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# Circuit breaker TX³ 3000 A up to 40 A (1 module per pole)

**Cat. N° (s) : 4 030 91 to 4 031 00, 4 031 11 to 4 031 40**



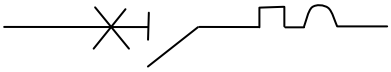
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## 1. DESCRIPTION - USE:

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

**Symbol:**



**Technology:**
. Current limiting circuit-breaker

## 2. RANGE

**Polarity:**
. 1P / 2P / 3P / 4P

**Width:**
. 1 module per pole. Each pole is 17,7 mm

**Rated currents, In:**
. 1 / 2 / 4 / 6 / 10 / 16 / 20 / 25 / 32 / 40A

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

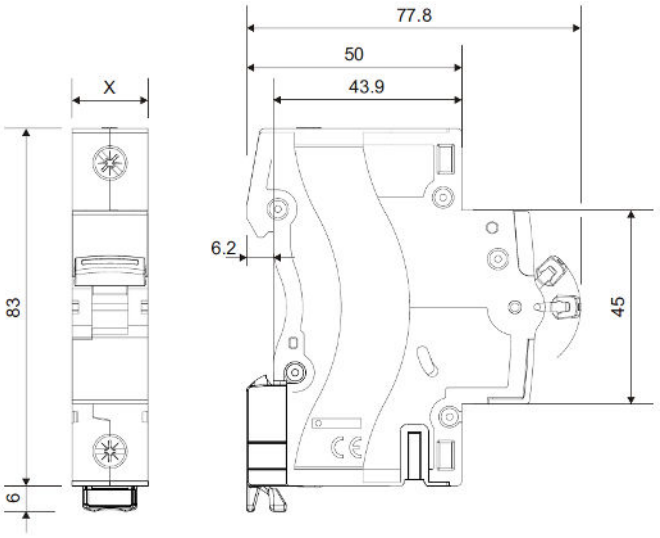
**Thermal threshold according to IEC/EN 60898-1:**
. Non operating current (Inf): 1.13 In.
. Operating current (If): 1.45 In.

**Rated Voltage and Frequency:**
. 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:**
. 3000 A in accordance with standard IEC/EN 60898-1

## 3. OVERALL DIMENSIONS:



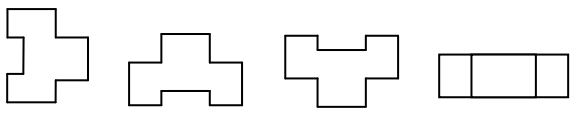

| | X |
|---|---|
| 1P | **17.7 mm** |
| 2P | **35.4 mm** |
| 3P | **53.1 mm** |
| 4P | **70.8 mm** |

## 4. PREPARATION - CONNECTION

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

**Operating positions:**

.Vertical Horizontal Upside down On the side



## 4. PREPARATION - CONNECTION *(continued)*

### Connection:

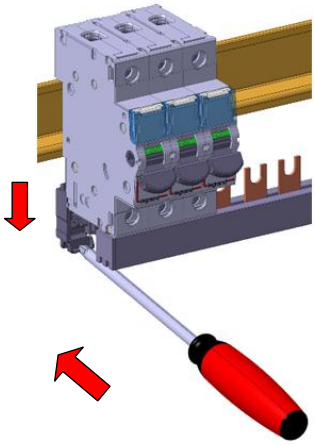
. Inputs and outputs via screw terminals
. Cage terminals, with release and captive screws
. The location of the terminals allows supplying by pin busbar both sides and fork busbar lower side.

### Module maintenance :

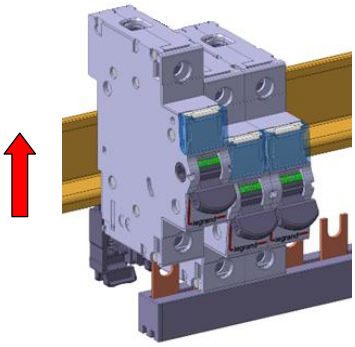
. MCBs are equipped with a din rail clamp which facilitates the removal of the circuit-breaker from the din rail in case of maintenance or replacement without the need to disconnect the entire supply line.
A circuit breaker may be replaced in the middle of a supplied fork busbar row without disconnecting the other products.
This method is available for the 1 pole, 2-poles, 3-poles, 4-poles devices.

Unscrew the terminals completely

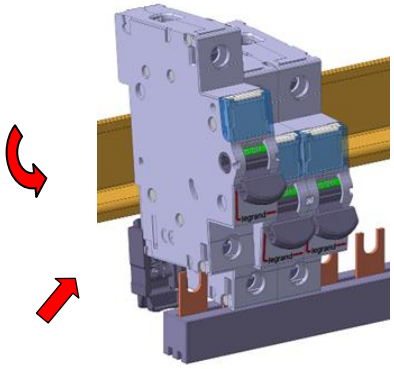
Put the clamp in the unlocking position with a screwdriver



Pull the device upward



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



## 4. PREPARATION - CONNECTION *(continued)*

### Power supply:

. Either from the top or the bottom.

### Terminal depth :

. 14 mm

### Stripping length recommended:

. 11 mm

### Screw head:

. Mixed, slotted and Pozidriv 2.

### 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 mm² to 35 mm²**<br>**2 x 1.5 mm² to 16 mm²** | - |
| Flexible cable | **1 x 1.5 mm² to 25 mm²**<br>**2 x 1.5 mm² to 10 mm²** | **1 x 1.5 mm² to 25 mm²** |

### 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° 4 063 03).

### Labelling:

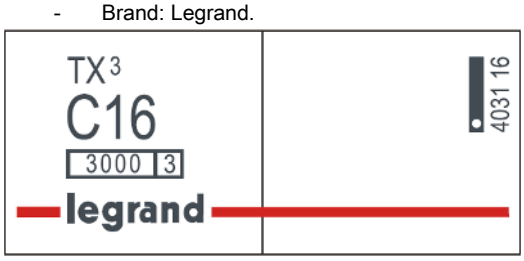
. Identification of the circuit by insertion of a label in the label holder.



## 5. GENERAL CHARACTERISTICS:

### Neutral earthing system:
. IT, ITT, TN

### Marking on the front side:
. By permanent ink pad printing:
- Trade name: TX³
- Breaking curve
- Rated current (in A)
- Icn in A rated breaking capacity in accordance with IEC/EN 60898-1 (in a box)
- Limiting class “3” (in a square)
- Legrand reference code, and Logo .
- Brand: Legrand.




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

| Un | | 1P | 2P | 3P / 4P |
|---|---|---|---|---|
| 110 V~ | Icn | 4500 A | 6000 A | - |
| 230V~ | | 3000 A | 4500 A | 4500 A |
| 400V~ | | - | 3000 A | 3000 A |
| 440 V~ | | - | 2600 A | 2600 A |

| | | | | |
|---|---|---|---|---|
| 110 V~ | Ics | 75% of Icn | 75% of Icn | 75% of Icn |
| 230V~ | | | | |
| 400V~ | | | | |
| 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 = 3 kA (under 220 to 240 V~)
- in IT neutral system, Iit = 1,5 kA (under 380 to 415 V~)

. Three-phase network 110 / 220 V~ to 120 / 240 V~
- in TN neutral system, Icn1 = 3 kA (under 110 to 127 V~)
- in IT neutral system, Iit = 1,5 kA (under 220 to 240 V~)

### Minimum operating voltage:
. 12 V a.c. / d.c. per pole.

### Pulse rated voltage:
. Uimp = 4 kV

### Insulation rated voltage:
. Ui = 500 V

## 5. GENERAL CHARACTERISTICS *(continued)*

### Pollution degree :
. 2 in accordance with standard IEC/EN 60898-1.

### Electric strength:
. 2500 V

### Operation at 400 Hz:
. The magnetic thresholds increase by 45%.

### Load to close and to open a pole trough the handle:
. 0.1 Nm per pole to close.
. 0.075 Nm per pole to open.

### Mechanical endurance:
. 20000 operations without load.
. 10000 operations with load (under In*cos φ = 0.9).
. 2000 operations under In, 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.

### Volume when packed:

| | Volume (dm³) |
|---|---|
| Single pole (packed per 10) | 1.628 |
| Double pole (packed per 5) | 1.628 |
| Triple pole (packed per 1) | 0.495 |
| Four pole (packed per 5) | 0.715 |

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

## 5. GENERAL CHARACTERISTICS *(continued)*

### Degree or class of protection:

. Protection index of terminals against solid and liquid bodies: IP 20 (wired terminals), (in accordance with standards IEC 529, EN 60529 and NF C 20-010).
. Protection index of the box against solid and liquid bodies: IP 40 (in accordance with standards IEC 529, EN 60529 and NF C 20-010).
. Protection index against mechanical shocks: IK 02 (in accordance with standards EN 50102 and NF C 20-015).

### Resistance to sinusoidal vibration in accordance with 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) : 0,7 (g=9,81 m/s²)

### Power dissipated per pole (W) :

| In | 1 A | 2 A | 4 A | 6 A | 10 A |
|---|---|---|---|---|---|
| 1P÷4P | **2** | **2** | **2** | **1.1** | **1.8** |

| In | 16 A | 20 A | 25 A | 32 A | 40 A |
|---|---|---|---|---|---|
| 1P÷4P | **2** | **2.2** | **2.7** | **3.2** | **4** |

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

## 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 IEC/EN 60898-1

| | Ambient Temperature / In | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| In (A) | - 25°C | - 10°C | 0°C | 10°C | 20°C | 30°C | 40°C | 50°C | 60°C | 70°C |
| 1 | **1.5** | **1.4** | **1.3** | **1.2** | **1.1** | **1** | **0.9** | **0.8** | **0.7** | **0.6** |
| 2 | **2.8** | **2.6** | **2.5** | **2.3** | **2.2** | **2** | **2** | **1.9** | **1.8** | **1.7** |
| 4 | **4.5** | **4.2** | **4.0** | **3.9** | **3.7** | **3.5** | **3.4** | **3.3** | **3.2** | **3.1** |
| 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** |
| 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** |
| 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** |

### 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 30°C | **none** | **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 61439-1, NF C 63421 and EN 61439-1 standards.
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).

## 5. GENERAL CHARACTERISTICS *(continued):*

**Coordination between circuit-breakers and fuses, three-phase network (+ neutal) 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 230 V) downstream of a triple-pole circuit-breaker, take the values shown in Tables 230/400 V.

| | | **Fuse upstream** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | gG Type | | | | | | | | | |
| **m.c.b. downstream** | | ≤20A | 25A | 32A | 40A | 50A | 63A | 80A | 100A | 125A | 160A |
| TX³ 3000A C Curve | <6A | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **40kA** |
| | 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** |

| | | **Fuse upstream** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | aM Type | | | | | | | | | |
| **m.c.b. downstream** | | ≤20A | 25A | 32A | 40A | 50A | 63A | 80A | 100A | 125A | 160A |
| TX³ 3000A C Curve | <6A | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **40kA** |
| | 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** |

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

## 5. GENERAL CHARACTERISTICS *(continued):*

**Coordination between modular circuit-breakers, three-phase network (+ neutal) 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 230 V) downstream of a triple-pole circuit-breaker, take the values shown in Tables 230/400 V.

| | | m.c.b. upstream | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | TX³ 6000A | | | | | | | | | |
| | | B and C Curve | | | | | D Curve | | | | |
| **m.c.b. downstream** | | ≤25A | 32A | 40A | 50A | 63A | ≤25A | 32A | 40A | 50A | 63A |
| TX³ 3000A C Curve | <6A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 6A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 10A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 16A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 20A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 25A | **-** | **10kA** | **10kA** | **10kA** | **10kA** | **-** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 32A | **-** | **-** | **10kA** | **10kA** | **10kA** | **-** | **-** | **10kA** | **10kA** | **10kA** |
| | 40A | **-** | **-** | **-** | **10kA** | **10kA** | **-** | **-** | **-** | **10kA** | **10kA** |

| | | m.c.b. upstream | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DX³ 6000A | | | | | | | | | |
| | | B and C Curve | | | | | D Curve | | | | |
| **m.c.b. downstream** | | ≤25A | 32A | 40A | 50A | 63A | ≤25A | 32A | 40A | 50A | 63A |
| TX³ 3000A C Curve | <6A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 6A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 10A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 16A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 20A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 25A | **-** | **10kA** | **10kA** | **10kA** | **10kA** | **-** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 32A | **-** | **-** | **10kA** | **10kA** | **10kA** | **-** | **-** | **10kA** | **10kA** | **10kA** |
| | 40A | **-** | **-** | **-** | **10kA** | **10kA** | **-** | **-** | **-** | **10kA** | **10kA** |

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

## 5. GENERAL CHARACTERISTICS *(continued):*

**Coordination between modular circuit-breakers, three-phase network (+ neutal) 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 230 V) downstream of a triple-pole circuit-breaker, take the values shown in Tables 230/400 V.

| | | **m.c.b. upstream** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DX³ 10000A | | | | | | | |
| | | B and C Curve | | | | | | | |
| **m.c.b. downstream** | | ≤25A | 32A | 40A | 50A | 63A | 80A | 100A | 125A |
| TX³ 3000A C Curve | <6A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 6A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 10A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 16A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 20A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 25A | **-** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 32A | **-** | **-** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 40A | **-** | **-** | **-** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |

| | | **m.c.b. upstream** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DX³ 16kA | | | | | | | |
| | | B and C Curve | | | | | | | |
| **m.c.b. downstream** | | ≤25A | 32A | 40A | 50A | 63A | 80A | 100A | 125A |
| TX³ 3000A C Curve | <6A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 6A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 10A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 16A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 20A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 25A | **-** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 32A | **-** | **-** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 40A | **-** | **-** | **-** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |

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

## 5. GENERAL CHARACTERISTICS *(continued):*

### Coordination between modular circuit-breakers, three-phase network (+ neutal) 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 230 V) downstream of a triple-pole circuit-breaker, take the values shown in Tables 230/400 V.

| | | m.c.b. upstream | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DX³ 25kA | | | | | | | |
| | | B, C and D Curve | | | | | | | |
| **m.c.b. downstream** | | ≤25A | 32A | 40A | 50A | 63A | 80A | 100A | 125A |
| TX³ 3000A C Curve | <6A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 6A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 10A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 16A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 20A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 25A | - | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 32A | - | - | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 40A | - | - | - | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |

| | | m.c.b. upstream | | | | | |
|---|---|---|---|---|---|---|---|
| | | DX³ 36kA | | | | | |
| | | C Curve | | | | | |
| **m.c.b. downstream** | | ≤25A | 32A | 40A | 50A | 63A | 80A |
| TX³ 3000A C Curve | <6A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 6A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 10A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 16A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 20A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 25A | - | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 32A | - | - | **25kA** | **25kA** | **25kA** | **25kA** |
| | 40A | - | - | - | **25kA** | **25kA** | **25kA** |

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

## 5. GENERAL CHARACTERISTICS *(continued):*

**Coordination between modular circuit-breakers, three-phase network (+ neutal) 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 230 V) downstream of a triple-pole circuit-breaker, take the values shown in Tables 230/400 V.

| | | **m.c.b. upstream** | | | | |
|---|---|---|---|---|---|---|
| | | DX³ 50kA | | | | |
| | | B, C, D Curves & MA | | | | |
| **m.c.b. downstream** | | ≤25A | 32A | 40A | 50A | 63A |
| TX³ 3000A C Curve | <6A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 6A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 10A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 16A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 20A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 25A | **-** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 32A | **-** | **-** | **25kA** | **25kA** | **25kA** |
| | 40A | **-** | **-** | **-** | **25kA** | **25kA** |

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

## 5. GENERAL CHARACTERISTICS *(continued):*

### Coordination between modular circuit-breakers and MCCBs, three-phase network (+ neutal) 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 230 V) downstream of a triple-pole circuit-breaker, take the values shown in Tables 230/400 V.

| | | m.c.c.b. upstream | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DPX³ 160 / DPX³ 160 + RCD | | | | | | | |
| | | 16kA | | | | | | | |
| **m.c.b. downstream** | | 16A | 25A | 40A | 63A | 80A | 100A | 125A | 160A |
| TX³ 3000A C Curve | <6A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 6A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 10A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 16A | - | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 20A | - | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 25A | - | - | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 32A | - | - | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 40A | - | - | - | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |

| | | m.c.c.b. upstream | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DPX³ 160 / DPX³ 160 + RCD | | | | | | | |
| | | 25 – 36 – 50kA | | | | | | | |
| **m.c.b. downstream** | | 16A | 25A | 40A | 63A | 80A | 100A | 125A | 160A |
| TX³ 3000A C Curve | <6A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 6A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 10A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 16A | - | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 20A | - | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 25A | - | - | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 32A | - | - | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 40A | - | - | - | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |

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

## 5. GENERAL CHARACTERISTICS *(continued):*

### Coordination between modular circuit-breakers and MCCBs, three-phase network (+ neutal) 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 230 V) downstream of a triple-pole circuit-breaker, take the values shown in Tables 230/400 V.

| | | m.c.c.b. upstream | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | DPX 250ER | | | DPX³250 / DPX³250 + RCD (Thermal-magnetic & electronic) | | | |
| | | 25 - 36 - 50kA | | | 25 - 36 – 50 - 70kA | | | |
| **m.c.b. downstream** | | 100A | 160A | 250A | 100A | 160A | 200A | 250A |
| TX³ 3000A C Curve | <6A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 6A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 10A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 16A | **25kA** | **25kA** | **25kA** | **25kA** | **25k□** | **25kA** | **25kA** |
| | 20A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 25A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 32A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 40A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |

| | | m.c.c.b. upstream | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DPX / H / L 250 (Thermal-magnetic & electronic) | | | | | | DPX / H / L 630 (Thermal-magnetic & electronic) | | | | |
| | | 36 – 70 – 100kA | | | | | | 36 – 70 – 100kA | | | | |
| **m.c.b. downstream** | | 25A | 40A | 63A | 100A | 160A | 250A | 250A | 320A | 400A | 500A | 630A |
| TX³ 3000A C Curve | <6A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 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** |
| | 32A | - | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 40A | - | - | **25kA** | **25kA** | **25kA** | **25kA** | **20kA** | **20kA** | **20kA** | **20kA** | **20kA** |

According to the Curve 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.

## 5. GENERAL CHARACTERISTICS *(continued):*

### Coordination between modular circuit-breakers and MCCBs, three-phase network (+ neutal) 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 230 V) downstream of a triple-pole circuit-breaker, take the values shown in Tables 230/400 V.

| | | 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 |
| TX³ 3000A C Curve | <6A | **25kA** | **25kA** |
| | 6A | **25kA** | **25kA** |
| | 10A | **25kA** | **25kA** |
| | 16A | **25kA** | **25kA** |
| | 20A | **25kA** | **25kA** |
| | 25A | **20kA** | **20kA** |
| | 32A | **15kA** | **15kA** |
| | 40A | **15kA** | **15kA** |

According to the Curve 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.

## 5. GENERAL CHARACTERISTICS *(continued):*

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

| | | Fuse upstream | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | gG Type | | | | | | | | | |
| **m.c.b. downstream** | | ≤20A | 25A | 32A | 40A | 50A | 63A | 80A | 100A | 125A | 160A |
| TX³ 3000A C Curve | <6A | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **40kA** |
| | 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** |

| | | Fuse upstream | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | aM Type | | | | | | | | | |
| **m.c.b. downstream** | | ≤20A | 25A | 32A | 40A | 50A | 63A | 80A | 100A | 125A | 160A |
| TX³ 3000A C Curve | <6A | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **100kA** | **40kA** |
| | 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** |

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

## 5. GENERAL CHARACTERISTICS *(continued):*

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

| | | m.c.b. upstream | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | TX³ 6000A | | | | | | | | | |
| | | B and C Curve | | | | | D Curve | | | | |
| **m.c.b. downstream** | | ≤25A | 32A | 40A | 50A | 63A | ≤25A | 32A | 40A | 50A | 63A |
| TX³ 3000A C Curve | <6A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 6A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 10A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 16A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 20A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 25A | **-** | **10kA** | **10kA** | **10kA** | **10kA** | **-** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 32A | **-** | **-** | **10kA** | **10kA** | **10kA** | **-** | **-** | **10kA** | **10kA** | **10kA** |
| | 40A | **-** | **-** | **-** | **10kA** | **10kA** | **-** | **-** | **-** | **10kA** | **10kA** |

| | | m.c.b. upstream | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DX³ 6000A | | | | | | | | | |
| | | B and C Curve | | | | | D Curve | | | | |
| **m.c.b. downstream** | | ≤25A | 32A | 40A | 50A | 63A | ≤25A | 32A | 40A | 50A | 63A |
| TX³ 3000A C Curve | <6A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 6A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 10A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 16A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 20A | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 25A | **-** | **10kA** | **10kA** | **10kA** | **10kA** | **-** | **10kA** | **10kA** | **10kA** | **10kA** |
| | 32A | **-** | **-** | **10kA** | **10kA** | **10kA** | **-** | **-** | **10kA** | **10kA** | **10kA** |
| | 40A | **-** | **-** | **-** | **10kA** | **10kA** | **-** | **-** | **-** | **10kA** | **10kA** |

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

## 5. GENERAL CHARACTERISTICS *(continued):*

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

| | | m.c.b. upstream | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DX³ 10000A | | | | | | | |
| | | B and C Curve | | | | | | | |
| **m.c.b. downstream** | | ≤25A | 32A | 40A | 50A | 63A | 80A | 100A | 125A |
| TX³ 3000A C Curve | <6A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 6A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 10A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 16A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 20A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 25A | **-** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 32A | **-** | **-** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 40A | **-** | **-** | **-** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |

| | | m.c.b. upstream | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DX³ 16kA | | | | | | | |
| | | B and C Curve | | | | | | | |
| **m.c.b. downstream** | | ≤25A | 32A | 40A | 50A | 63A | 80A | 100A | 125A |
| TX³ 3000A C Curve | <6A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 6A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 10A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 16A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 20A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 25A | **-** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 32A | **-** | **-** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 40A | **-** | **-** | **-** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |

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

## 5. GENERAL CHARACTERISTICS *(continued):*

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

| | | m.c.b. upstream | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DX³ 25kA | | | | | | | |
| | | B, C and D Curve | | | | | | | |
| **m.c.b. downstream** | | ≤25A | 32A | 40A | 50A | 63A | 80A | 100A | 125A |
| TX³ 3000A C Curve | <6A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 6A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 10A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 16A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 20A | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 25A | - | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 32A | - | - | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |
| | 40A | - | - | - | **16kA** | **16kA** | **16kA** | **16kA** | **16kA** |

| | | m.c.b. upstream | | | | | |
|---|---|---|---|---|---|---|---|
| | | DX³ 36kA | | | | | |
| | | C Curve | | | | | |
| **m.c.b. downstream** | | ≤25A | 32A | 40A | 50A | 63A | 80A |
| TX³ 3000A C Curve | <6A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 6A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 10A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 16A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 20A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 25A | - | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 32A | - | - | **25kA** | **25kA** | **25kA** | **25kA** |
| | 40A | - | - | - | **25kA** | **25kA** | **25kA** |

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

## 5. GENERAL CHARACTERISTICS *(continued):*

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

| | | m.c.b. upstream | | | | |
|---|---|---|---|---|---|---|
| | | DX³ 50kA | | | | |
| | | B, C, D Curves & MA | | | | |
| **m.c.b. downstream** | | ≤25A | 32A | 40A | 50A | 63A |
| TX³ 3000A C Curves | <6A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 6A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 10A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 16A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 20A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 25A | - | **25kA** | **25kA** | **25kA** | **25kA** |
| | 32A | - | - | **25kA** | **25kA** | **25kA** |
| | 40A | - | - | - | **25kA** | **25kA** |

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

## 5. GENERAL CHARACTERISTICS *(continued)*:

**Coordination between modular circuit-breakers and M.C.C.Bs (Moulded Case Circuit Breakers), three-phase network (+ neutal) 230 / 240 V~ according to IEC/EN 60947-2:**

| | | m.c.c.b. upstream | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DPX³ 160 / DPX³ 160 + RCD | | | | | | | |
| | | 16kA | | | | | | | |
| **m.c.b. downstream** | | 16A | 25A | 40A | 63A | 80A | 100A | 125A | 160A |
| TX³ 3000A C Curve | <6A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 6A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 10A | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 16A | - | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 20A | - | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 25A | - | - | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 32A | - | - | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |
| | 40A | - | - | - | **25kA** | **25kA** | **25kA** | **25kA** | **25kA** |

| | | m.c.c.b. upstream | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DPX³ 160 / DPX³ 160 + RCD | | | | | | | |
| | | 25kA | | | | | | | |
| **m.c.b. downstream** | | 16A | 25A | 40A | 63A | 80A | 100A | 125A | 160A |
| TX³ 3000A C Curve | <6A | **40kA** | **40kA** | **40kA** | **40kA** | **40kA** | **40kA** | **40kA** | **40kA** |
| | 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** |

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

## 5. GENERAL CHARACTERISTICS *(continued):*

**Coordination between modular circuit-breakers and M.C.C.Bs (Moulded Case Circuit Breakers), three-phase network (+ neutal) 230 / 240 V~ according to IEC/EN 60947-2:**

| | | m.c.c.b. upstream | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DPX³ 160 / DPX³ 160 + RCD | | | | | | | |
| | | 36 - 50kA | | | | | | | |
| **m.c.b. downstream** | | 16A | 25A | 40A | 63A | 80A | 100A | 125A | 160A |
| TX³ 3000A C Curve | <6A | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** |
| | 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** | **50kA** |
| | 40A | - | - | - | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** |

| | | m.c.c.b. upstream | | | | | |
|---|---|---|---|---|---|---|---|
| | | DPX 250ER | | | DPX 250ER | | |
| | | 25kA | | | 36 - 50kA | | |
| **m.c.b. downstream** | | 100A | 160A | 250A | 100A | 160A | 250A |
| TX³ 3000A C Curve | <6A | **40kA** | **40kA** | **40kA** | **50kA** | **50kA** | **50kA** |
| | 6A | **40kA** | **40kA** | **40kA** | **50kA** | **50kA** | **50kA** |
| | 10A | **40kA** | **40kA** | **40kA** | **50kA** | **50kA** | **50kA** |
| | 16A | **40kA** | **40kA** | **40kA** | **50kA** | **50kA** | **50kA** |
| | 20A | **40kA** | **40kA** | **40kA** | **50kA** | **50kA** | **50kA** |
| | 25A | **40kA** | **40kA** | **40kA** | **50kA** | **50kA** | **50kA** |
| | 32A | **40kA** | **40kA** | **40kA** | **50kA** | **50kA** | **50kA** |
| | 40A | **40kA** | **40kA** | **40kA** | **50kA** | **50kA** | **50kA** |

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

## 5. GENERAL CHARACTERISTICS *(continued)*:

**Coordination between modular circuit-breakers and M.C.C.Bs (Moulded Case Circuit Breakers), three-phase network (+ neutal) 230 / 240 V~ according to IEC/EN 60947-2:**

| | | m.c.c.b. upstream | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DPX³250 / DPX³250 + RCD (Thermal-magnetic & electronic) | | | | DPX³250 / DPX³250 + RCD (Thermal-magnetic & electronic) | | | |
| | | 25kA | | | | 36 – 50 - 70kA | | | |
| **m.c.b. downstream** | | 100A | 160A | 200A | 250A | 100A | 160A | 200A | 250A |
| TX³ 3000A C Curve | <6A | **40kA** | **40kA** | **40kA** | **40kA** | **50kA** | **50kA** | **50kA** | **50kA** |
| | 6A | **40kA** | **40kA** | **40kA** | **40kA** | **50kA** | **50kA** | **50kA** | **50kA** |
| | 10A | **40kA** | **40kA** | **40kA** | **40kA** | **50kA** | **50kA** | **50kA** | **50kA** |
| | 16A | **40kA** | **40kA** | **40kA** | **40kA** | **50kA** | **50kA** | **50kA** | **50kA** |
| | 20A | **40kA** | **40kA** | **40kA** | **40kA** | **50kA** | **50kA** | **50kA** | **50kA** |
| | 25A | **40kA** | **40kA** | **40kA** | **40kA** | **50kA** | **50kA** | **50kA** | **50kA** |
| | 32A | **40kA** | **40kA** | **40kA** | **40kA** | **50kA** | **50kA** | **50kA** | **50kA** |
| | 40A | **40kA** | **40kA** | **40kA** | **40kA** | **50kA** | **50kA** | **50kA** | **50kA** |

| | | m.c.c.b. upstream | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DPX / H / L 250 (Thermal-magnetic & electronic) | | | | | | DPX / H / L 630 (Thermal-magnetic & electronic) | | | | |
| | | 36 - 70 – 100kA | | | | | | 36 - 70 – 100kA | | | | |
| **m.c.b. downstream** | | 25A | 40A | 63A | 100A | 160A | 250A | **250A** | **320A** | **400A** | **500A** | **630A** |
| TX³ 3000A C Curve | <6A | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** |
| | 6A | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** |
| | 10A | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** |
| | 16A | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** |
| | 20A | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** |
| | 25A | - | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** |
| | 32A | - | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** |
| | 40A | - | - | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** | **50kA** |

According to the Curve 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.

## 5. GENERAL CHARACTERISTICS *(continued):*

**Coordination between modular circuit-breakers and M.C.C.Bs (Moulded Case Circuit Breakers), three-phase network (+ neutal) 230 / 240 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 |
| TX³ 3000A C Curve | <6A | **50kA** | **50kA** |
| | 6A | **50kA** | **50kA** |
| | 10A | **50kA** | **50kA** |
| | 16A | **50kA** | **50kA** |
| | 20A | **50kA** | **50kA** |
| | 25A | **50kA** | **50kA** |
| | 32A | **50kA** | **50kA** |
| | 40A | **50kA** | **50kA** |

According to the Curve 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.

## 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 400 V~: values in Ampere.

| | | **Fuse upstream** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | gG Type | | | | | | | |
| **m.c.b. downstream** | | 32A | 40A | 50A | 63A | 80A | 100A | 125A | 160A |
| TX³ 3000A C Curve | <6A | **1300** | **1900** | **2500** | **4000** | **4600** | **T** | **T** | **T** |
| | 6A | **1300** | **1900** | **2500** | **4000** | **4600** | **T** | **T** | **T** |
| | 10A | **-** | **1600** | **2200** | **3200** | **3600** | **T** | **T** | **T** |
| | 16A | **-** | **1400** | **1800** | **2600** | **3000** | **5600** | **T** | **T** |
| | 20A | **-** | **1200** | **1500** | **2200** | **2500** | **4600** | **T** | **T** |
| | 25A | **-** | **-** | **1300** | **2000** | **2200** | **4100** | **5500** | **T** |
| | 32A | **-** | **-** | **1200** | **1700** | **1900** | **3500** | **4500** | **T** |
| | 40A | **-** | **-** | **-** | **-** | **1700** | **3000** | **4000** | **T** |

| | | **Fuse upstream** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | aM Type | | | | | | | | |
| **m.c.b. downstream** | | 25A | 32A | 40A | 50A | 63A | 80A | 100A | 125A | 160A |
| TX³ 3000A C Curve | <6A | **1000** | **1600** | **2100** | **3200** | **T** | **T** | **T** | **T** | **T** |
| | 6A | **1000** | **1600** | **2100** | **3200** | **T** | **T** | **T** | **T** | **T** |
| | 10A | **-** | **1100** | **1700** | **2500** | **5000** | **T** | **T** | **T** | **T** |
| | 16A | **-** | **1000** | **1400** | **2100** | **4000** | **T** | **T** | **T** | **T** |
| | 20A | **-** | **-** | **1300** | **1800** | **3400** | **5100** | **T** | **T** | **T** |
| | 25A | **-** | **-** | **1100** | **1600** | **3000** | **4500** | **T** | **T** | **T** |
| | 32A | **-** | **-** | **-** | **1300** | **2400** | **3800** | **5000** | **T** | **T** |
| | 40A | **-** | **-** | **-** | **-** | **2100** | **3100** | **4200** | **T** | **T** |

. T = Total discrimination

## 5. GENERAL CHARACTERISTICS *(continued):*

### Selectivity between modular circuit breakers:

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

| | | m.c.b. upstream | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | TX³ 10kA - DX³ 6000A/10kA | | | | | | | |
| | | B Curve | | | | | | | |
| **m.c.b. downstream** | | 10A | 16A | 20A | 25A | 32A | 40A | 50A | 63A |
| TX³ 3000A C Curve | <6A | - | 64 | 80 | 100 | 128 | 160 | 200 | 252 |
| | 6A | - | 64 | 80 | 100 | 128 | 160 | 200 | 252 |
| | 10A | - | - | 80 | 100 | 128 | 160 | 200 | 252 |
| | 16A | - | - | - | - | 128 | 160 | 200 | 252 |
| | 20A | - | - | - | - | - | 160 | 200 | 252 |
| | 25A | - | - | - | - | - | 160 | 200 | 252 |
| | 32A | - | - | - | - | - | - | - | 252 |
| | 40A | - | - | - | - | - | - | - | - |

| | | m.c.b. upstream | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | TX³ 10kA - DX³ 6000A/10kA | | | | | | | |
| | | C Curve | | | | | | | |
| **m.c.b. downstream** | | 10A | 16A | 20A | 25A | 32A | 40A | 50A | 63A |
| TX³ 3000A C Curve | <6A | 75 | 120 | 150 | 187 | 240 | 300 | 375 | 472 |
| | 6A | 75 | 120 | 150 | 187 | 240 | 300 | 375 | 472 |
| | 10A | - | 120 | 150 | 187 | 240 | 300 | 375 | 472 |
| | 16A | - | - | 150 | 187 | 240 | 300 | 375 | 472 |
| | 20A | - | - | - | 187 | 240 | 300 | 375 | 472 |
| | 25A | - | - | - | - | 240 | 300 | 375 | 472 |
| | 32A | - | - | - | - | - | 300 | 375 | 472 |
| | 40A | - | - | - | - | - | - | 375 | 472 |

. T = Total discrimination

## 5. GENERAL CHARACTERISTICS *(continued):*

### Selectivity between modular circuit breakers:

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

| | | m.c.b. upstream | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DX³ 6000A/10kA | | | | | | | |
| | | D Curve | | | | | | | |
| **m.c.b. downstream** | | 10A | 16A | 20A | 25A | 32A | 40A | 50A | 63A |
| TX³ 3000A C Curve | <6A | **120** | **192** | **240** | **300** | **384** | **480** | **600** | **756** |
| | 6A | **120** | **192** | **240** | **300** | **384** | **480** | **600** | **756** |
| | 10A | **-** | **192** | **240** | **300** | **384** | **480** | **600** | **756** |
| | 16A | **-** | **-** | **240** | **300** | **384** | **480** | **600** | **756** |
| | 20A | **-** | **-** | **-** | **300** | **384** | **480** | **600** | **756** |
| | 25A | **-** | **-** | **-** | **-** | **384** | **480** | **600** | **756** |
| | 32A | **-** | **-** | **-** | **-** | **-** | **480** | **600** | **756** |
| | 40A | **-** | **-** | **-** | **-** | **-** | **-** | **600** | **756** |

| | | m.c.b. upstream | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DX³ 10000/16kA | | | | | | | | | | |
| | | B Curve | | | | | | | | | | |
| **m.c.b. downstream** | | 10A | 16A | 20A | 25A | 32A | 40A | 50A | 63A | 80A | 100A | 125A |
| TX³ 3000A C Curve | <6A | **-** | **64** | **80** | **100** | **128** | **160** | **200** | **252** | **800** | **1000** | **1300** |
| | 6A | **-** | **64** | **80** | **100** | **128** | **160** | **200** | **252** | **800** | **1000** | **1300** |
| | 10A | **-** | **-** | **80** | **100** | **128** | **160** | **200** | **252** | **750** | **960** | **1200** |
| | 16A | **-** | **-** | **-** | **-** | **128** | **160** | **200** | **252** | **630** | **800** | **960** |
| | 20A | **-** | **-** | **-** | **-** | **-** | **160** | **200** | **252** | **600** | **730** | **900** |
| | 25A | **-** | **-** | **-** | **-** | **-** | **160** | **200** | **252** | **560** | **650** | **850** |
| | 32A | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **252** | **500** | **630** | **800** |
| | 40A | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **460** | **560** | **700** |

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## 5. GENERAL CHARACTERISTICS *(continued):*

### Selectivity between modular circuit breakers:

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

| | | m.c.b. upstream | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DX³ 10000/16kA | | | | | | | | | | |
| | | C Curve | | | | | | | | | | |
| **m.c.b. downstream** | | 10A | 16A | 20A | 25A | 32A | 40A | 50A | 63A | 80A | 100A | 125A |
| TX³ 3000A C Curve | <6A | **75** | **120** | **150** | **187** | **240** | **300** | **375** | **472** | **1300** | **1600** | **2000** |
| | 6A | **75** | **120** | **150** | **187** | **240** | **300** | **375** | **472** | **1300** | **1600** | **2000** |
| | 10A | **-** | **120** | **150** | **187** | **240** | **300** | **375** | **472** | **1150** | **1450** | **1800** |
| | 16A | **-** | **-** | **150** | **187** | **240** | **300** | **375** | **472** | **950** | **1200** | **1500** |
| | 20A | **-** | **-** | **-** | **187** | **240** | **300** | **375** | **472** | **900** | **1100** | **1400** |
| | 25A | **-** | **-** | **-** | **-** | **240** | **300** | **375** | **472** | **850** | **1000** | **1300** |
| | 32A | **-** | **-** | **-** | **-** | **-** | **300** | **375** | **472** | **750** | **950** | **1200** |
| | 40A | **-** | **-** | **-** | **-** | **-** | **-** | **375** | **472** | **700** | **850** | **1100** |

| | | m.c.b. upstream | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DX³ 25kA | | | | | | | | | | |
| | | B Curve | | | | | | | | | | |
| **m.c.b. downstream** | | 10A | 16A | 20A | 25A | 32A | 40A | 50A | 63A | 80A | 100A | 125A |
| TX³ 3000A C Curve | <6A | **-** | **64** | **80** | **100** | **128** | **160** | **200** | **252** | **800** | **1000** | **1300** |
| | 6A | **-** | **64** | **80** | **100** | **128** | **160** | **200** | **252** | **800** | **1000** | **1300** |
| | 10A | **-** | **-** | **80** | **100** | **128** | **160** | **200** | **252** | **750** | **960** | **1200** |
| | 16A | **-** | **-** | **-** | **-** | **128** | **160** | **200** | **252** | **630** | **800** | **960** |
| | 20A | **-** | **-** | **-** | **-** | **-** | **160** | **200** | **252** | **600** | **730** | **900** |
| | 25A | **-** | **-** | **-** | **-** | **-** | **-** | **200** | **252** | **560** | **650** | **850** |
| | 32A | **-** | **-** | **-** | **-** | **-** | **-** | **200** | **252** | **500** | **630** | **800** |
| | 40A | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **252** | **460** | **560** | **700** |

## 5. GENERAL CHARACTERISTICS *(continued):*

### Selectivity between modular circuit breakers:

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

| | | m.c.b. upstream | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DX³ 25kA | | | | | | | | | | |
| | | C Curve | | | | | | | | | | |
| **m.c.b. downstream** | | 10A | 16A | 20A | 25A | 32A | 40A | 50A | 63A | 80A | 100A | 125A |
| TX³ 3000A C Curve | <6A | **75** | **120** | **150** | **187** | **240** | **300** | **375** | **472** | **1300** | **1600** | **2000** |
| | 6A | **75** | **120** | **150** | **187** | **240** | **300** | **375** | **472** | **1300** | **1600** | **2000** |
| | 10A | **-** | **120** | **150** | **187** | **240** | **300** | **375** | **472** | **1150** | **1450** | **1800** |
| | 16A | **-** | **-** | **150** | **187** | **240** | **300** | **375** | **472** | **950** | **1200** | **1500** |
| | 20A | **-** | **-** | **-** | **187** | **240** | **300** | **375** | **472** | **900** | **1100** | **1400** |
| | 25A | **-** | **-** | **-** | **-** | **240** | **300** | **375** | **472** | **850** | **1000** | **1300** |
| | 32A | **-** | **-** | **-** | **-** | **-** | **300** | **375** | **472** | **750** | **950** | **1200** |
| | 40A | **-** | **-** | **-** | **-** | **-** | **-** | **375** | **472** | **700** | **850** | **1100** |

| | | m.c.b. upstream | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DX³ 25kA | | | | | | | | | | |
| | | D Curve | | | | | | | | | | |
| **m.c.b. downstream** | | 10A | 16A | 20A | 25A | 32A | 40A | 50A | 63A | 80A | 100A | 125A |
| TX³ 3000A C Curve | <6A | **120** | **192** | **240** | **300** | **384** | **480** | **600** | **756** | **2000** | **2400** | **3000** |
| | 6A | **120** | **192** | **240** | **300** | **384** | **480** | **600** | **756** | **2000** | **2400** | **3000** |
| | 10A | **-** | **192** | **240** | **300** | **384** | **480** | **600** | **756** | **1750** | **2150** | **2700** |
| | 16A | **-** | **-** | **240** | **300** | **384** | **480** | **600** | **756** | **1400** | **1800** | **2200** |
| | 20A | **-** | **-** | **-** | **300** | **384** | **480** | **600** | **756** | **1350** | **1650** | **2100** |
| | 25A | **-** | **-** | **-** | **-** | **384** | **480** | **600** | **756** | **1300** | **1500** | **2000** |
| | 32A | **-** | **-** | **-** | **-** | **-** | **480** | **600** | **756** | **1100** | **1450** | **1800** |
| | 40A | **-** | **-** | **-** | **-** | **-** | **-** | **600** | **756** | **1000** | **1250** | **1650** |

## 5. GENERAL CHARACTERISTICS *(continued):*

### Selectivity between modular circuit breakers:

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

| | | m.c.b. upstream | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | DX³ 36kA | | | | | | | | |
| | | C Curve | | | | | | | | |
| **m.c.b. downstream** | | 10A | 16A | 20A | 25A | 32A | 40A | 50A | 63A | 80A |
| TX³ 3000A C Curve | <6A | **75** | **120** | **150** | **187** | **240** | **300** | **375** | **472** | **1300** |
| | 6A | **75** | **120** | **150** | **187** | **240** | **300** | **375** | **472** | **1300** |
| | 10A | **-** | **120** | **150** | **187** | **240** | **300** | **375** | **472** | **1150** |
| | 16A | **-** | **-** | **150** | **187** | **240** | **300** | **375** | **472** | **950** |
| | 20A | **-** | **-** | **-** | **187** | **240** | **300** | **375** | **472** | **900** |
| | 25A | **-** | **-** | **-** | **-** | **240** | **300** | **375** | **472** | **850** |
| | 32A | **-** | **-** | **-** | **-** | **-** | **300** | **375** | **472** | **750** |
| | 40A | **-** | **-** | **-** | **-** | **-** | **-** | **375** | **472** | **700** |

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| | | m.c.c.b. upstream | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DPX³160<br>DPX³160 + RCD | | | | | | | | DPX 250ER | | |
| | | 16 - 25 – 36 - 50kA | | | | | | | | 25 – 36 – 50kA | | |
| **m.c.b. downstream** | | 16A | 25A | 40A | 63A | 80A | 100A | 125A | 160A | 100A | 160A | 250A |
| TX³ 3000A C Curve | <6A | **T** | **T** | **T** | **T** | **T** | **T** | **T** | **T** | **T** | **T** | **T** |
| | 6A | **T** | **T** | **T** | **T** | **T** | **T** | **T** | **T** | **T** | **T** | **T** |
| | 10A | **5000** | **T** | **T** | **T** | **T** | **T** | **T** | **T** | **T** | **T** | **T** |
| | 16A | **-** | **T** | **T** | **T** | **T** | **T** | **T** | **T** | **T** | **T** | **T** |
| | 20A | **-** | **5000** | **5000** | **5000** | **5000** | **T** | **T** | **T** | **T** | **T** | **T** |
| | 25A | **-** | **-** | **4500** | **4500** | **4500** | **4500** | **T** | **T** | **5000** | **T** | **T** |
| | 32A | **-** | **-** | **-** | **3000** | **4000** | **4000** | **T** | **T** | **4000** | **T** | **T** |
| | 40A | **-** | **-** | **-** | **3000** | **3000** | **3000** | **T** | **T** | **3500** | **T** | **T** |

. T = Total discrimination

## 5. GENERAL CHARACTERISTICS *(continued):*

### Selectivity between M.C.Bs and M.C.C.Bs (Moulded Case Circuit Breakers):

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

| | | m.c.c.b. upstream | | | | | |
|---|---|---|---|---|---|---|---|
| | | DPX 250 / H / L (Thermal-Magnetic & electronic) | | | | | |
| | | 36 - 70 - 100kA | | | | | |
| **m.c.b. downstream** | | 25A | 40A | 63A | 100A | 160A | 250A |
| TX³ 3000A C Curve | <6A | **T** | **T** | **T** | **T** | **T** | **T** |
| | 6A | **T** | **T** | **T** | **T** | **T** | **T** |
| | 10A | **5000** | **5000** | **5000** | **T** | **T** | **T** |
| | 16A | **4000** | **4000** | **4000** | **T** | **T** | **T** |
| | 20A | **-** | **4000** | **4000** | **T** | **T** | **T** |
| | 25A | **-** | **3000** | **3000** | **T** | **T** | **T** |
| | 32A | **-** | **-** | **2000** | **5000** | **T** | **T** |
| | 40A | **-** | **-** | **2000** | **5000** | **T** | **T** |

| | | m.c.c.b. upstream | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | DPX³ 250 DPX³ 250 + RCD (Thermal-Magnetic & electronic) | | | | DPX / H / L 630 (Thermal-Magnetic & electronic) | DPX / H / L 1250 | DPX / H 1600 (electronic) |
| | | 25 - 36 – 50 - 70kA | | | | 36 – 70 - 100kA | 36 – 70 - 100kA | 36 – 70kA |
| **m.c.b. downstream** | | 100A | 160A | 200A | 250A | 160 to 630A | 500 to 1250A | 630 to 1600A |
| TX³ 3000A C Curve | <6A | **T** | **T** | **T** | **T** | **T** | **T** | **T** |
| | 6A | **T** | **T** | **T** | **T** | **T** | **T** | **T** |
| | 10A | **T** | **T** | **T** | **T** | **T** | **T** | **T** |
| | 16A | **T** | **T** | **T** | **T** | **T** | **T** | **T** |
| | 20A | **T** | **T** | **T** | **T** | **T** | **T** | **T** |
| | 25A | **T** | **T** | **T** | **T** | **T** | **T** | **T** |
| | 32A | **5000** | **T** | **T** | **T** | **T** | **T** | **T** |
| | 40A | **5000** | **T** | **T** | **T** | **T** | **T** | **T** |

. T = Total discrimination.

## 6. COMPLIANCE AND APPROVALS

### In accordance with standards:

. IEC/EN 60898-1 with 3000 A 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 IEC 60068-2-52

### Environment:

. 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 :

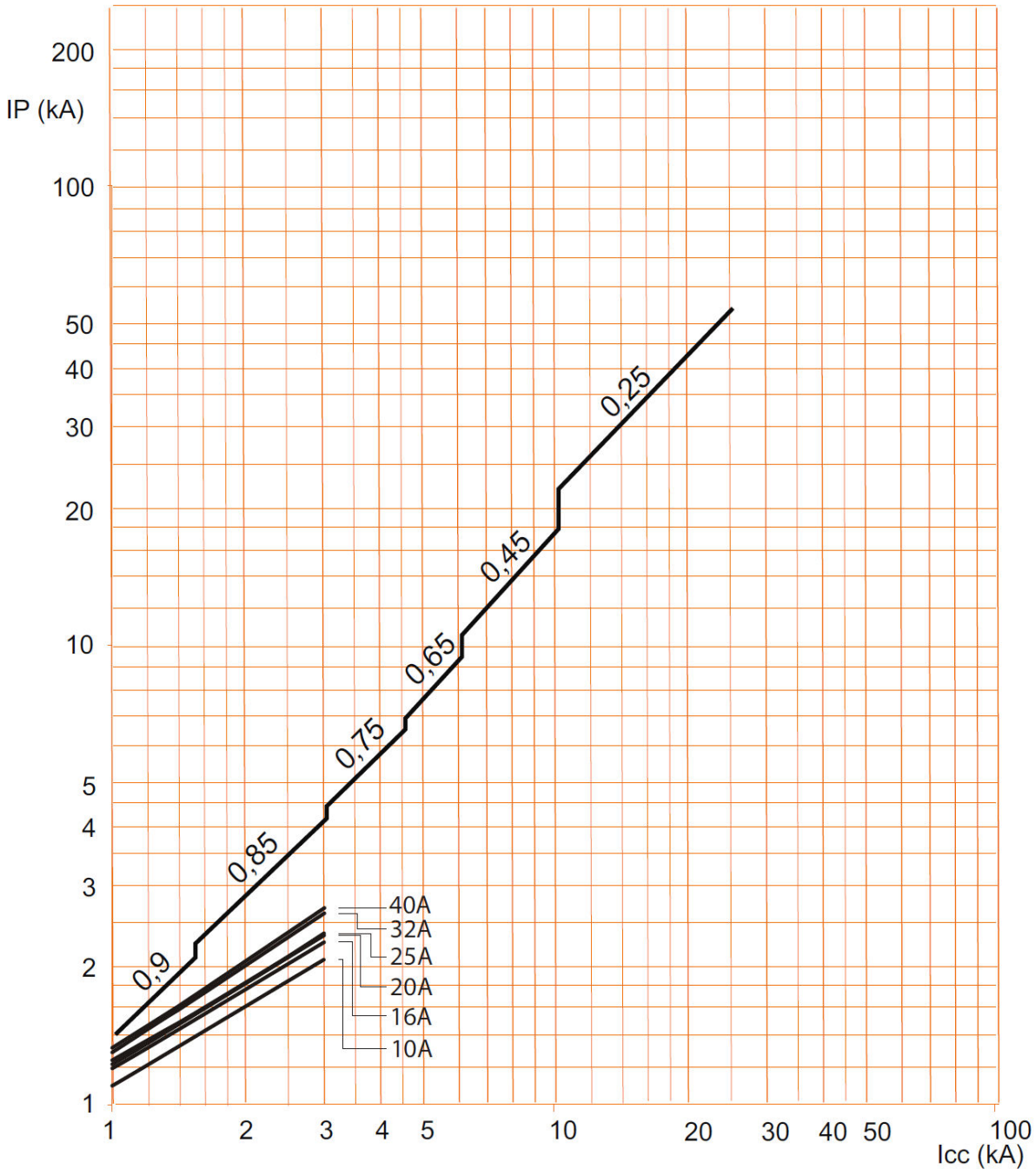
. Halogens-free plastic materials.
. Marking of parts according to ISO 11469 and ISO 1043.

### Packaging:

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

## 7. CHARACTERISTIC CURVE

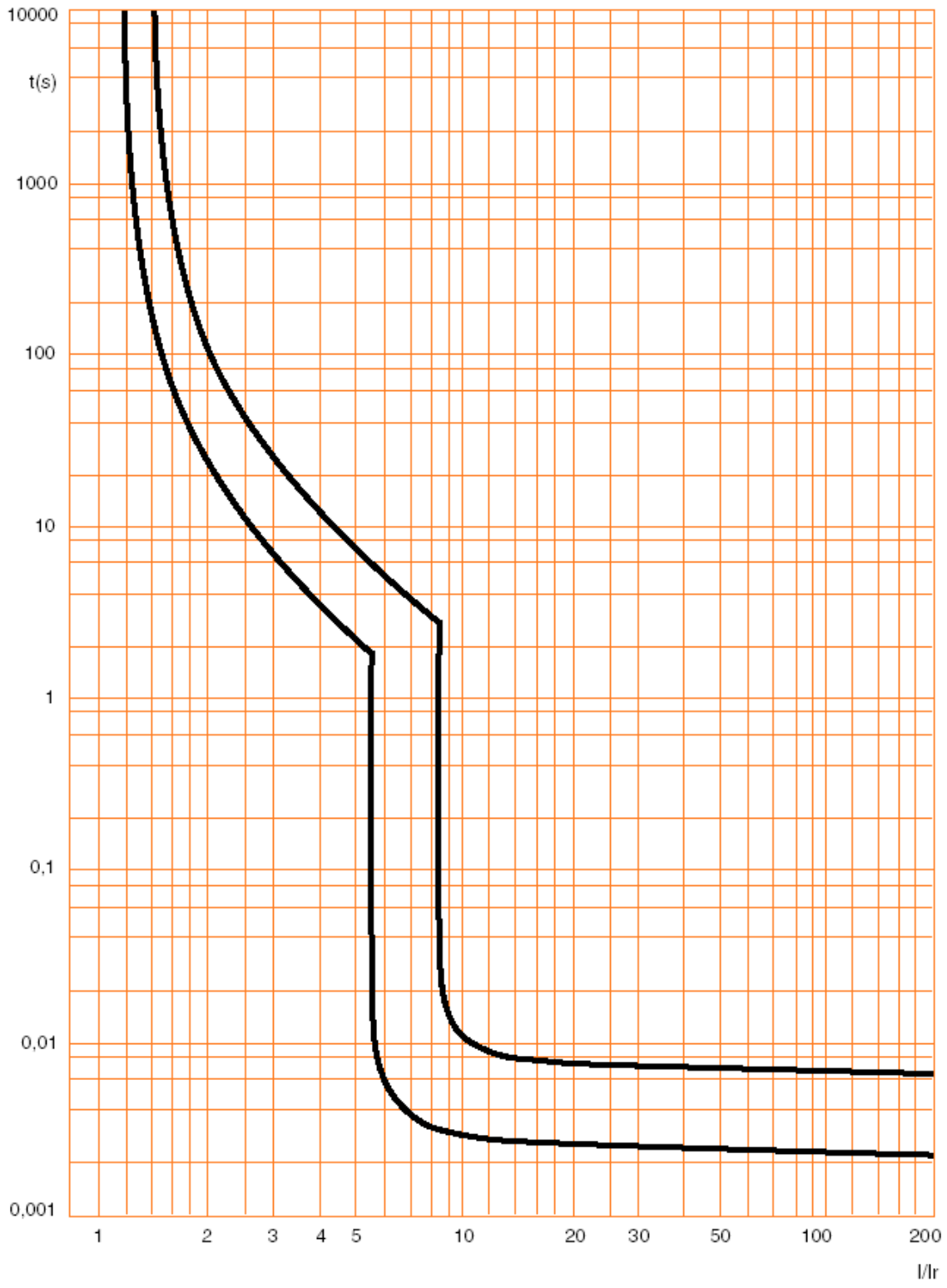
**Limiting current curve: circuit breakers C Curve**




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

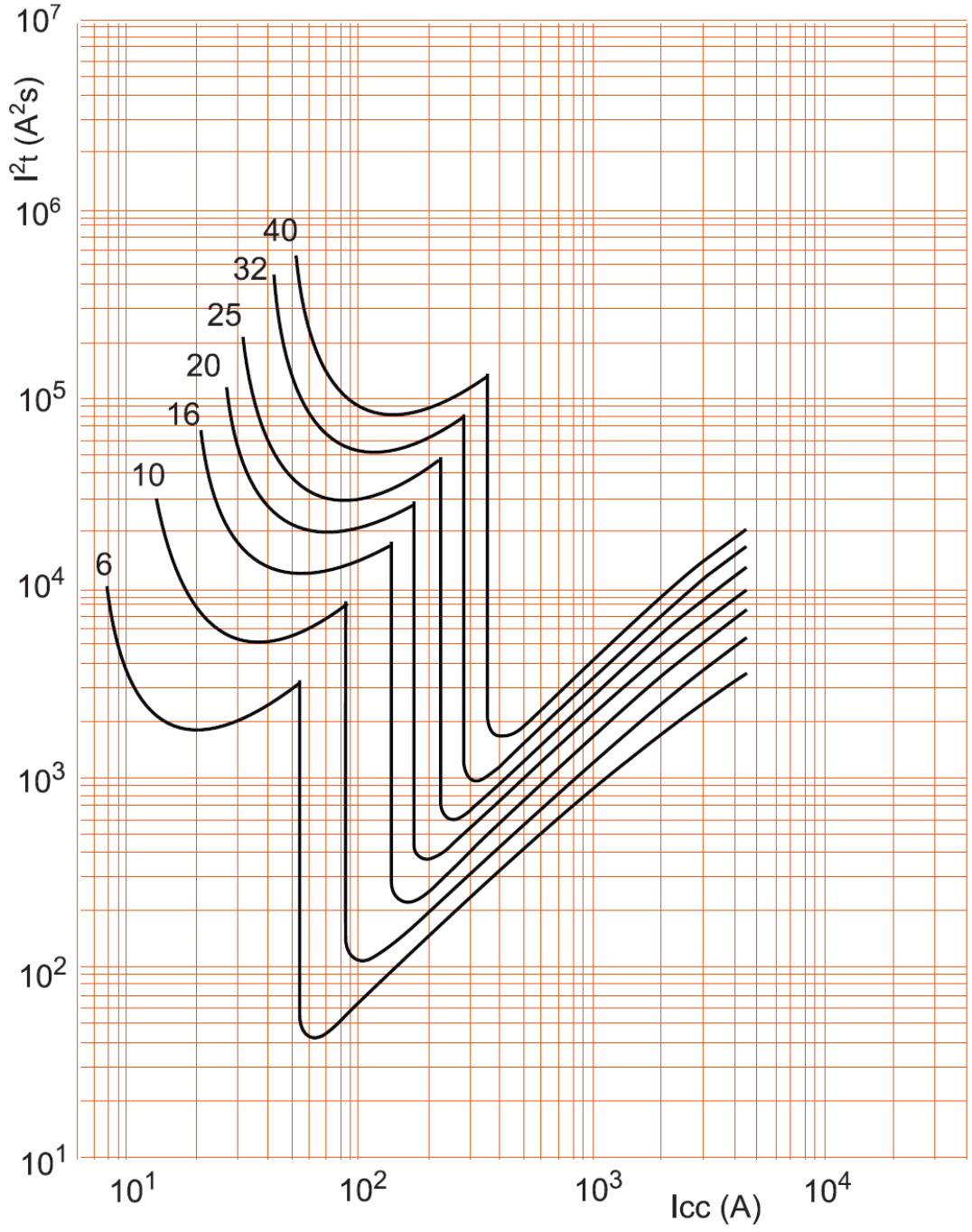
## 7. CHARACTERISTIC CURVE *(continued)*

**Operating characteristic of circuit breakers C curve:**



## 7. CHARACTERISTIC CURVE *(continued)*

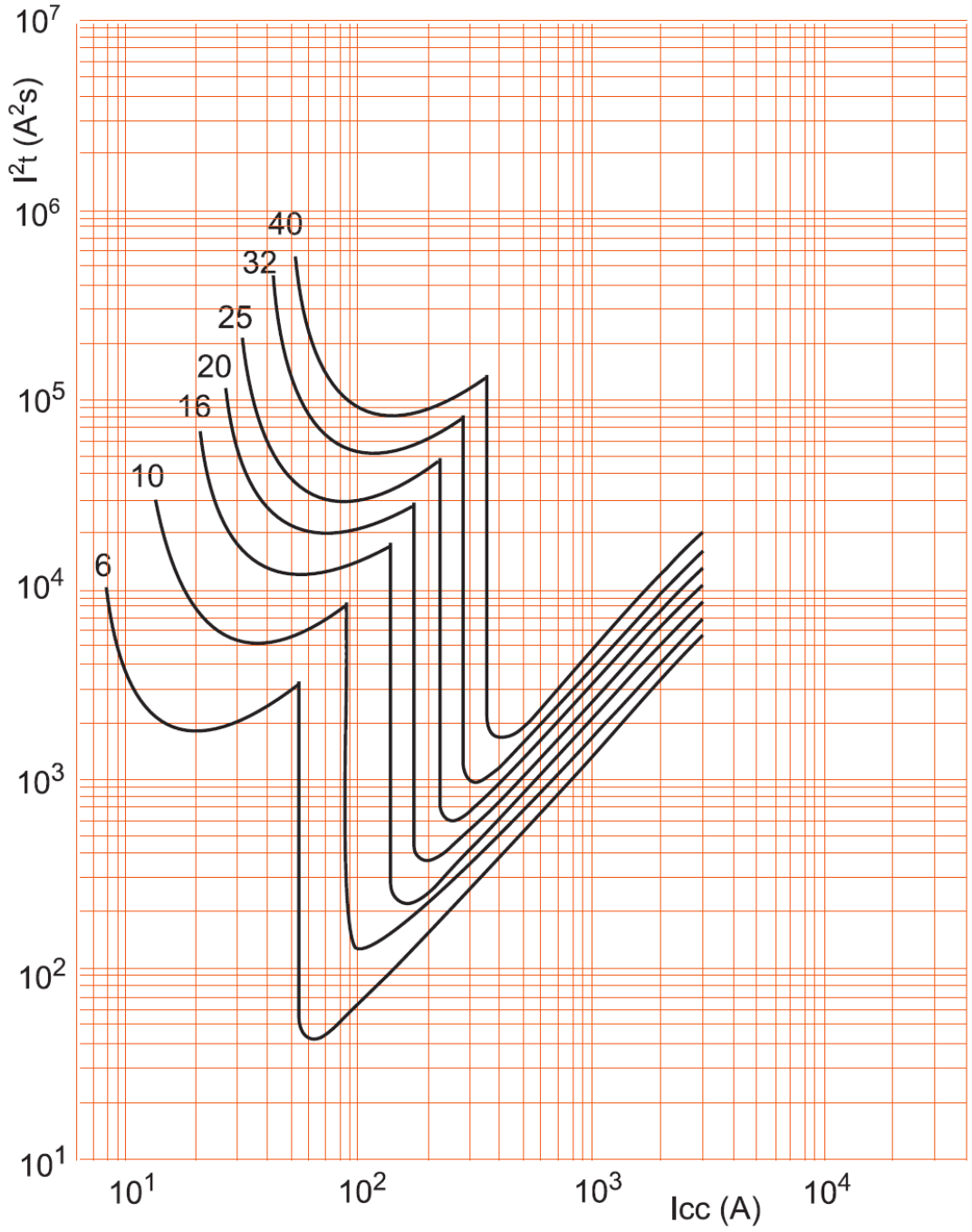
**. Limiting thermal energy curve of circuit breakers C curve, 2P (230 V~ / 50 Hz) :**




. Icc = Square value of symmetric component of the short circuit current (kA).
. $I^2t$ = Thermal energy limited ($A^2s$).

## 7. CHARACTERISTIC CURVE *(continued)*

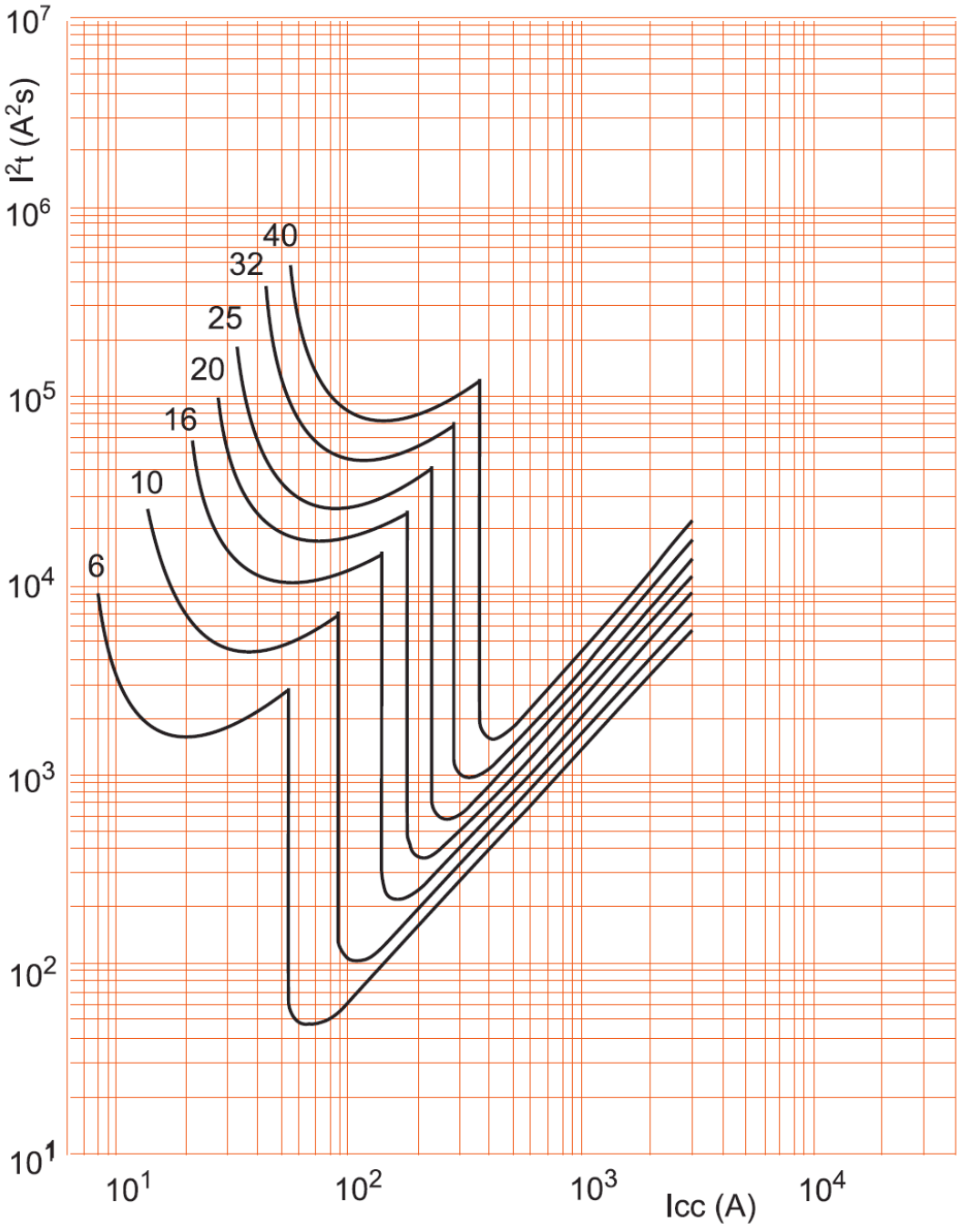
**. Limiting thermal energy curve of circuit breakers C curve, 2P (400 V~ / 50 Hz) :**




. Icc = Square value of symmetric component of the short circuit current (kA).
. $I^2t$ = Thermal energy limited ($A^2s$).

## 7. CHARACTERISTIC CURVE *(continued)*

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




. Icc = Square value of symmetric component of the short circuit current (kA).
. $I^2t$ = Thermal energy limited ($A^2s$).

## 8. AUXILIARIES AND ACCESSORIES

### Wiring accessories:

. Fork busbar or prong busbar
. Sealable screw cover (cat n° 4 063 04).
. Dispatcher row Lexiclic
. Dispatcher row HX³

### Signalling auxiliaries - fork busbar adapted:

. Auxiliary contact (½ module – cat n° 4 062 50).
. Fault signalling changeover switch (½ module – cat n° 4 062 52).
. Auxiliary contact modifiable in default signal (½ module – cat n° 4 062 56).
. Auxiliary contact + fault signalling switch - can be modified to 2 auxiliary contacts (1 module - cat n° 4 062 64).

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

### Front external rotary handle

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

### Possible combinations of m.c.b and auxiliaries:

. Only the association of an MCB with signal auxiliaries guarantees the functionality of the “Great Dispatcher” DIN rail clamp.
. 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 50 /52 /56 /64).
. Only one control auxiliary (cat. n° 4 062 76 / 78 / 80 / 82 / 84 / 86 /87).
. 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

### Installation software:

. XL PRO³