8	5/8	36/76	36/76	36/76	36/76
N/H	**63**	*	5/8*	5/8	5/8	5/8	5/8*	5/8	5/8	5/8	36/76	36/76	36/76	36/76
50/70 (kA)	**80**	*	4/6*	4/6*	5/8	5/8	5/8*	5/8*	5/8	5/8	36/76*	36/76	36/76	36/76
	100	*	4/6*	4/6*	5/8*	5/8	5/8*	5/8*	5/8	5/8	36/76*	36/76*	36/76	36/76
NSX160 N/H	**125**	*	4/6*	4/6*	5/8*	5/8*	5/8*	5/8*	5/8*	5/8	36/76*	36/76*	36/76*	36/76
NSX100	**≤ 40**	*	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	36/76	36/76	36/76	36/76
Icu 415V:	**50**	*	5/8*	5/8	5/8	5/8	5/8*	5/8	5/8	5/8	36/76	36/76	36/76	36/76
S/L	**63**	*	5/8*	5/8	5/8	5/8	5/8*	5/8	5/8	5/8	36/76	36/76	36/76	36/76
100/150 (kA)	**80**	*	4/6*	4/6*	5/8	5/8	5/8*	5/8*	5/8	5/8	36/76*	36/76	36/76	36/76
	100	*	4/6*	4/6*	5/8*	5/8	5/8*	5/8*	5/8	5/8	36/76*	36/76*	36/76	36/76
NSX160 S/L	**125**	*	4/6*	4/6*	5/8*	5/8*	5/8*	5/8*	5/8*	5/8	36/76*	36/76*	36/76*	36/76

T or 5/8	Protection is ensured but combination not optimized as Switch & RCBB rating is high compared to upstream circuit breaker
T	Totally coordinated up to Icu of circuit breaker installed on supply side
5/8	Protected up to 5 kA rms / 8 kA peak
T* or 5/8*	Only if the installation standards consider that overload protection can be provided by all the downstream circuit breakers, if the sum of their ratings is less than or equal to the rating of upstream Switch or RCCB
	Protection is not ensured

Fuse / RCCB coordination

Upstream: gG Fuse (Ferrule, BS, NH)

Downstream: Acti9 iID40, iID, RCCB ID B type

Ue: 380-415 V AC

(Ph/N 220-240 V AC)

Downstream		RCCB	iID40			iID (1) (2)					RCCB ID				
		Rating (A)	25	40	63	25	40	63	80	100	25	40	63	100	125
		IΔm (A)	500	800	1260	500	800	1260	1200	1500	500	500	630	800	1250
		Icm (kAp)	5	5	5	5	5	5	5	5	5	5	5	5	5
Upstream	**Rating (A)**	**Icu (kA) at 415 V**	Conditionnal short-circuit current and related making capacity:												
gG Fuses	**≤ 16**	100	T	T	T	T	T	T	T	T	T	T	T	T	T
	20	100	T	T	T	T	T	T	T	T	T	T	T	T	T
	25	100	T	T	T	T	T	T	T	T	T	T	T	T	T
	32	100		80/176	80/176	80/176*	80/176	80/176	80/176	80/176	80/176*	80/176	80/176	80/176	80/176
	40	100		80/176	80/176	80/176*	80/176	80/176	80/176	80/176		80/176	80/176	80/176	80/176
	63	100			30/63	30/63*	30/63*	30/63	30/63	30/63		30/63*	30/63	30/63	30/63
	80	100				10/17*	10/17*	15/30*	15/30	15/30		15/30*	15/30*	15/30	15/30
	100	100						10/17*	10/17*	10/17				10/17	10/17
	125	100						5/8*	5/8*	5/8*				10/17*	10/17

(1): Include Acti9 iID AC type, A type, ASI type and B-SI type
(2): For Acti9 iID B type EV, please contact Schneider Electric

T or 80/176	Protection is ensured but combination not optimized as Switch & RCBB rating is high compared to upstream circuit breaker
T	Totally coordinated up to Icu of circuit breaker installed on supply side
80/176	Protected up to 80 kA rms / 176 kA peak
80/176*	Only if the installation standards consider that overload protection can be provided by all the downstream circuit breakers, if the sum of their ratings is less than or equal to the rating of upstream Switch or RCCB
	Protection is not ensured

Fuse / RCCB coordination

Upstream: gG Fuse (Ferrule, BS, NH)

Downstream: Acti9 RED, REDs, REDtest, REDm

Ue: 400 V AC

(Ph/N 230 V AC)

Downstream		RCCB	RED			REDs				REDtest			REDm
		Rating (A)	25	40	63	25	40	63	100	25	40	63	40
		IΔm (A)	630	630	630	630	630	630	630	630	630	630	630
Upstream Circuit breaker	**Rating (A)**	**Icu (kA) at 400 V**	Conditionnal short-circuit current and related making capacity:										
gG Fuses	**≤ 25**	100	10/17	10/17	10/17	10/17	10/17	10/17	10/17	10/17	10/17	10/17	10/17
	40	100		10/17	10/17		10/17	10/17	10/17		10/17	10/17	10/17
	63	100			10/17			10/17	10/17			10/17	
	100	100							10/17				

10/17 — Protection is ensured but combination not optimized as Switch & RCBB rating is high compared to upstream circuit breaker

10/17 — Protected up to 10 kA rms / 17 kA peak

Protection is not ensured

Fuse / Switch disconnector coordination

Upstream: gG Fuse (Ferrule, BS, NH)

Downstream: Acti9 iSW-NA, iSW, NG125NA

Ue: 380-415 V AC

(Ph/N 220-240 V AC)

Downstream	Switch disconnector		iSW-NA				iSW				NG125NA			
		Rating (A)	40	63	80	100	40	63	100	125	63	80	100	125
		Icw (A)	800	1260	1200	1500	1500	1500	1500	1500	1500	1500	1500	1500
		Icm (kAp)	5	5	5	5	5	5	5	5	2	2	2	2
Upstream	**Rating (A)**	**Icu (kA) at 415 V**	Conditionnal short-circuit current and related making capacity:											
gG Fuses	**≤ 16**	100	T	T	T	T	60/132	60/132	60/132	60/132	T	T	T	T
	20	100	T	T	T	T	40/84	40/84	40/84	40/84	T	T	T	T
	25	100	T	T	T	T	25/53	25/53	25/53	25/53	T	T	T	T
	32	100	80/176	80/176	80/176	80/176	15/30	15/30	15/30	15/30	80/176	80/176	80/176	80/176
	40	100	80/176	80/176	80/176	80/176	10/17	10/17	10/17	10/17	80/176	80/176	80/176	80/176
	63	100	30/63*	30/63	30/63	30/63	10/17*	10/17	10/17	10/17	50/105	50/105	50/105	50/105
	80	100	15/30*	15/30*	15/30	15/30			10/17	10/17	50/105*	50/105	50/105	50/105
	100	100		10/17*	10/17*	10/17			10/17	10/17	50/105*	50/105*	50/105	50/105
	125	100		5/8*	5/8*	5/8*			10/17*	10/17	50/105*	50/105*	50/105*	50/105

T or 60/132	Protection is ensured but combination not optimized as Switch & RCBB rating is high compared to upstream circuit breaker
T	Totally coordinated up to Icu of circuit breaker installed on supply side
60/132	Protected up to 60 kA rms / 132 kA peak
10/17*	Only if the installation standards consider that overload protection can be provided by all the downstream circuit breakers, if the sum of their ratings is less than or equal to the rating of upstream Switch or RCCB
	Protection is not ensured

Circuit breaker / RCCB coordination

Upstream: Acti9 iC40, iC60, C120, NG125
Downstream: Acti9 iID40, iID

Ue:220-240 V AC

Downstream		RCCB	iID40			iID (1) (2)				
		Rating (A)	25	40	63	25	40	63	80	100
		IΔm (A)	500	800	1260	500	800	1260	1200	1500
		Icm (kAp)	5	5	5	5	5	5	5	5
Upstream Circuit breaker	**Rating (A)**	**Icu (kA) at 240 V**	Conditionnal short-circuit current and related making capacity:							
iC60N	**≤ 25**	20	T	T	T	T	T	T	T	T
B, C, D curves	**32**	20		T	T	T*	T	T	T	T
	40	20		T	T	T*	T	T	T	T
	50 to 63	20			T	T*	T*	T	T	T
iC60H	**≤ 25**	30	T	T	T	T	T	T	T	T
B, C, D curves	**32**	30		T	T	T*	T	T	T	T
	40	30		T	T	T*	T	T	T	T
	50 to 63	30			T	T*	T*	T	T	T
iC60L	**≤ 25**	50	T	T	T	T	T	T	T	T
B, C, D, K, Z curves	**32**	40		T	T	T*	T	T	T	T
	40	40		T	T	T*	T	T	T	T
	50 to 63	30			T	T*	T*	T	T	T
C120N	**63**	20			T	T*	T*	T	T	T
B, C, D curves	**80**	20				12/24*	12/24*	12/24*	12/24	12/24
	100	20				12/24*	12/24*	12/24*	12/24*	12/24
	125	20				12/24*	12/24*	12/24*	12/24*	12/24*
C120H	**63**	30			T	T*	T*	T	T	T
B, C, D curves	**80**	30				12/24*	12/24*	12/24*	12/24	12/24
	100	30				12/24*	12/24*	12/24*	12/24*	12/24
	125	30				12/24*	12/24*	12/24*	12/24*	12/24*
NG125N	**≤ 40**	50		30/63	30/63	30/63*	30/63	30/63	30/63	30/63
B, C, D curves	**50 to 63**	50			30/63	30/63*	30/63*	30/63	30/63	30/63
	80	50				12/24*	12/24*	12/24*	20/40	20/40
	100	50				12/24*	12/24*	12/24*	20/40*	20/40
	125	50				12/24*	12/24*	12/24*	20/40*	20/40*
NG125H	**≤ 40**	70		30/63	30/63	30/63*	30/63	30/63	30/63	30/63
C Curves	**50 to 63**	70			30/63	30/63*	30/63*	30/63	30/63	30/63
	80	70				12/24*	12/24*	12/24*	20/40	20/40
NG125L	**≤ 40**	100		30/63	30/63	30/63*	30/63	30/63	30/63	30/63
B, C, D curves	**50 to 63**	100			30/63	30/63*	30/63*	30/63	30/63	30/63
	80	100				12/24*	12/24*	12/24*	20/40	20/40

(1): Include Acti9 iID AC type, A type, ASI type and B-SI type
(2): For Acti9 iID B type EV, please contact Schneider Electric

T or 30/63	Protection is ensured but combination not optimized as Switch & RCBB rating is high compared to upstream circuit breaker
T	Totally coordinated up to Icu of circuit breaker installed on supply side
12/24	Protected up to 12 kA rms / 24 kA peak
T* or 12/24*	Only if the installation standards consider that overload protection can be provided by all the downstream circuit breakers, if the sum of their ratings is less than or equal to the rating of upstream Switch or RCCB
	Protection is not ensured

Circuit breaker / RCCB coordination

Upstream: NSXm, NSX100, NSX160

Downstream: Acti9 iID40, iID

Ue: 220-240V AC

Downstream		RCCB	iID40			iID (1) (2)				
		Rating (A)	25	40	63	25	40	63	80	100
		IΔm (A)	500	800	1260	500	800	1260	1200	1500
		Icm (kAp)	5	5	5	5	5	5	5	5
Upstream Circuit breaker	**Rating (A)**	**Icu (kA) at 240 V**	Conditionnal short-circuit current and related making capacity:							
NSXm	**≤ 25**	*	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8
Icu 240V:	**32**	*		5/8	5/8	5/8*	5/8	5/8	5/8	5/8
E/B/F/N/H	**40**	*		5/8	5/8	5/8*	5/8	5/8	5/8	5/8
25/50/85/90/100 (kA)	**50**	*			5/8	5/8*	5/8*	5/8	5/8	5/8
	63	*			5/8	5/8*	5/8*	5/8	5/8	5/8
	80	*				5/8*	5/8*	5/8*	5/8	5/8
	100	*				5/8*	5/8*	5/8*	5/8*	5/8
NSX100	**≤ 25**	*	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8
Icu 240V:	**32**	*		5/8	5/8	5/8*	5/8	5/8	5/8	5/8
B/F/N/H/S/L	**40**	*		5/8	5/8	5/8*	5/8	5/8	5/8	5/8
40/85/90/100 (kA)	**50**	*			5/8	5/8*	5/8*	5/8	5/8	5/8
120/150 (kA)	**63**	*			5/8	5/8*	5/8*	5/8	5/8	5/8
	80	*				5/8*	5/8*	5/8*	5/8	5/8
	100	*				5/8*	5/8*	5/8*	5/8*	5/8

(1): Include Acti9 iID AC type. A type. ASI type and B-SI type
(2): For Acti9 iID B type EV. please contact Schneider Electric

5/8	Protection is ensured but combination not optimized as Switch & RCBB rating is high compared to upstream circuit breaker
5/8	Protected up to 5 kA rms / 8 kA peak
5/8*	Only if the installation standards consider that overload protection can be provided by all the downstream circuit breakers, if the sum of their ratings is less than or equal to the rating of upstream Switch or RCCB
	Protection is not ensured

Circuit breaker / Switch disconnector coordination

Upstream: Acti9 iC40, iC60, C120. NG125

Downstream: Acti9 iSW-NA, iSW, NG125NA

Ue: 220-240 V AC

Downstream	Switch disconnector		iSW-NA				iSW				NG125NA			
		Rating (A)	40	63	80	100	40	63	100	125	63	80	100	125
		Icw (A)	800	1260	1200	1500	1500	1500	1500	1500	1500	1500	1500	1500
		Icm (kAp)	5	5	5	5	5	5	5	5	2	2	2	2
Upstream Circuit breaker	**Rating (A)**	**Icu (kA) at 240 V**	Conditionnal short-circuit current and related making capacity:											
iC60N/H/L B, C, D curves	**≤ 25**	20/30/50	T	T	T	T	T	T	T	T	T	T	T	T
	32	20/30/40	T	T	T	T	T	T	T	T	T	T	T	T
	40	20/30/40	T	T	T	T	T	T	T	T	T	T	T	T
	50	20/30/30	T*	T	T	T	T*	T	T	T	T	T	T	T
	63	20/30/30	T*	T	T	T	T*	T	T	T	T	T	T	T
C120N B, C, D curves	**63**	20	T*	T	T	T	T*	T	T	T	T	T	T	T
	80	20	12/24*	12/24*	T	T	T*	T*	T	T	T*	T	T	T
	100	20	12/24*	12/24*	T*	T	T*	T*	T	T	T*	T*	T	T
	125	20	12/24*	12/24*	T*	T*	T*	T*	T*	T	T*	T*	T*	T
C120H B, C, D curves	**63**	30	T*	T	T	T	T*	T	T	T	T	T	T	T
	80	30	12/24*	12/24*	20/40	20/40	20/40*	20/40*	20/40	20/40	T*	T	T	T
	100	30	12/24*	12/24*	20/40*	20/40	20/40*	20/40*	20/40	20/40	T*	T*	T	T
	125	30	12/24*	12/24*	20/40*	20/40*	20/40*	20/40*	20/40*	20/40	T*	T*	T*	T
NG125N B, C, D curves	**≤ 40**	50	30/63	30/63	30/63	30/63	30/63	30/63	30/63	30/63	T	T	T	T
	50 to 63	50	30/63*	30/63	30/63	30/63	30/63*	30/63	30/63	30/63	T	T	T	T
	80	50	12/24*	12/24*	20/40	20/40	20/40*	20/40*	20/40	20/40	T*	T	T	T
	100	50	12/24*	12/24*	20/40*	20/40	20/40*	20/40*	20/40	20/40	T*	T*	T	T
	125	50	12/24*	12/24*	20/40*	20/40*	20/40*	20/40*	20/40*	20/40	T*	T*	T*	T
NG125H C curve	**≤ 40**	70	30/63	30/63	30/63	30/63	30/63	30/63	30/63	30/63	T	T	T	T
	50 to 63	70	30/63*	30/63	30/63	30/63	30/63*	30/63	30/63	30/63	T	T	T	T
	80	70	12/24*	12/24*	20/40	20/40	20/40*	20/40*	20/40	20/40	T*	T	T	T
NG125L B, C, D curves	**≤ 40**	100	30/63	30/63	30/63	30/63	30/63	30/63	30/63	30/63	T	T	T	T
	50 to 63	100	30/63*	30/63	30/63	30/63	30/63*	30/63	30/63	30/63	T	T	T	T
	80	100	12/24*	12/24*	20/40	20/40	20/40*	20/40*	20/40	20/40	T*	T	T	T

T or 30/63	Protection is ensured but combination not optimized as Switch & RCBB rating is high compared to upstream circuit breaker
T	Totally coordinated up to Icu of circuit breaker installed on supply side
20/40	Protected up to 20 kA rms / 40 kA peak
T* or 20/40*	Only if the installation standards consider that overload protection can be provided by all the downstream circuit breakers, if the sum of their ratings is less than or equal to the rating of upstream Switch or RCCB
	Protection is not ensured

Circuit breaker / Switch disconnector coordination

Upstream: Compact NSXm, NSX100, NSX160
Downstream: Acti9 iSW-NA, iSW, NG125NA

Ue: 220-240 V AC

Downstream	Switch disconnector		iSW-NA				iSW				NG125NA			
		Rating (A)	40	63	80	100	40	63	100	125	63	80	100	125
		Icw (A)	800	1260	1200	1500	1500	1500	1500	1500	1500	1500	1500	1500
		Icm (kAp)	5	5	5	5	5	5	5	5	2	2	2	2
Upstream Circuit breaker	**Rating (A)**	**Icu (kA) at 240 V**	Conditionnal short-circuit current and related making capacity:											
NSXm	**≤ 40**	*	6/9	6/9	6/9	6/9	6/9	6/9	6/9	6/9	T	T	T	T
Icu 240V:	**50**	*	6/9*	6/9	6/9	6/9	6/9*	6/9	6/9	6/9	T	T	T	T
E/B/F/N/H	**63**	*	6/9*	6/9	6/9	6/9	6/9*	6/9	6/9	6/9	T	T	T	T
25/50/85/90/100 (kA)	**80**	*	5/8*	5/8*	6/9	6/9	6/9*	6/9*	6/9	6/9	T*	T	T	T
	100	*	5/8*	5/8*	6/9*	6/9	6/9*	6/9*	6/9	6/9	T*	T*	T	T
	125	*	5/8*	5/8*	6/9*	6/9*	6/9*	6/9*	6/9*	6/9	T*	T*	T*	T
NSX100	**≤ 40**	*	6/9	6/9	6/9	6/9	6/9	6/9	6/9	6/9	T	T	T	T
Icu 240V:	**50**	*	6/9*	6/9	6/9	6/9	6/9*	6/9	6/9	6/9	T	T	T	T
B/F	**63**	*	6/9*	6/9	6/9	6/9	6/9*	6/9	6/9	6/9	T	T	T	T
40/85 (kA)	**80**	*	5/8*	5/8*	6/9	6/9	6/9*	6/9*	6/9	6/9	T*	T	T	T
	100	*	5/8*	5/8*	6/9*	6/9	6/9*	6/9*	6/9	6/9	T*	T*	T	T
NSX160 B/F	**125**	*	5/8*	5/8*	6/9*	6/9*	6/9*	6/9*	6/9*	6/9	T*	T*	T*	T
NSX100	**≤ 40**	*	6/9	6/9	6/9	6/9	6/9	6/9	6/9	6/9	36/76	36/76	36/76	36/76
Icu 240V:	**50**	*	6/9*	6/9	6/9	6/9	6/9*	6/9	6/9	6/9	36/76	36/76	36/76	36/76
N/H	**63**	*	6/9*	6/9	6/9	6/9	6/9*	6/9	6/9	6/9	36/76	36/76	36/76	36/76
90/100 (kA)	**80**	*	5/8*	5/8*	6/9	6/9	6/9*	6/9*	6/9	6/9	36/76*	36/76	36/76	36/76
	100	*	5/8*	5/8*	6/9*	6/9	6/9*	6/9*	6/9	6/9	36/76*	36/76*	36/76	36/76
NSX160 N/H	**125**	*	5/8*	5/8*	6/9*	6/9*	6/9*	6/9*	6/9*	6/9	36/76*	36/76*	36/76*	36/76
NSX100	**≤ 40**	*	6/9	6/9	6/9	6/9	6/9	6/9	6/9	6/9	36/76	36/76	36/76	36/76
Icu 240V:	**50**	*	6/9*	6/9	6/9	6/9	6/9*	6/9	6/9	6/9	36/76	36/76	36/76	36/76
S/L	**63**	*	6/9*	6/9	6/9	6/9	6/9*	6/9	6/9	6/9	36/76	36/76	36/76	36/76
120/150 (kA)	**80**	*	5/8*	5/8*	6/9	6/9	6/9*	6/9*	6/9	6/9	36/76*	36/76	36/76	36/76
	100	*	5/8*	5/8*	6/9*	6/9	6/9*	6/9*	6/9	6/9	36/76*	36/76*	36/76	36/76
NSX160 S/L	**125**	*	5/8*	5/8*	6/9*	6/9*	6/9*	6/9*	6/9*	6/9	36/76*	36/76*	36/76*	36/76

T or 36/76	Protection is ensured but combination not optimized as Switch & RCBB rating is high compared to upstream circuit breaker
T	Totally coordinated up to Icu of circuit breaker installed on supply side
36/76	Protected up to 36 kA rms / 76 kA peak
T* or 36/76*	Only if the installation standards consider that overload protection can be provided by all the downstream circuit breakers, if the sum of their ratings is less than or equal to the rating of upstream Switch or RCCB
	Protection is not ensured

Fuse / RCCB coordination

Downstream: gG Fuse (Ferrule, BS, NH)

Upstream: Acti9 iID40, iID

Ue: 220-240 V AC

Downstream		RCCB	iID40			iID (1) (2)				
		Rating (A)	25	40	63	25	40	63	80	100
		IΔm (A)	500	800	1260	500	800	1260	1200	1500
		Icm (kAp)	5	5	5	5	5	5	5	5
Upstream	**Rating (A)**	**Icu (kA) at 240 V**	Conditionnal short-circuit current and related making capacity:							
gG Fuses	**≤ 16**	100	T	T	T	T	T	T	T	T
	20	100	T	T	T	T	T	T	T	T
	25	100	T	T	T	T	T	T	T	T
	32	100		80/176	80/176	80/176*	80/176	80/176	80/176	80/176
	40	100		80/176	80/176	80/176*	80/176	80/176	80/176	80/176
	63	100			30/63	30/63*	30/63*	30/63	30/63	30/63
	80	100				10/17*	10/17*	15/30*	15/30	15/30
	100	100						10/17*	10/17*	10/17
	125	100						5/8*	5/8*	5/8*

(1): Include Acti9 iID AC type, A type, ASI type and B-SI type
(2): For Acti9 iID B type EV, please contact Schneider Electric

T or 30/63	Protection is ensured but combination not optimized as Switch & RCBB rating is high compared to upstream circuit breaker
T	Totally coordinated up to Icu of circuit breaker installed on supply side
30/63	Protected up to 30 kA rms / 63 kA peak
30/63*	Only if the installation standards consider that overload protection can be provided by all the downstream circuit breakers, if the sum of their ratings is less than or equal to the rating of upstream Switch or RCCB
	Protection is not ensured

Fuse / Switch disconnector coordination

Downstream: gG Fuse (Ferrule, BS, NH)

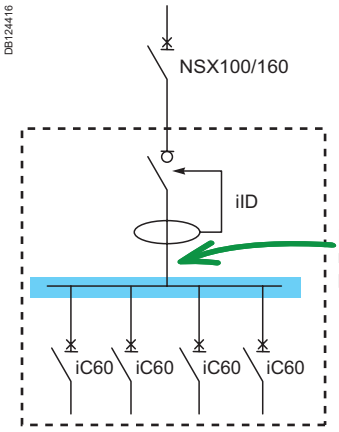
Upstream: Acti9 iSW-NA, iSW, NG125NA

Ue: 220-240 V AC

Downstream	Switch disconnector		iSW-NA				iSW				NG125NA			
		Rating (A)	40	63	80	100	40	63	100	125	63	80	100	125
		Icw (A)	800	1260	1200	1500	1500	1500	1500	1500	1500	1500	1500	1500
		Icm (kAp)	5	5	5	5	5	5	5	5	2	2	2	2
Upstream	**Rating (A)**	**Icu (kA) at 240 V**	Conditionnal short-circuit current and related making capacity:											
gG Fuses	**≤ 16**	100	T	T	T	T	60/132	60/132	60/132	60/132	T	T	T	T
	20	100	T	T	T	T	40/84	40/84	40/84	40/84	T	T	T	T
	25	100	T	T	T	T	25/53	25/53	25/53	25/53	T	T	T	T
	32	100	80/176	80/176	80/176	80/176	15/30	15/30	15/30	15/30	80/176	80/176	80/176	80/176
	40	100	80/176	80/176	80/176	80/176	10/17	10/17	10/17	10/17	80/176	80/176	80/176	80/176
	63	100	30/63*	30/63	30/63	30/63	10/17*	10/17	10/17	10/17	50/105	50/105	50/105	50/105
	80	100	15/30*	15/30*	15/30	15/30			10/17	10/17	50/105*	50/105	50/105	50/105
	100	100		10/17*	10/17*	10/17			10/17	10/17	50/105*	50/105*	50/105	50/105
	125	100		5/8*	5/8*	5/8*			10/17*	10/17	50/105*	50/105*	50/105*	50/105

T or 60/132	Protection is ensured but combination not optimized as Switch & RCBB rating is high compared to upstream circuit breaker
T	Totally coordinated up to Icu of circuit breaker installed on supply side
80/176	Protected up to 80 kA rms / 176 kA peak
10/17*	Only if the installation standards consider that overload protection can be provided by all the downstream circuit breakers, if the sum of their ratings is less than or equal to the rating of upstream Switch or RCCB
	Protection is not ensured

Mix Upstream and Downstream Coordination
Upstream: NSX100/160
Downstream: modular RCCB and modular MCB



Installation required on the same DIN rail and under the same comb busbar to avoid any risk of short-circuits.
If the NSX100/160 rating is higher than RCCB iID rating, the overload protection must be provided by the downstream circuit breakers. The sum of downstream circuit breakers rating must be less than or equal to the RCCB iID rating.

2P residual current circuit breakers installed between a NSX100/160 and a circuit breaker (220 V to 240 V single-phase circuit)

Protection by circuit breaker

Upstream	Residual current circuit breakers 2P		
Rating (A)	25	40	63
Downstream Circuit breakers			
iC40	6	6	-
iC40N	7.5	7.5	-
iDPN	6	6	-
iDPN N	7.5	7.5	-
iC60N	20	20	20
iC60H	30	30	30
iC60L	50	36	30

Short-circuit current withstand of the circuit breakers-residual current circuit breakers combination (kA r.m.s.)

4P residual current circuit breakers installed between a NSX100/160 and a circuit breaker (380 V to 415 V three-phase circuit)

Protection by circuit breaker

Upstream	Residual current circuit breakers 4P		
Rating (A)	25	40	63
Downstream Circuit breakers			
iC40	2	2	-
iC40N	3	3	-
iDPN	2	2	-
iDPN N	3	3	-
iC60N	10	10	10
iC60H	15	15	15
iC60L	20	20	15

Short-circuit current withstand of the circuit breakers-residual current circuit breakers combination (kA r.m.s.)

5.6	20/11/2023	Update values in table and change table template	I. Flaubert
5.5	01/02/2022	Complete introduction, add RED tables and change tables template.	I. Flaubert
5.4	13/10/2020	Change values in all CB/switch disconnector coordination tables	I. Flaubert
5.3	30/04/2019	Fix values for "Supply side: Compact NSXm, NSX100, NSX160" (pages 6, 8, 12, 14)	I. Flaubert
5.2	25/04/2019	Change Breaking and making capacity table and add iC40 and iID B-SI type	I. Flaubert
5.1	20/4/2018	Add Acti9 iC40 and iC40N values	Sonovision
5.0	04/04/2017	New charte	Sonovision
4.5	29/11/2016	Changed NG125NA rating page 7	Sonovision
4.4	29/02/2016	Changed iID value for 80 and 100 A page 7	Sonovision
4.3	18/03/2015	Added RCCB-ID 125 A pages 5. 6. 7	Sonovision
4.1	25/11/2013	Add RCCB-ID type B	JPM
4.0	19/11/2013	New coordination tables	Sedoc
3.0	13/03/2013	New coordination tables	Sedoc
2.5	12/03/2012	Add table 1P. 1P+N page 3-Changed tables pages 5-6	Sedoc
2.4	04/10/2011	"A si" change in "SI"	Sedoc
2.3	28/07/2011	Change table page 3 and 4	Sedoc
2.2	07/06/2011	Change text. table page 2. 3. 5. 6. 7 and add NS100/160 page 4	Sedoc
2.1	20/06/2011	Change iSW-NA values in table page 5	Sedoc
2.0	19/05/2011	InDesign CS5-Change iSW-NA values in table page 5	Sedoc
1.2	10/05/2011	Add iSW. iSW-NA products	Sedoc
1.0	21/03/2011	Creation	Ameg
Indice	**Date**	**Modification**	**Name**