

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

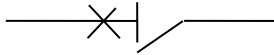


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1. DESCRIPTION - USE:

. Thermal-magnetic circuit breaker (MCB) with positive contact indication for control, protection against short-circuits and overloads, and isolation of electrical circuits.

Symbol:



Technology:

- . Energy limiting circuit-breaker
- . 1 Module (17,8) per pole

2. RANGE

Polarity:

- . 1P / 2P / 3P / 4P

Rated currents, I_n:

- . 1 / 2 / 3 / 6 / 10 / 13 / 16 / 20 / 25 / 32 / 40 / 50 / 63A B and C curves.

Instantaneous tripping characteristics according to IEC/EN 60898-1:

- . B type
- . C type

Time-current characteristic according to IEC/EN 60898-1:

- . Reference temperature: 30° C
- . Non-tripping current (I_{nt}): 1,13 I_n.
- . Tripping current (I_t): 1,45 I_n.

Instantaneous tripping characteristics according to IEC/EN 60947-2:

- . B type = 4 I_n +/- 20%
- . C type = 7 I_n +/- 20%

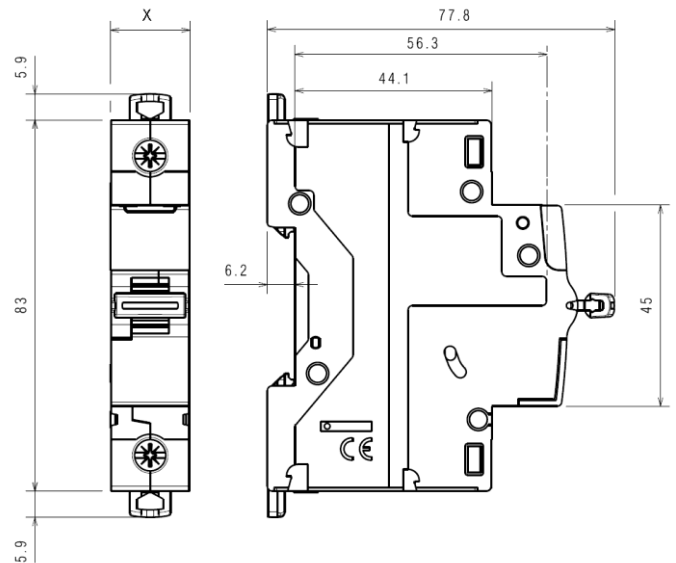
Time-current characteristic according to IEC/EN 60947-2:

- . Reference temperature: 40° C
- . Non-tripping current: 1,05 I_n.
- . Tripping current: 1,3 I_n.

Breaking capacity and Rated voltage (50/60 Hz):

- . 10000 A according to IEC/EN 60898-1
230 V ~ / 400 V~
- . 16 kA cat. A according to IEC/EN 60947-2
240 V ~ / 415 V~

3. OVERALL DIMENSIONS :



	X
1P	17.8 mm
2P	35.6 mm
3P	53.4 mm
4P	71.2 mm

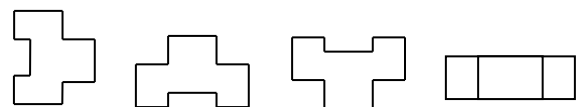
4. PREPARATION - CONNECTION

Fixing:

- . On symmetric rail EN/IEC 60715 or DIN 35 rail.

Operating positions:

- . Vertical
- . Horizontal
- . Upside down
- . On the side



Supply:

- . From the top or the bottom.

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4. PREPARATION – CONNECTION *(continued)*:

Connection:

. Inputs and outputs via screw terminals
The location of the terminals allows supplying by traditional HX³ pin busbar and fork busbar.

Terminal depth:

. 14 mm

Stripping length recommended:

. 11 mm

Screw head:

. Mixed, slotted and Pozidriv 2.

Recommended tightening torque:

. Recommended: 2.5 Nm.
. Min: 2 Nm. Max: 3 Nm.

Tools required:

. For the terminals: Pozidriv n° 2 or flat screwdriver 5,5 mm (6 mm maximum).
. For fixing: flat screwdriver 5,5 mm (6 mm maximum).

Connectable section:

	Copper cables	
	Without ferrule	With ferrule
Rigid cable	1 x 1,5 mm ² to 35 mm ² 2 x 1,5 mm ² to 16 mm ²	-
Flexible cable	1 x 1,5 mm ² to 25 mm ² 2 x 1,5 mm ² to 10 mm ²	1 x 1,5 mm ² to 25 mm ²

Aluminium cable with cross-section > 10 mm²: it is necessary to use the accessory with cat. N° 4 063 10.

Manual actuation of the MCB:

. Ergonomic 2-position handle
. "I-ON": Device closed
. "O-OFF": Device open

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

Sealing:

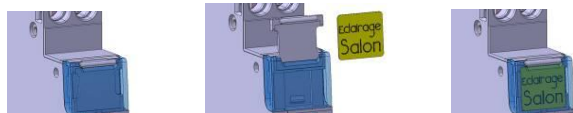
. Possible in "Open" position (OFF) or "Close" position (ON).

Locking:

. By 5 mm padlock (cat. N° 4 063 13) or 6 mm padlock (cat. N° 0 227 97) with padlock support (cat. N° 0 044 42) in "Open" position (OFF).

Labelling:

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



5. GENERAL CHARACTERISTICS:

Marking on the front side:

- . By permanent ink pad printing:
 - Trade name: DX³
 - Tripping curve. [W]
 - Rated current (in A) [XX].
 - Icn in A rated breaking capacity in accordance with EN/IEC 60898-1 (in a box) [####]
 - Limiting class "3" (in a square) only B and C curves.
 - Icu in kA extreme breaking capacity in accordance with IEC/EN 60947-2
 - Mark: Legrand.
 - Redline.
 - Line + dot logo.
 - Reference. [YYYY YY]



Marking on the side:

- Production information and COPY-TRACER (The Copy-tracer number ensures that a product is traced and guarantees its production quality).
Info: <http://www.legrand-copytracer.com/>

Short-circuit breaking capacity:

. Alternate current 50/60Hz, single-phase or three-phase network, in accordance with standard: EN/IEC 60898-1

Un		1P	2P	3P / 4P
110 V~	Icu	16000 kA	25000 kA	-
230 V~		10000 kA	16000 kA	16000 kA
400 V~		-	10000 kA	10000 kA

Un		1P	2P	3P / 4P
110 V~	Ics	75% of Icu	75% of Icu	75% of Icu
230 V~		75% of Icu	75% of Icu	75% of Icu
400 V~		75% of Icu	75% of Icu	75% of Icu

. Alternate current 50/60Hz, single-phase or three-phase network, in accordance with standard: IEC/EN 60947-2

Un		1P / 1P+N	2P	3P / 4P
110 V~	Icu	25 kA	50 kA	-
230V~		16 kA	32 kA	32 kA
400V~		-	16 kA	16 kA

Un		1P	2P	3P / 4P
110 V~	Ics	75% of Icu	75% of Icu	75% of Icu
230V~		75% of Icu	75% of Icu	75% of Icu
400V~		75% of Icu	75% of Icu	75% of Icu

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5. GENERAL CHARACTERISTICS (continued):

Short-circuit breaking capacity on one pole:

- . Three-phase network 400 V~
 - in TN neutral system, I_{cn1} = 16 kA
 - in IT distribution system, I_{it} = 4 kA
- . Three-phase network 230 V~
 - in TN neutral system, I_{cn1} = 32 kA
 - in IT distribution system, I_{it} = 8 kA

Minimum operating voltage:

- . 12 V.

Pulse rated voltage:

- . U_{imp} = 4 kV

Insulation rated voltage:

- . U_i = 500 V

Pollution degree:

- . 2 according to IEC/EN 60898-1.
- . 3 according to IEC/EN 60947-2.

Resistance to environmental conditions:

- . according to IEC/EN 60068-2-30 (55° C, 90% RH)
- . severity 2 (marine environment) in accordance with standard IEC/EN 60068-2-52.

Dielectric strength at power frequency:

- . 2500 V

Operation at 400Hz:

- . The instantaneous tripping threshold increase by 45%.

Force necessary to close and to open by the handle:

- . 0.1 Nm per pole to close.
- . 0.075 Nm per pole to open.

Mechanical and electrical endurance:

- . 20000 operations without load.
- . 10000 operations with load (under I_n*cos φ = 0,9).

Enclosure material:

- . Glow-wire test at 960° C according to IEC/EN 60898-1 and IEC 60695-2-12
- . Halogens-free

Average weight per pole:

- . 0,150 kg.

5. GENERAL CHARACTERISTICS (continued):

Volume when packed:

	Volume (dm ³)
Single pole	0,163
Double pole	0,334
Triple pole / Four pole	0,680

Ambient operating temperature:

- . Min. = -25° C. Max. = +70° C

Ambient storage temperature:

- . Min. = -40° C. Max. = +70° C

Degree of protection:

- . Degree of protection in the terminals area: IP 20, (in accordance with standards IEC/EN 60898-1 and IEC/EN 60529).
- . Degree of protection of the remaining parts: IP 40 (in accordance with standards IEC/EN 60529).
- . Protection index against mechanical shocks: IK 02 (in accordance with standards IEC/EN 62262).

Sinusoidal vibration resistance in accordance with IEC/EN 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)

Recognition:

- . Recognition of the circuits by label in the "label holder" on the front-side of m.c.b.

Power dissipated per pole (W) :

- . Type B and C Circuit-breakers

I _n	1 A	2 A	3 A	6 A	10 A	16 A	20 A
1P ÷ 4P	2	2	2	1,1	1,8	2	2,2

I _n	25 A	32 A	40 A	50A	63A
1P ÷ 4P	2,7	3,2	4	4,5	5,5

- . Impedance per pole (Ω) = $\frac{P \text{ dissipated}}{I_n^2}$

Circuit breaker DX³ 1000 A / 16 kA up to 63A (1 module per pole)

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5. GENERAL CHARACTERISTICS *(continued)*:

Derating of circuit-breakers according to ambient temperature:

. The nominal characteristics of a circuit breaker are modified according to the ambient temperature inside the cabinet or the enclosure where the circuit breaker is located.

. Reference temperature: 30° C in accordance with EN/IEC 60898-1

In (A)	Ambient Temperature / In									
	- 25° C	- 10° C	0° C	10° C	20° C	30° C	40° C	50° C	60° C	70° C
0.5	0.62	0.6	0.57	0.55	0.52	0.5	0.47	0.42	0.40	0.38
1	1.5	1.4	1.3	1.2	1.1	1	0.9	0.8	0.7	0.6
1.5	1.9	1.8	1.7	1.7	1.6	1.5	1.5	1.4	1.4	1.3
2	2.8	2.6	2.5	2.3	2.2	2	2	1.9	1.8	1.7
3	3.8	3.6	3.5	3.3	3.2	3.0	2.9	2.8	2.7	2.6
3.5	4.5	4.2	4.0	3.9	3.7	3.5	3.4	3.3	3.2	3.1
5	6.4	6.0	5.8	5.5	5.3	5.0	4.8	4.7	4.5	4.6
6	7.5	7.0	6.6	6.4	6.2	6.0	5.8	5.6	5.4	5.3
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

. Reference temperature: 40° C in accordance with EN/IEC 60947-2

In (A)	Ambient Temperature / In									
	- 25° C	- 10° C	0° C	10° C	20° C	30° C	40° C	50° C	60° C	70° C
0.5	0.64	0.62	0.6	0.57	0.55	0.52	0.5	0.47	0.42	0.40
1	1.6	1.5	1.4	1.3	1.2	1.1	1	0.9	0.8	0.7
1.5	2.0	1.9	1.8	1.7	1.7	1.6	1.5	1.5	1.4	1.4
2	3.0	2.8	2.6	2.5	2.3	2.2	2	2	1.9	1.8
3	4.1	3.8	3.6	3.5	3.3	3.2	3.0	2.9	2.8	2.7
3.5	4.9	4.5	4.2	4.0	3.9	3.7	3.5	3.4	3.3	3.2
5	7.0	6.4	6.0	5.8	5.5	5.3	5.0	4.8	4.7	4.5
6	8.2	7.5	7.0	6.6	6.4	6.2	6.0	5.8	5.6	5.4
10	14.0	12.5	11.5	11.1	10.7	10.3	10.0	9.7	9.3	9.0
13	18.2	16.3	15.0	14.3	13.9	13.4	13.0	12.6	12.1	11.7
16	21.9	20.0	18.7	18.0	17.3	16.6	16.0	15.4	14.7	14.1
20	27.7	25.0	23.2	22.4	21.6	20.8	20.0	19.2	18.4	17.6
25	34.5	31.5	29.5	28.3	27.2	26.0	25.0	24.0	22.7	21.7
30	41.7	38.3	36.0	34.5	33.0	31.5	30.0	28.8	27.3	26.1
32	45.8	41.0	37.8	36.5	34.9	33.3	32.0	30.7	29.1	27.8
40	55.5	51.0	48.0	46.0	44.0	42.0	40.0	38.0	36.0	34.0
50	70.0	64.0	60.0	57.5	55.0	52.5	50.0	47.5	45.0	42.5
63	88.1	80.6	75.6	72.5	69.9	66.1	63.0	59.8	56.1	52.9

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

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5. GENERAL CHARACTERISTICS *(continued)*:

Derating of MCB for use with fluorescent lights:

Ferromagnetic and electronic ballasts have a high inrush current for a short time. These currents can cause the tripping of circuit breakers. At the time of the installation, it should take into account the maximum number of ballasts per circuit breaker that the manufacturers of lamps and ballasts indicate in their catalogues.

Influence of the altitude:

	≤2000 m	3000 m	4000 m
Dielectric holding	3000 V	2500 V	2000 V
Max operational Voltage	400 V	400 V	400 V
Derating at 30° C	none	none	none

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

When several MCBs are juxtaposed and operate simultaneously, the thermal evacuation 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.

To avoid using these coefficients, it is necessary to allow a good ventilation and to separate the devices with 0.5 module spacing elements (cat. N° 4 063 07).

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

5. GENERAL CHARACTERISTICS (continued):

Coordination between circuit-breakers and fuses, three-phase network (+ neutral) 400 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 230/400V.

		Fuse upstream									
		gG Type									
m.c.b. downstream		≤20A	25A	32A	40A	50A	63A	80A	100A	125A	160A
DX ³ 10000A/16kA B, C curves	≤6A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	40kA
	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									
m.c.b. downstream		≤20A	25A	32A	40A	50A	63A	80A	100A	125A	160A
DX ³ 10000A/16kA B, C curves	≤6A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	40kA
	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

All these values are also valid for circuit breakers associated to differential blocks.

According to the curves and ratings of circuit breakers, attention to the threshold and size of upstream fuse which must necessarily be higher.

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

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5. GENERAL CHARACTERISTICS *(continued)*:

Coordination between circuit-breakers and fuses, three-phase network (+ neutral) 400 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 230/400V.

		m.c.b. upstream											
		DX ³ 25kA						DX ³ 36kA					
		B, C, D curves						C curve					
m.c.b. downstream		≤25A	32A	40A	50A	63A	80-125A	≤25A	32A	40A	50A	63A	80A
DX ³ 10000A/16kA B, C curves	≤6A	25kA	25kA	25kA	25kA	25kA	25kA	36kA	36kA	36kA	36kA	36kA	36kA
	10A	25kA	25kA	25kA	25kA	25kA	25kA	36kA	36kA	36kA	36kA	36kA	36kA
	16A	25kA	25kA	25kA	25kA	25kA	25kA	36kA	36kA	36kA	36kA	36kA	36kA
	20A	25kA	25kA	25kA	25kA	25kA	25kA	36kA	36kA	36kA	36kA	36kA	36kA
	25A	-	25kA	25kA	25kA	25kA	25kA	-	36kA	36kA	36kA	36kA	36kA
	32A	-	-	25kA	25kA	25kA	25kA	-	-	36kA	36kA	36kA	36kA
	40A	-	-	-	25kA	25kA	25kA	-	-	-	36kA	36kA	36kA
	50A	-	-	-	-	25kA	25kA	-	-	-	-	36kA	36kA
	63A	-	-	-	-	-	25kA	-	-	-	-	-	36kA

		m.c.b. upstream				
		DX ³ 50kA				
		B, C, D curves				
m.c.b. downstream		≤25A	32A	40A	50A	63A
DX ³ 10000A/16kA B, C curves	≤6A	50kA	50kA	50kA	50kA	50kA
	10A	50kA	50kA	50kA	50kA	50kA
	16A	50kA	50kA	50kA	50kA	50kA
	20A	50kA	50kA	50kA	50kA	50kA
	25A	-	50kA	50kA	50kA	50kA
	32A	-	-	50kA	50kA	50kA
	40A	-	-	-	50kA	50kA
	50A	-	-	-	-	50kA
	63A	-	-	-	-	-

All these values are also valid for circuit breakers associated to differential blocks.

According to the curves and ratings of circuit breakers, attention to the magnetic threshold and to the size of upstream circuit breakers which must necessarily be higher.

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

5. GENERAL CHARACTERISTICS (continued):

Coordination between modular circuit-breakers and MCCBs, three-phase network (+ neutral) 400 V~ according to IEC/EN60947-2:

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 230/400V.

m.c.b. downstream		m.c.c.b. upstream											
		DPX 125						DPX 125					
		16kA						25 - 36kA					
		16A	25A	40A	63A	100A	125A	16A	25A	40A	63A	100A	125A
DX ³ 10000A/16kA B, C curves	≤6A	16kA	16kA	16kA	16kA	16kA	16kA	25kA	25kA	25kA	25kA	25kA	25kA
	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.b. downstream		m.c.c.b. upstream												
		DPX ³ 160 / DPX ³ 160 + diff.									DPX 160			
		25 - 36 - 50kA									25 - 36 - 50kA			
		16A	25A	40A	63A	80A	100A	125A	160A	25A	40A	63A	100A	125A
DX ³ 10000A/16kA B, C curves	≤6A	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA
	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	36kA	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	

All these values are also valid for circuit breakers associated to differential blocks.

According to the curves and ratings of circuit breakers, attention to the magnetic threshold and to the size of upstream circuit breakers which must necessarily be higher.

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

5. GENERAL CHARACTERISTICS (continued):

Coordination between modular circuit-breakers and MCCBs, three-phase network (+ neutral) 400 V~ according to IEC/EN60947-2:

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 230/400V.

m.c.b. downstream		m.c.c.b. upstream										
		DPX 250ER			DPX 250ER AB				DPX ³ 250 / DPX ³ 250+diff. (Thermo-Magnetic & electronic)			
		25 - 36 - 50kA			36kA				25 - 36 - 50kA - 70kA			
		100A	160A	250A	90A	130A	170A	240A	100A	160A	200A	250A
DX ³ 10000A/16kA B, C curves	≤6A	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA
	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	25kA
	32A	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA
	40A	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA
	50A	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA
	63A	20kA	20kA	20kA	20kA	20kA	20kA	20kA	25kA	25kA	25kA	25kA

m.c.b. downstream		m.c.c.b. upstream												
		DPX / H / L 250 (Thermo-Magnetic & electronic)							DPX 400AB		DPX / DPXH / DPXL 630 (Thermo-Magnetic & electronic)			
		36 - 70 - 100kA							36kA		36 - 70 - 100kA			
		25A	40A	63A	100A	160A	250A	320A	400A	250A	320A	400A	500A	630A
DX ³ 10000A/16kA B, C curves	≤6A	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA
	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
	32A	-	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA
	40A	-	-	25kA	25kA	25kA	25kA	20kA	20kA	20kA	20kA	20kA	20kA	20kA
	50A	-	-	25kA	25kA	25kA	25kA	20kA	20kA	20kA	20kA	20kA	20kA	20kA
	63A	-	-	-	20kA	20kA	20kA	20kA	20kA	20kA	20kA	20kA	20kA	20kA

All these values are also valid for circuit breakers associated to differential blocks.

According to the curves and ratings of circuit breakers, attention to the magnetic (or electronic) threshold and to the size of upstream circuit breakers which must necessarily be higher.

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

5. GENERAL CHARACTERISTICS *(continued)*:

Coordination between modular circuit-breakers and MCCBs, three-phase network (+ neutral) 400 V~ according to IEC/EN60947-2:

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 230/400V.

		m.c.c.b. upstream	
		DPX / H / L 1250 (Thermal-Magnetic)	DPX / H 1600 (electronic)
		50 – 70 – 100kA	36 – 70kA
m.c.b. downstream		500 to 1250A	630 to 1600A
DX ³ 10000A/16kA B, C curves	≤6A	25kA	25kA
	10A	25kA	25kA
	16A	25kA	25kA
	20A	25kA	25kA
	25A	20kA	20kA
	32A	16kA	16kA
	40A	16kA	16kA
	50A	16kA	16kA
	63A	16kA	16kA

All these values are also valid for circuit breakers associated to differential blocks.

According to the curves and ratings of circuit breakers, attention to the magnetic (or electronic) threshold and to the size of upstream circuit breakers which must necessarily be higher.

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

5. GENERAL CHARACTERISTICS (continued):

Coordination between modular circuit-breakers and fuses, three-phase network (+ neutral) 230 V~ according to IEC/EN 60947-2:

m.c.b. downstream		Fuse upstream									
		gG Type									
		≤20A	25A	32A	40A	50A	63A	80A	100A	125A	160A
DX ³ 10000A/16kA B, C curves	≤6A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	40kA
	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

m.c.b. downstream		Fuse upstream									
		aM Type									
		≤20A	25A	32A	40A	50A	63A	80A	100A	125A	160A
DX ³ 10000A/16kA B, C curves	≤6A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	40kA
	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

All these values are also valid for circuit breakers associated to differential blocks.

According to the curves and ratings of circuit breakers, attention to the threshold and to the size of upstream fuses which must necessarily be higher.

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

5. GENERAL CHARACTERISTICS (continued):

Coordination between modular circuit-breakers, three-phase network (+ neutral) 230 V~ according to IEC/EN 60947-2:

m.c.b. downstream		m.c.b. upstream											
		DX ³ 25kA						DX ³ 36kA					
		B, C, D curves						C curve					
		≤25A	32A	40A	50A	63A	80-125A	≤25A	32A	40A	50A	63A	80A
DX ³ 10000A/16kA B, C curves	≤6A	50kA	50kA	32kA	32kA	32kA	32kA	50kA	50kA	50kA	50kA	50kA	50kA
	10A	50kA	50kA	32kA	32kA	32kA	32kA	50kA	50kA	50kA	50kA	50kA	50kA
	16A	50kA	50kA	32kA	32kA	32kA	32kA	50kA	50kA	50kA	50kA	50kA	50kA
	20A	50kA	50kA	32kA	32kA	32kA	32kA	50kA	50kA	50kA	50kA	50kA	50kA
	25A	-	50kA	32kA	32kA	32kA	32kA	-	50kA	50kA	50kA	50kA	50kA
	32A	-	-	32kA	32kA	32kA	32kA	-	-	50kA	50kA	50kA	50kA
	40A	-	-	-	32kA	32kA	32kA	-	-	-	50kA	50kA	50kA
	50A	-	-	-	-	32kA	32kA	-	-	-	-	50kA	50kA
	63A	-	-	-	-	-	32kA	-	-	-	-	-	50kA

m.c.b. downstream		m.c.b. upstream				
		DX ³ 50kA				
		B, C, D curves				
		≤25A	32A	40A	50A	63A
DX ³ 10000A/16kA B, C curves	≤6A	70kA	70kA	70kA	70kA	70kA
	10A	70kA	70kA	70kA	70kA	70kA
	16A	70kA	70kA	70kA	70kA	70kA
	20A	70kA	70kA	70kA	70kA	70kA
	25A	-	70kA	70kA	70kA	70kA
	32A	-	-	70kA	70kA	70kA
	40A	-	-	-	70kA	70kA
	50A	-	-	-	-	70kA
	63A	-	-	-	-	-

All these values are also valid for circuit breakers associated to differential blocks.

According to the curves and ratings of circuit breakers, attention to the magnetic threshold and to the size of upstream circuit breakers which must necessarily be higher.

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

5. GENERAL CHARACTERISTICS (continued):

Coordination between modular circuit-breakers and M.C.C.Bs, three -phase network (+ neutral) 230 V~ according to IEC/EN 60947-2:

m.c.b. downstream		m.c.c.b. upstream											
		DPX 125						DPX 125					
		25kA						36kA					
		16A	25A	40A	63A	100A	125A	16A	25A	40A	63A	100A	125A
DX ³ 10000A/16kA B, C curves	≤6A	35kA	35kA	35kA	35kA	35kA	35kA	40kA	40kA	40kA	40kA	40kA	40kA
	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	-	-	-	35kA	35kA	35kA	-	-	-	35kA	35kA	35kA
	63A	-	-	-	-	35kA	35kA	-	-	-	-	35kA	35kA

m.c.b. downstream		m.c.c.b. upstream							
		DPX ³ 160 / DPX ³ 160 + diff.							
		16kA							
		16A	25A	40A	63A	80A	100A	125A	160A
DX ³ 10000A/16kA B, C curves	≤6A	35kA	35kA	35kA	35kA	35kA	35kA	35kA	35kA
	10A	35kA	35kA	35kA	35kA	35kA	35kA	35kA	35kA
	16A	-	35kA	35kA	35kA	35kA	35kA	35kA	35kA
	20A	-	35kA	35kA	35kA	35kA	35kA	35kA	35kA
	25A	-	-	35kA	35kA	35kA	35kA	35kA	35kA
	32A	-	-	35kA	35kA	35kA	35kA	35kA	35kA
	40A	-	-	-	35kA	35kA	35kA	35kA	35kA
	50A	-	-	-	35kA	35kA	35kA	35kA	35kA
	63A	-	-	-	-	35kA	35kA	35kA	35kA

All these values are also valid for circuit breakers associated to differential blocks.

According to the curves and ratings of circuit breakers, attention to the magnetic threshold and to the size of upstream circuit breakers which must necessarily be higher.

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

5. GENERAL CHARACTERISTICS (continued):

Coordination between modular circuit-breakers and M.C.C.Bs, three -phase network (+ neutral) 230 V~ according to IEC/EN 60947-2:

		m.c.c.b. upstream							
		DPX ³ 160 / DPX ³ 160 + diff.							
		25kA							
m.c.b. downstream		16A	25A	40A	63A	80A	100A	125A	160A
DX ³ 10000A/16kA B, C curves	≤6A	40kA	40kA	40kA	40kA	40kA	40kA	40kA	40kA
	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							
		DPX ³ 160 / DPX ³ 160 + diff.							
		36 - 50kA							
m.c.b. downstream		16A	25A	40A	63A	80A	100A	125A	160A
DX ³ 10000A/16kA B, C curves	≤6A	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA
	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
	40A	-	-	-	50kA	50kA	50kA	50kA	50kA
	50A				50kA	50kA	50kA	50kA	50kA
	63A					50kA	50kA	50kA	50kA

All these values are also valid for circuit breakers associated to differential blocks.

According to the curves and ratings of circuit breakers, attention to the magnetic threshold and to the size of upstream circuit breakers which must necessarily be higher.

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

5. GENERAL CHARACTERISTICS (continued):

Coordination between modular circuit-breakers and M.C.C.Bs, three phase network (+ neutral) 230 V~ according to IEC/EN 60947-2:

		m.c.c.b. upstream												
		DPX 160					DPX 160					DPX 250ER		
		25kA					36 - 50kA					25kA		
m.c.b. downstream		25A	40A	63A	100A	125A	25A	40A	63A	100A	125A	100A	160A	250A
DX ³ 10000A/16kA B, C curves	≤6A	40kA	40kA	40kA	40kA	40kA	50kA	50kA	50kA	50kA	50kA	40kA	40kA	40kA
	10A	40kA	40kA	40kA	40kA	40kA	50kA	50kA	50kA	50kA	50kA	40kA	40kA	40kA
	16A	40kA	40kA	40kA	40kA	40kA	50kA	50kA	50kA	50kA	50kA	40kA	40kA	40kA
	20A	40kA	40kA	40kA	40kA	40kA	50kA	50kA	50kA	50kA	50kA	40kA	40kA	40kA
	25A	-	40kA	40kA	40kA	40kA	-	50kA	50kA	50kA	50kA	40kA	40kA	40kA
	32A	-	40kA	40kA	40kA	40kA	-	50kA	50kA	50kA	50kA	40kA	40kA	40kA
	40A	-	-	40kA	40kA	40kA	-	-	50kA	50kA	50kA	40kA	40kA	40kA
	50A	-	-	36kA	36kA	36kA	-	-	36kA	36kA	36kA	36kA	36kA	36kA
63A	-	-	-	36kA	36kA	-	-	-	36kA	36kA	36kA	36kA	36kA	

		m.c.c.b. upstream										
		DPX 250ER			DPX 250ER AB				DPX ³ 250 / DPX ³ 250+diff. (Thermal-magnetic & electronic)			
		36 - 50kA			36kA				25kA			
m.c.b. downstream		100A	160A	250A	90A	130A	170A	240A	100A	160A	200A	250A
DX ³ 10000A/16kA B, C curves	≤6A	50kA	50kA	50kA	50kA	50kA	50kA	50kA	40kA	40kA	40kA	40kA
	10A	50kA	50kA	50kA	50kA	50kA	50kA	50kA	40kA	40kA	40kA	40kA
	16A	50kA	50kA	50kA	50kA	50kA	50kA	50kA	40kA	40kA	40kA	40kA
	20A	50kA	50kA	50kA	50kA	50kA	50kA	50kA	40kA	40kA	40kA	40kA
	25A	50kA	50kA	50kA	50kA	50kA	50kA	50kA	40kA	40kA	40kA	40kA
	32A	50kA	50kA	50kA	50kA	50kA	50kA	50kA	40kA	40kA	40kA	40kA
	40A	50kA	50kA	50kA	50kA	50kA	50kA	50kA	40kA	40kA	40kA	40kA
	50A	36kA	36kA	36kA	36kA	36kA	36kA	36kA	40kA	40kA	40kA	40kA
	63A	36kA	36kA	36kA	36kA	36kA	36kA	36kA	40kA	40kA	40kA	40kA

All these values are also valid for circuit breakers associated to differential blocks.

According to the curves and ratings of circuit breakers, attention to the magnetic (or electronic) threshold and to the size of upstream circuit breakers which must necessarily be higher.

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

5. GENERAL CHARACTERISTICS (continued):

Coordination between modular circuit-breakers and M.C.C.Bs, three phase network (+ neutral) 230 V~ according to IEC/EN 60947-2:

		m.c.c.b. upstream									
		DPX ³ 250 / DPX ³ 250+diff. (Thermal-magnetic & electronic)				DPX / H / L 250 (Thermal-magnetic & electronic)					
		36 – 50 – 70kA				36 – 70 – 100kA					
m.c.b. downstream		100A	160A	200A	250A	25A	40A	63A	100A	160A	250A
DX ³ 10000A/16kA B, C curves	≤6A	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA
	10A	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA
	16A	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA
	20A	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	50kA	50kA
	40A	50kA	50kA	50kA	50kA	-	-	50kA	50kA	50kA	50kA
	50A	50kA	50kA	50kA	50kA	-	-	50kA	50kA	50kA	50kA
63A	50kA	50kA	50kA	50kA	-	-	-	50kA	50kA	50kA	

		m.c.c.b. upstream						
		DPX 400AB	DPX / DPXH / DPXL 630MT (Thermal-magnetic & electronic)					
		36kA	36 – 70 – 100kA					
m.c.b. downstream		320A	400A	250A	320A	400A	500A	630A
DX ³ 10000A/16kA B, C curves	≤6A	50kA	50kA	50kA	50kA	50kA	50kA	50kA
	10A	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	50kA
	32A	50kA	50kA	50kA	50kA	50kA	50kA	50kA
	40A	50kA	50kA	50kA	50kA	50kA	50kA	50kA
	50A	36kA	36kA	36kA	36kA	36kA	36kA	36kA
	63A	36kA	36kA	36kA	36kA	36kA	36kA	36kA

All these values are also valid for circuit breakers associated to differential blocks.

According to the curves and ratings of circuit breakers, attention to the magnetic (or electronic) threshold and to the size of upstream circuit breakers which must necessarily be higher.

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

5. GENERAL CHARACTERISTICS *(continued)*:

Coordination between modular circuit-breakers and M.C.C.Bs, three phase network (+ neutral) 230 V~ according to IEC/EN 60947-2:

		m.c.c.b. upstream	
		DPX / H / L 1250 (Thermal-magnetic)	DPX / H 1600 (electronic)
		50 – 70 – 100kA	36 – 70kA
m.c.b. downstream		500 to 1250A	630 to 1600A
DX ³ 10000A/16kA B, C curves	≤6A	50kA	50kA
	10A	50kA	50kA
	16A	50kA	50kA
	20A	50kA	50kA
	25A	50kA	50kA
	32A	50kA	50kA
	40A	50kA	50kA
	50A	36kA	36kA
	63A	36kA	36kA

All these values are also valid for circuit breakers associated to differential blocks.

According to the curves and ratings of circuit breakers, attention to the magnetic (or electronic) threshold and to the size of upstream circuit breakers which must necessarily be higher.

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

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 modular circuits breakers and fuses:

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

		Fuse upstream							
		gG Type							
m.c.b. downstream		32A	40A	50A	63A	80A	100A	125A	160A
DX ³ 10000A/16kA B, C curves	≤6A	1300	1900	2500	4000	4600	11000	T	T
	10A	-	1600	2200	3200	3600	7000	11000	T
	16A	-	1400	1800	2600	3000	5600	8000	15000
	20A	-	1200	1500	2200	2500	4600	6300	10000
	25A	-	-	1300	2000	2200	4100	5500	9000
	32A	-	-	1200	1700	1900	3500	4500	8000
	40A	-	-	-	-	1700	3000	4000	6000
	50A	-	-	-	-	16000	2600	3500	5000
	63A	-	-	-	-	-	2400	3300	5000

		Fuse upstream								
		aM Type								
m.c.b. downstream		25A	32A	40A	50A	63A	80A	100A	125A	160A
DX ³ 10000A/16kA B, C curves	≤6A	1000	1600	2100	3200	6200	15000	T	T	T
	10A	-	1100	1700	2500	5000	7800	12000	T	T
	16A	-	1000	1400	2100	4000	6000	9000	T	T
	20A	-	-	1300	1800	3400	5100	7000	14000	T
	25A	-	-	1100	1600	3000	4500	6000	9300	14000
	32A	-	-	-	1300	2400	3800	5000	7700	9000
	40A	-	-	-	-	2100	3100	4200	6400	7000
	50A	-	-	-	-	2000	2900	3700	6000	6000
	63A	-	-	-	-	-	2800	3500	5500	6000

- . T = Total discrimination

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

5. GENERAL CHARACTERISTICS (continued):

Selectivity between modular circuits breakers:

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

		m.c.b. upstream										
		DX ³ 25kA										
		B curve										
m.c.b. downstream		10A	16A	20A	25A	32A	40A	50A	63A	80A	100A	125A
DX ³ 10000A/16kA B, C curves	≤6A	40	64	80	100	700	1200	1500	3000	4000	T	T
	10A	-	64	80	100	500	700	1000	1800	3000	5000	T
	16A	-	-	80	100	300	500	700	1300	2000	3600	5500
	20A	-	-	-	100	-	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

		m.c.b. upstream										
		DX ³ 25kA										
		C curve										
m.c.b. downstream		10A	16A	20A	25A	32A	40A	50A	63A	80A	100A	125A
DX ³ 10000A/16kA B, C curves	≤6A	75	120	150	187	700	1200	1500	3000	4000	T	T
	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

. T = Total discrimination

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

5. GENERAL CHARACTERISTICS (continued):

Selectivity between modular circuits breakers:

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

		m.c.b. upstream										
		DX ³ 25kA										
		D curve										
m.c.b. downstream		10A	16A	20A	25A	32A	40A	50A	63A	80A	100A	125A
DX ³ 10000A/16kA B, C curves	≤6A	120	192	240	500	700	1200	1500	3000	4000	T	T
	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

		m.c.b. upstream								
		DX ³ 36kA								
		C curve								
m.c.b. downstream		10A	16A	20A	25A	32A	40A	50A	63A	80A
DX ³ 10000A/16kA B, C curves	≤6A	75	120	170	500	700	1200	1500	3000	4000
	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

. T = Total discrimination

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

5. GENERAL CHARACTERISTICS (continued):

Selectivity between modular circuits breakers:

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

		m.c.b. upstream							
		DX ³ 50kA							
		B curve							
m.c.b. downstream		10A	16A	20A	25A	32A	40A	50A	63A
DX ³ 10000A/16kA B, C curves	≤6A	-	64	170	500	700	1200	1500	3000
	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	-	-	-	-	-	-	-	-

		m.c.b. upstream							
		DX ³ 50kA							
		C curve							
m.c.b. downstream		10A	16A	20A	25A	32A	40A	50A	63A
DX ³ 10000A/16kA B, C curves	≤6A	75	120	170	500	700	1200	1500	3000
	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	-	-	-	-	-	-	-	-

. T = Total discrimination

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

5. GENERAL CHARACTERISTICS *(continued)*:

Selectivity between modular circuits breakers:

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

		m.c.b. upstream							
		DX ³ 50kA							
		D curve							
m.c.b. downstream		10A	16A	20A	25A	32A	40A	50A	63A
DX ³ 10000A/16kA B, C curves	≤6A	120	192	240	500	700	1200	1500	3000
	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	-	-	-	-	-	-	-	-

. T = Total discrimination

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

5. GENERAL CHARACTERISTICS (continued):

Selectivity between modular circuits breakers and M.C.C.Bs:

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

		m.c.c.b. upstream										
		DPX 125						DPX 160				
		16 – 25 – 36kA						25 – 36 – 50kA				
m.c.b. downstream		16A	25A	40A	63A	100A	125A	25A	40A	63A	100A	160A
DX ³ 10000A/16kA B, C curves	≤6A	6000	6000	6000	6000	T	T	12000	T	T	T	T
	10A	5000	5000	5000	5000	7500	7500	7000	7000	7000	7000	T
	16A	-	4000	4000	4000	6000	6000	6000	6000	6000	6000	T
	20A	-	4000	3000	3000	5000	5000	-	5000	5000	5000	12000
	25A	-	-	3000	3000	4500	4500	-	3500	3500	4000	8500
	32A	-	-	-	2000	4000	4000	-	-	2000	3500	7000
	40A	-	-	-	2000	3000	3000	-	-	2000	2500	6000
	50A	-	-	-	-	3000	3000	-	-	-	2000	5500
	63A	-	-	-	-	3000	3000	-	-	-	2000	5000

		m.c.c.b. upstream										
		DPX ³ 160 DPX ³ 160 + diff.								DPX 250ER		
		16 - 25 - 36 - 50kA								25 - 36 - 50kA		
m.c.b. downstream		16A	25A	40A	63A	80A	100A	125A	160A	100A	160A	250A
DX ³ 10000A/16kA B, C curves	≤6A	6000	12000	12000	T	T	T	T	T	T	T	T
	10A	5000	7000	7000	7000	T	T	T	T	T	T	T
	16A	-	6000	6000	6000	6000	T	T	T	8000	T	T
	20A	-	5000	5000	5000	5000	6000	T	T	6000	T	T
	25A	-	-	4500	4500	4500	4500	8500	T	5000	8500	T
	32A	-	-	-	3000	4000	4000	7000	10000	4000	7000	T
	40A	-	-	-	3000	3000	3000	6000	8000	3500	6000	T
	50A	-	-	-	-	3000	3000	5500	7000	3000	5500	7000
	63A	-	-	-	-	3000	3000	5000	6000	2000	5000	5000

. T = Total discrimination

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

5. GENERAL CHARACTERISTICS (continued):

Selectivity between modular circuits breakers and M.C.C.Bs:

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

m.c.b. downstream		m.c.b. upstream									
		DPX 250ER AB				DPX 250 / H / L (Thermal-magnetic & electronic)					
		36kA				36 - 70 - 100kA					
		90A	130A	170A	240A	25A	40A	63A	100A	160A	250A
DX ³ 10000A/16kA B, C curves	≤6A	T	T	T	T	6000	6000	6000	T	T	T
	10A	T	T	T	T	5000	5000	5000	15000	T	T
	16A	T	T	T	T	4000	4000	4000	10000	T	T
	20A	T	T	T	T	-	4000	4000	8000	T	T
	25A	T	T	T	T	-	3000	3000	6000	T	T
	32A	T	T	T	T	-	-	2000	5000	T	T
	40A	3500	T	T	T	-	-	2000	5000	10000	T
	50A	3000	4000	T	T	-	-	-	4000	8000	T
	63A	2000	3000	T	T	-	-	-	4000	8000	T

m.c.b. downstream		m.c.b. upstream								
		DPX ³ 250 DPX ³ 250 + diff (Thermal-magnetic & electronic)				DPX 400AB		DPX / H / L 1250 (Thermal-magnetic)		DPX / H 1600 (electronic)
		25 - 36 - 50 - 70kA				36kA		50 - 70 - 100kA		36 - 70kA
		100A	160A	200A	250A	320A	400A	500 to 1250A		630 to 1600A
DX ³ 10000A/16kA B, C curves	≤6A	T	T	T	T	T	T	T		T
	10A	T	T	T	T	T	T	T		T
	16A	T	T	T	T	T	T	T		T
	20A	T	T	T	T	T	T	T		T
	25A	T	T	T	T	T	T	T		T
	32A	5000	T	T	T	T	T	T		T
	40A	5000	T	T	T	T	T	T		T
	50A	4000	T	T	T	T	T	T		T
	63A	4000	T	T	T	T	T	T		T

. T = Total discrimination

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

6. CONFORMITIES AND APPROVALS

In accordance with standards:

- . IEC/EN 60898-1 with 10000 A breaking capacity
- . IEC/EN 60947-2 with 16 kA breaking capacity
- . EU guidelines: 2014/35/EU + 2014/30/EU
- . Legrand circuit-breakers can be used under the conditions of use as defined by IEC/EN 60947.
- . The performance of circuit-breakers can be influenced by particular climates: hot dry, cold dry, hot humid, salt fog atmosphere

Classification according to Annex Q (standard IEC/EN 60947-1):

- . Category C with a range test temperature -25 ° C / +70 ° C
- . Salt fog atmosphere according IEC 60068-2-52

Environment respect – Compliance with EU directives:

- . Compliance with Directive 2011/65/EU of 08/06/11 (RoHS) and subsequent modifications and integrations.

Precious metal:

- . Silver: 0,04 g per pole $I_n \leq 16$ A; 0.08 g per pole $I_n \geq 20$ A
- . No gold

Packaging:

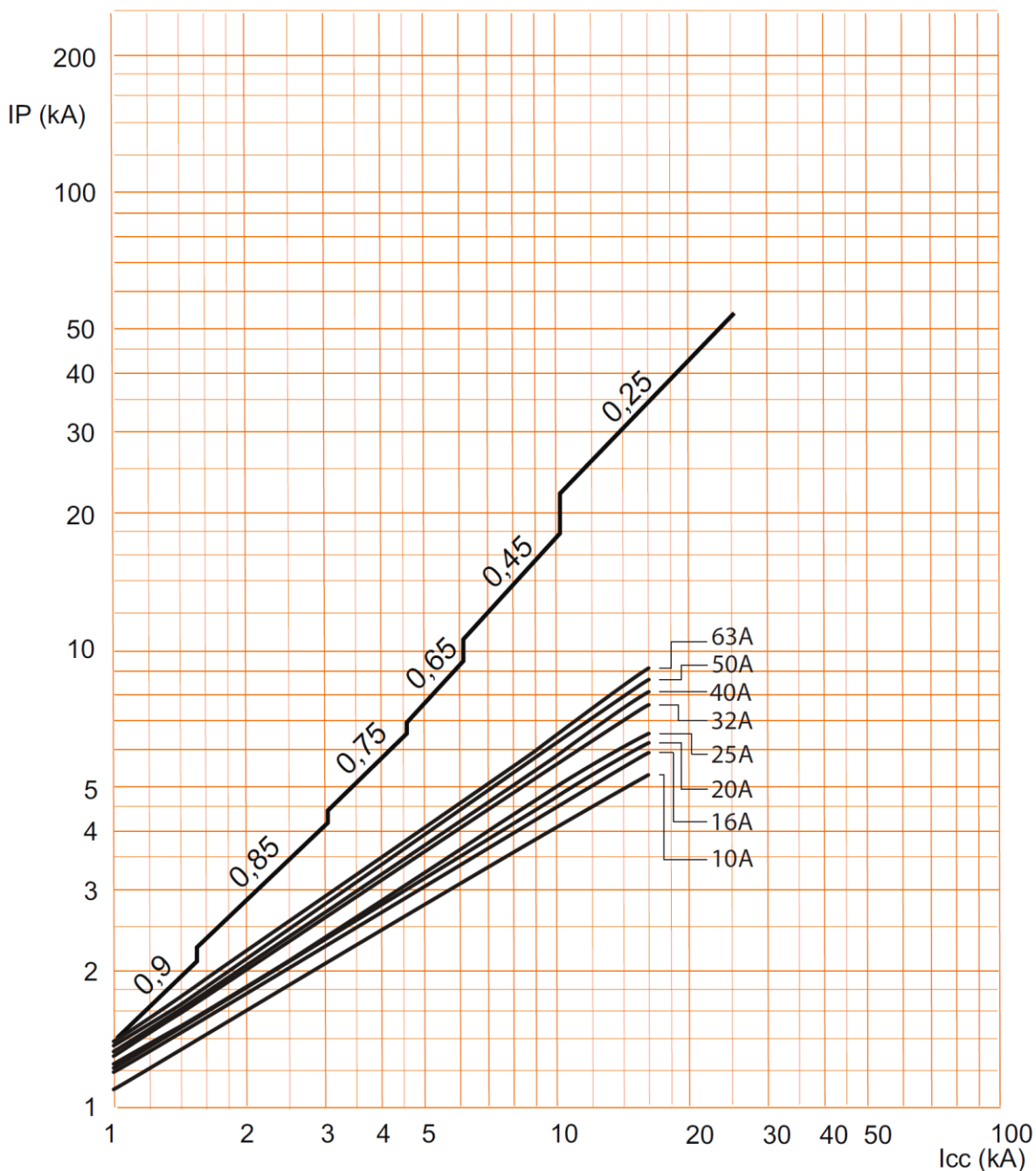
- . Design and manufacture of packaging in accordance with Directive 94/62/EC

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

7. CHARACTERISTIC CURVES

Limiting current curve: circuit breakers curves B, C



. I_{cc} = Square value of symmetric component of the short circuit current (kA).

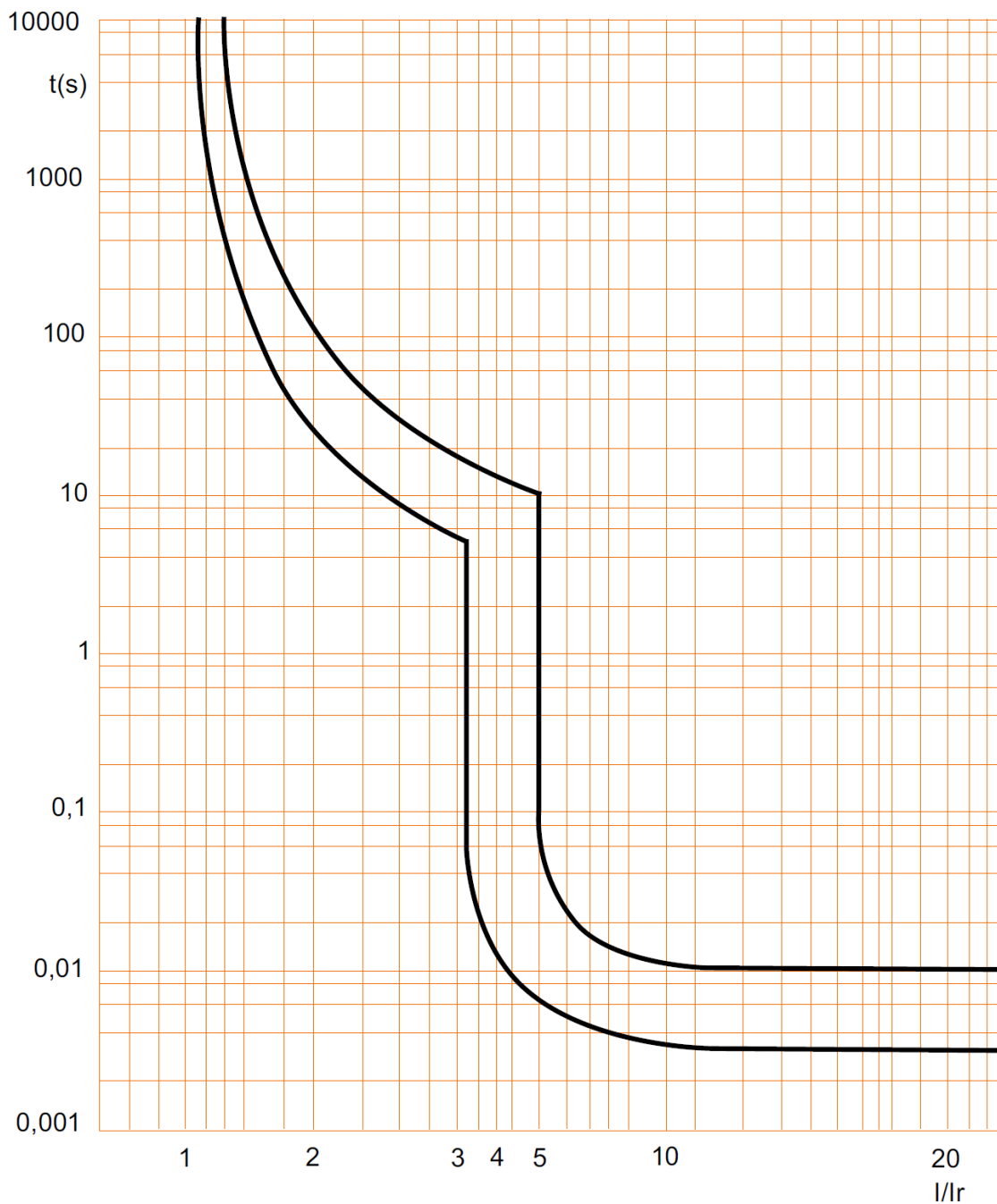
. IP = Max peak value (kA)

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

7. CHARACTERISTIC CURVES (continued)

Operating characteristic of circuit breakers curve B:

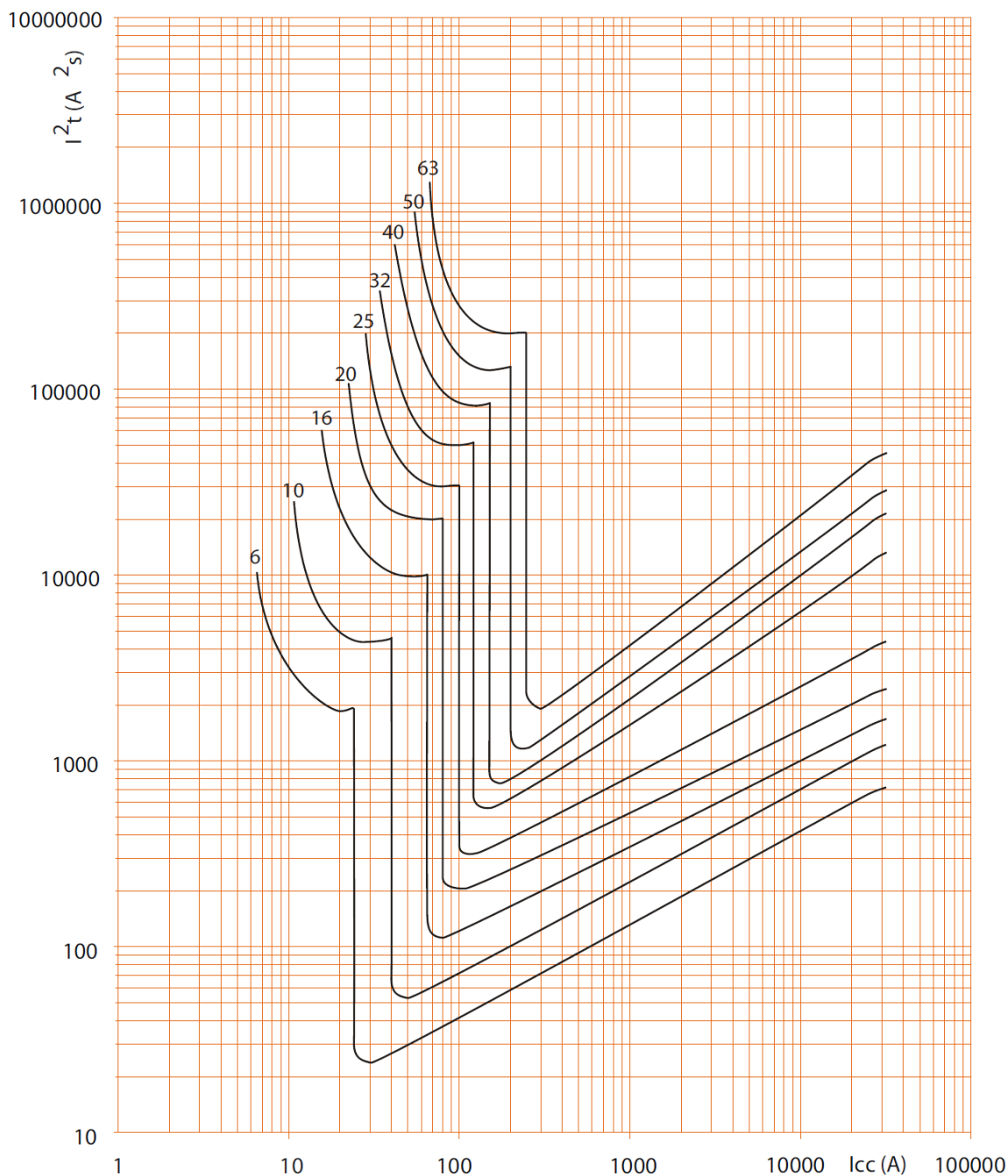


Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

7. CHARACTERISTIC CURVES (continued)

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



. I_{cc} = Square value of symmetric component of the short circuit current (kA).

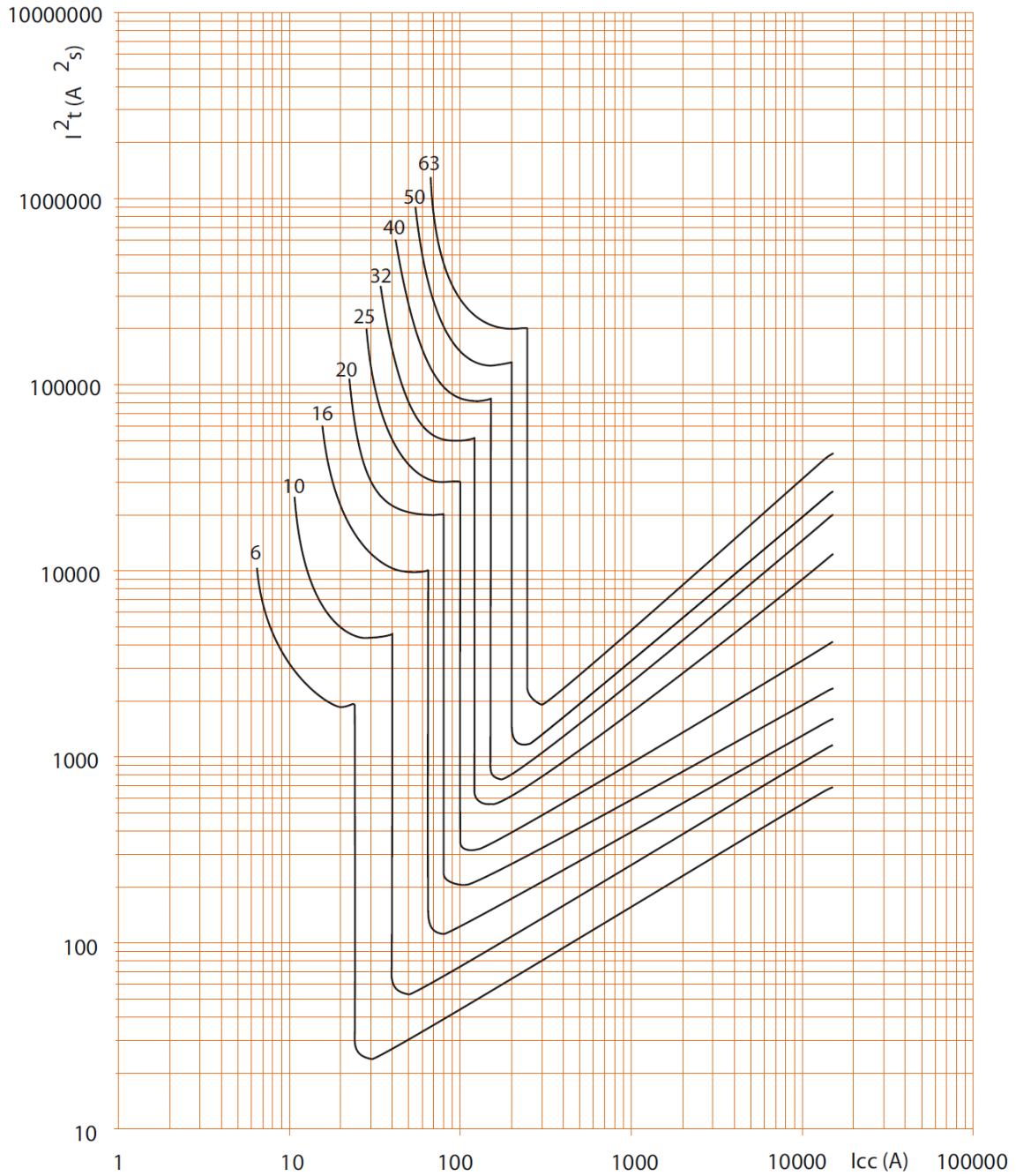
. I^2t = Thermal energy limited (A^2s).

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

7. CHARACTERISTIC CURVES (continued)

. Limiting thermal energy curve of circuit breakers curve B, 2P (400V~ / 50Hz) :



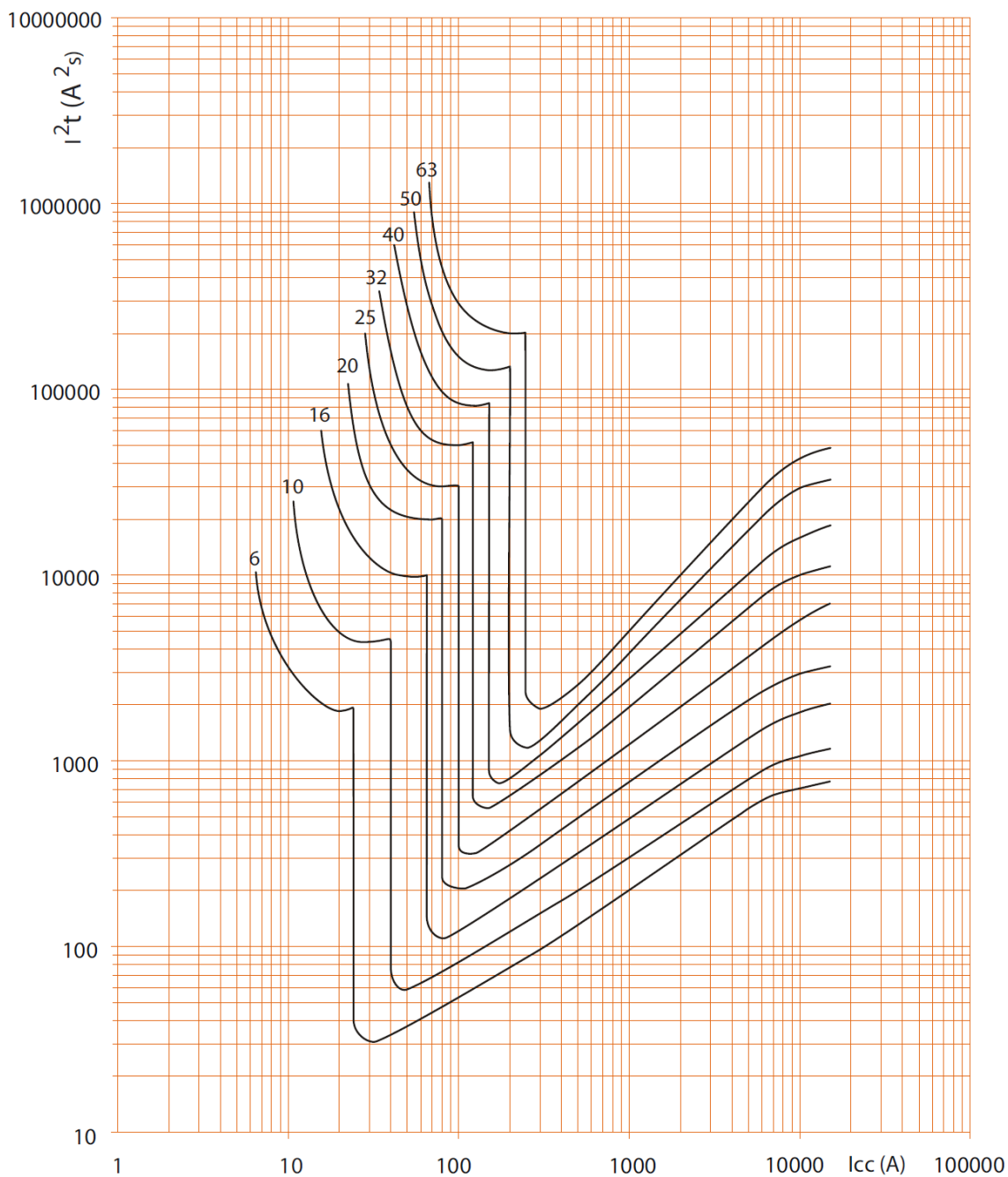
. Icc = Square value of symmetric component of the short circuit current (kA).
. I²t = Thermal energy limited (A²s).

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

7. CHARACTERISTIC CURVES (continued)

. Limiting thermal energy curve of circuit breakers curve B, 1P / 3P / 4P (400V~ / 50Hz) :



. I_{cc} = Square value of symmetric component of the short circuit current (kA).

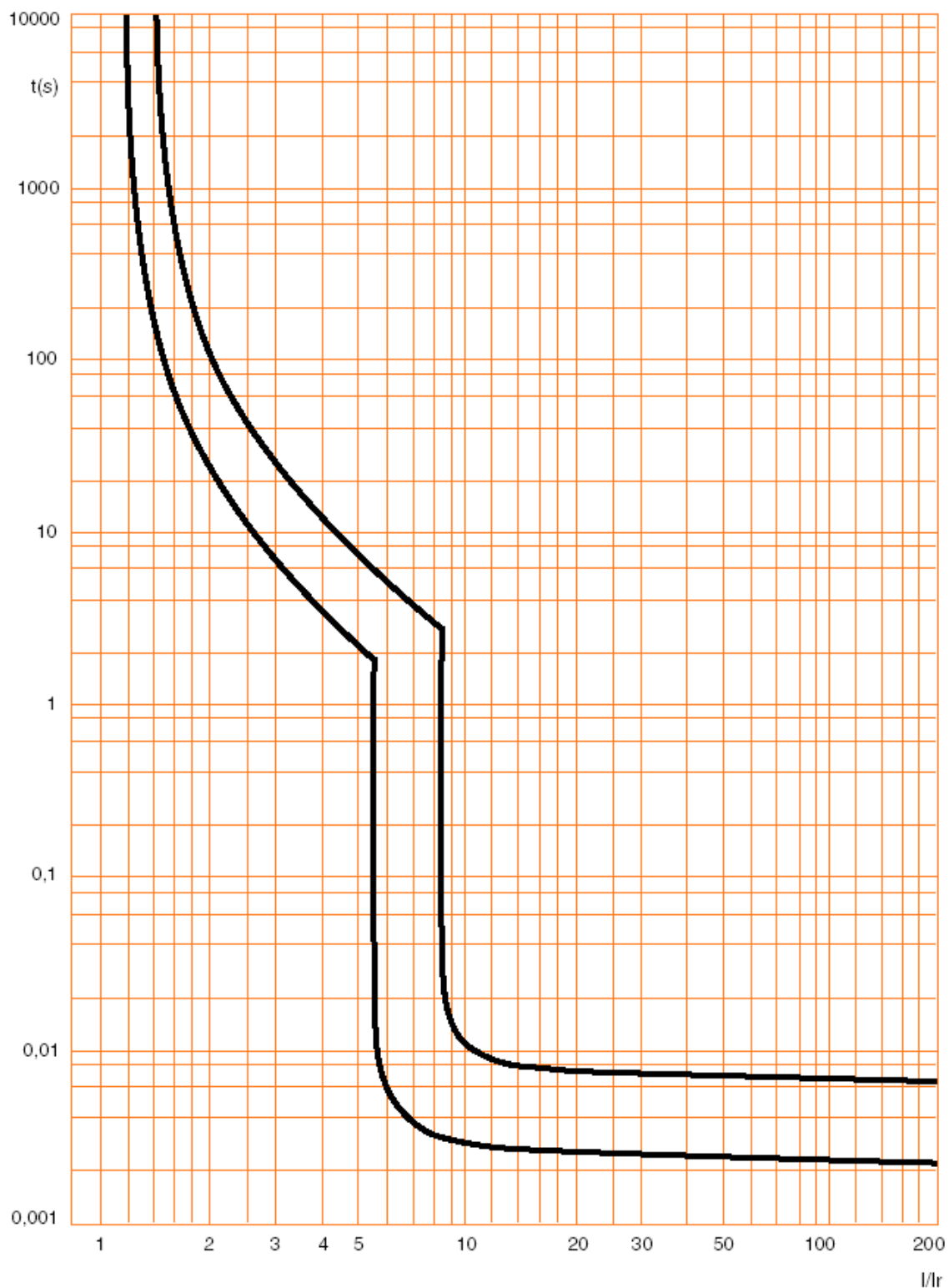
. I^2t = Thermal energy limited (A^2s).

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

7. CHARACTERISTIC CURVES (continued)

Operating characteristic of circuit breakers curve C :

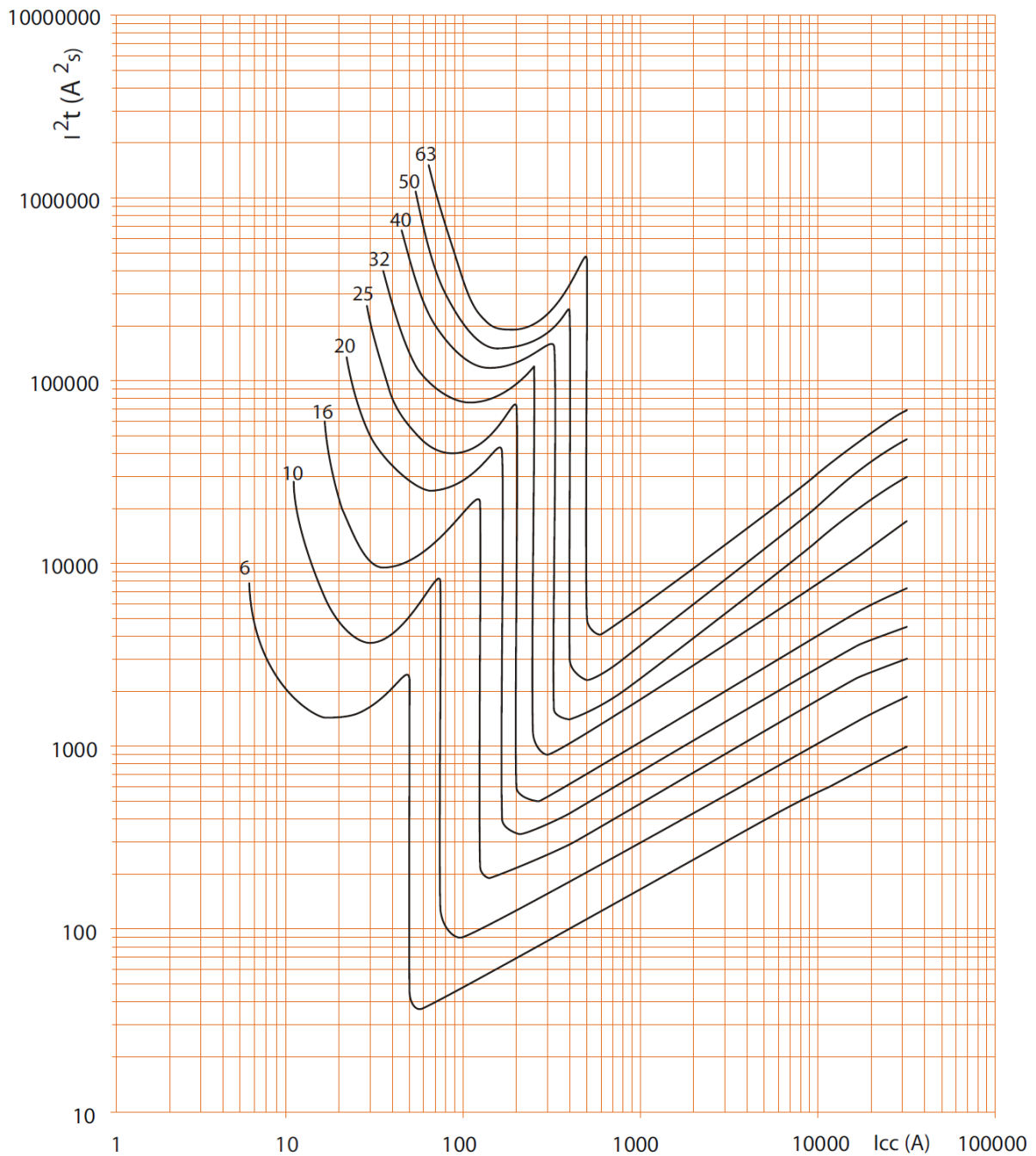


Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

7. CHARACTERISTIC CURVES (continued)

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



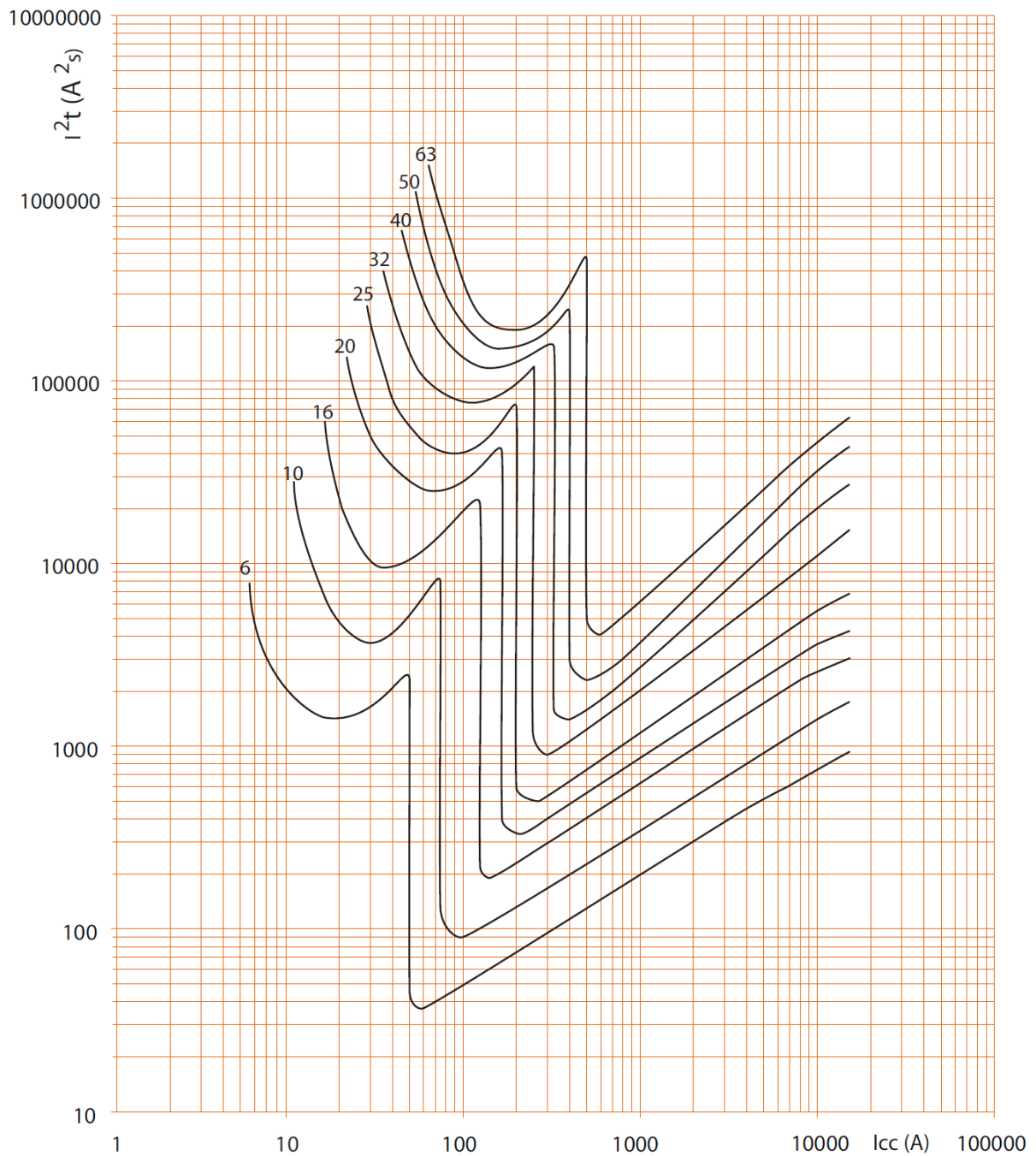
. I_{cc} = Square value of symmetric component of the short circuit current (kA).
. I²t = Thermal energy limited (A²s).

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

7. CHARACTERISTIC CURVES (continued)

. Limiting thermal energy curve of circuit breakers curve C, 2P (400V~ / 50Hz) :



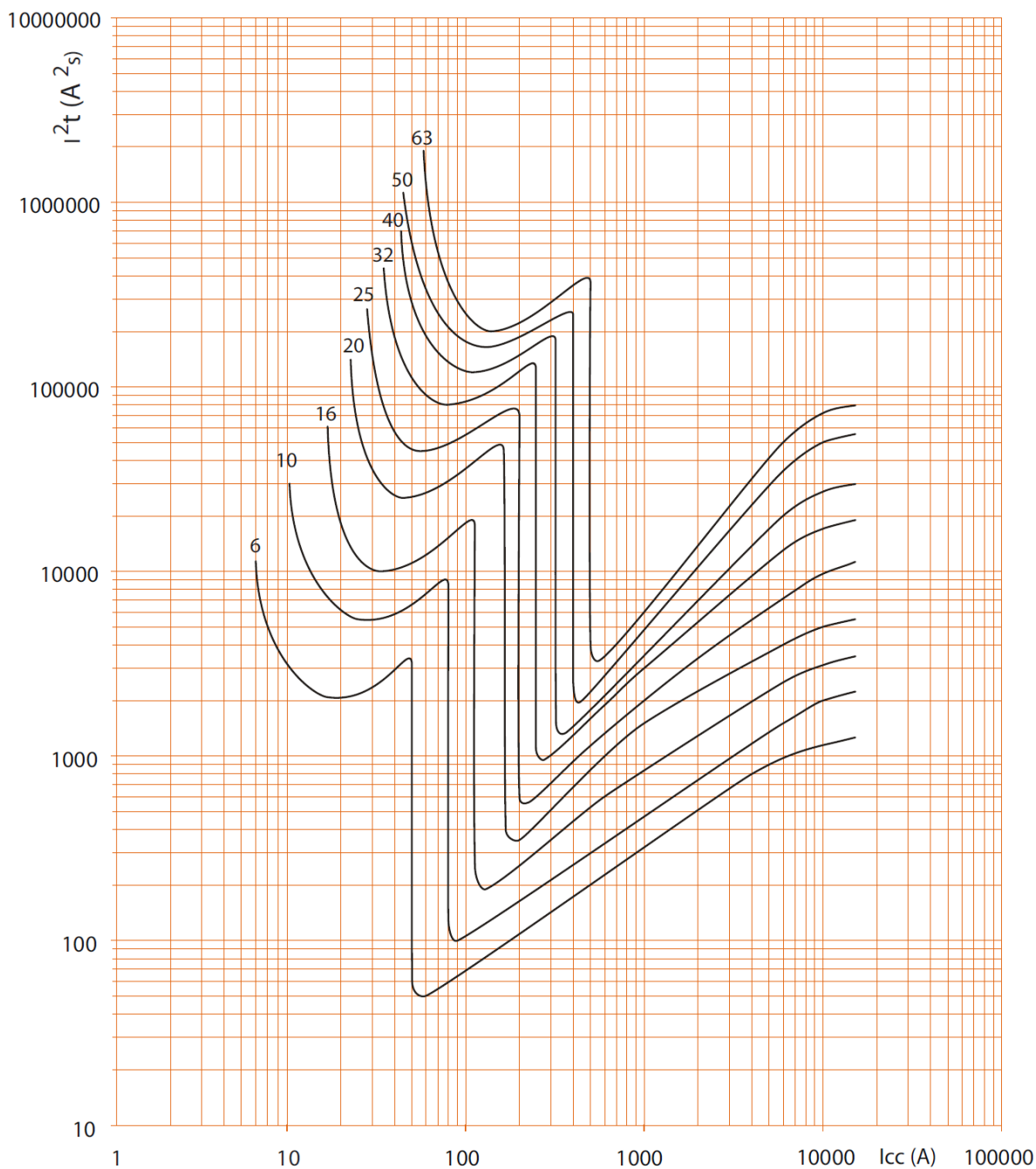
. Icc = Square value of symmetric component of the short circuit current (kA).
. I²t = Thermal energy limited (A²s).

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

7. CHARACTERISTIC CURVES (continued)

. Limiting thermal energy curve of circuit breakers curve C, 1P / 3P / 4P (400V~ / 50Hz) :



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

. I²t = Thermal energy limited (A²s).

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s) : 4 088 80 to 4 093 61

8. AUXILIARIES AND ACCESSORIES

Coupling with RCD add-on modules up to 63A:

m.c.b.	r.c.d.		
	2P	3P	4P
2P	X	-	-
3P	-	X	-
4P	-	-	X

Wiring accessories:

- . Fork busbar (on lower side only)
- . 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.
- . Terminal for aluminium cable (10 mm² to 50 mm²) necessary use (cat n° 4 063 10).

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).

Signalling auxiliaries - prong busbar adapted:

- . 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).
- . Overvoltage release POP (1 module - cat n° 4 062 86)
- . Autonomous shunt trip for NC push-button (1 module - cat n° . 4 062 84 / 87).

Motor driven control modules:

- . Motor driven control 24-48V / 230V (1 module – cat n° 4 062 90 /91)
- . Motor driven control module with automatic resetting integrated (2 modules – cat n° 4 062 93 /95)

Automatic resetting:

- . Automatic resetting STOP & Go (2 modules – cat n° 4 062 88 / 89).
- . Automatic resetting Wi-fi connected STOP & Go (4 modules – cat n° 4 149 54).

8. AUXILIARIES AND ACCESSORIES (continued)

Possible combinations of circuit-breaker and auxiliaries:

- . Only the association of an MCB with signalling auxiliaries guarantees the functionality of the "Great Dispatcher" DIN rail clamp.
- . Auxiliaries are clipped on the left of the circuit-breaker
- . Maximum number of auxiliaries for one circuit-breaker: 3.
- . Two signalling auxiliaries max. (cat. n° 4 062 50 /52 /56 /64).
- . Only one control auxiliary (cat. n° 4 062 76 / 78 / 80 / 82 / 84 / 86 /87).
- . One remote motor driven remote control or one STOP & GO automatic resetting.
- . If signalling and control auxiliaries are associated on the same circuit-breaker, the con auxiliary must be placed to the left of the signal auxiliary

Front external rotary handle

- . Black handle (cat n° 4 063 19)
- . Yellow and red handle (cat n° 4 063 20)

Supply Invertor

- . Manual supply invertor for 2P devices (cat. n° 4 063 14)

Sealing:

- . Possible in "Open" position (OFF) or "Close" position (ON).

Locking:

- . By 5 mm padlock (cat. N° 4 063 13) or 6 mm padlock (cat. N° 0 227 97) with padlock support (cat. N° 0 044 42) in "Open" position (OFF).

Installation software:

- . XL PRO³

Circuit breaker DX³ 10000 A / 16 kA up to 63A (1 module per pole)

Cat. N° (s): 4 088 80 to 4 093 61

9. USE IN DIRECT CURRENT

Operation in DC (direct current):

The time-current characteristic remains the same as for AC.

The limits of the instantaneous tripping characteristics are as follows:

- . Type B Above 4 I_n up to and including 7 I_n
- . Type C Above 7 I_n up to and including 15 I_n

. Endurance with load (I_n) = 2000 operations

Short-circuit breaking capacity: in according to IEC 60 947.2

	1P	2P	3P	4P
B / C	10 kA	10 kA	10 kA	10 kA

Electrical diagrams connection:

