87045 LIMOGES Cedex
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DX³ 4-pole RCBO 6000 A/10 kA

Cat. N°(s) : 4 111 85, 86, 87, 88, 89 / 4 112 04, 05, 06, 07, 4 112 08, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 4 112 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 4 112 52 / 4 113 50, 56, 57, 59, 60, 61, 62, 80, 81

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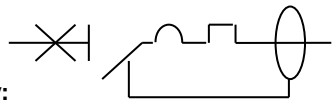
1. DESCRIPTION - USE

Residual Current Operated Circuit Breaker (RCBO) with positive contact indication for control, protection against short circuits and overload and isolation of electrical circuits, protecting people from direct and indirect contact and protecting installations from insulation faults.

Symbol:



Technology:
. Limiting device
. Simultaneous control of all poles for closing and opening (trip-free mechanism)

2. RANGE

Polarity:
- 4 protected poles

Width:
. 4 modules (4 x 17.8 mm = 71,2 mm)

Rated currents In:
10 / 13 / 16 / 20/ 25/ 32 A

Magnetic tripping curve:
. C (between 5 and 10 In)
. B (between 3 and 5 In)

Type:
. AC (sinusoidal differential alternating current)
. A (residual current with a DC component)
. F (immunised against false tripping). F products are also A type.

Sensitivity – Operating time:
. 30 mA - instantaneous
. 300 mA - instantaneous
. 1 000 mA - instantaneous

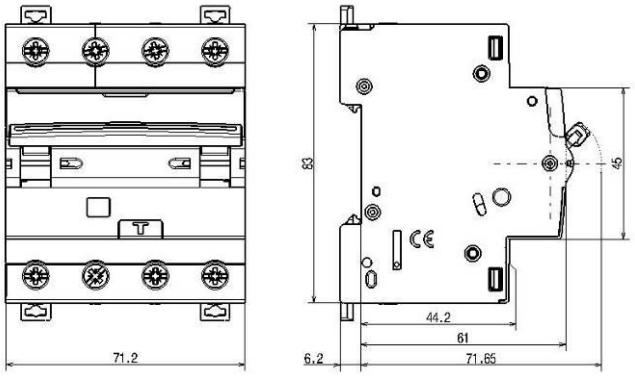
2. RANGE *(continued)*

Rated voltage and frequency:
. 230/400 V~, 50 Hz with standard tolerances
. 240/415 V~, 50 Hz with standard tolerances

Maximum operating voltage:
. 440 V~, 50 Hz with standard tolerances

Breaking capacity:
. Icn = 6000 A in accordance with standard EN/IEC 61009-1
. Icu = 10 kA in accordance with standard EN/IEC 60947-2

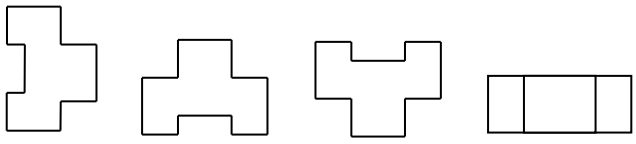
3. OVERALL DIMENSIONS:



4. PREPARATION - CONNECTION

Mounting:
. On symmetrical EN 60.715 rail or DIN 35 rail

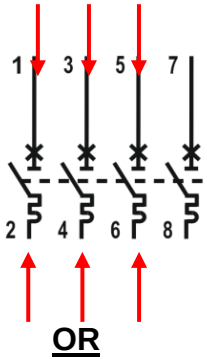
Operating positions:
. Vertical horizontal upside down On the side



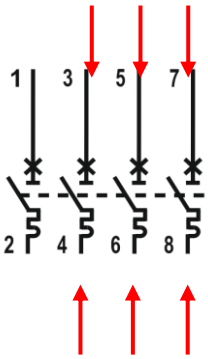
Power supply:
. Either from the top or the bottom

4. PREPARATION - CONNECTION *(continued)*

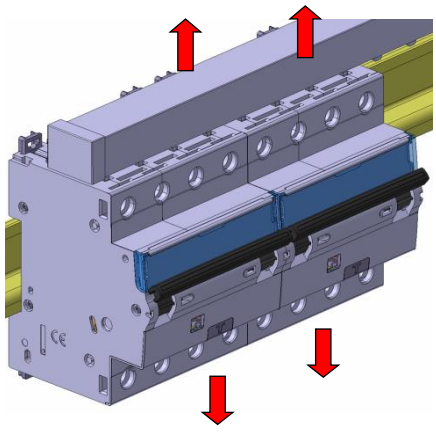
400V three-phase network wiring without neutral:
connect the 3 phases as indicated by the arrows in below diagram



OR



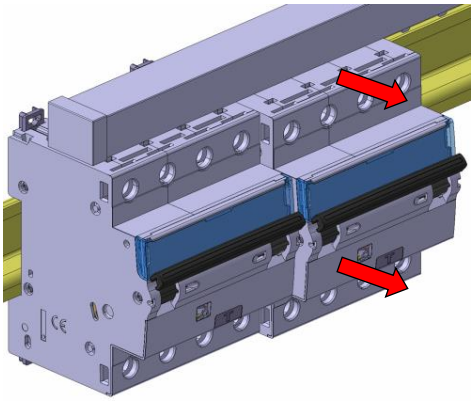
Module maintenance :
. A RCBO may be replaced in the middle of a row supplied with busbars without disconnecting the other products



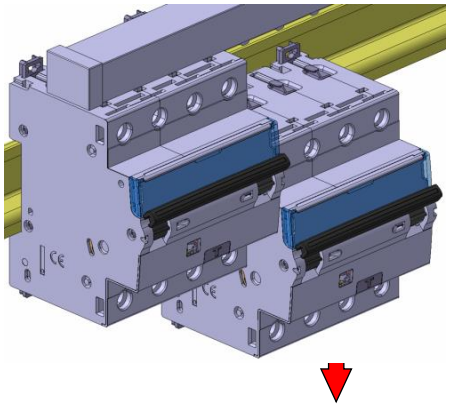
Put the clamp in the unlocking position

Unscrew the four upper terminals completely

Pull the device forward in order to release it from the rail



Pull the device downward in order to release it completely from the prongs of the busbar



Connection:
. Terminals protected against direct contact IP20, when device wired
. Cage terminals, with release and captive screws
. Terminals fitted with shutters preventing a cable being placed under the terminal, with the terminal partly open or closed
. Alignment and spacing of the terminals permitting connection with the other products via prong and fork-type (biconnect) supply busbars
. Terminal depth: 13 mm upstream and 13 mm downstream
. Screw head: mixed, slotted and Pozidriv no. 2
. Tightening torque:
- Recommended: 2.5 Nm
- Min.: 1.2 Nm
- Max.: 3.5 Nm

4. PREPARATION - CONNECTION *(continued)*

Conductor type:
. Copper cable
. Cable cross-section:

	Without ferrule	With ferrule
Rigid cable	**1 x 0.75 mm² to 35 mm²** **2 x 0.75 mm² to 16 mm²**	-
Flexible cable	**1 x 0.75 mm² to 25 mm²** **2 x 0.75 mm² to 16 mm²**	**1 x 0.75 mm² to 25 mm²**

. Prong supply busbar at the top or the bottom of the product, alone or with a 16 mm² flexible wire (without ferrule) or a connection terminal in the same terminal.
. Fork supply busbar at the bottom of the product

Recommended tools:
. For the screw terminals, screwdriver with 5.5 mm to 6.5 mm blade or Pozidriv no. 2 screwdriver
. For attaching or removing the DIN rail, screwdriver with 5.5 mm to 6.5 mm blade or Pozidriv no. 2 screwdriver

Manual actuation of the RCBO
. Ergonomic 2-position handle:
-"O-OFF": Device open
-"I-ON": Device closed

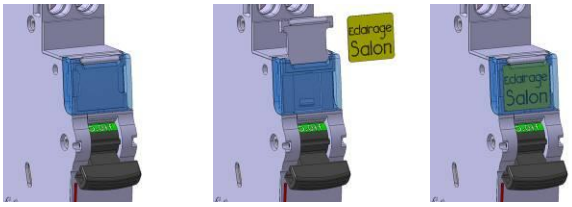
Contact status display:
. By marking of the handle:
-"O-OFF" in white on a green background = contacts open
-"I-ON" in white on a red background = contacts closed

Trip indication on residual current fault:
. Yellow indicator on the front

Locking:
. Padlocks possible in the open or closed positions with padlock support (Cat. No. 4 063 03) and Ø 5 mm padlock (Cat. No. 4 063 13) or Ø6 mm padlock (Cat. No. 227 97)

Sealing:
. Possible in the open or closed positions

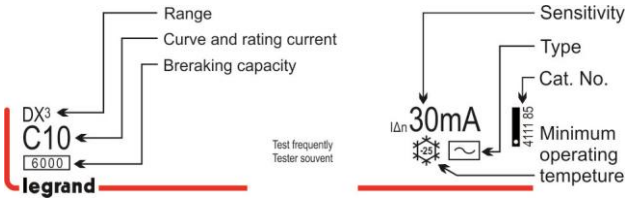
Labelling:
. Circuit identification by way of a label inserted in the label holder situated on the front of the product



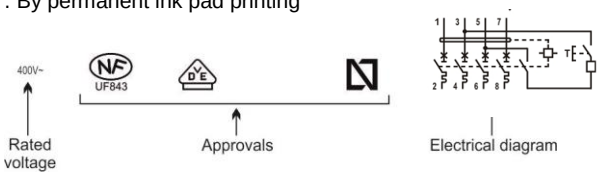
5. GENERAL CHARACTERISTICS

Neutral earthing system:
. IT , TT, TN

Marking on the front side:
. By permanent ink pad printing



Marking on the upper panel:
. By permanent ink pad printing



Test operating voltages:

IΔn	30 mA	300 mA	1000 mA
min. U	**320 V~**	**220 V~**	**230 V~**
max. U	**440 V~**	**440 V~**	**440 V~**

Breaking capacity:
. With a three-phase network + neutral (with alternating current 50 Hz)

Standard	Voltage between poles	Breaking capacity	
EN 61009-1	230 V	Icn	**6 kA**
	400 V		**6 kA**
EN 60947-2	230 V	Icu	**10 kA**
	400 V		**10 kA**
	230 V	Ics	**50 % Icu**
	400 V		**50 % Icu**

Residual breaking capacity:
. IΔm = 4.5 kA in accordance with EN 61009-1 section 9.12.11.4d (IΔm: short-circuit to earth)

Breaking capacity on one single pole (phase pole):
. In accordance with I_{IT} EN60947-2 – Appendix H (double fault in IT system): 3 kA at 400 V ~ and 6 kA at 230 V~
. In accordance with Icn1 EN60898-1: 10 kA at 230 V~

5. GENERAL CHARACTERISTICS *(continued)*

Isolation distance:
. The distance between the contacts is greater than 5.5 mm with the handle in the open position. The RCBO is suitable for isolation in accordance with standard EN/IEC 61009-1

Insulation voltage:
. Ui = 500 V in accordance with standard EN/IEC 61009-1

Degree of pollution:
. 2 in accordance with standard EN/IEC 61009-1

Dielectric strength:
. 3,500 V

Rated impulse withstand voltage:
. Uimp = 4 kV (wave 1.2/50 µs)

Protection from false tripping:
. 8/20 µs wave resistance: 250 A
. 0.5 µs/100 kHz damped recurring wave resistance: 200 A

Degree or class of protection:
. Terminals protected against direct contact, Class of protection against solid objects and liquids (wired device): IP20 in accordance with standards IEC 529 – EN 60529 and NF 20-010
. Front panel protected against direct contact: IP 40
. Class II in relation to metallic conductive parts
. Class of protection against mechanical impacts IK 02 in accordance with standard EN 62262.

Plastic materials:
. Polyamide and P.B.T.

Enclosure heat and fire resistance:
. Resistance to glow wire tests at 960°C, in accordance with standard IEC/EN 61009-1
. Classification V0, in accordance with standard UL94

Higher heating potential:
. The heat potential of a 30 mA AC type C16 device is estimated at: 4.73 MJ

Closing and opening force via the handle:
. 6 N on opening
. 20 N on closing

Mechanical endurance:
Compliant with standard EN/IEC 61009-1
. Tested with 20,000 operations with no load

Electrical endurance:
Compliant with standard EN/IEC 61009-1

. Tested with 10,000 operations with load (at In x Cos φ 0.9)
. Tested with 2,000 residual current trip operations using the Test button or the fault current

Sinusoidal vibration resistance (in accordance with IEC 60068.2.6):
. Axes: x - y - z
. Frequency: 10 to 55 Hz
. Acceleration: 3g (1g = 9.81 $m.s^{-2}$)

Resistance to tremors:
. In accordance with standard EN/IEC 61009-1

Ambient temperatures:
. Operation: from – 25°C to + 60°C
. Storage: from – 40°C to + 70°C

DC operation:
. Cannot be used with DC

Frequency:
. Operation at at 400 Hz: No
. Operation at 60 Hz: Yes., except sensitivities 30mA, A and AC types, which can be replaced, only for ratings 16A,20A,25A,32A, by F types of equivalent ratings and sensitivity.

Packaged volume:

	Volume (dm^3)	Packaging
For all ratings	**0.7**	**Per 1**

Average weight per device:
. 30mA RCBOs= 0,48 kg
. 300mA RCBOs= 0,45 kg
. 1 A RCBOs= 0,45 kg

Derating of RCBOs function of the number of devices placed side by side:
When several RCBOs are installed side by side and operate simultaneously, the heat dissipation of one pole is limited. This results in an increased operating temperature for the RCBOs causing false tripping. Applying the following additional coefficients to the operating currents is recommended.

Number of RCBOs side by side	Coefficient
2 - 3	**0.9**
4 - 5	**0.8**
6 - 9	**0.7**
≥ 10	**0.6**

These values are provided by recommendation IEC 60439-1 and the standards NF C 63421 and EN 60439-1.
In order to avoid having to use these coefficients there must be good ventilation and the devices must be kept apart using the spacing elements Cat. No. 4 063 07 (0.5 module).

Specific use: Appropriate to operate in humid atmosphere and polluted by a chlorined environment (pool-type)

5. GENERAL CHARACTERISTICS *(continued)*

Derating of RCBOs in the event of use with fluorescent tubes:

Electronic or ferromagnetic ballasts provide a high inrush current for a very short time. These currents are liable to cause tripping of the RCBOs .
The maximum number of ballasts per RCBOs stated by the lamp and ballast manufacturers in their catalogues should be taken into account during installation.

Impact of height:

	≤2,000 m	3,000 m	4,000 m	5,000 m
Dielectric strength	**3,500 V**	**2,500 V**	**2,000 V**	**1,500 V**
Maximum operating voltage	**400 V**	**400 V**	**400 V**	**400 V**
Derating at 30°C	**none**	**none**	**none**	**none**

Dissipated power (per device):

. B and C curve RCBOs, all types and all sensitivities

Rated current	10 A	13 A	16 A	20 A	25 A	32 A
Power (W)	**4.7**	**5.7**	**8.9**	**9.3**	**10.4**	**12.3**

Derating of RCBOs depending on the ambient temperature:

. The nominal characteristics of a RCBO are modified depending on the ambient temperature which prevails in the cabinet or enclosure where the RCBO is located.
. Reference temperature: 30°C in accordance with standard IEC/EN 60947-2.

	Ambient Temperature/In								
In (A)	- 25°C	- 10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C
10	**13**	**12**	**12**	**11**	**11**	10	**10**	**10**	**10**
13	**17**	**16**	**15**	**14**	**14**	13	**13**	**13**	**13**
16	**20**	**19**	**18**	**18**	**18**	16	**16**	**16**	**16**
20	**26**	**24**	**23**	**22**	**21**	20	**20**	**20**	**20**
25	**32**	**30**	**29**	**28**	**26**	25	**25**	**25**	**25**
32	**41**	**38**	**37**	**35**	**34**	32	**32**	**32**	**32**

Association and coordination with upstream fuses:

. Three-phase network (+N) 400/415 V, in accordance with standard IEC 60947-2
. TT neutral earthing or TNS system

		Upstream fuse									
		gG and aM types									
Downstream RCBO		≤20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A	160 A
DX³ 6000 A B and C curves	≤13 A	**100 kA**	**100 kA**	**100 kA**	**100 KA**	**100 KA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**40 kA**
	16 A	**-**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**40 kA**
	20 A	**-**	**-**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**40 kA**
	25 A	**-**	**-**	**-**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**40 kA**
	32 A	**-**	**-**	**-**	**-**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**40 kA**

5. GENERAL CHARACTERISTICS *(continued)*

Derating of RCBOs in the event of use with fluorescent tubes:
Electronic or ferromagnetic ballasts provide a high inrush current for a very short time. These currents are liable to cause tripping of the RCBOs .
The maximum number of ballasts per RCBOs stated by the lamp and ballast manufacturers in their catalogues should be taken into account during installation.

Impact of height:

	≤2,000 m	3,000 m	4,000 m	5,000 m
Dielectric strength	**3,500 V**	**2,500 V**	**2,000 V**	**1,500 V**
Maximum operating voltage	**400 V**	**400 V**	**400 V**	**400 V**
Derating at 30°C	**none**	**none**	**none**	**none**

Dissipated power for the phase pole in In:
. B and C curve RCBOs, all types and all sensitivities

Rated current	10 A	13 A	16 A	20 A	25 A	32 A
Power (W)	**4.7**	**5.7**	**8.9**	**9.3**	**10.4**	**12.3**

Derating of RCBOs depending on the ambient temperature:
. The nominal characteristics of a RCBO are modified depending on the ambient temperature which prevails in the cabinet or enclosure where the RCBO is located.
. Reference temperature: 30°C in accordance with standard IEC/EN 60947-2.

	Ambient Temperature/In								
In (A)	- 25°C	- 10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C
10	**13**	**12**	**12**	**11**	**11**	10	**10**	**10**	**10**
13	**17**	**16**	**15**	**14**	**14**	13	**13**	**13**	**13**
16	**20**	**19**	**18**	**18**	**18**	16	**16**	**16**	**16**
20	**26**	**24**	**23**	**22**	**21**	20	**20**	**20**	**20**
25	**32**	**30**	**29**	**28**	**26**	25	**25**	**25**	**25**
32	**41**	**38**	**37**	**35**	**34**	32	**32**	**32**	**32**

Association and coordination with upstream fuses:
. Three-phase network (+N) 400/415 V, in accordance with standard IEC 60947-2
. TT neutral earthing or TNS system

		Upstream fuse									
		gG and aM types									
Downstream RCBO		≤20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A	160 A
DX³ 6000 A B and C curves	≤13 A	**100 kA**	**100 kA**	**100 kA**	**100 KA**	**100 KA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**40 kA**
	16 A	**-**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**40 kA**
	20 A	**-**	**-**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**40 kA**
	25 A	**-**	**-**	**-**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**40 kA**
	32 A	**-**	**-**	**-**	**-**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**40 kA**

5. GENERAL CHARACTERISTICS (continued)

Association and coordination with upstream MCBs:
. Three-phase network (+N) 400/415 V, in accordance with standard IEC 60947-2
. TT neutral earthing or TNS system

		Upstream MCB			
		DX³ 10 kA B and C curves DX³ 6000/10 kA B, C and D curves			
Downstream RCBO		≤32 A	40 A	50 A	63 A
DX³ 6000 A B and C curves	≤25 A	**10 kA**	**10 kA**	**10 kA**	**10 kA**
	32 A	**-**	**10 kA**	**10 kA**	**10 kA**

		Upstream MCB											
		DX³ 10000 16 kA B/C/D curves			DX³ 25 kA B/C/D curves			DX³ 36 kA C curve			DX³ 50 kA B/C/D curves		
Downstream RCBO		≤15 A	32 A	40 to 125 A	≤25 A	32 A	40 to 125 A	≤25 A	32 A	40 to 80 A	≤25 A	32 A	40 to 63
DX³ 6000 A B and C curves	≤20 A	**16 kA**	**16 kA**	**16 kA**	**25 kA**	**25 kA**	**25 kA**	**36 kA**	**36 kA**	**36 kA**	**50 kA**	**50 kA**	**50 kA**
	25 A	**-**	**16 kA**	**16 kA**	**-**	**25 kA**	**25 kA**	**-**	**36 kA**	**36 kA**	**-**	**50 kA**	**50 kA**
	32 A	**-**	**-**	**16 kA**	**-**	**-**	**25 kA**	**-**	**-**	**36 kA**	**-**	**-**	**50 kA**

Association and coordination with upstream Moulded Case Circuit Breakers (MCCBs):
. Three-phase network (+N) 400/415 V, in accordance with standard IEC 60947-2
.TT neutral earthing or TNS system

		Upstream MCCBs											
		DPX³ 160 16 kA			DPX³ 160 25 kA			DPX³ 160 36 kA			DPX³ 160 50 kA		
Downstream RCBO		16 A	25 A	40 to 160 A	16 A	25 A	40 to 160 A	16 A	25 A	40 to 160 A	16 A	25 A	40 to 160 A
DX³ 6000 A B and C curves	≤13 A	**16 kA**	**16 kA**	**16 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	16 A	**-**	**16 kA**	**16 kA**	**-**	**25 kA**	**25 kA**	**-**	**25 kA**	**25 kA**	**-**	**25 kA**	**25 kA**
	20 A	**-**	**16 kA**	**16 kA**	**-**	**25 kA**	**25 kA**	**-**	**25 kA**	**25 kA**	**-**	**25 kA**	**25 kA**
	25 A	**-**	**-**	**16 kA**	**-**	**-**	**25 kA**	**-**	**-**	**25 kA**	**-**	**-**	**25 kA**
	32 A	**-**	**-**	**16 KA**	**-**	**-**	**25 kA**	**-**	**-**	**25 kA**	**-**	**-**	**25 kA**

5. GENERAL CHARACTERISTICS *(continued)*

Association and coordination with upstream Moulded Case Circuit Breakers (MCCBs):
. Three-phase network (+N) 400/415 V, in accordance with standard IEC 60947-2
.TT neutral earthing or TNS system

		Upstream MCCB			
		DPX³ 250 25 kA	DPX³ 250 36 kA	DPX³ 250 50 kA	DPX³ 250 70 kA
Downstream RCBO		25 to 250 A	25 to 250 A	25 to 250 A	25 to 250 A
DX³ 6000 A B and C curves	≤32 A	**25 kA**	**25 kA**	**25 kA**	**25 kA**

		Upstream MCCB				
		DPX 250 36 kA DPX-H 250 70KA		DPX / DPX-H 630	DPX / DPX-H 1250	DPX / DPX-H 1600
Downstream RCBO		25 A	40 to 250 A	250 to 630 A	500 to 1,250 A	630 to 1600 A
DX³ 6000 A B and C curves	≤20 A	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 KA**
	25 A	**-**	**25 kA**	**25 kA**	**20 kA**	**20 kA**
	32 A	**-**	**25 kA**	**25 kA**	**15 kA**	**15 kA**

		Upstream MCCB	
Downstream RCBO		DPX 250 ER AB	DPX 400 AB
DX³ 6000 A B and C curves	≤32 A	**25 kA**	**25 kA**

Association and coordination with upstream fuses only for sensitivities 300mA and 1000mA :
. Three-phase network (+N) 230/240, in accordance with standard IEC 60947-2
. TT neutral earthing or TNS system

		Upstream fuse									
		gG and aM types									
Downstream RCBO		≤20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A	160 A
DX³ 6000 A B and C curves	≤13 A	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 KA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**40 KA**
	16 A	**-**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**40 kA**
	20 A	**-**	**-**	**100 kA**	**100 kA**	**100 KA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**40 kA**
	25 A	**-**	**-**	**-**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**40 kA**
	32 A	**-**	**-**	**-**	**-**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**100 kA**	**40 kA**

5. GENERAL CHARACTERISTICS *(continued)*

Association and coordination with upstream MCBs, only for sensitivities 300mA and 1000mA :
. Three-phase network (+N) 230/240 V, in accordance with standard IEC 60947-2
. TT neutral earthing or TNS system

		Upstream MCB			
		DX³ 6000/10 kA B, C and D curves			
Downstream RCBO		≤32A	40A	50A	63A
DX³ 6000 A B and C curves	≤ 25 A	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	32 A	**-**	**25 kA**	**25 kA**	**25 kA**

		Upstream MCB											
		DX³ 10000 16 kA B/C/D curves			DX³ 25 kA B/C/D curves			DX³ 36 kA C curve			DX³ 50 kA B/C/D curves		
Downstream RCBO		≤25 A	32 A	40 to 120 A	≤25 A	32 A	40 to 125 A	≤25 A	32A	40 to 80 A	≤25 A	32 A	40 to 63 A
DX³ 6000 A B and C curves	≤20 A	**32 kA**	**32 kA**	**25 kA**	**50 kA**	**50 kA**	**25 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**
	25 A	**-**	**32 kA**	**25 kA**	**-**	**50 kA**	**25 kA**	**-**	**50 kA**	**50 kA**	**-**	**50 KA**	**50 kA**
	32 A	**-**	**-**	**25 kA**	**-**	**-**	**25 kA**	**-**	**-**	**50 kA**	**-**	**-**	**50 kA**

Association and coordination with upstream Moulded Case Circuit Breakers (MCCBs), only for sensitivities 300mA and 1000mA :
. Three-phase network (+N) 230/240 V , in accordance with standard IEC 60947-2
. TT neutral earthing or TNS system

		Upstream MCCB											
		DPX³ 160 16 kA			DPX³ 160 25 kA			DPX³ 160 36 kA			DPX³ 160 50 kA		
Downstream RCBO		16 A	25 A	40 to 160 A	16 A	25 A	40 to 160 A	16 A	25 A	40 to 160 A	16 A	25 A	40 to 160 A
DX³ 6000 A B and C curves	≤13 A	**25 kA**	**25 kA**	**25 kA**	**40 kA**	**40 kA**	**40 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**
	16 A	**-**	**25 kA**	**25 kA**	**-**	**40 kA**	**40 kA**	**-**	**50 kA**	**50 kA**	**-**	**50 KA**	**50 kA**
	20 A	**-**	**25 kA**	**25 kA**	**-**	**40 kA**	**40 kA**	**-**	**50 kA**	**50 kA**	**-**	**50 KA**	**50 kA**
	25 A	**-**	**-**	**25 kA**	**-**	**-**	**40 kA**	**-**	**-**	**50 kA**	**-**	**-**	**50 kA**
	32 A	**-**	**-**	**25 kA**	**-**	**-**	**40 kA**	**-**	**-**	**50 kA**	**-**	**-**	**50 kA**

5. GENERAL CHARACTERISTICS *(continued)*

Association and coordination with upstream Moulded Case Circuit Breakers (MCCBs), only for sensitivities 300mA and 1000mA:
. Three-phase network (+N) 230/240 V, in accordance with standard IEC 60947-2
. TT neutral earthing or TNS system

		Upstream MCCB			
		DPX³ 250 25 kA	DPX³ 250 36 kA	DPX³ 250 50 kA	DPX³ 250 70 kA
Downstream RCBO		≤ 250A	≤ 250A	≤ 250A	≤ 250A
DX³ 6000A B and C curves	≤32A	**40 kA**	**50 kA**	**50 kA**	**50 kA**

		Upstream MCCB				
		DPX / DPX-H 250		DPX / DPX-H 630	DPX / DPX-H 1250	DPX / DPX-H 1600
Downstream RCBO		25 A	40 to 250A	≤ 630A	≤ 1250A	≤ 1,600A
DX³ 6000A B and C curves	≤20 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**
	25A	**-**	**50 kA**	**50 kA**	**50 kA**	**50 kA**
	32A	**-**	**50 kA**	**50 kA**	**50 kA**	**50 kA**

		Upstream MCCB	
Downstream RCBO		DPX 250 ER AB	DPX 400 AB
DX³ 6000A B and C curves	≤32 A	**50 kA**	**50 kA**

Selectivity between two levels of protection
. The downstream MCB must always have a magnetic threshold and a rated current lower than those of the upstream protection.
. Selectivity or Discrimination is said to be total (T) if there is discrimination up to the value of breaking capacity (in accordance with standard EN/IEC 60947-2) of the downstream MCB.

Discrimination with upstream fuses, only for sensitivities 300mA and 1000mA:
. Discrimination limit with a voltage of 230 V ~ (Values in A)

		Upstream fuse gG type							
Downstream RCBO		32A	40A	50A	63A	80A	100A	125A	160A
DX³ 6000A B and C curves	10 A	**-**	**1600**	**2200**	**3200**	**3000**	**T**	**T**	**T**
	13A	**-**	**1400**	**1800**	**2600**	**3000**	**5600**	**T**	**T**
	16A	**-**	**1400**	**1800**	**2600**	**3000**	**5600**	**T**	**T**
	20A	**-**	**1200**	**1500**	**2200**	**2500**	**4600**	**T**	**T**
	25A	**-**	**-**	**1300**	**2000**	**2200**	**4100**	**5500**	**T**
	32A	**-**	**-**	**1200**	**1700**	**1900**	**3500**	**4500**	**T**

T = Total discrimination
.
The downstream RCBO must always have a magnetic threshold and rated current lower than those of the upstream circuit breaker.

5. GENERAL CHARACTERISTICS *(continued)*

Discrimination with upstream fuses, only for sensitivities 300mA and 1000mA :
. Discrimination limit with a voltage of 230 V ~ (Values in A)

		Upstream fuse aM type								
Downstream RCBO		25A	32A	40A	50A	63A	80A	100A	125A	160A
DX³ 6000A B and C curves	10A	**-**	**1100**	**1700**	**2500**	**5000**	**T**	**T**	**T**	**T**
	13A	**-**	**1000**	**1400**	**2100**	**4000**	**T**	**T**	**T**	**T**
	16A	**-**	**1000**	**1400**	**2100**	**4000**	**T**	**T**	**T**	**T**
	20A	**-**	**-**	**1300**	**1800**	**3400**	**5100**	**T**	**T**	**T**
	25A	**-**	**-**	**1100**	**1600**	**3000**	**4500**	**T**	**T**	**T**
	32A	**-**	**-**	**-**	**1300**	**2400**	**3800**	**5000**	**T**	**T**

Discrimination with upstream MCBs , only for sensitivities 300mA and 1000mA :
. Discrimination limit with a voltage of 230 V ~ (Values in A)

		Upstream MCB DX³ 4500/6 kA - DX³ 6000/10 kA - DX³ 10000/16 kA B curve											
Downstream RCBO		10A	13A	16A	20A	25A	32A	40A	50A	63A	80A	100A	125A
DX³ 6000A B and C curves	10A	**-**	**-**	**-**	**80**	**100**	**128**	**160**	**200**	**252**	**3000**	**5000***	**T***
	13A	**-**	**-**	**-**	**-**	**100**	**128**	**160**	**200**	**252**	**2500**	**4000**	**6000***
	16A	**-**	**-**	**-**	**-**	**-**	**128**	**160**	**200**	**252**	**2000**	**3600**	**5500***
	20A	**-**	**-**	**-**	**-**	**-**	**-**	**160**	**200**	**252**	**1600**	**3000**	**4000**
	25A	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**200**	**252**	**1300**	**2400**	**3300**
	32A	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**252**	**1000**	**1800**	**2700**

		Upstream MCB DX³ 3000 - DX³ 4500/6 kA - DX³ 6000/10 kA - DX³ 10000/16 kA C curve											
Downstream RCBO		10A	13A	16A	20 A	25A	32A	40A	50A	63A	80A	100A	125A
DX³ 6000A B and C curves	10A	**-**	**98**	**120**	**150**	**187**	**240**	**300**	**375**	**472**	**3000**	**5000***	**T***
	13A	**-**	**-**	**120**	**150**	**187**	**240**	**300**	**375**	**472**	**2500**	**4000***	**6000***
	16A	**-**	**-**	**-**	**150**	**187**	**240**	**300**	**375**	**472**	**2000**	**3600***	**5500***
	20A	**-**	**-**	**-**	**-**	**187**	**240**	**300**	**375**	**472**	**1600**	**3000**	**4000***
	25A	**-**	**-**	**-**	**-**	**-**	**240**	**300**	**375**	**472**	**1300**	**2400**	**3300***
	32A	**-**	**-**	**-**	**-**	**-**	**-**	**300**	**375**	**472**	**1000**	**1800**	**2700**

. T = Total discrimination

. *: If the discrimination value stated in the table is greater than the breaking capacity of the upstream circuit breaker then the breaking capacity of the upstream device must be taken as the discrimination value (the discrimination value may not exceed the breaking capacity of the upstream device).

5. GENERAL CHARACTERISTICS *(continued)*

Discrimination with upstream modular MCBs , only for sensitivities 300mA and 1000mA :
. Discrimination limit with a voltage of 230 V ~ (Values in A)

		Upstream MCB											
		DX³ 4500/6 kA - DX³ 6000/10 kA - DX³ 10000/16 kA D curve											
Downstream RCBO		10A	13A	16A	20A	25A	32A	40A	50A	63A	80A	100A	125A
DX³ 6000A B/C curves	10A	**-**	**-**	**192**	**240**	**300**	**384**	**480**	**600**	**756**	**3000**	**5000**	**T**
	13A	**-**	**-**	**-**	**240**	**300**	**384**	**480**	**600**	**756**	**2500**	**4000**	**6000**
	16A	**-**	**-**	**-**	**240**	**300**	**384**	**480**	**600**	**756**	**2000**	**3600**	**5500**
	20A	**-**	**-**	**-**	**-**	**300**	**384**	**480**	**600**	**756**	**1600**	**3000**	**4000**
	25A	**-**	**-**	**-**	**-**	**-**	**384**	**480**	**600**	**756**	**1300**	**2400**	**3300**
	32A	**-**	**-**	**-**	**-**	**-**	**-**	**480**	**600**	**756**	**1100**	**1450**	**2700**

		Upstream MCB										
		DX³ 25 kA B curve										
Downstream RCBO		10A	16A	20A	25A	32A	40A	50A	63A	80 A	100A	12 A
DX³ 6000A B and C curves	10A	**-**	**-**	**80**	**100**	**500**	**700**	**1000**	**1800**	**3000**	**5000**	**T**
	13A	**-**	**-**	**-**	**100**	**400**	**600**	**1200**	**1500**	**2500**	**4000**	**T**
	16A	**-**	**-**	**-**	**-**	**300**	**500**	**700**	**1300**	**2000**	**3600**	**5500**
	20A	**-**	**-**	**-**	**-**	**-**	**400**	**500**	**1000**	**1600**	**3000**	**4000**
	25A	**-**	**-**	**-**	**-**	**-**	**-**	**500**	**800**	**1300**	**2400**	**3300**
	32A	**-**	**-**	**-**	**-**	**-**	**-**	**500**	**600**	**1000**	**1800**	**2700**

		Upstream MCB										
		DX³ 25 kA C curve										
Downstream RCBO		10A	16A	20A	25A	32A	40A	50A	63A	80A	100 A	125 A
DX³ 6000A B and C curves	10A	**-**	**120**	**150**	**187**	**500**	**700**	**1000**	**1800**	**3000**	**5000**	**T**
	13A	**-**	**120**	**150**	**187**	**400**	**600**	**1200**	**1500**	**2500**	**4000**	**T**
	16A	**-**	**-**	**150**	**187**	**300**	**500**	**700**	**1300**	**2000**	**3600**	**5500**
	20A	**-**	**-**	**-**	**187**	**300**	**400**	**500**	**1000**	**1600**	**3000**	**4000**
	25 A	**-**	**-**	**-**	**-**	**240**	**400**	**500**	**800**	**1300**	**2400**	**3300**
	32A	**-**	**-**	**-**	**-**	**-**	**300**	**500**	**600**	**1000**	**1800**	**2700**

T = Total discrimination

5. GENERAL CHARACTERISTICS *(continued)*

Discrimination with upstream MCBs, only for sensitivities 300mA and 1000mA :
. Discrimination limit with a voltage of 230 V ~ (Values in A)

		Upstream MCB										
		DX³ 25 kA D curve										
Downstream RCBO		10A	16A	20A	25A	32A	40A	50A	63A	80A	10 A	125 A
DX³ 6000A B and C curves	10A	**-**	**192**	**240**	**300**	**500**	**700**	**1000**	**1800**	**3000**	**5000**	**T**
	13A	**-**	**-**	**240**	**300**	**400**	**600**	**1200**	**1500**	**2500**	**4000**	**T**
	16A	**-**	**-**	**240**	**300**	**384**	**500**	**700**	**1300**	**2000**	**3600**	**5500**
	20A	**-**	**-**	**-**	**300**	**384**	**480**	**600**	**1000**	**1600**	**3000**	**4000**
	25A	**-**	**-**	**-**	**-**	**384**	**480**	**600**	**800**	**1300**	**2400**	**3300**
	32A	**-**	**-**	**-**	**-**	**-**	**480**	**600**	**756**	**1100**	**1450**	**2700**

		Upstream MCB								
		DX³ 36 kA/DX³ 50 kA C curve								
Downstream RCBO		10A	16A	20A	25A	32A	40A	50A	63A	80A
DX³ 6000A B and C curves	10A	**-**	**120**	**150**	**210**	**500**	**700**	**1000**	**1800**	**3000**
	13A	**-**	**120**	**150**	**200**	**400**	**600**	**1200**	**1500**	**2500**
	16A	**-**	**-**	**150**	**187**	**300**	**500**	**700**	**1300**	**2000**
	20A	**-**	**-**	**-**	**187**	**300**	**400**	**500**	**1000**	**1600**
	25A	**-**	**-**	**-**	**-**	**240**	**400**	**500**	**800**	**1300**
	32A	**-**	**-**	**-**	**-**	**-**	**300**	**500**	**600**	**1000**

		Upstream MCB														
		DX³ 50 kA B curve							DX³ 50 kA D curve							
Downstream RCBO		≤16A	2 A	25A	32A	40A	50A	63A	10A	16A	20A	25A	32A	40A	50A	63A
DX³ 6000A B and C curves	10A	**-**	**150**	**210**	**500**	**700**	**1000**	**1800**	**-**	**192**	**240**	**300**	**500**	**700**	**1000**	**1800**
	13A	**-**	**-**	**200**	**400**	**600**	**1200**	**1500**	**-**	**-**	**240**	**300**	**400**	**600**	**1200**	**1500**
	16A	**-**	**-**	**-**	**300**	**500**	**70**	**1000**	**-**	**-**	**240**	**300**	**384**	**500**	**700**	**1300**
	20A	**-**	**-**	**-**	**-**	**400**	**500**	**1000**	**-**	**-**	**-**	**300**	**384**	**480**	**600**	**1000**
	25A	**-**	**-**	**-**	**-**	**-**	**500**	**800**	**-**	**-**	**-**	**-**	**384**	**480**	**600**	**800**
	32A	**-**	**-**	**-**	**-**	**-**	**500**	**600**	**-**	**-**	**-**	**-**	**-**	**480**	**600**	**756**

T = Total discrimination
Discrimination is said to be total if there is discrimination up to the value of the breaking capacity (in accordance with EN 60947-2) of the downstream RCBO.
The downstream RCBO must always have a magnetic threshold and rated current lower than those of the upstream circuit breaker.

5. GENERAL CHARACTERISTICS *(continued)*

Discrimination with upstream Moulded Case Circuit Breakers (MCCBs) , only for sensitivities 300mA and 1000mA :
. Discrimination limit with a voltage of 230 V ~ (Values in A)

		Upstream MCCB							
		DPX³ 160 16 kA to 50 kA							
Downstream RCBO		16A	25A	40A	63A	80A	100A	125A	160A
DX³ 6000A B and C curves	10A	**5**	**T**	**T**	**T**	**T**	**T**	**T**	**T**
	13A	**-**	**T**	**T**	**T**	**T**	**T**	**T**	**T**
	16A	**-**	**T**	**T**	**T**	**T**	**T**	**T**	**T**
	20A	**-**	**5**	**5**	**5**	**5**	**6**	**T**	**T**
	25A	**-**	**-**	**4.5**	**4.5**	**4.5**	**4.5**	**T**	**T**
	32A	**-**	**-**	**-**	**3**	**4**	**4**	**T**	**T**

		Upstream MCCB		
		DPX³ 250		
Downstream RCBO		40A	100A	160 to 250A
DX³ 6000A B and C curves	10A	**T**	**T**	**T**
	13A	**T**	**T**	**T**
	16A	**T**	**T**	**T**
	20A	**5**	**T**	**T**
	25A	**4**	**T**	**T**
	32A	**-**	**5**	**T**

		Upstream MCCB				
		DPX 250 / DPX-H 250 Thermal-magnetic				
Downstream RCBO		25A	40A	63A	100A	160 to 250A
DX³ 6000A B and C curves	10A	**5**	**5**	**5**	**T**	**T**
	13A	**4**	**4**	**4**	**T**	**T**
	16A	**4**	**4**	**4**	**T**	**T**
	20A	**-**	**4**	**4**	**T**	**T**
	25A	**-**	**3**	**3**	**T**	**T**
	32A	**-**	**-**	**2**	**5**	**T**

T = Total discrimination

5. GENERAL CHARACTERISTICS *(continued)*

Discrimination with upstream Moulded Case Circuit Breakers (MCCBs) , only for sensitivities 300mA and 1000mA :
. Discrimination limit with a voltage of 230 V ~ (Values in A)

		Upstream MCCB				
		DPX 250 / DPX-H 250 Electronic				DPX / DPX-H 630 / 1250 / 1600 DMX³ 2500 / 4000
Downstream RCBO		40A	100A	160A	250A	160 to 4000A
DX³ 6000A B and C curves	10A	**T**	**T**	**T**	**T**	**T**
	13A	**T**	**T**	**T**	**T**	**T**
	16A	**T**	**T**	**T**	**T**	**T**
	20A	**5**	**T**	**T**	**T**	**T**
	25A	**4**	**T**	**T**	**T**	**T**
	32A	**-**	**5**	**T**	**T**	**T**

		Upstream MCCB		
		DPX 250 ER AB		DPX 400 AB
Downstream RCBO		90A	130 to 240A	320 and 400A
DX³ 6000A B and C curves	10A	**T**	**T**	**T**
	13A	**T**	**T**	**T**
	16A	**T**	**T**	**T**
	20A	**T**	**T**	**T**
	25A	**T**	**T**	**T**
	32A	**5**	**T**	**T**

T = Total discrimination

6. COMPLIANCE AND APPROVALS

In accordance with standards:
. EN/IEC 61009-1 (NF C 61440)

Usage in special conditions:
. Category C compliant (testing temperature range range from -25°C to +70°C, resistant to salt spray) in accordance with the classification defined in Appendix Q of standard IEC/EN 60947-1

Respect for the environment – Compliance with European Union Directives:
. Compliance with Directive 2002/95/EC of 27/01/03 known as "RoHS" which provides for a restriction on the use of dangerous substances such as lead, mercury, cadmium, hexavalent chromium and polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) brominated flame retardants from 1st July 2006
. Compliance with the Directive 91/338/EEC of 18/06/91 and decree 94-647 of 27/07/04

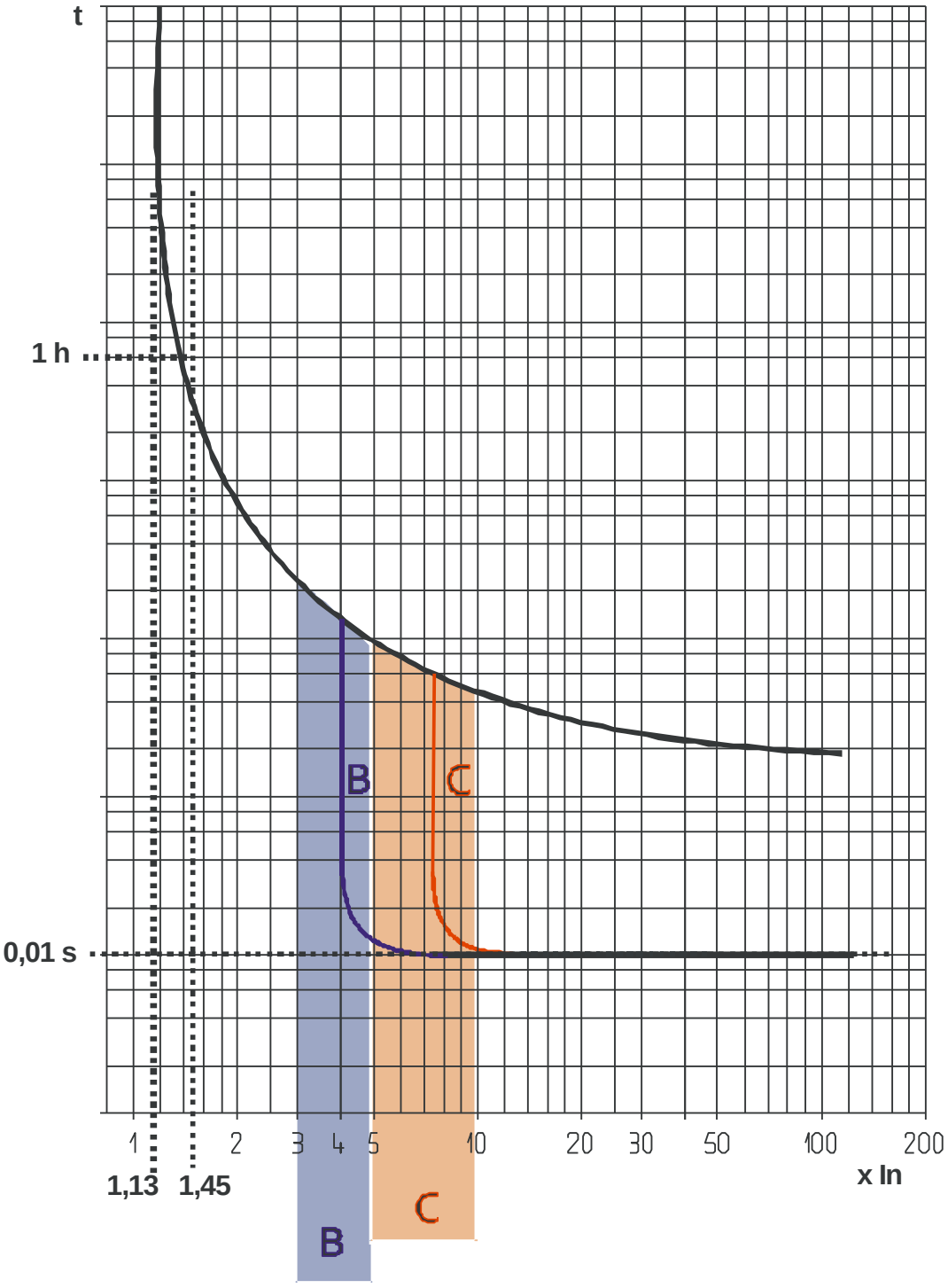
Plastic materials:
. Halogen free plastic materials
. Labelling of parts compliant with ISO 11469 and ISO 1043.

Packaging:
. Design and manufacture of packaging compliant with decree 98-638 of 20/07/98 and Directive 94/62/EC

Approvals obtained:
. France: NF

7. CURVES

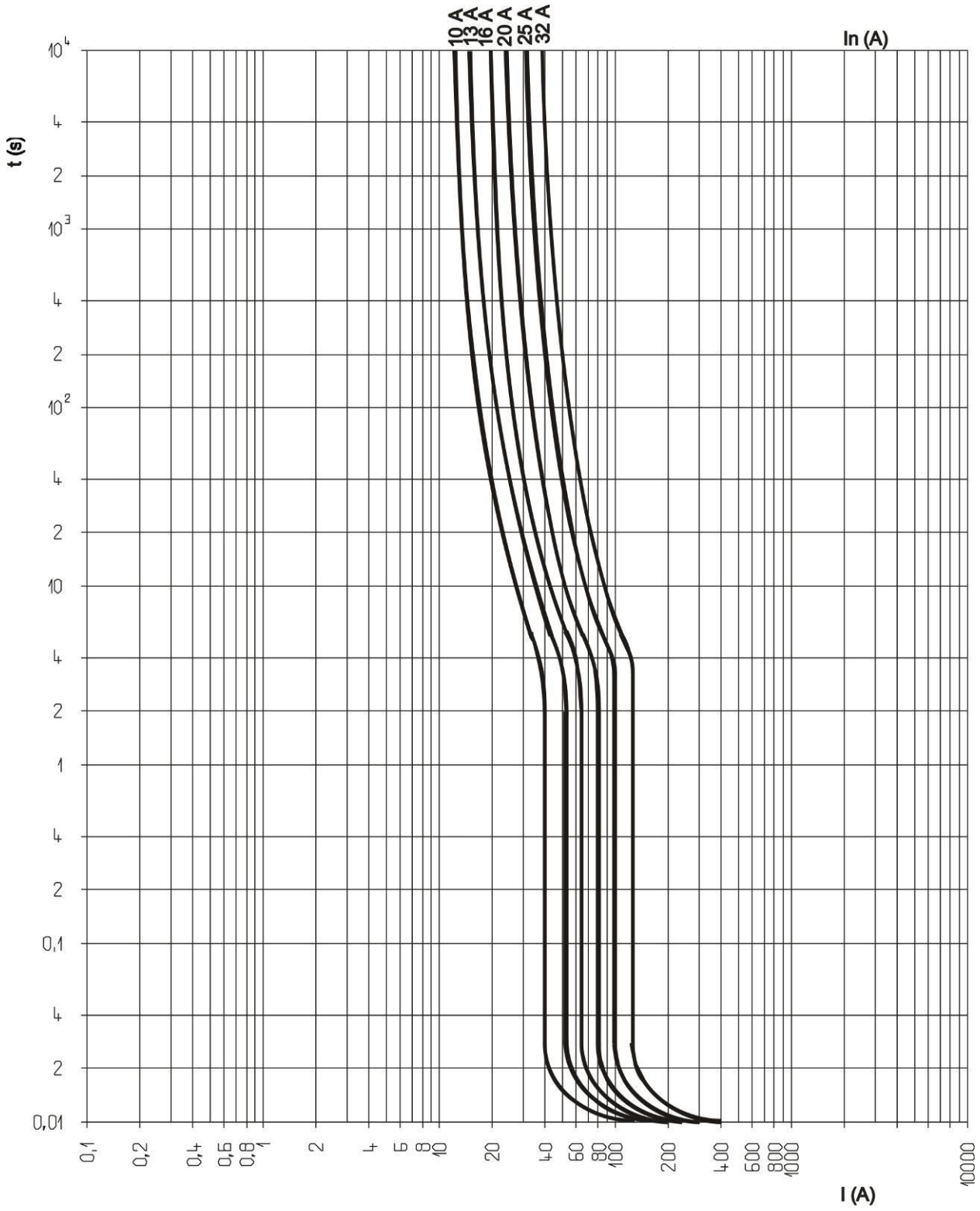
Thermal-magnetic tripping curve range typical of B and C curve RCBOs:



Thermal tripping at ambient temperature = 30°C
In = RCBO rated current

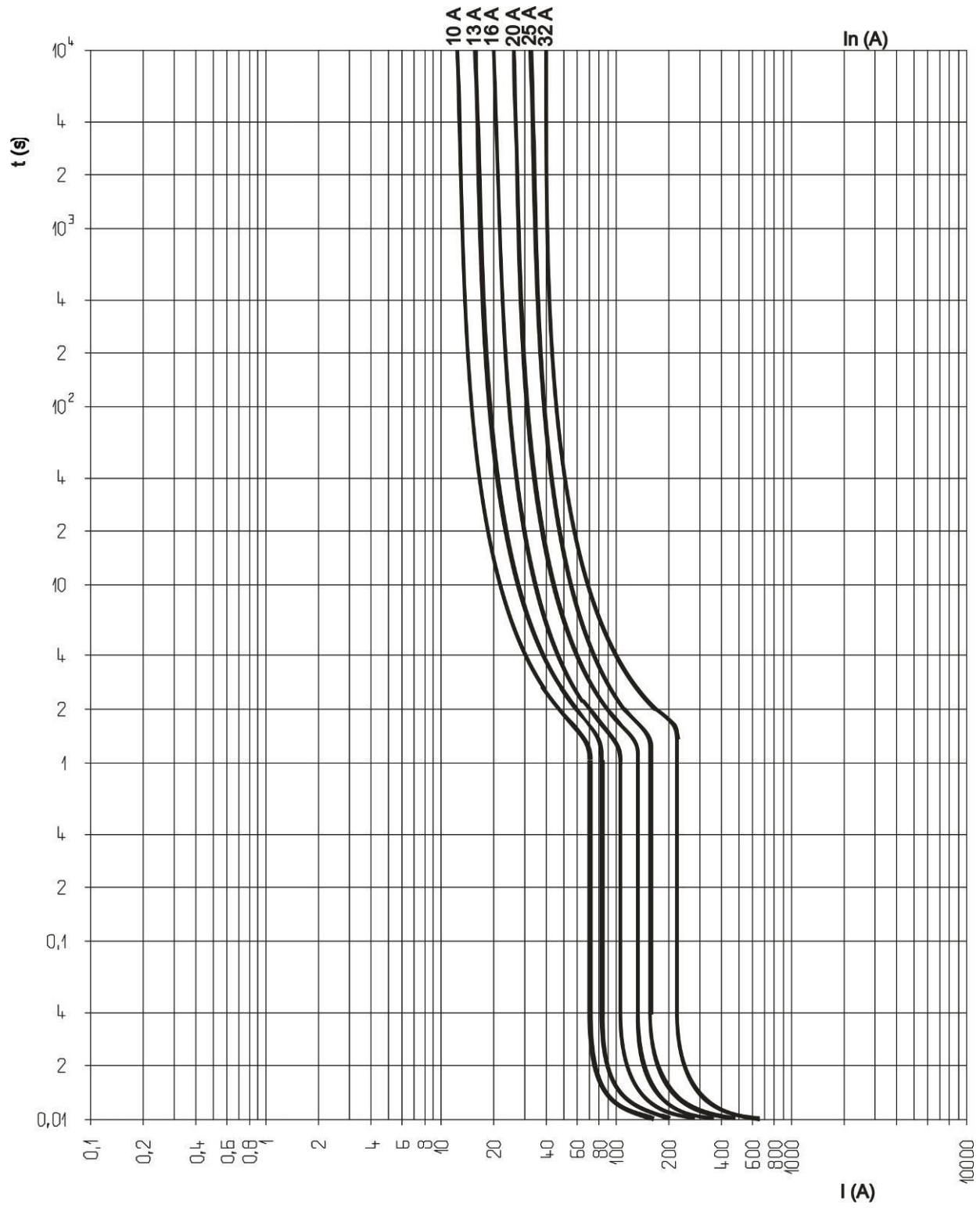
7. CURVES *(continued)*

Average thermal-magnetic tripping curves range typical of B curve RCBOs:



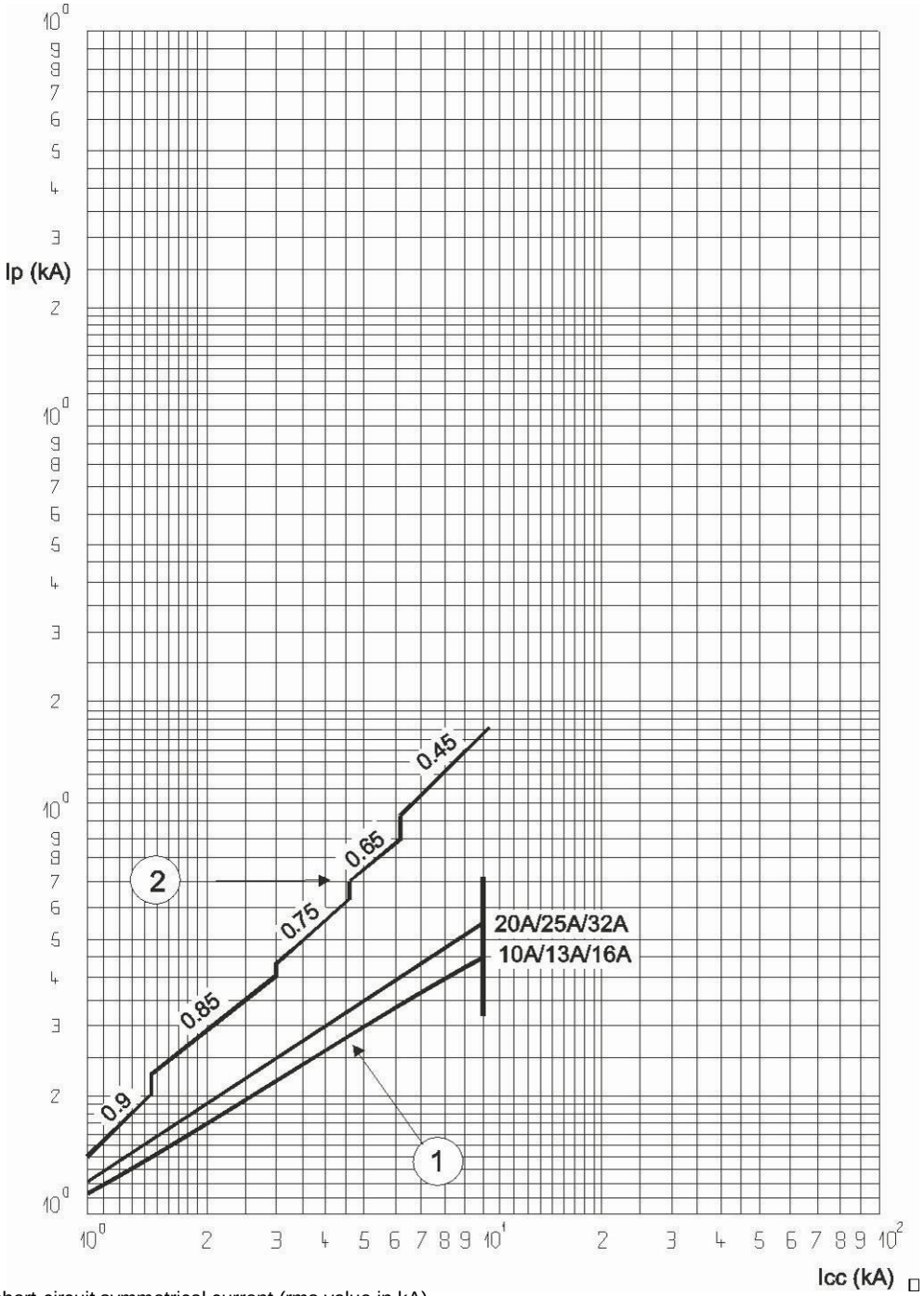
7. CURVES *(continued)*

Average thermal-magnetic tripping curves range typical of C curve circuit RCBOs:



7. CURVES *(continued)*

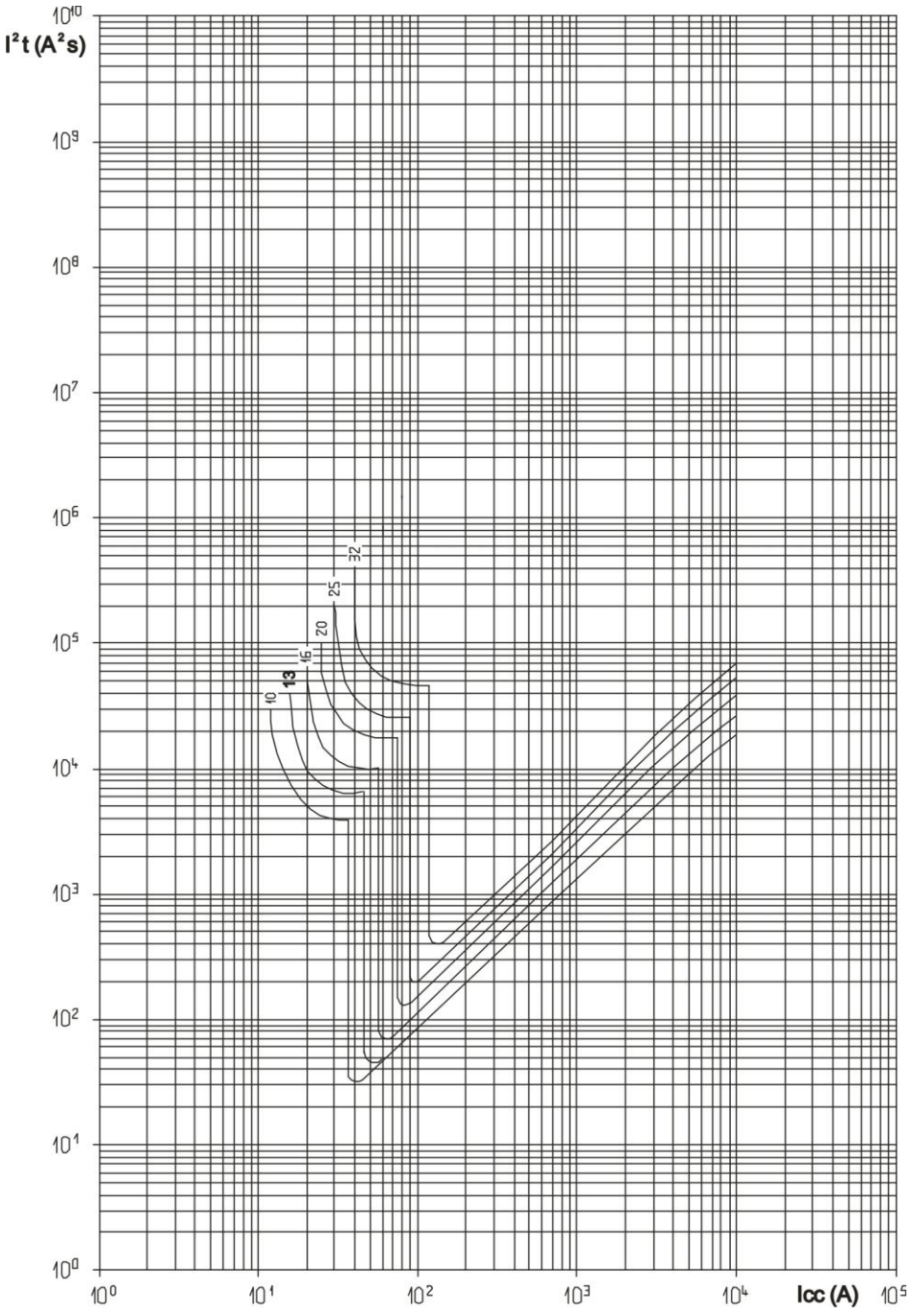
Current limiting curves:



Icc = Prospective short-circuit symmetrical current (rms value in kA)
Ip = Maximum peak value (kA)
① = Short-circuit rms currents (max. peak)
② = Unlimited peak currents (max), corresponding to power factors shown above (0.15 to 0.9)

7. CURVES *(continued)*

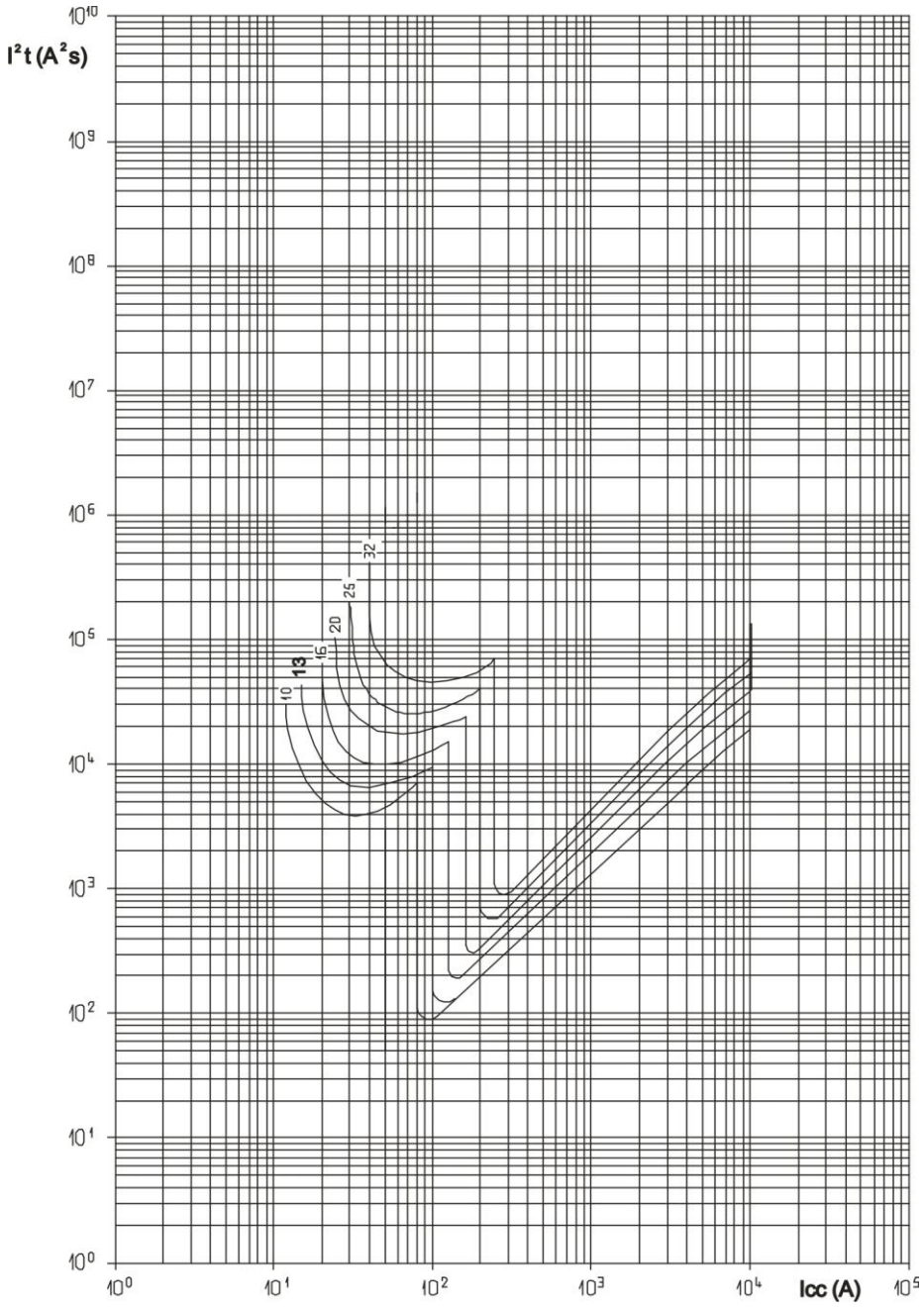
Thermal stress limiting curves:
. B curve 4-pole RCBO



Icc = Prospective short-circuit symmetrical current (rms value in kA)
I²t = Limited thermal stress (in A²s)

7. CURVES *(continued)*

Thermal stress limiting curves:
. C curve 4-pole RCBO

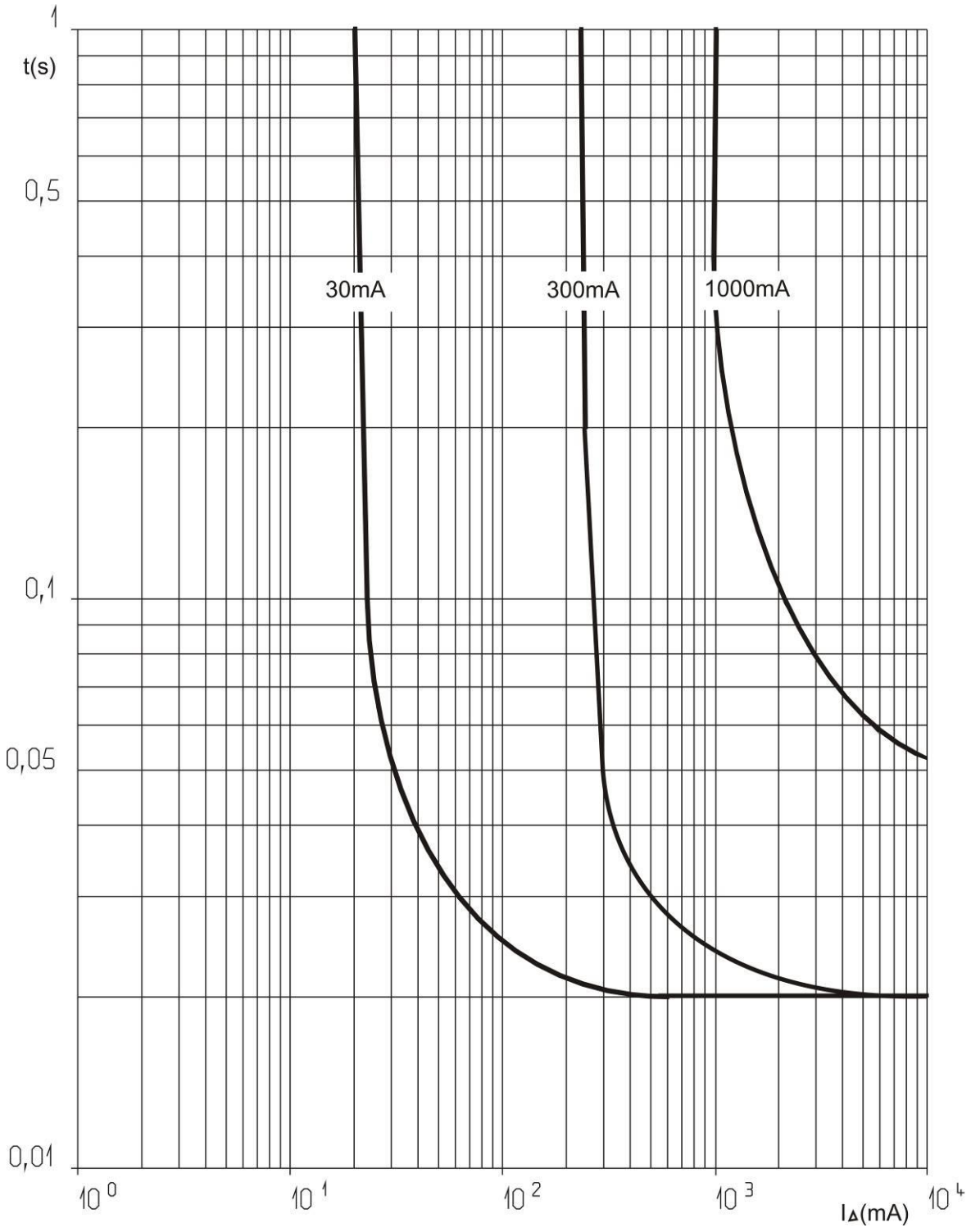


Icc = Prospective short-circuit symmetrical current (rms value in kA)
I²t = Limited thermal stress (in A²s)

7. CURVES *(continued)*

Tripping current curves:
. Tripping time curve depending on the value of the fault current:

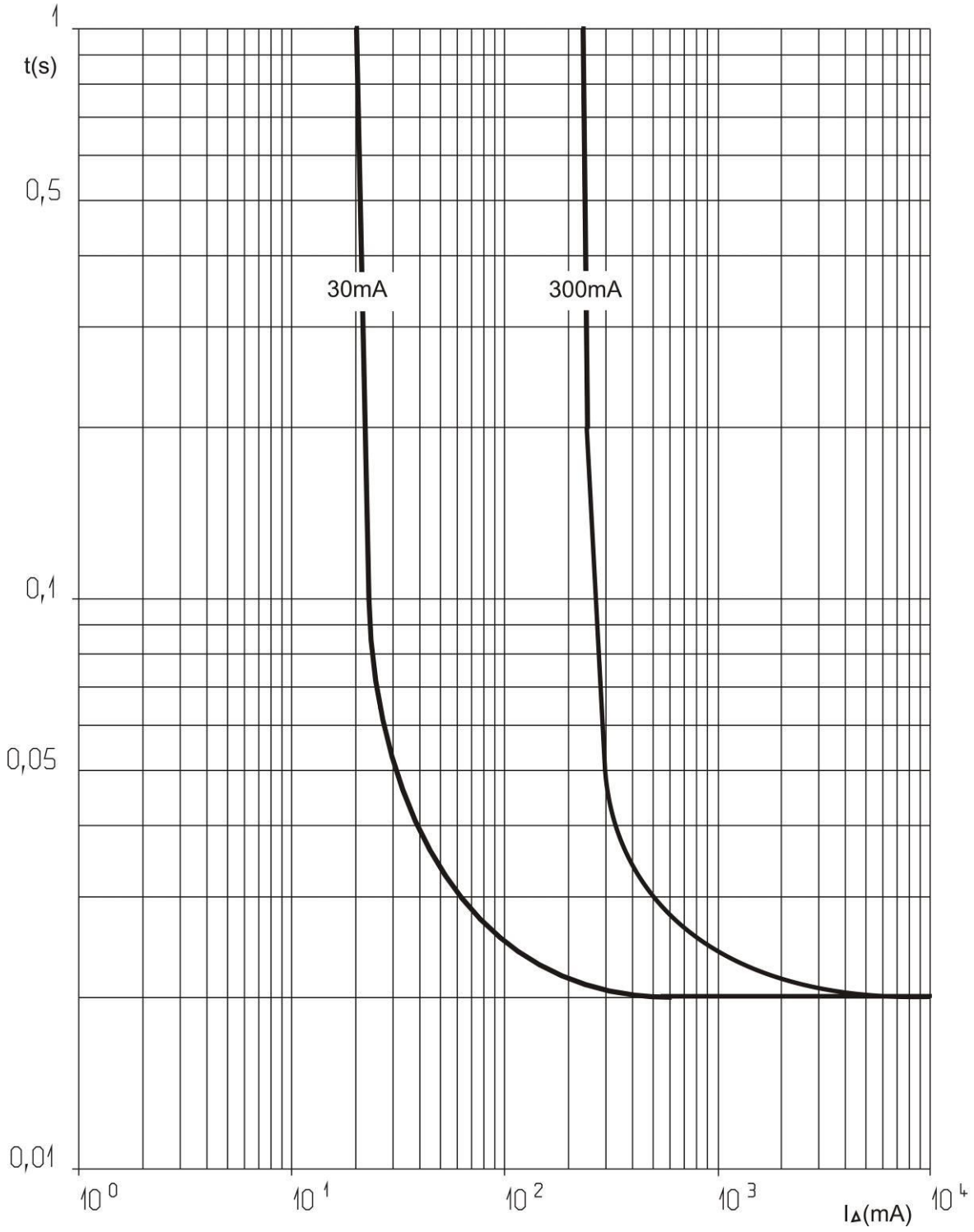
AC TYPE



7. CURVES *(continued)*

Tripping current curves:
. Tripping time curve depending on the value of the fault current:

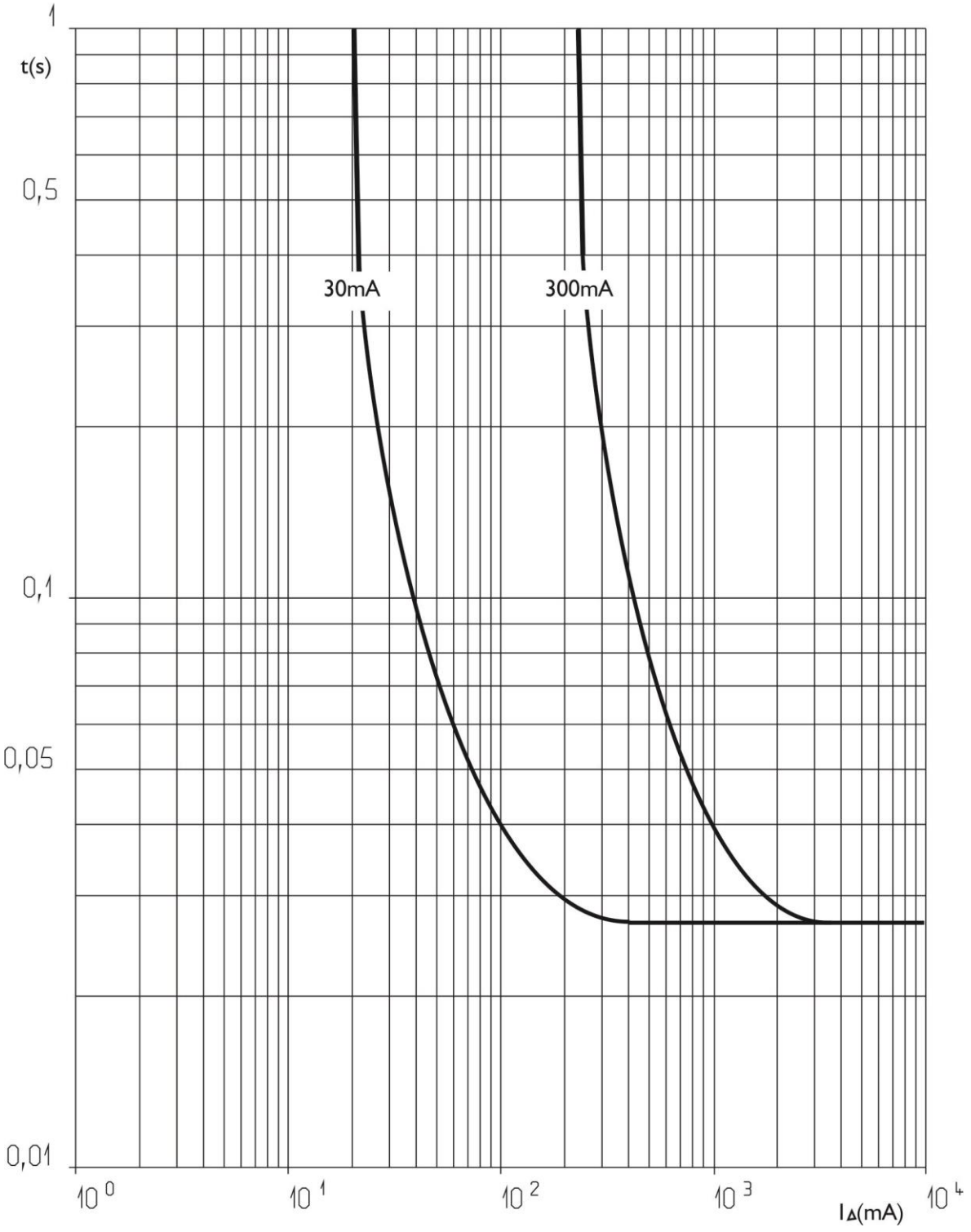
A TYPE



7. CURVES *(continued)*

Tripping current curves:
. Tripping time curve depending on the value of the fault current:

F TYPE



8. AUXILIARIES AND ACCESSORIES

Wiring accessories:
. Supply busbar:
-HX³ 4-pole universal supply busbar (Cat. No. 4 049 44, 9 45)
. Connection Terminals for aluminium cable with max. 50 mm² cross-section (Cat. No. 4 063 10)
. Sealable screw cover (Cat. No. 4 063 04)

Signalling auxiliaries:
. Auxiliary contact (0.5 module, Cat. No. 4 062 58)
. Fault signalling contact (0.5 module, Cat. No. 4 062 60)
. Auxiliary contact that can be changed into fault signalling contact (0.5 module, Cat. No. 4 062 62)
. Auxiliary contact + fault signalling contact that can be changed into 2 auxiliary contacts (1 module, Cat. No. 4 062 66)

Control auxiliaries:
. Shunt trip (1 module, Cat. No. 4 062 76, 2 78)
. Undervoltage release (1 module, Cat. No. 4 062 80, 82)
. Stand-alone release for N/C push-button
(1.5 module, Cat. No. 4 062 87)

Motor driven control modules:.
Motor-driven control module (1 module, Cat. No. 4 062 91)
. Motor-driven control module with integrated automatic reset
(2 modules, Cat. Nos. 4 062 93, 95)

Possible combinations of auxiliaries and RCBOs:
. The auxiliaries are installed to the left of the RCBOs
. Maximum number of auxiliaries = 3
. Maximum number of 1 module signalling auxiliaries = 2
. Maximum number of control auxiliaries
(Cat. Nos. 4 062 76 to 4 062 87) = 1
. The control auxiliary trip (Cat. Nos. 4 062 76 to 4 062 87) must mandatorily be placed to the left of the signalling auxiliaries (Cat. Nos. 4 062 58 to 4 062 66) where the auxiliaries from these 2 families are connected to the same RCBO

Sealing:
. Possible in the open or closed positions

Locking options:
. Via padlock 5 mm in diameter (Cat. No. 4 063 13) or padlock 6 mm in diameter (Cat. No. 227 97) and padlock support (Cat. No. 4 063 03)

Installation software:
. XL PRO³

9. SAFETY

. For your safety your electrical installation is equipped with residual current protection and this must be tested periodically. In the absence of any national regulations on the time period required for this, Legrand recommends that this test be carried out every month: press the "T" test button, the device should trip. Please call an electrician immediately if this does not happen as the safety level of your installation has been reduced
. The presence of residual current protection does not remove the need to observe all the precautions associated with using electrical energy.

87045 LIMOGES Cedex
Telephone number: +33 5 55 06 87 87 – Fax: +33 5 55 06 88 88

DX³ RCBO 6000A
Phase + Neutral, neutral on right

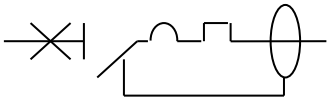
Cat. N°(s) : 4 109 93, 97, 99, 4 110 00, 02, 03, 04, 05, 06, 4 110 21, 22, 24, 25, 26, 27, 28, 41, 47, 48, 50, 51, 52, 53, 4 110 54, 91, 92, 94, 95, 96, 97, 98

CONTENTS PAGE

1. DESCRIPTION - USE

Residual Current Circuit Breaker with Overload (RCBO) with positive contact indication for control, protection against short-circuits and overloads, and isolation of electrical circuits, protecting people from direct and indirect contact and protecting installations from insulation faults.

Symbol:



Technology:
. Limiting device
. The Neutral contact closes before and opens after the Phase contact
. The phase pole provides protection and isolation for the phase circuit
. The neutral pole provides isolation for the neutral circuit

2. RANGE

Polarity:
. 2 poles including 1 protected pole and 1 neutral pole

Width:
. 2 modules (2 x 17.8 mm)

Rated current In:
. 3 /6 /10/ 16/ 20/ 25/ 32/ 40 A

Magnetic tripping curve:
. C curve (between 5 In and 10 In)

Type:
. AC (sinusoidal differential alternating current)
. A (residual currents with a DC component)
. F (additional immunity to unwanted tripping and detection of high frequency fault currents).
F products are also A type.

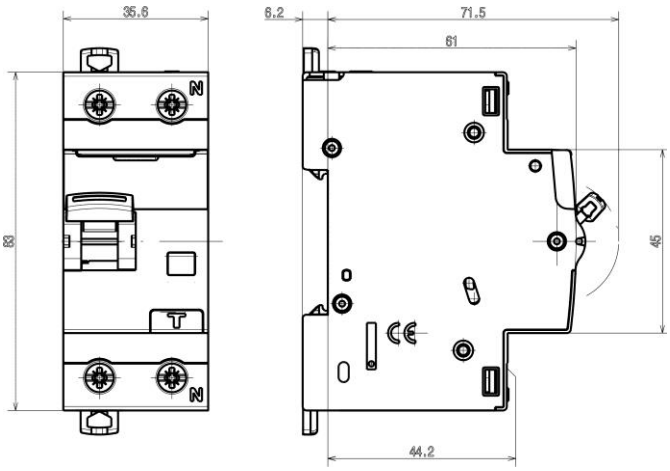
Sensitivity:
. 10 mA in AC type
. 30 mA in AC type and A-F type
. 300 mA in AC type

2. RANGE *(continued)*

Rated voltage and frequency:
. 230 V~, 50 Hz with standard tolerances
. 240 V ~, 50 Hz with standard tolerances

Breaking capacity:
. Icn = 6000 A in accordance with standard EN/IEC 61009-1
. Icu = 6 kA in accordance with standard EN/IEC 60947-2

3. OVERALL DIMENSIONS

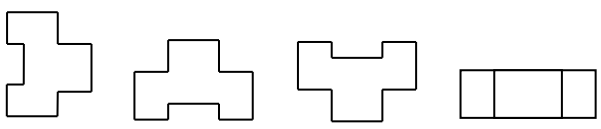


4. PREPARATION - CONNECTION

Mounting:
. On symmetrical rail EN 60715 or DIN 35 rail

Operating positions:

Vertical Horizontal Upside down flat



Trip indication on residual current fault:
. Yellow indicator on the front

4. PREPARATION - CONNECTION *(continued)*

Power supply:

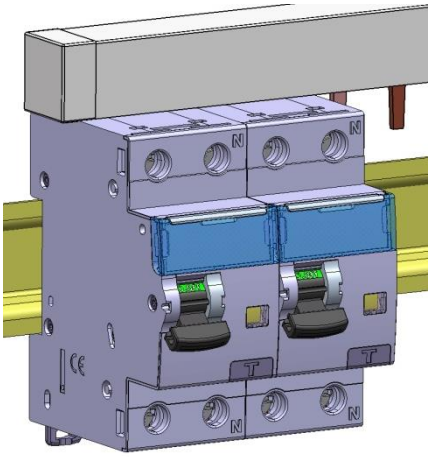
. Either from the top or the bottom

Module maintenance:

. A RCBO may be replaced in the middle of a row of supplied with pin busbars without disconnecting the other products.

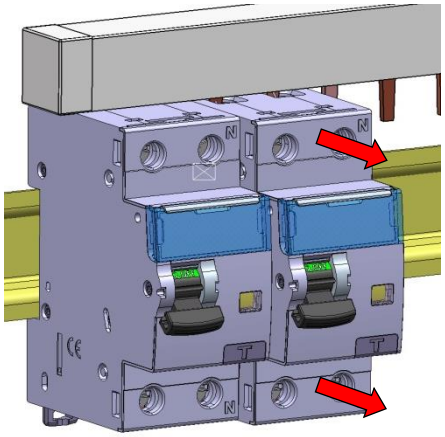
Put the clamp in the unlocking position

Put the clamp in the unlocking position

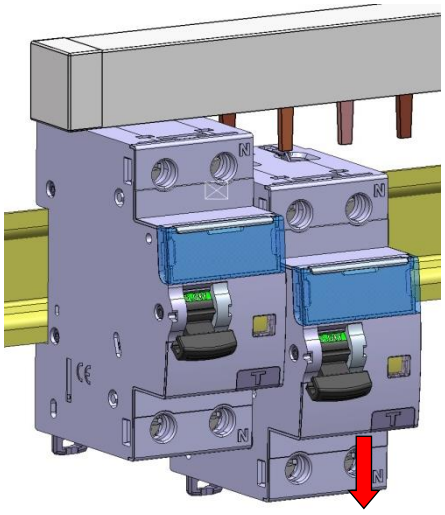


Unscrew both upper terminals completely

Pull the device forward in order to release it from the rail



Pull the device downward in order to release it completely from the prongs of the busbar



4. PREPARATION - CONNECTION *(continued)*

Connection:

. Terminals protected against direct finger contact IP20 when wired device
. Cage terminals, with release and captive screws
. Terminals fitted with shutters preventing a cable being placed under the terminal, with the terminal partly open or closed
. Alignment and spacing of the terminals permitting shutters with the other products via pin and fork supply busbars
. Terminal depth: 14 mm
. Terminal capacity: 60 mm²
. Screw head: mixed head, slotted head and Philips / Pozidriv no. 2
. Tightening torques:
- Minimum / Maximum: 1.2 Nm / 3.5 Nm
- Recommended: 2.5 Nm

Conductor type:

. Copper cable at the top and bottom of the product
. Cable cross-section

	Without ferrule	With ferrule
Rigid cable	**1 x 0.75 to 50 mm²** **2 x 0.75 to 16 mm²**	-
Flexible cable	**1 x 0.75 to 35 mm²** **2 x 0.75 to 16 mm²**	**1 x 0.75 mm² to 25 mm²**

. Prong busbar, alone or with a 10 mm² flexible wire (without ferrule) or a connection terminal in the same terminal.

Required tools:

. For the terminals:
- 5.5 mm / 6.5 mm blade screwdriver recommended
- Pozidriv n°2 / Philips N°2 screwdriver recommended

. For the latching:
- 5.5 mm blade screwdriver recommended / 6 mm maximum
- Pozidriv n°2 / Philips N°2 screwdriver recommended

Manual actuation of the RCBO:

. Ergonomic 2-position handle
- “O-OFF” : device open
- “I-ON” : device closed

Contact status display:

. By marking of the handle
- “O-OFF” in white on a green background = contacts open
- “I-ON” in white on a red background = contacts closed

Locking:

. Padlocks possible in the open and closed positions with padlock support (Cat. No. 4 063 03) and Ø 5 mm padlock (Cat. No. 4 063 13) or Ø 6 mm padlock (Cat. No. 0 227 97)
. Sealing possible in the open and closed positions

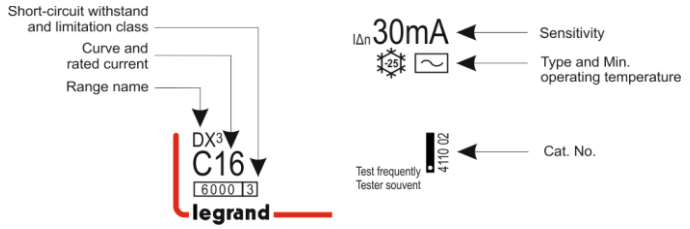
Labelling:

. Circuit identification by way of a label inserted in the label holder situated on the front of the product.

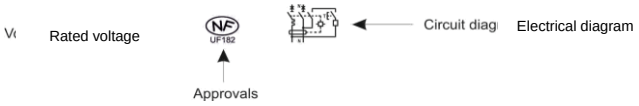
5. GENERAL CHARACTERISTICS

Neutral earthing system:
. IT,TT, TN

Marking on the front side:
. By permanent ink pad printing



Marking on the upper panel:
. By permanent ink pad printing



. The terminals upstream and downstream of the neutral pole are marked with an "N" moulded close to the screw heads.

Maximum operating voltage:
. U = 250 V

Test operating voltages :

IΔn	10mA	30 mA	300 mA
min. U	**110V ~**	**180 V~**	**170 V~**
max. U	**264 V~**	**264 V~**	**264 V~**

Breaking capacity:
. With a single-phase network (with alternating current 50 Hz)

Standard	Breaking capacity	Voltage between poles	Breaking capacity	
EN/IEC 61009-1	Ics	127 V	**10 kA**	**Only for sensitivities 10mA**
	Icn		**10 kA**	
	Ics	230 V	**6 kA**	
	Icn		**6 kA**	
EN/IEC 60947-2	Icu	230 V	**6 kA**	
	Ics		**6 kA**	

Breaking capacity on one single pole (phase pole):
. In accordance with I IT EN60947-2 – Appendix H (double fault in IT system): 1.5 kA at 400 V~ and 3 kA at 230 V~
. In accordance with Icn1 EN60898-1: 4.5 kA at 230 V~ and 10 kA at 127V~ (only for 10mA sensitivity)

Residual breaking capacity:
. In accordance with standard EN/IEC 61009-1 section 9.12.11.4d (IΔm: short-circuit to earth) IΔm = 4.5 kA

Insulation voltage:
. Ui = 250 V in accordance with standard EN/IEC 61009-1

5. GENERAL CHARACTERISTICS *(continued)*

Isolation distance:
. The distance between the contacts is greater than 5.5 mm with the handle in the open position.
. The RCBO is suitable for isolation in accordance with standard EN/IEC 61009-1.

Degree of pollution:
. 2 in accordance with standard EN/IEC 61009-1.

Dielectric strength:
. 2,000 V

Rated impulse withstand voltage
. Uimp = 4 KV (wave 1.2/50 µs)

Protection from false tripping:
. 8/20 µs wave resistance:
  250 A for AC / A type
  3000 A for F type
. 0.5 µs/100 kHz damped recurring wave resistance:
  200 A for AC type and A / F type

Degree or class of protection:
. Terminals protected against direct contact, class of protection against solid objects and liquids (wired device): IP20 in accordance with standards IEC 529 / EN 60529 and NF 20-010
. Front side protected against direct contact: IP40
. Class II in relation to metallic conductive parts
. Class of protection against mechanical impacts IK02 in accordance with standard EN 62262.

Plastic materials:
. Polyamide and P.B.T.

Enclosure heat and fire resistance:
. Resistance to glow wire tests at 960°C, in accordance with standard EN/IEC 61009-1
. Classification V2, in accordance with standard UL94

Higher heating potential:
. The heat potential is assessed at: 2.1MJ

Closing and opening force via the handle:
. 4 N on opening
. 10 N on closing

Mechanical endurance:
. Conpliant with standard EN/IEC 61009-1
. Tested with 20,000 operations with no load

Electrical endurance:
. Conpliant with standard EN/IEC 61009-1
. Tested with 10,000 operations with load (at In x Cos φ 0.9)
. Tested with 2,000 residual current trip operations using the Test button or the fault current

Sinusoidal vibration resistance (in accordance with IEC 68.2.6):
. Axes: x – y – z
. Frequency: 10 to 55 Hz
. Acceleration: 3g (1g = 9.81 $m.s^{-2}$)

Resistance to tremors:
. In accordance with standard NF EN 61009-1

5. GENERAL CHARACTERISTICS *(continued)*

Ambient temperature:

. Operation: from - 25°C to + 60°C
. Storage: from - 40°C to +70°C

DC operation:

. No

Frequency:

. Operation at 400Hz: No
. Operation at 60Hz: can be used at 60Hz, except "A" types, with sensitivity 30mA, which can be replaced by F types of equivalent ratings and sensitivity.

Packaged volume and quantity:

	Volume (dm^3)	Packaging
For all ratings	**0.4**	**Per 1**

Derating of RCBOs function of the number of devices placed side by side:

When several RCBOs are installed side by side and operate simultaneously, the heat dissipation of one pole is limited. This results in an increased operating temperature for RCBOs which may cause false tripping. Applying the following coefficients to the operating currents is recommended.

Number of RCBOs side by side	Coefficient
2 - 3	**0.9**
4 – 5	**0.8**
6 - 9	**0.7**
≥ 10	**0.6**

These values are provided by recommendation IEC 60439-1 and the standards NF C 63421 and EN 60439-1.
In order to avoid having to use these coefficients there must be good ventilation and the devices must be kept apart using the spacing elements Cat. No. 4 063 07 (0.5 module).

Impact of height:

	≤ 2000 m	3,000 m	4,000 m	5,000 m
Dielectric strength	**2,000 V**	**1,750 V**	**1,500 V**	**1,250 V**
Maximum operating voltage	**230 V**	**230 V**	**230 V**	**230 V**
Derating at 30°C	**none**	**none**	**none**	**none**

Derating of RCBOs in the event of use with fluorescent tubes:

Electronic or ferromagnetic ballasts provide a high inrush current for a very short time. These currents are liable to cause tripping of the RCBOs. The maximum number of ballasts per RCBO stated by the lamp and ballast manufacturers in their catalogues should be taken into account during installation.

5. GENERAL CHARACTERISTICS *(continued)*

Product weight:

Catalogue Number	Description	Weight (kg)
4 109 93	C16 AC type 10 mA	**0.25**
4 109 97	C3 AC type 30 mA	**0.25**
4 109 99	C6 AC type 30 mA	**0.24**
4 110 00	C10 AC type 30 mA	**0.24**
4 110 02	C16 AC type 30 mA	**0.25**
4 110 03	C20 AC type 30 mA	**0.24**
4 110 04	C25 AC type 30 mA	**0.25**
4 110 05	C32 AC type 30 mA	**0.26**
4 110 06	C40 AC type 30 mA	**0.26**
4 110 21	C6 AC type 30 mA	**0.23**
4 110 22	C10 AC type 300 mA	**0.23**
4 110 24	C16 AC type 300 mA	**0.24**
4 110 25	C20 AC type 300 mA	**0.24**
4 110 26	C25 AC type 300 mA	**0.25**
4 110 27	C32 AC type 300 mA	**0.25**
4 110 28	C40 AC type 300 mA	**0.25**
4 110 41	C16 A type 10 mA	**0.25**
4 110 47	C6 A type 30 mA	**0.24**
4 110 48	C10 A type 30 mA	**0.24**
4 110 50	C16 A type 30 mA	**0.24**
4 110 51	C20 A type 30 mA	**0.24**
4 110 52	C25 A type 30 mA	**0.25**
4 110 53	C32 A type 30 mA	**0.25**
4 110 54	C40 A type 30 mA	**0.26**
4 110 91	C6 A-F type 30 mA	**0.24**
4 110 92	C10 A-F type 30 mA	**0.24**
4 110 94	C16 A-F type 30 mA	**0.24**
4 110 95	C20 A-F type 30 mA	**0.24**
4 110 96	C25 A-F type 30 mA	**0.25**
4 110 97	C32 A-F type 30 mA	**0.25**
4 110 98	C40 A-F type 30 mA	**0.25**

5. GENERAL CHARACTERISTICS *(continued)*

Dissipated power (W):

. C curve RCBOs in In/Un

RATED CURRENT	3 A	6 A	10 A	16 A	20 A	25 A	32 A	40 A
Power (W) Phase pole	**0.7 W**	**0.7 W**	**1.9 W**	**3.3 W**	**4.9 W**	**3.7 W**	**5.7 W**	**7.6 W**
Power (W) Neutral pole	**0.0 W**	**0.2 W**	**0.5 W**	**1.5 W**	**2.3 W**	**2.6 W**	**4.2 W**	**5.3 W**

Derating of RCBOs depending on the ambient temperature:

. The nominal characteristics of a circuit breaker are modified depending on the ambient temperature which prevails in the cabinet or enclosure where the RCBO is located.

. Reference temperature: 30°C in accordance with standard EN/IEC 61009-1.

In (A)	- 25°C	- 10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
3	**3.75**	**3.6**	**3.45**	**3.3**	**3.15**	**3**	**2.91**	**2.82**	**2.73**	**2.64**
6	**7.5**	**7.2**	**6.9**	**6.6**	**6.3**	**6**	**5.82**	**5.64**	**5.46**	**5.28**
10	**12.5**	**12**	**11.5**	**11**	**10.5**	**10**	**9.7**	**9.4**	**9.1**	**8.8**
16	**20**	**19.2**	**18.4**	**17.6**	**16.8**	**16**	**15.52**	**15.04**	**14.56**	**14.08**
20	**25**	**24**	**23**	**22**	**21**	**20**	**19.4**	**18.8**	**18.2**	**17.6**
25	**31.25**	**30**	**28.75**	**27.5**	**26.25**	**25**	**24.25**	**23.5**	**22.75**	**22**
32	**40**	**38.4**	**36.8**	**35.2**	**33.6**	**32**	**31.04**	**30.08**	**29.12**	**28.16**
40	**50**	**48**	**46**	**44**	**42**	**40**	**38.8**	**37.6**	**36.4**	**35.2**

Specific use:

. Appropriate to operate in humid atmosphere and polluted by a chlorined environment (pool-type).

Association and coordination of an RCBO with a protective device located upstream:

This association allows a device's breaking capacity to be increased by combining it with another protective device placed upstream.
This combination makes it possible to use a downstream device with a breaking capacity which is lower than the maximum prospective short-circuit current at its installation point.

Association and coordination with upstream fuses:

. Three-phase network (+N) 230/400 V or 240/415 V in accordance with standard EN/IEC 60947-2

. TT neutral earthing or TNS system

		Upstream fuse									
		gG and aM types									
Downstream RCBO Ph+N		≤ 20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A	160 A
DX³ 6000 A C curve	≤ 6 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	10 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	16 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	20 A	-	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	25 A	-	-	**50 kA**	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**16 kA**
	32 A	-	-	-	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**16 kA**
	40 A	-	-	-	-	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**16 kA**

5. GENERAL CHARACTERISTICS *(continued)*

Association and coordination with upstream MCBs:

. Three-phase network (+N) 230/400 V or 240/415 V in accordance with standard EN/IEC 60947-2
. TT neutral earthing or TNS system

		Upstream MCB								
		DX³ P+N 1 module					DX³ 6000/10 kA B, C and D curves			
		DX³ 6000/10 kA B and C curves				DX³ 10000/16 kA C curve				
Downstream RCBO Ph+N		≤ 20 A	25 A	32 A	40 A	≤ 20 A	≤ 32 A	40 A	50 A	63 A
DX³ 6000 A C curve	≤ 6 A	**10 kA**	**10 kA**	**10 kA**	**10 kA**	**16 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	10 A	**10 kA**	**10 kA**	**10 kA**	**10 kA**	**16 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	16 A	**10 kA**	**10 kA**	**10 kA**	**10 kA**	**16 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	20 A	-	**10 kA**	**10 kA**	**10 kA**	-	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	25 A	-	-	**10 kA**	**10 kA**	-	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	32 A	-	-	-	**10 kA**	-	-	**25 kA**	**25 kA**	**25 kA**
	40 A	-	-	-	-		-	-	**25 kA**	**25 kA**

		Upstream MCB							
		DX³ 10000/16 kA B, C and D curves							
Downstream RCBO Ph+N		≤ 25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX³ 6000 A C curve	≤ 6 A	**32 kA**	**32 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	10 A	**32 kA**	**32 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	16 A	**32 kA**	**32 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	20 A	**32 kA**	**32 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	25 A	-	**32 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	32 A	-	-	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	40 A	-	-	-	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**

5. GENERAL CHARACTERISTICS *(continued)*

Association and coordination with upstream MCBs:

. Three-phase network (+N) 230/400 V or 240/415 V in accordance with standard EN/IEC 60947-2
. TT neutral earthing or TNS system

		Upstream MCB							
		DX³ 25 kA B, C and D curves							
Downstream RCBO Ph+N		≤ 25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX³ 6000 A C curve	≤ 6 A	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	10 A	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	16 A	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	20 A	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	25 A	-	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	32 A	-	-	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	40 A	-	-	-	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**

		Upstream MCB					
		DX³ 36 kA C curve					
Downstream RCBO Ph+N		≤ 25 A	32 A	40 A	50 A	63 A	80 A
DX³ 6000 A C curve	≤ 6 A	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	10 A	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	16 A	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	20 A	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	25 A	-	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	32 A	-	-	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	40 A	-	-	-	**25 kA**	**25 kA**	**25 kA**

5. GENERAL CHARACTERISTICS *(continued)*

Association and coordination with upstream MCBs:

. Three-phase network (+N) 230/400 V or 240/415 V in accordance with standard EN/IEC 60947-2
. TT neutral earthing or TNS system

		Upstream MCB				
		DX³ 50 kA B, C and D curves				
Downstream RCBO Ph+N		≤ 25 A	32 A	40 A	50 A	63 A
DX³ 6000 A C curve	≤ 6 A	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**
	10 A	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**
	16 A	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**
	20 A	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**
	25 A	-	**50 kA**	**25 kA**	**25 kA**	**25 kA**
	32 A	-	-	**25 kA**	**25 kA**	**25 kA**
	40 A	-	-	-	**25 kA**	**25 kA**

Association and coordination with upstream Moulded Case Circuit Breakers (MCCBs):

. Three-phase network (+N) 230/400 V or 240/415 V in accordance with standard EN/IEC 60947-2
. TT neutral earthing or TNS system

		Upstream MCCB							
		DPX³ 160 16 kA							
Downstream RCBO Ph+N		16 A	25 A	40 A	63 A	80 A	100 A	125 A	160 A
DX³ 6000 A C curve	≤ 6 A	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**
	10 A	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**
	16 A	-	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**
	20 A	-	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**
	25 A	-	-	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**
	32 A	-	-	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**
	40 A	-	-	-	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**

5. GENERAL CHARACTERISTICS *(continued)*

Association and coordination with upstream Moulded Case Circuit Breakers (MCCBs):

. Three-phase network (+N) 230/400 V or 240/415 V in accordance with standard EN/IEC 60947-2

. TT neutral earthing or TNS system

		Upstream MCCB							
		DPX³ 160 25 kA, 36 kA and 50 kA							
Downstream RCBO Ph+N		16 A	25 A	40 A	63 A	80 A	100 A	125 A	160 A
DX³ 6000 A C curve	≤ 6 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	10 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	16 A	-	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	20 A	-	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	25 A	-	-	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	32 A	-	-	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**
	40 A	-	-	-	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**

		Upstream MCCB		
		DPX 250 ER ≤ 50 kA		
Downstream RCBO Ph+N		100 A	160 A	250 A
DX³ 6000 A C curve	≤ 6 A	**30 kA**	**30 kA**	**30 kA**
	10 A	**30 kA**	**30 kA**	**30 kA**
	16 A	**25 kA**	**25 kA**	**25 kA**
	20 A	**25 kA**	**25 kA**	**25 kA**
	25 A	**20 kA**	**20 kA**	**20 kA**
	32 A	**10 kA**	**10 kA**	**10 kA**
	40 A	**10 kA**	**10 kA**	**10 kA**

5. GENERAL CHARACTERISTICS *(continued)*

Association and coordination with upstream Moulded Case Circuit Breakers (MCCBs):

. Three-phase network (+N) 230/400 V or 240/415 V in accordance with standard EN/IEC 60947-2

. TT neutral earthing or TNS system

		Upstream MCCB							
		DPX³ 250 ≤ 70 kA thermal-magnetic				DPX³ 250 ≤ 70 kA electronic			
Downstream RCBO Ph+N		100 A	160 A	200 A	250 A	40 A	100 A	160 A	250 A
DX³ 6000 A C curve	≤ 6 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	10 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	16 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	20 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	25 A	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	32 A	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**
	40 A	**16 kA**	**16 kA**	**16 kA**	**16 kA**	-	**16 kA**	**16 kA**	**16 kA**

		Upstream MCCB									
		DPX 250 36 kA / DPX -H 250 70 kA / DPX -L 250,100 kA thermal-magnetic						DPX 250 36 kA / DPX -H 250 70 kA / DPX -L 250,100 kA electronic			
Downstream RCBO Ph+N		25 A	40 A	63 A	100 A	160 A	250 A	40 A	100 A	160 A	250 A
DX³ 6000 A C curve	≤ 6 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	10 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	16 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	20 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	25 A	-	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	32 A	-	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**
	40 A	-	-	**16 kA**	**16 kA**	**16 kA**	**16 kA**	-	**16 kA**	**16 kA**	**16 kA**

5. GENERAL CHARACTERISTICS *(continued)*

Association and coordination with upstream Moulded Case Circuit Breakers (MCCBs):

. Three-phase network (+N) 230/400 V or 240/415 V in accordance with standard EN/IEC 60947-2

. TT neutral earthing or TNS system

		Upstream MCCB								
		DPX 630 36 kA / DPX -H 630 70 kA / DPX -L 630 100 kA thermal-magnetic					DPX 630 36 kA / DPX -H 630 70 kA / DPX -L 630 100 kA electronic			
Downstream RCBO Ph+N		250 A	320 A	400 A	500 A	630 A	160 A	250 A	400 A	630 A
DX³ 6000 A C curve	≤ 6 A	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	10 A	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	16 A	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	20 A	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	25 A	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	32 A	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**
	40 A	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**

5. GENERAL CHARACTERISTICS *(continued)*

Association and coordination with upstream Moulded Case Circuit Breakers (MCCBs):

. Three-phase network (+N) 230/400 V or 240/415 V in accordance with standard EN/IEC 60947-2
. TT neutral earthing or TNS system

		Upstream MCCB	
		DPX 1250 50 kA / DPX –H 1250 70 kA / DPX -L 1250 100 kA	DPX 1600 36 kA / DPX -H 1600 70 kA electronic
Downstream RCBO Ph+N		500 A to 1,250 A	630 A to 1,600 A
DX³ 6000 A C curve	≤ 6 A	**25 kA**	**25 kA**
	10 A	**25 kA**	**25 kA**
	16 A	**25 kA**	**25 kA**
	20 A	**25 kA**	**25 kA**
	25 A	**25 kA**	**25 kA**
	32 A	**10 kA**	**10 kA**
	40 A	**10 kA**	**10 kA**

Selectivity between two levels of protection

. The downstream RCBO must always have a magnetic threshold and a rated current lower than those of the upstream protection.
. Selectivity or Discrimination is said to be total (T) if there is discrimination up to the value of breaking capacity (in accordance standard with EN/IEC 60947-2) of the downstream RCBO.

Discrimination with upstream fuses:

. Discrimination limit with a voltage of 230 V ~ (Values in A)

		Upstream fuse cartridge							
		gG cartridge							
Downstream RCBO Ph+N		32 A	40 A	50 A	63 A	80 A	100 A	125 A	160 A
DX³ 6000 A C curve	≤ 6 A	**1300**	**1900**	**2500**	**4000**	**4600**	**T**	**T**	**T**
	10 A	**-**	**1600**	**2200**	**3200**	**3600**	**T**	**T**	**T**
	16 A	**-**	**1400**	**1800**	**2600**	**3000**	**5600**	**T**	**T**
	20 A	**-**	**1200**	**1500**	**2200**	**2500**	**4600**	**T**	**T**
	25 A	**-**	**-**	**1300**	**2000**	**2200**	**4100**	**5500**	**T**
	32 A	**-**	**-**	**1200**	**1700**	**1900**	**3500**	**4500**	**T**
	40 A	**-**	**-**	**-**	**-**	**1700**	**3000**	**4000**	**T**

. T = Total discrimination

5. GENERAL CHARACTERISTICS *(continued)*

Discrimination with upstream fuses:

. Discrimination limit with a voltage of 230 V ~ (Values in A)

		Upstream fuse cartridge								
		aM cartridge								
Downstream RCBO Ph+N		25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A	160 A
DX³ 6000 A C curve	≤ 6 A	1000	1600	2100	3200	T	T	T	T	T
	10 A	-	1100	1700	2500	5000	T	T	T	T
	16 A	-	1000	1400	2100	4000	T	T	T	T
	20 A	-	-	1300	1800	3400	5100	T	T	T
	25 A	-	-	1100	1600	3000	4500	T	T	T
	32 A	-	-	-	1300	2400	3800	5000	T	T
	40 A	-	-	-	-	2100	3100	4200	T	T

Discrimination with upstream modular MCBs:

. Discrimination limit with a voltage of 230 V ~ (Values in A)

		Upstream MCB											
		DX³ 6000/10 kA - DX³ 10000/16 kA B curve											
Downstream RCBO Ph+N		10 A	13 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX³ 6000 A C curve	≤ 6 A	-	52	64	80	100	128	160	200	252	4000	T	T
	10 A	-	-	-	80	100	128	160	200	252	3000	5000	T
	16 A	-	-	-	-	-	128	160	200	252	2000	3600	5500
	20 A	-	-	-	-	-	-	160	200	252	1600	3000	4000
	25 A	-	-	-	-	-	-	-	200	252	1300	2400	3300
	32 A	-	-	-	-	-	-	-	-	252	1000	1800	2700
	40 A	-	-	-	-	-	-	-	-	-	800	1600	2400

. T = Total discrimination

5. GENERAL CHARACTERISTICS *(continued)*

Discrimination with upstream modular MCBs:
Discrimination limit with a voltage of 230 V ~ (Values in A)

		Upstream MCB											
		DX³ 6000/10 kA - DX³ 10000/16 kA C curve											
Downstream RCBO Ph+N		10 A	13 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX³ 6000 A C curve	≤ 6 A	**75**	**98**	**120**	**150**	**187**	**240**	**300**	**375**	**472**	**4000***	**T***	**T***
	10 A	-	**98**	**120**	**150**	**187**	**240**	**300**	**375**	**472**	**3000**	**5000***	**T***
	16 A	-	-	-	**150**	**187**	**240**	**300**	**375**	**472**	**2000**	**3600***	**5500***
	20 A	-	-	-	-	**187**	**240**	**300**	**375**	**472**	**1600**	**3000**	**4000***
	25 A	-	-	-	-	-	**240**	**300**	**375**	**472**	**1300**	**2400**	**3300***
	32 A	-	-	-	-	-	-	**300**	**375**	**472**	**1000**	**1800**	**2700**
	40 A	-	-	-	-	-	-	-	**375**	**472**	**800**	**1600**	**2400**

		Upstream MCB											
		DX³ 6000A - DX³ 6000/10 kA - DX³ 10000/16 kA D curve											
Downstream RCBO Ph+N		10 A	13 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX³ 6000 A C curve	≤ 6 A	**120**	**156**	**192**	**240**	**300**	**384**	**480**	**600**	**756**	**4000**	**T**	**T**
	10 A	-	-	**192**	**240**	**300**	**384**	**480**	**600**	**756**	**3000**	**5000**	**T**
	16 A	-	-	-	**240**	**300**	**384**	**480**	**600**	**756**	**2000**	**3600**	**5500**
	20 A	-	-	-	-	**300**	**384**	**480**	**600**	**756**	**1600**	**3000**	**4000**
	25 A	-	-	-	-	-	**384**	**480**	**600**	**756**	**1300**	**2400**	**3300**
	32 A	-	-	-	-	-	-	**480**	**600**	**756**	**1100**	**1450**	**2700**
	40 A	-	-	-	-	-	-	-	**600**	**756**	**1000**	**1250**	**2400**

. T = Total discrimination

. *: If the discrimination value stated in the table is greater than the breaking capacity of the upstream RCBO then the breaking capacity of the upstream device must be taken as the discrimination value (the discrimination value may not exceed the breaking capacity of the upstream device).

5. GENERAL CHARACTERISTICS *(continued)*

Discrimination with upstream modular MCBs:

. Discrimination limit with a voltage of 230 V ~ (Values in A)

		Upstream MCB										
		DX³ 25 kA B curve										
Downstream RCBO Ph+N		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX³ 6000 A C curve	≤ 6 A	-	64	80	100	700	1200	1500	3000	4000	T	T
	10 A	-	-	80	100	500	700	1000	1800	3000	5000	T
	16 A	-	-	-	-	300	500	700	1300	2000	3600	5500
	20 A	-	-	-	-	-	400	500	1000	1600	3000	4000
	25 A	-	-	-	-	-	-	500	800	1300	2400	3300
	32 A	-	-	-	-	-	-	500	600	1000	1800	2700
	40 A	-	-	-	-	-	-	-	600	800	1600	2400

		Upstream MCB										
		DX³ 25 kA C curve										
Downstream RCBO Ph+N		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX³ 6000 A C curve	≤ 6 A	75	120	150	187	700	1200	1500	3000	4000	T	T
	10 A	-	120	150	187	500	700	1000	1800	3000	5000	T
	16 A	-	-	150	187	300	500	700	1300	2000	3600	5500
	20 A	-	-	-	187	300	400	500	1000	1600	3000	4000
	25 A	-	-	-	-	240	400	500	800	1300	2400	3300
	32 A	-	-	-	-	-	300	500	600	1000	1800	2700
	40 A	-	-	-	-	-	-	400	600	800	1600	2400

. T = Total discrimination

5. GENERAL CHARACTERISTICS *(continued)*

Discrimination with upstream modular MCBs:

. Discrimination limit with a voltage of 230 V ~ (Values in A)

		Upstream MCB										
		DX³ 25 kA D curve										
Downstream RCBO Ph+N		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX³ 6000 A C curve	≤ 6 A	**120**	**192**	**240**	**500**	**700**	**1200**	**1500**	**3000**	**4000**	**T**	**T**
	10 A	**-**	**192**	**240**	**300**	**500**	**700**	**1000**	**1800**	**3000**	**5000**	**T**
	16 A	**-**	**-**	**240**	**300**	**384**	**500**	**700**	**1300**	**2000**	**3600**	**5500**
	20 A	**-**	**-**	**-**	**300**	**384**	**480**	**600**	**1000**	**1600**	**3000**	**4000**
	25 A	**-**	**-**	**-**	**-**	**384**	**480**	**600**	**800**	**1300**	**2400**	**3300**
	32 A	**-**	**-**	**-**	**-**	**-**	**480**	**600**	**756**	**1100**	**1450**	**2700**
	40 A	**-**	**-**	**-**	**-**	**-**	**-**	**600**	**756**	**1000**	**1250**	**2400**

		Upstream MCB							
		DX³ 50 kA B curve							
Downstream RCBO Ph+N		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A
DX³ 6000 A C curve	≤ 6 A	**-**	**64**	**170**	**500**	**700**	**1200**	**1500**	**3000**
	10 A	**-**	**-**	**150**	**210**	**500**	**700**	**1000**	**1800**
	16 A	**-**	**-**	**-**	**-**	**300**	**500**	**700**	**1300**
	20 A	**-**	**-**	**-**	**-**	**-**	**400**	**500**	**1000**
	25 A	**-**	**-**	**-**	**-**	**-**	**-**	**500**	**800**
	32 A	**-**	**-**	**-**	**-**	**-**	**-**	**500**	**600**
	40 A	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**600**

. T = Total discrimination

5. GENERAL CHARACTERISTICS *(continued)*

Discrimination with upstream modular MCBs:

. Discrimination limit with a voltage of 230 V ~ (Values in A)

		Upstream MCB								
		DX³ 50 kA C curve								
Downstream RCBO Ph+N		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A
DX³ 6000 A C curve	≤ 6 A	**75**	**120**	**170**	**500**	**700**	**1200**	**1500**	**3000**	**4000**
	10 A	**-**	**120**	**150**	**210**	**500**	**700**	**1000**	**1800**	**3000**
	16 A	**-**	**-**	**150**	**187**	**300**	**500**	**700**	**1300**	**2000**
	20 A	**-**	**-**	**-**	**187**	**300**	**400**	**500**	**1000**	**1600**
	25 A	**-**	**-**	**-**	**-**	**240**	**400**	**500**	**800**	**1300**
	32 A	**-**	**-**	**-**	**-**	**-**	**300**	**500**	**600**	**1000**
	40 A	**-**	**-**	**-**	**-**	**-**	**-**	**400**	**600**	**800**

		Upstream MCB							
		DX³ 50 kA D curve							
Downstream RCBO Ph+N		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A
DX³ 6000 A C curve	≤ 6 A	**120**	**192**	**240**	**500**	**700**	**1200**	**1500**	**3000**
	10 A	**-**	**192**	**240**	**300**	**500**	**700**	**1000**	**1800**
	16 A	**-**	**-**	**240**	**300**	**384**	**500**	**700**	**1300**
	20 A	**-**	**-**	**-**	**300**	**384**	**480**	**600**	**1000**
	25 A	**-**	**-**	**-**	**-**	**384**	**480**	**600**	**800**
	32 A	**-**	**-**	**-**	**-**	**-**	**480**	**600**	**756**
	40 A	**-**	**-**	**-**	**-**	**-**	**-**	**600**	**756**

Discrimination with upstream MCCBs:

. Discrimination limit with a voltage of 230 V ~ (Values in A)

Downstream RCBO Ph+N	**Upstream MCCB**	
DX³ P+N 6 kA C curve	DPX and DPX³ all models all ratings	DMX³ all models all ratings
	T	**T**

. T = Total discrimination

6. COMPLIANCE AND APPROVALS

In accordance with standard:

. NF EN 61009-1 / IEC 61009-1
. NF EN 62423 / IEC 62423 (F type)

Usage in special conditions:

. Category C compliant (testing temperature range from -25°C to +70°C, resistant to salt spray) in accordance with the classification defined in Appendix Q of standard IEC/EN 60947-1

Respect for the environment – Compliance with European Union Directives:

. Compliance with Directive 2002/95/EC of 27/01/03 known as "RoHS" which provides for a restriction on the use of dangerous substances such as lead, mercury, cadmium, hexavalent chromium and polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) brominated flame retardants from 1st July 2006
. Compliance with the Directive 91/338/EEC of 18/06/91 and decree 94-647 of 27/07/04

Plastic materials:

. Halogen free plastic materials.
. Labelling of parts compliant with ISO 11469 and ISO 1043.

Packaging:

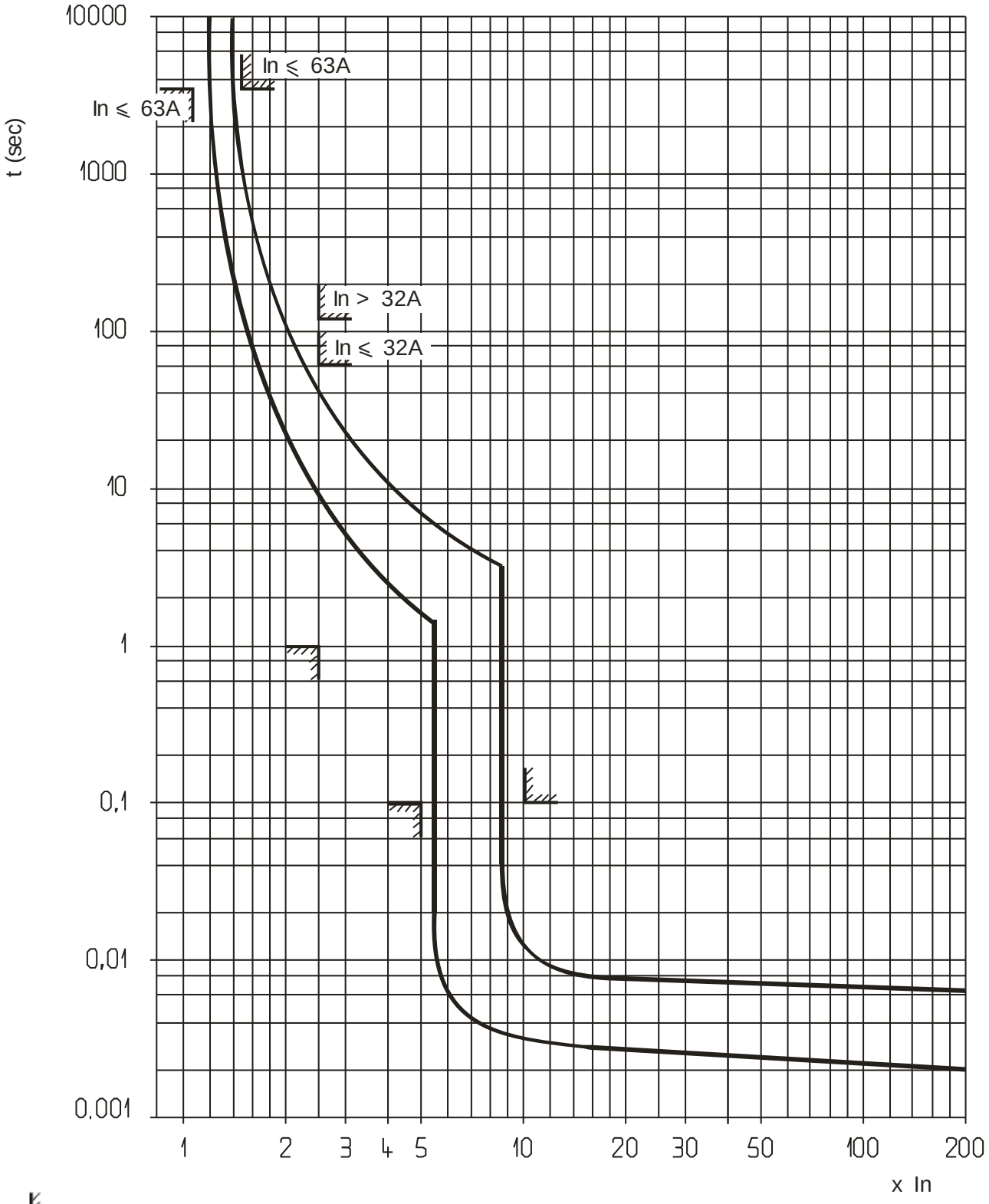
. Design and manufacture of packaging compliant with decree 98-638 of 20/07/98 and Directive 94/62/EC

Approvals obtained:

. France: NF

7. CURVES

Thermal-magnetic tripping range typical of C curve RCBOs:



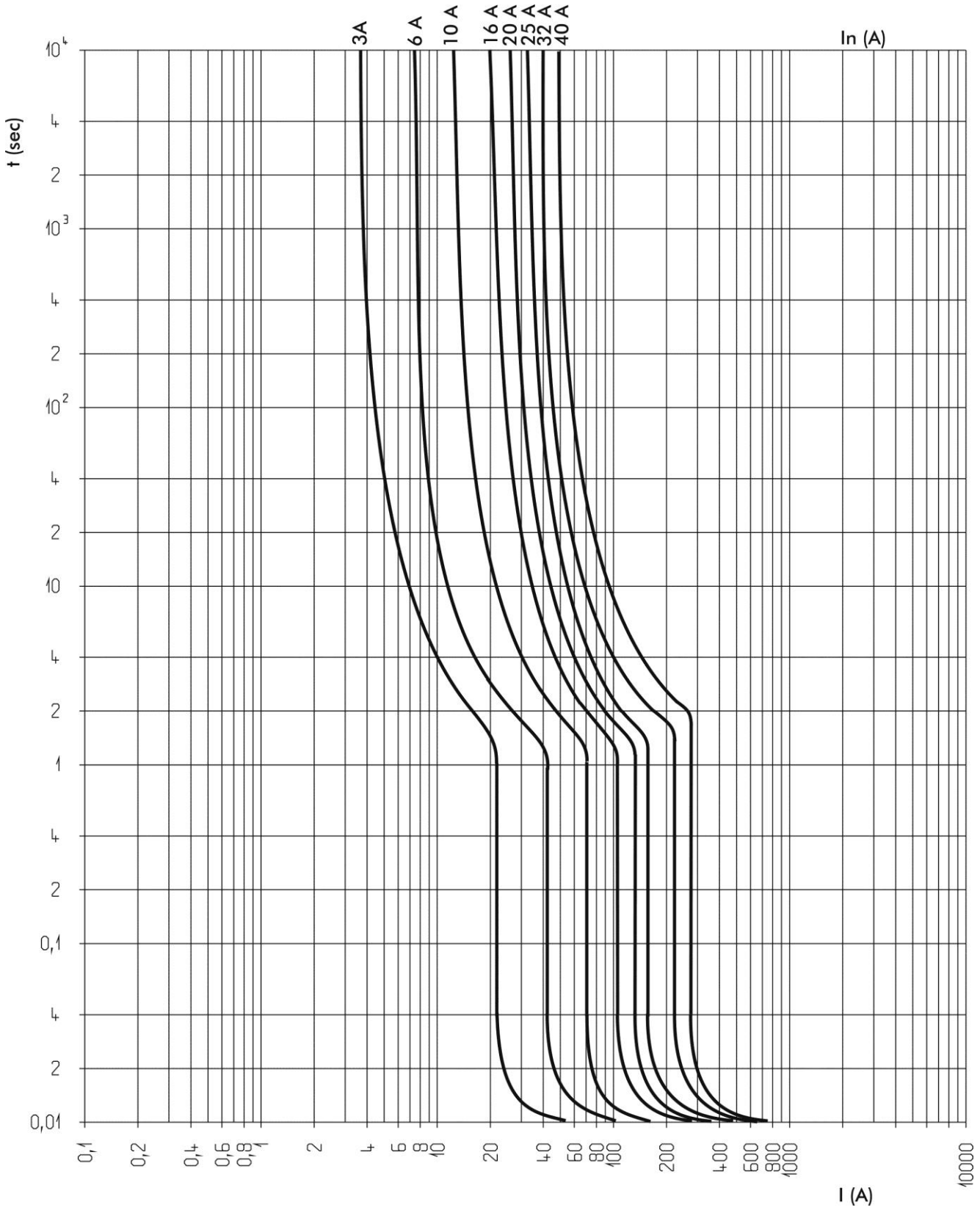
Standard limits

Thermal tripping at ambient temperature = 30°C

In = RCBO rated current

7. CURVES *(continued)*

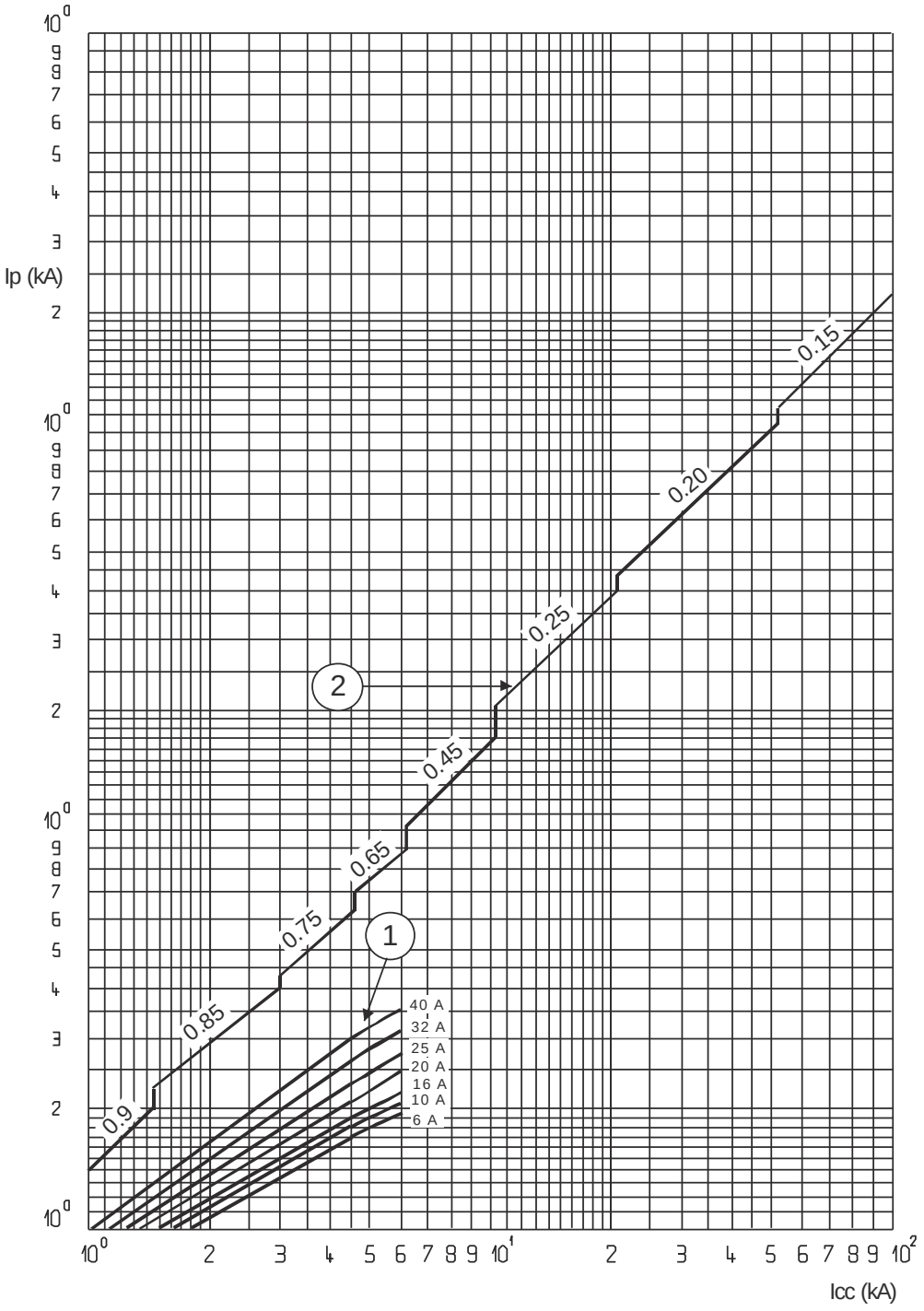
Average thermal-magnetic tripping curves range typical of C curve RCBOs:



7. CURVES *(continued)*

Current limiting curves:

. C curve RCBOs from 3 A to 40 A

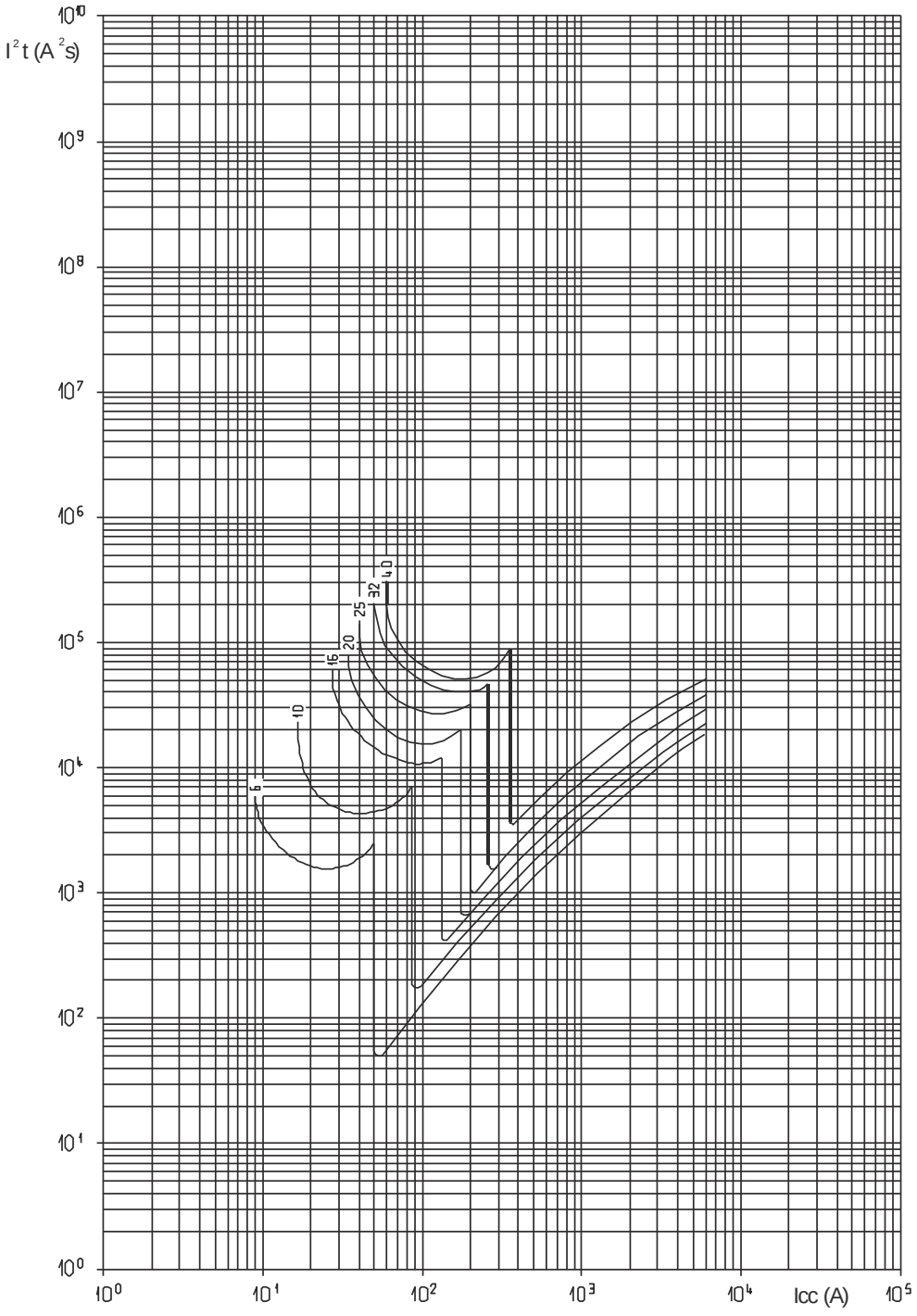


Icc = Prospective short-circuit symmetrical current (rms value in kA)
Ip = Maximum peak value (in kA)
1 = Short-circuit rms currents (max. peak)
2 = Unlimited peak currents (max.), corresponding to power factors shown above (0.15 to 0.9)
NB: For 3A rating, the limited values are less than 1kA

7. CURVES *(continued)*

Thermal stress limiting curves:

. C curve RCBOs (230V/50Hz)

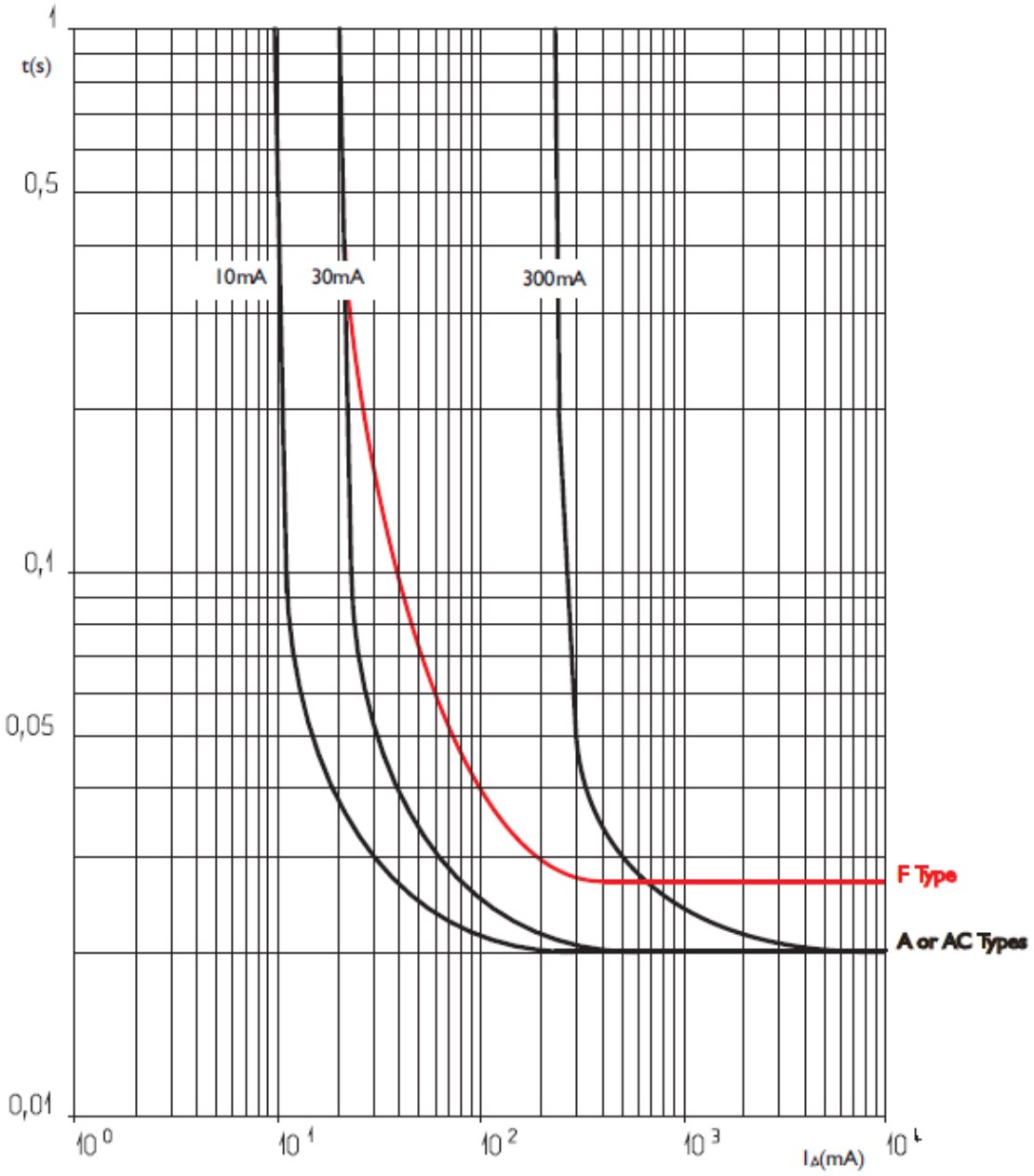


Icc = Prospective short-circuit symmetrical current (rms value in A)
I^2t = Limited thermal stress (in A s)²
NB:
-The 3A rating limits to values less than 3,000 A s²

7. CURVES *(continued)*

Tripping current curves:

. Tripping time curve depending on the value of the fault current:



8. AUXILIARIES AND ACCESSORIES

Wiring accessories:

. Supply busbar: Pin and Fork busbar (See LEGRAND catalogue)
. Connection terminals (Cat. No. 4 049 05)
. Sealable screw cover (Cat. No. 4 063 04)
. HX³ 125 A plug-in system (Cat. No. 4 052 22)

Signalling auxiliaries:

. Auxiliary contact (0.5 module, Cat. No. 4 062 50 / 58)
. Fault signalling contact (0.5 module, Cat. No. 4 062 52 / 60)
. Auxiliary contact that can be changed into fault signalling contact (0.5 module, Cat. No. 4 062 56 / 62)
. Auxiliary contact + fault signalling contact that can be changed into 2 auxiliary contacts (1 module, Cat. No. 4 062 64 / 66)

Control auxiliaries:

. Shunt trip (1 module, Cat. No. 4 062 76 / 78)
. Autonomous shunt trip release (1 module, Cat. No. 4 062 80 / 82)
. Stand-alone release for N/C push-button (1.5 module, Cat. No. 4 062 87)
.Pop auxiliary (Cat. No. 4 062 86)

Motor-driven control modules:

. Motor-driven control module (1 module, Cat. No. 4 062 90 / 91)
. Motor-driven control module with integrated automatic reset.
(2 modules, Cat. Nos. 4 062 93, 4 062 95)

STOP&GO automatic resetting modules:

. STOP&GO automatic resetting module (2 modules,
Cat. No. 4 062 88)
. STOP&GO automatic resetting module with auto-test
(2 modules, Cat. Nos. 4 062 89)

Possible combinations of auxiliaries and RCBOs:

. The auxiliaries are installed to the left of the RCBOs
. Maximum number of auxiliaries = 3
. Maximum number of 1 module signalling auxiliaries = 2
. Maximum number of control auxiliaries
(Cat. Nos. 4 062 76 to 4 062 87) = 1
. The control auxiliary (Cat. Nos. 4 062 76 to 4 062 87) must mandatorily be placed to the left of the signalling auxiliaries (Cat. Nos. 4 062 50 to 4 062 66) where the auxiliaries from these 2 families are connected to the same RCBO

Sealing:

. Possible in the open or closed positions

Locking options:

. Via padlock 5 mm in diameter (Cat. No. 4 063 13) or padlock 6 mm in diameter (Cat. No. 0 227 97) and padlock support (Cat. No. 4 063 03)

Installation software:

. XL PRO³

9. SAFETY:

For your safety your electrical installation is equipped with residual current protection which must be tested periodically.
In the absence of any national regulations on the time period required for this, Legrand recommends that this test be carried out every month: press the "T" test button, the device should trip. Please call an electrician immediately if this does not happen as the safety level of your installation has been reduced.
The presence of residual current protection does not remove the need to observe all the precautions associated with using electrical energy.

87045 LIMOGES Cedex
Telephone: +33 5 55 06 87 87 – FAX: +33 5 55 06 88 88

DX³ RCBO
6000 / 10kA up to 63 A (2P / 4P)

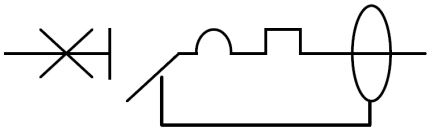
Cat N°(s): 411 149 to 164, 171 to 178, 190 to 192, 209 to 211

CONTENTS PAGE

1. DESCRIPTION - USE

Residual current operated circuit breaker with integral overcurrent protection (residual current breaking overload RCBO).
For control, disconnection and protection of electrical circuits against overcurrent and insulation faults.
For protection of people against direct and indirect electric shocks.

Symbol:



Technology:
. Current limiting device.
. Electromagnetic residual current operating by sensitive relay

2. RANGE

Number of poles:
. 2 poles, 4 poles.

Width:
. Double pole – 4 modules (4 x 17.8 mm = 71.2 mm).
. Four pole – 7 modules (7 x 17.8 mm = 124.6 mm).

Rated currents:
. Double pole – 10 / 16 / 20 / 25 / 32 / 40 / 50 / 63 A.
. Four pole – 40 / 50 / 63 A.

Tripping characteristics and magnetic tripping calibrations:
. Curve C (between 5 and 10 In)

Thermal threshold:
according to IEC/EN 61009-1
. Non operating current (Inf): 1.13 In.
. Operating current (If): 1.45 In.
according to IEC/EN 60947-2
. Non operating current (Inf): 1.05 In.
. Operating current (If): 1.3 In.

Sensitivity - Operating time:
. 10 mA instantaneous
. 30 mA instantaneous.
. 300 mA instantaneous.

1. DESCRIPTION – USE *(continued)*

Type :
. AC (sinusoidal AC fault currents).

Rated Voltage / Frequency:
.Double pole 230 V ~, 50 Hz with standard tolerances.
.Four pole 400 V ~, 50 Hz with standard tolerances.

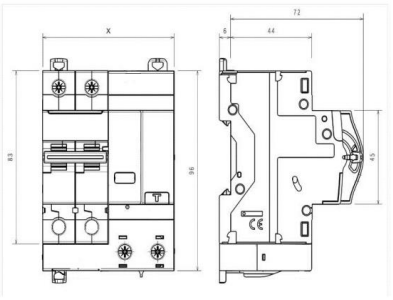
Operating voltage~ 50 Hz with standard tolerances :

U	Double pole	Four pole
U mini	**170 V ~**	**250 V ~**
U maxi	**253 V ~**	**440 V ~**

Breaking capacity:
. 6000 A according toIEC /EN 61009-1
. 10 kA according to IEC/EN 60947-2

Residual breaking capacity IΔm:
. In accordance with standard IEC/EN 61009-1
(IΔm: short-circuit to ground) IΔm = 6000A

3. OVERALL DIMENSIONS



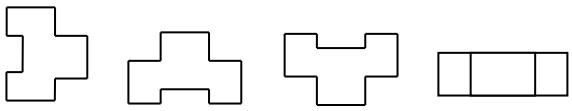
N° of poles	"X"
2P	**71.2 mm**
4P	**124.6 mm**

4. PREPARATION - CONNECTION

Fixing:
. On symmetric rail IEC/EN 60715 or DIN 35.

Supply:
. From the top through the m.c.b. associated or from the bottom directly on the differential block.

Operating position:
. Vertical, Horizontal, backwards, on the side



Screw terminals:
. Terminals protected against accidental contact (IP20).
. Cage terminals, with release and captive screw
. Terminal depth: 14 mm.
. Stripping length recommended: 11 mm
. Screw head: Mixed, Slotted and Pozidriv n°2.
. Recommended tightening torque: 3 Nm.
. The screw terminals are separated by built-in shields.

Connectable section:
. In the power terminals in the lower part of the product.
. Copper cable.

	Without ferrule	With ferrule
Rigid cable	**1 x 35 mm²**	**-**
Flexible cable	**1 x 25 mm²**	**1 x 25 mm²**

Recommended tools:
. For the terminals: screwdriver Pozidriv n°2 or flat screwdriver 5,5 mm (6,5 mm maximum).
. For fixing on the DIN rail: flat screwdriver 5 mm (from 4 to5 mm).

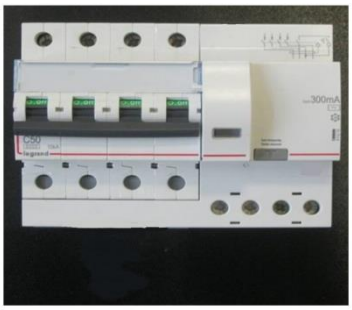
Manual actuation of the circuit-breaker:
. By the 2-position ergonomic handle of the associated m.c.b.:
I / ON: Closed circuit.
0 / OFF: Opened circuit.

Display of contact status:
. By marking of the associated m.c.b. handle:
"O-Off" in white on a green background = contacts opened.
"I-On" in white on a red background = contacts closed.

4. PREPARATION – CONNECTION *(continued)*

Display of differential fault trip:
. Yellow mechanical signaller into the window on front-side marking zone.

Sealing:
. Possible in "Open" position (OFF) or "Close" position (ON).
. The screw cover sealed, locks the access of downstream screws of the braker.

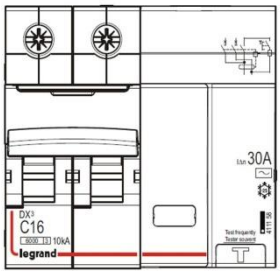


Lockout:
. By 5 mm padlock (cat. N° 406313) or 6 mm padlock (cat. N° 227 97) with padlock support (cat. N° 044 42)

Labelling:
. Identification of the circuit by insertion of a label in the label holder.

5. GENERAL CHARACTERISTICS

Front side marking:
. By permanent ink pad printing and laser marking.



Short-circuit breaking capacity:
. single-phase or three-phase network (50/60 Hz AC)
According to IEC/EN 61009-1
according to IEC/EN 61009-1
.Icn=Ics 6000A
according to IEC /EN 60947-2
.Icn 10kA
.Ics = 75% Icn

5. GENERAL CHARACTERISTICS *(continued)*

Breaking capacity of a single pole:

. In three-phase network 220 / 380 V~ to 240 / 415 V~
- for TN neutral system, Icn1 = 10 kA (under 220 to 240 V~)
- for IT neutral system, Iit = 3 kA (under 380 to 415 V~)

. In three-phase network 110 / 220 V~ to 120 / 240 V~
- for TN neutral system, Icn1 = 25 kA (under 110 to 127 V~)
- for IT neutral system, Iit = 6 kA (under 220 to 240 V~)

Residual breaking capacity IΔm:

. According to IEC/EN 61009-1 (IΔm: short-circuit to ground)
IΔm = 6 kA (60% of Icu of the associated m.c.b.)

"Test" key operating voltages:

U test	Duble pole	Four pole
U mini	**170 V ~**	**250 V ~**
U maxi	**253 V ~**	**440 V ~**

For the wiring of a four-pole differential block in a three phase network without neutral, make sure to properly wired three consecutive poles to supply the test key (connected on the two central poles).

Neutral system:

. IT – TT – TN.

Insulation rated voltage:

. Ui = 500 V according to IEC/EN 61009-1

Pollution degree:

. 2.

Dielectric strength:

. 2500 V

Pulse rated voltage:

. Uimp = 4 kV (wave 1.2 / 50 µs).

Mechanical endurance:

. 20000 operations without load.
. 10000 operations with load.
. 750 differential tripping operations by the Test key.
. 750 differential tripping operations for fault current.

Specific use:

. Appropriate to be used in humid environment and polluted by chlorine (pool-type)

Load to close and to open a RCBO by the handle:

. 0,5 Nm per pole to close.
. 0,3 Nm per pole to open.

5. GENERAL CHARACTERISTICS *(continued)*

Protection against unwanted tripping:

. Damped recurrent wave – 0.5 µs/10kHz : 200A for all types
. Held to the wave 8/20 µs: 250A

Resistance to sinusoidal vibrations:

. According to IEC 60068-2-6.
. Axis : x, y, z.
. Frequency range: 5÷100 Hz ; duration 90 minutes
. Displacement (5÷13,2 Hz) : 1mm
. Acceleration (13,2÷100 Hz) : 0,7g (g=9,81 m/s²)

Ambient operating temperature:

. Min. = -25°C. Max. = +70°C

Ambient storage temperature:

. Min. = -40°C. Max. = +70°C

Protection class:

. Protection index of terminals against solid and liquid bodies:
IP 20 (according to , IEC/EN 60529 et NF C 20-010).
. Protection index of the box against solid and liquid bodies:
IP 40 (according to , IEC/EN 60529 et NF C 20-010).
. Class II compared to conductive parts.
. Protection index against mechanical shocks:
IK 02 (according to EN 50102 et NF C 20-015).

Power dissipated and impedance average per pole at In:

	Double pole		Four pole	
In	Z (mΩ)	P (W)	Z (mΩ)	P (W)
10 A	**19**	**1,9**	–	–
16 A	**8.8**	**2.26**	–	–
20 A	**6.5**	**2.61**	–	–
25 A	**5.3**	**3.34**	–	–
32 A	**4.2**	**4.26**	–	–
40 A	**3.5**	**5.64**	**3.5**	**5.64**
50 A	**2.2**	**5.57**	**2.2**	**5.57**
63 A	**1.8**	**7.2**	**1.8**	**7.2**

Enclosure material:

.Polyester
.Polycarbonate.
.Characteristics of this material: self extinguishing, heat and fire resistant in accordance with standard EN IEC/61009-1, glow-wire test at 960°C for external parts made of insulating material necessary to retain in position current-carrying parts and parts of protective circuit (650°C for all other external parts made of insulating material).

Calorific value :

	Double pole	Four pole
MJ	**6.12**	**10.75**

Packed volume:

. Double pole: 0,9 dm³ per device.
. Four pole: 1,5 dm³ per device.

5. GENERAL CHARACTERISTICS *(continued)*

Average weight per device:

. Double pole:0,5 kg
. Four pole: 1 kg

Influence of the altitude :

	2000 m	3000 m	4000 m	5000 m
Dielectric strength	**3000 V**	**2500 V**	**2000 V**	**1500 V**
Max operating voltage	**400 V**	**400 V**	**400 V**	**400 V**
Derating at 30°C	**none**	**none**	**none**	**none**

Derating of circuit-breakers depending on the ambient temperature :

. Rated characteristics of a circuit breaker are modified depending on the ambient temperature which prevails inside the cabinet or the enclosure where the circuit breaker is located.

. Reference temperature: 30°C according to IEC/EN 60898-1

	Ambient temperature / In									
In (A)	- 25°C	- 10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
10	**12.5**	**11.5**	**11.1**	**10.7**	**10.3**	**10.0**	**9.7**	**9.3**	**9.0**	**8.7**
13	**16.3**	**15.0**	**14.3**	**13.9**	**13.4**	**13.0**	**12.6**	**12.1**	**11.7**	**11.3**
16	**20.0**	**18.7**	**18.0**	**17.3**	**16.6**	**16.0**	**15.4**	**14.7**	**14.1**	**13.5**
20	**25.0**	**23.2**	**22.4**	**21.6**	**20.8**	**20.0**	**19.2**	**18.4**	**17.6**	**16.8**
25	**31.5**	**29.5**	**28.3**	**27.2**	**26.0**	**25.0**	**24.0**	**22.7**	**21.7**	**20.7**
30	**38.3**	**36.0**	**34.5**	**33.0**	**31.5**	**30.0**	**28.8**	**27.3**	**26.1**	**24.9**
32	**41.0**	**37.8**	**36.5**	**34.9**	**33.3**	**32.0**	**30.7**	**29.1**	**27.8**	**26.5**
40	**51.0**	**48.0**	**46.0**	**44.0**	**42.0**	**40.0**	**38.0**	**36.0**	**34.0**	**32.0**
50	**64.0**	**60.0**	**57.5**	**55.0**	**52.5**	**50.0**	**47.5**	**45.0**	**42.5**	**40.0**
63	**80.6**	**75.6**	**72.5**	**69.9**	**66.1**	**63.0**	**59.8**	**56.1**	**52.9**	**49.7**

Derating of RCBOs function of the number of devices side by side:

When several RCBOs are juxtaposed and operate simultaneously, the heat dissipation of the poles is limited. This results in an increase in operating temperature of the circuit breakers which can cause unwanted tripping. It is recommended to apply the following coefficients to the rated currents.

Number of circuit breakers side by side	Coefficient
2 - 3	**0.9**
4 – 5	**0.8**
6 - 9	**0.7**
≥ 10	**0.6**

These values are given by the recommendation of IEC/EN 60439-1 and NF C 63421 standards.
To avoid to have to use these coefficients, it is necessary to allow a good ventilation and to keep the devices apart with 0.5 module spacing elements (cat. N° 406 307).

5. GENERAL CHARACTERISTICS *(continued)*

Coordination between RCBOs and fuses, three-phase network (+ neutral) 400 / 415 V~ according to IEC/EN 60947-2:

For TT or TN neutral system in 230/400 V network, to know the breaking capacity of the combination of a double pole breaker (connected between phase and neutral under 230V) downstream of a triple-pole circuit-breaker, take the values shown in tables 230/240V.

		Fuse upstream									
		gG Type									
r.c.b.o. downstream		≤20A	25A	32A	40A	50A	63A	80A	100A	125A	160A
DX³ 6000/10kA Curve C	10A	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**40kA**
	16A	-	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**40kA**
	20A	-	-	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**40kA**
	25A	-	-	-	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**40kA**
	32A	-	-	-	-	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**40kA**
	40A	-	-	-	-	-	**100kA**	**100kA**	**100kA**	**100kA**	**40kA**
	50A	-	-	-	-	-	-	**100kA**	**100kA**	**100kA**	**40kA**
	63A	-	-	-	-	-	-	**100kA**	**100kA**	**100kA**	**40kA**

		Fuse upstream									
		aM Type									
r.c.b.o. downstream		≤20A	25A	32A	40A	50A	63A	80A	100A	125A	160A
DX³ 6000/10kA Curve C	10A	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**40kA**
	16A	-	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**40kA**
	20A	-	-	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**40kA**
	25A	-	-	-	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**40kA**
	32A	-	-	-	-	**100kA**	**100kA**	**100kA**	**100kA**	**100kA**	**40kA**
	40A	-	-	-	-	-	**100kA**	**100kA**	**100kA**	**100kA**	**40kA**
	50A	-	-	-	-	-	-	**100kA**	**100kA**	**100kA**	**40kA**
	63A	-	-	-	-	-	-	**100kA**	**100kA**	**100kA**	**40kA**

Depending on the size of the r.c.b.o. downstream, pay attention threshold and the rating of the upstream fuse must always be higher.

5. GENERAL CHARACTERISTICS *(continued)*

Coordination between RCBOs and MCBs, three-phase network (+ neutral) 400 / 415 V~ according to IEC/EN 60947-2:

For TT or TN neutral system in 230/400 V network, to know the breaking capacity of the combination of a double pole breaker (connected between phase and neutral under 230V) downstream of a triple-pole circuit-breaker, take the values shown in tables 230/2400V.

		m.c.b. upstream							
		DX³ 10000/16kA							
		Curves B, C							
r.c.b.o. downstream		≤25A	32A	40A	50A	63A	80A	100A	125A
DX³ 6000/10kA Curve C	10A	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	16A	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	20A	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	25A	-	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	32A	-	-	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	40A	-	-	-	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	50A	-	-	-	-	**16kA**	**16kA**	**16kA**	**16kA**
	63A	-	-	-	-	-	**16kA**	**16kA**	**16kA**

		m.c.b. upstream							
		DX³ 10000/16kA							
		Curve D							
r.c.b.o. downstream		≤25A	32A	40A	50A	63A	80A	100A	125A
DX³ 6000/10kA Curve C	10A	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	16A	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	20A	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	25A	-	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	32A	-	-	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	40A	-	-	-	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	50A	-	-	-	-	**16kA**	**16kA**	**16kA**	**16kA**
	63A	-	-	-	-	-	**16kA**	**16kA**	**16kA**

Depending on the size of the r.c.b.o. downstream, pay attention to the magnetic threshold and the rating of the upstream must always be higher.

5. GENERAL CHARACTERISTICS *(continued)*

Coordination between RCBOs and MCBs, three-phase network (+ neutral) 400 / 415 V~ according to IEC/EN 60947-2:

For TT or TN neutral system in 230/400 V network, to know the breaking capacity of the combination of a double pole breaker (connected between phase and neutral under 230V) downstream of a triple-pole circuit-breaker, take the values shown in tables 230/240V.

		m.c.b. upstream							
		DX³ 25kA							
		Curves B, C							
r.c.b.o. downstream		≤25A	32A	40A	50A	63A	80A	100A	125A
DX³ 6000/10kA Curve C	10A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	16A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	20A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	25A	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	32A	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	40A	-	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	50A	-	-	-	-	**25kA**	**25kA**	**25kA**	**25kA**
	63A	-	-	-	-	-	**25kA**	**25kA**	**25kA**

		m.c.b. upstream							
		DX³ 25kA							
		Curve D							
r.c.b.o. downstream		≤25A	32A	40A	50A	63A	80A	100A	125A
DX³ 6000/10kA Curve C	10A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	16A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	20A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	25A	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	32A	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	40A	-	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	50A	-	-	-	-	**25kA**	**25kA**	**25kA**	**25kA**
	63A	-	-	-	-	-	**25kA**	**25kA**	**25kA**

Depending on the size of the r.c.b.o. downstream, pay attention to the magnetic threshold and the rating of the upstream must always be higher.

5. GENERAL CHARACTERISTICS *(continued)*

Coordination between RCBOs and MCBs, three-phase network (+ neutral) 400 / 415 V~ according to IEC/EN 60947-2:

For TT or TN neutral system in 230/400 V network, to know the breaking capacity of the combination of a double pole breaker (connected between phase and neutral under 230V) downstream of a triple-pole circuit-breaker, take the values shown in tables 230/240V.

		m.c.b. upstream										
		DX³ 36kA						DX³ 50kA				
		Curve C						Curves B, C et D				
r.c.b.o. downstream		≤25A	32A	40A	50A	63A	80A	≤25A	32A	40A	50A	63A
DX³ 6000/10kA Curve C	10A	**36kA**	**36kA**	**36kA**	**36kA**	**36kA**	**36kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	16A	**36kA**	**36kA**	**36kA**	**36kA**	**36kA**	**36kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	20A	**36kA**	**36kA**	**36kA**	**36kA**	**36kA**	**36kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	25A	-	**36kA**	**36kA**	**36kA**	**36kA**	**36kA**	-	**50kA**	**50kA**	**50kA**	**50kA**
	32A	-	-	**36kA**	**36kA**	**36kA**	**36kA**	-	-	**50kA**	**50kA**	**50kA**
	40A	-	-	-	**36kA**	**36kA**	**36kA**	-	-	-	**50kA**	**50kA**
	50A	-	-	-	-	**36kA**	**36kA**	-	-	-	-	**50kA**
	63A	-	-	-	-	-	**36kA**	-	-	-	-	-

Depending on the size of the r.c.b.o. downstream, pay attention to the magnetic threshold and the rating of the upstream must always be higher.

5. GENERAL CHARACTERISTICS *(continued)*

Coordination between RCBOs and MCCBs, three-phase network (+ neutral) 400 / 415 V~ according to IEC/EN 60947-2:

For TT or TN neutral system in 230/400 V network, to know the breaking capacity of the combination of a double pole breaker (connected between phase and neutral under 230V) downstream of a triple-pole circuit-breaker, take the values shown in tables 230/240V.

		m.c.c.b. upstream											
		DPX 125						DPX 125					
		16kA						25kA					
r.c.b.o. downstream		16A	25A	40A	63A	100A	125A	16A	25A	40A	63A	100A	125A
DX³ 6000/10kA Curve C	10A	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	16A	-	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	20A	-	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	25A	-	-	**16kA**	**16kA**	**16kA**	**16kA**	-	-	**25kA**	**25kA**	**25kA**	**25kA**
	32A	-	-	**16kA**	**16kA**	**16kA**	**16kA**	-	-	**25kA**	**25kA**	**25kA**	**25kA**
	40A	-	-	-	**16kA**	**16kA**	**16kA**	-	-	-	**25kA**	**25kA**	**25kA**
	50A	-	-	-	**16kA**	**16kA**	**16kA**	-	-	-	**25kA**	**25kA**	**25kA**
	63A	-	-	-	-	**16kA**	**16kA**	-	-	-	-	**25kA**	**25kA**

		m.c.c.b. upstream													
		DPX 125						DPX³ 160 / DPX³ 160 + diff.							
		36kA						16kA							
r.c.b.o. downstream		16A	25A	40A	63A	100A	125A	16A	25A	40A	63A	80A	100A	125A	160A
DX³ 6000/10kA Curve C	10A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	16A	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	-	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	20A	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	-	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	25A	-	-	**25kA**	**25kA**	**25kA**	**25kA**	-	-	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	32A	-	-	**25kA**	**25kA**	**25kA**	**25kA**	-	-	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	40A	-	-	-	**25kA**	**25kA**	**25kA**	-	-	-	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	50A	-	-	-	**25kA**	**25kA**	**25kA**	-	-	-	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	63A	-	-	-	-	**25kA**	**25kA**	-	-	-	-	**16kA**	**16kA**	**16kA**	**16kA**

Depending on the size of the r.c.b.o. downstream, pay attention to the magnetic threshold and the rating of the upstream must always be higher.

5. GENERAL CHARACTERISTICS *(continued)*

Coordination between RCBOs and MCCBs, three-phase network (+ neutral) 400 / 415 V~ according to IEC/EN 60947-2:

For TT or TN neutral system in 230/400 V network, to know the breaking capacity of the combination of a double pole breaker (connected between phase and neutral under 230V) downstream of a triple-pole circuit-breaker, take the values shown in tables 230/240V.

		m.c.c.b. upstream												
		DPX³ 160 / DPX³ 160 + diff.								DPX 160				
		25 – 36 – 50kA								25 - 36 - 50kA				
r.c.b.o. downstream		16A	25A	40A	63A	80A	100A	125A	160A	25A	40A	63A	100A	125A
DX³ 6000/10kA Curve C	10A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	16A	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	20A	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	25A	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	-	**25kA**	**25kA**	**25kA**	**25kA**
	32A	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	-	**25kA**	**25kA**	**25kA**	**25kA**
	40A	-	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	-	-	**25kA**	**25kA**	**25kA**
	50A	-	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	-	-	**25kA**	**25kA**	**25kA**
	63A	-	-	-	-	**25kA**	**25kA**	**25kA**	**25kA**	-	-	-	**20kA**	**20kA**

		m.c.c.b. upstream												
		DPX 250ER			DPX 250ER AB				DPX³250 / DPX³250+diff. (Thermo-Magnetic & electronic)				DPX 400AB	
		25 - 36 - 50kA			36kA				25 - 36 – 50 - 70kA				36kA	
r.c.b.o. downstream		100A	160A	250A	90A	130A	170A	240A	100A	160A	200A	250A	320A	400A
DX³ 6000/10kA Curve C	10A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	16A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	20A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	25A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	32A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	40A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**20kA**	**20kA**
	50A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**16kA**	**16kA**
	63A	**20kA**	**20kA**	**20kA**	**20kA**	**20kA**	**20kA**	**20kA**	**25kA**	**25kA**	**25kA**	**25kA**	**16kA**	**16kA**

Depending on the size of the r.c.b.o. downstream, pay attention to the magnetic threshold and the rating of the upstream must always be higher.

5. GENERAL CHARACTERISTICS *(continued)*

Coordination between RCBOs and MCCBs, three-phase network (+ neutral) 400 / 415 V~ according to IEC/EN 60947-2:

For TT or TN neutral system in 230/400 V network, to know the breaking capacity of the combination of a double pole breaker (connected between phase and neutral under 230V) downstream of a triple-pole circuit-breaker, take the values shown in tables 230/240V.

		m.c.c.b. upstream										
		DPX / H / L 250 (Thermo-Magnetic & electronic)						DPX / H / L 630 (Thermo-Magnetic & electronic)				
		36 – 70 – 100kA						36 – 70 – 100kA				
r.c.b.o. downstream		25A	40A	63A	100A	160A	250A	250A	320A	400A	500A	630A
DX³ 6000/10kA Curve C	10A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	16A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	20A	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	25A	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	32A	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	40A	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**20kA**	**20kA**	**20kA**	**20kA**	**20kA**
	50A	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**
	63A	-	-	**20kA**	**20kA**	**20kA**	**20kA**	**16kA**	**16kA**	**16kA**	**16kA**	**16kA**

		m.c.c.b. upstream	
		DPX / H / L 1250 (Thermo-Magnetic)	DPX / H 1600 (electronic)
		50 – 70 - 100kA	36 – 70kA
r.c.b.o. downstream		500 à 1250A	630 à 1600A
DX³ 6000/10kA Curve C	10A	**25kA**	**25kA**
	16A	**25kA**	**25kA**
	20A	**25kA**	**25kA**
	25A	**20kA**	**20kA**
	32A	**15kA**	**15kA**
	40A	**15kA**	**15kA**
	50A	**12,5**	**12,5**
	63A	**12,5**	**12,5**

Depending on the size of the r.c.b.o. downstream, pay attention to the magnetic threshold and the rating of the upstream must always be higher.

5. GENERAL CHARACTERISTICS *(continued)*

Coordination between RCBOs and fuses, three-phase network (+ neutral) 230 / 240 V~ according to IEC/EN 60947-2:5.

		Fuse upstream									
		gG Type									
r.c.b.o. downstream		≤20A	25A	32A	40A	50A	63A	80A	100A	125A	160A
DX³ 6000/10kA Curve C	10A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	40kA
	16A	-	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	40kA
	20A	-	-	100kA	100kA	100kA	100kA	100kA	100kA	100kA	40kA
	25A	-	-	-	100kA	100kA	100kA	100kA	100kA	100kA	40kA
	32A	-	-	-	-	100kA	100kA	100kA	100kA	100kA	40kA
	40A	-	-	-	-	-	100kA	100kA	100kA	100kA	40kA
	50A	-	-	-	-	-	-	100kA	100kA	100kA	40kA
	63A	-	-	-	-	-	-	100kA	100kA	100kA	40kA

		Fuse upstream									
		aM Type									
r.c.b.o. downstream		≤20A	25A	32A	40A	50A	63A	80A	100A	125A	160A
DX³ 6000/10kA Curve C	10A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	40kA
	16A	-	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	40kA
	20A	-	-	100kA	100kA	100kA	100kA	100kA	100kA	100kA	40kA
	25A	-	-	-	100kA	100kA	100kA	100kA	100kA	100kA	40kA
	32A	-	-	-	-	100kA	100kA	100kA	100kA	100kA	40kA
	40A	-	-	-	-	-	100kA	100kA	100kA	100kA	40kA
	50A	-	-	-	-	-	-	100kA	100kA	100kA	40kA
	63A	-	-	-	-	-	-	100kA	100kA	100kA	40kA

Depending on the size of the r.c.b.o. downstream, pay attention threshold and the rating of the upstream fuse must always be higher.

5. GENERAL CHARACTERISTICS *(continued)*

Coordination between RCBOs and MCBs, three-phase network (+ neutral) 230 / 240 V~ according to IEC/EN 60947-2:

		m.c.b. upstream							
		DX³ 10000/16kA							
		Curves B, C							
r.c.b.o. downstream		≤25A	32A	40A	50A	63A	80A	100A	125A
DX³ 6000/10kA Curve C	10A	**32kA**	**32kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	16A	**32kA**	**32kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	20A	**32kA**	**32kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	25A	-	**32kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	32A	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	40A	-	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	50A	-	-	-	-	**25kA**	**25kA**	**25kA**	**25kA**
	63A	-	-	-	-	-	**25kA**	**25kA**	**25kA**

		m.c.b. upstream							
		DX³ 10000/16kA							
		Curve D							
r.c.b.o. downstream		≤25A	32A	40A	50A	63A	80A	100A	125A
DX³ 6000/10kA Curve C	10A	**32kA**	**32kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	16A	**32kA**	**32kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	20A	**32kA**	**32kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	25A	-	**32kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	32A	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	40A	-	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	50A	-	-	-	-	**25kA**	**25kA**	**25kA**	**25kA**
	63A	-	-	-	-	-	**25kA**	**25kA**	**25kA**

Depending on the size of the r.c.b.o. downstream, pay attention to the magnetic threshold and the rating of the upstream must always be higher.

5. GENERAL CHARACTERISTICS *(continued)*

Coordination between RCBOs and MCBs, three-phase network (+ neutral) 230 / 240 V~ according to IEC/EN 60947-2:

		m.c.b. upstream							
		DX³ 25kA							
		Curves B, C							
r.c.b.o. downstream		≤25A	32A	40A	50A	63A	80A	100A	125A
DX³ 6000/10kA Curve C	10A	**50kA**	**50kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	16A	**50kA**	**50kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	20A	**50kA**	**50kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	25A	-	**50kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	32A	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	40A	-	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	50A	-	-	-	-	**25kA**	**25kA**	**25kA**	**25kA**
	63A	-	-	-	-	-	**25kA**	**25kA**	**25kA**

		m.c.b. upstream							
		DX³ 25kA							
		Curve D							
r.c.b.o. downstream		≤25A	32A	40A	50A	63A	80A	100A	125A
DX³ 6000/10kA Curve C	10A	**50kA**	**50kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	16A	**50kA**	**50kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	20A	**50kA**	**50kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	25A	-	**50kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	32A	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	40A	-	-	-	**25kA**	**25kA**	**25kA**	**25kA**	**25kA**
	50A	-	-	-	-	**25kA**	**25kA**	**25kA**	**25kA**
	63A	-	-	-	-	-	**25kA**	**25kA**	**25kA**

Depending on the size of the r.c.b.o. downstream, pay attention to the magnetic threshold and the rating of the upstream must always be higher.

5. GENERAL CHARACTERISTICS *(continued)*

Coordination between RCBOs and MCBs, three-phase network (+ neutral) 230 / 240 V~ according to IEC/EN 60947-2:

		m.c.b. upstream										
		DX³ 36kA						DX³ 50kA				
		Curve C						Curves B, C et D				
r.c.b.o. downstream		≤25A	32A	40A	50A	63A	80A	≤25A	32A	40A	50A	63A
DX³ 6000/10kA Curve C	10A	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	16A	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	20A	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	25A	-	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	-	**50kA**	**50kA**	**50kA**	**50kA**
	32A	-	-	**50kA**	**50kA**	**50kA**	**50kA**	-	-	**50kA**	**50kA**	**50kA**
	40A	-	-	-	**50kA**	**50kA**	**50kA**	-	-	-	**50kA**	**50kA**
	50A	-	-	-	-	**50kA**	**50kA**	-	-	-	-	**50kA**
	63A	-	-	-	-	-	**50kA**	-	-	-	-	-

Depending on the size of the r.c.b.o. downstream, pay attention to the magnetic threshold and the rating of the upstream must always be higher.

5. GENERAL CHARACTERISTICS *(continued)*

Coordination between RCBOs and MCCBs, three-phase network (+ neutral) 230 / 240 V~ according to IEC/EN 60947-2:

		m.c.c.b. upstream											
		DPX 125						DPX 125					
		25kA						36kA					
r.c.b.o. downstream		16A	25A	40A	63A	100A	125A	16A	25A	40A	63A	100A	125A
DX³ 6000/10kA Curve C	10A	**35kA**	**35kA**	**35kA**	**35kA**	**35kA**	**35kA**	**40kA**	**40kA**	**40kA**	**40kA**	**40kA**	**40kA**
	16A		**35kA**	**35kA**	**35kA**	**35kA**	**35kA**		**40kA**	**40kA**	**40kA**	**40kA**	**40kA**
	20A		**35kA**	**35kA**	**35kA**	**35kA**	**35kA**		**40kA**	**40kA**	**40kA**	**40kA**	**40kA**
	25A			**35kA**	**35kA**	**35kA**	**35kA**			**40kA**	**40kA**	**40kA**	**40kA**
	32A			**35kA**	**35kA**	**35kA**	**35kA**			**40kA**	**40kA**	**40kA**	**40kA**
	40A				**35kA**	**35kA**	**35kA**				**40kA**	**40kA**	**40kA**
	50A				**25kA**	**25kA**	**25kA**				**25kA**	**25kA**	**25kA**
	63A					**25kA**	**25kA**					**25kA**	**25kA**

		m.c.c.b. upstream							
		DPX³ 160 / DPX³ 160 + diff.							
		16kA							
r.c.b.o. downstream		16A	25A	40A	63A	80A	100A	125A	160A
DX³ 6000/10kA Curve C	10A	**28kA**	**28kA**	**28kA**	**28kA**	**28kA**	**28kA**	**28kA**	**28kA**
	16A		**28kA**	**28kA**	**28kA**	**28kA**	**28kA**	**28kA**	**28kA**
	20A		**28kA**	**28kA**	**28kA**	**28kA**	**28kA**	**28kA**	**28kA**
	25A			**28kA**	**28kA**	**28kA**	**28kA**	**28kA**	**28kA**
	32A			**28kA**	**28kA**	**28kA**	**28kA**	**28kA**	**28kA**
	40A				**28kA**	**28kA**	**28kA**	**28kA**	**28kA**
	50A				**28kA**	**28kA**	**28kA**	**28kA**	**28kA**
	63A					**28kA**	**28kA**	**28kA**	**28kA**

Depending on the size of the r.c.b.o. downstream, pay attention to the magnetic threshold and the rating of the upstream must always be higher.

5. GENERAL CHARACTERISTICS *(continued)*

Coordination between RCBOs and MCCBs, three-phase network (+ neutral) 230 / 240 V~ according to IEC/EN 60947-2:

		m.c.c.b. upstream							
		DPX³ 160 / DPX³ 160 + diff.							
		25kA							
r.c.b.o. downstream		16A	25A	40A	63A	80A	100A	125A	160A
DX³ 6000/10kA Curve C	10A	**40kA**	**40kA**	**40kA**	**40kA**	**40kA**	**40kA**	**40kA**	**40kA**
	16A		**40kA**	**40kA**	**40kA**	**40kA**	**40kA**	**40kA**	**40kA**
	20A		**40kA**	**40kA**	**40kA**	**40kA**	**40kA**	**40kA**	**40kA**
	25A			**40kA**	**40kA**	**40kA**	**40kA**	**40kA**	**40kA**
	32A			**40kA**	**40kA**	**40kA**	**40kA**	**40kA**	**40kA**
	40A				**40kA**	**40kA**	**40kA**	**40kA**	**40kA**
	50A				**40kA**	**40kA**	**40kA**	**40kA**	**40kA**
	63A					**40kA**	**40kA**	**40kA**	**40kA**

		m.c.c.b. upstream							
		DPX³ 160 / DPX³ 160 + diff.							
		36 - 50kA							
r.c.b.o. downstream		16A	25A	40A	63A	80A	100A	125A	160A
DX³ 6000/10kA Curve C	10A	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	16A		**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	20A		**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	25A			**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	32A			**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	40A				**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	50A				**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	63A					**50kA**	**50kA**	**50kA**	**50kA**

Depending on the size of the r.c.b.o. downstream, pay attention to the magnetic threshold and the rating of the upstream must always be higher.

5. GENERAL CHARACTERISTICS *(continued)*

Coordination between RCBOs and MCCBs, three-phase network (+ neutral) 230 / 240 V~ according to IEC/EN 60947-2:

		m.c.c.b. upstream									
		DPX 160					DPX 160				
		25kA					36 - 50kA				
r.c.b.o. downstream		25A	40A	63A	100A	125A	25A	40A	63A	100A	125A
DX³ 6000/10kA Curve C	10A	**40kA**	**40kA**	**40kA**	**40kA**	**40kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	16A	**40kA**	**40kA**	**40kA**	**40kA**	**40kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	20A	**40kA**	**40kA**	**40kA**	**40kA**	**40kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	25A		**40kA**	**40kA**	**40kA**	**40kA**		**50kA**	**50kA**	**50kA**	**50kA**
	32A		**40kA**	**40kA**	**40kA**	**40kA**		**50kA**	**50kA**	**50kA**	**50kA**
	40A			**40kA**	**40kA**	**40kA**			**50kA**	**50kA**	**50kA**
	50A			**36kA**	**36kA**	**36kA**			**36kA**	**36kA**	**36kA**
	63A				**30kA**	**30kA**				**30kA**	**30kA**

		m.c.c.b. upstream									
		DPX 250ER			DPX 250ER			DPX 250ER AB			
		25kA			36 - 50kA			36kA			
r.c.b.o. downstream		100A	160A	250A	100A	160A	250A	90A	130A	170A	240A
DX³ 6000/10kA Curve C	10A	**40kA**	**40kA**	**40kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	16A	**40kA**	**40kA**	**40kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	20A	**40kA**	**40kA**	**40kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	25A	**40kA**	**40kA**	**40kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	32A	**40kA**	**40kA**	**40kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	40A	**40kA**	**40kA**	**40kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	50A	**36kA**	**36kA**	**36kA**	**36kA**	**36kA**	**36kA**	**36kA**	**36kA**	**36kA**	**36kA**
	63A	**30kA**	**30kA**	**30kA**	**30kA**	**30kA**	**30kA**	**30kA**	**30kA**	**30kA**	**30kA**

Depending on the size of the r.c.b.o. downstream, pay attention to the magnetic threshold and the rating of the upstream must always be higher.

5. GENERAL CHARACTERISTICS *(continued)*

Coordination between RCBOs and MCCBs, three-phase network (+ neutral) 230 / 240 V~ according to IEC/EN 60947-2:

		m.c.c.b. upstream									
		DPX³250 / DPX³250+diff. (Thermo-Magnetic & electronic)				DPX³250 / DPX³250+diff. (Thermo-Magnetic & electronic)				DPX 400AB	
		25kA				36 – 50 - 70kA				36kA	
r.c.b.o. downstream		100A	160A	200A	250A	100A	160A	200A	250A	320A	400A
DX³ 6000/10kA Curve C	10A	**40kA**	**40kA**	**40kA**	**40kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	16A	**40kA**	**40kA**	**40kA**	**40kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	20A	**40kA**	**40kA**	**40kA**	**40kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	25A	**40kA**	**40kA**	**40kA**	**40kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	32A	**40kA**	**40kA**	**40kA**	**40kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	40A	**40kA**	**40kA**	**40kA**	**40kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	50A	**40kA**	**40kA**	**40kA**	**40kA**	**50kA**	**50kA**	**50kA**	**50kA**	**30kA**	**30kA**
	63A	**40kA**	**40kA**	**40kA**	**40kA**	**50kA**	**50kA**	**50kA**	**50kA**	**30kA**	**30kA**

		m.c.c.b. upstream										
		DPX / H / L 250 (Thermo-Magnetic & electronic)						DPX / H / L 630 (Thermo-Magnetic & electronic)				
		36 - 70 – 100kA						36 - 70 – 100kA				
r.c.b.o. downstream		25A	40A	63A	100A	160A	250A	**250A**	**320A**	**400A**	**500A**	**630A**
DX³ 6000/10kA Curve C	10A	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	16A	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	20A	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	25A	-	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	32A	-	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	40A	-	-	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**	**50kA**
	50A	-	-	**30kA**	**30kA**	**30kA**	**30kA**	**30kA**	**30kA**	**30kA**	**30kA**	**30kA**
	63A	-	-	-	**30kA**	**30kA**	**30kA**	**30kA**	**30kA**	**30kA**	**30kA**	**30kA**

Depending on the size of the r.c.b.o. downstream, pay attention to the magnetic threshold and the rating of the upstream must always be higher.

5. GENERAL CHARACTERISTICS *(continued)*

Coordination between RCBOs and MCCBs, three-phase network (+ neutral) 230 / 240 V~ according to IEC/EN 60947-2:

		m.c.c.b. upstream	
		DPX / H / L 1250 (Thermo-Magnetic)	DPX / H 1600 (electronic)
		50 – 70 - 100kA	36 – 70kA
r.c.b.o. downstream		500 à 1250A	630 à 1600A
DX³ 6000/10kA Curve C	10A	**50kA**	**50kA**
	16A	**50kA**	**50kA**
	20A	**50kA**	**50kA**
	25A	**50kA**	**50kA**
	32A	**50kA**	**50kA**
	40A	**50kA**	**50kA**
	50A	**25kA**	**25kA**
	63A	**25kA**	**25kA**

Depending on the size of the r.c.b.o. downstream, pay attention to the magnetic threshold and the rating of the upstream must always be higher.

5. GENERAL CHARACTERISTICS *(continued)*

Selectivity between two levels of protection

. The downstream circuit breaker must always have a magnetic threshold and a rated current lower than those of the upstream protection.
. Selectivity is indicated total (T) if there is selectivity up to the value of breaking capacity (according to IEC / EN 60947-2) of the downstream circuit breaker.

Selectivity between RCBOs and fuses:

. Selectivity limit at 400V~: values in Ampere.

		Fuse upstream						
		gG Type						
r.c.b.o. downstream		40A	50A	63A	80A	100A	125A	160A
DX³ 6000/10kA Curve C	10A	**1600**	**2200**	**3200**	**3600**	**7000**	**T**	**T**
	16A	**1400**	**1800**	**2600**	**3000**	**5600**	**8000**	**T**
	20A	**1200**	**1500**	**2200**	**2500**	**4600**	**6300**	**T**
	25A	**-**	**1300**	**2000**	**2200**	**4100**	**5500**	**9000**
	32A	**-**	**1200**	**1700**	**1900**	**3500**	**4500**	**8000**
	40A	**-**	**-**	**-**	**1700**	**3000**	**4000**	**6000**
	50A	**-**	**-**	**-**	**1600**	**2600**	**3500**	**5000**
	63A	**-**	**-**	**-**	**-**	**2400**	**3300**	**5000**

		Fuse upstream							
		aM Type							
r.c.b.o. downstream		32A	40A	50A	63A	80A	100A	125A	160A
DX³ 6000/10kA Curve C	10A	**1100**	**1700**	**2500**	**5000**	**7800**	**T**	**T**	**T**
	16A	**1000**	**1400**	**2100**	**4000**	**6000**	**9000**	**T**	**T**
	20A	**-**	**1300**	**1800**	**3400**	**5100**	**7000**	**T**	**T**
	25A	**-**	**1100**	**1600**	**3000**	**4500**	**6000**	**9300**	**T**
	32A	**-**	**-**	**1300**	**2400**	**3800**	**5000**	**7700**	**9000**
	40A	**-**	**-**	**-**	**2100**	**3100**	**4200**	**6400**	**7000**
	50A	**-**	**-**	**-**	**2000**	**2900**	**3700**	**6000**	**6000**
	63A	**-**	**-**	**-**	**-**	**2800**	**3500**	**5500**	**6000**

5. GENERAL CHARACTERISTICS *(continued)*

Selectivity between RCBOs and MCBs:

. Selectivity limit at 400V~: values in Ampere.

		m.c.b. upstream									
		DX³ 10000/16kA									
		Curve B									
r.c.b.o. downstream		16A	20A	≤25A	32A	40A	50A	63A	80A	100A	125A
DX³ 6000/10kA Curve C	10A	-	80	100	128	160	200	252	3000	5000	T
	16A	-	-	-	128	160	200	252	2000	3600	5500
	20A	-	-	-	-	160	200	252	1600	3000	4000
	25A	-	-	-	-	-	200	252	1300	2400	3300
	32A	-	-	-	-	-	-	252	1000	1800	2700
	40A	-	-	-	-	-	-	-	800	1600	2400
	50A	-	-	-	-	-	-	-	800	900	1700
	63A	-	-	-	-	-	-	-	-	900	1200

		m.c.b. upstream									
		DX³ 10000/16kA									
		Curve C									
r.c.b.o. downstream		16A	20A	≤25A	32A	40A	50A	63A	80A	100A	125A
DX³ 6000/10kA Curve C	10A	120	150	187	240	300	375	472	3000	5000	T
	16A	-	150	187	240	300	375	472	2000	3600	5500
	20A	-	-	187	240	300	375	472	1600	3000	4000
	25A	-	-	-	240	300	375	472	1300	2400	3300
	32A	-	-	-	-	300	375	472	1000	1800	2700
	40A	-	-	-	-	-	375	472	800	1600	2400
	50A	-	-	-	-	-	-	472	800	900	1700
	63A	-	-	-	-	-	-	-	650	900	1200

5. GENERAL CHARACTERISTICS *(continued)*

Selectivity between RCBOs and MCBs:

. Selectivity limit at 400V~: values in Ampere.

		m.c.b. upstream									
		DX³ 10000/16kA									
		Curve D									
r.c.b.o. downstream		16A	20A	≤25A	32A	40A	50A	63A	80A	100A	125A
DX³ 6000/10kA Curve C	10A	**192**	**240**	**300**	**384**	**480**	**600**	**756**	**3000**	**5000**	**T**
	16A	**-**	**240**	**300**	**384**	**480**	**600**	**756**	**2000**	**3600**	**5500**
	20A	**-**	**-**	**300**	**384**	**480**	**600**	**756**	**1600**	**3000**	**4000**
	25A	**-**	**-**	**-**	**384**	**480**	**600**	**756**	**1300**	**2400**	**3300**
	32A	**-**	**-**	**-**	**-**	**480**	**600**	**756**	**1100**	**1450**	**2700**
	40A	**-**	**-**	**-**	**-**	**-**	**600**	**756**	**1000**	**1250**	**2400**
	50A	**-**	**-**	**-**	**-**	**-**	**-**	**756**	**950**	**1200**	**1700**
	63A	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**950**	**1200**	**1500**

		m.c.b. upstream									
		DX³ 25kA									
		Curve B									
r.c.b.o. downstream		16A	20A	≤25A	32A	40A	50A	63A	80A	100A	125A
DX³ 6000/10kA Curve C	10A	**-**	**80**	**100**	**500**	**700**	**1000**	**1800**	**3000**	**5000**	**T**
	16A	**-**	**-**	**-**	**300**	**500**	**700**	**1300**	**2000**	**3600**	**5500**
	20A	**-**	**-**	**-**	**-**	**400**	**500**	**1000**	**1600**	**3000**	**4000**
	25A	**-**	**-**	**-**	**-**	**-**	**500**	**800**	**1300**	**2400**	**3300**
	32A	**-**	**-**	**-**	**-**	**-**	**500**	**600**	**1000**	**1800**	**2700**
	40A	**-**	**-**	**-**	**-**	**-**	**-**	**600**	**800**	**1600**	**2400**
	50A	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**800**	**900**	**1700**
	63A	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**900**	**1200**

5. GENERAL CHARACTERISTICS *(continued)*

Selectivity between RCBOs and MCBs:

. Selectivity limit at 400V~: values in Ampere.

		m.c.b. upstream									
		DX³ 25kA									
		Curve C									
r.c.b.o. downstream		16A	20A	≤25A	32A	40A	50A	63A	80A	100A	125A
DX³ 6000/10kA Curve C	10A	**120**	**150**	**187**	**500**	**700**	**1000**	**1800**	**3000**	**5000**	**T**
	16A	**-**	**150**	**187**	**300**	**500**	**700**	**1300**	**2000**	**3600**	**5500**
	20A	**-**	**-**	**187**	**300**	**400**	**500**	**1000**	**1600**	**3000**	**4000**
	25A	**-**	**-**	**-**	**240**	**400**	**500**	**800**	**1300**	**2400**	**3300**
	32A	**-**	**-**	**-**	**-**	**300**	**500**	**600**	**1000**	**1800**	**2700**
	40A	**-**	**-**	**-**	**-**	**-**	**400**	**600**	**800**	**1600**	**2400**
	50A	**-**	**-**	**-**	**-**	**-**	**-**	**500**	**800**	**900**	**1700**
	63A	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**650**	**900**	**1200**

		m.c.b. upstream									
		DX³ 25kA									
		Curve D									
r.c.b.o. downstream		16A	20A	≤25A	32A	40A	50A	63A	80A	100A	125A
DX³ 6000/10kA Curve C	10A	**192**	**240**	**300**	**500**	**700**	**1000**	**1800**	**3000**	**5000**	**T**
	16A	**-**	**240**	**300**	**384**	**500**	**700**	**1300**	**2000**	**3600**	**5500**
	20A	**-**	**-**	**300**	**384**	**480**	**600**	**1000**	**1600**	**3000**	**4000**
	25A	**-**	**-**	**-**	**384**	**480**	**600**	**800**	**1300**	**2400**	**3300**
	32A	**-**	**-**	**-**	**-**	**480**	**600**	**756**	**1100**	**1450**	**2700**
	40A	**-**	**-**	**-**	**-**	**-**	**600**	**756**	**1000**	**1250**	**2400**
	50A	**-**	**-**	**-**	**-**	**-**	**-**	**756**	**950**	**1200**	**1700**
	63A	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**950**	**1200**	**1500**

5. GENERAL CHARACTERISTICS *(continued)*

Selectivity between RCBOs and MCBs:

. Selectivity limit at 400V~: values in Ampere.

		m.c.b. upstream							
		DX³ 36kA							
		Curve C							
r.c.b.o. downstream		16A	20A	≤25A	32A	40A	50A	63A	80A
DX³ 6000/10kA Curve C	10A	**120**	**150**	**210**	**500**	**700**	**1000**	**1800**	**3000**
	16A	**-**	**150**	**187**	**300**	**500**	**700**	**1300**	**2000**
	20A	**-**	**-**	**187**	**300**	**400**	**500**	**1000**	**1600**
	25A	**-**	**-**	**-**	**240**	**400**	**500**	**800**	**1300**
	32A	**-**	**-**	**-**	**-**	**300**	**500**	**600**	**1000**
	40A	**-**	**-**	**-**	**-**	**-**	**400**	**600**	**800**
	50A	**-**	**-**	**-**	**-**	**-**	**-**	**500**	**800**
	63A	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**650**

		m.c.b. upstream						
		DX³ 50kA						
		Curve B						
r.c.b.o. downstream		16A	20A	≤25A	32A	40A	50A	63A
DX³ 6000/10kA Curve C	10A	**-**	**150**	**210**	**500**	**700**	**1000**	**1800**
	16A	**-**	**-**	**-**	**300**	**500**	**700**	**1300**
	20A	**-**	**-**	**-**	**-**	**400**	**500**	**1000**
	25A	**-**	**-**	**-**	**-**	**-**	**500**	**800**
	32A	**-**	**-**	**-**	**-**	**-**	**500**	**600**
	40A	**-**	**-**	**-**	**-**	**-**	**-**	**600**
	50A	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	63A	**-**	**-**	**-**	**-**	**-**	**-**	**-**

5. GENERAL CHARACTERISTICS *(continued)*

Selectivity between RCBOs and MCBs:

. Selectivity limit at 400V~: values in Ampere.

		m.c.b. upstream						
		DX³ 50kA						
		Curve C						
r.c.b.o. downstream		16A	20A	≤25A	32A	40A	50A	63A
DX³ 6000/10kA Curve C	10A	**120**	**150**	**210**	**500**	**700**	**1000**	**1800**
	16A	**-**	**150**	**187**	**300**	**500**	**700**	**1300**
	20A	**-**	**-**	**187**	**300**	**400**	**500**	**1000**
	25A	**-**	**-**	**-**	**240**	**400**	**500**	**800**
	32A	**-**	**-**	**-**	**-**	**300**	**500**	**600**
	40A	**-**	**-**	**-**	**-**	**-**	**400**	**600**
	50A	**-**	**-**	**-**	**-**	**-**	**-**	**500**
	63A	**-**	**-**	**-**	**-**	**-**	**-**	**-**

		m.c.b. upstream						
		DX³ 50kA						
		Curve D						
r.c.b.o. downstream		16A	20A	≤25A	32A	40A	50A	63A
DX³ 6000/10kA Curve C	10A	**192**	**240**	**300**	**500**	**700**	**1000**	**1800**
	16A	**-**	**240**	**300**	**384**	**500**	**700**	**1300**
	20A	**-**	**-**	**300**	**384**	**480**	**600**	**1000**
	25A	**-**	**-**	**-**	**384**	**480**	**600**	**800**
	32A	**-**	**-**	**-**	**-**	**480**	**600**	**756**
	40A	**-**	**-**	**-**	**-**	**-**	**600**	**756**
	50A	**-**	**-**	**-**	**-**	**-**	**-**	**756**
	63A	**-**	**-**	**-**	**-**	**-**	**-**	**-**

5. GENERAL CHARACTERISTICS *(continued)*

Selectivity between RCBOs and MCCBs:

. Selectivity limit at 400V~: values in Ampere.

		m.c.c.b. upstream										
		DPX 125						DPX 160				
		16 - 25 - 36kA						25 – 36 – 50kA				
r.c.b.o. downstream		16A	25A	40A	63A	100A	125A	25A	40A	63A	100A	160A
DX³ 6000/10kA Curve C	10A	**5000**	**5000**	**5000**	**5000**	**6000**	**6000**	**7500**	**7500**	**7500**	**7000**	**T**
	16A	**-**	**4000**	**4000**	**4000**	**6000**	**6000**	**6000**	**6000**	**6000**	**6000**	**T**
	20A	**-**	**4000**	**4000**	**4000**	**5000**	**5000**	**-**	**5000**	**5000**	**5000**	**T**
	25A	**-**	**-**	**3000**	**3000**	**4500**	**4500**	**-**	**3500**	**3500**	**4000**	**8500**
	32A	**-**	**-**	**3000**	**3000**	**4000**	**4000**	**-**	**-**	**2000**	**3500**	**7000**
	40A	**-**	**-**	**-**	**3000**	**3000**	**3000**	**-**	**-**	**2000**	**2500**	**6000**
	50A	**-**	**-**	**-**	**-**	**3000**	**3000**	**-**	**-**	**-**	**2000**	**5500**
	63A	**-**	**-**	**-**	**-**	**3000**	**3000**	**-**	**-**	**-**	**2000**	**5000**

5. GENERAL CHARACTERISTICS *(continued)*

Selectivity between RCBOs and MCCBs:

. Selectivity limit at 400V~: values in Ampere.

		m.c.c.b. upstream										
		DPX³160 DPX³160 + diff.								DPX 250ER		
		16 - 25 – 36 - 50kA								25 – 39 – 50kA		
r.c.b.o. downstream		16A	25A	40A	63A	80A	100A	125A	160A	100A	160A	250A
DX³ 6000/10kA Curve C	10A	5000	T	T	T	T	T	T	T	T	T	T
	16A	-	T	T	T	T	T	T	T	T	T	T
	20A	-	5000	5000	5000	5000	6000	T	T	8000	T	T
	25A	-	-	4500	4500	4500	4500	T	T	6000	8500	T
	32A	-	-	-	3000	4000	4000	T	T	5000	7000	T
	40A	-	-	-	3000	3000	3000	T	T	4000	6000	T
	50A	-	-	-	-	3000	3000	5500	7000	4000	5500	7000
	63A	-	-	-	-	3000	3000	5000	6000	3000	5000	6000

		m.c.c.b. upstream									
		DPX 250ER AB				DPX 250 / H / L (Thermo-Magnetic & electronic)					
		25kA				36 - 70 - 100kA					
r.c.b.o. downstream		90A	130A	170A	240A	25A	40A	63A	100A	160A	250A
DX³ 6000/10kA Curve C	10A	T	T	T	T	5,000	5,000	5,000	T	T	T
	16A	T	T	T	T	4,000	4,000	4,000	T	T	T
	20A	T	T	T	T	-	4,000	4,000	8,000	T	T
	25A	T	T	T	T	-	3,000	3,000	6,000	T	T
	32A	T	T	T	T	-	-	2,000	5,000	T	T
	40A	4000	T	T	T	-	-	2,000	5,000	T	T
	50A	4000	4000	T	T	-	-	-	4,000	8,000	T
	63A	3000	3000	T	T	-	-	-	4,000	8,000	T

5. GENERAL CHARACTERISTICS *(continued)*

Selectivity between RCBOs and MCCBs:

. Selectivity limit at 400V~: values in Ampere.

		m.c.c.b. upstream						
		DPX³ 250 DPX³ 250 + diff (Thermo-Magnetic & electronic)				DPX 400AB		DPX / H / L 630 (Thermo-Magnetic & electronic)
		25 - 36 – 50 - 70kA				36kA		36 - 70 – 100kA
r.c.b.o. downstream		100A	160A	200A	250A	320A	400A	250 à 630A
DX³ 6000/10kA Curve C	10A	**T**	**T**	**T**	**T**	**T**	**T**	**T**
	16A	**T**	**T**	**T**	**T**	**T**	**T**	**T**
	20A	**8000**	**T**	**T**	**T**	**T**	**T**	**T**
	25A	**6000**	**T**	**T**	**T**	**T**	**T**	**T**
	32A	**5000**	**T**	**T**	**T**	**T**	**T**	**T**
	40A	**5000**	**T**	**T**	**T**	**T**	**T**	**T**
	50A	**4000**	**8000**	**T**	**T**	**T**	**T**	**T**
	63A	**4000**	**8000**	**T**	**T**	**T**	**T**	**T**

		m.c.c.b. upstream	
		DPX / H / L 1250 (Thermo-Magnetic)	DPX / H 1600 (electronic)
		50 – 70 - 100kA	36 – 70kA
r.c.b.o. downstream		500 à 1250A	630 à 1600A
DX³ 6000/10kA Curve C	10A	**T**	**T**
	16A	**T**	**T**
	20A	**T**	**T**
	25A	**T**	**T**
	32A	**T**	**T**
	40A	**T**	**T**
	50A	**T**	**T**
	63A	**T**	**T**

6. CONFORMITIES AND APPROVALS

In accordance with standards:

. IEC/EN 61009-1.
. IEC/EN 60947-2.
. Compliance with Directives 2014/35/UE (LVC), subsequent modifications and additions.
. Compliance with Directives 2014/30/UE (EMC), subsequent modifications and additions.

Environment respect – Compliance with CEE directives:

. Compliance with Directive 2011/65/UE called "RoHS" provides the banishment of hazardous substances, subsequent modifications and additions.
. Compliance with Directives 91/338/CEE of 18/06/91 and decree 94-647, subsequent modifications and additions.

Plastic materials :

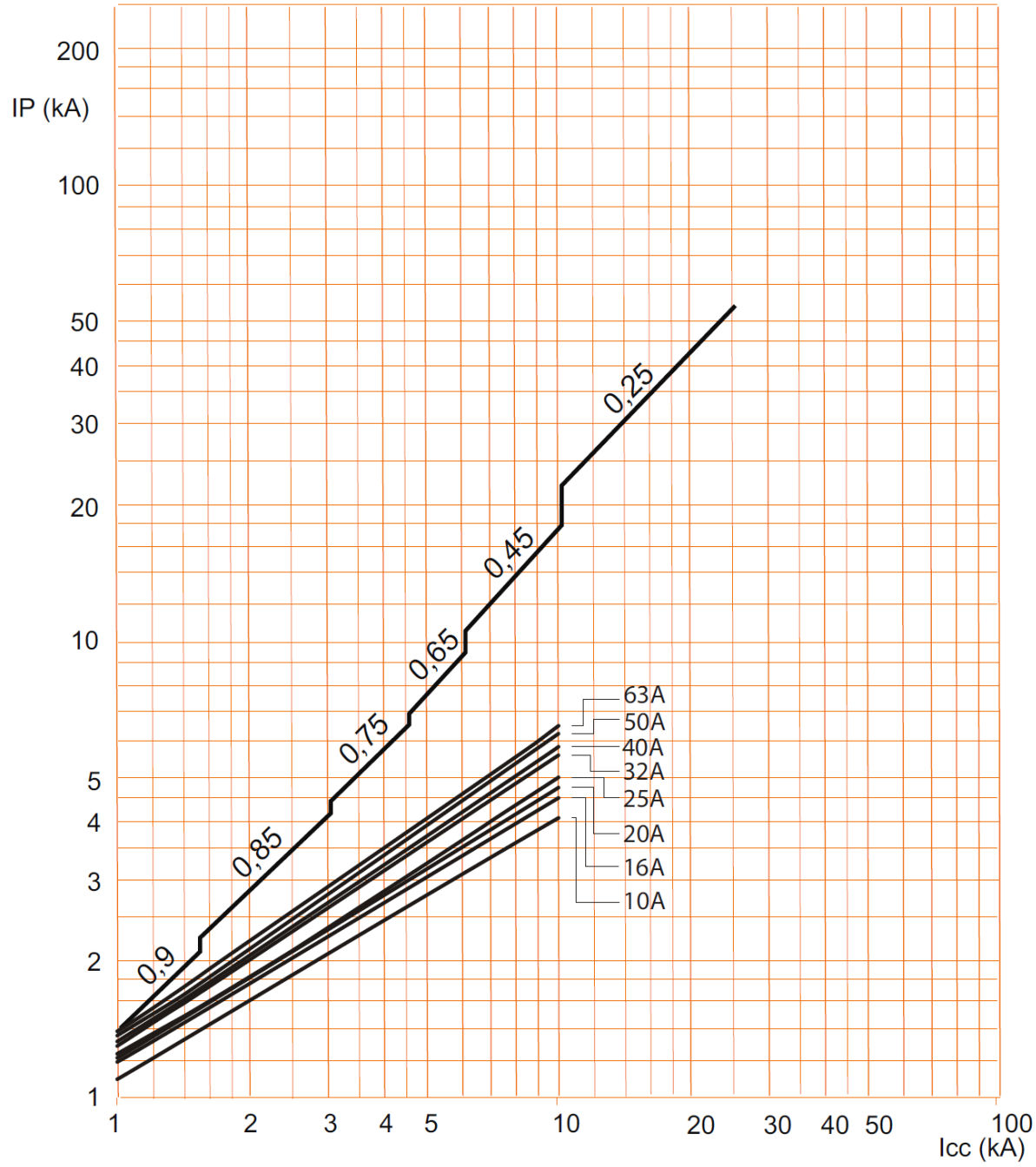
. Halogen-free plastic materials.
. Marking of parts according to ISO 11469 and ISO 1043.

Packaging:

. Design and manufacture of packaging in accordance with decree 98-638 and Directive 94/62/EC, subsequent modifications and additions.

7. CHARACTERISTIC CURVES

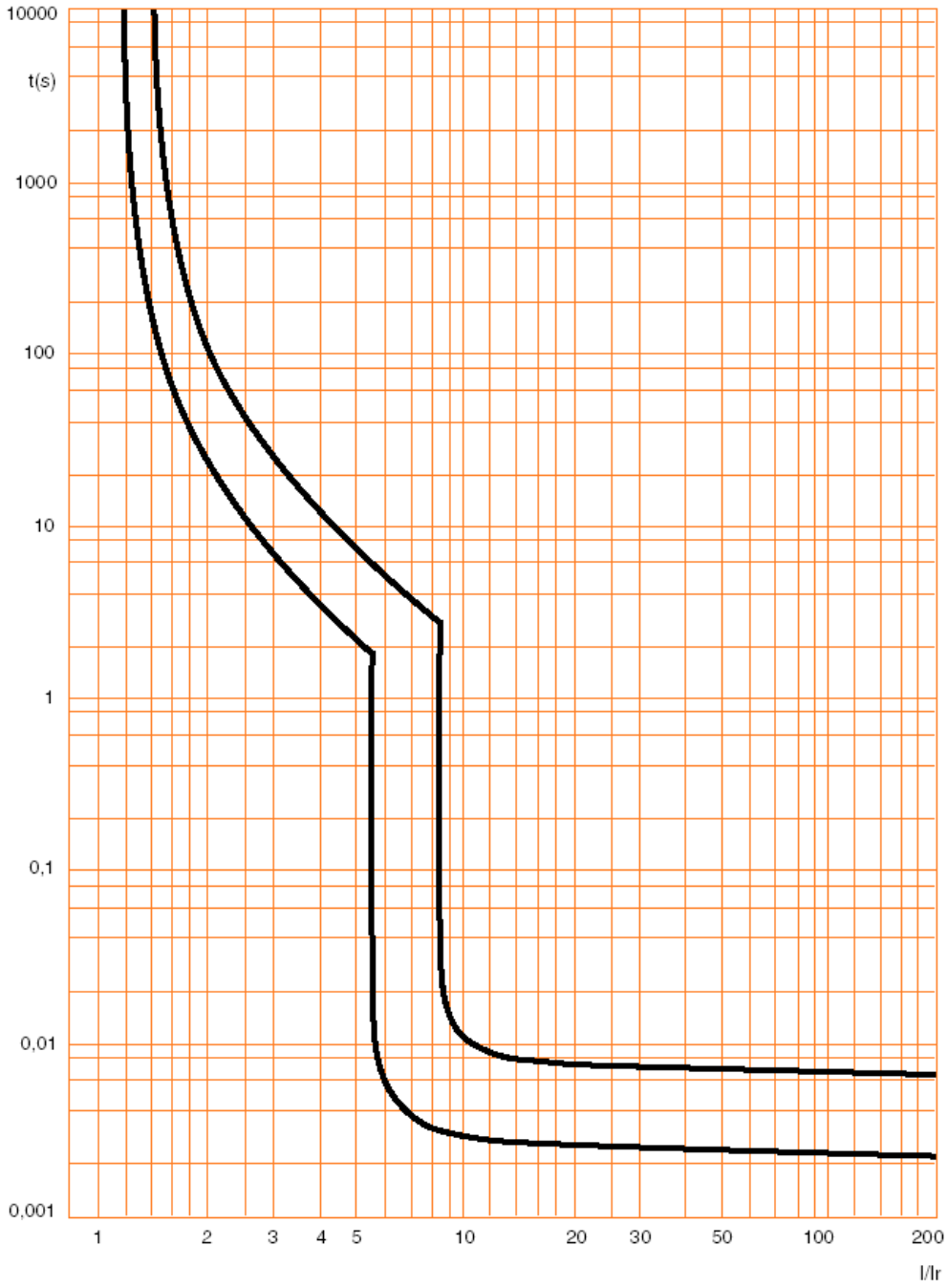
Limiting current curve: circuit breakers curve C



. Icc = Square value of symmetric component of the short circuit current (kA).
. IP = Max peak value (kA)

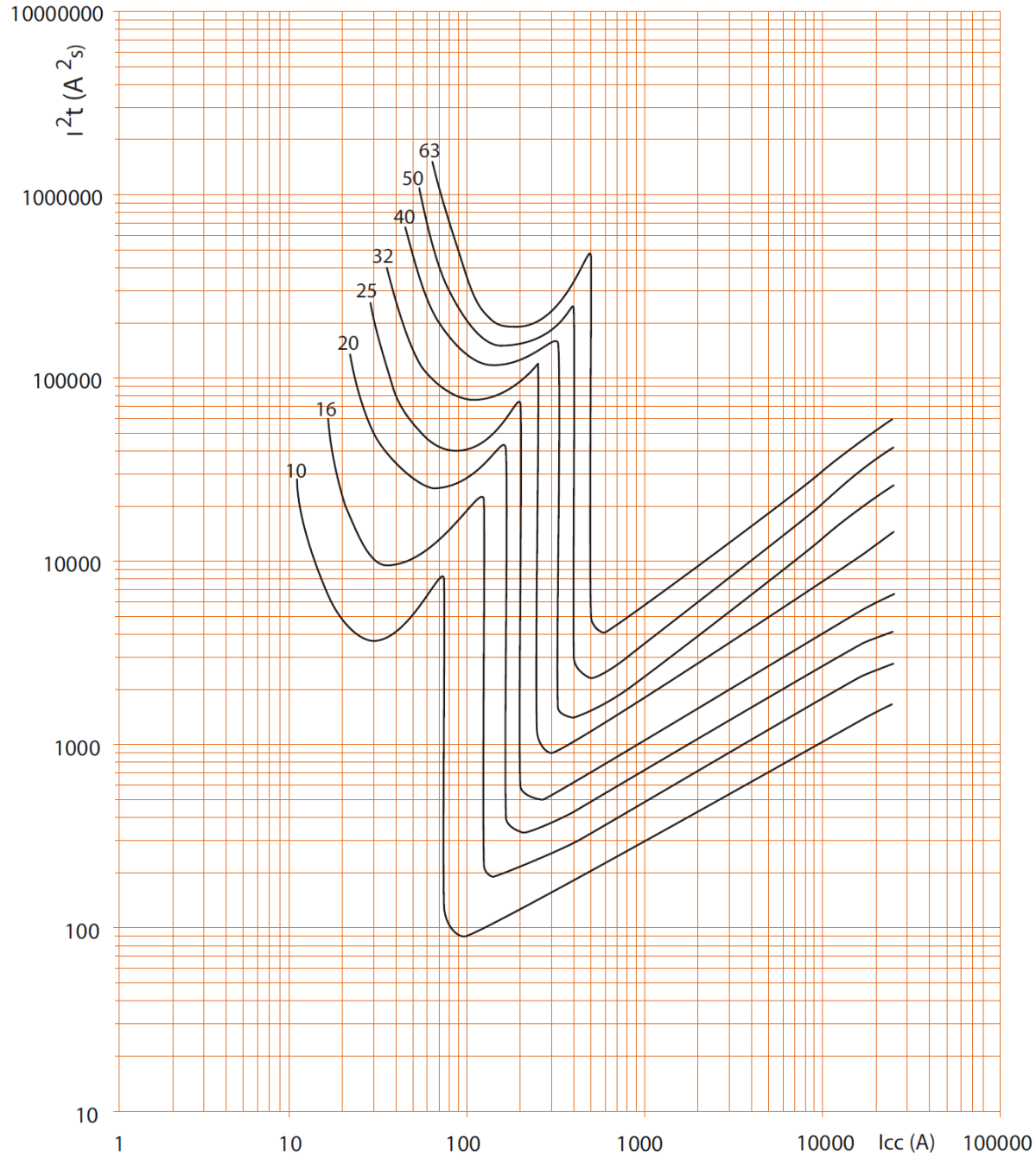
7. CHARACTERISTIC CURVES *(continued)*

Operating characteristic of circuit breakers curve C :



7. CHARACTERISTIC *(continued)*

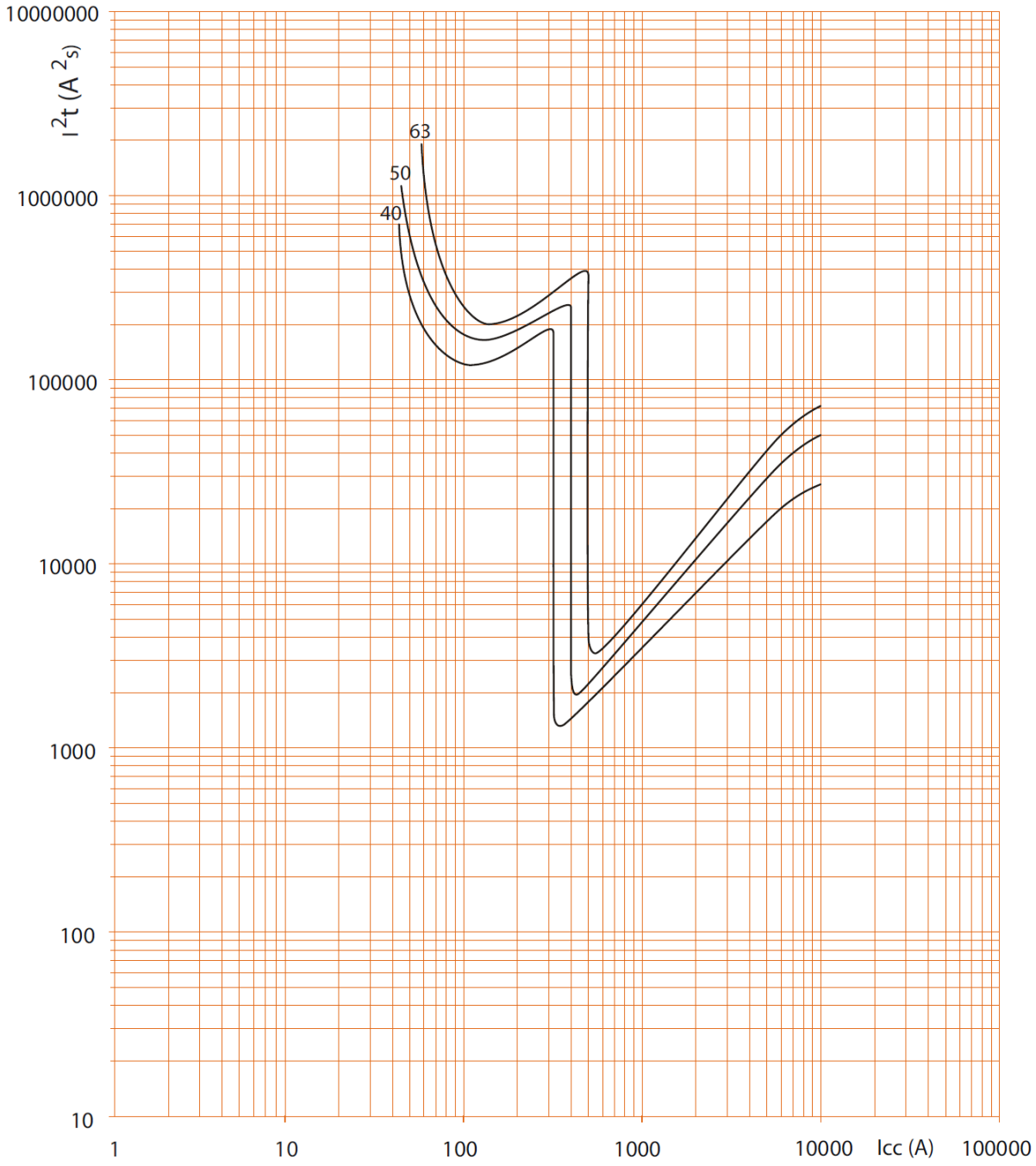
. Limiting thermal energy curve of circuit breakers curve C, 2P (230V~ / 50Hz) :



. Icc = Square value of symmetric component of the short circuit current (kA).
. I²t = Thermal energy limited (A²s).

7. CHARACTERISTIC CURVES *(continued)*

. Limiting thermal energy curve of circuit breakers curve C, 4P (400V~ / 50Hz) :

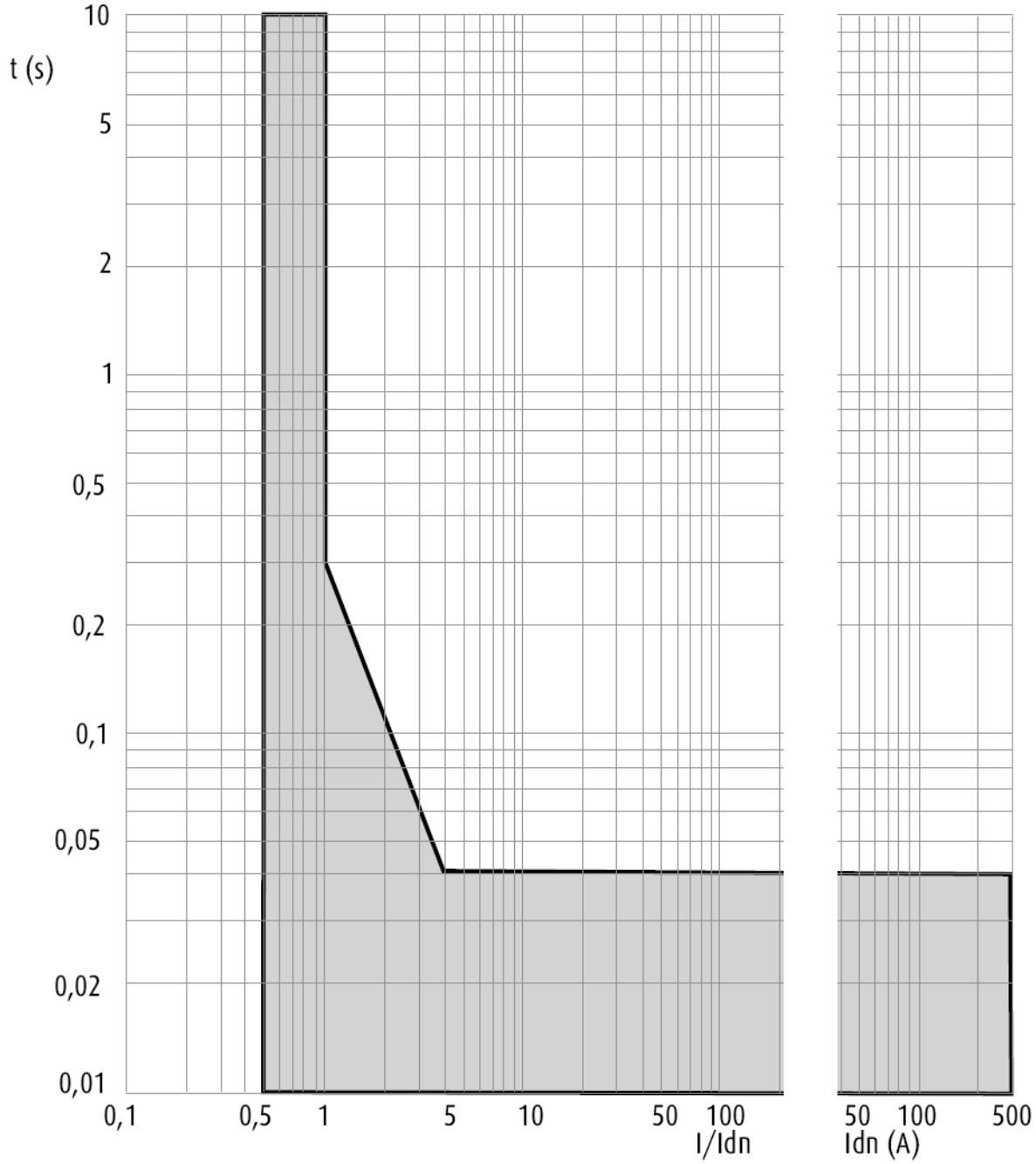


. Icc = Square value of symmetric component of the short circuit current (kA).
. I²t = Thermal energy limited (A²s).

7. CURVES *(continued)*

Residual current operating characteristic

. Average tripping time depending on the intensity of the fault current.
. Sensitivities 10 mA, 30 mA and 300 mA instantaneous AC type.



8. AUXILIARIES AND ACCESSORIES

Wiring accessories:

. Pin busbar HX³ traditional.
. Sealable screw cover (cat n° 4 063 04).
. Insulating shields (cat n° 4 063 05)
. Dispatcher row Lexiclic
. Dispatcher row HX³.

Signalling auxiliaries:

. Auxiliary contact (½ module – cat n° 4 062 58).
. Fault signalling changeover switch (½ module – cat n° 4 062 60).
. Auxiliary contact modifiable in default signal (½ module – cat n° 4 062 62).
. Auxiliary contact + fault signalling switch - can be modified to 2 auxiliary contacts (1 module - cat n° 4 062 66).

Control auxiliaries:

. Shunt releases (1 module - cat n°.4 062 76 / 78).
. Under voltage release (1 module - cat n° 4 062 80 / 82).
. Autonomous shunt trip for NC push-button (1 module - cat n°. 4 062 84).
. Power Overvoltage Protection (1 module – cat n° 4 062 86)

Motor driven control modules

. Motor driven control module (1 module – cat n° 4 062 91)
. Motor driven control module with automatic resetting integrated (2 modules – cat n° 4 062 93 / 95)

Automatic resetting module STOP & GO :

. Automatic resetting module Stop & Go (2 modules – cat n° 4 062 88)
. Automatic resetting module Stop & Go with self-test (2 modules – cat n° 4 062 89)

Possible combinations of m.c.b and auxiliaries:

. Auxiliaries are clipped to the left of the m.c.b.
. Maximum number of auxiliaries for one circuit-breaker: 3.
. Two signalling auxiliaries max. (cat. n° 4 062 58 / 60 / 62 / 66).
. Only one control auxiliary (cat. n° 4 062 76 / 78 / 80 / 82 / 84).
. If signalling and control auxiliaries are associated on the same circuit breaker, the command auxiliary must be placed to the left of the signal auxiliary (ref. 4 062 5x / 6x).

8. AUXILIARIES AND ACCESSORIES *(continued)*

Installation software:

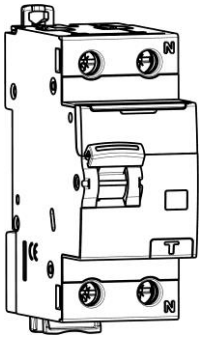
. XL PRO³

87045 LIMOGES Cedex
Téléphone : 05 55 06 87 87 – Télécopie : 05 55 06 88 88

DX³ RCBO 6000 A

Phase + Neutral, neutral right side

Cat. N°(s): 4 109 07, 4 109 18 to 4 109 25, 4 109 47, 4 109 62 to 4 109 69, 4 109 95, 4 110 07 to 4 110 17, 4 110 33, 4 110 35, 4 110 43, 4 110 58 to 4 110 65, 4 110 81 to 4 110 84, 4 111 02 to 4 111 09

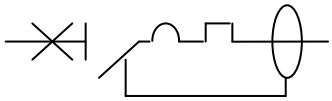


CONTENTS PAGE

1. DESCRIPTION - USE

Residual Current Circuit Breaker with Overload (RCBO) with positive contact indication for control, protection against short-circuits and overloads, and isolation of electrical circuits, protecting people from direct and indirect contact and protecting installations from insulation faults.

Symbol:



Technology:
. Limiting device
. The Neutral contact closes before and opens after the Phase contact
. The phase pole provides protection and isolation for the phase circuit
. The neutral pole provides isolation for the neutral circuit

2. RANGE

Polarity:
. 2 poles including 1 protected pole and 1 neutral pole

Width:
. 2 modules (2 x 17.8 mm)

Rated current In:
. 2 – 3 – 4 – 6 – 10 – 13 – 16 – 20 – 25 – 32 – 40 A

Magnetic tripping curve:
C curve (between 5 In and 10 In)
B curve (between 3 In and 5 In)

Type:
. AC (sinusoidal differential alternating current)
. A (residual currents with a DC component)
. Hpi (immunity against false tripping)
Hpi products are also A type (sinusoidal differential alternating current with or without a DC component)

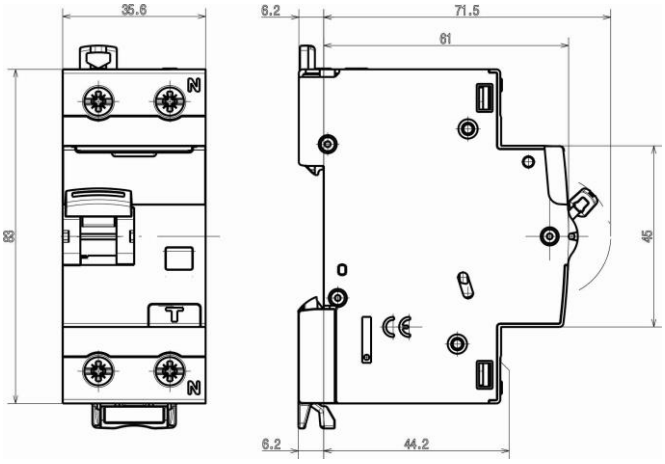
Sensitivity:
. 10 mA in AC type
. 30 mA in AC & Hpi type
. 300 mA in AC type

2. RANGE *(continued)*

Rated voltage and frequency:
. 230 V ~, 50 Hz with standard tolerances
. 240 V ~, 50 Hz with standard tolerances

Breaking capacity:
. Icn = 6000 A in accordance with standard EN/IEC 61009-1
. Icu = 6 kA in accordance with standard IEC 60947-2

3. OVERALL DIMENSIONS

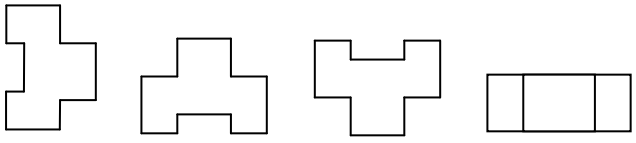


4. PREPARATION - CONNECTION

Mounting:
. On symmetrical rail EN 60715 or DIN 35 rail

Operating positions:

Vertical horizontal upside down Flat



4. POSITIONING - CONNECTION *(continued)*

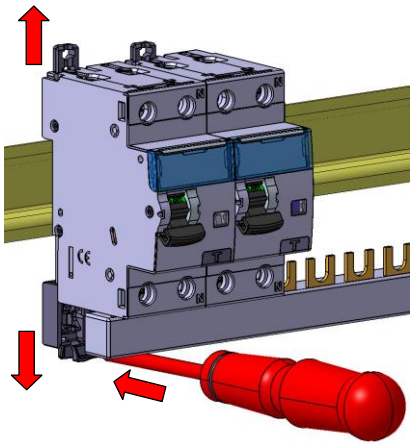
Trip indication on residual current fault:
. Yellow indicator on the front

Power supply:
. Either from the top or the bottom

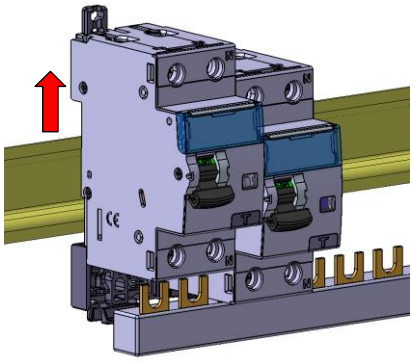
Module maintenance:
. A RCBO may be replaced in the middle of a row of supplied with busbars without disconnecting the other products.

Unscrew the terminals completely

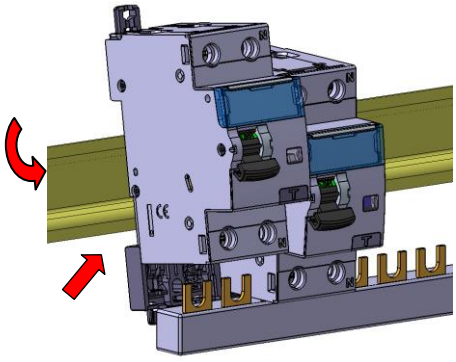
Put the clamp in the unlocking position with a screwdriver



Pull the device upward



Pull the device downward in order to release it completely from the prongs of the busbar. Then pull the device forward



4. POSITIONING - CONNECTION *(continued)*

Connection:
. Terminals protected against direct finger contact IP20 when wired device
. Cage terminals, with release and captive screws
. Terminals fitted with shutters preventing a cable being placed under the terminal, with the terminal partly open or closed
. Alignment and spacing of the terminals permitting shutters with the other products via fork supply busbars
. Terminal depth: 14 mm
. Terminal capacity: 60 mm²
. Screw head: mixed head, slotted head and Philips / Pozidriv no. 2
. Tightening torques:
- Minimum / Maximum: 1.2 Nm / 3.5 Nm
- Recommended: 2.5 Nm

Conductor type:
. Copper cable at the top and bottom of the product
. Cable cross-section

	Without ferrule	With ferrule
Rigid cable	**1 x 0.75 to 50 mm²** **2 x 0.75 to 16 mm²**	-
Flexible cable	**1 x 0.75 to 35 mm²** **2 x 0.75 to 16 mm²**	**1 x 0.75 mm² to 25 mm²**

Required tools:
. For the terminals:
- 5.5 mm / 6.5 mm blade screwdriver recommended
- Pozidriv n°2 / Philips N°2 screwdriver recommended

. For the latching:
- 5.5 mm blade screwdriver recommended / 6 mm maximum
- Pozidriv n°2 / Philips N°2 screwdriver recommended

Manual actuation of the RCBO:
. Ergonomic 2-position handle
- "O-OFF" : device open
- "I-ON" : device closed

Contact status display:
. By marking of the handle
- "O-OFF" in white on a green background = contacts open
- "I-ON" in white on a red background = contacts closed

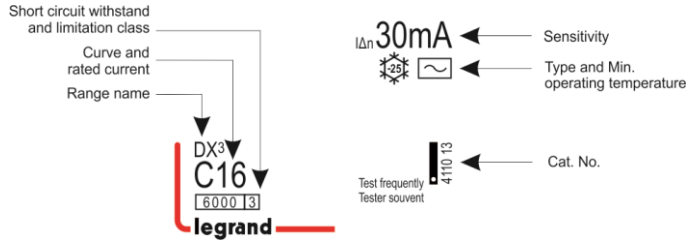
Locking:
. Padlocks possible in the open and closed positions with padlock support (Cat. No. 4 063 03) and Ø 5 mm padlock (Cat. No. 4 063 13) or Ø 6 mm padlock (Cat. No. 0 227 97)
. Sealing possible in the open and closed positions

Labelling:
. Circuit identification by way of a label inserted in the label holder situated on the front of the product.

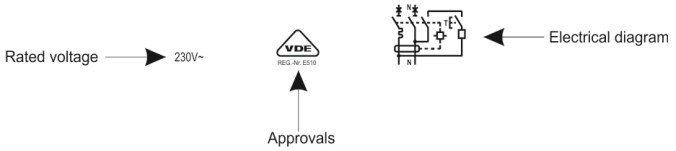
5. GENERAL CHARACTERISTICS

Neutral earthing system:
. IT,TT, TN

Marking on the front side:
. By permanent ink pad printing



Marking upper side:
. By permanent ink pad printing



. The terminals upstream and downstream of the neutral pole are marked with an "N" moulded close to the screw heads.

Maximum operating voltage:
. U = 250 V

Test operating voltages (test circuit):

IΔn	10mA	30 mA	300 mA
min. U	**110V ~**	**180 V~**	**170 V~**
max. U	**264 V~**	**264 V~**	**264 V~**

Breaking capacity:
. With a single-phase network (with alternating current 50 Hz)

Standard	Breaking capacity	Voltage between poles	Breaking capacity	
EN/IEC 61009-1	Ics	127 V	**10 kA**	Only for Sensitivities 10mA
	Icn		**10 kA**	
	Ics	230 V	**6 kA**	
	Icn		**6 kA**	
EN/IEC 60947-2	Icu	230 V	**6 kA**	
	Ics		**6 kA**	

Breaking capacity on one single pole (phase pole):
. In accordance with I IT IEC 60947-2 – Appendix H (double fault in IT system): 1.5 kA at 400 V~ and 3 kA at 230 V~
. In accordance with Icn1 EN60898-1: 4.5 kA at 230 V~ and 10 kA at 127V~ (only for 10mA sensitivity)

5. GENERAL CHARACTERISTICS *(continued)*

Residual breaking capacity:
. In accordance with standard EN/IEC 61009-1 section 9.12.11.4d (IΔm: short-circuit to earth) IΔm = 4.5 kA

Isolation distance:
. The distance between the contacts is greater than 5.5 mm with the handle in the open position.
. The RCBO is suitable for isolation in accordance with standard EN/IEC 61009-1.

Insulation voltage:
. Ui = 250 V in accordance with standard EN/IEC 61009-1

Degree of pollution:
. 2 in accordance with standard EN/IEC 61009-1.

Dielectric strength:
. 2,000 V

Rated impulse withstand voltage
. Uimp = 4 KV (wave 1.2/50 µs)

Protection from false tripping:
. 8/20 µs wave resistance:
250 A for AC type
3000 A for Hpi type
. 0.5 µs/100 kHz damped recurring wave resistance:
200 A for AC type and Hpi type

Degree or class of protection:
. Terminals protected against direct contact, class of protection against solid objects and liquids (wired device): IP20 in accordance with standards IEC 529 / EN 60529 and NF 20-010
. Front side protected against direct contact: IP40
. Class II in relation to metallic conductive parts
. Class of protection against mechanical impacts IK02 in accordance with standard EN 62262.

Plastic materials:
. Polyamide and P.B.T.

Enclosure heat and fire resistance:
. Resistance to glow wire tests at 960°C, in accordance with standard EN/IEC 61009-1
. Classification V2, in accordance with standard UL94

Higher heating potential:
. The heat potential is assessed at: 2.1MJ

Closing and opening force via the handle:
. 4 N on opening
. 10 N on closing

Mechanical endurance:
. Compliant with standard EN/IEC 61009-1
. Tested with 20,000 operations with no load

Electrical endurance:
. Compliant with standard EN/IEC 61009-1
. Tested with 10,000 operations with load (at In x Cos φ 0.9)
. Tested with 2,000 residual current trip operations using the Test button or the fault current.

5. GENERAL CHARACTERISTICS *(continued)*

Sinusoidal vibration resistance (in accordance with IEC 68.2.6):

. Axes: x – y – z
. Frequency: 10 to 55 Hz
. Acceleration: 3g (1g = 9.81 $m.s^{-2}$)

Resistance to tremors:

. In accordance with standard NF EN 61009-1

Ambient temperature:

. Operation:
. For the AC type from - 25°C to + 70°C
. For the Hpi type from - 25°C to + 60°C
.Storage: from - 40°C to +70°C

DC operation:

. No

Frequency:

. Operation at 400Hz: No
. Operation at 60Hz: Yes, except "A" types with sensitivity 30mA, which can be replaced by HPI types of equivalent ratings and sensitivity.

Packaged volume and quantity:

	Volume (dm^3)	Packaging
For all ratings	**0.4**	**Per 1**

Derating of RCBOs function of the number of devices placed side by side:

When several RCBOs are installed side by side and operate simultaneously, the heat dissipation of one pole is limited. This results in an increased operating temperature for RCBOs which may cause false tripping. Applying the following coefficients to the operating currents is recommended.

Number of RCBOs side by side	Coefficient
2 - 3	**0.9**
4 – 5	**0.8**
6 - 9	**0.7**
≥ 10	**0.6**

These values are provided by recommendation IEC 60439-1 and the standards NF C 63421 and EN 60439-1.
In order to avoid having to use these coefficients there must be good ventilation and the devices must be kept apart using the spacing elements Cat. No. 4 063 07 (0.5 module).

Derating of RCBOs in the event of use with fluorescent tubes:

Electronic or ferromagnetic ballasts provide a high inrush current for a very short time. These currents are liable to cause tripping of the RCBOs.
The maximum number of ballasts per RCBO stated by the lamp and ballast manufacturers in their catalogues should be taken into account during installation.

5. GENERAL CHARACTERISTICS *(continued)*

Impact of height:

	≤ 2000 m	3,000 m	4,000 m	5,000 m
Dielectric strength	**2,000 V**	**1,750 V**	**1,500 V**	**1,250 V**
Maximum operating voltage	**230 V**	**230 V**	**230 V**	**230 V**
Derating at 30°C	**none**	**none**	**none**	**none**

Product weight:

Catalogue Number	Description	Weight (kg)
4 109 07	B16 AC type 10mA	**0,18**
4 109 18	B6 AC type 30mA	**0,18**
4 109 19	B10 AC type 30mA	**0,18**
4 109 20	B13 AC type 30mA	**0,17**
4 109 21	B16 AC type 30mA	**0,17**
4 109 22	B20 AC type 30mA	**0,17**
4 109 23	B25 AC type 30mA	**0,17**
4 109 24	B32 AC type 30mA	**0,17**
4 109 25	B40 AC type 30mA	**0,19**
4 109 47	B16 A type 10mA	**0,18**
4 109 62	B6 A type 30mA	**0,18**
4 109 63	B10 A type 30mA	**0,18**
4 109 64	B13 A type 30mA	**0,17**
4 109 65	B16 A type 30mA	**0,17**
4 109 66	B20 A type 30mA	**0,17**
4 109 67	B25 A type 30mA	**0,17**
4 109 68	B32 A type 30mA	**0,17**
4 109 69	B40 A type 30mA	**0,19**
4 109 95	C16 AC type 10mA	**0,18**
4 110 07	C2 AC type 30mA	**0,18**
4 110 08	C3 AC type 30mA	**0,18**
4 110 09	C4 AC type 30mA	**0,18**
4 110 10	C6 AC type 30mA	**0,18**
4 110 11	C10 AC type 30mA	**0,17**
4 110 12	C13 AC type 30mA	**0,17**
4 110 13	C16 AC type 30mA	**0,17**
4 110 14	C20 AC type 30mA	**0,17**
4 110 15	C25 AC type 30mA	**0,17**
4 110 16	C32 AC type 30mA	**0,17**
4 114 17	C40 AC type 30mA	**0,19**
4 110 33	C10 AC type 300mA	**0,16**
4 110 35	C16 AC type 300mA	**0,17**
4 110 43	C16 A type 10mA	**0,18**
4 110 58	C6 A type 30mA	**0,18**

5. GENERAL CHARACTERISTICS *(continued)*

Product weight *(continued)*:

Catalogue Number	Description	Weight (kg)
4 110 59	C10 A type 30mA	**0,18**
4 110 60	C13 A type 30mA	**0,17**
4 110 61	C16 A type 30mA	**0,17**
4 110 62	C20 A type 30mA	**0,17**
4 110 63	C25 A type 30mA	**0,17**
4 110 64	C32 A type 30mA	**0,17**
4 110 65	C40 A type 30mA	**0,18**
4 110 81	C10 A type 300mA	**0,16**
4 110 83	C16 A type 300mA	**0,17**
4 110 84	C20 A type 300mA	**0,17**
4 111 02	C6 HPI type 30mA	**0,18**
4 111 03	C10 HPI type 30mA	**0,18**
4 111 04	C13 HPI type 30mA	**0,18**
4 111 05	C16 HPI type 30mA	**0,18**
4 111 06	C20 HPI type 30mA	**0,18**
4 111 07	C25 HPI type 30mA	**0,18**
4 111 08	C32 HPI type 30mA	**0,18**
4 111 09	C40 HPI type 30mA	**0,18**

Dissipated power (W):

. C curve RCBOs in In/Un

RATED CURRENT	**6 A**	**10 A**	**13 A**	**16 A**	**20 A**	**25 A**	**32 A**	**40 A**
Power (W) Phase pole	**2.5**	**2.1**	**2.9**	**3.3**	**4.3**	**4.3**	**5.3**	**7**
Power (W) Neutral pole	**0.3**	**0.8**	**1.3**	**1.9**	**2.6**	**3.8**	**3.4**	**5.4**

Derating of RCBOs depending on the ambient temperature:

. The nominal characteristics of a circuit breaker are modified depending on the ambient temperature which prevails in the cabinet or enclosure where the RCBO is located.

. Reference temperature: 30°C in accordance with standard EN/IEC 61009-1.

In (A)	- 25 °C	- 10 °C	0 °C	10 °C	20 °C	30 °C	40 °C	50 °C	60 °C	70 °C
6	**7.5**	**7.2**	**6.9**	**6.6**	**6.3**	**6**	**5.7**	**5.4**	**5.1**	**4.8**
10	**12.5**	**12**	**11.5**	**11**	**10.5**	**10**	**9.5**	**9**	**8.5**	**8**
13	**16.25**	**15.6**	**14.95**	**14.3**	**13.65**	**13**	**12.35**	**11.7**	**11.05**	**10.4**
16	**20**	**19.2**	**18.4**	**17.6**	**16.8**	**16**	**15.2**	**14.4**	**13.6**	**12.8**
20	**25**	**24**	**23**	**22**	**21**	**20**	**19**	**18**	**17**	**16**
25	**31**	**30**	**28.7**	**27.5**	**26.2**	**25**	**23.7**	**22.5**	**21.2**	**20**
32	**40**	**38**	**36.8**	**35.2**	**33.6**	**32**	**30.4**	**28.8**	**27.2**	**25.6**
40	**50**	**48**	**46**	**44**	**42**	**40**	**38**	**36**	**34**	**32**

Specific use: Appropriate to operate in humid atmosphere and polluted by a chlorined environment (pool-type)

5. GENERAL CHARACTERISTICS *(continued)*

Association and coordination of an RCBO with a protective device located upstream

This association allows a device's breaking capacity to be increased by combining it with another protective device placed upstream.
This combination makes it possible to use a downstream device with a breaking capacity which is lower than the maximum prospective short-circuit current at its installation point.

Association and coordination with upstream fuses:

. Three-phase network (+N) 230/400 V or 240/415 V in accordance with standard IEC 60947-2
. TT neutral earthing or TNS system

		Upstream fuse									
		gG and aM types									
Downstream RCBO Ph+N		≤20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A	160 A
DX³ 6000 A B & C curve	≤ 6 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	10 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	13 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	16 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	20 A	-	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	25 A	-	-	**50 kA**	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**16 kA**
	32 A	-	-	-	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**16 kA**
	40 A	-	-	-	-	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**16 kA**

Association and coordination with upstream MCBs:

. Three-phase network (+N) 240/415 V in accordance with standard IEC 60947-2
. TT neutral earthing or TNS system

		Upstream MCB							
		DX³ 10000 / 16kA C and D curves							
Downstream RCBO Ph+N		≤ 25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX³ 6000 A B & C curve	≤ 6 A	**32 kA**	**32 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	10 A	**32 kA**	**32 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	13 A	**32 kA**	**32 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	16 A	**32 kA**	**32 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	20 A	**32 kA**	**32 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	25 A	-	**32 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	32 A	-	-	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	40 A	-	-	-	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**

5. GENERAL CHARACTERISTICS *(continued)*

Association and coordination with upstream MCBs:

. Three-phase network (+N) 240/415 V in accordance with standard IEC 60947-2
. TT neutral earthing or TNS system

		Upstream MCB							
		DX³ 25 kA C and D curves							
Downstream RCBO Ph+N		≤ 25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX³ 6000 A B & C curve	≤ 6 A	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	10 A	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	13 A	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	16 A	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	20 A	**50 kA**	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	25 A	-	**50 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	32 A	-	-	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	40 A	-	-	-	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**

		Upstream MCB					
		DX³ 36 kA C curve					
Downstream RCBO Ph+N		≤ 25 A	32 A	40 A	50 A	63 A	80 A
DX³ 6000 A B & C curve	≤ 6 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**
	10 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**
	13 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**
	16 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**
	20 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**
	25 A	-	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**
	32 A	-	-	**50 kA**	**50 kA**	**50 kA**	**50 kA**
	40 A	-	-	-	**50 kA**	**50 kA**	**50 kA**

5. GENERAL CHARACTERISTICS *(continued)*

Association and coordination with upstream MCBs:

. Three-phase network (+N) 240/415 V in accordance with standard IEC 60947-2
. TT neutral earthing or TNS system

		Upstream MCB									
		DX³ 50 kA C curves					DX³ 50 kA D curve				
Downstream RCBO Ph+N		≤ 25 A	32 A	40 A	50 A	63 A	≤ 25 A	32 A	40 A	50 A	63 A
DX³ 6000 A B & C curve	≤ 6 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**
	10 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**
	13 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**
	16 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**
	20 A	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**	**50 kA**
	25 A	-	**50 kA**	**50 kA**	**50 kA**	**50 kA**	-	**50 kA**	**50 kA**	**50 kA**	**50 kA**
	32 A	-	-	**50 kA**	**50 kA**	**50 kA**	-	-	-	-	**50 kA**
	40 A	-	-	-	**50 kA**	**50 kA**	-	-	-	-	-

Association and coordination with upstream Moulded Case Circuit Breakers (MCCBs):

. Three-phase network (+N) 240/415 V in accordance with standard IEC 60947-2
. TT neutral earthing or TNS system

		Upstream MCCB							
		DPX³ 160 16 kA							
Downstream RCBO Ph+N		16 A	25 A	40 A	63 A	80 A	100 A	125 A	160 A
DX³ 6000 A B & C curve	≤ 6 A	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**
	10 A	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**
	13 A	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**
	16 A	-	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**
	20 A	-	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**
	25 A	-	-	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**	**22 kA**
	32 A	-	-	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**
	40 A	-	-	-	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**

5. CARACTERISTIQUES GENERALES *(suite)*

Association and coordination with upstream Moulded Case Circuit Breakers (MCCBs):

. Three-phase network (+N) 240/415 V in accordance with standard IEC 60947-2
. TT neutral earthing or TNS system

		Upstream MCCB							
		DPX³ 160 25 kA / 36 kA & 50 kA							
Downstream RCBO Ph+N		16 A	25 A	40 A	63 A	80 A	100 A	125 A	160 A
DX³ 6000 A B & C curve	≤ 6 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	10 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	13 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	16 A	-	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	20 A	-	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	25 A	-	-	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	32 A	-	-	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**
	40 A	-	-	-	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**

		Upstream MCCB		
		DPX 250 ER ≤ 50 kA		
Downstream RCBO Ph+N		100 A	160 A	250 A
DX³ 6000 A B & C curve	≤ 6 A	**30 kA**	**30 kA**	**30 kA**
	10 A	**30 kA**	**30 kA**	**30 kA**
	13 A	**25 kA**	**25 kA**	**25 kA**
	16 A	**25 kA**	**25 kA**	**25 kA**
	20 A	**25 kA**	**25 kA**	**25 kA**
	25 A	**20 kA**	**20 kA**	**20 kA**
	32 A	**10 kA**	**10 kA**	**10 kA**
	40 A	**10 kA**	**10 kA**	**10 kA**

5. CARACTERISTIQUES GENERALES *(suite)*

Association and coordination with upstream Moulded Case Circuit Breakers (MCCBs):

. Three-phase network (+N) 240/415 V in accordance with standard IEC 60947-2
. TT neutral earthing or TNS system

		Upstream MCCB							
		DPX³ 250 ≤ 70 kA thermal-magnetic				DPX³ 250 ≤ 70 kA electronic			
Downstream RCBO Ph+N		100 A	160 A	200 A	250 A	40 A	100 A	160 A	250 A
DX³ 6000 A B & C curve	≤ 6 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	10 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	13 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	16 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	20 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	25 A	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	32 A	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**
	40 A	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**-**	**16 kA**	**16 kA**	**16 kA**

		Upstream MCCB									
		DPX 250 36 kA / DPX -H 250 70 kA / DPX -L 250 100 kA thermal-magnetic						DPX 250 36 kA / DPX -H 250 70 kA / DPX -L 250 100 kA electronic			
Downstream RCBO Ph+N		25 A	40 A	63 A	100 A	160 A	250 A	40 A	100 A	160 A	250 A
DX³ 6000 A B & C curve	≤ 6 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	10 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	13 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	16 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	20 A	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**	**30 kA**
	25 A	**-**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	32 A	**-**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**16 kA**
	40 A	**-**	**-**	**16 kA**	**16 kA**	**16 kA**	**16 kA**	**-**	**16 kA**	**16 kA**	**16 kA**

5. CARACTERISTIQUES GENERALES *(suite)*

Association and coordination with upstream Moulded Case Circuit Breakers (MCCBs):

. Three-phase network (+N) 240/415 V in accordance with standard IEC 60947-2
. TT neutral earthing or TNS system

		Upstream MCCB								
		DPX 630 36 kA / DPX -H 630 70 kA / DPX -L 630 100 kA thermal-magnetic					DPX 630 36 kA / DPX -H 630 70 kA / DPX -L 630 100 kA electronic			
Downstream RCBO Ph+N		250 A	320 A	400 A	500 A	630 A	160 A	250 A	400 A	630 A
DX³ 6000 A B & C curve	≤ 6 A	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	10 A	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	13 A	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	16 A	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	20 A	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**	**25 kA**
	25 A	**20 kA**	**20 kA**	**20 kA**	**20 kA**	**20 kA**	**20 kA**	**20 kA**	**20 kA**	**20 kA**
	32 A	**10 kA**	**10 kA**	**10 kA**	**10 kA**	**10 kA**	**10 kA**	**10 kA**	**10 kA**	**10 kA**
	40 A	**10 kA**	**10 kA**	**10 kA**	**10 kA**	**10 kA**	**10 kA**	**10 kA**	**10 kA**	**10 kA**

		Upstream MCCB	
		DPX 1250 50 kA / DPX –H 1250 70 kA / DPX -L 1250 100 kA	DPX 1600 36 kA / DPX -H 1600 70 kA electronic
Downstream RCBO Ph+N		500 A à 1250 A	630 A à 1600 A
DX³ 6000 A B & C curve	≤ 6 A	**25 kA**	**25 kA**
	10 A	**25 kA**	**25 kA**
	13 A	**25 kA**	**25 kA**
	16 A	**25 kA**	**25 kA**
	20 A	**25 kA**	**25 kA**
	25 A	**20 kA**	**20 kA**
	32 A	**10 kA**	**10 kA**
	40 A	**10 kA**	**10 kA**

Selectivity between two levels of protection

. The downstream RCBO must always have a magnetic threshold and a rated current lower than those of the upstream protection.
. Selectivity or Discrimination is said to be total (T) if there is discrimination up to the value of breaking capacity (in accordance standard with IEC 60947-2) of the downstream RCBO.

5. CARACTERISTIQUES GENERALES *(suite)*

Discrimination with upstream fuses:

. Discrimination limit with a voltage of 240 V ~ (Values in A)

		Upstream fuse cartridge							
		gG cartridge							
Downstream RCBO Ph+N		32 A	40 A	50 A	63 A	80 A	100 A	125 A	160 A
DX³ 6000 A B & C curve	≤ 6 A	**1300**	**1900**	**2500**	**4000**	**4600**	**T**	**T**	**T**
	10 A	**-**	**1600**	**2200**	**3200**	**3600**	**7000**	**T**	**T**
	13 A	**-**	**1400**	**1800**	**2600**	**3000**	**5600**	**8000**	**T**
	16 A	**-**	**1400**	**1800**	**2600**	**3000**	**5600**	**8000**	**T**
	20 A	**-**	**1200**	**1500**	**2200**	**2500**	**4600**	**6300**	**10000**
	25 A	**-**	**-**	**1300**	**2000**	**2200**	**4100**	**5500**	**9000**
	32 A	**-**	**-**	**1200**	**1700**	**1900**	**3500**	**4500**	**8000**
	40 A	**-**	**-**	**-**	**-**	**1700**	**3000**	**4000**	**6000**

		Upstream fuse cartridge								
		aM cartridge								
Downstream RCBO Ph+N		25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A	160 A
DX³ 6000 A B & C curve	≤ 6 A	**1000**	**1600**	**2100**	**3200**	**6200**	**T**	**T**	**T**	**T**
	10 A	**-**	**1100**	**1700**	**2500**	**5000**	**7800**	**T**	**T**	**T**
	13 A	**-**	**1000**	**1400**	**2100**	**4000**	**6000**	**9000**	**T**	**T**
	16 A	**-**	**1000**	**1400**	**2100**	**4000**	**6000**	**9000**	**T**	**T**
	20 A	**-**	**-**	**1300**	**1800**	**3400**	**5100**	**7000**	**T**	**T**
	25 A	**-**	**-**	**1100**	**1600**	**3000**	**4500**	**6000**	**9300**	**T**
	32 A	**-**	**-**	**-**	**1300**	**2400**	**3800**	**5000**	**7700**	**9000**
	40 A	**-**	**-**	**-**	**-**	**2100**	**3100**	**4200**	**6400**	**7000**

. T = Total discrimination

5. GENERAL CHARACTERISTICS *(continued)*

Discrimination with upstream modular MCBs:
Discrimination limit with a voltage of 240 V ~ (Values in A)

		Upstream MCB											
		DX³ 10000 A C curve											
Downstream RCBO Ph+N		10 A	13 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX³ 6000 A B & C curve	≤ 6 A	**75**	**98**	**120**	**150**	**187**	**240**	**300**	**375**	**472**	**4000***	**T***	**T***
	10 A	**-**	**98**	**120**	**150**	**187**	**240**	**300**	**375**	**472**	**3000**	**5000***	**T***
	13 A	**-**	**-**	**120**	**150**	**187**	**240**	**300**	**375**	**472**	**2500**	**4000***	**6000***
	16 A	**-**	**-**	**-**	**150**	**187**	**240**	**300**	**375**	**472**	**2000**	**3600***	**5500***
	20 A	**-**	**-**	**-**	**-**	**187**	**240**	**300**	**375**	**472**	**1600**	**3000**	**4000***
	25 A	**-**	**-**	**-**	**-**	**-**	**240**	**300**	**375**	**472**	**1300**	**2400**	**3300***
	32 A	**-**	**-**	**-**	**-**	**-**	**-**	**300**	**375**	**472**	**1000**	**1800**	**2700**
	40 A	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**375**	**472**	**800**	**1600**	**2400**

		Upstream MCB											
		DX³ 10000 A D curve											
Downstream RCBO Ph+N		10 A	13 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX³ 6000 A B & C curve	≤ 6 A	**120**	**156**	**192**	**240**	**300**	**384**	**480**	**600**	**756**	**4000**	**T**	**T**
	10 A	**-**	**-**	**192**	**240**	**300**	**384**	**480**	**600**	**756**	**3000**	**5000**	**T**
	13 A	**-**	**-**	**192**	**240**	**300**	**384**	**480**	**600**	**756**	**2500**	**4000**	**6000**
	16 A	**-**	**-**	**-**	**240**	**300**	**384**	**480**	**600**	**756**	**2000**	**3600**	**5500**
	20 A	**-**	**-**	**-**	**-**	**300**	**384**	**480**	**600**	**756**	**1600**	**3000**	**4000**
	25 A	**-**	**-**	**-**	**-**	**-**	**384**	**480**	**600**	**756**	**1300**	**2400**	**3300**
	32 A	**-**	**-**	**-**	**-**	**-**	**-**	**480**	**600**	**756**	**1100**	**1450**	**2700**
	40 A	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**600**	**756**	**1000**	**1250**	**2400**

. T = Total discrimination

. *: If the discrimination value stated in the table is greater than the breaking capacity of the upstream RCBO then the breaking capacity of the upstream device must be taken as the discrimination value (the discrimination value may not exceed the breaking capacity of the upstream device).

5. GENERAL CHARACTERISTICS *(continued)*

Discrimination with upstream modular MCBs:

. Discrimination limit with a voltage of 240 V ~ (Values in A)

		Upstream MCB										
		DX³ 25 kA C curve										
Downstream RCBO Ph+N		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX³ 6000 A B & C curve	≤ 6 A	**75**	**120**	**150**	**187**	**700**	**1200**	**1500**	**3000**	**4000**	**T**	**T**
	10 A	**-**	**120**	**150**	**187**	**500**	**700**	**1000**	**1800**	**3000**	**5000**	**T**
	13 A	**-**	**120**	**150**	**187**	**400**	**600**	**1200**	**1500**	**2500**	**4000**	**6000**
	16 A	**-**	**-**	**150**	**187**	**300**	**500**	**700**	**1300**	**2000**	**3600**	**5500**
	20 A	**-**	**-**	**-**	**187**	**300**	**400**	**500**	**1000**	**1600**	**3000**	**4000**
	25 A	**-**	**-**	**-**	**-**	**240**	**400**	**500**	**800**	**1300**	**2400**	**3300**
	32 A	**-**	**-**	**-**	**-**	**-**	**300**	**500**	**600**	**1000**	**1800**	**2700**
	40 A	**-**	**-**	**-**	**-**	**-**	**-**	**400**	**600**	**800**	**1600**	**2400**

		Upstream MCB										
		DX³ 25 kA D curve										
Downstream RCBO Ph+N		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX³ 6000 A B & C curve	≤ 6 A	**120**	**192**	**240**	**500**	**700**	**1200**	**1500**	**3000**	**4000**	**T**	**T**
	10 A	**-**	**192**	**240**	**300**	**500**	**700**	**1000**	**1800**	**3000**	**5000**	**T**
	13 A	**-**	**192**	**240**	**300**	**400**	**600**	**1200**	**1500**	**2500**	**4000**	**6000**
	16 A	**-**	**-**	**240**	**300**	**384**	**500**	**700**	**1300**	**2000**	**3600**	**5500**
	20 A	**-**	**-**	**-**	**300**	**384**	**480**	**600**	**1000**	**1600**	**3000**	**4000**
	25 A	**-**	**-**	**-**	**-**	**384**	**480**	**600**	**800**	**1300**	**2400**	**3300**
	32 A	**-**	**-**	**-**	**-**	**-**	**480**	**600**	**756**	**1100**	**1450**	**2700**
	40 A	**-**	**-**	**-**	**-**	**-**	**-**	**600**	**756**	**1000**	**1250**	**2400**

. T = Total discrimination

5. GENERAL CHARACTERISTICS *(continued)*

Discrimination with upstream modular MCBs:

. Discrimination limit with a voltage of 240 V ~ (Values in A)

		Upstream MCB								
		DX³ 50 kA C curve								
Downstream RCBO Ph+N		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A
DX³ 6000 A B & C curve	≤ 6 A	**75**	**120**	**170**	**500**	**700**	**1200**	**1500**	**3000**	**4000**
	10 A	**-**	**120**	**150**	**210**	**500**	**700**	**1000**	**1800**	**3000**
	13 A	**-**	**120**	**150**	**200**	**400**	**600**	**1200**	**1500**	**2500**
	16 A	**-**	**-**	**150**	**187**	**300**	**500**	**700**	**1300**	**2000**
	20 A	**-**	**-**	**-**	**187**	**300**	**400**	**500**	**1000**	**1600**
	25 A	**-**	**-**	**-**	**-**	**240**	**400**	**500**	**800**	**1300**
	32 A	**-**	**-**	**-**	**-**	**-**	**300**	**500**	**600**	**1000**
	40 A	**-**	**-**	**-**	**-**	**-**	**-**	**400**	**600**	**800**

		Upstream MCB							
		DX³ 50 kA D curve							
Downstream RCBO Ph+N		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A
DX³ 6000 A C curve	≤ 6 A	**120**	**192**	**240**	**500**	**700**	**1200**	**1500**	**3000**
	10 A	**-**	**192**	**240**	**300**	**500**	**700**	**1000**	**1800**
	13 A	**-**	**192**	**240**	**300**	**400**	**600**	**1200**	**1500**
	16 A	**-**	**-**	**240**	**300**	**384**	**500**	**700**	**1300**
	20 A	**-**	**-**	**-**	**300**	**384**	**480**	**600**	**1000**
	25 A	**-**	**-**	**-**	**-**	**384**	**480**	**600**	**800**
	32 A	**-**	**-**	**-**	**-**	**-**	**480**	**600**	**756**
	40 A	**-**	**-**	**-**	**-**	**-**	**-**	**600**	**756**

Discrimination with upstream MCCBs:

. Discrimination limit with a voltage of 240 V ~ (Values in A)

Downstream RCBO Ph+N	**Upstream MCCB**	
DX³ 6000 A B & C curve ≤ 40A	DPX and DPX³ all models all ratings	DMX³ all models all ratings
	T	**T**

. T = Total discrimination

6. COMPLIANCE AND APPROVALS

In accordance with standard:

. BIS/IEC 61009-1

Usage in special conditions:

. Category C compliant (testing temperature range from -25°C to +70°C, resistant to salt spray) in accordance with the classification defined in Appendix Q of standard IEC 60947-1

Respect for the environment – Compliance with European Union Directives:

. Compliance with Directive 2002/95/EC of 27/01/03 known as "RoHS" which provides for a restriction on the use of dangerous substances such as lead, mercury, cadmium, hexavalent chromium and polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) brominated flame retardants from 1st July 2006

. Compliance with the Directive 91/338/EEC of 18/06/91 and decree 94-647 of 27/07/04

Plastic materials:

. Halogen free plastic materials.

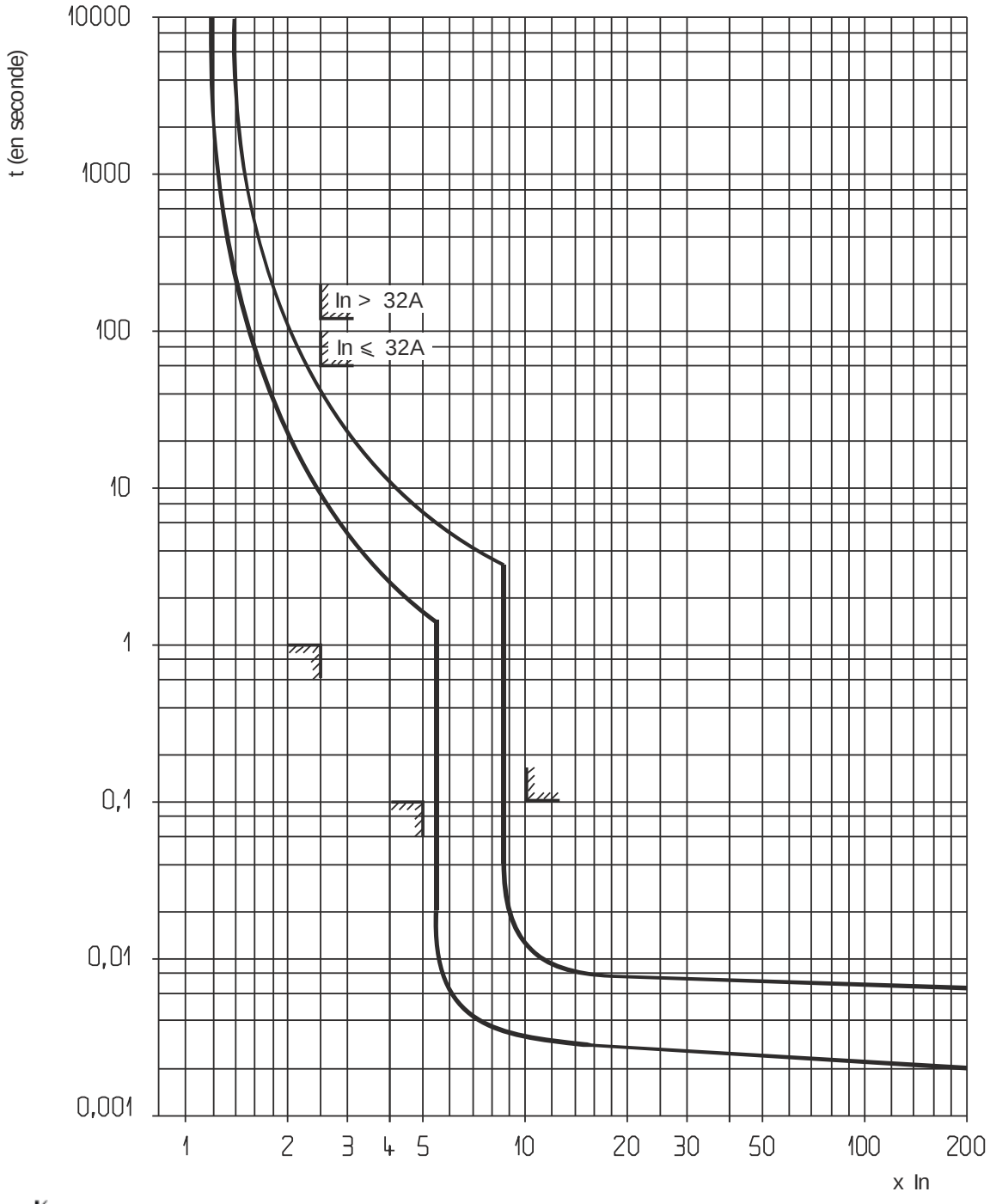
. Labelling of parts compliant with ISO 11469 and ISO 1043.

Packaging:

. Design and manufacture of packaging compliant with decree 98-638 of 20/07/98 and Directive 94/62/EC

7. CURVES

Thermal-magnetic tripping range typical of C curve RCBOs:



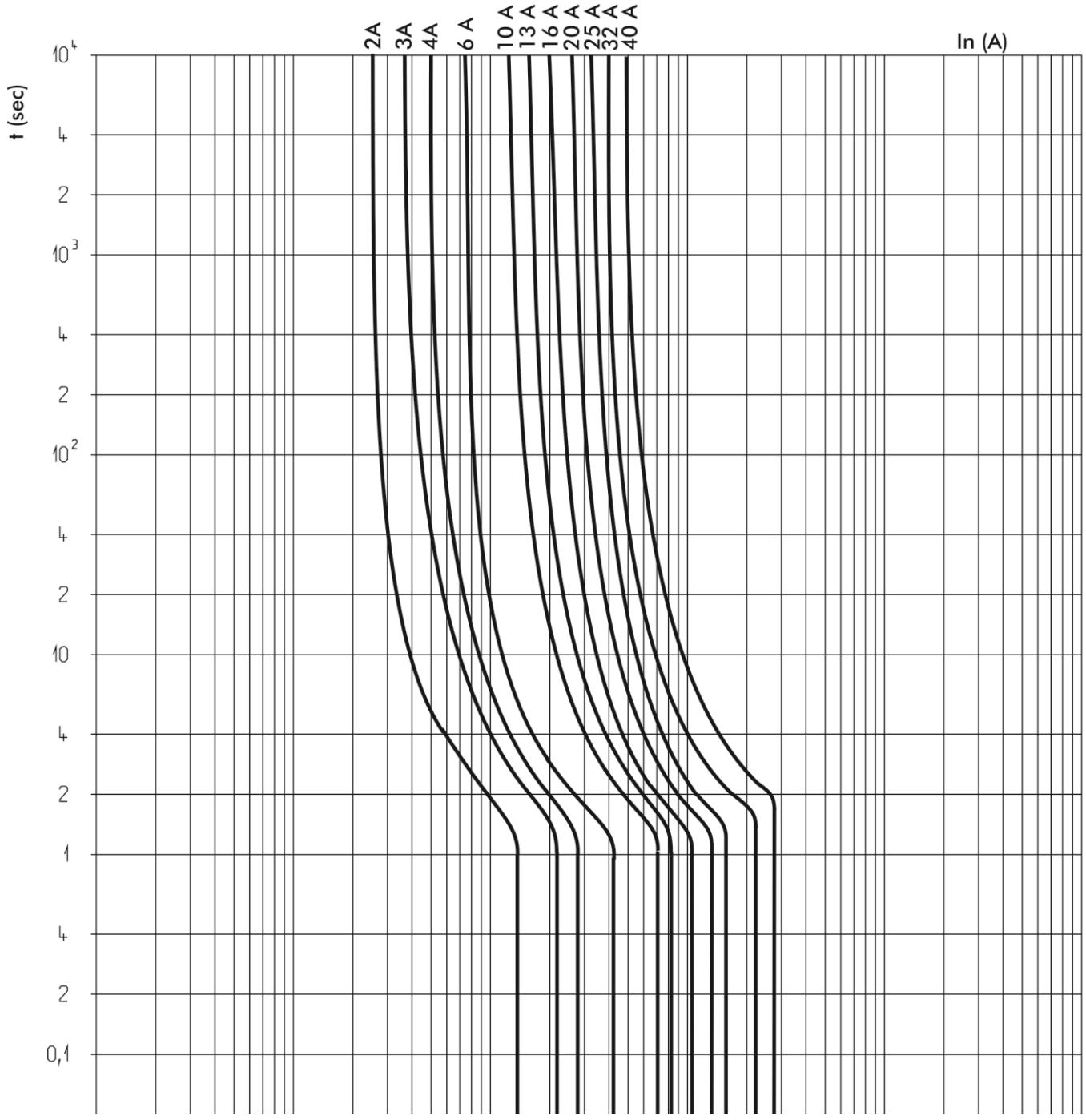
Standard limits

Thermal tripping at ambient temperature = 30°C

In = RCBO rated current

7. CURVES *(continued)*

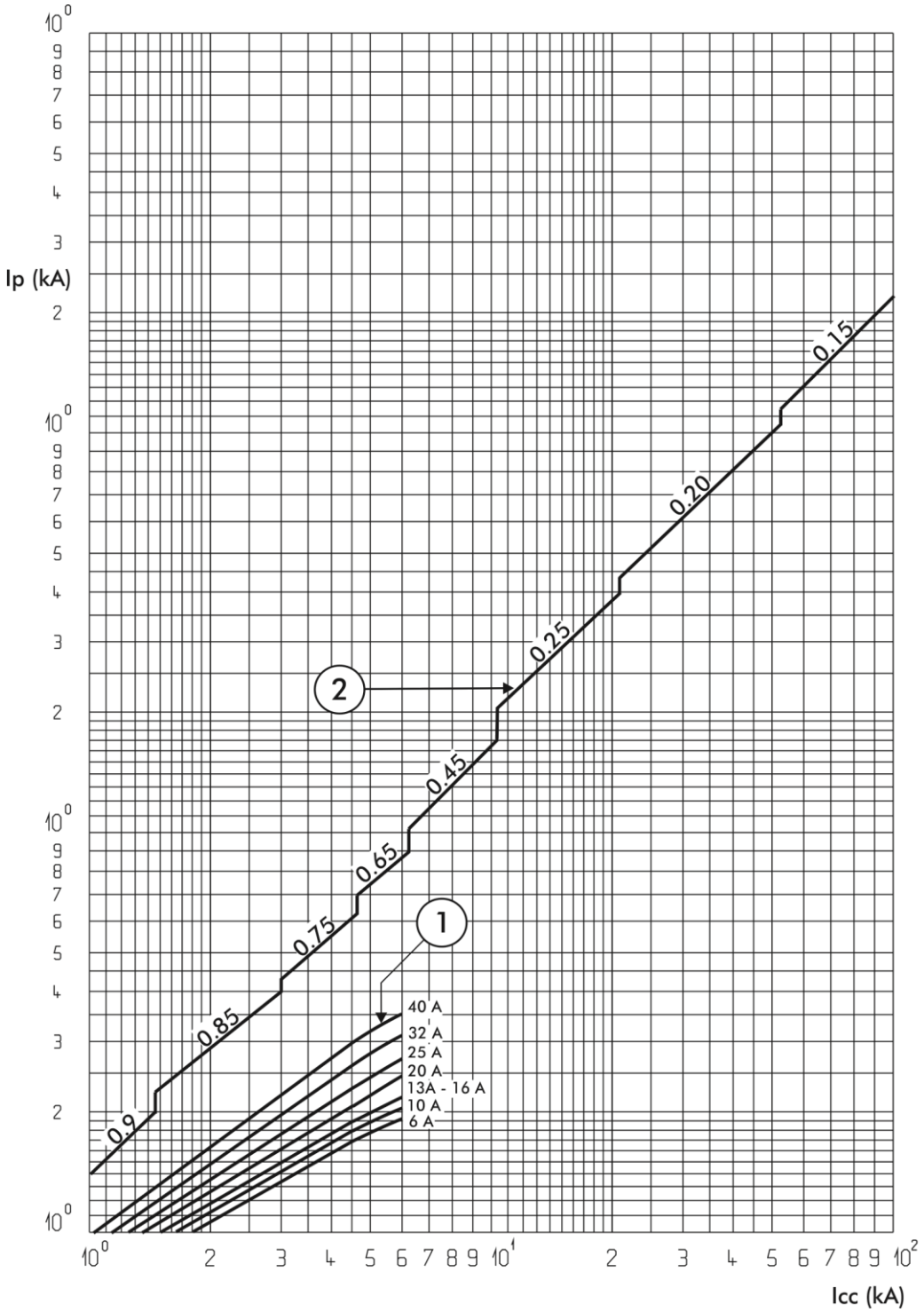
Average thermal-magnetic tripping curves range typical of C curve RCBOs:



7. CURVES *(continued)*

Current limiting curves:

. C curve RCBOs from 6 A to 40 A

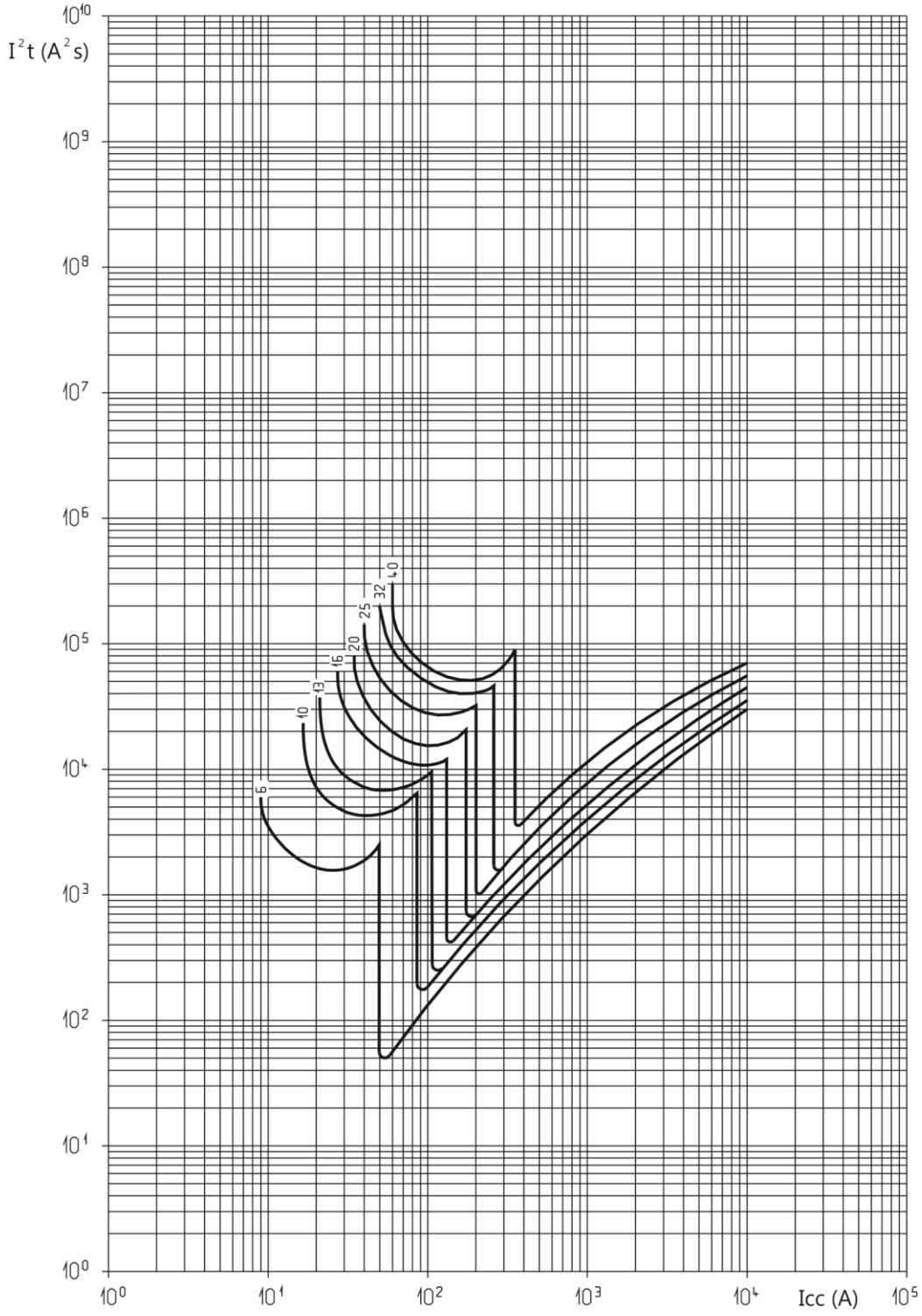


Icc = Prospective short-circuit symmetrical current (rms value in kA)
Ip = Maximum peak value (in kA)
1 = Short-circuit rms currents (max. peak)
2 = Unlimited peak currents (max.), corresponding to power factors shown above (0.15 to 0.9)
NB: For 2A and 3A rating, the limited values are less than 1kA

7. CURVES *(continued)*

Thermal stress limiting curves:

. C curve RCBOs (240V/50Hz)

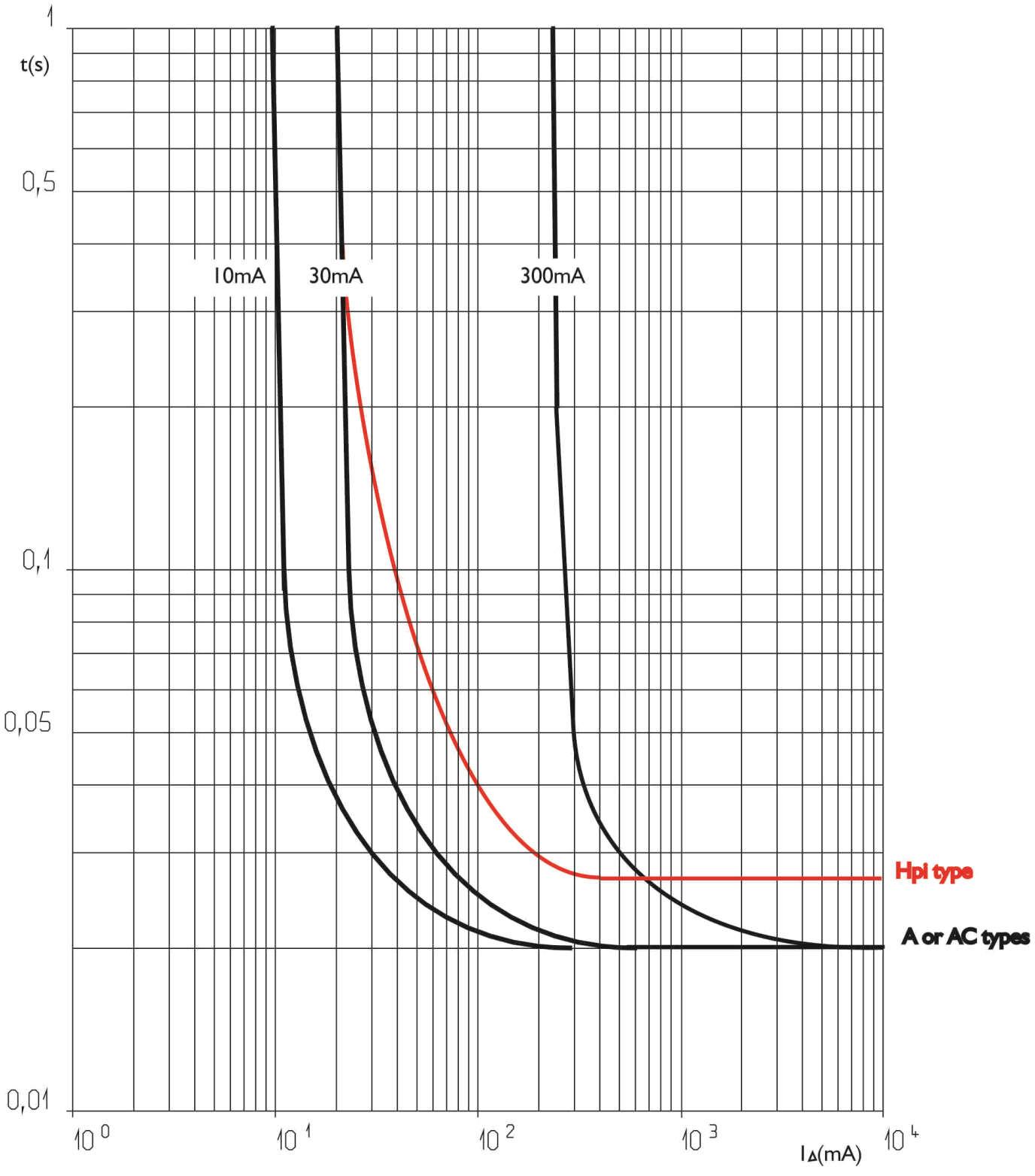


Icc = Prospective short-circuit symmetrical current (rms value in A)
I²t = Limited thermal stress (in A s)²

7. CURVES *(continued)*

Tripping current curves:

. Tripping time curve depending on the value of the fault current:



8. AUXILIARIES AND ACCESSORIES

Wiring accessories:

. Supply busbar: Fork busbar see LEGRAND catalogue
. Sealable screw cover (Cat. No. 4 063 04)

Signalling auxiliaries:

. Auxiliary contact (0.5 module, Cat. No. 4 062 50)
. Fault signalling contact (0.5 module, Cat. No. 4 062 52)
. Auxiliary contact that can be changed into fault signalling contact (0.5 module, Cat. No. 4 062 56)
. Auxiliary contact + fault signalling contact that can be changed into 2 auxiliary contacts (1 module, Cat. No. 4 062 64)

Control auxiliaries:

. Shunt trip (1 module, Cat. No. 4 062 76 / 78) and undervoltage release (Cat. No. 4 062 80 / 82)
. Power Overvoltage Protection (1 module, Cat. No. 4 062 86)

Motor-driven control modules:

. Motor-driven control module (1 module, Cat. No. 4 062 90 / 91)
. Motor-driven control module with integrated automatic reset (2 modules, Cat. Nos. 4 062 93, 4 062 95)

STOP&GO automatic resetting modules:

. STOP&GO automatic resetting module (2 modules, Cat. No. 4 062 88)
. STOP&GO automatic resetting module with auto-test (2 modules, Cat. Nos. 4 062 89)

Possible combinations of auxiliaries and RCBOs:

. The auxiliaries are installed to the left of the RCBOs
. Maximum number of auxiliaries = 3
. Maximum number of 1 module signalling auxiliaries = 2
. Maximum number of control auxiliaries (Cat. Nos. 4 062 76 to 4 062 86) = 1
. The control auxiliary trip (Cat. Nos. 4 062 76 to 4 062 86) must mandatorily be placed to the left of the signalling auxiliaries (Cat. Nos. 4 062 50 to 4 062 64) where the auxiliaries from these 2 families are connected to the same RCBO

Sealing:

. Possible in the open or closed positions

Locking options:

. Via padlock 5 mm in diameter (Cat. No. 4 063 13) or padlock 6 mm in diameter (Cat. No. 0 227 97) and padlock support (Cat. No. 4 063 03)

Installation software:

. XL PRO³

9. SAFETY:

For your safety your electrical installation is equipped with residual current protection which must be tested periodically.
In the absence of any national regulations on the time period required for this, Legrand recommends that this test be carried out every month: press the "T" test button, the device should trip. Please call an electrician immediately if this does not happen as the safety level of your installation has been reduced.
The presence of residual current protection does not remove the need to observe all the precautions associated with using electrical energy.