Schneider Electric spectre

Selectivity, Cascading and Coordination Guide

Guide - July 2025

Complementary Technical Information

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Selectivity, Cascading and Coordination Guide

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Selectivity between Circuit Breakers

Introduction

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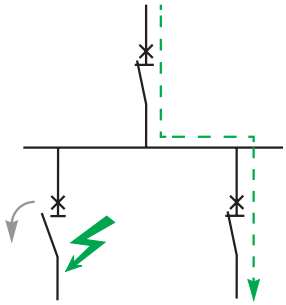
Selectivity of over-current protection is covered by Circuit Breakers standards: IEC/EN 60947-2 Annex A and IEC/EN 60898-1 Annex D.
Selectivity of residual current protection is covered by IEC 60364 series and product standards IEC/EN 60947-2 Annex B and M, IEC/EN 61009-1.



Selectivity is essential to ensure continuity of supply and fast fault localization.

Selectivity (Discrimination)

Selectivity is achieved by overcurrent and earth fault protective devices if a fault condition, occurring at any point in the installation, is cleared by the protective device located immediately upstream of the fault, while all the other protective devices remain unaffected.

Selectivity is required for installation supplying critical loads where one fault on one circuit shall not cause the interruption of the supply of other circuits. In the IEC 60364 series it is mandatory for installation supplying safety services (IEC60364-5-56 2009 560.7.4). Selectivity may also be required by some local regulations or for some special applications like:
- Medical location
- Marine
- High-rise building.

Selectivity is highly recommended when power availability and reliability is critical due to the nature of the loads such as:
- Data centers
- Infrastructure (tunnel, airport…)
- Critical processes.

From installation point of view: selectivity is achieved when the maximum shortcircuit current at a point of installation is below selectivity limit of the circuit breakers supplying this point of installation. Selectivity shall be checked for all circuits supplied by one source and for all types of fault:
- Overload
- Short-circuit
- Earth fault.

When system can be supplied by different sources (Grid or Generator Set for instance) selectivity shall be checked in both cases.

According to the IEC 60364-5-53:535 2020 standard, selectivity between two circuit breakers can be:
- **Partial**: up to a specified value according to circuit breakers characteristics (Is)
- **Full**: up to the maximum prospective short-circuit current (Isc_max) on the load side of the downstream circuit breaker
- **Total**: up to the breaking capacity (Icu or Icn) of the downstream circuit breaker
- **Enhanced**: up to a value higher than the breaking capacity of the downstream circuit breaker when cascading is applied (see page 54).

In an electrical installation, selectivity performance depends on the two circuit breakers characteristics and on the installation's maximum short-circuit current on the load side. The table below summarizes the different situations:

Selectivity in a given installation according to circuit breakers selectivity performance without or with cascading

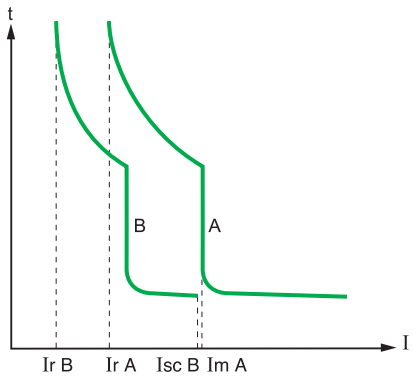
	Selectivity characteristics of two circuit breakers	Short-circuit current on the load side versus the selectivity limit Is of the two circuit breakers	Selectivity consequence for the electrical installation	
Without cascading	**Partial**	Is ≤ Isc_max < Icu (or Icn)	"**Partial**" (Example 1a)	☹
		Isc_max < Is < Icu (or Icn)	"**Full**" (Example 1b)	☺
	Total	Isc_max ≤ Is = Icu (or Icn)	"**Total**" (Example 2)	☺
With cascading	**Partial**	Is < Icu < Isc_max	**Partial** (up to Is)	☹
	Total	Is = Icu < Isc_max	**Partial** (up to Icu but < Isc_max)	☹
	Enhanced	Icu < Isc_max ≤ Is_enhanced	Enhanced selectivity (up to Is_enhanced) (Example 3)	☺

Selectivity between Circuit Breakers

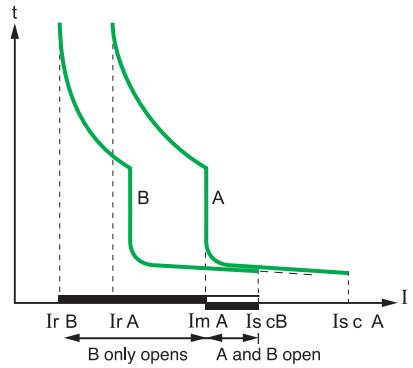
Introduction

From a designer perspective, a simple way of specifying selectivity in an electrical installation can be either:
- "Total or Full Selectivity between circuit breakers is required and cascading is forbidden"

or
- "Total selectivity between circuit breakers is required. If cascading is applied, enhanced selectivity up to the maximum short-circuit current shall be ensured".



Total seletctivity between CBs A and B.



Partial selectivity between CBs A and B.

Practical examples :

- **Example 1: ComPacT NSX100F (Icu = 36 kA 400 V AC) TMD 100 A & C60N C 32 A (Icu = 10 kA 400 V AC).**

Selectivity limit Is = 1 kA (See table page 26)

□ 1a: In a given circuit of an electrical installation where the maximum short-circuit current (Isc_max) downstream C60N C 32 A is 5 kA the selectivity will be "partial".

□ 1b: In a given circuit of an electrical installation where the maximum short-circuit current (Isc_max) downstream C60N C 32 A is 0.8 kA the selectivity will be "Full".

- **Example 2: ComPacT NSX100F (36 kA 400 V AC) MicroLogic 2.2 100 A & C60N (10 kA 400 V AC) C 32 A.**

Total selectivity (See table page 26)

□ In a given circuit of an electrical installation where the maximum short-circuit current (Isc_max) downstream C60N C 32 A is ⩽ 10 kA the selectivity will be "Total".

- **Example 3: ComPacT NSX100F (36 kA 400 V AC) MicroLogic 100A & C60N (10 kA 400 V AC) C 32 A.**

Enhanced selectivity limit = 20 kA, Enhanced breaking capacity Icomb = 20 kA ("20/20" in table page 56)

□ In a given circuit of an electrical installation where the maximum short-circuit current (Isc_max) downstream C60N C 32 A is 10 kA < Isc_max ⩽ 20 kA the selectivity will be "Enhanced".

Icu : breaking capacity of circuit-breaker according to IEC/EN 60947 series
Icn : breaking capacity of circuit-breaker according to IEC/EN 60898 or IEC/EN 61009 series

Principles of Selectivity

Different principles are involved to achieve selectivity based on:
- Current
- Time
- Energy
- Logic.

Current based selectivity

This method is implemented by setting successive tripping thresholds at stepped levels, from downstream circuits (lower settings) towards the source (higher settings). Selectivity is total or partial, depending on particular conditions, as noted above.

Time based selectivity

This method is implemented by adjusting the time-delayed tripping units, so that downstream relays have the shortest operating times, with progressively longer delays towards the source. In the two-level arrangement shown, upstream circuit breaker A is sufficiently delayed to ensure total selectivity with B (for example: MasterPacT with electronic trip unit).

Selectivity category B circuit breakers are designed for time based selectivity, the selectivity limit will be the upstream short time withstand value (Icw).

Selectivity based on a combination of the two previous methods

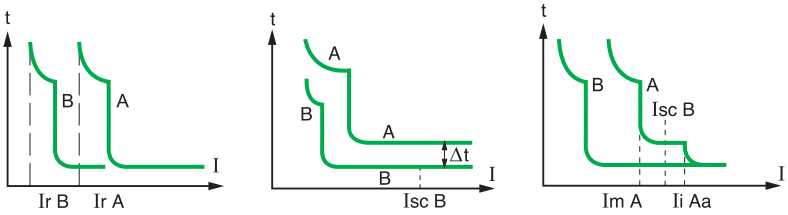
A time-delay added to a current level scheme can improve the overall selectivity performance.

The upstream CB has two magnetic tripping thresholds:
- Im A: delayed magnetic trip or short-delay electronic trip
- Ii: instantaneous trip

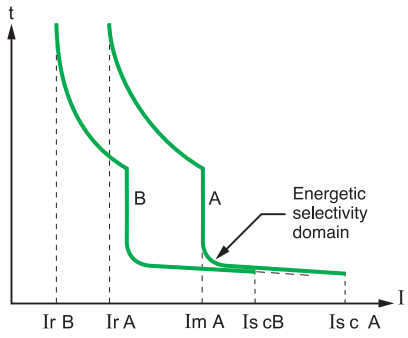
Selectivity is total if Isc B <Ii (instantaneous).

Selectivity between Circuit Breakers

Introduction



Current based selectivity, Time based selectivity, Combination of both



Energetic based selectivity.

Protection against high level short-circuit currents: Selectivity based on arc-energy levels

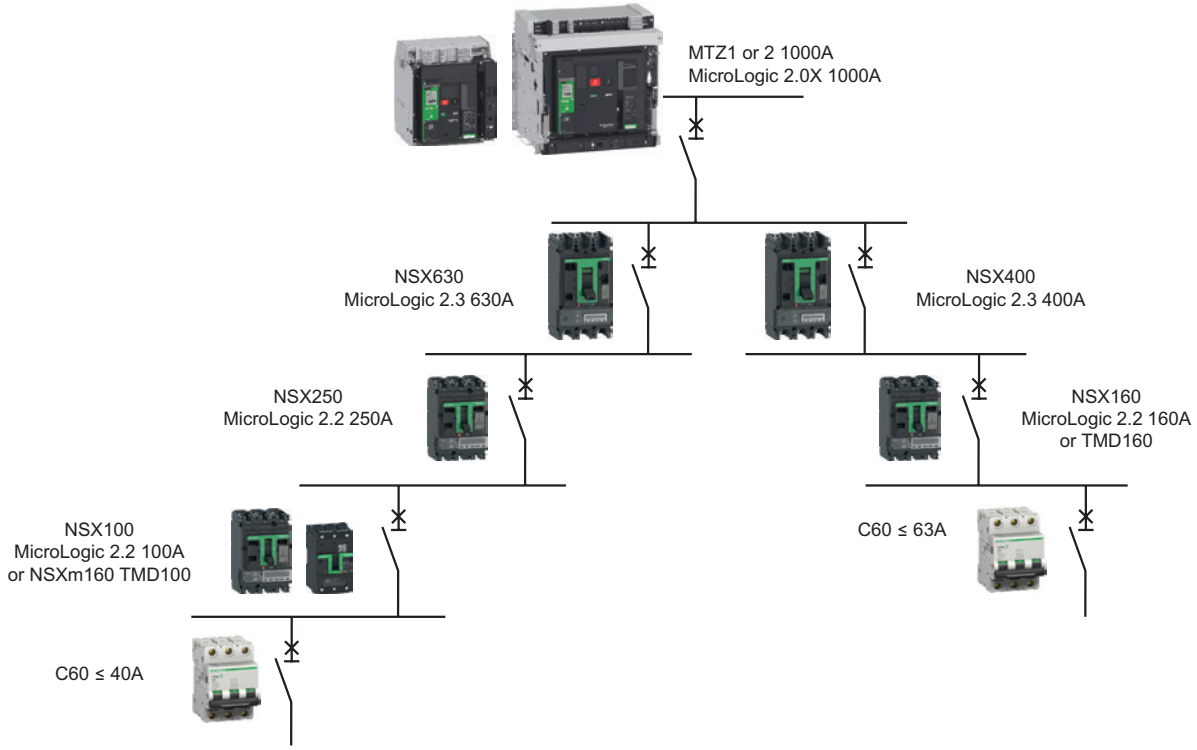
Where time versus current curves are superposed, selectivity is possible with limiter circuit breaker when they are properly coordinated.

Principle: When a very high level short-circuit current is detected by the two circuit breakers A and B, their contacts open simultaneously. As a result, the current is highly limited.

- The very high arc-energy at level B induces the tripping of circuit breaker B
- Then, the arc-energy is limited at level A and is not sufficient to induce the tripping of A.

This approach requires an accurate coordination of limitation levels and tripping energy levels. It's implemented inside the ComPacT NSX range (current limiting circuit breaker), and between ComPacT NSX and Acti 9 range. This solution is the only one to achieve selectivity up to high short-circuit current with selectivity category A circuit breaker according to IEC/EN 60947-2.

Practical example of selectivity at several levels with Schneider Electric/Spectre circuit breakers



Selectivity between Circuit Breakers

Introduction

See Selectivity enhanced by cascading tables on page 54

Selectivity enhanced by cascading

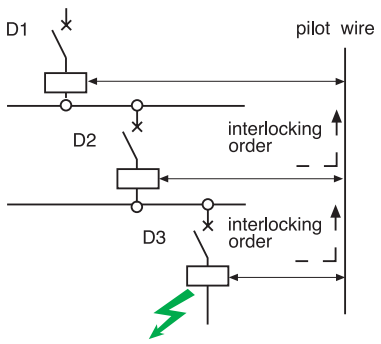
Cascading between 2 devices is normally achieved by using the tripping of the upstream circuit breaker A to help the downstream circuit breaker B to break the current.
In principle cascading is in contradiction with selectivity. But the energy selectivity technology implemented in ComPacT NSX circuit breakers allows to improve the breaking capacity of downstream circuit breakers and to keep a high selectivity performance at the same time.
The principle is as follows:

- The downstream limiting circuit breaker B sees a very high short-circuit current. The tripping is very fast (<1 ms) and then, the current is limited.
- The upstream circuit breaker A sees a limited short-circuit current compared to its breaking capability, but this current induces a repulsion of the contacts. As a result, the arcing voltage increases the current limitation. However, the arc energy is not high enough to induce the tripping of the circuit breaker. So, the circuit breaker A helps the circuit breaker B to limit and break the short-circuit current, without tripping itself. The selectivity limit can be higher than Icu B and the selectivity becomes total with a reduced cost of the devices.

Logic selectivity or “Zone Selective Interlocking – ZSI”

This type of selectivity can be achieved with circuit breakers equipped with specially designed electronic trip units (ComPacT, MasterPacT): only the Short Time Protection (Isd, Tsd) and Ground Fault Protection (GFP) functions of the controlled devices are managed by Logic Selectivity. In particular, the Instantaneous Protection function is not concerned.
The main benefit of this solution is to have a short tripping time wherever is located the fault with selectivity category B circuit breaker. Time based selectivity on multi level system implies long tripping time at the origin of the installation. ZSI does not increase the selectivity limit provided in the tables. In particular, for Selectivity category A circuit-breaker such as Compact NSX, ZSI will not change any performance above instantaneous threshold.

Selectivity schemes based on logic techniques are possible, using CBs equipped with electronic tripping units designed for the purpose (ComPacT, MasterPacT) and interconnected with pilot wires



Logic selectivity

Settings of controlled Circuit Breakers

- Time delay: staging of the time delays is necessary at least for circuit breaker receving a ZSI Input (TsdD1 > trip time with no delay of D2 and TsdD2 > trip time with no delay of D3).
- Thresholds: there are no threshold rules to be applied, but natural staging of the protection device ratings must be complied with (IsdD1 > IsdD2 > IsdD3).

Note: This technique provides selectivity even with circuit breakers of similar ratings.

Principles

Activation of the Logic Selectivity function is via transmission of information on the pilot wire:

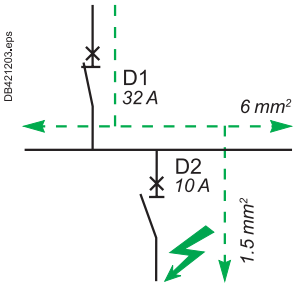
- ZSI input:
  - Low level (no downstream faults): the Protection function is on standby with no time delay,
  - High level (presence of downstream faults): the relevant Protection function moves to the time delay status set on the device.
- ZSI output:
  - Low level: the trip unit detects no faults and sends no orders,
  - High level: the trip unit detects a fault and sends an order.

Operation

A pilot wire connects in cascading form the protection devices of an installation (see Fig. opposite). When a fault occurs, each circuit breaker upstream of the fault (detecting a fault) sends an order (high level output) and moves the upstream circuit breaker to its set time delay (high level input). The circuit breaker placed just above the fault does not receive any orders (low level input) and thus trips almost instantaneously.

Selectivity between Circuit Breakers

Introduction



Selectivity between modular Circuit Breakers

We use two types of selectivity when these circuit breakers are combined:

- Current selectivity,
- Energy selectivity.

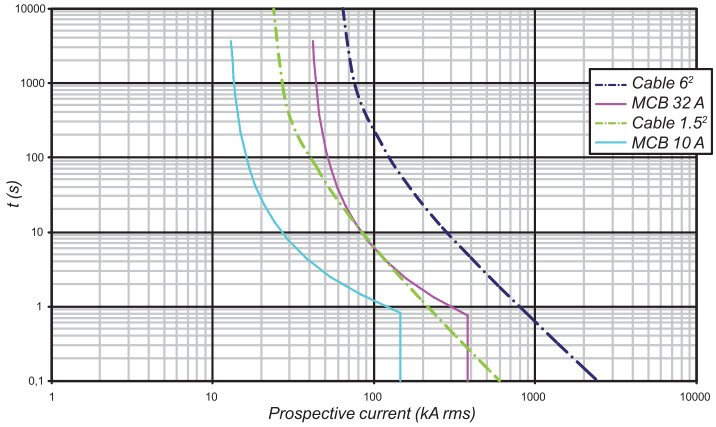
For selectivity to be ensured whatever the prospective fault current, 3 conditions have to be fulfilled:

- The upstream and downstream circuit breakers must have different ratings (ratio > 1.3),
- Their type of curve (B,C,D ...) shall be consistent to ensure D1 magnetic level > D2 magnetic level,
- The energy allowed to pass through the downstream circuit breaker when it cuts off must still be less than the operating energy of the upstream trip.

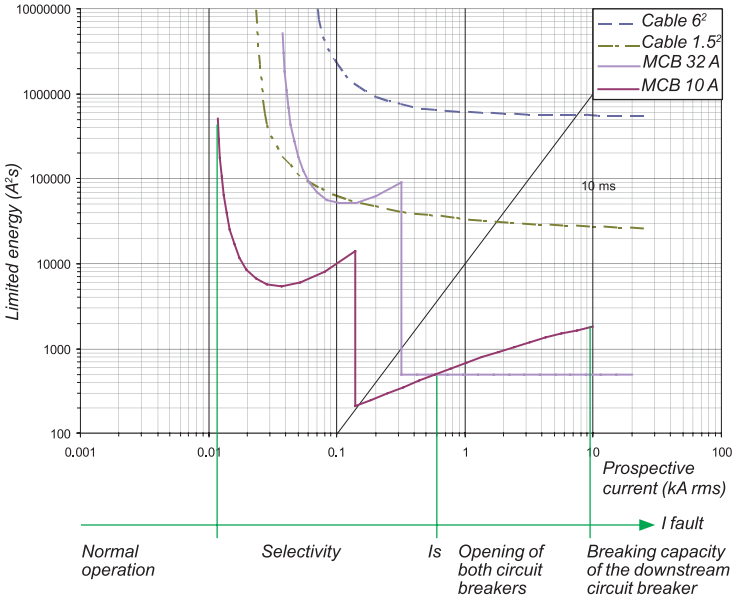
Example

Let us take the example of a single phase network where we have a 32 A curve D circuit breaker in series with a 10 A curve D circuit breaker:

- The 32 A circuit breaker protects the 62 cables and the 10 A circuit breaker protects the 1.52 cables. This combination allows selectivity, but up to what threshold?
- If current selectivity is considered (t = f (Ip)) it can be seen that the tripping curve of the downstream circuit breaker is well below the non-tripping curve of the upstream circuit breaker,
- Furthermore, each circuit breaker is well below the maximum stress permitted by the cables.



When considering energy selectivity, it is necessary to compare the maximum stresses characterized by the integrals I2t relative to the development of the arc in the downstream device and by the sensitivity of the trip unit, still in I2t, of the upstream device (curves I2t = f (Ip)).



Selectivity between Circuit Breakers

Introduction

Selectivity between ComPacT NSX upstream and modular circuit breakers downstream

ComPacT NSX circuit breakers have been designed to provide total selectivity with Multi9/M9 range.

- Total selectivity between ComPacT NSX 100 A with electronic trip unit and Multi9/M9 circuit breaker up to 40 A.
- Total selectivity between ComPacT NSX ≥ 160 A with TMD trip unit ≥ 125 A or electronic trip unit and Multi9/M9 up to 63 A.

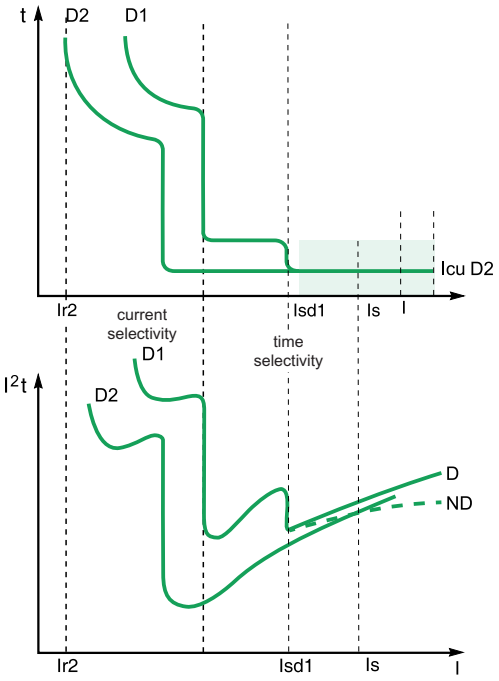
General selectivity rules

Overload protection

For any overcurrent value, selectivity is guaranteed on overload if the non-tripping time of the upstream circuit-breaker D1 is greater than the maximum breaking time of circuit-breaker D2.

The condition is fulfilled if the ration of Long Time (LT) and Short Time (ST) settings is greater than 2.

The selectivity limit Is is at least equal to the setting threshold of the upstream Short Time (ST) time delay.



Short-circuit protection

Time selectivity

Tripping of the upstream device D1 is time delayed by t.

- The conditions required for current selectivity must be fulfilled.
- The time delay t of the upstream device D1 must be sufficient for the downstream device to be able to eliminate the fault.

The time selectivity increases the selectivity limit Is up to the instantaneous tripping threshold of the upstream circuit-breaker D1.

Selectivity is always total if circuit-breaker D1:

- is of category B,
- has an Icw characteristic equal to its Icu.

Selectivity is total in the other cases if the instantanreous tripping threshold of the upstream circuit-breaker D1 is greater than the assumed Isc in D2.

Logic selectivity

Selectivity is always total.

General case

There are no general discrimination rules.

- The time/current curves clearly supply a value of Isc (limited or assumed) less than the Short Time tripping of the upstream circuit-breaker; discrimination is then total.

If this is not the case, only tests can indicate selectivity limits of coordination, in particular when circuit-breakers are of the limiting type. The selectivity limit Is is determined by comparison of curves:

- in tripping energy for the downstream circuitbreaker,
- in non-tripping energy for the upstream circuit-breaker.

The potential intersection point of the curves gives the selectivity limit Is.

The manufacturers indicate in tables the tested performance of coordination.

Selectivity between Circuit Breakers

Introduction

Using the selectivity tables for final distribution including single phase circuits

Depending on the network and the type of downstream circuit breaker, the selection table below indicates which table should be consulted to find out the selectivity value.
The selectivity values are given in colour-coded tables.
■ For 220-240 V/380-415 V 50/60 Hz systems:
□ In the case of a 2P downstream circuit breaker in a single-phase network (220-240 V), refer to the light green tables,
□ In the case of 1P, 1P+N, 3P, 3P+N, 4P and 2P circuit breakers in a two-phase network (380-415 V), refer to the dark green tables.

Selection table

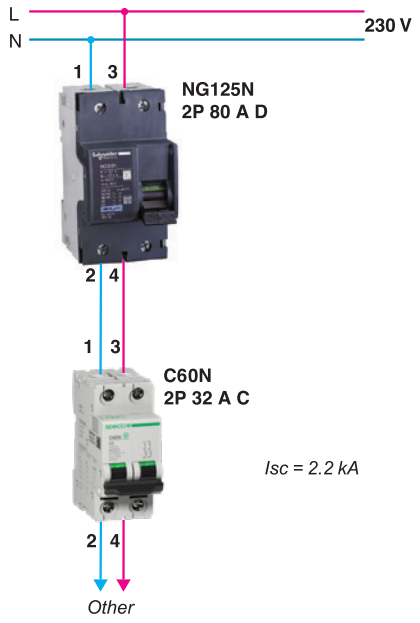
		Upstream network		
		L1 N	L1 L2 L3 N	L1 L2 L3
Type of Downstream network	**Type of Downstream protection device**	**Ph/N 220-240 V**	**Ph/N 220-240 V** **Ph/Ph 380-415 V**	**Ph/Ph 380-415 V**
N L1	2P			
	1P			
	1P+N			
L1 L2	2P			
L1 L2 L3	3P			
N L1 L2 L3	4P			
	3P			
	3P+N			

Note: This selection table shows you the colour.
By taking your downstream protection device, the type of upstream network and its voltage you can refer to the corresponding selectivity table.

Selectivity between Circuit Breakers

Introduction

Example: solution diagram



Upstream we have a NG125N 80 A 2P curve D and downstream a C60N 32 A 2P curve C.
The network is 230 V between phase and neutral.
By referring to the light green table on the selectivity page for NG125N curve D with C60 downstream, we find 2200 A.

Specifications

We want to achieve continuity of service in the event of a fault downstream of the NG125N 80 A. This circuit has an Isc of 2.2 kA under a voltage of 230 V.
By referring to the table for 230 V, 1P+N network, we find that for an upstream NG125N curve D with a rating of 80 A, we can have total selectivity up to 32 A with a C60N 2P

Upstream		**NG125N/H/L** Curve D										
In (A)		**10**	**16**	**20**	**25**	**32**	**40**	**50**	**63**	**80**	**100**	**125**
Downstream	**2P (220-240 V) single-phase network**											
Selectivity limit (A)												
C60N/H	**0.5**	T	T	T	T	T	T	T	T	T	T	T
Curve C	**1**	T	T	T	T	T	T	T	T	T	T	T
	2	1200	T	T	T	T	T	T	T	T	T	T
	3	21	3400	3400	T	T	T	T	T	T	T	T
	4	18	1200	1300	5800	5600	T	T	T	T	T	T
	6	15	700	720	1900	1900	6000	11000	T	T	T	T
	10		22	480	1200	1200	2200	4200	10000	T	T	T
	13			28	51	900	1800	3000	7300	8000	T	T
	16				35	740	1300	2200	4700	5400	T	T
	20					46	88	1700	3500	3500	6900	T
	25						56	600	2500	2500	4600	6800
	32							80	2000	2200	3400	4400
	40								756	1900	2900	3500
	50									960	2300	2800
	63										2300	2800

4000 Selectivity limit = 4 kA.
T Total selectivity, up to the breaking capacity of the downstream circuit breaker.
No selectivity.

Is > Isc
Total selectivity

Quick Access to the Tables

Selectivity Tables

Ue: 220-240/380-415 V AC

Downstream		Upstream					
Type		C60N/H			NG125N/H/L, C120N/H		
	Curve	B	C	D	B	C	D
C60N/H	B	page 13 to 14	page 15 to 16	page 17 to 18	page 19 to 20	page 21 to 22	page 23 to 24
	C	page 13 to 14	page 15 to 16	page 17 to 18	page 19 to 20	page 21 to 22	page 23 to 24
	D	page 13 to 14	page 15 to 16	page 17 to 18	page 19 to 20	page 21 to 22	page 23 to 24

Ue ⩽ 440 V AC

Downstream	Upstream									
Type	NSXm		NSX100		NSX160		NSX250		NSX400	NSX630
	TM-D	MicroLogic	TM-D	MicroLogic	TM-D	MicroLogic	TM-D	MicroLogic	MicroLogic	MicroLogic
C60N/H	page 25	page 25	page 26	page 26	page 26	page 26	page 26	page 26	page 27	page 27

Downstream	Upstream	
Type	ComPact NS	MasterPact MTZ
	MicroLogic	MicroLogic
C60N/H	page 27 to 28	page 29

Ue: 24-48-60 V DC

Downstream	Upstream						
Type	C60N/H			C60H-DC	NG125N/H/L, C120N/H		
Curve	B	C	D	C	B	C	D
C60N/H	page 31	page 32	page 33	page 34	page 35	page 36	page 37
C60H-DC	page 31	page 32	page 33	page 34	page 35	page 36	page 37

Downstream	Upstream			
Type	ComPacT NSX100/160/250 DC		ComPacT NSX400/630/1200 DC	MasterPacT NW DC
Trip unit type	TM-D, TM-DC	TM-G	TM-DC	MicroLogic 1.0 DC
C60N/H	page 38 to 39	page 40	page 41	page 42
C60H-DC	page 38 to 39	page 40	page 41	page 42

Ue: 110-125 V DC

Downstream	Upstream			
Type	ComPacT NSX100/160/250 DC		ComPacT NSX400/630/1200 DC	MasterPacT NW DC
Trip unit type	TM-D, TM-DC	TM-G	TM-D, TM-DC	MicroLogic 1.0 DC
C60N/H	page 43 to 44	page 45	page 46	page 47
C60H-DC	page 43 to 44	page 45	page 46	page 47

Cascading Tables

Downstream	Upstream						
Type	C60	C120	NG125	ComPacT NSXm	ComPacT NSX100	ComPacT NSX160	ComPacT NSX250
C60							
380-415 V (Ph/N 220-240 V)	page 51	page 51	page 51	page 51	page 51	page 51	page 51
440 V	page 52	-	page 52	page 52	page 52	page 52	-
220-240 V (Ph/N 110-130 V)	page 53	page 53	page 53	page 53	page 53	page 53	page 53

Selectivity enhanced by cascading

Downstream	Upstream			
Type	ComPacT NSXm	ComPacT NSX100	ComPacT NSX160	ComPacT NSX250
C60				
380-415 V (Ph/N 220-240 V)	page 55	page 56	page 57 to 58	page 57 to 58
440 V	page 59	page 60	page 60 to 61	-
220-240 V (Ph/N 110-130 V)	-	page 62	page 61 to 62	page 62

Selectivity Table

Upstream: Schneider Electric/Spectre C60 Curve B
Downstream: Schneider Electric/Spectre C60 Curves B, C, D

220-240/380-415 V AC

Upstream		C60N/H Curve B										
In (A)		2	4	6	10	16	20	25	32	40	50	63
Downstream	**1P, 1P+N, 2P (380-415 V) two-phase network 3P, 3P+N, 4P**											
Selectivity limit (A)												
C60N/H Curve B	**2**		16	30	60	130	140	200	370	520	630	960
	4			30	40	64	80	100	250	310	380	470
	6				40	64	80	100	190	290	300	440
	10					64	80	100	130	160	200	380
	16							100	130	160	200	250
	20								130	160	200	250
	25									160	200	250
	32										200	250
	40											250
Selectivity limit (A)												
C60N/H Curve C	**2**		16	18	60	130	160	200	370	520	630	960
	4				27	64	80	100	250	310	380	470
	6					51	80	100	190	290	300	440
	10						64	80	130	160	200	250
	16								102	128	200	250
	20									128	160	250
	25										160	200
	32											200
Selectivity limit (A)												
C60N/H Curve D	**2**			19	40	110	140	180	370	520	630	860
	4					48	80	100	250	310	340	470
	6						64	80	190	240	300	380
	10								100	128	200	250
	16									128	160	200
	20										160	200
	25											200

4000 Selectivity limit = 4 kA.

T Total selectivity, up to the breaking capacity of the downstream circuit breaker.

No selectivity.

Note: If you cannot find the combination needed, refer to the selection table on page 10.

Selectivity Table

Upstream: Schneider Electric/Spectre C60 Curve B
Downstream: Schneider Electric/Spectre C60 Curves B, C, D

220-240/380-415 V AC

Upstream		C60N/H Curve B										
In (A)		2	4	6	10	16	20	25	32	40	50	63
Downstream	**2P (220-240 V) single-phase network**											
Selectivity limit (A)												
C60N/H Curve B	**2**		16	30	70	200	250	400	880	1700	2500	5300
	4				40	110	120	180	370	520	630	960
	6				40	64	80	100	270	380	460	630
	10					64	80	100	190	290	300	440
	16							100	130	160	200	250
	20								130	160	200	250
	25									160	200	250
	32										200	250
	40											250
Selectivity limit (A)												
C60N/H Curve C	**2**		16	18	70	200	250	400	880	1700	2500	5300
	4				27	90	120	180	370	520	630	860
	6					51	80	100	230	380	410	630
	10						64	80	130	240	300	440
	16								102	128	200	250
	20									128	160	250
	25										160	200
	32											200
Selectivity limit (A)												
C60N/H Curve D	**2**			19	60	200	250	350	1100	1700	2500	5300
	4					48	80	150	310	450	630	860
	6						64	80	230	330	410	500
	10								100	128	200	380
	16									128	160	200
	20										160	200
	25											200

4000	Selectivity limit = 4 kA.
T	Total selectivity, up to the breaking capacity of the downstream circuit breaker.
	No selectivity.

Note: The selectivity limits given in the table must be compared to the phase/neutral fault current (Ik1).
If the max. phase/earth fault current (If) is high, the selectivity of this fault current should also be verified by referring to the limits given in the table.

Selectivity Table

Upstream: Schneider Electric/Spectre C60 Curve C
Downstream: Schneider Electric/Spectre C60 Curves B, C, D

220-240/380-415 V AC

Upstream		C60N/H Curve C										
In (A)		2	4	6	10	16	20	25	32	40	50	63
Downstream	**1P, 1P+N, 2P (380-415 V) two-phase network 3P, 3P+N, 4P**											
Selectivity limit (A)												
C60N/H Curve B	**2**		32	48	140	220	310	460	780	1200	2000	2000
	4			14	80	130	240	300	430	590	1000	1100
	6				80	130	160	200	380	480	770	850
	10					130	160	200	260	320	400	500
	16							200	260	320	400	500
	20								260	320	400	500
	25									320	400	500
	32										400	500
	40											500
Selectivity limit (A)												
C60N/H Curve C	**2**		32	48	120	220	310	460	780	1200	2000	2000
	4			14	80	130	160	300	430	590	1000	1100
	6				80	130	160	200	380	480	770	850
	10					130	160	200	260	320	400	500
	16							71	260	320	400	500
	20								260	320	400	500
	25									127	400	500
	32										168	500
	40											500
Selectivity limit (A)												
C60N/H Curve D	**2**		32	48	120	220	310	460	680	1200	2000	2000
	4				28	130	160	300	430	590	1000	1100
	6					130	160	200	260	480	770	850
	10						73	200	260	320	400	500
	16							71	194	320	400	500
	20									135	400	500
	25										174	500
	32											277
	40											

4000 Selectivity limit = 4 kA.

T Total selectivity, up to the breaking capacity of the downstream circuit breaker.

No selectivity.

Note: If you cannot find the combination needed, refer to the selection table on page 10.

Selectivity Table

Upstream: Schneider Electric/Spectre C60 Curve C
Downstream: Schneider Electric/Spectre C60 Curves B, C, D

220-240/380-415 V AC

Upstream		C60N/H Curve C										
In (A)		2	4	6	10	16	20	25	32	40	50	63
Downstream	**2P (220-240 V) single-phase network**											
Selectivity limit (A)												
C60N/H	2		32	70	210	430	800	1500	3600	7900	52000	53000
Curve B	4			14	120	220	310	460	680	940	2000	2000
	6				80	130	240	350	510	770	1300	1100
	10					130	160	200	380	550	930	950
	16							200	260	320	400	500
	20								260	320	400	500
	25									320	400	500
	32										400	500
	40											500
Selectivity limit (A)												
C60N/H	2		32	70	210	430	660	1500	3600	7900	60000	53000
Curve C	4			14	120	190	310	460	680	940	2000	2000
	6				80	130	160	350	510	620	1300	1100
	10					130	160	200	260	480	770	850
	16							78	260	320	400	500
	20								260	320	400	500
	25									127	400	500
	32										168	500
	40											500
Selectivity limit (A)												
C60N/H	2		25	48	210	430	800	1500	3600	7900	60000	53000
Curve D	4				28	190	280	460	680	940	2000	2000
	6					130	160	300	450	620	1100	1100
	10						73	200	260	480	770	850
	16							71	194	320	400	500
	20									135	400	500
	25										174	500
	32											277
	40											

4000 Selectivity limit = 4 kA.

T Total selectivity, up to the breaking capacity of the downstream circuit breaker.

No selectivity.

Note: The selectivity limits given in the table must be compared to the phase/neutral fault current (Ik1).
If the max. phase/earth fault current (If) is high, the selectivity of this fault current should also be verified by referring to the limits given in the table.

Selectivity Table

Upstream: Schneider Electric C60 Curve D
Downstream: Schneider Electric/Spectre C60 Curves B, C, D

220-240/380-415 V AC

Upstream		C60N/H Curve D										
In (A)		2	4	6	10	16	20	25	32	40	50	63
Downstream	**1P, 1P+N, 2P (380-415 V) two-phase network 3P, 3P+N, 4P**											
Selectivity limit (A)												
C60N/H Curve B	2		48	110	210	450	730	890	1400	2300	5000	6800
	4			72	120	290	410	560	840	1000	2000	2400
	6				120	190	360	450	660	910	1300	1600
	10					190	240	300	380	720	1100	1400
	16							300	380	480	900	1100
	20								380	480	600	760
	25									480	600	760
	32										600	760
	40											760
Selectivity limit (A)												
C60N/H Curve C	2		48	110	210	450	730	890	1600	2300	5000	6800
	4			13	120	290	410	560	710	1000	2000	2400
	6				120	190	360	450	660	910	1300	1600
	10					49	240	300	380	720	1100	1100
	16							71	380	480	600	760
	20								380	480	600	760
	25									105	600	760
	32										153	760
	40											760
Selectivity limit (A)												
C60N/H Curve D	2		48	110	210	370	640	890	1600	2300	5000	6800
	4			13	28	190	410	560	710	1000	1600	2400
	6				32	190	240	450	580	810	1300	1600
	10					49	73	300	380	480	1100	1100
	16							71	380	480	600	760
	20								105	135	600	760
	25									105	174	760
	32										153	760
	40											245

4000 Selectivity limit = 4 kA.

T Total selectivity, up to the breaking capacity of the downstream circuit breaker.

No selectivity.

Selectivity Table

Upstream: Schneider Electric C60 Curve D
Downstream: Schneider Electric/Spectre C60 Curves B, C, D

220-240/380-415 V AC

Upstream		C60N/H Curve D										
In (A)		2	4	6	10	16	20	25	32	40	50	63
Downstream	**2P (220-240 V) single-phase network**											
Selectivity limit (A)												
C60N/H Curve B	**2**		80	150	350	1100	2600	5800	16000	45000	T	T
	4			72	180	370	640	890	1400	2300	7100	12000
	6				120	290	480	590	900	1300	2200	2600
	10					190	360	450	660	910	1500	1900
	16							300	380	720	1100	1400
	20								380	480	900	1100
	25									480	600	760
	32										600	760
	40											760
Selectivity limit (A)												
C60N/H Curve C	**2**		70	150	350	1100	2600	5800	16000	45000	T	T
	4			13	180	370	640	890	1400	1900	7100	12000
	6				120	290	480	590	900	1300	2200	2600
	10					190	360	450	660	910	1500	1900
	16							71	380	720	1100	1400
	20								380	480	900	1100
	25									105	600	760
	32										153	760
	40											760
Selectivity limit (A)												
C60N/H Curve D	**2**		70	150	350	1200	2600	5800	16000	45000	T	T
	4			13	28	370	640	890	1400	1900	7100	12000
	6				32	190	420	590	900	1100	2200	2600
	10					49	73	450	660	910	1500	1900
	16							71	380	480	1100	1400
	20								105	480	900	1100
	25									105	174	760
	32										153	760
	40											245

4000 Selectivity limit = 4 kA.

T Total selectivity, up to the breaking capacity of the downstream circuit breaker.

No selectivity.

Note: The selectivity limits given in the table must be compared to the phase/neutral fault current (Ik1).
If the max. phase/earth fault current (If) is high, the selectivity of this fault current should also be verified by referring to the limits given in the table.

Selectivity Table

Upstream: NG125N/H/L, C120N/H Curve B
Downstream: Schneider Electric/Spectre C60 Curves B, C, D

220-240/380-415 V AC

Upstream		NG125N/H/L, C120N/H Curve B										
In (A)		10	16	20	25	32	40	50	63	80	100	125
Downstream	**1P, 1P+N, 2P (380-415 V) two-phase network 3P, 3P+N, 4P**											
Selectivity limit (A)												
C60N/H Curve B	**2**	60	110	140	230	310	590	630	1200	2100	3900	9700
	4	40	64	80	150	190	310	380	570	940	1400	2400
	6	15	64	80	100	130	290	300	440	620	930	1700
	10		22	80	100	130	200	200	380	550	770	1300
	16				35	130	160	200	250	320	600	940
	20					46	160	200	250	320	400	850
	25						56	200	250	320	400	750
	32							80	250	320	400	500
	40								250	320	400	500
	50									320	400	500
	63											500
Selectivity limit (A)												
C60N/H Curve C	**2**	40	110	140	230	250	590	630	1200	2100	3900	9700
	4		64	80	150	190	310	340	570	940	1400	2400
	6			80	100	130	290	300	440	620	930	1700
	10					130	160	200	380	550	770	1100
	16							200	250	320	600	940
	20									320	400	850
	25									320	400	750
	32											500
	40											500
Selectivity limit (A)												
C60N/H Curve D	**2**	40	90	140	200	250	520	630	1200	2100	3900	9700
	4			80	150	190	310	340	570	820	1100	2400
	6					130	240	200	440	620	930	1700
	10							200	380	480	770	1100
	16									320	600	940
	20										400	750
	25											500

4000 Selectivity limit = 4 kA.

T Total selectivity, up to the breaking capacity of the downstream circuit breaker.

No selectivity.

Note: If you cannot find the combination needed, refer to the selection table on page 10.

Selectivity Table

Upstream: NG125N/H/L, C120N/H Curve B
Downstream: Schneider Electric/Spectre C60 Curves B, C, D

220-240/380-415 V AC

Upstream		NG125N/H/L, C120N/H Curve B										
In (A)		10	16	20	25	32	40	50	63	80	100	125
Downstream	**2P (220-240 V) single-phase network**											
Selectivity limit (A)												
C60N/H Curve B	**2**	60	160	350	500	1200	4200	8100	T	T	T	T
	4	40	64	80	190	280	630	750	1400	2700	6200	T
	6	15	64	80	150	150	350	430	810	1400	2100	6100
	10		22	80	100	130	160	200	500	840	1300	2500
	16				35	130	160	200	380	520	770	1400
	20					46	160	200	250	320	600	1000
	25						56	200	250	320	400	890
	32							80	250	320	400	840
	40								250	320	400	790
	50									320	400	750
	63											500
Selectivity limit (A)												
C60N/H Curve C	**2**	60	160	350	500	1200	4200	8100	T	T	T	T
	4		64	80	190	280	630	750	1400	2700	6200	T
	6			80	150	150	350	430	810	1400	2100	6100
	10					130	160	200	500	840	1300	2500
	16							200	380	520	770	1400
	20									320	600	1000
	25									320	400	890
	32											840
	40											500
Selectivity limit (A)												
C60N/H Curve D	**2**	60	160	350	500	1200	4200	8100	T	T	T	T
	4			80	190	280	630	750	1400	2700	6200	T
	6					150	350	430	810	1400	2100	6100
	10							200	500	840	1300	2500
	16									520	770	1400
	20										600	1000
	25											890

4000 Selectivity limit = 4 kA.

T Total selectivity, up to the breaking capacity of the downstream circuit breaker.

No selectivity.

Note: The selectivity limits given in the table must be compared to the phase/neutral fault current (Ik1).
If the max. phase/earth fault current (If) is high, the selectivity of this fault current should also be verified by referring to the limits given in the table.

Selectivity Table

Upstream: NG125N/H/L, C120N/H Curve C
Downstream: Schneider Electric/Spectre C60 Curves B, C, D

220-240/380-415 V AC

Upstream		NG125N/H/L Curve C										
In (A)		10	16	20	25	32	40	50	63	80	100	125
Downstream	**1P, 1P+N, 2P (380-415 V) two-phase network 3P, 3P+N, 4P**											
Selectivity limit (A)												
C60N/H	**2**	80	250	380	550	1800	2400	8800	10000	13000	T	T
Curve B	**4**	80	130	240	300	800	820	2000	2300	3400	7000	13000
	6	15	130	160	200	610	650	1400	2300	2300	3600	6400
	10		22	160	200	500	510	1100	1300	1600	2200	3600
[1]	**16**				35	380	430	770	950	1200	1700	2300
	20					46	320	680	850	960	1500	2100
	25						56	600	760	960	1200	1800
	32							80	500	640	1200	1500
	40								130	640	800	1500
	50									640	800	1500
	63										800	1000
Selectivity limit (A)												
C60N/H	**2**	80	250	380	550	2100	2400	8800	10000	13000	T	T
Curve C	**4**	18	130	160	300	800	820	2000	2300	3400	6000	13000
	6	15	130	160	200	610	650	1400	2300	2300	3600	5500
	10		22	160	200	500	510	930	1300	1400	2200	3100
[1]	**16**				35	256	400	770	950	1200	1700	2300
	20					46	320	680	850	960	1500	1800
	25						56	400	760	960	1200	1800
	32							80	500	640	1200	1500
	40								500	640	800	1500
	50									640	800	1000
	63											1000
Selectivity limit (A)												
C60N/H	**2**	80	250	380	550	1800	2400	8800	10000	13000	T	T
Curve D	**4**	18	130	160	300	740	740	2000	2300	3400	6000	13000
	6		130	160	200	570	600	1400	1900	2300	3600	5500
	10				200	450	480	930	1300	1400	2200	3100
[1]	**16**						320	770	950	960	1500	2300
	20							400	760	960	1200	1800
	25									640	1200	1500
	32									640	800	1500
	40											1000

4000 Selectivity limit = 4 kA.

T Total selectivity, up to the breaking capacity of the downstream circuit breaker.

No selectivity.

Note: If you cannot find the combination needed, refer to the selection table on page 10.

Selectivity Table

Upstream: NG125N/H/L, C120N/H Curve C
Downstream: Schneider Electric/Spectre C60 Curves B, C, D

220-240/380-415 V AC

Upstream		NG125N/H/L Curve C										
In (A)		10	16	20	25	32	40	50	63	80	100	125
Downstream	**2P (220-240 V) single-phase network**											
Selectivity limit (A)												
C60N/H Curve B	**2**	210	1900	4200	10000	T	T	T	T	T	T	T
	4	80	310	590	1100	4000	13000	T	T	T	T	T
	6	15	190	330	510	1500	2700	7200	9000	9000	T	T
	10		22	160	300	1000	1400	2700	3500	3500	7400	T
	16				35	620	620	1600	2700	2700	3600	5500
	20					46	480	1100	1600	1600	2200	3600
	25						56	930	1200	1200	2000	2600
	32							80	930	960	1700	2300
	40								130	960	1400	2000
	50									640	1200	1900
	63										1200	1700
Selectivity limit (A)												
C60N/H Curve C	**2**	210	1900	3500	10000	T	T	T	T	T	T	T
	4	18	310	590	1100	3600	13000	T	T	T	T	T
	6	15	190	290	510	1500	2700	7200	9000	9000	T	T
	10		22	160	200	890	1200	2700	3700	3700	6600	T
	16				35	256	620	1600	2700	2700	3600	4600
	20					46	320	1100	1400	1400	2200	3600
	25						56	400	1100	1200	2000	2600
	32							80	500	960	1400	2300
	40								500	640	1200	2000
	50									640	800	1700
	63											1000
Selectivity limit (A)												
C60N/H Curve D	**2**	210	1700	3500	10000	T	T	T	T	T	T	T
	4	18	310	520	960	3600	13000	T	T	T	T	T
	6		190	240	460	1500	2700	6400	9000	9000	T	T
	10				200	890	1100	2700	3700	3700	6600	T
	16						320	1400	2300	2300	3100	4600
	20							400	1400	1400	2200	3100
	25									960	1700	2600
	32									640	1400	2000
	40											1800

4000 Selectivity limit = 4 kA.

T Total selectivity, up to the breaking capacity of the downstream circuit breaker.

No selectivity.

Note: The selectivity limits given in the table must be compared to the phase/neutral fault current (Ik1).
If the max. phase/earth fault current (If) is high, the selectivity of this fault current should also be verified by referring to the limits given in the table.

Selectivity Table

Upstream: NG125N/H/L, C120N/H Curve D
Downstream: Schneider Electric/Spectre C60 Curves B, C, D

220-240/380-415 V AC

Upstream		NG125N/H/L, C120N/H Curve D										
In (A)		10	16	20	25	32	40	50	63	80	100	125
Downstream	**1P, 1P+N, 2P (380-415 V) two-phase network 3P, 3P+N, 4P**											
Selectivity limit (A)												
C60N/H Curve B	**2**	240	770	920	2600	2700	7400	14000	T	T	T	T
	4	120	450	450	890	1100	1900	4100	11000	13000	T	T
	6	15	340	360	730	740	1300	2600	4700	6200	T	T
	10		22	240	590	660	910	1700	2600	3500	T	T
	16				35	380	720	1300	1900	2400	3600	T
	20					46	480	1100	1600	2000	3000	3600
	25						56	900	1400	1700	2400	2900
	32							83	1100	1700	2400	2600
	40								1100	1400	2100	2300
	50									1400	2000	2300
	63										2000	2300
Selectivity limit (A)												
C60N/H Curve C	**2**	240	770	920	2600	2700	7400	T	T	T	T	T
	4	18	450	450	890	1100	1900	4100	11000	13000	T	T
	6	15	340	360	730	740	1300	2200	4700	6200	T	T
	10		22	240	590	580	910	1700	2600	3500	T	T
	16				35	380	480	1100	1900	2400	3600	T
	20					46	88	1100	1600	2000	2700	2900
	25						56	600	1400	1700	2400	2900
	32							80	1100	1400	2400	2600
	40								756	1400	2100	2300
	50									960	2000	2300
	63										1800	2300
Selectivity limit (A)												
C60N/H Curve D	**2**	240	770	920	2600	2700	6300	T	T	T	T	T
	4	18	370	450	890	970	1600	3700	11000	13000	T	T
	6	15	340	360	730	740	1100	2200	4700	5400	T	T
	10		22	240	520	580	810	1500	2600	3000	T	T
	16				35	380	480	1100	1900	2400	3600	T
	20					46	480	900	1400	1700	2700	2900
	25						56	600	1400	1700	2400	2600
	32							80	1100	1400	2100	2600
	40								756	1400	2100	2300
	50									960	1800	1800
	63										1800	1800

4000 Selectivity limit = 4 kA.

T Total selectivity, up to the breaking capacity of the downstream circuit breaker.

No selectivity.

Note: If you cannot find the combination needed, refer to the selection table on page 10.

Selectivity Table

Upstream: NG125N/H/L, C120N/H Curve D
Downstream: Schneider Electric/Spectre C60 Curves B, C, D

220-240/380-415 V AC

Upstream		NG125N/H/L, C120N/H Curve D										
In (A)		10	16	20	25	32	40	50	63	80	100	125
Downstream	**2P (220-240 V) single-phase network**											
Selectivity limit (A)												
C60N/H Curve B	**2**	1200	T	T	T	T	T	T	T	T	T	T
	4	120	1200	1300	5800	5600	T	T	T	T	T	T
	6	15	700	720	1900	1900	6000	11000	T	T	T	T
	10		22	540	1200	1200	2600	4200	10000	T	T	T
	16				35	740	1500	2200	4700	5400	T	T
	20					46	910	1700	3500	3500	6900	T
	25						56	1500	2500	2500	5200	6800
	32							83	2000	2400	3400	4400
	40								1800	1900	2900	4000
	50									1900	2800	3300
	63										2300	2800
Selectivity limit (A)												
C60N/H Curve C	**2**	1200	T	T	T	T	T	T	T	T	T	T
	4	18	1200	1300	5800	5600	T	T	T	T	T	T
	6	15	700	720	1900	1900	6000	11000	T	T	T	T
	10		22	480	1200	1200	2200	4200	10000	T	T	T
	16				35	740	1300	2200	4700	5400	T	T
	20					46	88	1700	3500	3500	6900	T
	25						56	600	2500	2500	4600	6800
	32							80	2000	2200	3400	4400
	40								756	1900	2900	3500
	50									960	2300	2800
	63										2300	2800
Selectivity limit (A)												
C60N/H Curve D	**2**	1200	T	T	T	T	T	T	T	T	T	T
	4	18	1100	1300	5800	4500	T	T	T	T	T	T
	6	15	600	600	1600	1600	5300	11000	T	T	T	T
	10		22	420	1000	1100	2200	3400	10000	T	T	T
	16				35	380	1300	2200	3900	5400	T	T
	20					46	480	1500	3000	3500	6000	T
	25						56	600	2100	2500	4100	5900
	32							80	1800	2200	3400	4400
	40								756	1700	2400	2900
	50									960	2300	2800
	63										2000	2300

4000 Selectivity limit = 4 kA.

T Total selectivity, up to the breaking capacity of the downstream circuit breaker.

No selectivity.

Note: The selectivity limits given in the table must be compared to the phase/neutral fault current (Ik1).
If the max. phase/earth fault current (If) is high, the selectivity of this fault current should also be verified by referring to the limits given in the table.

Selectivity Table

Upstream: ComPacT NSXm E/B/F/N/H TM-D
Downstream: Schneider Electric/Spectre C60 Curves B, C, D

Ue ≤ 440 V AC

Upstream CB	NSXm E/B/F/N/H						NSXm160 E/B/F/N/H/TM-D			
Trip unit type	TM-D						TM-D			
Trip unit rating (A)	16	25	32	40	50	63	80	100	125	160
Setting Ir (A)	16	25	32	40	50	63	80	100	125	160
Downstream CB CB type	CB rating (A)	Selectivity limit (kA)									
C60N/H Curves B, C, D	**≤10**	0.5	0.5	0.5	0.5	0.6	0.8	T	T	T	T
	16			0.5	0.5	0.6	0.8	T	T	T	T
	20				0.5	0.6	0.8	T	T	T	T
	25					0.6	0.8	10	T	T	T
	32						0.8	3	T	T	T
	40							2	T	T	T
	50								6	8	8
	63									8	8

4	Selectivity limit = 4 kA.
T	Total selectivity, up to the breaking capacity of the downstream circuit breaker.
	No selectivity.

Note: Respect the basic rules of selectivity, in terms of overload, short-circuit, ground fault and earth leakage when applicable see page 4, or check curves with Schneider Electric online “Electrical calculation tools”.

Upstream: ComPacT NSXm E/B/F/N/H MicroLogic 4.1
Downstream: Schneider Electric/Spectre C60 Curves B, C, D

Ue ≤ 440 V AC

Upstream CB	NSXm E/B/F/N/H									
Trip unit type	MicroLogic 4.1									
Trip unit rating (A)	25		50			100			160	
Setting Ir (A)	16	25	32	40	50	63	80	100	130	160
Downstream CB CB type	CB rating (A)	Selectivity limit (kA)									
C60N/H Curves B, C, D	**≤10**	0.37	0.37	1.5	1.5	1.5	T	T	T	T	T
	16		0.37	0.75	0.75	0.75	T	T	T	T	T
	20				0.75	0.75	T	T	T	T	T
	25					0.75	T	T	T	T	T
	32						T	T	T	T	T
	40							T	T	T	T
	50								8	8	8
	63									8	8

4	Selectivity limit = 4 kA.
T	Total selectivity, up to the breaking capacity of the downstream circuit breaker.
	No selectivity.

Note: When the upstream device is equipped with MicroLogic 4.1, the table provides selectivity limits for line to line or line to neutral short circuits, selectivity in earth fault condition shall be checked separately.

Selectivity Table

Upstream: ComPacT NSX100-250 TM-D (3P, 4P)
Downstream: Schneider Electric/Spectre C60 Curves B, C, D

Ue ≤ 440 V AC

Upstream CB		NSX100B/F/N/H/S/L/R (3P/4P)								NSX160B/F/N/H/S/L (3P/4P)				NSX250B/F/N/H/S/L/R (3P/4P)		
Trip unit type		TM-D								TM-D				TM-D		
Trip unit rating (A)		16	25	32	40	50	63	80	100	80	100	125	160	160	200	250
Setting Ir (A)		16	25	32	40	50	63	80	100	80	100	125	160	160	200	250
Downstream CB		**Selectivity limit (kA)**														
CB type	CB rating or Trip unit rating (A))															
C60N/H Curves B, C, D	≤10	0.19	0.3	0.4	0.5	0.5	0.5	1	2	1	2	T	T	T	T	T
	16		0.3	0.4	0.5	0.5	0.5	1	2	1	2	T	T	T	T	T
	20			0.4	0.5	0.5	0.5	0.63	1.5	0.63	1.5	T	T	T	T	T
	25				0.5	0.5	0.5	0.63	1.5	0.63	1.5	T	T	T	T	T
	32						0.5	0.63	1	0.63	1	T	T	T	T	T
	40						0.5	0.63	1	0.63	1	T	T	T	T	T
	50							0.63	0.8	0.63	0.8	T	T	T	T	T
	63								0.8		0.8	T	T	T	T	T

4 Selectivity limit = 4 kA.

T Total selectivity, up to the breaking capacity of the downstream circuit breaker.

No selectivity.

Upstream: ComPacT NSX100-250 MicroLogic
Downstream: Schneider Electric/Spectre C60 Curves B, C, D

Ue ≤ 440 V AC

Upstream CB		NSX100B/F/N/H/S/L/R								NSX160B/F/N/H/S/L				NSX250B/F/N/H/S/L/R		
Trip unit type		MicroLogic [1]								MicroLogic [1]				MicroLogic [1]		
Trip unit rating (A)		40				100				160				250		
Setting Ir (A)		16	25	32	40	40	63	80	100	80	100	125	160	160	200	250
Downstream CB		**Selectivity limit (kA)**														
CB type	CB rating or Trip unit rating (A)															
C60N/H Curves B, C, D	≤10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	16		T	T	T	T	T	T	T	T	T	T	T	T	T	T
	20			T	T	T	T	T	T	T	T	T	T	T	T	T
	25				T	T	T	T	T	T	T	T	T	T	T	T
	32						T	T	T	T	T	T	T	T	T	T
	40						T	T	T	T	T	T	T	T	T	T
	50							6	6	T	T	T	T	T	T	T
	63								6		T	T	T	T	T	T

4 Selectivity limit = 4 kA.

T Total selectivity, up to the breaking capacity of the downstream circuit breaker.

No selectivity.

[1]: Applicable for all “Distribution” MicroLogic of ComPacT NSX range: 2.2 4.2, 5.2, 6.2, 7.2. For 4.2 and 7.2 selectivity rules for RCD apply in addition.
Applicable for Generators and Service connection (G and AB type) MicroLogic of ComPacT NSX range but curves shall be checked.
Not applicable for “Motor” MicroLogic of ComPacT NSX range (“M” type).

Note: respect the basic rules of selectivity, in terms of overload, short-circuit, ground fault and earth leakage when applicable see page 4, or check curves with Schneider Electric online “Electrical calculation tools”.

Selectivity Table

Upstream: ComPacT NSX400-630 MicroLogic
Downstream: Schneider Electric/Spectre C60

Ue ≤ 440 V AC

Upstream CB	NSX400F/N/H/S/L/R					NSX630F/N/H/S/L/R				
Trip unit type	MicroLogic [1]					MicroLogic [1]				
Trip unit rating (A)	250			400		630				
Setting Ir (A)	160	200	250	320	400	250	320	400	500	630
Downstream CB	**Selectivity limit (kA)**									
C60N/H	T	T	T	T	T	T	T	T	T	T

4	Selectivity limit = 4 kA.
T	Total selectivity, up to the breaking capacity of the downstream circuit breaker.
	No selectivity.

[1]: Applicable for all “Distribution” MicroLogic of ComPacT NSX range: 2.2 4.2, 5.2, 6.2, 7.2. For 4.2 and 7.2 selectivity rules for RCD apply in addition.
Applicable for Generators and Service connection (G and AB type) MicroLogic of ComPacT NSX range but curves shall be checked.
Not applicable for “Motor” MicroLogic of ComPacT NSX range (“M” type).

Note: Respect the basic rules of selectivity, in terms of overload, short-circuit, ground fault and earth leakage when applicable see page 4, or check curves with Schneider Electric online “Electrical calculation tools”.
Applicable for Generators and Service connection (G and AB type) MicroLogic of ComPacT NSX range but curves shall be checked.
Not applicable for “Motor” MicroLogic of ComPacT NSX range ("M" type).
When the upstream device is equipped with MicroLogic 4, 6 or 7, the table provides selectivity limits for line to line or line to neutral short circuits, selectivity in earth fault condition shall be checked separately.

Upstream: ComPacT NS630b-1600N/H, NS1600b-3200N, MicroLogic
Downstream: Schneider Electric/Spectre C60

Ue ≤ 440 V AC

Upstream CB	ComPacT NS630b/800/1000/1250/1600N/H																					
Trip unit type	MicroLogic 2.0 Isd = 10 Ir							MicroLogic 5.0 - 6.0 - 7.0 Inst 15 In							MicroLogic 5.0 - 6.0 - 7.0 Inst OFF							
Trip unit rating In (A)	250			800	1000	1250	1600	630			800	1000	1250	1600	630			800	1000	1250	1600	
Setting Ir (A)	250	400	630	800	1000	1250	1600	250	400	630	800	1000	1250	1600	250	400	630	800	1000	1250	1600	
Downstream CB	**Selectivity limit (kA)**																					
C60N/H	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T

Upstream CB	ComPacT NS1600b/2000/2500/3200N											
Trip unit type	MicroLogic 2.0 Isd = 10 Ir				MicroLogic 5.0 - 6.0 - 7.0 Inst 15 In				MicroLogic 5.0 - 6.0 - 7.0 Inst OFF			
Trip unit rating In (A)	1600	2000	2500	3200	1600	2000	2500	3200	1600	2000	2500	3200
Setting Ir (A)	1600	2000	2500	3200	1600	2000	2500	3200	1600	2000	2500	3200
Downstream CB	**Selectivity limit (kA)**											
C60N/H	T	T	T	T	T	T	T	T	T	T	T	T

T	Total selectivity, up to the breaking capacity of the downstream circuit breaker.
4	Selectivity limit = 4 kA.
	No selectivity.

Note: Respect the basic rules of selectivity, in terms of overload, short-circuit, ground fault and earth leakage when applicable see page 4, or check curves with Schneider Electric online “Electrical calculation tools”.
When the upstream device is equipped with MicroLogic 6 or 7, the table provides selectivity limits for line to line or line to neutral short circuits, selectivity in earth fault condition shall be checked separately.

Selectivity Table

Upstream: ComPacT NS1600b-3200H, NS630b-1000L, NS630b-800LB, MicroLogic
Downstream: Schneider Electric/Spectre C60

Ue ≤ 440 V AC

Upstream CB	ComPacT NS1600b/2000/2500/3200H											
Trip unit type	MicroLogic 2.0 Isd = 10 Ir				MicroLogic 5.0 - 6.0 - 7.0 Inst 15 In				MicroLogic 5.0 - 6.0 - 7.0 Inst OFF			
Trip unit rating In (A)	1600	2000	2500	3200	1600	2000	2500	3200	1600	2000	2500	3200
Setting Ir (A)	1600	2000	2500	3200	1600	2000	2500	3200	1600	2000	2500	3200
Downstream CB	Selectivity limit (kA)											
C60N/H	T	T	T	T	T	T	T	T	T	T	T	T

Upstream CB	ComPacT NS630b/800/1000L ComPacT NS630b/800LB														
Trip unit type	MicroLogic 2.0 Isd = 10 Ir					MicroLogic 5.0 - 6.0 - 7.0 Inst 15 In					MicroLogic 5.0 - 6.0 - 7.0 Inst OFF				
Trip unit rating In (A)	630			800	1000	630			800	1000	630			800	1000
Setting Ir (A)	250	400	630	800	1000	250	400	630	800	1000	250	400	630	800	1000
Downstream CB	Selectivity limit (kA)														
C60N/H	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T

T Total selectivity, up to the breaking capacity of the downstream circuit breaker.

Note: Respect the basic rules of selectivity, in terms of overload, short-circuit, ground fault and earth leakage when applicable see page 4, or check curves with Schneider Electric online “Electrical calculation tools”.
When the upstream device is equipped with MicroLogic 6 or 7, the table provides selectivity limits for line to line or line to neutral short circuits, selectivity in earth fault condition shall be checked separately.

Selectivity Table

Upstream: MasterPacT MTZ1 06-16 H1/H2/H3, MTZ1 06-10 L1, MTZ2 08-20 N1/H1/H2/H2V/L1, MTZ2 25-40 H1/H2/H2V, MTZ3 40-63 H1/H2, MTZ2 20/25/32/40 H3, MTZ3 40/50/63 H2, MicroLogic X
Downstream: Schneider Electric/Spectre C60

Ue ≤ 440 V AC

Upstream CB	MasterPacT MTZ1 06/08/10/12/16 H1/H2/H3																								
Trip unit type	MicroLogic 2.0X Isd = 10 Ir							MicroLogic 5.0X - 6.0X - 7.0X Inst : 15 In Standard								MicroLogic 5.0X - 6.0X - 7.0X Inst : OFF									
Trip unit rating In (A)	630			800	1000	1250	1600	630			800	1000	1250	1600		630			800	1000	1250	1600			
Setting Ir (A)	250	400	630	800	1000	1250	1600	250	400	630	800	1000	1250	1600		250	400	630	800	1000	1250	1600			
Downstream CB	**Selectivity limit (kA)**																								
C60N/H	T	T	T	T	T	T	T	T	T	T	T	T	T	T		T	T	T	T	T	T	T			

Upstream CB	MasterPacT MTZ1 06/08/10 L1															
Trip unit type	MicroLogic 2.0X Isd = 10 Ir					MicroLogic 5.0X - 6.0X - 7.0X Inst : 15 In Standard					MicroLogic 5.0X - 6.0X - 7.0X Inst : OFF					
Trip unit rating In (A)	630			800	1000	630			800	1000	630			800	1000	
Setting Ir (A)	250	400	630	800	1000	250	400	630	800	1000	250	400	630	800	1000	
Downstream CB	**Selectivity limit (kA)**															
C60N/H	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	

Upstream CB	MasterPacT MTZ2 08/10/12/16/20 N1/H1/H2/H2V/L1																								
Trip unit type	MicroLogic 2.0X Isd = 10 Ir							MicroLogic 5.0X - 6.0X - 7.0X Inst : 15 In Standard								MicroLogic 5.0X - 6.0X - 7.0X Inst : OFF									
Trip unit rating In (A)	800			1000	1250	1600	2000	800			1000	1250	1600	2000		800			1000	1250	1600	2000			
Setting Ir (A)	320	630	800	1000	1250	1600	2000	320	630	800	1000	1250	1600	2000		320	630	800	1000	1250	1600	2000			
Downstream CB	**Selectivity limit (kA)**																								
C60N/H	T	T	T	T	T	T	T	T	T	T	T	T	T	T		T	T	T	T	T	T	T			

Upstream CB	MasterPacT MTZ2 25/32/40 H1/H2/H2V			MasterPacT MTZ3 40/50/63 H1/H2			MasterPacT MTZ2 25/32/40 H1/H2/H2V			MasterPacT MTZ3 40/50/63 H1/H2			MasterPacT MTZ2 25/32/40 H1/H2/H2V			MasterPacT MTZ3 40/50/63 H1/H2		
Trip unit type	MicroLogic 2.0X Isd = 10 Ir						MicroLogic 5.0X - 6.0X - 7.0X Inst : 15 In Standard						MicroLogic 5.0X - 6.0X - 7.0X Inst : OFF					
Trip unit rating In (A)	2500	3200	4000	4000	5000	6300	2500	3200	4000	4000	5000	6300	2500	3200	4000	4000	5000	6300
Setting Ir (A)	2500	3200	4000	4000	5000	6300	2500	3200	4000	4000	5000	6300	2500	3200	4000	4000	5000	6300
Downstream CB	**Selectivity limit (kA)**																	
C60N/H	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T

Upstream CB	MasterPacT MTZ2 20/25/32/40 H3							MasterPacT MTZ3 40/50/63 H2							MasterPacT MTZ2 20/25/32/40 H3							MasterPacT MTZ3 40/50/63 H2						
Trip unit type	MicroLogic 2.0X Isd = 10 Ir							MicroLogic 5.0X - 6.0X - 7.0X Inst : 15 In Standard							MicroLogic 5.0X - 6.0X - 7.0X Inst : OFF													
Trip unit rating In (A)	2000	2500	3200	4000	4000	5000	6300	2000	2500	3200	4000	4000	5000	6300	2000	2500	3200	4000	4000	5000	6300	2000	2500	3200	4000	4000	5000	6300
Setting Ir (A)	2000	2500	3200	4000	4000	5000	6300	2000	2500	3200	4000	4000	5000	6300	2000	2500	3200	4000	4000	5000	6300	2000	2500	3200	4000	4000	5000	6300
Downstream CB	**Selectivity limit (kA)**																											
C60N/H	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T

T Total selectivity, up to the breaking capacity of the downstream circuit breaker.

Note: Respect the basic rules of selectivity, in terms of overload, short-circuit, ground fault and earth leakage when applicable see page 4, or check curves with Schneider Electric online “Electrical calculation tools”.
When the upstream device is equipped with MicroLogic 6 or 7, the table provides selectivity limits for line to line or line to neutral short circuits, selectivity in earth fault condition shall be checked separately.

Selectivity Tables for Direct Current Application

How to use the tables:

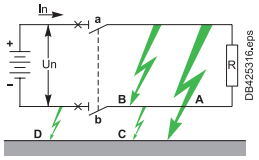
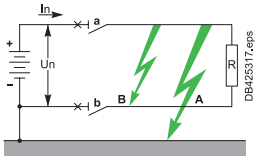
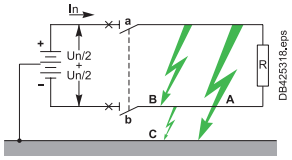
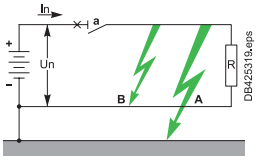
In the following pages are provided selectivity tables for the following system:

- 24-48 60 Vdc
- 110-125 Vdc
- 220-250 Vdc

With time constant from 1.5 to 25 ms

Suitability of circuit breakers according to voltage and earthing system shall be checked before using these tables. Selection of devices in DC can be challenging due to the diversity of voltage levels and earthing system. See product catalog or guides for DC application.

In this document we will consider the following cases:

IT	TN		
Isolated from earth + and - conductors protected and disconnected	- (or +) earthed '+ and - conductors protected and disconnected	Midpoint earthed (not distributed) + and – conductors protected and disconnected	- (or +) earthed '+ (or -) conductors protected and disconnected
			
Case 1	Case 2	Case 3	Case 4

For one given voltage the selectivity table is applicable for Case 1, Case 2, Case 3, Case 4 with this voltage between + and – for all types of fault. (In IT, Case 1, circuit breaker will not trip during first fault to earth)
For one given voltage selectivity limits in the table can also apply to system with higher voltage (up to 2 times) for all type of fault in Case 3 and for + to – fault only (Fault "B") in Case 1 if the same circuit breakers with same number of poles can be used at this higher voltage.

Selectivity Table

Upstream: Schneider Electric/Spectre C60 Curve B
Downstream: Schneider Electric/Spectre C60 Curves B, C, D, C60H-DC Curve C

Ue: 24-48-60 V DC [3]

Time constant: 1.5 ms - 25 ms

Upstream			C60N/H, 1P or 2P [1] Curve B										
In (A)			2	4	6	10	16	20	25	32	40	50	63
Downstream			**Selectivity limit (A)** [2]										
Circuit breaker	**Curve**	**Rating (A)**											
C60N/H 1P or 2P [1]	**B**	**2**				T	T	T	T	T	T	T	T
		4						500	900	T	T	T	T
		6							300	700	1000	1800	4000
		10								400	500	800	1000
		≥16											
	C	**2**				T	T	T	T	T	T	T	T
		4						400	900	T	T	T	T
		6							300	700	1000	1800	3000
		10								300	500	700	800
		≥16											
	D	**2**				1600	T	T	T	T	T	T	T
		4							700	T	T	T	T
		6								500	800	1800	3000
		10									400	600	800
		≥16											
C60H-DC 1P or 2P [1]	**C**	**2**				T	T	T	T	T	T	T	T
		4						400	900	T	T	T	T
		6							300	700	1000	1800	3000
		10								300	500	700	800
		≥16											

[1] Type of circuit breaker depend on earthing system and circuit breaker ranges (see Distribution guide direct current CA908061).
[2] According to the voltage and number of pole used, the breaking capacity can changed.
Selectivity limit is the minimum of the value indicated in the table and the breaking capacity of downstream circuit breaker.
[3] This table is applicable for Case 1, Case 2, Case 3, Case 4 defined in introduction with this voltage between + and -
Selectivity limits in this table for Case 1 and Case 3 can also apply to system with higher voltage (up to 2 times) for the same circuit breaker (same number of poles used).

T	Total selectivity, up to the breaking capacity of the downstream circuit breaker.
700	Selectivity limit = 700 A.
	No selectivity.

Compliancy of circuit breakers according to voltage and earthing system shall be checked before using this table.

Selectivity Table

Upstream: Schneider Electric/Spectre C60 Curve C

Downstream: Schneider Electric/Spectre C60 Curves B, C, D, C60H-DC Curve C

Ue: 24-48-60 V DC [3]

Time constant: 1.5 ms - 25 ms

Upstream			C60N/H, 1P or 2P [1] Curve C										
In (A)			2	4	6	10	16	20	25	32	40	50	63
Downstream			Selectivity limit (A) [2]										
Circuit breaker	**Curve**	**Rating (A)**											
C60N/H/L 1P or 2P [1]	**B**	**2**			700	T	T	T	T	T	T	T	T
		4					900	8000	T	T	T	T	T
		6							900	1800	3200	T	T
		10								700	800	1500	2000
		16										1000	1200
		≥20											
	C	**2**			500	T	T	T	T	T	T	T	T
		4					900	6700	T	T	T	T	T
		6							700	1400	3200	T	T
		10								700	800	1500	2000
		16										1000	1200
		≥20											
	D	**2**			350	T	T	T	T	T	T	T	T
		4					700	4000	T	T	T	T	T
		6							700	1400	3200	T	T
		10								500	800	1500	1800
		16										1000	1200
		≥20											
C60H-DC 1P or 2P [1]	**C**	**2**			500	T	T	T	T	T	T	T	T
		4					900	6700	T	T	T	T	T
		6							700	1400	3200	T	T
		10								700	800	1500	2000
		16										1000	1200
		≥20											

[1] Type of circuit breaker depend on earthing system and circuit breaker ranges (see Distribution guide direct current CA908061).
[2] According to the voltage and number of pole used, the breaking capacity can changed.
Selectivity limit is the minimum of the value indicated in the table and the breaking capacity of downstream circuit breaker.
[3] This table is applicable for Case 1, Case 2, Case 3, Case 4 defined in introduction with this voltage between + and -
Selectivity limits in this table for Case 1 and Case 3 can also apply to system with higher voltage (up to 2 times) for the same circuit breaker (same number of poles used).

T	Total selectivity, up to the breaking capacity of the downstream circuit breaker.
700	Selectivity limit = 700 A.
	No selectivity.

Compliancy of circuit breakers according to voltage and earthing system shall be checked before using this table.

Selectivity Table

Upstream: Schneider Electric/Spectre C60 Curve D
Downstream: Schneider Electric/Spectre C60 Curves B, C, D, C60H-DC Curve C

Ue: 24-48-60 V DC [3]

Time constant: 1.5 ms - 25 ms

Upstream			C60N/H, 1P or 2P [1] Curve D										
In (A)			2	4	6	10	16	20	25	32	40	50	63
Downstream			**Selectivity limit (A)** [2]										
Circuit breaker	**Curve**	**Rating (A)**											
C60N/H/L 1P or 2P [1]	**B**	**2**		1500	T	T	T	T	T	T	T	T	T
		4				700	T	T	T	T	T	T	T
		6					700	1000	2500	T	T	T	T
		10							700	1400	1600	3600	9000
		16								900	1000	1900	2700
		≥20											
	C	**2**		1000	T	T	T	T	T	T	T	T	T
		4				700	T	T	T	T	T	T	T
		6					700	1000	2000	T	T	T	T
		10							700	1400	1600	3600	9000
		16								900	1000	1500	2100
		≥20											
	D	**2**		700	T	T	T	T	T	T	T	T	T
		4				700	T	T	T	T	T	T	T
		6					700	1000	2000	T	T	T	T
		10							700	1400	1600	3600	7400
		16								900	1000	1500	2100
		≥20											
C60H-DC 1P or 2P [1]	**C**	**2**		1000	T	T	T	T	T	T	T	T	T
		4				700	T	T	T	T	T	T	T
		6					700	1000	2000	T	T	T	T
		10							700	1400	1600	3600	9000
		16								900	1000	1500	2100
		≥20											

[1] Type of circuit breaker depend on earthing system and circuit breaker ranges (see Distribution guide direct current CA908061).
[2] According to the voltage and number of pole used, the breaking capacity can changed.
Selectivity limit is the minimum of the value indicated in the table and the breaking capacity of downstream circuit breaker.
[3] This table is applicable for Case 1, Case 2, Case 3, Case 4 defined in introduction with this voltage between + and -
Selectivity limits in this table for Case 1 and Case 3 can also apply to system with higher voltage (up to 2 times) for the same circuit breaker (same number of poles used).

T	Total selectivity, up to the breaking capacity of the downstream circuit breaker.
700	Selectivity limit = 700 A.
	No selectivity.

Compliancy of circuit breakers according to voltage and earthing system shall be checked before using this table.

Selectivity Table

Upstream: C60H-DC Curve C

Downstream: Schneider Electric/Spectre C60 Curves B, C, D, C60H-DC Curve C

Ue: 24-48-60 V DC [3]

Time constant: 1.5 ms - 25 ms

Upstream			C60H-DC, 1P or 2P [1] Curve C										
In (A)			2	4	6	10	16	20	25	32	40	50	63
Downstream			**Selectivity limit (A)** [2]										
Circuit breaker	**Curve**	**Rating (A)**											
C60N/H/L 1P or 2P [1]	**B**	**2**			150	T	T	T	T	T	T	T	T
		4					500	800	1500	T	T	T	T
		6						370	450	900	1600	3600	7300
		10								400	800	1200	1800
		≥16											
	C	**2**			150	T	T	T	T	T	T	T	T
		3				300	1200	T	T	T	T	T	T
		4					400	600	1500	T	T	T	T
		6						300	450	900	1600	3600	6000
		10								400	800	1200	1450
		≥16											
	D	**2**			150	T	T	T	T	T	T	T	T
		4					400	600	1500	T	T	T	T
		6						300	450	900	1600	3600	6000
		10								400	700	1200	1450
		≥16											
C60H-DC 1P or 2P [1]	**C**	**2**			150	T	T	T	T	T	T	T	T
		4					500	800	1500	T	T	T	T
		6						370	450	900	1600	3600	7300
		10								400	800	1200	1800
		≥16											

[1] Type of circuit breaker depend on earthing system and circuit breaker ranges (see Distribution guide direct current CA908061).
[2] According to the voltage and number of pole used, the breaking capacity can changed.
Selectivity limit is the minimum of the value indicated in the table and the breaking capacity of downstream circuit breaker.
[3] This table is applicable for Case 1, Case 2, Case 3, Case 4 defined in introduction with this voltage between + and -
Selectivity limits in this table for Case 1 and Case 3 can also apply to system with higher voltage (up to 2 times) for the same circuit breaker (same number of poles used).

T	Total selectivity, up to the breaking capacity of the downstream circuit breaker.
700	Selectivity limit = 700 A.
	No selectivity.

Compliancy of circuit breakers according to voltage and earthing system shall be checked before using this table.

Selectivity Table

Upstream: C120, NG125 Curve B

Downstream: Schneider Electric/Spectre C60 Curves B, C, D, C60H-DC Curve C

Ue: 24-48-60 V DC [3]

Time constant: 1.5 ms - 25 ms

Upstream			C120N/H/L, NG125N/H/L, 1P or 2P [1] Curve B										
In (A)			10	16	20	25	32	40	50	63	80	100	125
Downstream			**Selectivity limit (A) [2]**										
Circuit breaker	**Curve**	**Rating (A)**											
C60N/H 1P or 2P [1]	**B**	**≤2**	T	T	T	T	T	T	T	T	T	T	T
		4		300	500	1000	1250	T	T	T	T	T	T
		6			300	500	600	1800	2000	5500	T	T	T
		10						700	700	1900	5000	9500	T
		16									2000	3500	8500
		20										2000	4200
		≥25											
	C	**≤2**	T	T	T	T	T	T	T	T	T	T	T
		4		250	900	1100	1300	T	T	T	T	T	T
		6				500	500	1400	2000	4500	T	T	T
		10						500	600	1500	5000	9000	T
		16									1800	3000	7000
		20										2000	3500
		≥25											
	D	**2**	5000	T	T	T	T	T	T	T	T	T	T
		4			500	800	1000	T	T	T	T	T	T
		6				300	300	1100	1600	3500	T	T	T
		10						400	400	1200	4000	8000	T
		16							250	400	1400	2500	6000
		20									600	1400	3500
		≥25											
C60H-DC 1P or 2P [1]	**C**	**≤2**	T	T	T	T	T	T	T	T	T	T	T
		4		250	900	1100	1300	T	T	T	T	T	T
		6				500	500	1400	2000	4500	T	T	T
		10						500	600	1500	5000	9000	T
		16									1800	3000	7000
		20										2000	3500
		≥25											

[1] Type of circuit breaker depend on earthing system and circuit breaker ranges (see Distribution guide direct current CA908061).
[2] According to the voltage and number of pole used, the breaking capacity can changed.
Selectivity limit is the minimum of the value indicated in the table and the breaking capacity of downstream circuit breaker.
[3] This table is applicable for Case 1, Case 2, Case 3, Case 4 defined in introduction with this voltage between + and -
Selectivity limits in this table for Case 1 and Case 3 can also apply to system with higher voltage (up to 2 times) for the same circuit breaker (same number of poles used).

T	Total selectivity, up to the breaking capacity of the downstream circuit breaker.
700	Selectivity limit = 700 A.
	No selectivity.

Compliancy of circuit breakers according to voltage and earthing system shall be checked before using this table.

Selectivity Table

Upstream: C120, NG125 Curve C

Downstream: Schneider Electric/Spectre C60 Curves B, C, D, C60H-DC Curve C

Ue: 24-48-60 V DC [3]

Time constant: 1.5 ms - 25 ms

Upstream			C120N/H/L, NG125N/H/L, 1P or 2P [1] Curve C										
In (A)			10	16	20	25	32	40	50	63	80	100	125
Downstream			**Selectivity limit (A) [2]**										
Circuit breaker	**Curve**	**Rating (A)**											
C60N/H 1P or 2P [1]	**B**	**≤2**	T	T	T	T	T	T	T	T	T	T	T
		4		1500	2000	T	T	T	T	T	T	T	T
		6			400	1500	3000	T	T	T	T	T	T
		10						1800	3000	8000	T	T	T
		16						1000	1400	2500	15000	T	T
		20									6500	11500	T
		25									4500	8500	15000
		32										5000	8000
		≥40											
	C	**≤2**	T	T	T	T	T	T	T	T	T	T	T
		4		1000	1400	T	T	T	T	T	T	T	T
		6			400	1000	2400	T	T	T	T	T	T
		10					800	1500	3000	8500	T	T	T
		16						800	1400	3000	15000	T	T
		20								1700	6500	11000	T
		25									4500	8500	12000
		32									3000	5000	7000
		≥40											
	D	**≤2**	T	T	T	T	T	T	T	T	T	T	T
		4		500	1400	T	T	T	T	T	T	T	T
		6				800	1900	T	T	T	T	T	T
		10					600	1200	2500	7000	T	T	T
		16						500	1000	2500	12000	T	T
		20								1400	5500	9000	T
		25									3500	7500	11000
		32										3500	6000
		≥40											
C60H-DC 1P or 2P [1]	**C**	**≤2**	T	T	T	T	T	T	T	T	T	T	T
		4		1000	1400	T	T	T	T	T	T	T	T
		6			400	1000	2400	T	T	T	T	T	T
		10					800	1500	3000	8500	T	T	T
		16						800	1400	3000	15000	T	T
		20								1700	6500	11000	T
		25									4500	8500	12000
		32									3000	5000	7000
		≥40											

[1] Type of circuit breaker depend on earthing system and circuit breaker ranges (see Distribution guide direct current CA908061).
[2] According to the voltage and number of pole used, the breaking capacity can changed.
Selectivity limit is the minimum of the value indicated in the table and the breaking capacity of downstream circuit breaker.
[3] This table is applicable for Case 1, Case 2, Case 3, Case 4 defined in introduction with this voltage between + and -
Selectivity limits in this table for Case 1 and Case 3 can also apply to system with higher voltage (up to 2 times) for the same circuit breaker (same number of poles used).

T	Total selectivity, up to the breaking capacity of the downstream circuit breaker.
700	Selectivity limit = 700 A.
	No selectivity.

Compliancy of circuit breakers according to voltage and earthing system shall be checked before using this table.

Selectivity Table

Upstream: C120, NG125 Curve D

Downstream: Schneider Electric/Spectre C60 Curves B, C, D, C60H-DC Curve C

Ue: 24-48-60 V DC [3]

Time constant: 1.5 ms - 25 ms

Upstream			C120N/H/L, NG125N/H/L, 1P or 2P [1] Curve D										
In (A)			10	16	20	25	32	40	50	63	80	100	125
Downstream			**Selectivity limit (A)** [2]										
Circuit breaker	**Curve**	**Rating (A)**											
C60N/H 1P or 2P [1]	**B**	**4**	5000	T	T	T	T	T	T	T	T	T	T
		6		1000	2000	T	T	T	T	T	T	T	T
		10			1000	9000	1400	3500	5000	T	T	T	T
		16						1500	2500	6000	T	T	T
		20							2000	3500	T	T	T
		25									15000	T	T
		32									9000	T	T
		40									7000	10000	T
		50											10000
		63											5000
	C	**4**	5000	T	T	T	T	T	T	T	T	T	T
		6		1000	2000	T	T	T	T	T	T	T	T
		10			1000	9000	1400	3500	4000	15000	T	T	T
		16						1500	2000	6000	T	T	T
		20								3000	T	T	T
		25									12000	T	T
		32									8000	T	T
		40									5000	9000	T
		50											9000
		63											4000
	D	**4**	5000	T	T	T	T	T	T	T	T	T	T
		6		1000	2000	T	T	T	T	T	T	T	T
		10			1000	9000	1400	3000	4000	12000	T	T	T
		16						1200	2000	5000	T	T	T
		20									T	T	T
		25									10000	T	T
		32									6000	12000	T
		40										5000	10000
		50											5000
		63											
C60H-DC 1P or 2P [1]	**C**	**4**	5000	T	T	T	T	T	T	T	T	T	T
		6		1000	2000	T	T	T	T	T	T	T	T
		10			1000	9000	1400	3000	4000	15000	T	T	T
		16						1500	2000	6000	T	T	T
		20								3000	T	T	T
		25									12000	T	T
		32									8000	T	T
		40									5000	9000	T
		50											9000
		63											4000

[1] Type of circuit breaker depend on earthing system and circuit breaker ranges (see Distribution guide direct current CA908061).
[2] According to the voltage and number of pole used, the breaking capacity can changed.
Selectivity limit is the minimum of the value indicated in the table and the breaking capacity of downstream circuit breaker.
[3] This table is applicable for Case 1, Case 2, Case 3, Case 4 defined in introduction with this voltage between + and -
Selectivity limits in this table for Case 1 and Case 3 can also apply to system with higher voltage (up to 2 times) for the same circuit breaker (same number of poles used).

T	Total selectivity, up to the breaking capacity of the downstream circuit breaker.
5000	Selectivity limit = 5000 A.
	No selectivity.

Compliancy of circuit breakers according to voltage and earthing system shall be checked before using this table.

Selectivity Table

Upstream: ComPacT NSX100/160/250 DC TM-D, TM-DC
Downstream: Schneider Electric/Spectre C60, C60H-DC

Ue: 24-48-60 V DC [3]

Time constant: 1.5 ms - 25 ms

Upstream CB	NSX100DC								NSX160DC			NSX250 DC				
	1P1D 2P2D F/N/M/S 3P3D F/S [1]															
Trip unit type	TMD, TM-DC								TMD, TM-DC			TM-DC				
Trip unit rating (A)	16	25	32	40	50	63	80	100	100	125	160	160	200		250	
Im		fixed	fixed	fixed	fixed	fixed	fixed	fixed	fixed	fixed	fixed	fixed	Mini	Maxi	Mini	Maxi
	260	400	550	700	700	700	800	800	800	1250	1250	1250	1000	2000	1250	2500

Downstream	Rating	Selectivity limit (kA) [2]															
C60N/H B-C-D curves 1P1D or 2P2D [1]	2	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	4	0.26	5	10	T	T	T	T	T	T	T	T	T	T	T	T	T
	6			0.55	5	10	T	T	T	T	T	T	T	T	T	T	T
	10				0.7	5	T	T	T	T	T	T	T	T	T	T	T
	16						5	T	T	T	T	T	T	T	T	T	T
	20						0.7	10	10	10	T	T	T	T	T	T	T
	25							5	10	10	T	T	T	T	T	T	T
	32							0.8	10	10	T	T	T	10	T	T	T
	40								5	5	10	T	T	5	T	T	T
	50								0.8	0.8	10	10	10		T	10	T
	63										5	5	5		T	5	T
C60H-DC C curves 1P1D or 2P2D [1]	2	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	4	0.26	5	10	T	T	T	T	T	T	T	T	T	T	T	T	T
	6			0.55	5	10	T	T	T	T	T	T	T	T	T	T	T
	10				0.7	5	T	T	T	T	T	T	T	T	T	T	T
	16						5	T	T	T	T	T	T	T	T	T	T
	20						0.7	10	10	10	T	T	T	T	T	T	T
	25							5	10	10	T	T	T	T	T	T	T
	32							0.8	10	10	T	T	T	10	T	T	T
	40								5	5	10	T	T	5	T	T	T
	50								0.8	0.8	10	10	10		T	10	T
	63										5	5	5		T	5	T

[1] Type of circuit breaker depend on earthing system and circuit breaker ranges (see Distribution guide direct current CA908061).
[2] According to the voltage and number of pole used, the breaking capacity can changed.
Selectivity limit is the minimum of the value indicated in the table and the breaking capacity of downstream circuit breaker.
[3] This table is applicable for Case 1, Case 2, Case 3, Case 4 defined in introduction with this voltage between + and -
Selectivity limits in this table for Case 1 and Case 3 can also apply to system with higher voltage (up to 2 times) for the same circuit breaker (same number of poles used).

Compliancy of circuit breakers according to voltage and earthing system shall be checked before using this table.

Selectivity Table

Upstream: ComPacT NSX100/160/250 DC TM-D, TM-DC
Downstream: Schneider Electric/Spectre C60, C60H-DC

Ue: 24-48-60 V DC [3]

Time constant: 1.5 ms - 25 ms

Upstream CB	NSX 100DC F			NSX 160DC F	NSX 250 DC F			NSX 100DC F			NSX 160DC F	NSX 250DC F		
	2P2D				3P3D 2P used			4P4D						
	Parallel connection for + or -				Parallel connection for + or -			2 poles with parallel connection for + and - [2]						
Trip unit type	TM-D, TM-DC				TM-DC			TM-D, TM-DC				TM-DC		
Trip unit rating (A)	50	63	80	125	160	200		50	63	80	125	160	200	
Equivalent rated current	125	158	200	313	400	500		115	145	184	288	368	460	
Im	fixed	fixed	fixed	fixed	fixed	Mini	Maxi	fixed	fixed	fixed	fixed	fixed	Mini	Maxi
	1400	1400	1600	2500	25000	2000	4000	1400	1400	1600	25000	2000	4000	2000

Downstream	Rating	Selectivity limit (kA) [2]													
C60N/H	2	T	T	T	T	T	T	T	T	T	T	T	T	T	T
B-C-D curves	4	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	6	T	T	T	T	T	T	T	T	T	T	T	T	T	T
1P1D or 2P2D [1]	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	16	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	20	10	T	T	T	T	T	T		T	T	T	T	T	T
	25	5	T	T	T	T	T	T	5	T	T	T	T	T	T
	32	0.8	T	T	T	T	T	T	0.8	T	T	T	T	T	T
	40		10	T	T	T	T	T		10	T	T	T	T	T
	50		10	10	T	T	10	T		10	10	T	T	10	T
	63		5	5	T	T	5	T		5	5	T	T	5	T
C60H-DC	2	T	T	T	T	T	T	T	T	T	T	T	T	T	T
C curves	4	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	6	T	T	T	T	T	T	T	T	T	T	T	T	T	T
1P1D or 2P2D [1]	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	16	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	20	10	T	T	T	T	T	T	10	T	T	T	T	T	T
	25	5	T	T	T	T	T	T	5	T	T	T	T	T	T
	32	0.8	T	T	T	T	T	T	0.8	T	T	T	T	T	T
	40		10	T	T	T	T	T		10	T	T	T	T	T
	50		10	10	T	T	10	T		10	10	T	T	10	T
	63		5	5	T	T	5	T		5	5	T	T	5	T

[1] Type of circuit breaker (1P1D, 2P2D) depend on earthing system and circuit breaker ranges.
For voltage up to 60Vdc one single pole of C60 C120 NG125 NSX range is enough to break the current.
For ranges with 3P or 4P breakers only (NSX250 for example), one or two poles only are used of a 3P circuit breaker.
[2] According to the voltage and nb of pole used, the breaking capacity can changed.
Selectivity limit is the minimum of the value indicated in the table and the breaking capacity of downstream circuit breaker.
[3] This table is applicable for Case 1, Case 2, Case 3, Case 4 defined in introduction with this voltage between + and -.
Selectivity limits in this table for case 1 and Case 3 can also apply to system with higher voltage (up to 2 times) for the same circuit breaker (same number of poles used).

Compliancy of circuit breakers according to voltage and earthing system shall be checked before using this table.

Selectivity Table

Upstream: ComPacT NSX100/160/250 DC TM-G
Downstream: Schneider Electric/Spectre C60, C60H-DC

Ue: 24-48-60 V DC [3]

Time constant: 1.5 ms - 25 ms

Upstream CB		NSX100DC						NSX160DC			NSX250 DC		
		3P3D (1 or 2 P used) F/S [1]											
Trip unit type		TM-G						TM-G			TM-G		
Trip unit rating (A)		16	25	40	63	80	100	100	125	160	160	200	250
Im		80	100	100	150	250	400	400	530	530	530	530	625
Downstream	**In**	**Selectivity limit (kA)** [2]											
C60N/H	**2**	0.08	0.1	0.1	10	T	T	T	T	T	T	T	T
B-C-D curves	**4**				0.15	5	10	10	T	T	T	T	T
	6						0.4	0.4	T	T	T	T	T
1P1D or 2P2D [1]	**10**								10	10	10	10	T
	16								5	5	5	5	5
	20								0.5	0.5	0.5	0.5	5
	25												0.6
	32												
	40												
	50												
	63												
C60H-DC	**2**	0.08	0.1	0.1	10	T	T	T	T	T	T	T	T
C curves	**4**				0.15	5	10	10	T	T	T	T	T
	6						0.4	0.4	T	T	T	T	T
1P1D or 2P2D [1]	**10**								10	10	10	10	T
	16								5	5	5	5	5
	20								0.5	0.5	0.5	0.5	5
	25												0.6
	32												
	40												
	50												
	63												

[1] Type of circuit breaker (1P1D, 2P2D) depend on earthing system and circuit breaker ranges.
For voltage up to 60Vdc one single pole of C60 C120 NG125 NSX range is enough to break the current.
For ranges with 3P or 4P breakers only (NSX250 for example), one or two poles only are used of a 3P circuit breaker.
[2] According to the voltage and nb of pole used, the breaking capacity can changed.
Selectivity limit is the minimum of the value indicated in the table and the breaking capacity of downstream circuit breaker.
[3] This table is applicable for Case 1, Case 2, Case 3, Case 4 defined in introduction with this voltage between + and -.
Selectivity limits in this table for case 1 and Case 3 can also apply to system with higher voltage (up to 2 times) for the same circuit breaker (same number of poles used).

Compliancy of circuit breakers according to voltage and earthing system shall be checked before using this table.

Selectivity Table

Upstream: ComPacT NSX400/630/1200 DC TM-DC
Downstream: Schneider Electric/Spectre C60, C60H-DC

Ue: 24-48-60 V DC [3]

Time constant: 1.5 ms - 25 ms

Upstream CB	NSX400DC F/S						NSX630DC F/S				NSX1200DC N							
	3P3D (1 or 2 P Used) [1]										2P2D							
Trip unit type	TM-DC						TM-DC				TM-DC							
Trip unit rating (A)	250		320		400		500		600		630		800		1000		1200	
	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max
Im	625	1250	800	1600	1000	2000	1250	2500	1500	3000	1575	3150	2000	4000	2500	5000	3000	6000

Downstream	Rating	Selectivity limit (kA) [2]																	
C60N/H B-C-D curves 1P1D or 2P2D [1]	2	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	4	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	6	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	10	10	T	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	16	0.6	T	5	T	10	T	T	T	T	T	T	T	T	T	T	T	T	T
	20		10	5	T	5	T	T	T	T	T	T	T	T	T	T	T	T	T
	25		5	0.8	10	5	T	T	T	T	T	T	T	T	T	T	T	T	T
	32		1.25	0.8	10	1	10	T	T	T	T	T	T	T	T	T	T	T	T
	40				10		10	T	T	T	T	T	T	T	T	T	T	T	T
	50				5		5	T	T	T	T	T	T	T	T	T	T	T	T
	63				5		2	T	T	T	T	T	T	T	T	T	T	T	T
C60H-DC C curves 1P1D or 2P2D [1]	2	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	4	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	6	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	10	10	T	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	16	0.6	T	5	T	10	T	T	T	T	T	T	T	T	T	T	T	T	T
	20		10	5	T	5	T	T	T	T	T	T	T	T	T	T	T	T	T
	25		5	0.8	10	5	T	T	T	T	T	T	T	T	T	T	T	T	T
	32		1.25	0.8	10	1	10	T	T	T	T	T	T	T	T	T	T	T	T
	40				10		10	T	T	T	T	T	T	T	T	T	T	T	T
	50				5		5	T	T	T	T	T	T	T	T	T	T	T	T
	63				5		2	T	T	T	T	T	T	T	T	T	T	T	T

[1] Type of circuit breaker (1P1D, 2P2D) depend on earthing system and circuit breaker ranges.
For voltage up to 60Vdc one single pole of C60 C120 NG125 NSX range is enough to break the current.
For ranges with 3P or 4P breakers only (NSX250 for example), one or two poles only are used of a 3P circuit breaker.
[2] According to the voltage and nb of pole used, the breaking capacity can changed.
Selectivity limit is the minimum of the value indicated in the table and the breaking capacity of downstream circuit breaker.
[3] This table is applicable for Case 1, Case 2, Case 3, Case 4 defined in introduction with this voltage between + and -.
Selectivity limits in this table for case 1 and Case 3 can also apply to system with higher voltage (up to 2 times) for the same circuit breaker (same number of poles used).

Compliancy of circuit breakers according to voltage and earthing system shall be checked before using this table.

Selectivity Table

Upstream: MasterPacT NW DC

Downstream: Schneider Electric/Spectre C60, C60H-DC

Ue: 24-48-60 V DC [2]

Time constant: 1.5 ms - 25 ms

Upstream CB	NW10DC -C N/H					NW10DC -C N/H					NW10DC -C N/H				
						NW20DC -C N/H					NW20DC -C N/H				
											NW40DC-C N/H				
	2P2D														
Trip unit type	MicroLogic 1.0 DC														
	Range 1250/2500A					Range 2500/5400A					Range 5000/11000A				
Type	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
Setting	1250	1500	1600	2000	2500	2500	3300	4000	5000	5400	5000	8000	10000	11000	11000

Downstream	Rating (A)	Selectivity limit (kA) [1]														
C60N/H	2-63	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
C60H-DC	2-63	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T

Note: Type of circuit breaker (1P1D, 2P2D) depend on earthing system and circuit breaker ranges.
For voltage up to 60Vdc one single pole of C60, C120, NG125, or NSX range is enough to break the current.
For ranges with 3P or 4P breakers only (NSX250 for example), one or two poles only are used of a 3P circuit breaker.
[1] According to the voltage and nb of pole used, the breaking capacity can changed.
Selectivity limit is the minimum of the value indicated in the table and the breaking capacity of downstream circuit breaker.
[2] This table is applicable for Case 1, Case 2, Case 3, Case 4 defined in introduction with this voltage between + and -.
Selectivity limits in this table for case 1 and Case 3 can also apply to system with higher voltage (up to 2 times) for the same circuit breaker (same number of poles used).

Compliancy of circuit breakers according to voltage and earthing system shall be checked before using this table.

Selectivity Table

Upstream: ComPacT NSX100/160/250 DC TM-DC
Downstream: Schneider Electric/Spectre C60, C60H-DC

Ue: 110-125 V DC [3]

Time constant: 1.5 ms - 25 ms

Upstream CB	NSX100DC								NSX160DC			NSX250 DC				
	1P1D 2P2D F/N/M/S 3P3D F/S [1]											3P3D (1 or 2 P used) F/S [1]				
Trip unit type	TMD, TM-DC								TMD, TM-DC			TM-DC				
Trip unit rating (A)	16	25	32	40	50	63	80	100	100	125	160	160	200		250	
Im	fixed	fixed	fixed	fixed	fixed	fixed	fixed	fixed	fixed	fixed	fixed	fixed	Mini	Maxi	Mini	Maxi
	260	400	550	700	700	700	800	800	800	1250	1250	1250	1000	2000	1250	2500

Downstream	Rating	Selectivity limit (kA) [2]															
C60N/H B-C-D curves	**2**	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	4	0.26	5	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	6			5	5	10	T	T	T	T	T	T	T	T	T	T	T
2x (1P1D or 2P2D [1]	**10**			0.55	0.7	5	T	T	T	T	T	T	T	T	T	T	T
(2 Poles in serie)	**16**						5	T	T	T	T	T	T	T	T	T	T
	20						0.7	10	10	10	T	T	T	T	T	T	T
	25							5	10	10	T	T	T	T	T	T	T
	32							0.8	10	10	T	T	T	10	T	T	T
	40								5	5	10	T	T	5	T	T	T
	50								0.8	0.8	10	10	10		T	10	T
	63										5	10	5		T	5	T
C60H-DC C curves	**2**	0.26	5	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	4			0.5	5	10	T	T	T	T	T	T	T	T	T	T	T
	6					5	10	T	T	T	T	T	T	T	T	T	T
1P1D or 2P2D [1]	**10**					0.7	5	10	T	T	T	T	T	T	T	T	T
	16							0.8	10	10	T	T	T	10	T	T	T
	20								5	5	T	T	T	5	T	T	T
	25								0.8	0.8	10	T	T	0.8	T	T	T
	32										5	10	10		T	10	T
	40											5	5		T	5	T
	50														10		10
	63														5		5

[1] Type of circuit breaker (1P1D, 2P2D) depend on earthing system and circuit breaker ranges.
For voltage up to 60Vdc one single pole of C60 C120 NG125 NSX range is enough to break the current.
For ranges with 3P or 4P breakers only (NSX250 for example), one or two poles only are used of a 3P circuit breaker.
[2] According to the voltage and nb of pole used, the breaking capacity can changed.
Selectivity limit is the minimum of the value indicated in the table and the breaking capacity of downstream circuit breaker.
[3] This table is applicable for Case 1, Case 2, Case 3, Case 4 defined in introduction with this voltage between + and -.
Selectivity limits in this table for case 1 and Case 3 can also apply to system with higher voltage (up to 2 times) for the same circuit breaker (same number of poles used).

Compliancy of circuit breakers according to voltage and earthing system shall be checked before using this table.

Selectivity Table

Upstream: ComPacT NSX100/160/250 DC with Parallel Connection of Poles
Downstream: Schneider Electric/Spectre C60, C60H-DC

Ue: 110-125 V DC [3]

Time constant: 1.5 ms - 25 ms

Upstream CB	NSX 100DC F			NSX 160DC F	NSX 250 DC F			NSX 100DC F			NSX 160DC F	NSX 250 DC F		
	2P2D				3P3D 2P used			4P4D						
	Parallel connection for + or -				Parallel connection for + or -			2 poles with parallel connection for + and - [2]						
Trip unit type	TM-D, TM-DC				TM-DC			TM-D, TM-DC				TM-DC		
Trip unit rating (A)	50	63	80	125	160	200		50	63	80	125	160	200	
Equivalent rated current	125	158	200	313	400	500		115	145	184	288	368	460	
Im	fixed	fixed	fixed	fixed	fixed	Mini	Maxi	fixed	fixed	fixed	fixed	fixed	Mini	Maxi
	1400	1400	1600	2500	25000	2000	4000	1400	1400	1600	25000	2500	2000	4000

Downstream	Rating	Selectivity limit (kA) [2]													
C60N/H B-C-D curves	**2**	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	4	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	6	T	T	T	T	T	T	T	T	T	T	T	T	T	T
2x (1P1D or 2P2D [1] (2 Poles in serie)	**10**	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	16	T	T	T	T	T	T	T	v	T	T	T	T	T	T
	20	10	T	T	T	T	T	T	10	T	T	T	T	T	T
	25	5	T	T	T	T	T	T	5	T	T	T	T	T	T
	32	0.8	T	T	T	T	T	T	0.8	T	T	T	T	T	T
	40		10	T	T	T	T	T		10	T	T	T	T	T
	50		10	10	T	T	10	T		10	10	T	T	10	T
	63		5	5	T	T	5	T		5	10	T	T	5	T
C60H-DC C curves	**2**	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	4	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	6	T	T	T	T	T	T	T	T	T	T	T	T	T	T
1P1D or 2P2D [1]	**10**	10	T	T	T	T	T	T	10	T	T	T	T	T	T
	16	0.8	T	T	T	T	T	T	0.8	T	T	T	T	T	T
	20		T	T	T	T	T	T		T	T	T	T	T	T
	25		10	T	T	T	T	T		10	T	T	T	T	T
	32		5	10	T	T	10	T		5	10	T	T	T	T
	40			5	T	T	5	T			5	T	T	T	T
	50				10	T		T				10	T	10	T
	63				5	T		T				5	T	5	T

[1] Type of circuit breaker (1P1D, 2P2D) depend on earthing system and circuit breaker ranges.
For voltage up to 60Vdc one single pole of C60 C120 NG125 NSX range is enough to break the current.
For ranges with 3P or 4P breakers only (NSX250 for example), one or two poles only are used of a 3P circuit breaker.
[2] According to the voltage and nb of pole used, the breaking capacity can changed.
Selectivity limit is the minimum of the value indicated in the table and the breaking capacity of downstream circuit breaker.
[3] This table is applicable for Case 1, Case 2, Case 3, Case 4 defined in introduction with this voltage between + and -.
Selectivity limits in this table for case 1 and Case 3 can also apply to system with higher voltage (up to 2 times) for the same circuit breaker (same number of poles used).

Compliancy of circuit breakers according to voltage and earthing system shall be checked before using this table.

Selectivity Table

Upstream: ComPacT NSX100/160/250DC TM-G
Downstream: Schneider Electric/Spectre C60, C60H-DC

Ue: 110-125 V DC [3]

Time constant: 1.5 ms - 25 ms

Upstream CB		NSX100DC						NSX160DC			NSX250 DC		
		3P3D (1 or 2 P used) F/S [1]											
Trip unit type		TM-G						TM-G			TM-G		
Trip unit rating		16	25	40	63	80	100	100	125	160	160	200	250
Im		80	100	100	150	250	400	400	530	530	530	530	625
Downstream	**In**	**Selectivity limit (kA)** [2]											
C60N/H	**2**	0.08	0.1	0.1	10	T	T	T	T	T	T	T	T
B-C-D curves	**4**				0.15	5	10	10	T	T	T	T	T
	6						0.4	0.4	T	T	T	T	T
1P1D or 2P2D [1]	**10**								10	10	10	10	T
	16								5	5	5	5	5
	20								5	5	5	5	5
	25								0.5	0.5	0.5	0.5	5
	32												0.6
	40												
	50												
	63												
C60H-DC	**2**		0.1	0.1	0.15	5	10	10	T	T	T	T	T
C curves	**4**				0.15	0.25	0.4	0.4	T	T	T	T	T
	6						0.4	0.4	10	10	10	10	T
1P1D or 2P2D [1]	**10**								10	10	10	10	10
	16								0.5	0.5	0.5	0.5	5
	20								0.5	0.5	0.5	0.5	0.6
	25									0.5	0.5	0.5	0.6
	32												0.6
	40												
	50												
	63												

[1] Type of circuit breaker (1P1D, 2P2D) depend on earthing system and circuit breaker ranges.
For voltage up to 60Vdc one single pole of C60 C120 NG125 NSX range is enough to break the current.
For ranges with 3P or 4P breakers only (NSX250 for example), one or two poles only are used of a 3P circuit breaker.
[2] According to the voltage and nb of pole used, the breaking capacity can changed.
Selectivity limit is the minimum of the value indicated in the table and the breaking capacity of downstream circuit breaker.
[3] This table is applicable for Case 1, Case 2, Case 3, Case 4 defined in introduction with this voltage between + and -.
Selectivity limits in this table for case 1 and Case 3 can also apply to system with higher voltage (up to 2 times) for the same circuit breaker (same number of poles used).

Compliancy of circuit breakers according to voltage and earthing system shall be checked before using this table.

Selectivity Table

Upstream: ComPacT NSX400/630/1200 DC TM-DC
Downstream: Schneider Electric/Spectre C60, C60H-DC

Ue: 110-125 V DC [3]

Time constant: 1.5 ms - 25 ms

Upstream CB	NSX400DC F/S						NSX630DC F/S				NSX1200DC N							
	3P3D (1 or 2 P Used) [1]										2P2D							
Trip unit type	TM-DC						TM-DC				TM-DC							
Trip unit rating (A)	250		320		400		500		600		630		800		1000		1200	
	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max
Im	625	1250	800	1600	1000	2000	1250	2500	1500	3000	1575	3150	2000	4000	2500	5000	3000	6000

Downstream	Rating	Selectivity limit (kA) [2]																	
C60N/H B-C-D curves	**2**	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	4	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	6	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
2x (1P1D or 2P2D [1] (2 Poles in serie)	**10**	10	T	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	16	0.6	T	5	T	10	T	T	T	T	T	T	T	T	T	T	T	T	T
	20		10	5	T	5	T	T	T	T	T	T	T	T	T	T	T	T	T
	25		5	0.8	10	5	T	T	T	T	T	T	T	T	T	T	T	T	T
	32		1.25	0.8	10	1	10	T	T	T	T	T	T	T	T	T	T	T	T
	40				10		10	T	T	T	T	T	T	T	T	T	T	T	T
	50				5		5	T	T	T	T	T	T	T	T	T	T	T	T
	63				5		2	T	T	T	T	T	T	T	T	T	T	T	T
C60H-DC C curves	**2**	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	4	15	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	6	5	T	15	T	15	T	T	T	T	T	T	T	T	T	T	T	T	T
1P1D or 2P2D [1]	**10**	0.6	T	10	T	10	T	T	T	T	T	T	T	T	T	T	T	T	T
	16		5	0.8	15	5	15	T	T	T	T	T	T	T	T	T	T	T	T
	20		1.25		10	5	10	T	T	T	T	T	T	T	T	T	T	T	T
	25				10	1	10	T	T	T	T	T	T	T	T	T	T	T	T
	32				5	1	10	T	T	T	T	T	T	T	T	T	T	T	T
	40				5	1	5	T	T	T	T	T	T	T	T	T	T	T	T
	50				5	1	5	10	T	T	T	T	T	T	T	T	T	T	T
	63				5	1	5	10	T	T	T	T	T	T	T	T	T	T	T

[1] Type of circuit breaker (1P1D, 2P2D) depend on earthing system and circuit breaker ranges.
For voltage up to 60Vdc one single pole of C60 C120 NG125 NSX range is enough to break the current.
For ranges with 3P or 4P breakers only (NSX250 for example), one or two poles only are used of a 3P circuit breaker.
[2] According to the voltage and nb of pole used, the breaking capacity can changed.
Selectivity limit is the minimum of the value indicated in the table and the breaking capacity of downstream circuit breaker.
[3] This table is applicable for Case 1, Case 2, Case 3, Case 4 defined in introduction with this voltage between + and -.
Selectivity limits in this table for case 1 and Case 3 can also apply to system with higher voltage (up to 2 times) for the same circuit breaker (same number of poles used).

Compliancy of circuit breakers according to voltage and earthing system shall be checked before using this table.

Selectivity Table

Upstream: MasterPacT NW DC

Downstream: Schneider Electric/Spectre C60, C60H-DC

Ue: 24-48-60 V DC [3]

Time constant: 1.5 ms - 25 ms

Upstream CB	NW10DC -C N/H					NW10DC -C N/H					NW10DC -C N/H				
						NW20DC -C N/H					NW20DC -C N/H				
											NW40DC-C N/H				
	2P2D														
Trip unit type	MicroLogic 1.0 DC														
	Range 1250/2500A					Range 2500/5400A					Range 5000/11000A				
Type	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
Setting	1250	1500	1600	2000	2500	2500	3300	4000	5000	5400	5kA	8kA	10kA	11kA	11kA

Downstream	Rating	Selectivity limit (kA) [2]														
C60N/H 2x (1P1D or 2P2D) [1]	2-63	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
C60H-DC [1]	2-63	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T

[1] Type of circuit breaker (1P1D, 2P2D) depend on earthing system and circuit breaker ranges.
For voltage up to 60Vdc one single pole of C60 range is enough to break the current.
For ranges with 3P or 4P breakers only (NSX250 for example), one or two poles only are used of a 3P circuit breaker.
[2] According to the voltage and nb of pole used, the breaking capacity can changed.
Selectivity limit is the minimum of the value indicated in the table and the breaking capacity of downstream circuit breaker.
[3] This table is applicable for Case 1, Case 2, Case 3, Case 4 defined in introduction with this voltage between + and -.
Selectivity limits in this table for case 1 and Case 3 can also apply to system with higher voltage (up to 2 times) for the same circuit breaker (same number of poles used).

Compliancy of circuit breakers according to voltage and earthing system shall be checked before using this table.

Cascading (or Back-up Protection, or Combined Short-Circuit Protection)

Introduction

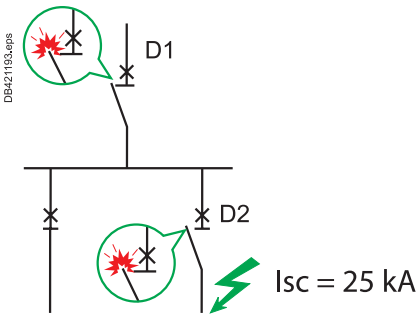
Cascading is the legacy name used by Schneider Electric.

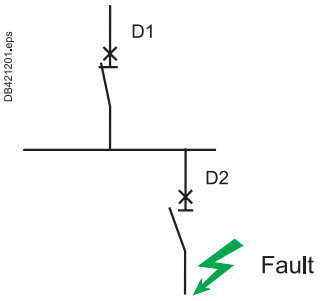
Product standards such as IEC/EN 60947, 60898, 61009-1 call this performance of two circuit-breakers "back-up protection".

Low voltage Electrical installation standard IEC 60364 serie and in particular IEC 60364-5-53 (2019) Clause 535.5 use the wording "Combined short-circuit protection".

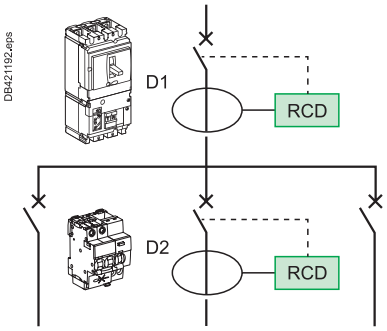
In this document we'll keep "Cascading" but the three wordings are equivalent.

In North America and UL standards this performance is known as "Series rating".





D1 and D2 in series.



IEC/EN 60947-2, Annex A
IEC 60364-4-43 (2008) § 434.5.1

What is cascading?

Cascading is the use of the current limiting capacity of circuit breakers at a given point to permit installation of lower-rated and therefore lower-cost circuit breakers downstream.
The upstream ComPacT circuit breakers acts as a barrier against short-circuit currents. In this way, downstream circuit breakers with lower breaking capacities than the prospective short-circuit (at their point of installation) operate under their normal breaking conditions.
Since the current is limited throughout the circuit controlled by the limiting circuit breaker, cascading applies to all switchgear downstream. It is not restricted to two consecutive devices.

General use of cascading

With cascading, the devices can be installed in different switchboards. Thus, in general, cascading refers to any combination of circuit breakers where a circuit breaker with a breaking capacity less than the prospective Isc at its point of installation can be used. Of course, the breaking capacity of the upstream circuit breaker must be greater than or equal to the prospective short-circuit current at its point of installation.
The combination of two circuit breakers in cascading configuration is covered by the following standards of:

- Product standard such as IEC/EN 60947, 60898, 61009-1
- Low voltage electrical installation.

Coordination between circuit breakers

The use of a protective device possessing a breaking capacity less than the prospective short-circuit current at its installation point is permitted as long as another device is installed upstream with at least the necessary breaking capacity. In this case, the characteristics of the two devices must be coordinated in such a way that the energy let through by the upstream device is not more than that which can be withstood by the downstream device and the cables protected by these devices without damage.
Cascading can only be checked by laboratory tests and the possible combinations can be specified only by the circuit breaker manufacturer.

Cascading and selectivity

In cascading configurations, due to the Roto-active breaking technique, selectivity is maintained and, in some cases, even enhanced. Consult the enhanced selectivity tables on page 54 for data on selectivity limits.

Cascading tables

Schneider Electric cascading tables are:

- Drawn up on the basis of calculations (comparison between the energy limited by the upstream device and the maximum permissible thermal stress for the downstream device)
- Verified experimentally in accordance with IEC/EN standard 60947-2.

For 50/60 Hz distribution systems with 220-240 V, 380-415 V and 440 V between phases, the tables of the following pages indicate cascading possibilities between upstream ComPacT and downstream Multi9/M9 and ComPacT circuit breakers.
How to use the table
The reinforced breaking capacity given in the table shall be compared to the presumed short-circuit current (rms value) at the point of installation without taking in consideration the limitation effect of the upstream circuit-breaker.

Circuit breaker with Vigi module (Add-On Residual Current Device - RCD):

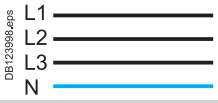
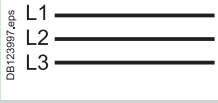
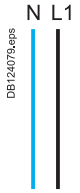
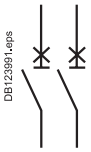
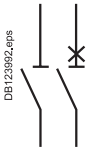
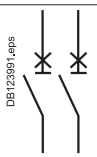
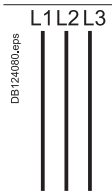
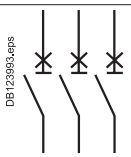
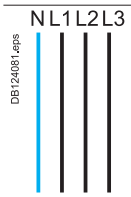
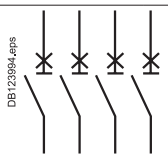
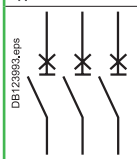
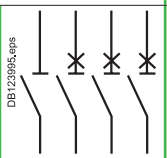
When circuit breakers are equipped with Vigi module, the following cascading tables are still applicable.

Cascading

Using the cascading tables

The following cascading tables takes in account all types of faults: between phases, phase and neutral, phase and earth in all earthing systems. In IT the following cascading tables can not be used to evaluate performances in case of "double fault" between two different phases and earth in two different locations of the installation. Each breaker shall comply to IEC/EN 60947-2 Annex H to be used in such a system. Depending on the network and the type of downstream circuit breaker, the selection table below indicates which table should be consulted to find out the reinforced breaking capacity thanks to cascading.

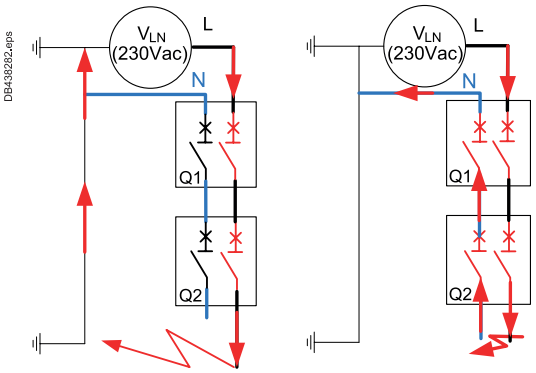
Selection table

		Upstream network					
							
Type of Downstream network	**Type of Downstream protection device**	**Type of circuit breaker upstream device: 1P, 2P, 3P or 4P circuit breaker**					
		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]** See table Ue: 380-415 V	See table Ue: 220-240 V	**[1]** See table Ue: 380-415 V		
	 1P  1P+N		**[1]** See table Ue: 380-415 V	See table Ue: 220-240 V	**[1]** 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] Values provided in Tables Ue: 220-240 V AC can be used to check reinforced breaking capacity of a circuit-breaker protecting 220-240 V AC single phase circuit in case of Line to Neutral fault (i.e: Reinforced breaking capacity from table Ue: 220-240 V AC ≥ Ik1) provided that:
- Upstream circuit-breaker is a 4P or 2P or Multi9 C60 1P+N, and
- Downstream circuit-breaker is a 2P or a Multi9 C60 1P+N

In all cases for 220-240 V AC Single phase application, tables Ue: 380-415 V AC shall be used to check breaking capacity in case of line to earth Fault (i.e. Reinforced breaking capacity Ue: 380-415 V AC ≥ If).
See the difference between the Line to Earth fault and Line to Neutral fault below.

Cascading



Line to Earth Fault (If)

Line to Neutral Fault (Ik1)

Difference between Line to Neutral and Line to earth fault regarding cascading

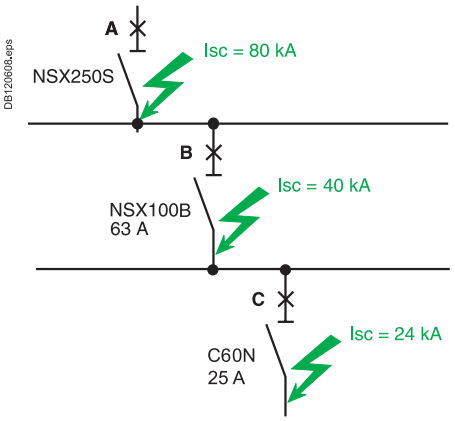
The number of poles breaking the current is different in case of line to neutral fault and line to earth fault.

The reinforced breaking capacity published in tables for a given "Line to Line" system voltage apply to all type of faults including line to earth.

Application of cascading

Both "industrial" circuit-breaker standard (IEC/EN 60947) and "residential" circuit-breaker standards (IEC/EN 60898 & 61009) define and provide test method for this "cascading" performance.

Anyway Altech Electric doesn't recommend to apply cascading in installation used by uninstructed persons. The following tables are therefore providing a "reinforced breaking capacity" according to IEC/EN 60947-2 Annex A.



Three level cascading

Consider three circuit breakers A, B and C connected in series. The criteria for cascading are fulfilled in the following two cases:

- The upstream device A is coordinated for cascading with both devices B and C (even if the cascading criteria are not fulfilled between B and C). It is simply necessary to check that the combinations A + B and A + C have the required breaking capacity
- Each pair of successive devices is coordinated, i.e. A with B and B with C (even if the cascading criteria are not fulfilled between A and C). It is simply necessary to check that the combinations A + B and B + C have the required breaking capacity.

Example: the upstream breaker A is a NSX250S (breaking capacity 100 kA) for a prospective Isc of 80 kA across its output terminals.
A NSX100B (breaking capacity 25 kA) can be used for circuit breaker B for a prospective Isc of 40 kA across its output terminals, since the "reinforced" breaking capacity provided by cascading with the upstream NSX250S is 50 kA.
A C60N (breaking capacity 10 kA) can be used for circuit breaker C for a prospective Isc of 24 kA across its output terminals since the "reinforced" breaking capacity provided by cascading with the upstream NSX250S is 30 kA.
Note that the "reinforced" breaking capacity of the C60N with the NSX100B upstream is only 20 kA, but:

- A + B = 50 kA
- A + C = 30 kA.

Cascading

Upstream: C60, C120, NG125, ComPacT NSXm, NSX100, NSX160, NSX250
Downstream: Schneider Electric/Spectre C60

Ue: 380-415 V AC
(Ph/N 220-240 V AC)

Upstream CB			C60		C120		NG125		
			N	H	N	H	N	H	L
		Icu (kA)	10	15	10	15	25	36	50
Downstream CB	**Rating (A)**	**Icu (kA)**	**Reinforced breaking capacity (kA) according to IEC/EN 60947-2 Annex A**						
C60N	2-25	10		15		15	25	25	25
	32-40			15		15	25	25	25
	50-63			15		15	25	25	25
C60H	2-25	15					25	36	36
	32-40						25	36	36
	50-63						25	36	36

Upstream CB			NSXm					NSX100					
			E	B	F	N	H	B	F	N	H	S	L
		Icu (kA)	16	25	36	50	70	25	36	50	70	100	150
Downstream CB	**Rating (A)**	**Icu (kA)**	**Reinforced breaking capacity (kA) according to IEC/EN 60947-2 Annex A**										
C60N	2-40	10	16	20	25	30	30	20	25	30	30	30	30
	50-63		16	20	25	30	30	20	25	30	30	30	30
C60H	2-25	15	16	25	36	36	36	25	36	40	40	40	40
	50-63		16	25	36	36	36	25	36	40	40	40	40

Upstream CB			NSX160						NSX250					
			B	F	N	H	S	L	B	F	N	H	S	L
		Icu (kA)	25	36	50	70	100	150	25	36	50	70	100	150
Downstream CB	**Rating (A)**	**Icu (kA)**	**Reinforced breaking capacity (kA) according to IEC/EN 60947-2 Annex A**											
C60N	2-40	10	20	25	30	30	30	30	20	25	30	30	30	30
	50-63		20	25	30	30	30	30	20	25	25	25	25	25
C60H	2-25	15	25	36	40	40	40	40	25	30	30	30	30	30
	50-63		25	36	36	36	36	36	25	25	25	25	25	25

Cascading

Upstream: C60, NG125, ComPacT NSXm, NSX100, NSX160, NSX250
Downstream: Schneider Electric/Spectre C60

Ue: 440 V AC

Upstream CB	C60		NG125		
	N	H	N	H	L
Icu (kA)	6	10	20	30	40

Downstream CB			Reinforced breaking capacity (kA) according to IEC/EN 60947-2 Annex A				
	Rating (A)	Icu (kA)					
C60 N	2-63	6		10	20	20	20
C60 H	2-63	10			20	25	25

Upstream CB	NSXm					NSX100					
	E	B	F	N	H	B	F	N	H	S	L
Icu (kA)	15	20	35	50	65	20	35	50	65	90	130

Downstream CB			Reinforced breaking capacity (kA) according to IEC/EN 60947-2 Annex A										
	Rating (A)	Icu (kA)											
C60 N	2-63	6	10	15	15	20	20	15	15	20	20	20	20
C60 H	2-63	10		20	20	25	25	20	20	25	25	25	25

Upstream CB	NSX160						NSX250					
	B	F	N	H	S	L	B	F	N	H	S	L
Icu (kA)	20	35	50	65	90	130	20	35	50	65	90	130

Downstream CB			Reinforced breaking capacity (kA) according to IEC/EN 60947-2 Annex A											
	Rating (A)	Icu (kA)												
C60 N	2-63	6	15	15	20	20	20	20						
C60 H	2-63	10	20	20	25	25	25	25						

Cascading

Upstream: C60, C120, NG125, ComPacT NSXm, NSX100, NSX160, NSX250
Downstream: Schneider Electric/Spectre C60

Ue: 220-240 V AC
(Ph/N 110-130 V AC)

Upstream CB			C60		C120		NG125		
			N	H	N	H	N	H	L
		Icu (kA)	20	30	20	30	50	70	100

Downstream CB			Reinforced breaking capacity (kA) according to IEC/EN 60947-2 Annex A						
	Rating (A)	Icu (kA)							
C60N	2-25	20		30		30	50	50	50
	32-40	20		30		30	50	50	50
	50-63	20		30		30	50	50	50
C60H	2-25	30					50	70	70
	32-40	30					50	70	70
	50-63	30					50	70	70

Upstream CB			NSXm					NSX100					
			E	B	F	N	H	B	F	N	H	S	L
		Icu (kA)	25	50	85	90	100	40	85	90	100	120	150

Downstream CB			Reinforced breaking capacity (kA) according to IEC/EN 60947-2 Annex A										
	Rating (A)	Icu (kA)											
C60N	2-63	20	25	40	60	60	60	40	40	60	60	60	60
C60H	2-63	30		50	80	80	80	40	50	80	80	80	80

Upstream CB			NSX160						NSX250					
			B	F	N	H	S	L	B	F	N	H	S	L
		Icu (kA)	40	85	90	100	120	150	40	85	90	100	120	150

Downstream CB			Reinforced breaking capacity (kA) according to IEC/EN 60947-2 Annex A											
	Rating (A)	Icu (kA)												
C60 N	2-63	20	40	40	60	60	60	60	40	40	60	60	60	60
C60 H	2-63	30	40	50	80	80	80	80	40	50	65	65	65	65

Selectivity Enhanced by Cascading

With traditional circuit breakers, cascading between two devices generally results in the loss of selectivity.
With ComPacT circuit breakers, the selectivity characteristics in the tables remain applicable and are in some cases even enhanced. Protection selectivity is obtained for short-circuit currents greater than the rated breaking capacity of the circuit breaker and even, in some cases, for its enhanced breaking capacity. In the later case, **protection selectivity is total**, i.e. only the downstream device trips for any and all possible faults at its point in the installation.

Example

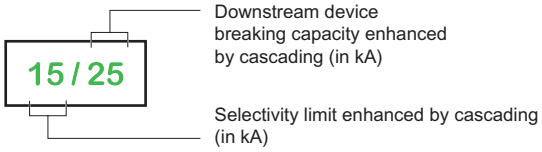
Consider a combination between:

- A ComPacT NSX250H with trip unit TM250D
- A ComPacT NSX100F with trip unit TM25D.

The selectivity tables indicate total selectivity. Protection selectivity is therefore obtained up to the breaking capacity of the NSX100F, i.e. **36 kA**.
The cascading tables indicate an enhanced breaking capacity of **70 kA**.
The enhanced selectivity tables indicade that in a cascading configuration, selectivity is obtained up to 70 kA, i.e. for any and all possible faults at that point in the installation.

Enhanced selectivity tables - 380-415 V

For each combination of two circuit breakers, the tables indicate the:

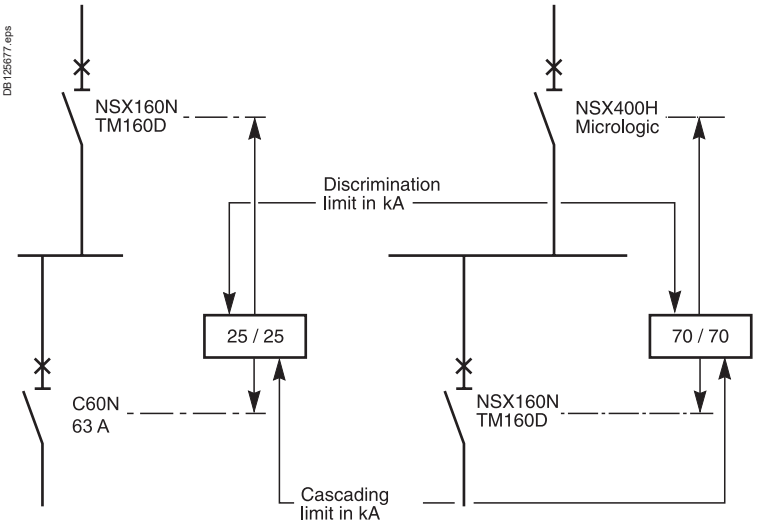


In a table, a box containing two equal values indicates that selectivity is provided up to the reinforced breaking capacity of the downstream device.
These tables apply only to cases with combined selectivity and cascading between two devices. For all other cases, refer to the normal cascading and selectivity tables.

Technical principle

Enhanced selectivity is the result of the exclusive ComPacT NSX Roto-active breaking technique which operates as follows:

- Due to the short-circuit current (electrodynamic forces), the contacts in both devices simultaneously separate. The result is major limitation of the short-circuit current
- The dissipated energy provokes the reflex tripping of the downstream device, but is insufficient to trip the upstream device.



Note: Respect the basic rules of selectivity, in terms of overload, short-circuit, see page 4.

Selectivity Enhanced by Cascading

Upstream: Com**PacT** NSXm, MicroLogic 4.1, TM-D
Downstream: Schneider Electric/Spectre C60

Ue: 380-415 V AC
(Ph/N 220-240 V AC)

Upstream CB		NSXm															
		B					F					N/H					
	Icu (kA)	25					36					50/70					
	Trip unit	MicroLogic 4.1															
	Rating (A)	100			160		100			160		100			160		
	Setting Ir (A)	63	80	100	125	160	63	80	100	125	160	63	80	100	125	160	

Downstream CB			Selectivity limit (kA) / Breaking capacity enhanced by cascading (kA)														
CB type	Rating (A)	Icu (kA)															
C60N	≤16	10	20/20	20/20	20/20	20/20	20/20	25/25	25/25	25/25	25/25	25/25	25/30	25/30	25/30	25/30	25/30
	20	10	20/20	20/20	20/20	20/20	20/20	25/25	25/25	25/25	25/25	25/25	25/30	25/30	25/30	25/30	25/30
	25	10		20/20	20/20	20/20	20/20		25/25	25/25	25/25	25/25		25/30	25/30	25/30	25/30
	32	10		20/20	20/20	20/20	20/20		25/25	25/25	25/25	25/25		25/30	25/30	25/30	25/30
	40	10		16/20	16/20	16/20	16/20		16/25	16/25	16/25	16/25		16/30	16/30	16/30	16/30
	50	10			8/20	8/20	8/20			8/25	8/25	8/25			8/30	8/30	8/30
	63	10				8/20	8/20				8/25	8/25				8/30	8/30
C60H	≤16	15	25/25	25/25	25/25	25/25	25/25	25/36	25/36	25/36	25/36	25/36	25/36	25/36	25/36	25/36	25/36
	20	15	25/25	25/25	25/25	25/25	25/25	25/36	25/36	25/36	25/36	25/36	25/36	25/36	25/36	25/36	25/36
	25	15		25/25	25/25	25/25	25/25		25/36	25/36	25/36	25/36		25/36	25/36	25/36	25/36
	32	15		25/25	25/25	25/25	25/25		25/36	25/36	25/36	25/36		25/36	25/36	25/36	25/36
	40	15		16/25	16/25	16/25	16/25		16/36	16/36	16/36	16/36		16/36	16/36	16/36	16/36
	50	15			8/25	8/25	8/25			8/36	8/36	8/36			8/36	8/36	8/36
	63	15				8/25	8/25				8/36	8/36				8/36	8/36

Upstream CB		NSXm															
		B					F					N/H					
	Icu (kA)	25					36					50/70					
	Trip unit	TM-D															
	Rating (A)	≤63	80	100	125	160	≤63	80	100	125	160	≤63	80	100	125	160	

Downstream CB			Selectivity limit (kA) / Breaking capacity enhanced by cascading (kA)														
CB type	Rating (A)	Icu (kA)															
C60N	≤16	10	-/20	20/20	20/20	20/20	20/20	-/25	25/25	25/25	25/25	25/25	-/30	25/30	25/30	25/30	25/30
	20	10	-/20	20/20	20/20	20/20	20/20	-/25	25/25	25/25	25/25	25/25	-/30	25/30	25/30	25/30	25/30
	25	10		10/20	20/20	20/20	20/20		10/25	25/25	25/25	25/25		10/30	25/30	25/30	25/30
	32	10		3/20	20/20	20/20	20/20		3/25	25/25	25/25	25/25		3/30	25/30	25/30	25/30
	40	10		2/20	16/20	16/20	16/20		2/25	16/25	16/25	16/25		2/30	16/30	16/30	16/30
	50	10			6/20	8/20	8/20			6/25	8/25	8/25			6/30	8/30	8/30
	63	10				8/20	8/20				8/25	8/25				8/30	8/30
C60H	≤16	15	-/25	25/25	25/25	25/25	25/25	-/36	25/36	25/36	25/36	25/36	-/36	25/36	25/36	25/36	25/36
	20	15	-/25	25/25	25/25	25/25	25/25	-/36	25/36	25/36	25/36	25/36	-/36	25/36	25/36	25/36	25/36
	25	15		10/25	25/25	25/25	25/25		10/36	25/36	25/36	25/36		10/36	25/36	25/36	25/36
	32	15		3/25	25/25	25/25	25/25		3/36	25/36	25/36	25/36		3/36	25/36	25/36	25/36
	40	15		2/25	16/25	16/25	16/25		2/36	16/36	16/36	16/36		2/36	16/36	16/36	16/36
	50	15			6/25	8/25	8/25			6/36	8/36	8/36			6/36	8/36	8/36
	63	15				8/25	8/25				8/36	8/36				8/36	8/36

Note: Respect the basic rules of selectivity, in terms of overload, short-circuit, ground fault and earth leakage when applicable see page 4, or check curves with Schneider Electric online "Electrical calculation tools".

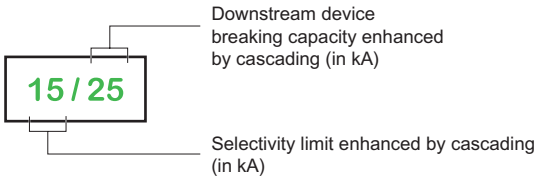
Selectivity Enhanced by Cascading

Upstream: Com**PacT** NSX100, MicroLogic
Downstream: Schneider Electric/Spectre C60

Ue: 380-415 V
(Ph/N 220-240 V AC)

Upstream CB		NSX100											
		B		F		N		H		S		L	
	Icu (kA)	25		36		50		70		100		150	
	Trip unit	MicroLogic [1]											
	Rating (A)	40	100	40	100	40	100	40	100	40	100	40	100

Downstream CB			Selectivity limit (kA) / Breaking capacity enhanced by cascading (kA)											
CB type	Rating (A)	Icu (kA)												
C60N	≤20	10	20/20	20/20	25/25	25/25	30/30	30/30	30/30	30/30	30/30	30/30	30/30	30/30
	25	10	20/20	20/20	25/25	25/25	30/30	30/30	30/30	30/30	30/30	30/30	30/30	30/30
	32	10		20/20		25/25		30/30		30/30		30/30		30/30
	40	10		20/20		25/25		30/30		30/30		30/30		30/30
	50	10		6/20		6/25		6/30		6/30		6/30		6/30
	63	10		6/20		6/25		6/30		6/30		6/30		6/30
C60H	≤20	15	25/25	25/25	36/36	36/36	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40
	25	15	25/25	25/25	36/36	36/36	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40
	32	15		25/25		36/36		40/40		40/40		40/40		40/40
	40	15		25/25		36/36		40/40		40/40		40/40		40/40
	50	15		6/25		6/36		6/40		6/40		6/40		6/40
	63	15		6/25		6/36		6/40		6/40		6/40		6/40



[1] Applicable for all "Distribution" MicroLogic of ComPacT NSX range: 2.2 4.2, 5.2, 6.2, 7.2. For 4.2 and 7.2 selectivity rules for RCD apply in addition. Applicable for Generators and Service connection (G and AB type) MicroLogic of ComPacT NSX range but curves shall be checked. Not applicable for "Motor" MicroLogic of ComPacT NSX range ("M" type).

Note: Respect the basic rules of selectivity, in terms of overload, short-circuit, ground fault and earth leakage when applicable see page 4, or check curves with Schneider Electric online "Electrical calculation tools".

Selectivity Enhanced by Cascading

Upstream: Com**PacT** NSX160, NSX250, MicroLogic
Downstream: Schneider Electric/Spectre C60

Ue: 380-415 V
(Ph/N 220-240 V AC)

Upstream CB		NSX160											
		B		F		N		H		S		L	
	Icu (kA)	25		36		50		70		100		150	
	Trip unit	MicroLogic [1]											
	Rating (A)	100	160	100	160	100	160	100	160	100	160	100	160

Downstream CB			Selectivity limit (kA) / Breaking capacity enhanced by cascading (kA)											
CB type	Rating (A)	Icu (kA)												
C60N	≤20	10	20/20	20/20	25/25	25/25	30/30	30/30	30/30	30/30	30/30	30/30	30/30	30/30
	25	10	20/20	20/20	25/25	25/25	30/30	30/30	30/30	30/30	30/30	30/30	30/30	30/30
	32	10	20/20	20/20	25/25	25/25	30/30	30/30	30/30	30/30	30/30	30/30	30/30	30/30
	40	10	20/20	20/20	25/25	25/25	30/30	30/30	30/30	30/30	30/30	30/30	30/30	30/30
	50	10	6/20	20/20	6/25	25/25	6/30	30/30	6/30	30/30	6/30	30/30	6/30	30/30
	63	10	6/20	20/20	6/25	25/25	6/30	30/30	6/30	30/30	6/30	30/30	6/30	30/30
C60H	≤20	15	25/25	25/25	36/36	36/36	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40
	25	15	25/25	25/25	36/36	36/36	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40
	32	15	25/25	25/25	36/36	36/36	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40
	40	15	25/25	25/25	36/36	36/36	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40
	50	15	6/25	25/25	6/36	36/36	6/36	36/36	6/36	36/36	6/36	36/36	6/36	36/36
	63	15	6/25	25/25	6/36	36/36	6/36	36/36	6/36	36/36	6/36	36/36	6/36	36/36

Upstream CB		NSX250					
		B	F	N	H	S	L
	Icu (kA)	25	36	50	70	100	150
	Trip unit	MicroLogic [1]					
	Rating (A)	250	250	250	250	250	250

Downstream CB			Selectivity limit (kA) / Breaking capacity enhanced by cascading (kA)					
CB type	Rating (A)	Icu (kA)						
C60N	≤40	10	20/20	25/25	30/30	30/30	30/30	30/30
	50-63A	10	20/20	25/25	25/25	25/25	25/25	25/25
C60H	≤40	15	25/25	30/30	30/30	30/30	30/30	30/30
	50-63A	15	25/25	25/25	25/25	25/25	25/25	25/25

[1] Applicable for all "Distribution" MicroLogic of ComPacT NSX range: 2.2 4.2, 5.2, 6.2, 7.2. For 4.2 and 7.2 selectivity rules for RCD apply in addition. Applicable for Generators and Service connection (G and AB type) MicroLogic of ComPacT NSX range but curves shall be checked. Not applicable for "Motor" MicroLogic of ComPacT NSX range ("M" type).

Note: Respect the basic rules of selectivity, in terms of overload, short-circuit, ground fault and earth leakage when applicable see page 4, or check curves with Schneider Electric online "Electrical calculation tools".

Selectivity Enhanced by Cascading

Upstream: Com**PacT** NSX160, NSX250, TM-D
Downstream: Schneider Electric/Spectre C60

Ue: 380-415 V AC
(Ph/N 220-240 V AC)

Upstream CB		NSX160											
		B		F		N		H		S		L	
	Icu (kA)	25		36		50		70		100		150	
	Trip unit	TM-D											
	Rating (A)	≤100	125-160	≤100	125-160	≤100	125-160	≤100	125-160	≤100	125-160	≤100	125-160

Downstream CB			Selectivity limit (kA) / Breaking capacity enhanced by cascading (kA)											
CB type	Rating (A)	Icu (kA)												
C60N	≤20	10	-/20	20/20	-/25	25/25	-/30	30/30	-/30	30/30	-/30	30/30	-/30	30/30
	25	10	-/20	20/20	-/25	25/25	-/30	30/30	-/30	30/30	-/30	30/30	-/30	30/30
	32	10	-/20	20/20	-/25	25/25	-/30	30/30	-/30	30/30	-/30	30/30	-/30	30/30
	40	10	-/20	20/20	-/25	25/25	-/30	30/30	-/30	30/30	-/30	30/30	-/30	30/30
	50	10	-/20	20/20	-/25	25/25	-/30	30/30	-/30	30/30	-/30	30/30	-/30	30/30
	63	10	-/20	20/20	-/25	25/25	-/30	30/30	-/30	30/30	-/30	30/30	-/30	30/30
C60H	≤20	15	-/25	25/25	-/36	36/36	-/40	40/40	-/40	40/40	-/40	40/40	-/40	40/40
	25	15	-/25	25/25	-/36	36/36	-/40	40/40	-/40	40/40	-/40	40/40	-/40	40/40
	32	15	-/25	25/25	-/36	36/36	-/40	40/40	-/40	40/40	-/40	40/40	-/40	40/40
	40	15	-/25	25/25	-/36	36/36	-/40	40/40	-/40	40/40	-/40	40/40	-/40	40/40
	50	15	-/25	25/25	-/36	36/36	-/36	36/36	-/36	36/36	-/36	36/36	-/36	36/36
	63	15	-/25	25/25	-/36	36/36	-/36	36/36	-/36	36/36	-/36	36/36	-/36	36/36

Upstream CB		NSX250					
		B	F	N	H	S	L
	Icu (kA)	25	36	50	70	100	130
	Trip unit	TM-D					
	Rating (A)	200-250	200-250	200-250	200-250	200-250	200-250

Downstream CB			Selectivity limit (kA) / Breaking capacity enhanced by cascading (kA)					
CB type	Rating (A)	Icu (kA)						
C60N	≤40	10	20/20	25/25	30/30	30/30	30/30	30/30
	50-63A	10	20/20	25/25	25/25	25/25	25/25	25/25
C60H	≤40	15	25/25	30/30	30/30	30/30	30/30	30/30
	50-63A	15	25/25	25/25	25/25	25/25	25/25	25/25

Note: Respect the basic rules of selectivity, in terms of overload, short-circuit, ground fault and earth leakage when applicable see page 4, or check curves with Schneider Electric online "Electrical calculation tools".

Selectivity Enhanced by Cascading

Upstream: Com**PacT** NSXm, MicroLogic, TM-D
Downstream: Schneider Electric/Spectre C60

Ue: 440 V AC

Upstream CB		NSXm														
		B					F					N/H				
	Icu (kA)	20					35					50/65				
	Trip unit	MicroLogic 4.1														
	Rating (A)	100			160		100			160		100			160	
	Setting Ir (A)	63	80	100	125	160	63	80	100	125	160	63	80	100	125	160
Downstream CB		**Selectivity limit (kA) / Breaking capacity enhanced by cascading (kA)**														
CB type	Rating (A)	Icu (kA)														
C60N	≤16	6	15/15	15/15	15/15	15/15	15/15	15/15	15/15	15/15	15/15	15/15	20/20	20/20	20/20	20/20	20/20
	20	6	15/15	15/15	15/15	15/15	15/15	15/15	15/15	15/15	15/15	15/15	20/20	20/20	20/20	20/20	20/20
	25	6		15/15	15/15	15/15	15/15		15/15	15/15	15/15	15/15		20/20	20/20	20/20	20/20
	32	6		15/15	15/15	15/15	15/15		15/15	15/15	15/15	15/15		20/20	20/20	20/20	20/20
	40	6		15/15	15/15	15/15	15/15		15/15	15/15	15/15	15/15		16/20	16/20	16/20	16/20
	50	6			8/15	8/15	8/15			8/15	8/15	8/15			8/20	8/20	8/20
	63	6				8/15	8/15				8/15	8/15				8/20	8/20
C60H	≤16	10	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20	25/25	25/25	25/25	25/25	25/25
	20	10	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20	25/25	25/25	25/25	25/25	25/25
	25	10		20/20	20/20	20/20	20/20		20/20	20/20	20/20	20/20		25/25	25/25	25/25	25/25
	32	10		20/20	20/20	20/20	20/20		20/20	20/20	20/20	20/20		25/25	25/25	25/25	25/25
	40	10		16/20	16/20	16/20	16/20		16/20	16/20	16/20	16/20		16/25	16/25	16/25	16/25
	50	10			8/20	8/20	8/20			8/20	8/20	8/20			8/25	8/25	8/25
	63	10				8/20	8/20				8/20	8/20				8/25	8/25

Upstream CB		NSXm														
		B					F					N/H				
	Icu (kA)	20					35					50/65				
	Trip unit	TM-D														
	Rating (A)	≤63	80	100	125	160	≤63	80	100	125	160	≤63	80	100	125	160
Downstream CB		**Selectivity limit (kA) / Breaking capacity enhanced by cascading (kA)**														
CB type	Rating (A)	Icu (kA)														
C60N	≤16	6	-/15	15/15	15/15	15/15	15/15	-/15	15/15	15/15	15/15	15/15	-/20	20/20	20/20	20/20	20/20
	20	6	-/15	15/15	15/15	15/15	15/15	-/15	15/15	15/15	15/15	15/15	-/20	20/20	20/20	20/20	20/20
	25	6		8/15	15/15	15/15	15/15		8/15	15/15	15/15	15/15		8/20	20/20	20/20	20/20
	32	6		3/15	15/15	15/15	15/15		3/15	15/15	15/15	15/15		3/20	20/20	20/20	20/20
	40	6		2/15	15/15	15/15	15/15		2/15	15/15	15/15	15/15		2/20	16/20	16/20	16/20
	50	6			6/15	8/15	8/15			6/15	8/15	8/15			6/20	8/20	8/20
	63	6				8/15	8/15				8/15	8/15				8/20	8/20
C60H	≤16	10	-/20	20/20	20/20	20/20	20/20	-/20	20/20	20/20	20/20	20/20	-/25	25/25	25/25	25/25	25/25
	20	10	-/20	20/20	20/20	20/20	20/20	-/20	20/20	20/20	20/20	20/20	-/25	25/25	25/25	25/25	25/25
	25	10		8/20	20/20	20/20	20/20		8/20	20/20	20/20	20/20		8/25	25/25	25/25	25/25
	32	10		3/20	20/20	20/20	20/20		3/20	20/20	20/20	20/20		3/25	25/25	25/25	25/25
	40	10		2/20	16/20	16/20	16/20		2/20	16/20	16/20	16/20		2/25	16/25	16/25	16/25
	50	10			6/20	8/20	8/20			6/20	8/20	8/20			6/25	8/25	8/25
	63	10				8/20	8/20				8/20	8/20				8/25	8/25

Note: Respect the basic rules of selectivity, in terms of overload, short-circuit, ground fault and earth leakage when applicable see page 4, or check curves with Schneider Electric online "Electrical calculation tools".

Selectivity Enhanced by Cascading

Upstream: Com**PacT** NSX100, NSX160, MicroLogic
Downstream: Schneider Electric/Spectre C60

Ue: 440 V AC

Upstream CB		NSX100											
		B		F		N		H		S		L	
	Icu (kA)	20		35		50		65		90		130	
	Trip unit	MicroLogic [1]											
	Rating (A)	40	100	40	100	40	100	40	100	40	100	40	100

Downstream CB			Selectivity limit (kA) / Breaking capacity enhanced by cascading (kA)											
CB type	Rating (A)	Icu (kA)												
C60N	≤20	6	15/15	15/15	15/15	15/15	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20
	25	6	15/15	15/15	15/15	15/15	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20
	32	6		15/15		15/15		20/20		20/20		20/20		20/20
	40	6		15/15		15/15		20/20		20/20		20/20		20/20
	50	6		6/15		6/15		6/20		6/20		6/20		6/20
	63	6		6/15		6/15		6/20		6/20		6/20		6/20
C60H	≤20	10	20/20	20/20	20/20	20/20	25/25	25/25	25/25	25/25	25/25	25/25	25/25	25/25
	25	10	20/20	20/20	20/20	20/20	25/25	25/25	25/25	25/25	25/25	25/25	25/25	25/25
	32	10		20/20		20/20		25/25		25/25		25/25		25/25
	40	10		20/20		20/20		25/25		25/25		25/25		25/25
	50	10		6/20		6/20		6/25		6/25		6/25		6/25
	63	10		6/20		6/20		6/25		6/25		6/25		6/25

Upstream CB		NSX160											
		B		F		N		H		S		L	
	Icu (kA)	20		35		50		65		90		130	
	Trip unit	MicroLogic [1]											
	Rating (A)	100	160	100	160	100	160	100	160	100	160	100	160

Downstream CB			Selectivity limit (kA) / Breaking capacity enhanced by cascading (kA)											
CB type	Rating (A)	Icu (kA)												
C60N	≤20	6	15/15	15/15	15/15	15/15	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20
	25	6	15/15	15/15	15/15	15/15	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20
	32	6	15/15	15/15	15/15	15/15	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20
	40	6	15/15	15/15	15/15	15/15	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20
	50	6	6/15	15/15	6/15	15/15	6/20	20/20	6/20	20/20	6/20	20/20	6/20	20/20
	63	6	6/15	15/15	6/15	15/15	6/20	20/20	6/20	20/20	6/20	20/20	6/20	20/20
C60H	≤20	10	20/20	20/20	20/20	20/20	25/25	25/25	25/25	25/25	25/25	25/25	25/25	25/25
	25	10	20/20	20/20	20/20	20/20	25/25	25/25	25/25	25/25	25/25	25/25	25/25	25/25
	32	10	20/20	20/20	20/20	20/20	25/25	25/25	25/25	25/25	25/25	25/25	25/25	25/25
	40	10	20/20	20/20	20/20	20/20	25/25	25/25	25/25	25/25	25/25	25/25	25/25	25/25
	50	10	6/20	20/20	6/20	20/20	6/25	25/25	6/25	25/25	6/25	25/25	6/25	25/25
	63	10	6/20	20/20	6/20	20/20	6/25	25/25	6/25	25/25	6/25	25/25	6/25	25/25

[1] Applicable for all "Distribution" MicroLogic of ComPacT NSX range: 2.2 4.2, 5.2, 6.2, 7.2. For 4.2 and 7.2 selectivity rules for RCD apply in addition. Applicable for Generators and Service connection (G and AB type) MicroLogic of ComPacT NSX range but curves shall be checked. Not applicable for "Motor" MicroLogic of ComPacT NSX range ("M" type).

Note: Respect the basic rules of selectivity, in terms of overload, short-circuit, ground fault and earth leakage when applicable see page 4, or check curves with Schneider Electric online "Electrical calculation tools".

Selectivity Enhanced by Cascading

Upstream: Com**PacT** NSX160, TM-D
Downstream: Schneider Electric/Spectre C60

Ue: 440 V AC

Upstream CB		NSX160											
		B		F		N		H		S		L	
	Icu (kA)	20		35		50		65		90		130	
	Trip unit	TM-D											
	Rating (A)	≤100	125-160	≤100	125-160	≤100	125-160	≤100	125-160	≤100	125-160	≤100	125-160

Downstream CB			Selectivity limit (kA) / Breaking capacity enhanced by cascading (kA)											
CB type	Rating (A)	Icu (kA)												
C60N	≤20	6	-/15	15/15	-/15	15/15	-/20	20/20	-/20	20/20	-/20	20/20	-/20	20/20
	25	6	-/15	15/15	-/15	15/15	-/20	20/20	-/20	20/20	-/20	20/20	-/20	20/20
	32	6	-/15	15/15	-/15	15/15	-/20	20/20	-/20	20/20	-/20	20/20	-/20	20/20
	40	6	-/15	15/15	-/15	15/15	-/20	20/20	-/20	20/20	-/20	20/20	-/20	20/20
	50	6	-/15	15/15	-/15	15/15	-/20	20/20	-/20	20/20	-/20	20/20	-/20	20/20
	63	6	-/15	15/15	-/15	15/15	-/20	20/20	-/20	20/20	-/20	20/20	-/20	20/20
C60H	≤20	10	-/20	20/20	-/20	20/20	-/25	25/25	-/25	25/25	-/25	25/25	-/25	25/25
	25	10	-/20	20/20	-/20	20/20	-/25	25/25	-/25	25/25	-/25	25/25	-/25	25/25
	32	10	-/20	20/20	-/20	20/20	-/25	25/25	-/25	25/25	-/25	25/25	-/25	25/25
	40	10	-/20	20/20	-/20	20/20	-/25	25/25	-/25	25/25	-/25	25/25	-/25	25/25
	50	10	-/20	20/20	-/20	20/20	-/25	25/25	-/25	25/25	-/25	25/25	-/25	25/25
	63	10	-/20	20/20	-/20	20/20	-/25	25/25	-/25	25/25	-/25	25/25	-/25	25/25

Upstream: Com**PacT** NSX160, NSX250, TM-D
Downstream: Schneider Electric/Spectre C60

Ue: 220-240 V AC
(Ph/N 110-130 V AC)

Upstream CB		NSX160											
		B		F		N		H		S		L	
	Icu (kA)	40		85		90		100		120		150	
	Trip unit	TM-D											
	Rating (A)	80-100	125-160	80-100	125-160	80-100	125-160	80-100	125-160	80-100	125-160	80-100	125-160

Downstream CB			Selectivity limit (kA) / Breaking capacity enhanced by cascading (kA)											
CB type	Rating (A)	Icu (kA)												
C60N		20		30/30		40/40		60/60		60/60		60/60		60/60
C60H		30		40/40		50/50		80/80		80/80		80/80		80/80

Upstream CB		NSX250					
		B	F	N	H	S	L
	Icu (kA)	40	85	90	100	120	150
	Trip unit	TM-D					
	Rating (A)	200-250	200-250	200-250	200-250	200-250	200-250

Downstream CB			Selectivity limit (kA) / Breaking capacity enhanced by cascading (kA)					
CB type	Rating (A)	Icu (kA)						
C60N		20	30/30	40/40	60/60	60/60	60/60	60/60
C60H		30	40/40	50/50	65/65	65/65	65/65	65/65

Note: Respect the basic rules of selectivity, in terms of overload, short-circuit, ground fault and earth leakage when applicable see page 4, or check curves with Schneider Electric online "Electrical calculation tools".

Selectivity Enhanced by Cascading

Upstream: Com**PacT** NSX100, NSX160, NSX250, MicroLogic
Downstream: Schneider Electric/Spectre C60

Ue: 220-240 V AC
(Ph/N 110-130 V AC)

Upstream CB		NSX100											
		B		F		N		H		S		L	
	Icu (kA)	40		85		90		100		120		150	
	Trip unit	MicroLogic [1]											
	Rating (A)	40	100	40	100	40	100	40	100	40	100	40	100

Downstream CB			Selectivity limit (kA) / Breaking capacity enhanced by cascading (kA)											
CB type	Rating (A)	Icu (kA)												
C60N	≤25	20	40/40	40/40	40/40	40/40	60/60	60/60	60/60	60/60	60/60	60/60	60/60	60/60
	32-40	20		40/40		40/40		60/60		60/60		60/60		60/60
	50-63	20												
C60H	≤25	30	40/40	40/40	50/50	50/50	80/80	80/80	80/80	80/80	80/80	80/80	80/80	80/80
	32-40	30		40/40		50/50		80/80		80/80		80/80		80/80
	50-63	30												

Upstream CB		NSX160											
		B		F		N		H		S		L	
	Icu (kA)	40		85		90		100		120		150	
	Trip unit	MicroLogic [1]											
	Rating (A)	80	160	80	160	80	160	80	160	80	160	80	160

Downstream CB			Selectivity limit (kA) / Breaking capacity enhanced by cascading (kA)											
CB type	Rating (A)	Icu (kA)												
C60N	≤50	20	40/40	40/40	40/40	40/40	60/60	60/60	60/60	60/60	60/60	60/60	60/60	60/60
	63	20		40/40		40/40		60/60		60/60		60/60		60/60
C60H	≤50	30	40/40	40/40	50/50	50/50	80/80	80/80	80/80	80/80	80/80	80/80	80/80	80/80
	63	30		40/40		50/50		80/80		80/80		80/80		80/80

Upstream CB		NSX250					
		B	F	N	H	S	L
	Icu (kA)	40	85	90	100	120	150
	Trip unit	MicroLogic [1]					
	Rating (A)	250	250	250	250	250	250

Downstream CB			Selectivity limit (kA) / Breaking capacity enhanced by cascading (kA)					
CB type	Rating (A)	Icu (kA)						
C60N		20	40/40	40/40	60/60	60/60	60/60	60/60
C60H		30	40/40	50/50	65/65	65/65	65/65	65/65

[1] Applicable for all "Distribution" MicroLogic of ComPacT NSX range: 2.2 4.2, 5.2, 6.2, 7.2. For 4.2 and 7.2 selectivity rules for RCD apply in addition. Applicable for Generators and Service connection (G and AB type) MicroLogic of ComPacT NSX range but curves shall be checked. Not applicable for "Motor" MicroLogic of ComPacT NSX range ("M" type).

TÜV AUSTRIA
CERTIFIED
IEC/EN 60947-1: 2014
IEC/EN 60947-2: 2019
TA385255639
TÜV AUSTRIA CERT GMBH

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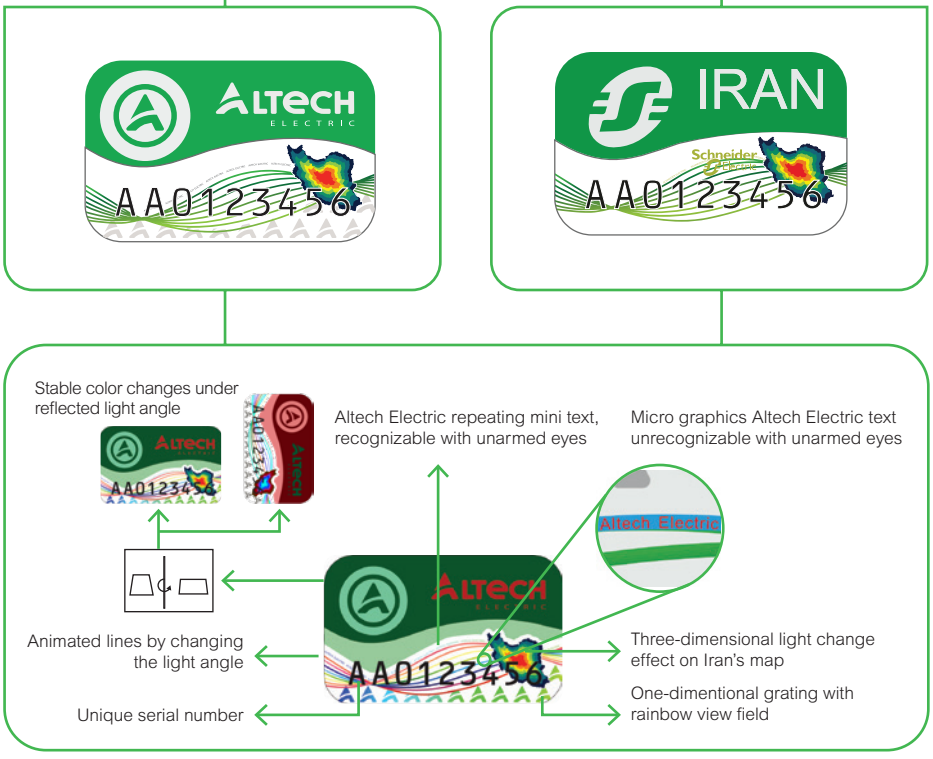

Previous design

New design

All Schneider Electric and Spectre products are valid with the two above hologram designs

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