

Circuit breaker DX³ 25 kA

1 module per pole

Cat N°(s): 4 097 15 to 4 099 37



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1. DESCRIPTION - USE:

. Thermal-magnetic circuit breaker (MCB) for control, disconnection and protection of electrical circuits against overcurrents

Symbol:



Technology:

. Current limiting circuit-breaker
. 1 module per pole. Each pole is 17,7 mm wide

2. RANGE

Polarity:

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

Rated currents, In:

- . 10 / 16 / 20 / 25A curve B (+ 32A double pole).
- . 2 / 6 / 10 / 16 / 20 / 25A curve C (+ 32A double pole).
- . 2 / 6 / 10A curve D (+ 16 / 20 / 25A double pole).
- . 1,6 / 2,5 / 4 / 6,3 / 10A curve MA (+ 12,5 / 16 / 25A double pole).
- . 1 / 2 / 3 / 6 / 10 / 16 / 20 / 25A curve Z.

Tripping characteristics and magnetic tripping calibrations:

- . Curve B (between 3 and 5 In).
- . Curve C (between 5 and 10 In).
- . Curve D (between 10 and 14 In).
- . Curve "MA" (between 12 and 14 In).
- . Curve "Z" (between 2,4 and 3,6In).

Thermal threshold:

- . Non operating current (Inf): 1,05 In.
- . Operating current (If): 1,3 In.

Rated Voltage and Frequency:

- . 230 V ~ / 400 V~ - 50 / 60 Hz with standard tolerances.
- . 240 V ~ / 415 V~ - 50 / 60 Hz with standard tolerances.
- . 80 V per pole DC current.

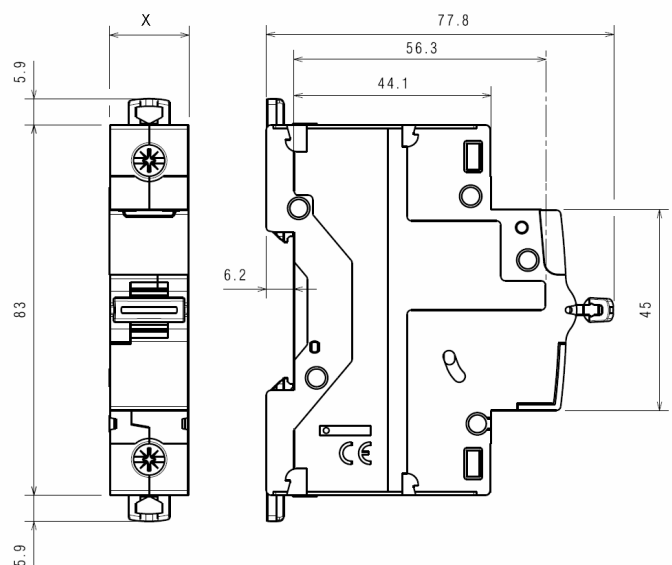
Maximum operating voltage:

- . 440 V ~ with possible derating of the breaking capacity

Breaking capacity:

- . 25 kA according to standard IEC/EN/NF 60947-2.

3. OVERALL DIMENSIONS :



	X
1P	17.7mm
2P	35.4mm
3P	53.1mm
4P	70.8mm

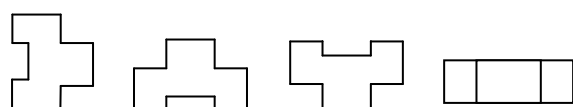
4. PREPARATION CONNECTION:

Mounting:

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

Operating positions:

Vertical Horizontal Upside down On the side



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4. PREPARATION CONNECTION *(continued)*:

Power supply:

. From the top or the bottom.

Connection:

The location of the terminals allows supplying by traditional HX³ pin busbar.

Terminal depth :

. 14 mm

Stripping length recommended:

. 11 mm

Screw head:

. Mixed, slotted and Pozidriv 2.

Recommended tightening torque:

. Recommended: 2.5 Nm.

. Mini : 2 Nm. Maxi : 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

Manual actuation of the MCB:

. 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

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:

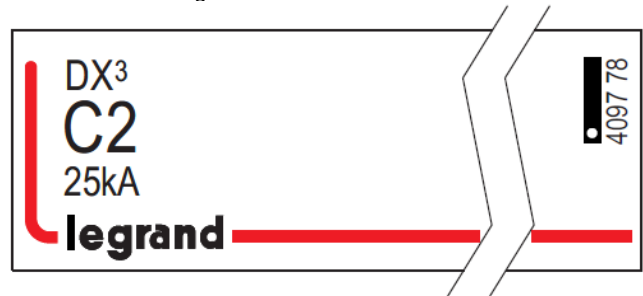
. Identification of the circuit by insertion of a label in the label holder.

5. GENERAL CHARACTERISTICS:

Front side marking:

. By permanent ink pad printing showing:

- Trade name: DX³
- Breaking curve
- Rated current (in A)
- Icu in kA extreme breaking capacity according to IEC/EN 60898-1
- Limiting class "3" (in a square) for the circuit breakers curves B and C with rated current ≤ 40 A.
- Icu in kA extreme breaking capacity according to IEC/EN 60947-2
- Legrand reference code and Logo 
- Mark: Legrand.



Short-circuit breaking capacity:

. Alternate current 50/60Hz, single-phase or three-phase network, according to standard IEC 60947-2

Un		1P	2P	3P / 4P
110 V~	Icu	36 kA	72 kA	-
230 / 240 V~		25 kA	50 kA	50 kA
400 / 415 V~		-	25 kA	25 kA
440 V~		-	20 kA	20 kA

Un	Ics	75% of Icu	75% of Icu	75% of Icu
110 V~	Ics	75% of Icu	75% of Icu	75% of Icu
230 / 240 V~				
400 / 415 V~				
440 V~				

Short-circuit breaking capacity of only one pole:

. Three-phase network 220 / 380 V~ to 240 / 415 V~

- in TN neutral system, Icn1 = 25 kA (under 220 to 240 V~)
- in IT neutral system, Iit = 6,25 kA (under 380 to 415 V~)

. Three-phase network 110 / 220 V~ to 120 / 240 V~

- in TN neutral system, Icn1 = 50 kA (under 110 to 127 V~)
- in IT neutral system, Iit = 12,5 kA (under 220 to 240 V~)

Circuit breaker DX³ 25 kA

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1 module per pole

5. GENERAL CHARACTERISTICS (continued):

Short-circuit breaking capacity (continued):

. DC current - according to standard IEC 60947-2

Un					
		1P	2P	3P	4P
24 ÷ 48 V d.c.	Icu	25 kA	25 kA	-	-
110 V d.c.		-	25 kA	25 kA	-
230 V d.c.		-	-	-	25 kA

24 ÷ 48 V d.c.	Ics	25 kA	25 kA	-	-
110 V d.c.		-	25 kA	25 kA	-
230 V d.c.		-	-	-	25 kA

Minimum operating voltage:

. 12 V a.c. / d.c. per pole.

Pulse rated voltage:

. U_{imp} = 4 kV

Insulation rated voltage:

. U_i = 500 V

Pollution degree :

. 2 according to standard IEC/EN 60898-1.

Electric strength:

. 2500 V

Operation at 400Hz:

. The magnetic thresholds increase by 45%.

Load to close and to open of a pole through the handle:

. 0,5 Nm per pole to close.

. 0,3 Nm per pole to open.

Mechanical endurance:

. 20000 operation without load.

. 10000 operation with load (under $I_n \cdot \cos \varphi = 0,9$).

. 2000 operation under I_n , DC current.

Enclosure material:

. Polyester.

. Characteristics of this material: self extinguishing, heat and fire resistant according to EN 60898-1, glow-wire test at 960°C for external parts made of insulating material necessary to retain in position current-carrying parts and parts of protective circuit (650°C for all other external parts made of insulating material).

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

Protection class:

. Protection index of terminals against solid and liquid bodies:

IP 20 (according to IEC 529, EN 60529 et NF C 20-010).

. Protection index of the box against solid and liquid bodies:

IP 40 (according to IEC 529, EN 60529 et NF C 20-010).

. Protection index against mechanical shocks:

IK 02 (according to EN 50102 et NF C 20-015).

Resistance to sinusoidal vibrations:

. According to IEC 60068-2-6.

. Axis : x, y, z.

. Frequency range: 5÷100 Hz ; duration 90 minutes

. Displacement (5÷13,2 Hz) : 1mm

. Acceleration (13,2÷100 Hz) : 0,7g (g=9,81 m/s²)

Recognition:

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

Power dissipated per pole (W) :

. Circuit breakers B and Z curves

I _n	10 A	16 A	20 A	25 A	32 A
2P ÷ 4P	1,1	1,5	1,7	2,4	3,1

. Circuit breakers C curve

I _n	2 A	6 A	10 A	16 A	20 A	25 A	32 A
1P ÷ 4P	2,1	1,1	1,1	1,5	1,7	2,4	3,1

. Circuit breakers D curve

I _n	2 A	6 A	10 A	16 A	20 A	25 A
1P ÷ 4P	2,1	1,1	1,1	1,5	1,7	2,4

. Circuit breakers MA curve

I _n	1,6 A	2,5 A	4 A	6,3 A	10 A
2P ÷ 4P	1,7	1,7	1,7	1,7	1,9

I _n	12,5 A	16 A	25 A
1P ÷ 4P	2,2	2,75	2,8

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

1 module per pole

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: 40°C according to IEC/EN 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

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	5000 m
Dielectric holding	3000 V	2500 V	2000 V	1500 V
Max operational Voltage	400 V	400 V	400 V	400 V
Derating at 40°C	none	none	none	none

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

When several RCCBs 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 60439-1, NF C 63421 and EN 60439-1 standards.

To avoid to have to use 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).

1 module per pole

5. GENERAL CHARACTERISTICS *(continued)*:

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

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

		Fuse upstream									
		gG type									
m.c.b. downstream		≤20A	25A	32A	40A	50A	63A	80A	100A	125A	160A
DX ³ 25kA B, C, D, Z and MA Curves	≤6A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA
	10A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA
	16A	-	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA
	20A	-	-	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA
	25A	-	-	-	100kA	100kA	100kA	100kA	100kA	100kA	100kA
	32A	-	-	-	-	100kA	100kA	100kA	100kA	100kA	100kA

		Fuse upstream									
		aM type									
m.c.b. downstream		≤20A	25A	32A	40A	50A	63A	80A	100A	125A	160□
DX ³ 25kA B, C, D, Z and MA Curves	≤6A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA
	10A	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA
	16A	-	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA
	20A	-	-	100kA	100kA	100kA	100kA	100kA	100kA	100kA	100kA
	25A	-	-	-	100kA	100kA	100kA	100kA	100kA	100kA	100kA
	32A	-	-	-	-	100kA	100kA	100kA	100kA	100kA	100kA

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.

1 module per pole

5. GENERAL CHARACTERISTICS *(continued)*:

Coordination between modular circuit-breakers, three-phase network (+ neutral) 400 / 415 V~ according to IEC/EN 60947-2:

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

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

		m.c.b. upstream										
		DX ³ 36kA						DX ³ 50kA				
		C curve						B and C curves				
m.c.b. downstream		≤25A	□2A	40A	50A	63A	80A	≤25A	32A	40A	50A	63A
DX ³ 25kA D and MA curves	≤6A	36kA	36kA	36kA	36kA	36kA	36kA	50kA	50kA	50kA	50kA	50kA
	10A	36kA	36kA	36kA	36kA	36kA	36kA	50kA	50kA	50kA	50kA	50kA
	16A	-	36kA	36kA	36kA	36kA	36kA	-	50kA	50kA	50kA	50kA
	20A	-	-	36kA	36kA	36kA	36kA	-	-	50kA	50kA	50kA
	25A	-	-	-	36kA	36kA	36kA	-	-	-	50kA	50kA

		m.c.b. upstream				
		DX ³ 50kA				
		D curve				
m.c.b. downstream		≤25A	32A	40A	50A	63A
DX ³ 25kA D and MA 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

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.

1 module per pole

5. GENERAL CHARACTERISTICS *(continued)*:

Coordination between modular circuit-breakers and MCCBs, three-phase network (+ neutral) 400 / 415 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 ³ 160 / DPX ³ 160 + diff.							
		36kA						36 - 50kA							
		16A	25A	40A	63A	100A	125A	16A	25A	40A	63A	80A	100A	125A	160A
DX ³ 25kA B, C, D, Z and MA Curves	≤6A	30kA	30kA	30kA	30kA	30kA	30kA	36kA	36kA	36kA	36kA	36kA	36kA	36kA	36kA
	10A	30kA	30kA	30kA	30kA	30kA	30kA	36kA	36kA	36kA	36kA	36kA	36kA	36kA	36kA
	16A	-	30kA	30kA	30kA	30kA	30kA	-	36kA	36kA	36kA	36kA	36kA	36kA	36kA
	20A	-	30kA	30kA	30kA	30kA	30kA	-	36kA	36kA	36kA	36kA	36kA	36kA	36kA
	25A	-	-	30kA	30kA	30kA	30kA	-	-	36kA	36kA	36kA	36kA	36kA	36kA
	32A	-	-	30kA	30kA	30kA	30kA	-	-	36kA	36kA	36kA	36kA	36kA	36kA

m.c.b. downstream		m.c.c.b. upstream											
		DPX 160					DPX 250ER			DPX 250ER AB			
		36 - 50kA					36 - 50kA			36kA			
		25A	40A	63A	100A	125A	100A	160A	250A	90A	130A	170A	240A
DX ³ 25kA B, C, D, Z and MA Curves	≤6A	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA
	10A	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA
	16A	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA
	20A	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA
	25A	-	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA
	32A	-	-	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA

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.

1 module per pole

5. GENERAL CHARACTERISTICS *(continued)*:

Coordination between modular circuit-breakers and MCCBs, three-phase network (+ neutral) 400 / 415 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 ³ 250 / DPX ³ 250+diff. (Thermo-Magnetic & electronic)				DPX 400AB		DPX / H / L 250 (Thermo-Magnetic & electronic)					
		36 - 50 - 70kA				36kA		25A	40A	63A	100A	160A	250A
		100A	160A	200A	250A	320A	400A						
DX ³ 25kA B, C, D, Z and MA Curves	≤6A	36kA	36kA	36kA	36kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA
	10A	36kA	36kA	36kA	36kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA	30kA
	16A	36kA	36kA	36kA	36kA	36kA	36kA	36kA	36kA	36kA	36kA	36kA	36kA
	20A	36kA	36kA	36kA	36kA	36kA	36kA	36kA	36kA	36kA	36kA	36kA	36kA
	25A	36kA	36kA	36kA	36kA	36kA	36kA	-	36kA	36kA	36kA	36kA	36kA
	32A	36kA	36kA	36kA	36kA	36kA	36kA	-	30kA	30kA	30kA	30kA	30kA

m.c.b. downstream		m.c.c.b. upstream						
		DPX / H / L 630 (Thermo-Magnetic & electronic)				DPX / H / L 1250 (Thermo-Magnetic)		DPX / H 1600 (Thermo-Magnetic)
		36 - 70 - 100kA				50 - 70 - 100kA		50 - 70kA
		250A	320A	400A	500A	630A	500 à 1250a	630 à 1600a
DX ³ 25kA B, C, D, Z and MA Curves	≤6A	30kA	30kA	30kA	30kA	30kA	25kA	25kA
	10A	30kA	30kA	30kA	30kA	30kA	25kA	25kA
	16A	36kA	36kA	36kA	36kA	36kA	25kA	25kA
	20A	36kA	36kA	36kA	36kA	36kA	25kA	25kA
	25A	36kA	36kA	36kA	36kA	36kA	20kA	20kA
	32A	36kA	36kA	36kA	36kA	36kA	15kA	15kA

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.

1 module per pole

5. GENERAL CHARACTERISTICS *(continued)*:

Coordination between modular circuit-breakers and fuses, three-phase network (+ neutral) 230 / 240 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 25kA B, C, D, Z and MA 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

m.c.b. downstream		Fuse upstream									
		aM type									
		≤20A	25A	32A	40A	50A	63A	80A	100A	125A	160A
DX ³ 25kA B, C, D, Z and MA 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

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

1 module per pole

5. GENERAL CHARACTERISTICS *(continued)*:

Coordination between modular circuit-breakers, three-phase network (+ neutral) 230 / 240 V~ according to IEC/EN 60947-2:

m.c.b. downstream		m.c.b. upstream										
		DX ³ 36kA						DX ³ 50kA				
		C curve						B, C and D curves				
		≤25A	32A	40A	50A	63A	80A	≤25A	32A	40A	50A	63A
DX ³ 25kA B, C, D, Z and MA Curves	≤6A	60kA	60kA	50kA	50kA	50kA	50kA	70kA	70kA	70kA	70kA	70kA
	10A	60kA	60kA	50kA	50kA	50kA	50kA	70kA	70kA	70kA	70kA	70kA
	16A	60kA	60kA	50kA	50kA	50kA	50kA	70kA	70kA	70kA	70kA	70kA
	20A	60kA	60kA	50kA	50kA	50kA	50kA	70kA	70kA	70kA	70kA	70kA
	25A	-	60kA	50kA	50kA	50kA	50kA	-	70kA	70kA	70kA	70kA
	32A	-	-	50kA	50kA	50kA	50kA	-	-	70kA	70kA	70kA

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.

1 module per pole

5. GENERAL CHARACTERISTICS *(continued)*:

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

		m.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 25kA B, C and Z curves	≤6A	55kA	55k A	55kA	55kA	55kA	55kA	55kA	55kA
	10A	55kA	55k A	55kA	55kA	55kA	55kA	55kA	55kA
	16A	-	55k A	55kA	55kA	55kA	55kA	55kA	55kA
	20A	-	55k A	55kA	55kA	55kA	55kA	55kA	55kA
	25A	-	-	55kA	55kA	55kA	55kA	55kA	55kA
	32A	-	-	55kA	55kA	55kA	55kA	55kA	55kA

		m.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 25kA D and MA curves	≤6A	55kA	55k A	55kA	55kA	55kA	55kA	55kA	55kA
	10A	55kA	55k A	55kA	55kA	55kA	55kA	55kA	55kA
	16A	-	55kA	55kA	55kA	55kA	55kA	55kA	55kA
	20A	-	55kA	55kA	55kA	55kA	55kA	55kA	55kA
	25A	-	55kA	55kA	55kA	55kA	55kA	55kA	55kA

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.

1 module per pole

5. GENERAL CHARACTERISTICS *(continued)*:

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

m.c.b. downstream		m.c.c.b. upstream											
		DPX 160					DPX 250ER			DPX ³ 250 / DPX ³ 250 + diff. (Thermo-Magnetic & electronic)			
		50kA					50kA			50 - 70kA			
		25A	40A	63A	100A	125A	100A	160A	250A	100A	160A	200A	250A
DX ³ 25kA B, C, D, Z and MA Curves	≤6A	55kA	55kA	55kA	55kA	55kA	55kA	55kA	55kA	60kA	60kA	60kA	60kA
	10A	55kA	55kA	55kA	55kA	55kA	55kA	55kA	55kA	60kA	60kA	60kA	60kA
	16A	55kA	55kA	55kA	55kA	55kA	55kA	55kA	55kA	60kA	60kA	60kA	60kA
	20A	55kA	55kA	55kA	55kA	55kA	55kA	55kA	55kA	60kA	60kA	60kA	60kA
	25A	-	55kA	55kA	55kA	55kA	55kA	55kA	55kA	60kA	60kA	60kA	60kA
	32A	-	55kA	55kA	55kA	55kA	55kA	55kA	55kA	60kA	60kA	60kA	60kA

m.c.b. downstream		m.c.c.b. upstream											
		DPX 250						DPX H / L 250 (Thermo-Magnetic & electronic)					
		36kA						70 - 100kA					
		25A	40A	63A	100A	160A	250A	25A	40A	63A	100A	160A	250A
DX ³ 25kA B, C, D, Z and MA Curves	≤6A	55kA	55kA	55kA	55kA	55kA	55kA	60kA	60kA	60kA	60kA	60kA	60kA
	10A	55kA	55kA	55kA	55kA	55kA	55kA	60kA	60kA	60kA	60kA	60kA	60kA
	16A	55kA	55kA	55kA	55kA	55kA	55kA	60kA	60kA	60kA	60kA	60kA	60kA
	20A	55kA	55kA	55kA	55kA	55kA	55kA	60kA	60kA	60kA	60kA	60kA	60kA
	25A	-	55kA	55kA	55kA	55kA	55kA	-	60kA	60kA	60kA	60kA	60kA
	32A	-	55kA	55kA	55kA	55kA	55kA	-	60kA	60kA	60kA	60kA	60kA

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.

1 module per pole

5. GENERAL CHARACTERISTICS *(continued)*:

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

m.c.b. downstream		m.c.c.b. upstream											
		DPX 630 (Thermo-Magnetic & electronic)						DPX H / L 630 (Thermo-Magnetic & electronic)					
		36kA						70 – 100kA					
		25A	40A	63A	100A	160A	250A	25A	40A	63A	100A	160A	250A
DX ³ 25kA B, C, D, Z and MA Curves	≤6A	55kA	55kA	55kA	55kA	55kA	55kA	60kA	60kA	60kA	60kA	60kA	60kA
	10A	55kA	55kA	55kA	55kA	55kA	55kA	60kA	60kA	60kA	60kA	60kA	60kA
	16A	55kA	55kA	55kA	55kA	55kA	55kA	60kA	60kA	60kA	60kA	60kA	60kA
	20A	55kA	55kA	55kA	55kA	55kA	55kA	60kA	60kA	60kA	60kA	60kA	60kA
	25A	-	55kA	55kA	55kA	55kA	55kA	-	60kA	60kA	60kA	60kA	60kA
	32A	-	55kA	55kA	55kA	55kA	55kA	-	60kA	60kA	60kA	60kA	60kA

m.c.b. downstream		m.c.c.b. upstream	
		DPX / H / L 1250 (Thermo-Magnetic)	DPX / H 1600 (electronic)
		50 – 70 – 100kA	50 – 70kA
		500 à 1250a	630 à 1600a
DX ³ 25kA B, C, D, Z and MA Curves	≤6A	50kA	50kA
	10A	50kA	50kA
	16A	50kA	50kA
	20A	50kA	50kA
	25A	50kA	50kA
	32A	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 (or electronic) threshold and to the size of upstream circuit breakers which must necessarily be higher.

1 module per pole

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 circuit 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 25kA B, C and Z curves	≤6A	1300	1900	2500	4000	4600	11000	T	T
	10A	-	1600	2200	3200	3600	7000	11000	20000
	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

DX ³ 25kA D curve	≤6A	1200	1600	2200	4000	4200	8000	14000	T
	10A	-	1600	2200	3200	3600	7000	11000	20000
	16A	-	1400	1800	2600	3000	5600	8000	15000
	20A	-	1200	1500	2200	2500	4600	6300	10000
	25A	-	-	1200	1800	2100	3700	5000	6000

1 module per pole

5. GENERAL CHARACTERISTICS *(continued)*

Selectivity between modular circuit breakers and fuses:

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

m.c.b. downstream		Fuse upstream								
		aM Type								
		25A	32A	40A	50A	63A	80A	100A	125A	160A
DX ³ 25kA B, C and Z	≤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	21000	T
	20A	-	-	1300	1800	3400	5100	7000	14000	20000
	25A	-	-	1100	1600	3000	4500	6000	9300	14000
	32A	-	-	-	1300	2400	3800	5000	7700	9000
DX ³ 25kA D curve	≤6A	900	1400	2000	2700	5500	T	T	T	T
	10A	-	1100	1700	2500	5000	7800	12000	T	T
	16A	-	1000	1400	2100	4000	6000	9000	21000	T
	20A	-	-	1300	1800	3400	5100	7000	14000	20000
	25A	-	-	1000	1800	2700	4000	5500	9000	12000

1 module per pole

5. GENERAL CHARACTERISTICS *(continued)*

Selectivity between modular circuit breakers:

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

m.c.b. downstream		m.c.b. upstream					
		DX ³ 25kA			DX ³ 25kA		
		Curves B, C			Curve D		
		80A	100A	12A	80A	100A	12A
DX ³ 25kA B, C and Z curves	≤6A	4000	T	T	4000	T	T
	10A	3000	5000	T	3000	5000	T
	16A	2000	3600	5500	2000	3600	5500
	20A	1600	3000	4000	1600	3000	4000
	25A	1300	2400	3300	1300	2400	3300
	32A	1000	1800	2700	1100	1450	2700
DX ³ 25kA D and MA curves	≤6A	4000	T	T	4000	T	T
	10A	3000	5000	T	3000	5000	T
	16A	2000	3600	5500	2000	3600	5500
	20A	1600	3000	4000	1600	3000	4000
	25A	1300	2400	3300	1300	2400	3300

1 module per pole

5. GENERAL CHARACTERISTICS *(continued)*

Selectivity between modular circuit breakers:

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

		m.c.b. upstream					
		DPX 125					
		25 – 36kA					
m.c.b. downstream		16A	25A	40A	63A	100A	125A
DX ³ 25kA B, C and Z curves	≤6A	6000	6000	6000	6000	T	T
	10A	5000	5000	5000	5000	7500	7500
	16A	-	4000	4000	4000	6000	6000
	20A	-	4000	3000	3000	5000	5000
	25A	-	-	3000	3000	4500	4500
	32A	-	-	-	2000	4000	4000

DX ³ 25kA D curve	≤6A	6000	6000	6000	6000	13000	13000
	10A	5000	5000	5000	5000	7500	7500
	16A	-	4000	4000	4000	6000	6000
	20A	-	4000	3000	3000	5000	5000
	25A	-	-	3000	3000	4500	4500

DX ³ 25kA MA curve	≤4A	T	T	T	T	T	T
	6,3A	6000	6000	6000	6000	T	T
	10A	5000	5000	5000	1000	10000	10000
	12,5A	5000	5000	5000	10000	10000	10000
	16A	-	4000	4000	10000	10000	10000
	25A	-	-	3000	3000	4500	4500

1 module per pole

5. GENERAL CHARACTERISTICS *(continued)*

Selectivity between modular circuit breakers and MCCBs:

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

m.c.b. downstream		m.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	160A
DX ³ 25kA B, C and Z curves	≤6A	T	T	T	T	T	T	T	T	12000	12000	12000	12000	T
	10A	T	T	T	T	T	T	T	T	7000	7000	7000	7000	T
	16A	-	T	T	T	T	T	T	T	6000	6000	6000	6000	18000
	20A	-	-	T	T	T	T	T	T	-	5000	5000	5000	12000
	25A	-	-	T	T	T	T	T	T	-	3500	3500	4000	8500
	32A	-	-	-	T	T	T	T	T	-	-	2000	3500	7000
DX ³ 25kA D curve	≤6A	T	T	T	T	T	T	T	T	12000	12000	T	T	T
	10A	T	T	T	T	T	T	T	T	7000	7000	7500	7500	T
	16A	-	T	T	T	T	T	T	T	6000	6000	6000	6000	T
	20A	-	-	T	T	T	T	T	T		5000	5000	5000	18000
	25A	-	-	T	T	T	T	T	T		3500	4500	4500	8500
DX ³ 25kA MA curve	≤4A	T	T	T	T	T	T	T	T	12000	12000	T	T	T
	6,3A	T	T	T	T	T	T	T	T	12000	12000	T	T	T
	10A	T	T	T	T	T	T	T	T	7000	7000	7500	8500	T
	12,5A	T	T	T	T	T	T	T	T	7000	7000	7500	7500	T
	16A	-	T	T	T	T	T	T	T	6000	6000	6000	6000	T
	25A	-	-	T	T	T	T	T	T	-	3500	4500	4500	8500

1 module per pole

5. GENERAL CHARACTERISTICS *(continued)*

Selectivity between modular circuit breakers and MCCBs:

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

m.c.b. downstream		m.c.b. upstream												
		DPX 250ER			DPX 250ER AB				DPX 250 / H / L					
		25 - 36 - 50kA			36kA				25 - 70 - 100kA					
		100A	160A	250A	90A	130A	170A	240A	25A	40A	63A	100A	160A	250A
DX ³ 25kA B, C and Z curves	≤6A	T	T	T	T	T	T	T	6000	6000	6000	T	T	T
	10A	T	T	T	T	T	T	T	5000	5000	5000	15000	T	T
	16A	8000	T	T	T	T	T	T	4000	4000	4000	10000	T	T
	20A	6000	T	T	T	T	T	T	-	4000	4000	8000	T	T
	25A	5000	8500	T	T	T	T	T	-	3000	3000	6000	T	T
	32A	4000	7000	T	T	T	T	T	-	-	2000	5000	T	T
DX ³ 25kA D curve	≤6A	T	T	T	T	T	T	T	6000	6000	6000	T	T	T
	10A	T	T	T	T	T	T	T	5000	5000	5000	T	T	T
	16A	6000	T	T	T	T	T	T	-	4000	4000	10000	T	T
	20A	6000	T	T	T	T	T	T	-	4000	4000	8000	T	T
	25A	5500	8500	T	T	T	T	T	-	-	3000	6000	T	T
DX ³ 25kA MA curve	≤4A	T	T	T	T	T	T	T	6000	6000	6000	T	T	T
	6,3A	T	T	T	T	T	T	T	6000	6000	6000	T	T	T
	10A	T	T	T	T	T	T	T	5000	5000	5000	T	T	T
	12,5A	T	T	T	T	T	T	T	5000	5000	5000	T	T	T
	16A	6000	T	T	T	T	T	T	-	4000	4000	10000	T	T
	25A	5500	8500	T	T	T	T	T	-	-	3000	6000	T	T

1 module per pole

5. GENERAL CHARACTERISTICS *(continued)*

Selectivity between modular circuit breakers and MCCBs:

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

		m.c.c.b. upstream								
		DPX ³ 250 & DPX ³ 250 + diff (Thermo-Magnetic & electronic)				DPX 400AB		DPX / H / L 630 (Thermo-Magnetic & electronic)	DPX / H / L 1250	DPX / H 1600 (electronic)
		25 - 36 - 50 - 70kA				36kA		36 - 70 - 100kA	36 - 70 - 100kA	36 - 70kA
m.c.b. downstream		100A	160A	200A	250A	320A	400A	160 à 630A	500 à 1250A	630 à 1600A
DX ³ 25kA B, C and Z curves	≤6A	T	T	T	T	T	T	T	T	T
	10A	T	T	T	T	T	T	T	T	T
	16A	T	T	T	T	T	T	T	T	T
	20A	T	T	T	T	T	T	T	T	T
	25A	T	T	T	T	T	T	T	T	T
	32A	T	T	T	T	T	T	T	T	T
DX ³ 25kA D curve	≤6A	T	T	T	T	T	T	T	T	T
	10A	T	T	T	T	T	T	T	T	T
	16A	T	T	T	T	T	T	T	T	T
	20A	T	T	T	T	T	T	T	T	T
	25A	T	T	T	T	T	T	T	T	T
DX ³ 25kA MA curve	≤4A	T	T	T	T	T	T	T	T	T
	6,3A	T	T	T	T	T	T	T	T	T
	10A	T	T	T	T	T	T	T	T	T
	12,5A	T	T	T	T	T	T	T	T	T
	16A	T	T	T	T	T	T	T	T	T
	25A	T	T	T	T	T	T	T	T	T

1 module per pole

6. COMPLIANCE AND APPROVALS

In accordance with standards:

- . IEC/EN 60947-2 with 25 kA breaking capacity
- . CEE guidelines : 73/23/CEE + 93/68/CEE
- . 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 to standard IEC 60068-2-52

Environment respect – Compliance with CEE directives:

- . Compliance with Directive 2002/95/EC of 27/01/03 called "RoHS" which provides for the banning of hazardous substances such as lead, mercury, cadmium, hexavalent chromium, brominated flame retardants polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs) from 1st July 2006
- . Compliance with Directive 91/338/CEE of 18/06/91 and Decree 94-647 of 27/07/04

Plastic materials :

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

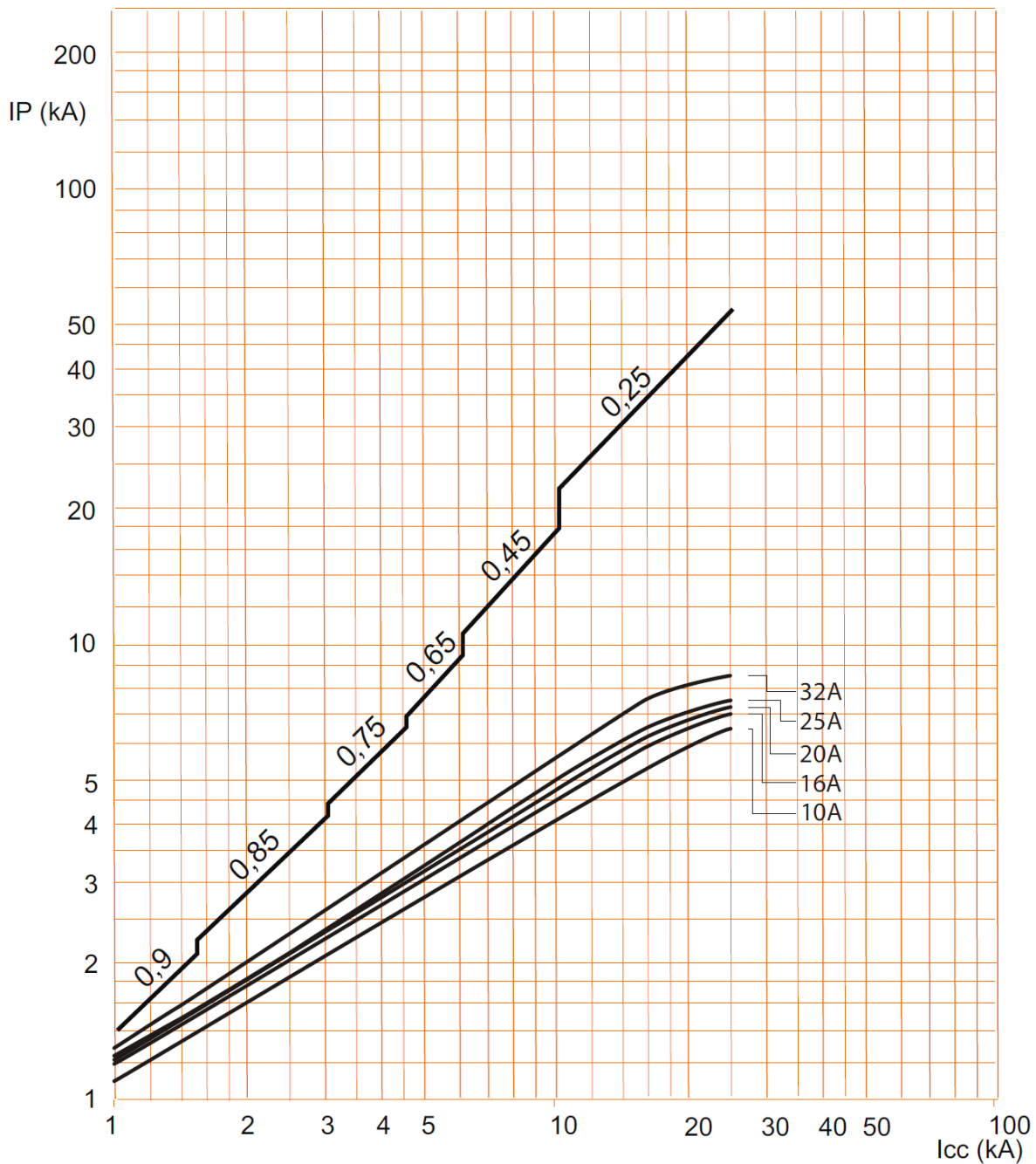
Packaging:

- . Design and manufacture of packaging in accordance with Decree 98-638 of 07.20.98 and Directive 94/62/EC

1 module per pole

7. CHARACTERISTIC CURVES

Limiting current curve: circuit breakers B, C, D, Z and MA curves:



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

. IP = Max peak value (kA)

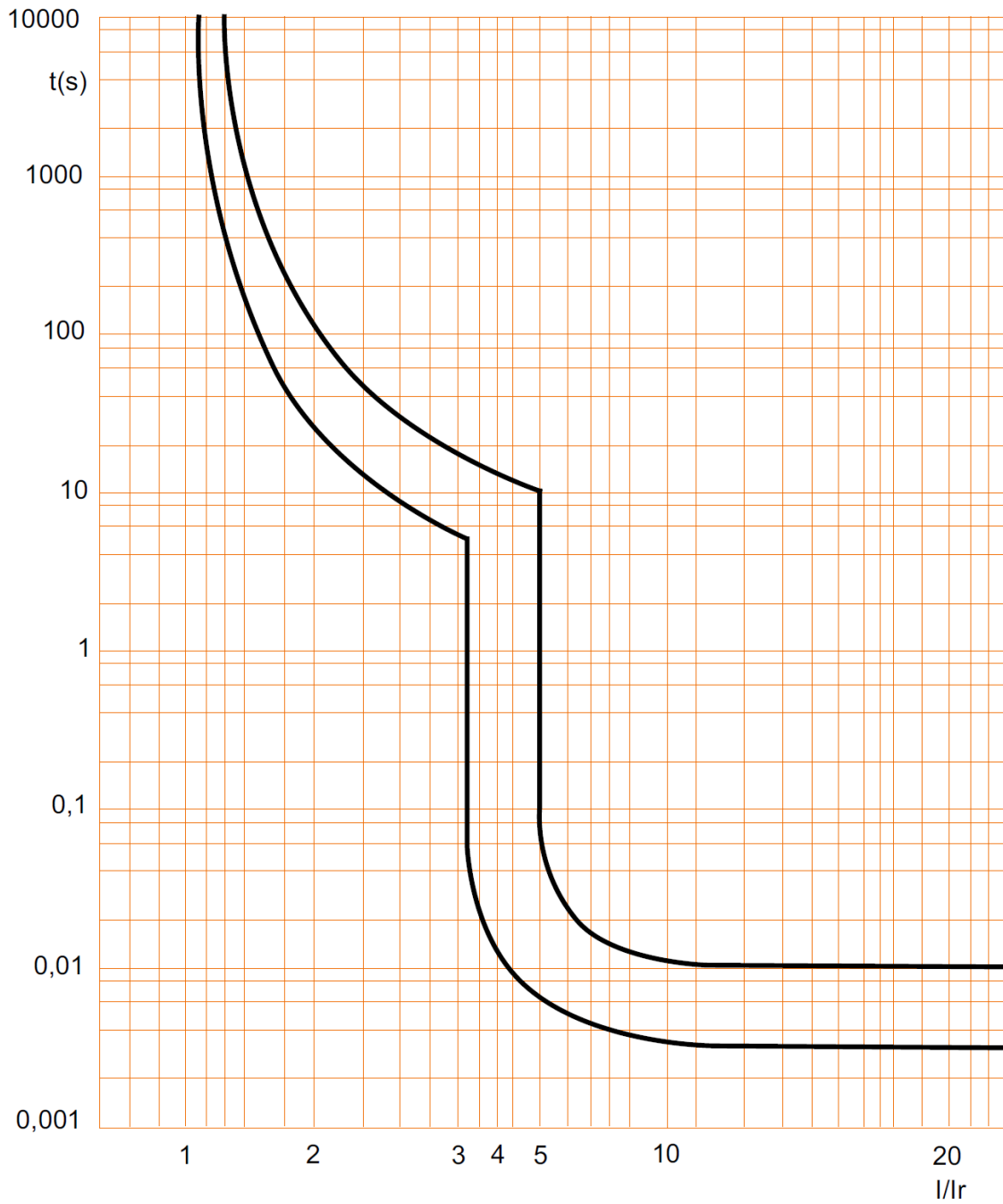
Circuit breaker DX³ 25 kA

1 module per pole

Cat N°(s): 4 097 15 to 4 099 37

7. CHARACTERISTIC CURVES *(continued)*

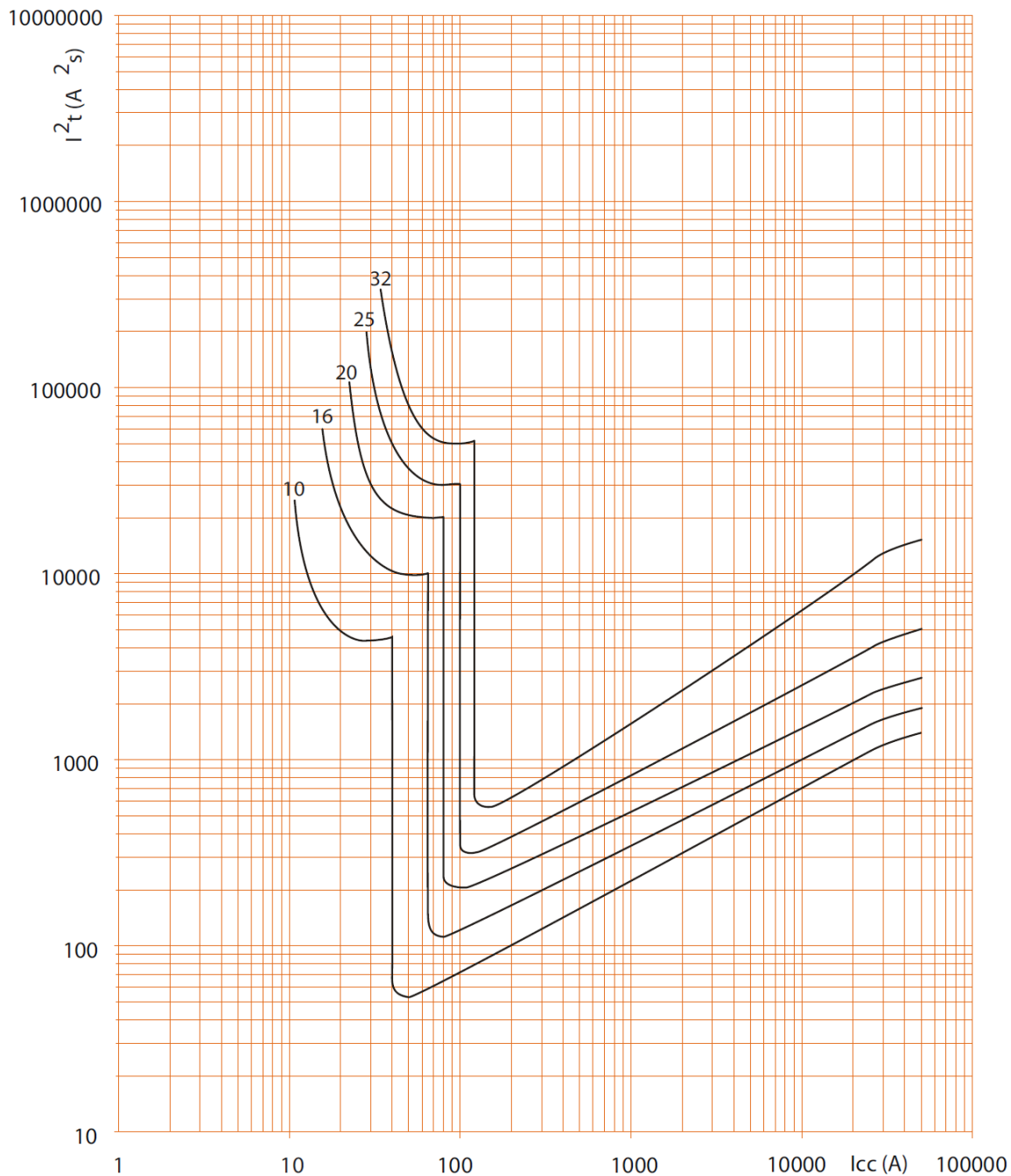
Operating characteristic of circuit breakers B curve:



1 module per pole

7. CHARACTERISTIC CURVES (continued)

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



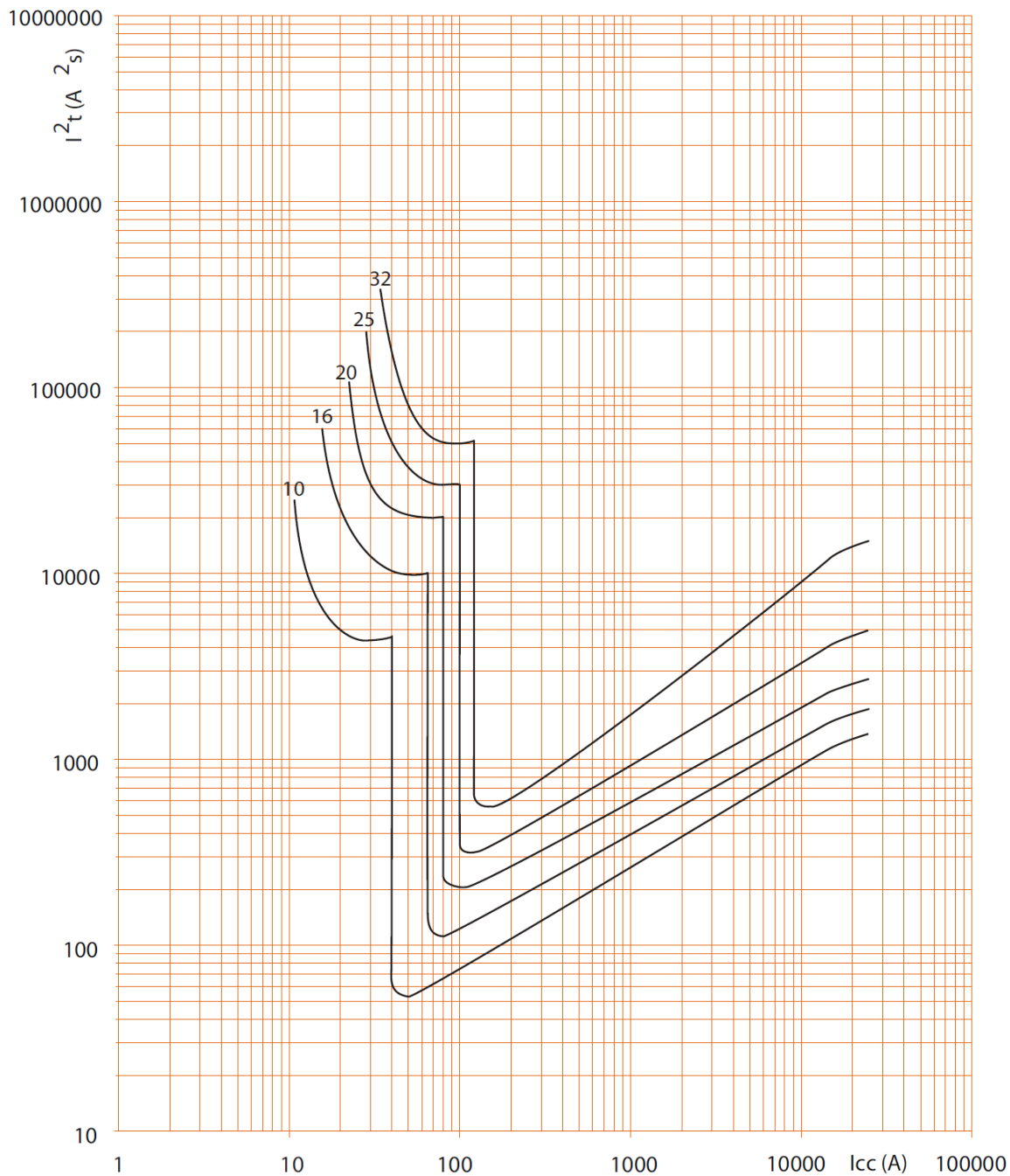
. I_{cc} = Square value of symmetric component of the short circuit current (kA).

. I^2t = Thermal energy limited (A²s).

1 module per pole

7. CHARACTERISTIC CURVES (continued)

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



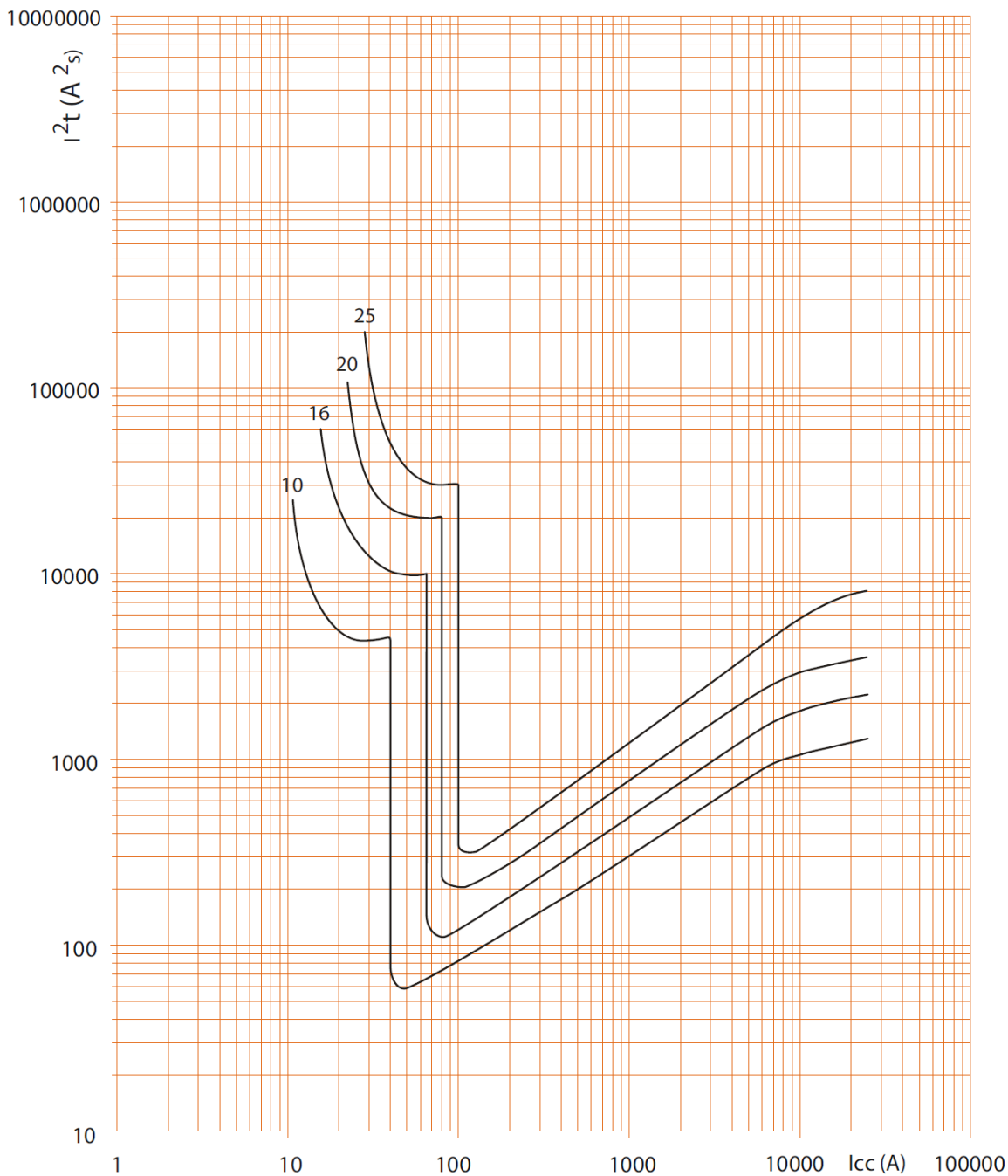
. I_{cc} = Square value of symmetric component of the short circuit current (kA).

. I^2t = Thermal energy limited (A²s).

1 module per pole

7. CHARACTERISTIC CURVES (continued)

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



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

. I^2t = Thermal energy limited (A²s).

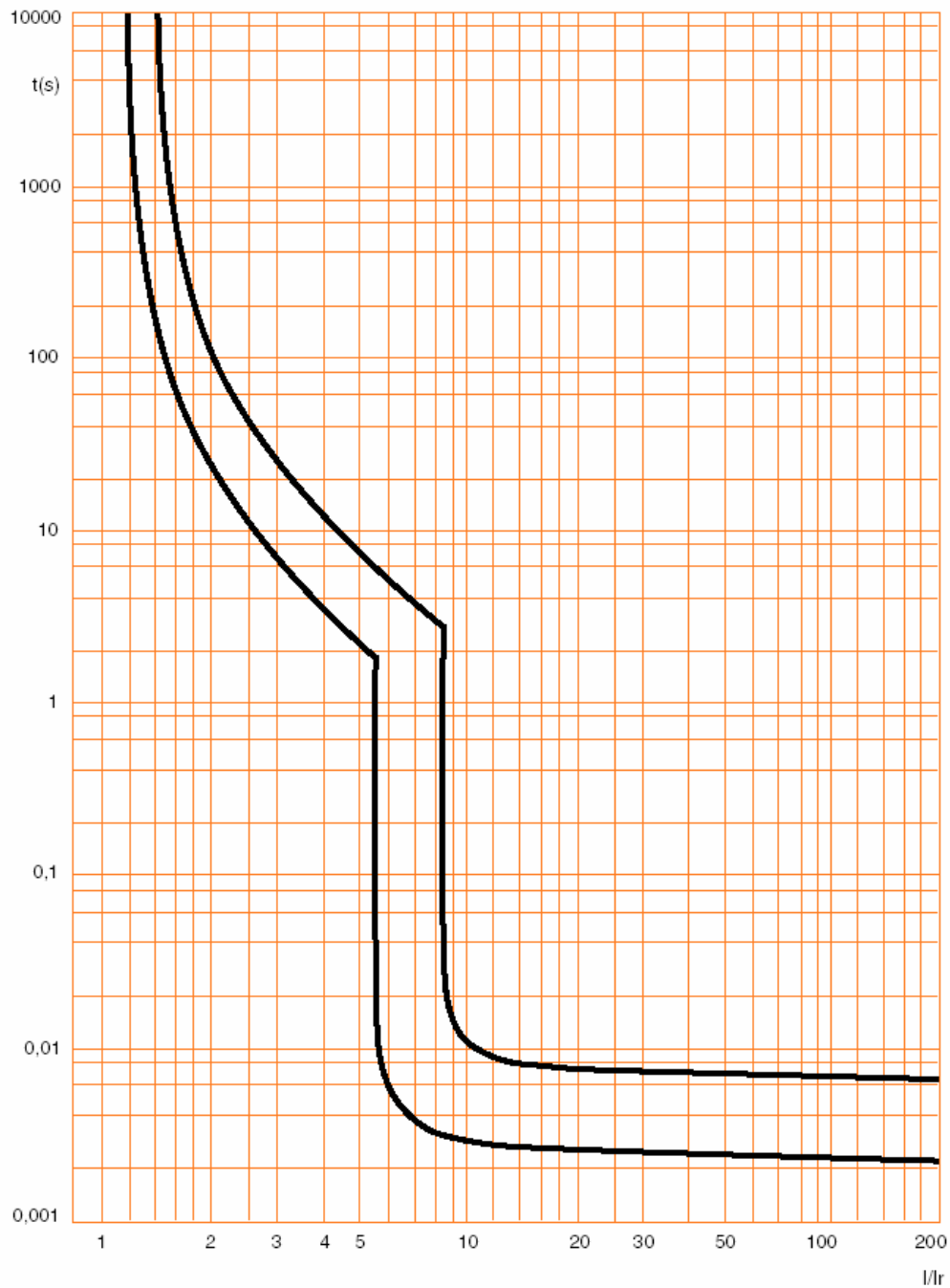
Circuit breaker DX³ 25 kA

1 module per pole

Cat N°(s): 4 097 15 to 4 099 37

7. CHARACTERISTIC CURVES *(continued)*

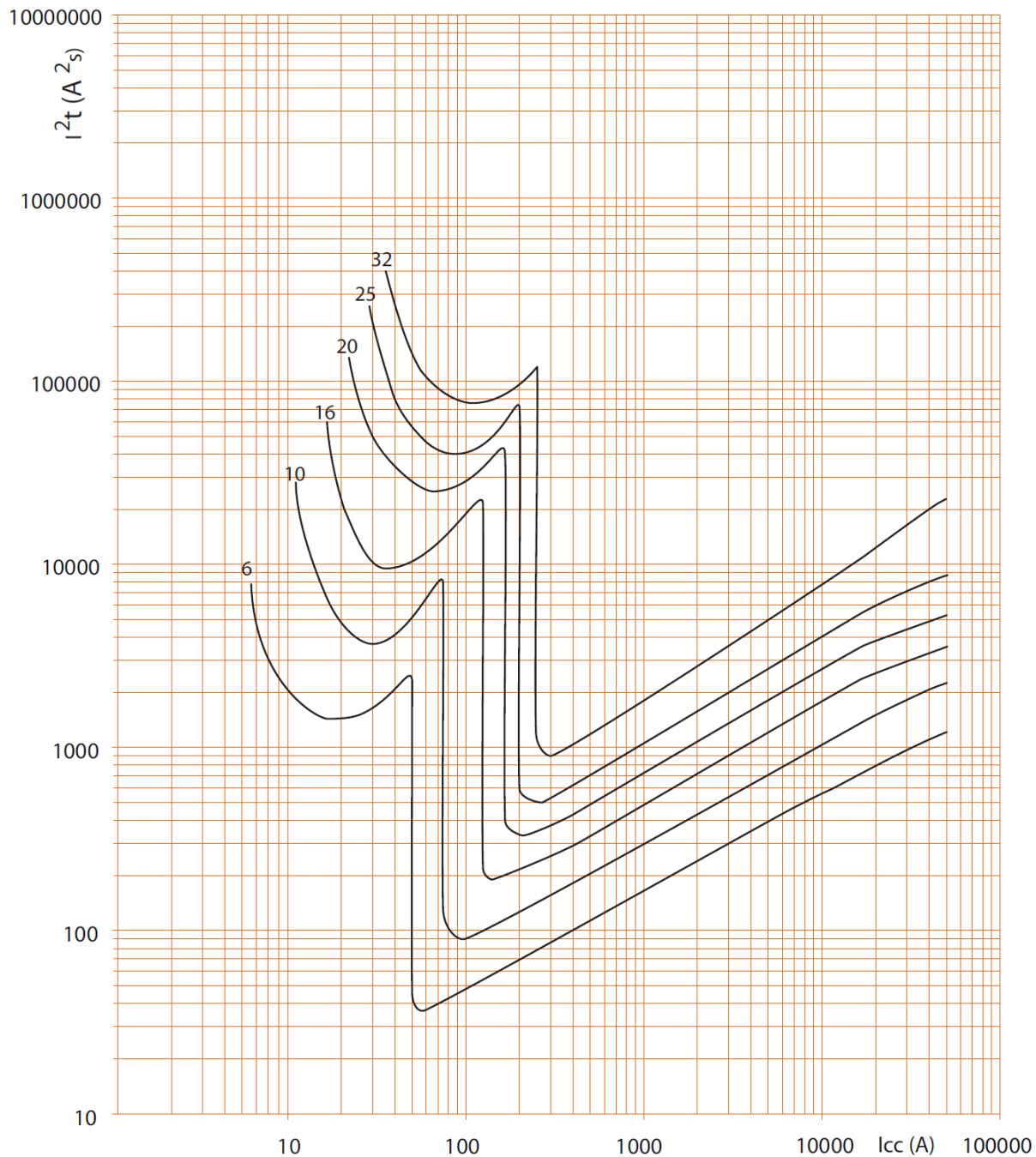
Operating characteristic of circuit breakers C curve:



1 module per pole

7. CHARACTERISTIC CURVES (continued)

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



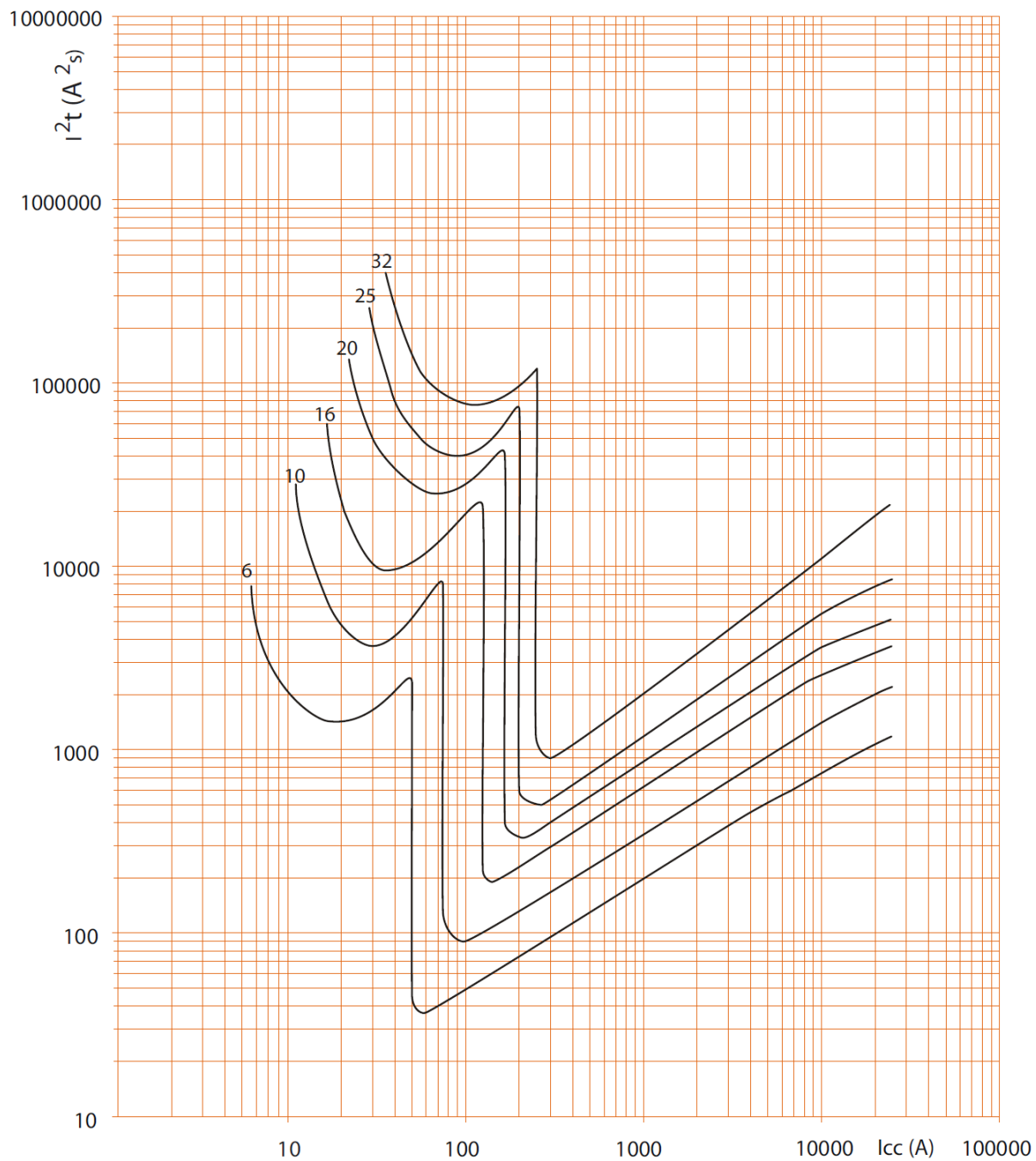
. I_{cc} = Square value of symmetric component of the short circuit current (kA).

. I^2t = Thermal energy limited (A²s).

1 module per pole

7. CHARACTERISTIC CURVES (continued)

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



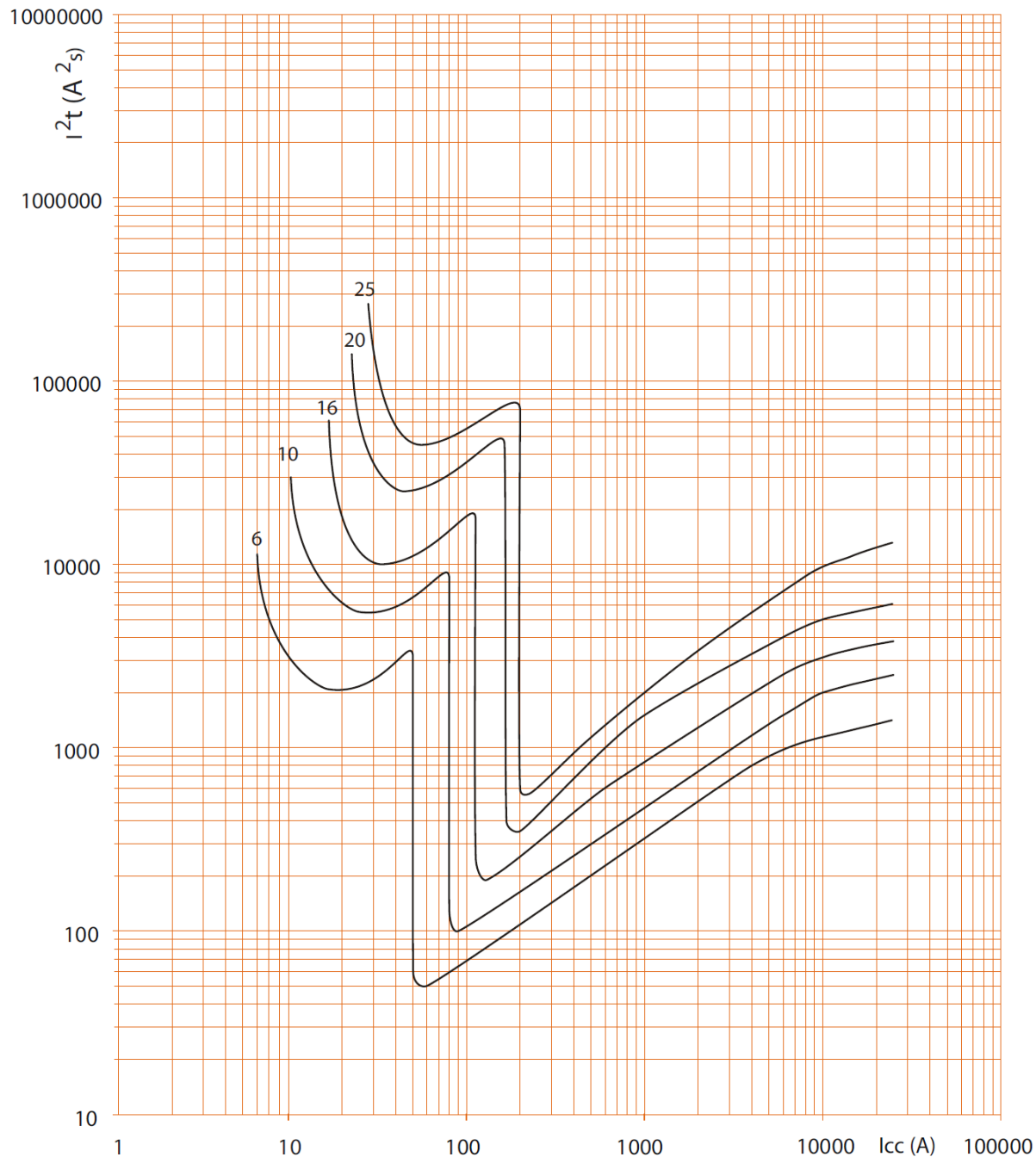
. I_{cc} = Square value of symmetric component of the short circuit current (kA).

. I^2t = Thermal energy limited (A²s).

1 module per pole

7. CHARACTERISTIC CURVES (continued)

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



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

. I^2t = Thermal energy limited (A²s).

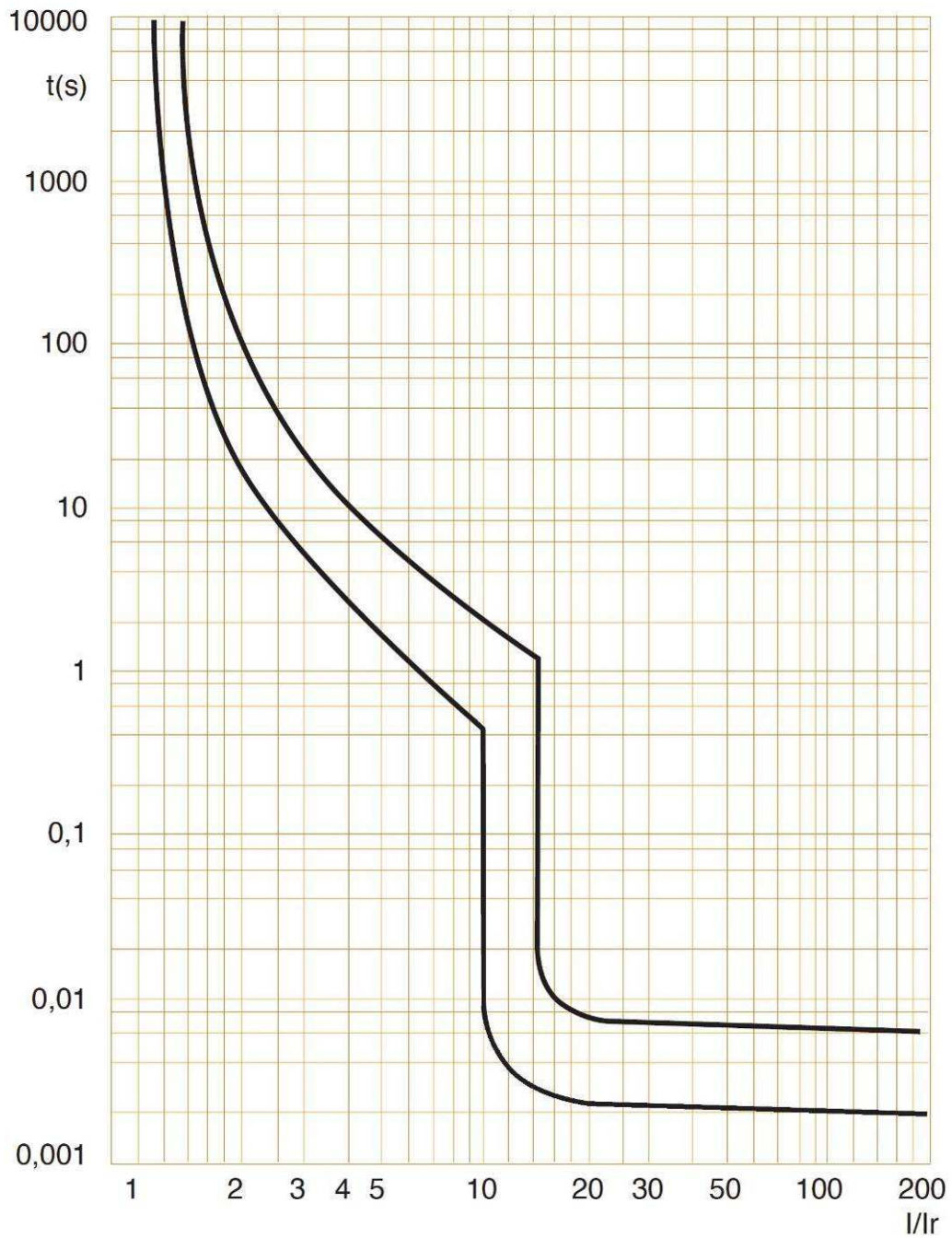
Circuit breaker DX³ 25 kA

1 module per pole

Cat N°(s): 4 097 15 to 4 099 37

7. CHARACTERISTIC CURVES *(continued)*

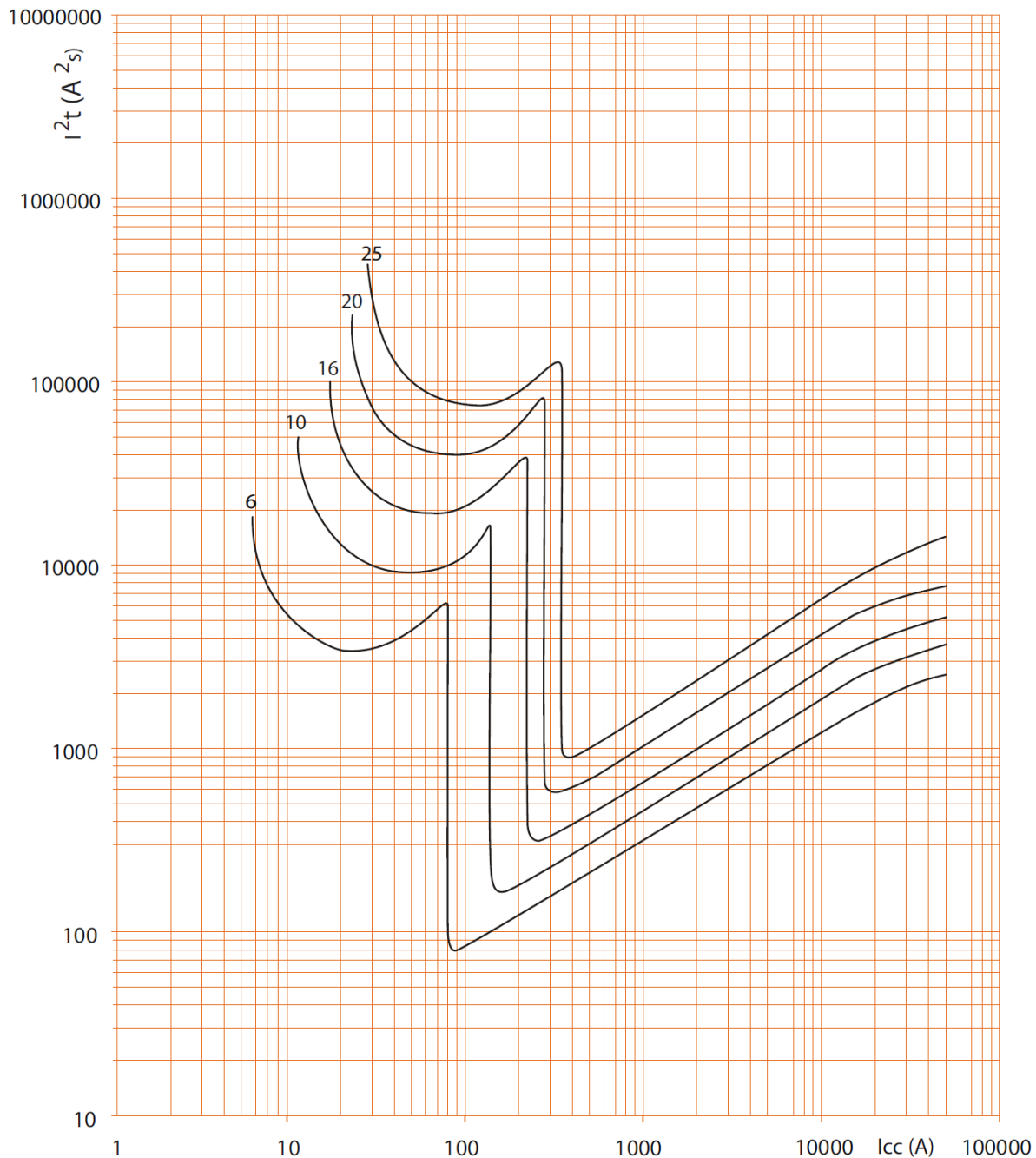
Operating characteristic of circuit breakers D curve:



1 module per pole

7. CHARACTERISTIC CURVES (continued)

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



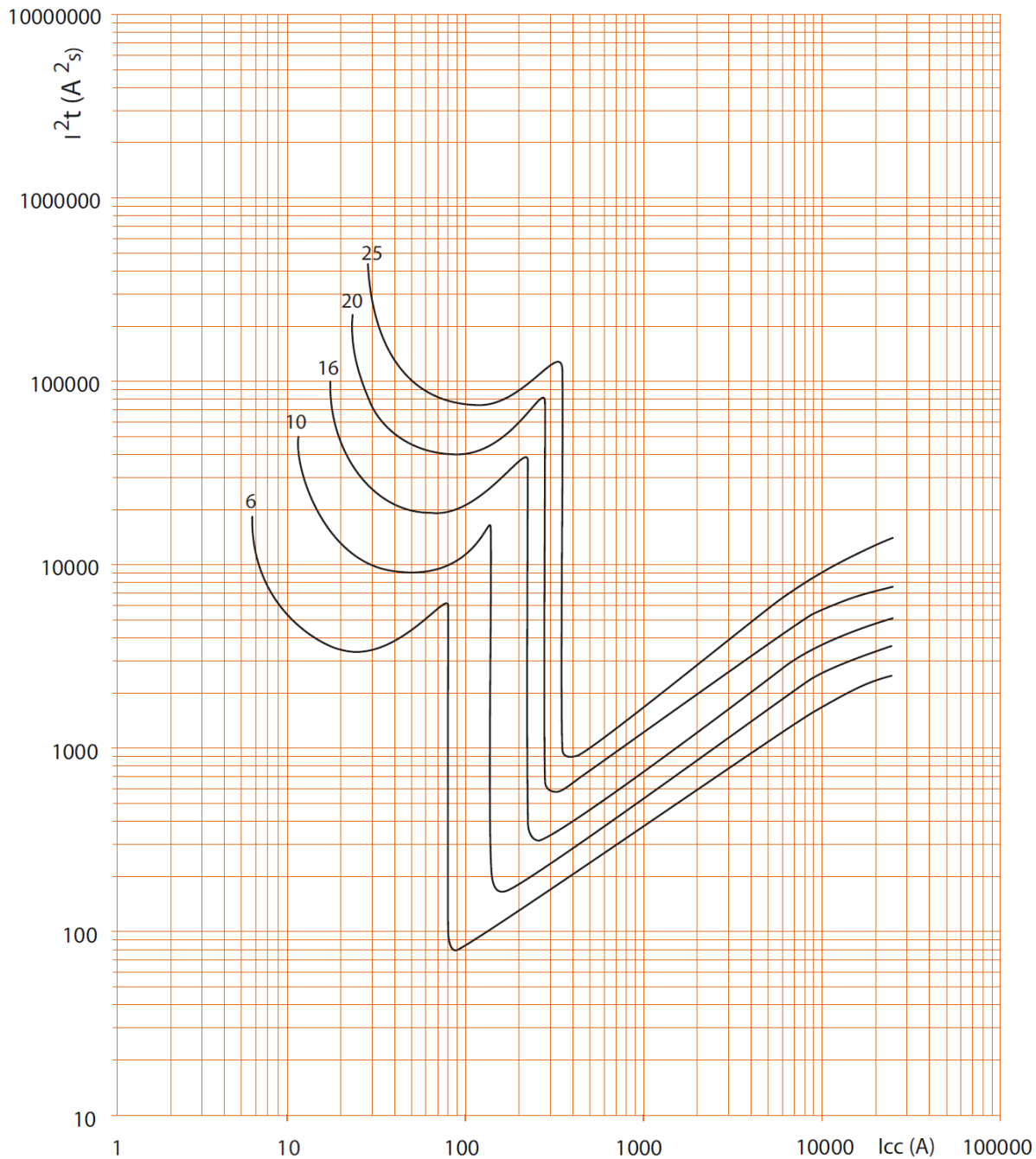
. I_{cc} = Square value of symmetric component of the short circuit current (kA).

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

1 module per pole

7. CHARACTERISTIC CURVES (continued)

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



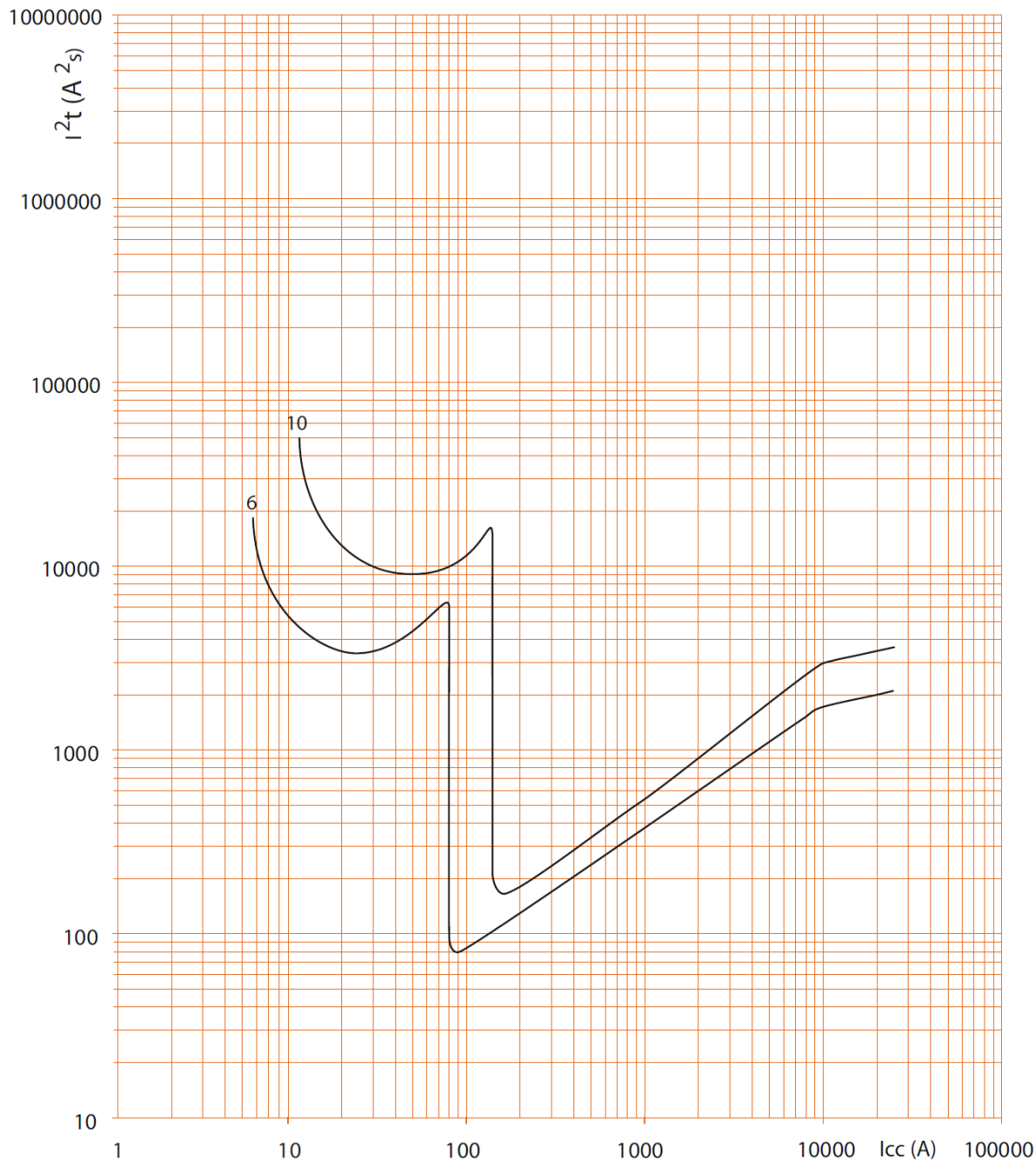
. I_{cc} = Square value of symmetric component of the short circuit current (kA).

. I^2t = Thermal energy limited (A²s).

1 module per pole

7. CHARACTERISTIC CURVES (continued)

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



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

. I²t = Thermal energy limited (A²s).

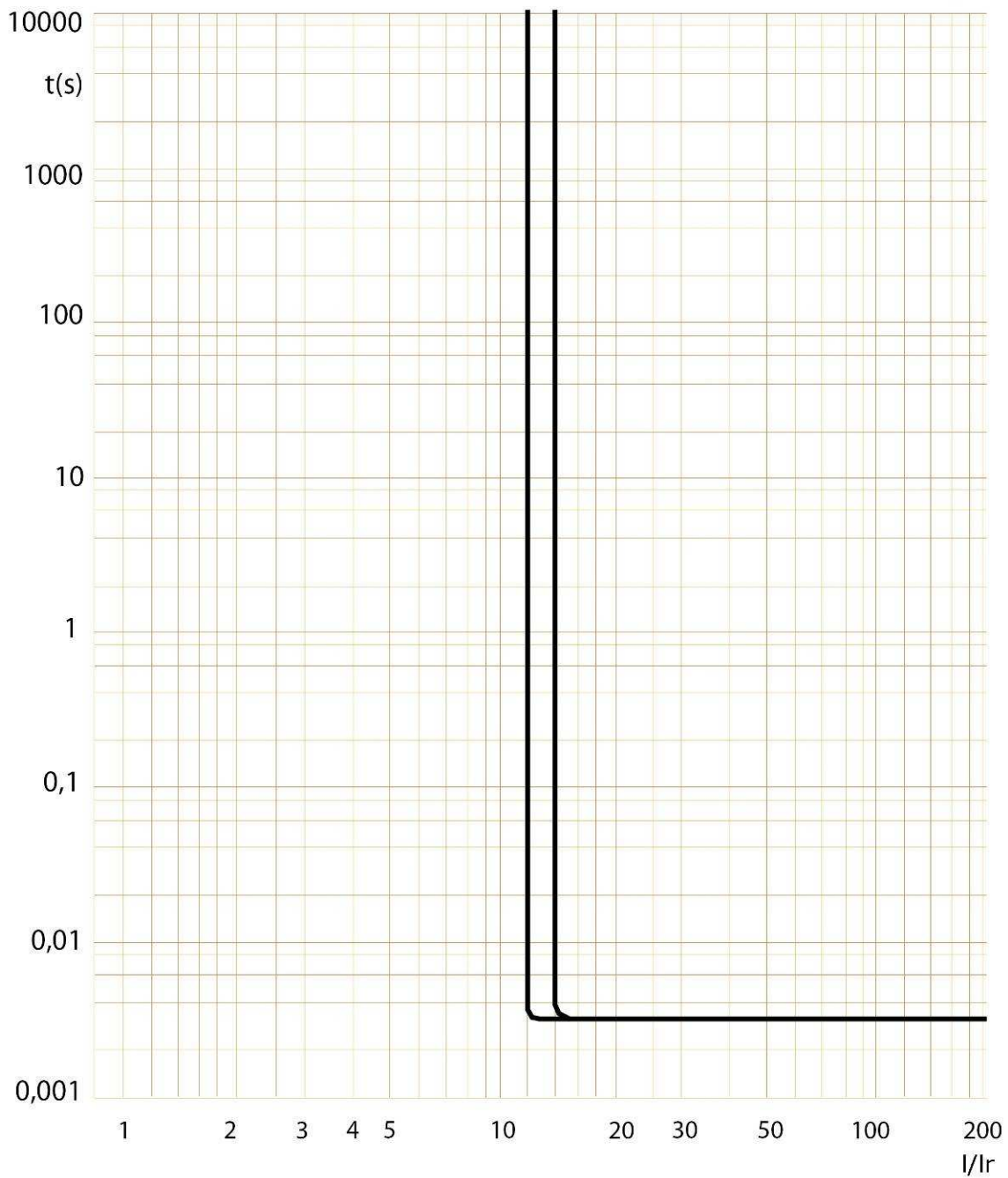
Circuit breaker DX³ 25 kA

1 module per pole

Cat N°(s): 4 097 15 to 4 099 37

7. CHARACTERISTIC CURVES *(continued)*

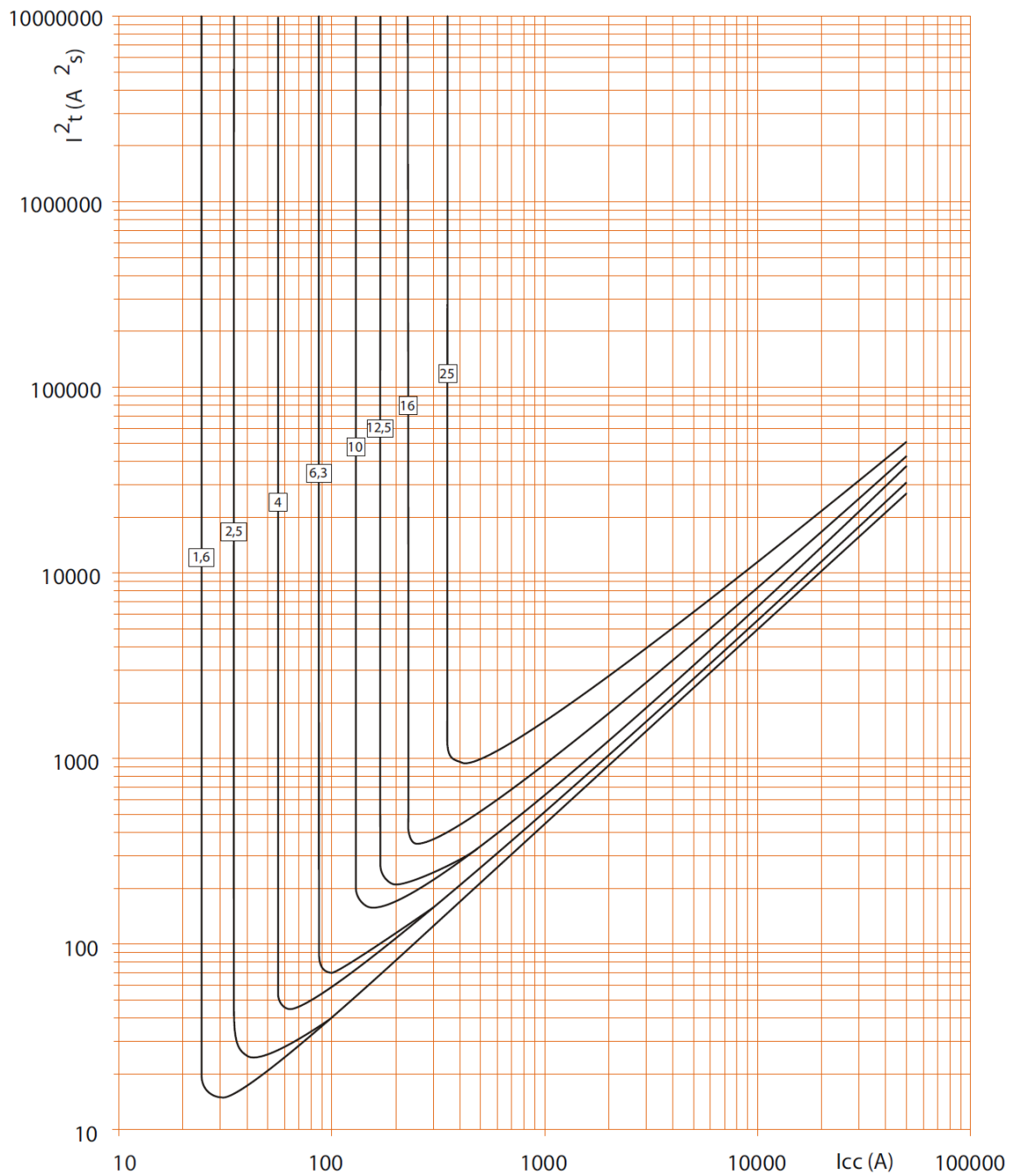
Operating characteristic of circuit breakers MA curve:



1 module per pole

7. CHARACTERISTIC CURVES (continued)

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

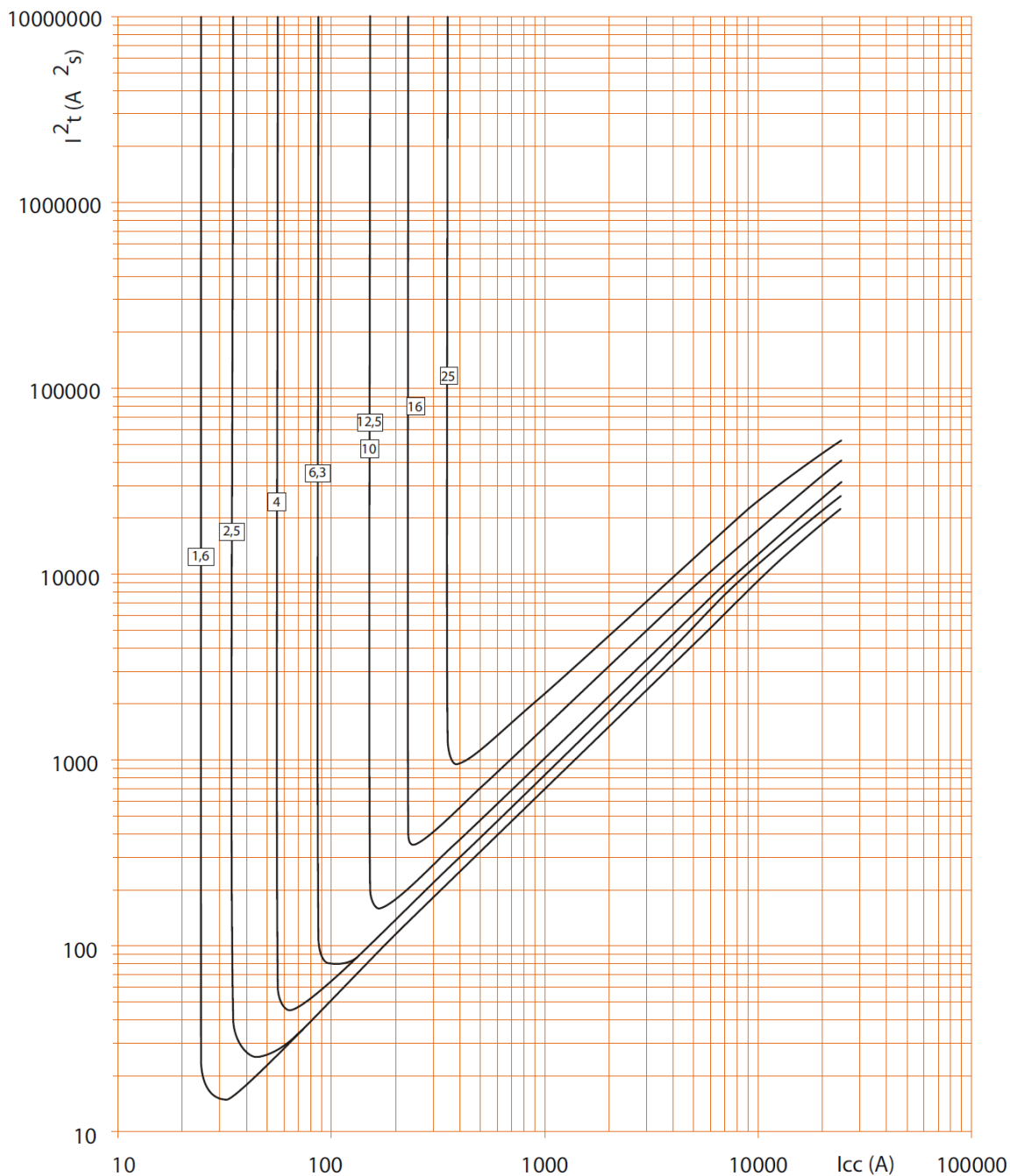


. Icc = Square value of symmetric component of the short circuit current (kA).
 . I²t = Thermal energy limited (A²s).

1 module per pole

7. CHARACTERISTIC CURVES (continued)

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



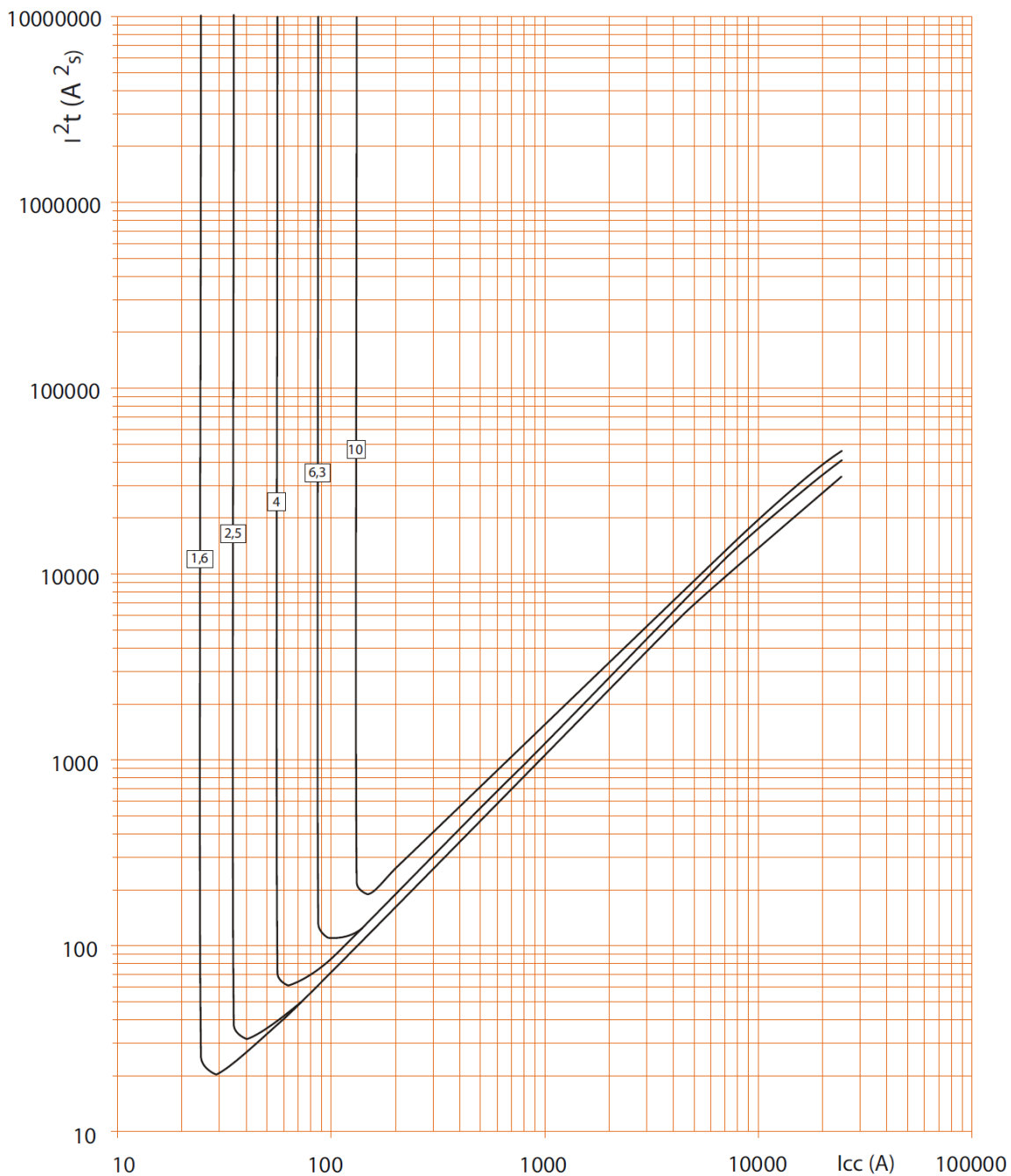
. Icc = Square value of symmetric component of the short circuit current (kA).

. I²t = Thermal energy limited (A²s).

1 module per pole

7. CHARACTERISTIC CURVES (continued)

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



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

. I²t = Thermal energy limited (A²s).

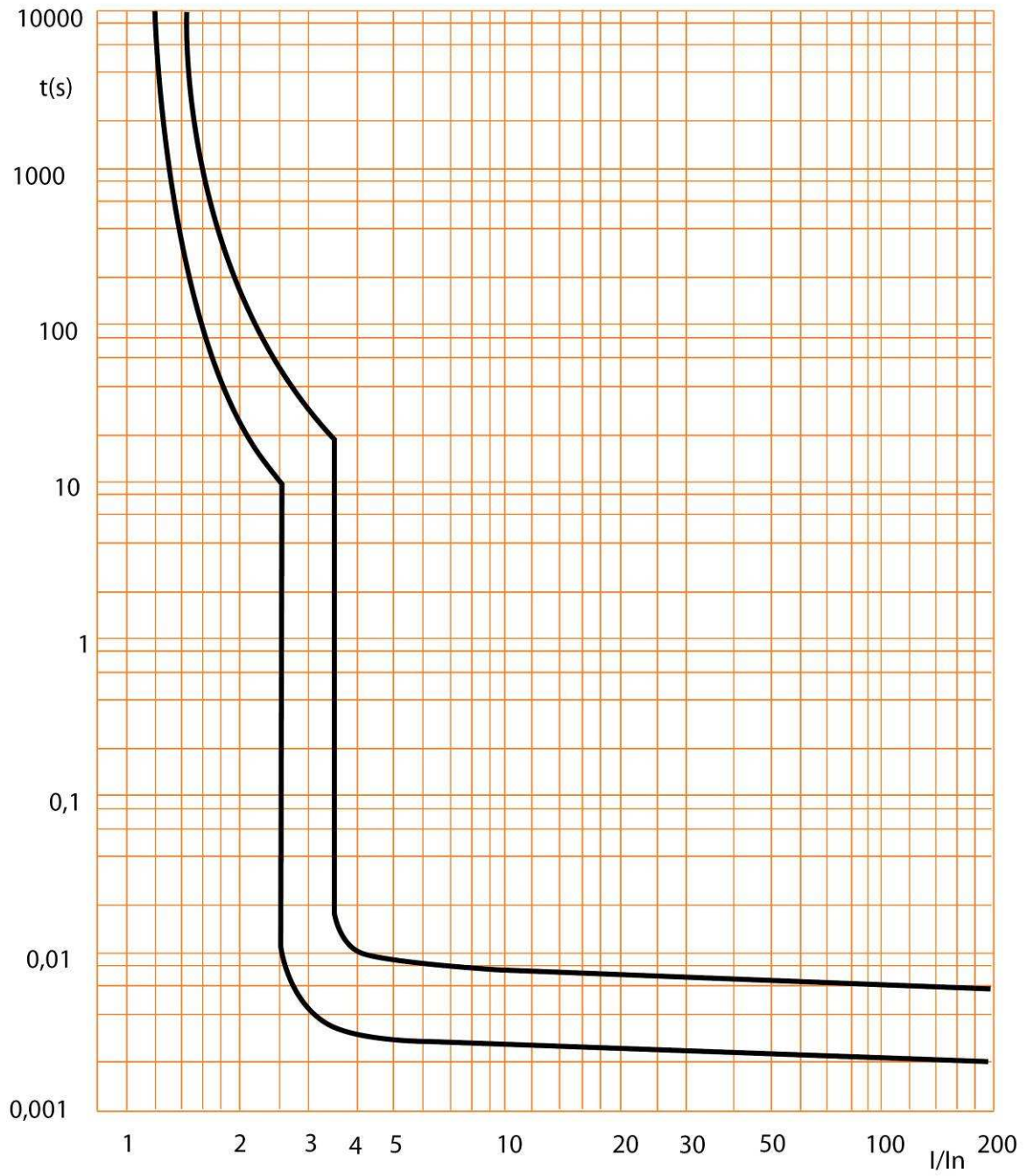
Circuit breaker DX³ 25 kA

1 module per pole

Cat N°(s): 4 097 15 to 4 099 37

7. CHARACTERISTIC CURVES *(continued)*

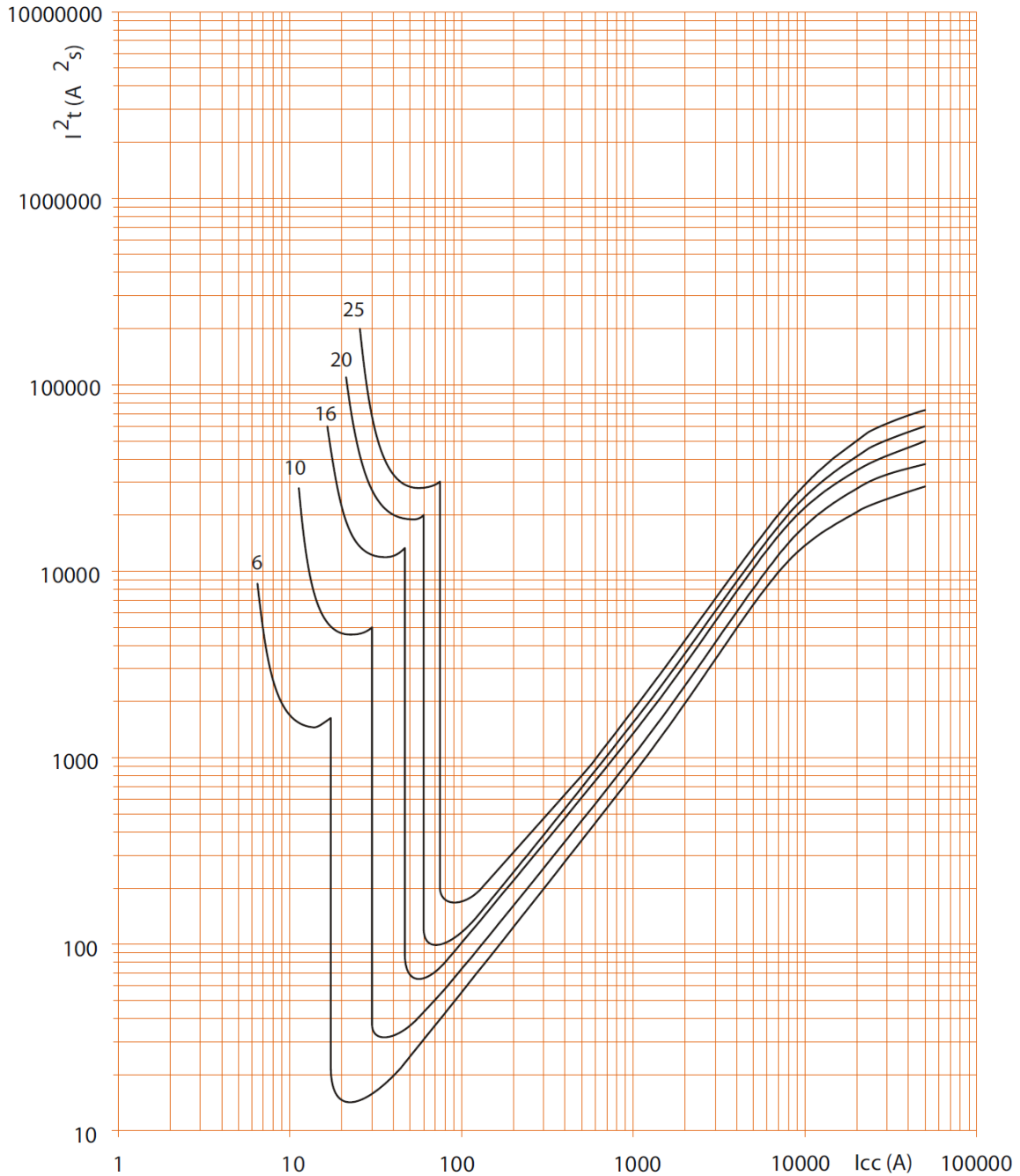
Operating characteristic of circuit breakers Z curve:



1 module per pole

7. CHARACTERISTIC CURVES (continued)

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



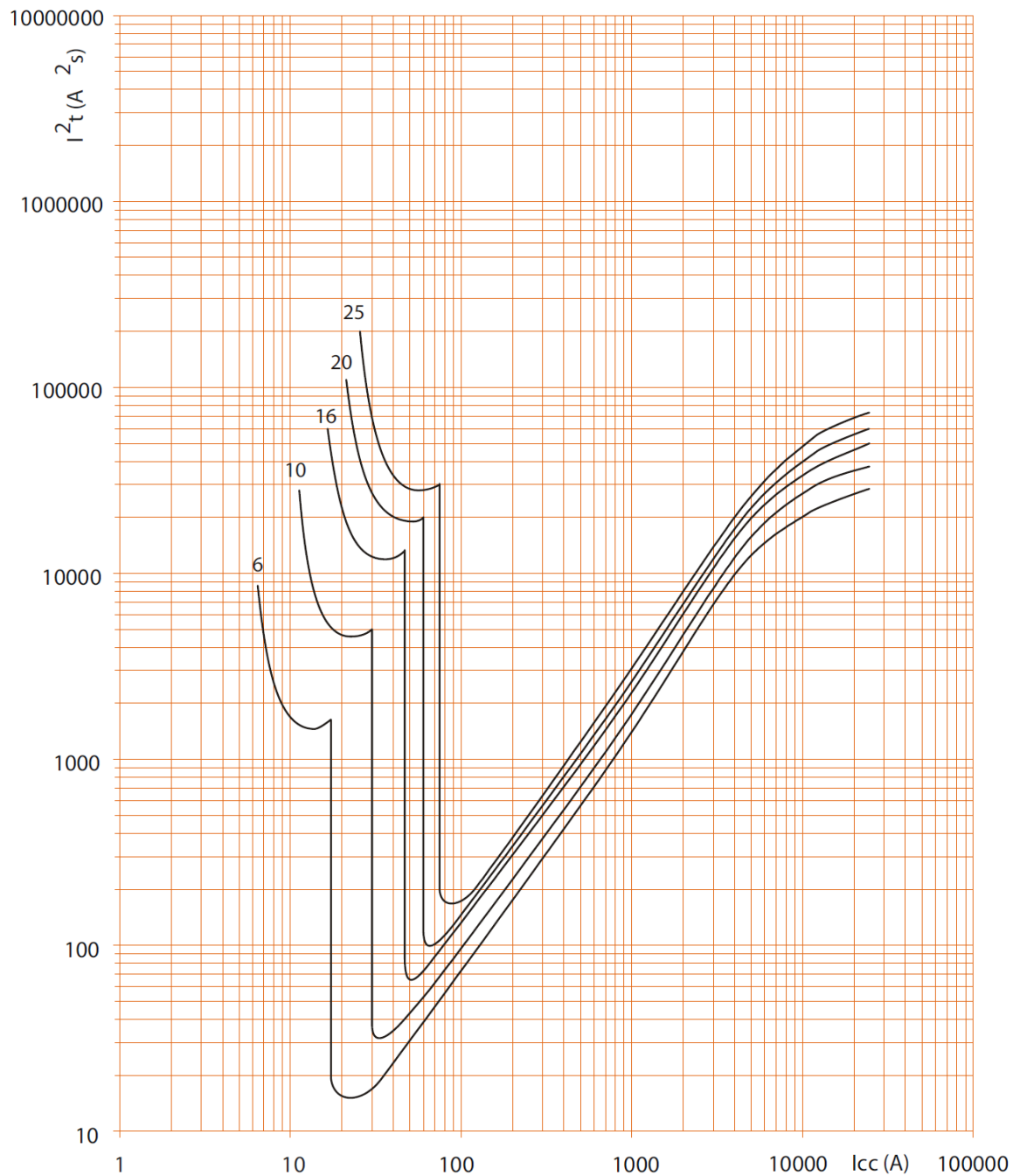
. I_{cc} = Square value of symmetric component of the short circuit current (kA).

. I^2t = Thermal energy limited (A²s).

1 module per pole

7. CHARACTERISTIC CURVES (continued)

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



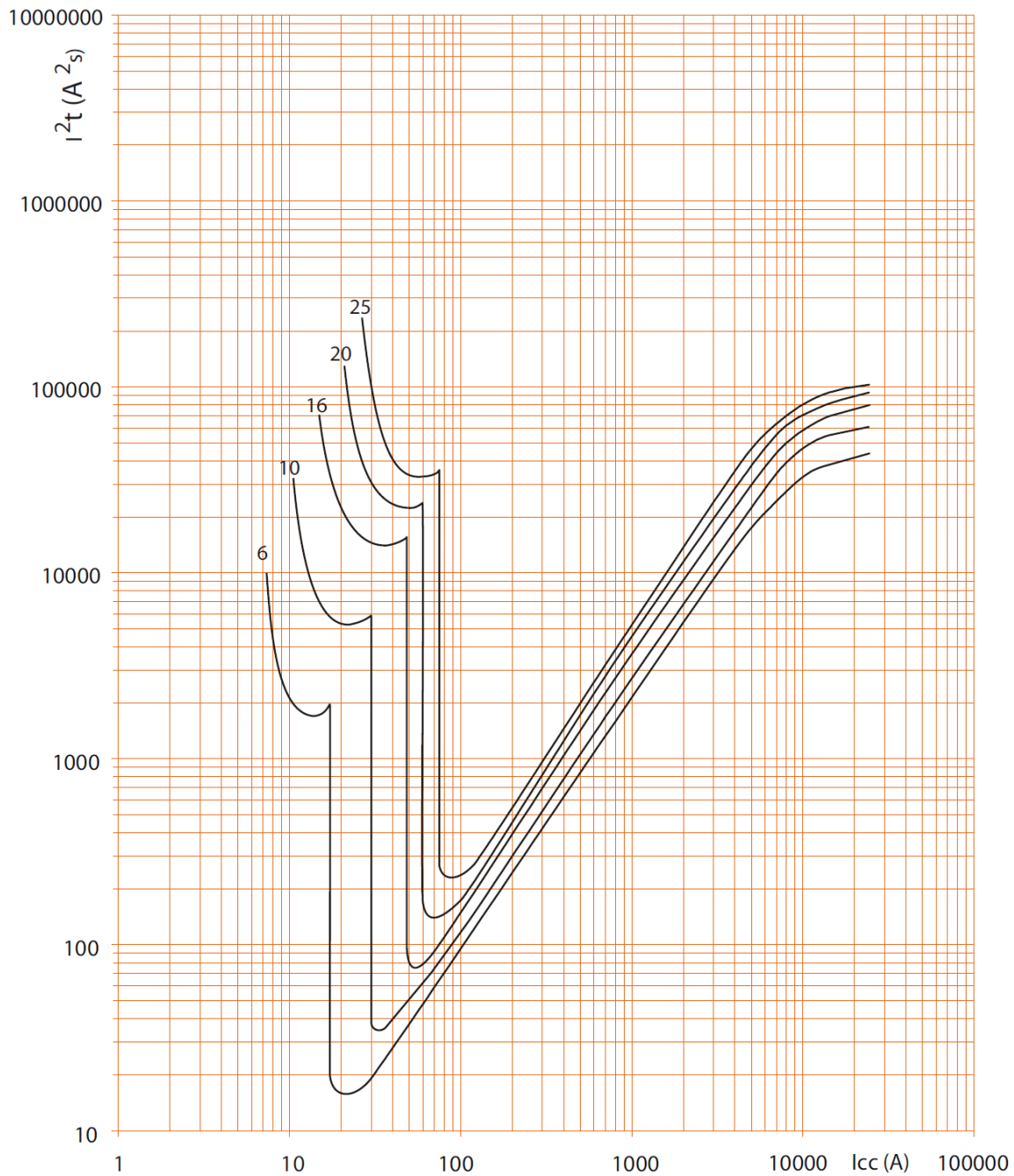
. I_{cc} = Square value of symmetric component of the short circuit current (kA).

. I^2t = Thermal energy limited (A²s).

1 module per pole

7. CHARACTERISTIC CURVES (continued)

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



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

. I^2t = Thermal energy limited (A²s).

1 module per pole

8. AUXILIARIES AND ACCESSORIES

Coupling with differential block associable up to 63A:

m.c.b.	differential block		
	2P	3P	4P
2P	X	-	-
3P	-	X	-
4P	-	-	X

Wiring accessories:

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

Signal auxiliaries:

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

Control auxiliaries:

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

Motor driven control modules

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

Possible combinations of m.c.b and auxiliaries:

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

8. AUXILIARIES AND ACCESSORIES (continued)

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