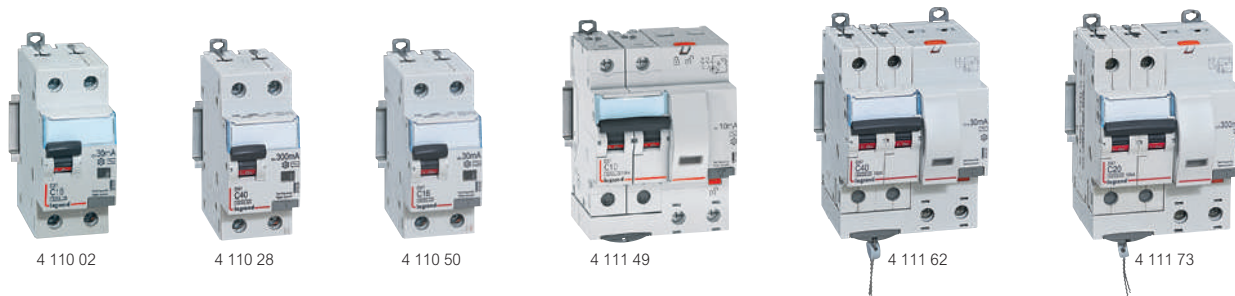


RCBOs DX³ 6000 - 10 kA

residual current circuit breakers from 3 A to 63 A - AC, A and F types



Technical characteristics **see e-catalogue**

Conform to IEC 61009-1, IEC 62423 (F type)
Compatible with prong-type and fork type supply busbars
Voltage independent tripping
Breaking capacity:

6000 - IEC 61009-1 - 10 kA / IEC 60947-2 for single pole + neutral, 2 and 4-pole

- AC type : detect AC component faults
- A type : detect AC and DC component faults
- F type (High immunity) : detect AC and pulsating DC residual currents

Enhanced immunity to unwanted tripping in disturbed environments

Detection of high frequency fault currents

Can be equipped with DX³ signalling and remote tripping auxiliaries and motorised controls (p. 72)

Pack	Cat.Nos	Single pole + neutral - 230 V~	Pack	Cat.Nos	2-pole - 230 V~
		Neutral on right-hand side			Compatible with prong-type supply busbars
		AC Type 10 mA			AC Type 10 mA
		Nominal rating I _n (A)			Nominal rating I _n (A)
1	4 109 93	16	1	4 111 49	10
		Number of modules	1	4 111 50	16
			1	4 111 51	20
		AC Type 30 mA			AC Type 30 mA
1	4 109 97	3	1	4 111 57	10
1	4 109 99	6	1	4 111 58	16
1	4 110 00	10	1	4 111 59	20
1	4 110 02	16	1	4 111 60	25
1	4 110 03	20	1	4 111 61	32
1	4 110 04	25	1	4 111 62	40
1	4 110 05	32	1	4 111 63	50
1	4 110 06	40	1	4 111 64	63
		AC Type 300 mA			AC Type 300 mA
1	4 110 21	6	1	4 111 71	10
1	4 110 22	10	1	4 111 72	16
1	4 110 24	16	1	4 111 73	20
1	4 110 25	20	1	4 111 74	25
1	4 110 26	25	1	4 111 75	32
1	4 110 27	32	1	4 111 76	40
1	4 110 28	40	1	4 111 77	50
			1	4 111 78	63
		A Type 10 mA			
1	4 110 41	16			
		A Type 30 mA			
1	4 110 47	6			
1	4 110 48	10			
1	4 110 50	16			
1	4 110 51	20			
1	4 110 52	25			
1	4 110 53	32			
1	4 110 54	40			
		F type (old Hpi type) 30 mA			
1	4 110 91	6			
1	4 110 92	10			
1	4 110 94	16			
1	4 110 95	20			
1	4 110 96	25			
1	4 110 97	32			
1	4 110 98	40			

See the video



Performance of MCBs and auxiliaries

Breaking capacity in IT neutral earthing system

MCB single pole breaking capacity at 400 V according to IEC 60947-2

DX ³ 6000 10 kA	1P/2P/3P/4P	3 kA
DX ³ 10000 16 kA	1P/2P/3P/4P	4 kA
DX ³ 25 kA	1P/2P/3P/4P	6.25 kA
DX ³ 50 kA	1P/2P/3P/4P	12.5 kA

Breaking capacity in the event of short-circuit to earth and insulation voltage

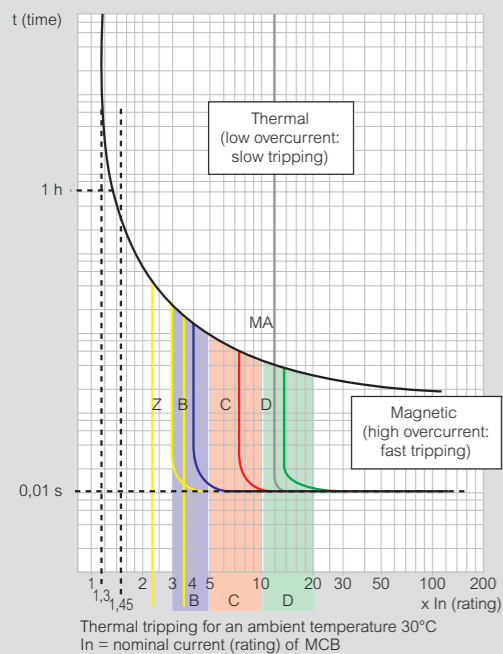
	1P/2P/3P/4P 230/400 V~ MCBs			
	DX ³ 6000 10 kA	DX ³ 10000 16 kA	DX ³ 25 kA	DX ³ 50 kA
I _{cn1}	10000 A	16000 A	25000 A	50000 A
U _i	500 V	500 V	500 V	500 V

I_{cn1}: Breaking capacity on 1 pole for multipole MCBs in the event of short-circuit to earth
U_i: Rated insulation voltage

Terminal connection cross-sections (mm²)

Copper cable	Rigid		Flexible	
	DX ³ 6000 10 kA	DX ³ 10000 16 kA	DX ³ 25 kA	DX ³ 50 kA
DX ³ 6000 10 kA	35	25		
DX ³ 10000 16 kA	70	50		
DX ³ 25 kA			50	35
DX ³ 36 kA, DX ³ 50 kA and add-on modules				
Auxiliaries	2.5	2.5		

MCB tripping curves



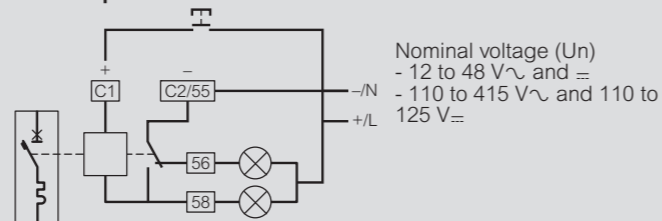
Curves	Magnetic threshold settings
Z ⁽¹⁾	2.4 to 3.6 I _n
B	3 to 5 I _n
C	5 to 10 I _n
D	10 to 14 I _n (10 to 20 acc. to the stds)
MA ⁽¹⁾	12 to 14 I _n

1: On request

Technical characteristics of auxiliaries

Max. connection cross-section: 2.5 mm²
Operating temperature: - 25°C to + 70°C

Shunt trips

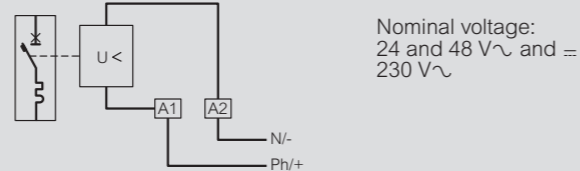


Equipped with a signalling contact which indicates tripping of the shunt trip and automatically breaks the coil.
Min. and max. voltage: 0.7 to 1.1 U_n
Tripping time: less than 20 ms
Power consumption: at 1.1 x 48 V = 121 VA
at 1.1 x 415 V = 127 VA
Impedance: 12 to 48 V = 23 Ω
110 to 415 V = 1640 Ω

Consumption	U _{min.}	U _{max.}
12 to 48 V	522 mA	2610 mA
110 to 415 V	69 mA	259 mA

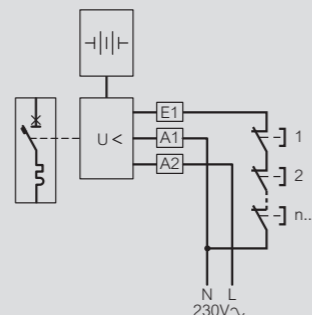
Undervoltage releases

Pull-in voltage ≥ 0.55 U_n
Tripping time: 100 to 400 ms ± 10% (adjustable)
Power consumption: 24 V~ and =: 0.1 VA
48 V~ and =: 0.2 VA
230 V~: 1 VA



Stand-alone releases for N/C push-buttons

Min. and max. operating voltage: 196 to 250 V~
Power consumption: 1.4 VA



Signalling auxiliaries

U_{min.}: 24 V~ and I_{min.}: 5 mA

Compatibility between auxiliaries on 1 module/pole devices

1 module / pole device (auxiliary on the left side)	1st auxiliary	2nd auxiliary	3rd auxiliary
1st auxiliary	4 062 .. 50/52/56/58/60/ 62/66/76/78/80/ 82/84/86/87	-	-
2nd auxiliary	4 062 .. 50/52/56/ 58/60/62	4 062 .. 50/52/56/58/60/62/76/ 78/80/82/84/86/87	-
3rd auxiliary	4 062 .. 50/52/56/ 58/60/62	4 062 .. 50/52/56/58/60/62	4 062 .. 76/78/80/82/ 84/86/87

Compatibility between auxiliaries on 1.5 module/pole devices

1.5 module / pole device (auxiliary on the left side)	1st auxiliary	2nd auxiliary	3rd auxiliary
1st auxiliary	4 062 .. 50/52/56/58/60/ 62/66/76/78/80/ 82/84/86/87	-	-
2nd auxiliary	4 062 .. 50/52/56/ 58/60/62	4 062 .. 50/52/56/58/60/62/	-
3rd auxiliary	4 062 .. 64/66	4 062 .. 64/66	4 062 .. 76/78/80/82/ 84/86/87

Performance of add-on modules

AC type - Standard applications

Detection of 50-60 Hz AC residual currents

A type - Specific applications: dedicated lines

In addition to the characteristics of AC type add-on modules, A type add-on modules also detect residual currents with DC components. They are used whenever the fault currents are not sinusoidal. They are particularly suitable for the following dedicated line applications:

- On circuits where class 1 equipment may produce fault currents with DC components, such as variable speed drives with frequency inverter, etc.

Performance of add-on modules (continued)

F type (old Hpi type) M - Special applications

Type F RCCBs are devices which offer additional immunity to unwanted tripping which significantly exceeds the level required by the standard
They are also able to detect AC and DC residual currents (A type)
Detection of high frequency fault currents
Operation between - 25 °C and + 40 °C
They are used in special applications where:
• Loss of information is potentially damaging, e.g. power supply lines for computer equipment (banks, equipment on military bases, flight reservation centres, etc.)
• Loss of operation is potentially damaging (automated machinery, medical equipment, freezer cable, etc.)
They are also used:
• On sites where there is an increased risk of lightning strikes
• On sites where cables are subject to high levels of interference (use of fluorescents, etc.)
• On sites where very long cables are used

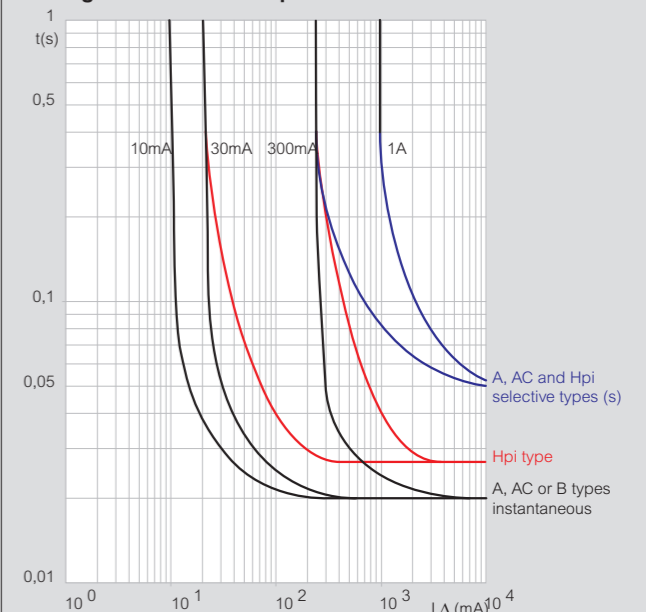
Special case of continuity of service

In certain locations where no staff are present and in which continuity of service is particularly important, false tripping of MCBs is not permitted (isolated telephone/TV or radio substations, pumping stations, etc.)
Combining an Hpi RCBO with a motorised control and a STOP & GO recloser provides optimum continuity of service

B type

In addition to the characteristics of A type RCDs, B type RCDs also detect smooth DC residual currents
They are used whenever fault currents are not sinusoidal
They are particularly suitable for the following specific applications :
speed drives and inverters for supplying motors for pumps, lifts, textile machines, machine tools, photovoltaic installations, call centres, medical equipment, etc.

Average residual current performance curves



Residual current breaking capacity of DX³ add-on modules

I_{Δm} according to EN 61009-1
AC, A and Hpi add-on modules

DX ³ add-on modules used with an MCB	I _{Δm}
DX ³ (1 mod./pole) 25 kA ≤ 25 A (B, C, Z curves) 25 kA ≤ 10 A (D, MA curves)	6000 A
DX ³ (1.5 mod./pole) 10000 16 kA (80 to 125 A) 25 kA ≥ 32 A (B, C, Z curves) 25 kA ≥ 12.5 A (D, MA curves) 36 kA 50 kA	30000 A

Selectivity tables

MCBs/MCBs (in A)

Upstream MCB		Downstream MCB																												
		RX ³ [6000]					RX ³ [4500] / RX ³ [6000]							DX ³ [6000] - 10 kA				DX ³ 25 kA / DX ³ 50 kA					DX ³ 25 kA / DX ³ 50 kA							
		TX ³ [6000] / TX ³ [10000]					TX ³ [6000] / TX ³ [10000]							D curve				C curve					D curve							
In (A)	DX ³ [6000] - 10 kA / DX ³ [10000] - 16 kA					DX ³ [6000] - 10 kA / DX ³ [10000] - 16 kA																								
	32	40	50	63	80	32	40	50	63	80	100	125	32	40	50	63	32	40	50	63	80	100	125	32	40	50	63	80	100	125
RX ³ [4500]	6	128	160	200	252	240	300	375	472	1300	1600	2000	384	480	600	756	240	300	375	472	1300	1600	2000	384	480	600	756	2000	2400	3000
	10	128	160	200	252	240	300	375	472	1150	1450	1800	384	480	600	756	240	300	375	472	1150	1450	1800	384	480	600	756	1750	2150	2700
	13	128	160	200	252	240	300	375	472	1000	1300	1600	384	480	600	756	240	300	375	472	1000	1300	1600	384	480	600	756	1500	2000	2400
	16	128	160	200	252	240	300	375	472	950	1200	1500	384	480	600	756	240	300	375	472	950	1200	1500	384	480	600	756	1400	1800	2200
	20	128	160	200	252	240	300	375	472	900	1100	1400	384	480	600	756	240	300	375	472	900	1100	1400	384	480	600	756	1350	1650	2100
	25	128	160	200	252	240	300	375	472	850	1000	1300	384	480	600	756	240	300	375	472	850	1000	1300	384	480	600	756	1300	1500	2000
	32	128	160	200	252	240	300	375	472	750	950	1200	384	480	600	756	240	300	375	472	750	950	1200	384	480	600	756	1100	1450	1800
RX ³ [6000]	6	128	160	200	252	240	300	375	472	1300	1600	2000	384	480	600	756	240	300	375	472	1300	1600	2000	384	480	600	756	2000	2400	3000
	10	128	160	200	252	240	300	375	472	1150	1450	1800	384	480	600	756	240	300	375	472	1150	1450	1800	384	480	600	756	1750	2150	2700
	13	128	160	200	252	240	300	375	472	1000	1300	1600	384	480	600	756	240	300	375	472	1000	1300	1600	384	480	600	756	1500	2000	2400
	16	128	160	200	252	240	300	375	472	950	1200	1500	384	480	600	756	240	300	375	472	950	1200	1500	384	480	600	756	1400	1800	2200
	20	128	160	200	252	240	300	375	472	900	1100	1400	384	480	600	756	240	300	375	472	900	1100	1400	384	480	600	756	1350	1650	2100
	25	128	160	200	252	240	300	375	472	850	1000	1300	384	480	600	756	240	300	375	472	850	1000	1300	384	480	600	756	1300	1500	2000
	32	128	160	200	252	240	300	375	472	750	950	1200	384	480	600	756	240	300	375	472	750	950	1200	384	480	600	756	1100	1450	1800
DX ³ [6000] - 10 kA	≤ 6	128	160	200	252	240	300	375	472	4000	T	T	384	480	600	756	700	1200	1500	3000	4000	T	T	700	1200	1500	3000	4000	T	T
	10	128	160	200	252	240	300	375	472	3000	5000	T	384	480	600	756	500	700	1000	1800	3000	5000	T	500	700	1000	1800	3000	5000	T
	13	128	160	200	252	240	300	375	472	2500	4000	6000	384	480	600	756	400	600	1200	1500	2500	4000	6000	400	600	1200	1500	2500	4000	6000
	16	128	160	200	252	240	300	375	472	2000	3600	5500	384	480	600	756	300	500	700	1300	2000	3600	5500	384	500	700	1300	2000	3600	5500
	20	128	160	200	252	240	300	375	472	1600	3000	4000	384	480	600	756	300	400	500	1000	1600	3000	4000	384	480	600	1000	1600	3000	4000
	25	128	160	200	252	240	300	375	472	1300	2400	3300	384	480	600	756	240	400	500	800	1300	2400	3300	384	480	600	800	1300	2400	3300
	32	128	160	200	252	240	300	375	472	1000	1800	2700	384	480	600	756	240	300	400	600	1000	1800	2700	384	480	600	600	1000	1450	2700
DX ³ [10000] - 16 kA	≤ 6	128	160	200	252	240	300	375	472	4000	T	T	384	480	600	756	700	1200	1500	3000	4000	T	T	700	1200	1500	3000	4000	T	T
	10	128	160	200	252	240	300	375	472	3000	5000	T	384	480	600	756	500	700	1000	1800	3000	5000	T	500	700	1000	1800	3000	5000	T
	13	128	160	200	252	240	300	375	472	2000	3600	5500	384	480	600	756	300	500	700	1300	2000	3600	5500	384	500	700	1300	2000	3600	5500
	16	128	160	200	252	240	300	375	472	1600	3000	4000	384	480	600	756	300	400	500	1000	1600	3000	4000	384	480	600	1000	1600	3000	4000
	20	128	160	200	252	240	300	375	472	1300	2400	3300	384	480	600	756	240	400	500	800	1300	2400	3300	384	480	600	800	1300	2400	3300
	25	128	160	200	252	240	300	375	472	1000	1800	2700	384	480	600	756	240	300	400	600	1000	1800	2700	384	480	600	600	1000	1450	2700
	32	128	160	200	252	240	300	375	472	800	1600	2400	384	480	600	756	240	300	400	600	800	1600	2400	384	480	600	600	1000	1250	2400
DX ³ 25 kA	≤ 6	128	160	200	252	240	300	375	472	4000	T	T	384	480	600	756	700	1200	1500	3000	4000	T	T	700	1200	1500	3000	4000	T	T
	10	128	160	200	252	240	300	375	472	3000	5000	T	384	480	600	756	500	700	1000	1800	3000	5000	T	500	700	1000	1800	3000	5000	T
	13	128	160	200	252	240	300	375	472	2000	3600	5500	384	480	600	756	300	500	700	1300	2000	3600	5500	384	500	700	1300	2000	3600	5500
	16	128	160	200	252	240	300	375	472	1600	3000	4000	384	480	600	756	300	400	500	1000	1600	3000	4000	384	480	600	1000	1600	3000	4000
	20	128	160	200	252	240	300	375	472	1300	2400	3300	384	480	600	756	240	400	500	800	1300	2400	3300	384	480	600	800	1300	2400	3300
	25	128	160	200	252	240	300	375	472	1000	1800	2700	384	480	600	756	240	300	400	600	1000	1800	2700	384	480	600	600	1000	1450	2700
	32	128	160	200	252	240	300	375	472	800	1600	2400	384	480	600	756	240	300	400	600	800	1600	2400	384	480	600	600	1000	1250	2400
DX ³ 50 kA	≤ 6	128	160	200	252	240	300	375	472	4000	T	T	384	480	600	756	700	1200	1500	3000	4000	T	T	700	1200	1500	3000	4000	T	T
	10	128	160	200	252	240	300	375	472	3000	5000	T	384	480	600	756	500	700	1000	1800	3000	5000	T	500	700	1000	1800	3000	5000	T
	13	128	160	200	252	240	300	375	472	2000	3600	5500	384	480	600	756	300	500	700	1300	2000	3600	5500	384	500	700	1300	2000	3600	5500
	16	128	160	200	252	240	300	375	472	1600	3000	4000	384	480	600	756	300	400	500	1000	1600	3000	4000	384	480	600	1000	1600	3000	4000
	20	128	160	200	252	240	300	375	472	1300	2400	3300	384	480	600	756	240	400	500	800	1300	2400	3300	384	480	600	800	1300	2400	3300
	25	128	160	200	252	240	300	375	472	1000	1800	2700	384	480	600	756	240	300	400	600	1000	1800	2700	384	480	600	600	1000	1450	2700
	32	128	160	200	252	240	300	375	472	800	1600	2400	384	480	600	756	240	300	400	600	800	1600	2400	384	480	600	600	1000	1250	2400

T: total selectivity, up to downstream circuit breaker breaking capacity according to IEC 60947-2
The magnetic threshold and the nominal rating of the downstream MCB must always be inferior to the ones of the upstream MCB

Back up between MCCBs and MCBs (in kA)

In 3 phases networks + N 400/415 V according to IEC 60947-2

MCBs/MCCBs upstream		DX ³ 10000 16 kA B, C and D curves	DX ³ 25 kA C and D curves	DX ³ 50 kA C and D curves	DPX ³ 160				DPX ³ 250				DPX 250	DPX-H 250	DPX 630	DPX-H 630 DPX-L 630 - 100 kA	DPX 1250 and 1600 + DPX-H 1250 and 1600	
MCBs downstream		10 to 125 A	10 to 125 A	10 to 63 A	16 kA 16 to 160 A	25 kA 16 to 160 A	36 kA 16 to 160 A	50 kA 16 to 160 A	25 kA 40 to 250 A	36 kA 40 to 250 A	50 kA 40 to 250 A	70 kA 40 to 250 A	36 kA 40 to 250 A	70 kA 40 to 250 A	36 kA 250 to 630 A	70 kA 250 to 630 A	50 kA and 70 kA 630 to 1600 A	
DX ³ 6000 - 10 kA B, C and D curves	≤ 20 A	16 kA	25 kA	50 kA	16 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	25 A	16 kA	25 kA	50 kA	16 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	20 kA
	32 A	16 kA	25 kA	50 kA	16 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	15 kA
	40 A	16 kA	25 kA	50 kA	16 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	20 kA	20 kA	15 kA
	50 A	16 kA	25 kA	50 kA	16 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	16 kA	12,5 kA
63 A	16 kA	25 kA	-	16 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	20 kA	16 kA	16 kA	12,5 kA	
DX ³ 10000 - 16 kA B, C and D curves	≤ 20 A	-	25 kA	50 kA	-	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	25 A	-	25 kA	50 kA	-	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	20 kA
	32 A	-	25 kA	50 kA	-	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	16 kA
	40 A	-	25 kA	50 kA	-	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	20 kA	20 kA	16 kA	
	50 A	-	25 kA	50 kA	-	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	20 kA	20 kA	16 kA	
	63 A	-	25 kA	-	-	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	20 kA	20 kA	20 kA	16 kA	
DX ³ 25 kA C curve	≤ 25 A	-	-	50 kA	-	-	36 kA	36 kA	-	36 kA	36 kA	25 kA	30 kA	30 kA	30 kA	30 kA	30 kA	
	32 to 50 A	-	-	50 kA	-	-	36 kA	36 kA	-	36 kA	36 kA	25 kA	36 kA	36 kA	36 kA	36 kA	36 kA	
	63 to 80 A	-	-	-	-	-	36 kA	36 kA	-	36 kA	36 kA	36 kA	36 kA	36 kA	36 kA	36 kA	36 kA	
	100 et 125 A	-	-	-	-	-	36 kA	36 kA	-	36 kA	36 kA	36 kA	36 kA	36 kA	36 kA	30 kA	30 kA	
DX ³ 25 kA D curve	≤ 10 A	-	-	50 kA	-	-	36 kA	36 kA	-	36 kA	36 kA	36 kA	30 kA	30 kA	30 kA	30 kA	30 kA	
	16 to 63 A	-	-	50 kA	-	-	36 kA	36 kA	-	36 kA	36 kA	36 kA	36 kA	36 kA	36 kA	36 kA	36 kA	
DX ³ 50 kA C and D curves	10 to 63 A	-	-	-	-	-	-	-	-	-	-	70 kA	-	70 kA	-	70 kA	70 kA	

In 3 phases networks + N 230/240 V according to IEC 60947-2

MCBs/MCCBs upstream		DX ³ 10000 16 kA B, C and D curves		DX ³ 25 kA C and D curves		DX ³ 50 kA C curves		DX ³ 50 kA D curves		DPX ³ 160				DPX ³ 250				DPX 250	DPX-H 250	DPX 630	DPX-H 630 DPX-L 630 - 100 kA	DPX 1250 and 1600 + DPX-H 1250 and 1600		
MCBs downstream		≤ 32 A	40 to 125 A	≤ 32 A	40 to 125 A	≤ 32 A	40 to 63 A	≤ 32 A	40 to 63 A	16 kA 16 to 160 A	25 kA 16 to 160 A	36 kA 16 to 160 A	50 kA 16 to 160 A	25 kA 40 to 250 A	36 kA 40 to 250 A	50 kA 40 to 250 A	70 kA 40 to 250 A	36 kA 40 to 250 A	70 kA 40 to 250 A	36 kA 250 to 630 A	70 kA 250 to 630 A	50 kA + 70 kA 630 to 1600 A		
DX ³ 6000 - 10 kA B, C and D curves	≤ 20 A	32 kA	25 kA	50 kA	25 kA	50 kA	50 kA	50 kA	50 kA	28 kA	40 kA	50 kA	50 kA	40 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
	25 to 40 A	-	25 kA	-	25 kA	-	50 kA	-	50 kA	28 kA	40 kA	50 kA	50 kA	40 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
	50 A	-	25 kA	-	25 kA	-	-	-	-	28 kA	40 kA	50 kA	50 kA	40 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	30 kA	30 kA	25 kA
	63 A	-	25 kA	-	25 kA	-	-	-	-	28 kA	40 kA	50 kA	50 kA	40 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	30 kA	30 kA	25 kA
DX ³ 10000 - 16 kA B, C and D curves	≤ 20 A	-	-	50 kA	32 kA	70 kA	70 kA	70 kA	70 kA	35 kA	40 kA	50 kA	50 kA	40 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
	25 to 40 A	-	-	-	32 kA	-	70 kA	-	70 kA	35 kA	40 kA	50 kA	50 kA	40 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
	50 et 63 A	-	-	-	32 kA	-	-	-	-	35 kA	40 kA	50 kA	50 kA	40 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	36 kA	36 kA	36 kA
	80 to 125 A	-	-	-	-	-	-	-	-	35 kA	40 kA	50 kA	50 kA	40 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	32 kA	32 kA	32 kA
DX ³ 25 kA C and D curves	≤ 25 A	-	-	-	-	70 kA	70 kA	70 kA	70 kA	-	-	-	55 kA	-	-	60 kA	60 kA	55 kA	60 kA	55 kA	60 kA	55 kA	60 kA	50 kA
	32 to 125 A	-	-	-	-	-	70 kA	-	70 kA	-	-	-	65 kA	-	-	60 kA	60 kA	55 kA	60 kA	55 kA	60 kA	55 kA	60 kA	50 kA
DX ³ 25 kA D curves	≤ 10 A	-	-	-	-	70 kA	70 kA	70 kA	70 kA	-	-	-	55 kA	-	-	60 kA	60 kA	55 kA	60 kA	55 kA	60 kA	55 kA	60 kA	50 kA
	16 to 63 A	-	-	-	-	70 kA	70 kA	70 kA	70 kA	-	-	-	65 kA	-	-	60 kA	60 kA	55 kA	60 kA	55 kA	60 kA	55 kA	60 kA	50 kA
DX ³ 50 kA C and D curves	10 to 63 A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120 kA	-	120 kA	-	120 kA	120 kA	

TT or TN neutral earthing systems:
For a 230/400 V supply in order to determine the breaking capacity of a 2 P MCB used as L + N (230 V) downstream a 2 P or 4 P circuit breaker use values indicated in the table for 230/240 V

Protection of DC circuits

Protection of DC circuits

DX³ MCBs (1P/2P/3P/4P - I_n ≤ 63 A) designed for use in 230/400 V~ supplies, can also be used in DC circuits. In this case, the following deratings and precautions must be taken into account

1 - Protection against short-circuits

Max. magnetic tripping threshold: multiplied by 1.4
 Example: For a C curve MCB for which the AC tripping threshold is between 5 and 10 I_n, the DC tripping threshold will be between 7 and 14 I_n

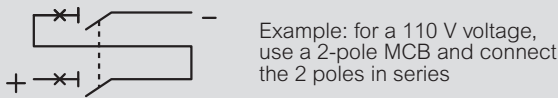
2 - Protection against overloads

The time/current thermal tripping curve is the same as for AC

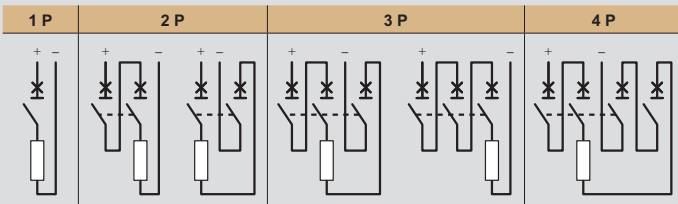
3 - Operating voltage

Min. operating voltage: 12 V_{DC}
 Max. operating voltage: 60 V_{DC} for single-pole MCBs
 For voltages higher than this value, several poles must be wired in series as follows

Number of poles	1 P	2 P	3 P	4 P
Max. operating voltage (V)	60	110	150	180



4 - Wiring modes



5 - Breaking capacity

According to IEC 60947.2		DC Voltage (V)	1P	2P	3P	4P
DX ³ 4500 / 6 kA B and C curves I _n ≤ 63 A	I _{cu}	12 to 60	4.5 kA	4.5 kA	4.5 kA	4.5 kA
		110		4.5 kA	4.5 kA	4.5 kA
		150			4.5 kA	4.5 kA
	I _{cs} ⁽¹⁾	12 to 60	100%	100%	100%	100%
		110		100%	100%	100%
		150			100%	100%
DX ³ 6000 / 10 kA B and C curves I _n ≤ 63 A	I _{cu}	12 to 60	6 kA	6 kA	6 kA	6 kA
		110		6 kA	6 kA	6 kA
		150			6 kA	6 kA
	I _{cs} ⁽¹⁾	12 to 60	100%	100%	100%	100%
		110		100%	100%	100%
		150			100%	100%
DX ³ 10000 / 16 kA B and C curves I _n ≤ 63 A	I _{cu}	12 to 60	10 kA	10 kA	10 kA	10 kA
		110		10 kA	10 kA	10 kA
		150			10 kA	10 kA
	I _{cs} ⁽¹⁾	12 to 60	100%	100%	100%	100%
		110		100%	100%	100%
		150			100%	100%
DX ³ 25 kA B and C curves I _n ≤ 25 A	I _{cu}	12 to 60	16 kA	16 kA	16 kA	16 kA
		110		16 kA	16 kA	16 kA
		150			16 kA	16 kA
	I _{cs} ⁽¹⁾	12 to 60	100%	100%	100%	100%
		110		100%	100%	100%
		150			100%	100%
		180			100%	100%

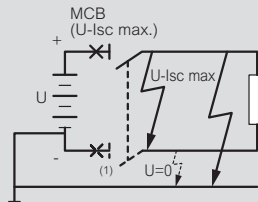
1: As a % of I_{cu}

6 - Distribution of breaking poles

To choose the MCB and determine the pole distribution necessary for breaking on each of the polarities, it is necessary to know how the installation is earthed

• Supply with one polarity earthed:

Place all the poles necessary for breaking on the other polarity. If isolation is required, an additional pole must be added on the earthed polarity

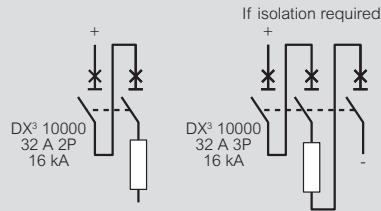


Example: circuit earthed via the negative polarity / U = 110 V_{DC} / I_{sc} = 10 kA / I_n = 32 A

Protect the positive polarity using an MCB capable of breaking 10 kA at 110 V (DX³ 10000 2P 32 A with 2 poles on the positive polarity)

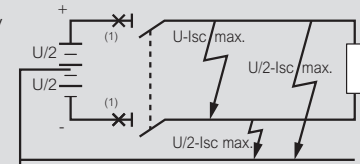
For isolation, use a DX³ 10000 3P 32 A with 2 poles on the positive polarity and one pole on the negative polarity

DX ³ 10000 / 16 kA	DC Voltage (V)	1P	2P	3P	4P	
Acc. To IEC 60947.2	I _{cu}	12 to 60	10 kA	10 kA	10 kA	10 kA
		110		10 kA	10 kA	10 kA
		150			10 kA	10 kA
		180				10 kA



• Network earthed via a middle point:

Place on each polarity the number of poles necessary for max. I_{sc} breaking at half voltage

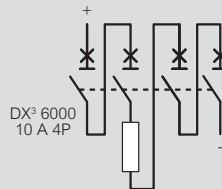


1: MCB (U/2-I_{sc} max.)

Example:

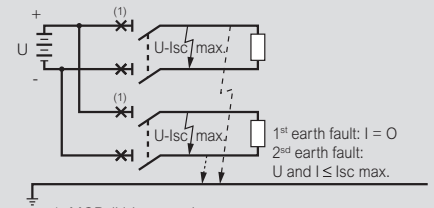
Circuit earthed via a middle point / U = 220 V_{DC} / I_{sc} = 6 kA / I_n = 10 A
 Protect each polarity using an MCB capable of breaking 6 kA at half voltage, i.e. 110 V (DX³ 6000 4P 10 A with 2 poles on each polarity)

DX ³ 6000 / 10 kA	DC Voltage (V)	1P	2P	3P	4P	
Acc. To IEC 60947.2	I _{cu}	12 to 60	6 kA	6 kA	6 kA	6 kA
		110		6 kA	6 kA	6 kA
		150			6 kA	6 kA
		180				6 kA



• Isolated earth supply:

Distribute the poles necessary for breaking over the 2 polarities to provide protection in the event of a double earth fault (particularly if there are a number of circuits in parallel)

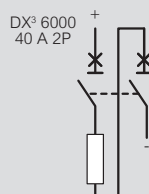


1: MCB (U-I_{sc} max.)

Example: isolated earth circuit / U = 48 V_{DC} / I_{sc} = 6 kA / I_n = 40 A

Protect the installation with an MCB capable of breaking 6 kA at 48 V and protect each polarity (DX³ 6000 MCB 2P 40 A with one pole on each polarity)

DX ³ 6000 / 10 kA	DC Voltage (V)	1P	2P	3P	4P	
Acc. To IEC 60947.2	I _{cu}	12 to 60	6 kA	6 kA	6 kA	6 kA
		110		6 kA	6 kA	6 kA
		150			6 kA	6 kA
		180				6 kA



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

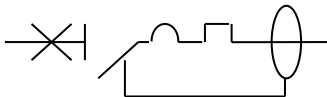


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1. DESCRIPTION - USE

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 I_n:

- . 3 / 6 / 10 / 16 / 20 / 25 / 32 / 40 A

Magnetic tripping curve:

- . C curve (between 5 I_n and 10 I_n)

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, A type and F type
- . 300 mA in AC type

2. RANGE (continued)

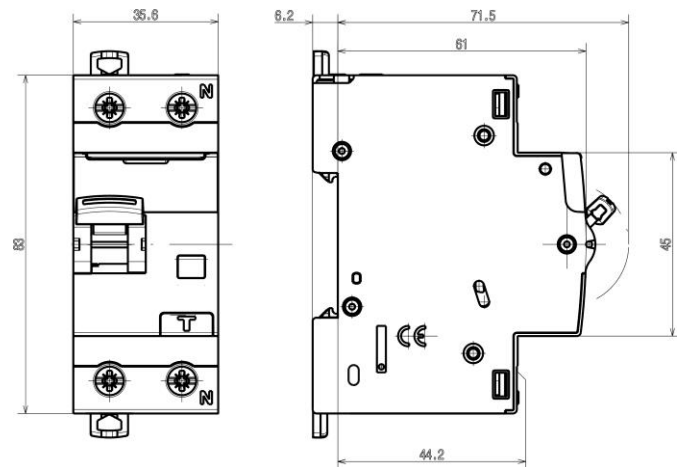
Rated voltage and frequency:

- . 230 V~, 50 Hz with standard tolerances
- . 240 V~, 50 Hz with standard tolerances

Breaking capacity:

- . I_{cn} = 6000 A in accordance with standard EN/IEC 61009-1
- . I_{cu} = 6 kA in accordance with standard EN/IEC 60947-2

3. OVERALL DIMENSIONS



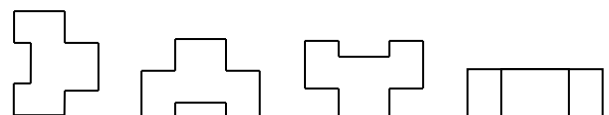
4. PREPARATION - CONNECTION

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

DX³ RCBO 6000A

Phase + Neutral, neutral on right

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4. PREPARATION - CONNECTION *(continued)*

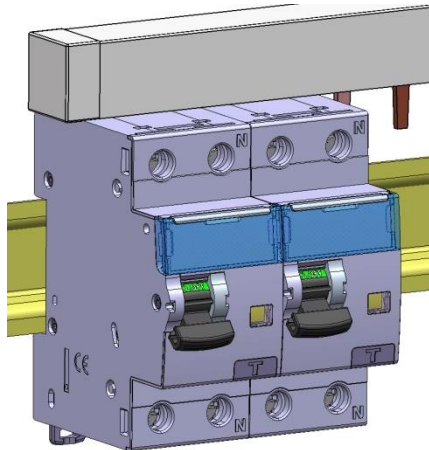
Power supply:

- . Either from the top or the bottom

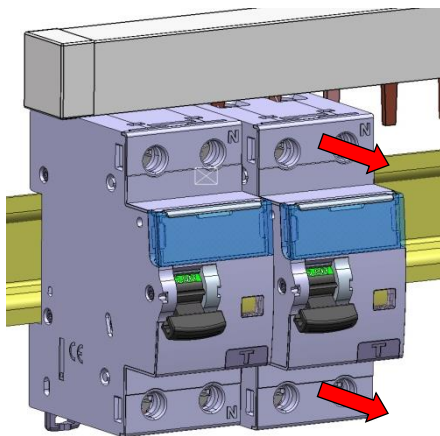
Module maintenance:

- . 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

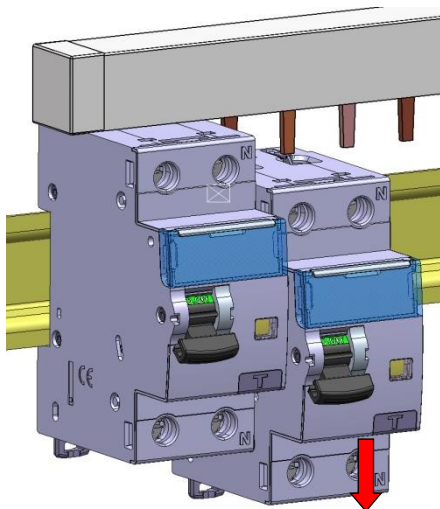


Put the clamp in
the unlocking
position



Unscrew both
upper
terminals

Pull the device
forward in
order to
release it from



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 mm ² 2 x 0.75 to 16 mm ²	-
Flexible cable	1 x 0.75 to 35 mm ² 2 x 0.75 to 16 mm ²	1 x 0.75 mm ² to 25 mm ²

- . 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:

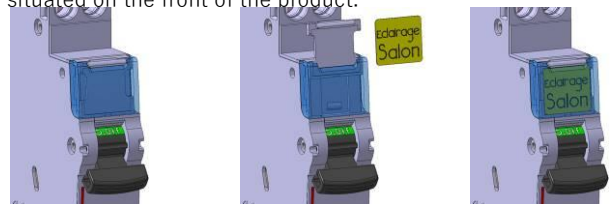
- . By marking of the handle
 - "O-OFF" in white on a green background = contacts open
 - "I-ON" in white on a red background = contacts closed

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.



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

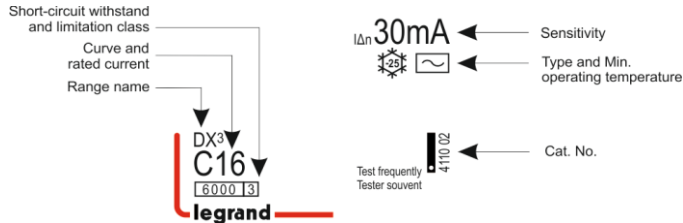
5. GENERAL CHARACTERISTICS

Neutral earthing system:

. IT, TT, TN

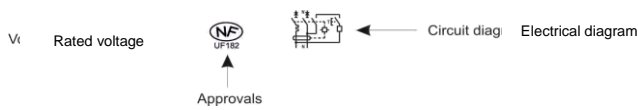
Marking on the front side:

. 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 :

$I_{\Delta n}$	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	I _{cs}	127 V	10 kA	Only for sensitivities 10mA
	I _{cn}		10 kA	
	I _{cs}	230 V	6 kA	
	I _{cn}		6 kA	
EN/IEC 60947-2	I _{cu}	230 V	6 kA	
	I _{cs}		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 I_{cn1} 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 ($I_{\Delta m}$: short-circuit to earth) $I_{\Delta m} = 4.5$ kA

Insulation voltage:

. U_i = 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

. U_{imp} = 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:

. 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 $I_n \times \cos \phi$ 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

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

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 F type 30 mA	0.24
4 110 92	C10 F type 30 mA	0.24
4 110 94	C16 F type 30 mA	0.24
4 110 95	C20 F type 30 mA	0.24
4 110 96	C25 F type 30 mA	0.25
4 110 97	C32 F type 30 mA	0.25
4 110 98	C40 F type 30 mA	0.25

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

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 chlorinated 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
DX ³ 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

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

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								
		DX ³ P+N 1 module						DX ³ 6000/10 kA B, C and D curves		
		DX ³ 6000/10 kA B and C curves			DX ³ 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
DX ³ 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								
		DX ³ 10000/16 kA B, C and D curves								
		≤ 25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A	
Downstream RCBO Ph+N		≤ 25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A	
DX ³ 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	

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

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							
		DX ³ 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
DX ³ 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					
		DX ³ 36 kA C curve					
Downstream RCBO Ph+N		≤ 25 A	32 A	40 A	50 A	63 A	80 A
DX ³ 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

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

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				
		DX ³ 50 kA B, C and D curves				
Downstream RCBO Ph+N		≤ 25 A	32 A	40 A	50 A	63 A
DX ³ 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							
		DPX ³ 160 16 kA							
Downstream RCBO Ph+N		16 A	25 A	40 A	63 A	80 A	100 A	125 A	160 A
DX ³ 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

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

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 ³ 160 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
DX ³ 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
DX ³ 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

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

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 ³ 250 ≤ 70 kA thermal-magnetic				DPX ³ 250 ≤ 70 kA electronic			
Downstream RCBO Ph+N		100 A	160 A	200 A	250 A	40 A	100 A	160 A	250 A
DX ³ 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
DX ³ 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

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

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
DX ³ 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

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

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
DX ³ 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
DX ³ 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

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

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
DX ³ 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											
		DX ³ 6000/10 kA - DX ³ 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
DX ³ 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

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

5. GENERAL CHARACTERISTICS *(continued)*

Discrimination with upstream modular MCBs:

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

		Upstream MCB											
		DX ³ 6000/10 kA - DX ³ 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
DX ³ 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											
		DX ³ 6000A - DX ³ 6000/10 kA - DX ³ 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
DX ³ 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).

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

5. GENERAL CHARACTERISTICS *(continued)*

Discrimination with upstream modular MCBs:

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

		Upstream MCB										
		DX ³ 25 kA B curve										
Downstream Ph+N	RCBO	10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
	DX ³ 6000 A C curve	≤ 6 A	-	64	80	100	700	1200	1500	3000	4000	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										
		DX ³ 25 kA C curve										
Downstream Ph+N	RCBO	10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
	DX ³ 6000 A C curve	≤ 6 A	75	120	150	187	700	1200	1500	3000	4000	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

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

5. GENERAL CHARACTERISTICS *(continued)*

Discrimination with upstream modular MCBs:

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

		Upstream MCB										
		DX ³ 25 kA D curve										
Downstream Ph+N	RCBO	10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
	DX ³ 6000 A C curve	≤ 6 A	120	192	240	500	700	1200	1500	3000	4000	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							
		DX ³ 50 kA B curve							
Downstream RCBO Ph+N		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A
DX ³ 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

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

5. GENERAL CHARACTERISTICS (continued)

Discrimination with upstream modular MCBs:

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

		Upstream MCB								
		DX ³ 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
DX ³ 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								
		DX ³ 50 kA D curve								
Downstream RCBO Ph+N		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	
DX ³ 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	
DX ³ P+N 6 kA C curve	DPX and DPX ³ all models all ratings	DMX ³ all models all ratings
	T	T

. T = Total discrimination

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

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

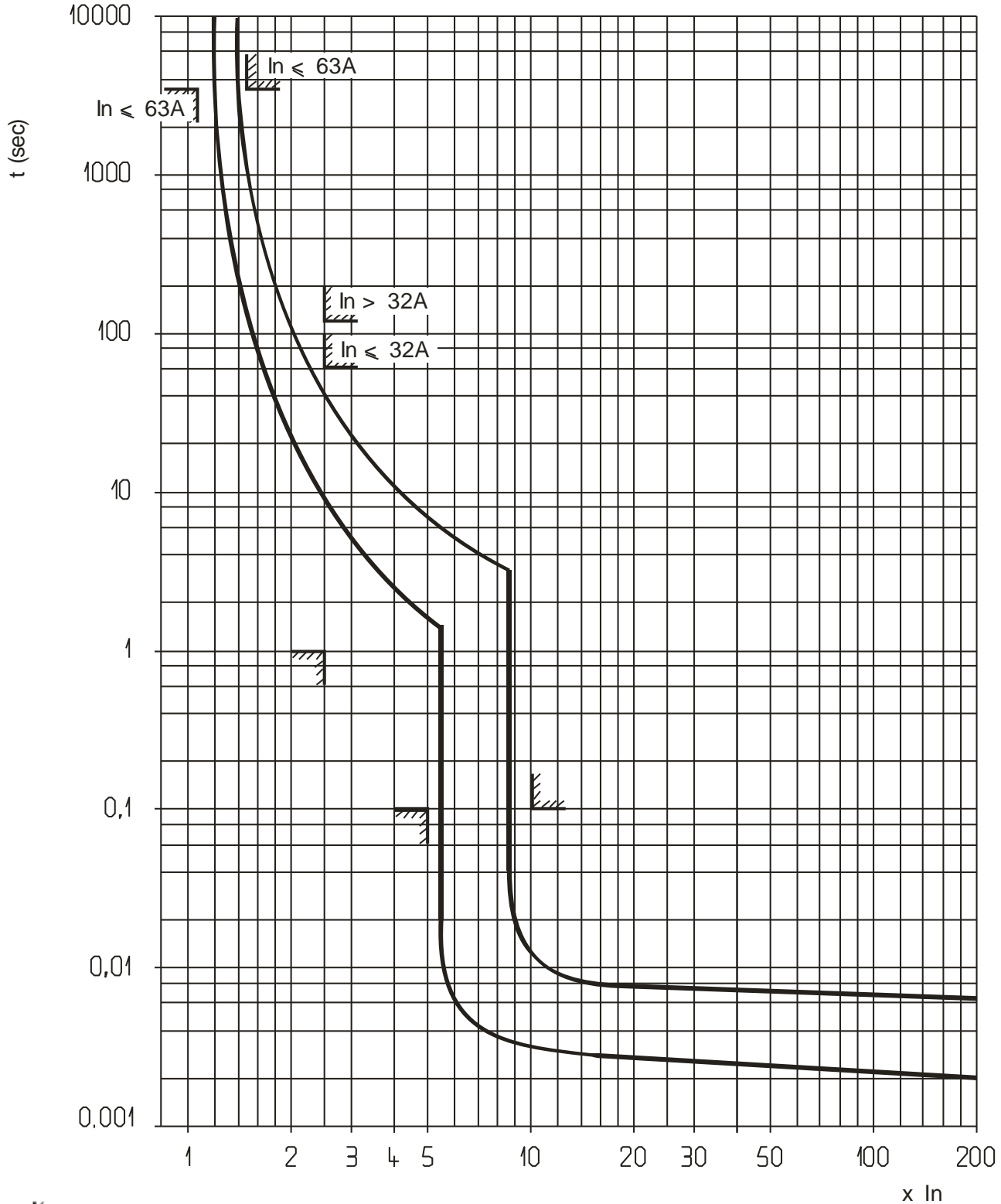
DX³ RCBO 6000A


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

7. CURVES

Thermal-magnetic tripping range typical of C curve RCBOs:



 Standard limits

Thermal tripping at ambient temperature = 30°C

I_n = RCBO rated current

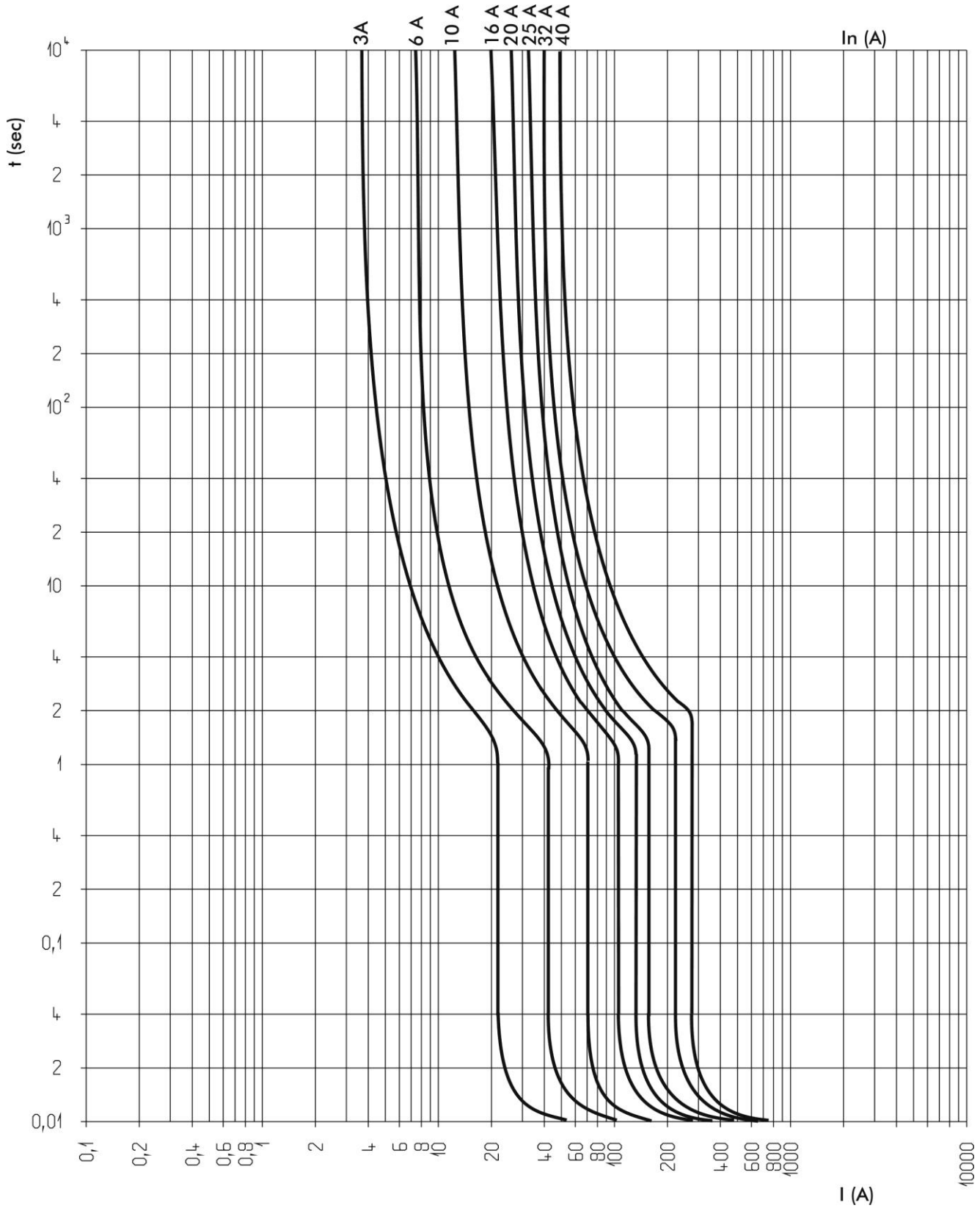
DX³ RCBO 6000A

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

7. CURVES (continued)

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



DX³ RCBO 6000A

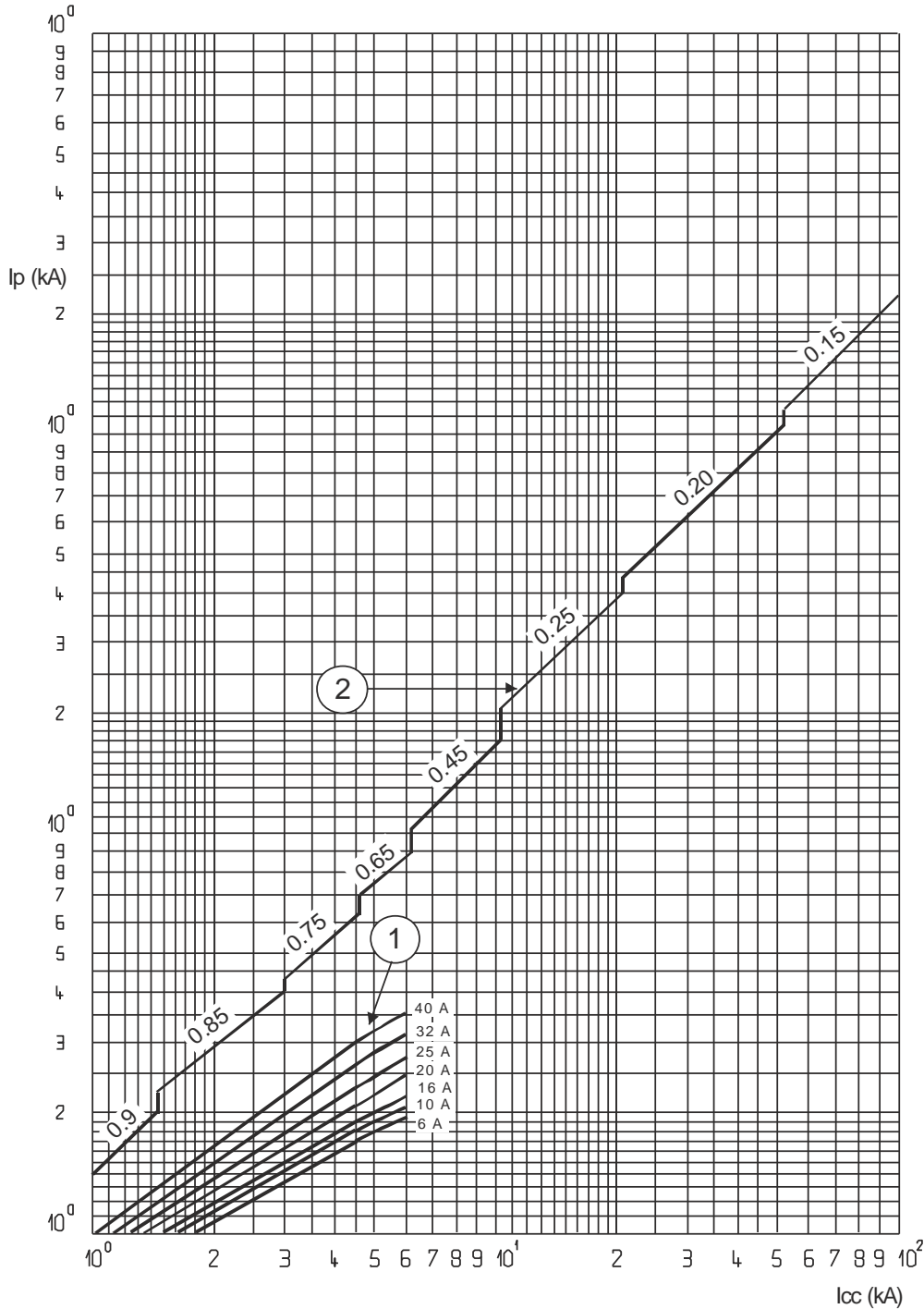
Phase + Neutral, neutral on right

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

7. CURVES (continued)

Current limiting curves:

. C curve RCBOs from 3 A to 40 A



I_{cc} = Prospective short-circuit symmetrical current (rms value in kA)

I_p = 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

DX³ RCBO 6000A

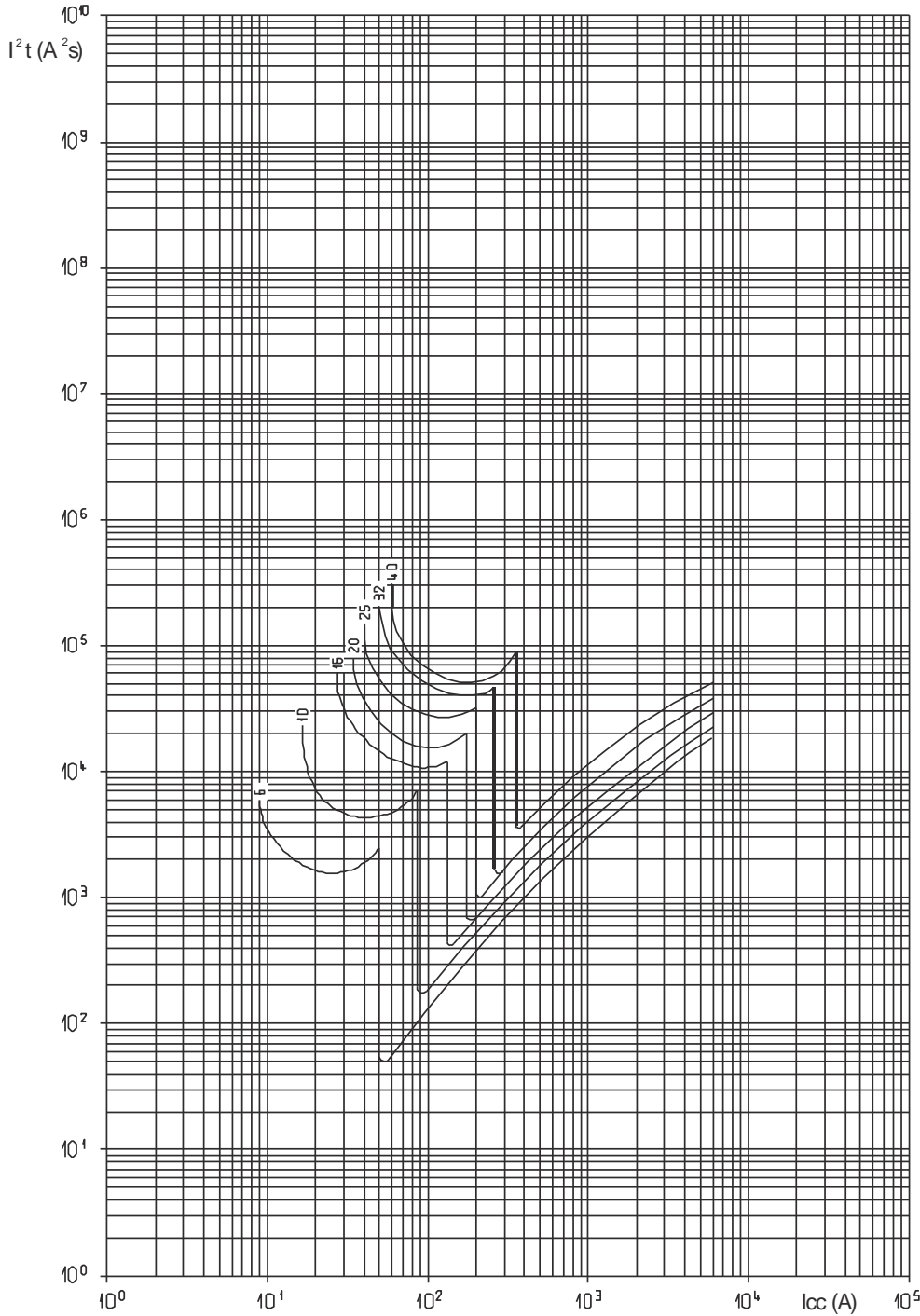
Phase + Neutral, neutral on right

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

7. CURVES (continued)

Thermal stress limiting curves:

. C curve RCBOs (230V/50Hz)



I_{cc} = 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 $A s^2$

DX³ RCBO 6000A

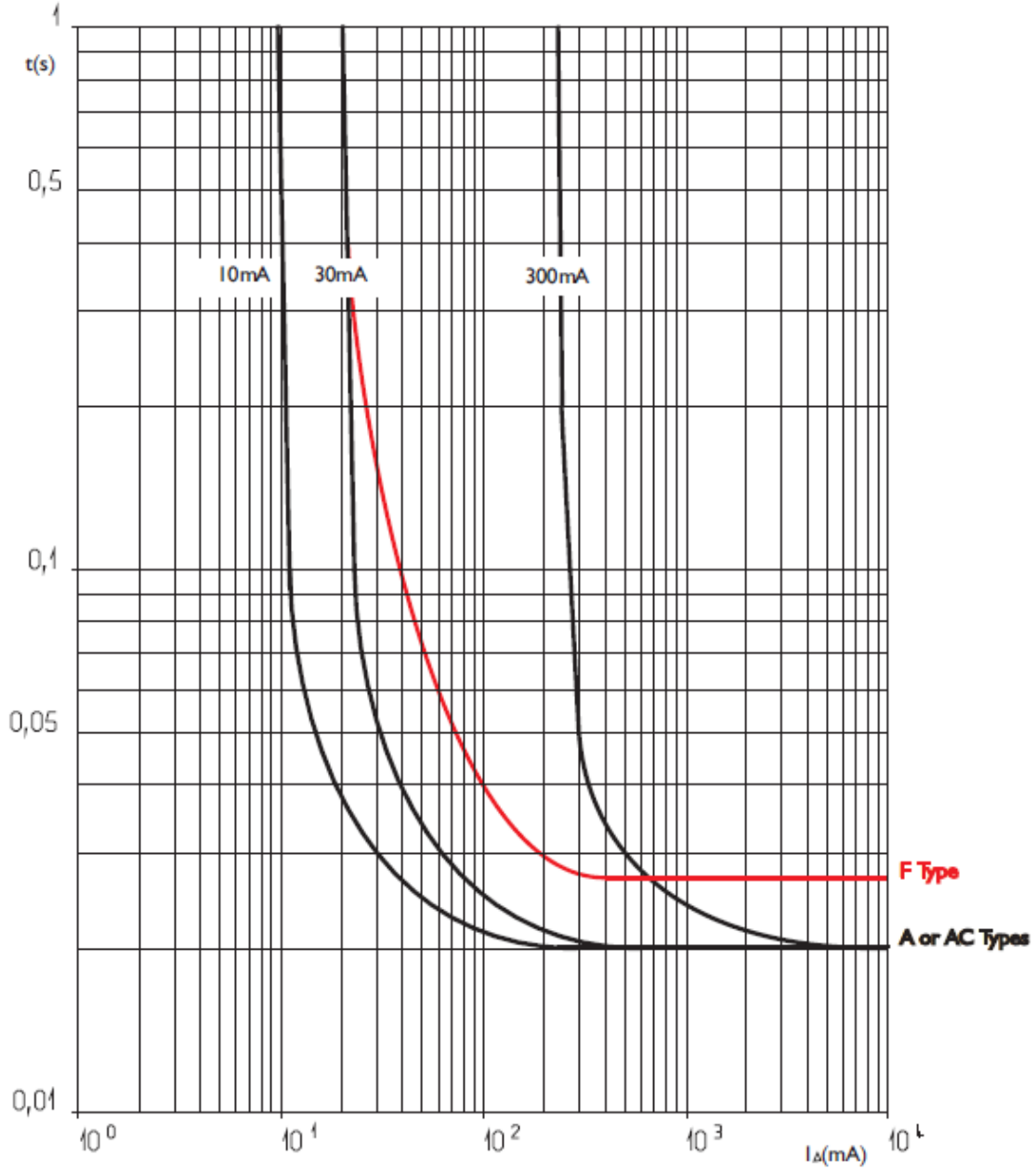
Phase + Neutral, neutral on right

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

7. CURVES (continued)

Tripping current curves:

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



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

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.