

## Circuit breaker DX<sup>3</sup> 25 kA 1 module per pole

Cat N°(s): 4 097 15 to 4 099 37



| CONTENTS                             | PAGE |
|--------------------------------------|------|
| 1. Description - Use .....           | 1    |
| 2. Range .....                       | 1    |
| 3. Overall dimensions .....          | 1    |
| 4. Preparation - Connection .....    | 1    |
| 5. General Characteristics .....     | 2    |
| 6. Compliance and approvals .....    | 21   |
| 7. Curves .....                      | 22   |
| 8. Auxiliaries and accessories ..... | 43   |

### 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.

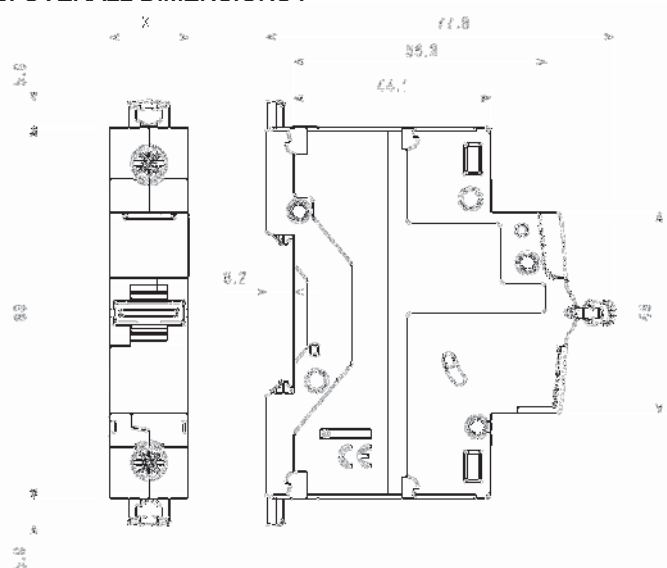
#### Maximum operating voltage:

. 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



# Circuit breaker DX<sup>3</sup> 25 kA

Cat N°(s): 4 097 15 to 4 099 37

## 1 module per pole

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

#### Power supply:

- . From the top or the bottom.

#### Connection:

The location of the terminals allows supplying by traditional HX<sup>3</sup> 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 <sup>2</sup> to 35 mm <sup>2</sup><br>2 x 1,5 mm <sup>2</sup> to 16 mm <sup>2</sup> | -                                             |
| Flexible cable | 1 x 1,5 mm <sup>2</sup> to 25 mm <sup>2</sup><br>2 x 1,5 mm <sup>2</sup> to 10 mm <sup>2</sup> | 1 x 1,5 mm <sup>2</sup> to 25 mm <sup>2</sup> |

#### 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:

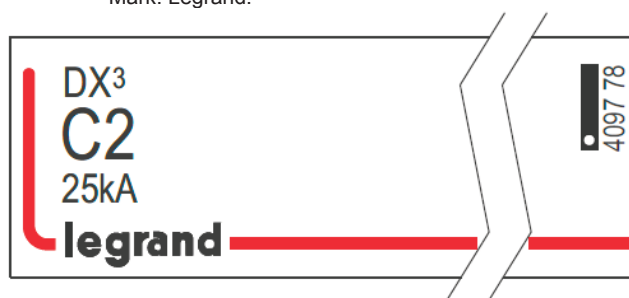
- . Identification of the circuit by insertion of a label in the label holder.

### 5. GENERAL CHARACTERISTICS:

#### Front side marking:

- . By permanent ink pad printing showing:

- Trade name: DX<sup>3</sup>
- 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   |

|              |     |            |            |            |
|--------------|-----|------------|------------|------------|
| 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 DX<sup>3</sup> 25 kA

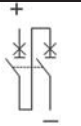
Cat N°(s): 4 097 15 to 4 099 37

## 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:

. Uimp = 4 kV

#### Insulation rated voltage:

. Ui = 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 trough 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 <sup>3</sup> ) |
| 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/s<sup>2</sup>)

#### 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

|         |      |      |      |      |      |
|---------|------|------|------|------|------|
| In      | 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

|         |     |     |      |      |      |      |      |
|---------|-----|-----|------|------|------|------|------|
| In      | 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

|         |     |     |      |      |      |      |
|---------|-----|-----|------|------|------|------|
| In      | 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

|         |       |       |     |       |      |
|---------|-------|-------|-----|-------|------|
| In      | 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  |

|         |        |      |      |
|---------|--------|------|------|
| In      | 12,5 A | 16 A | 25 A |
| 1P ÷ 4P | 2,2    | 2,75 | 2,8  |

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

## 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    | <b>0.64</b>              | <b>0.62</b> | <b>0.6</b>  | <b>0.57</b> | <b>0.55</b> | <b>0.52</b> | <b>0.5</b>  | <b>0.47</b> | <b>0.42</b> | <b>0.40</b> |
| 1      | <b>1.6</b>               | <b>1.5</b>  | <b>1.4</b>  | <b>1.3</b>  | <b>1.2</b>  | <b>1.1</b>  | <b>1</b>    | <b>0.9</b>  | <b>0.8</b>  | <b>0.7</b>  |
| 1.5    | <b>2.0</b>               | <b>1.9</b>  | <b>1.8</b>  | <b>1.7</b>  | <b>1.7</b>  | <b>1.6</b>  | <b>1.5</b>  | <b>1.5</b>  | <b>1.4</b>  | <b>1.4</b>  |
| 2      | <b>3.0</b>               | <b>2.8</b>  | <b>2.6</b>  | <b>2.5</b>  | <b>2.3</b>  | <b>2.2</b>  | <b>2</b>    | <b>2</b>    | <b>1.9</b>  | <b>1.8</b>  |
| 3      | <b>4.1</b>               | <b>3.8</b>  | <b>3.6</b>  | <b>3.5</b>  | <b>3.3</b>  | <b>3.2</b>  | <b>3.0</b>  | <b>2.9</b>  | <b>2.8</b>  | <b>2.7</b>  |
| 3.5    | <b>4.9</b>               | <b>4.5</b>  | <b>4.2</b>  | <b>4.0</b>  | <b>3.9</b>  | <b>3.7</b>  | <b>3.5</b>  | <b>3.4</b>  | <b>3.3</b>  | <b>3.2</b>  |
| 5      | <b>7.0</b>               | <b>6.4</b>  | <b>6.0</b>  | <b>5.8</b>  | <b>5.5</b>  | <b>5.3</b>  | <b>5.0</b>  | <b>4.8</b>  | <b>4.7</b>  | <b>4.5</b>  |
| 6      | <b>8.2</b>               | <b>7.5</b>  | <b>7.0</b>  | <b>6.6</b>  | <b>6.4</b>  | <b>6.2</b>  | <b>6.0</b>  | <b>5.8</b>  | <b>5.6</b>  | <b>5.4</b>  |
| 10     | <b>14.0</b>              | <b>12.5</b> | <b>11.5</b> | <b>11.1</b> | <b>10.7</b> | <b>10.3</b> | <b>10.0</b> | <b>9.7</b>  | <b>9.3</b>  | <b>9.0</b>  |
| 13     | <b>18.2</b>              | <b>16.3</b> | <b>15.0</b> | <b>14.3</b> | <b>13.9</b> | <b>13.4</b> | <b>13.0</b> | <b>12.6</b> | <b>12.1</b> | <b>11.7</b> |
| 16     | <b>21.9</b>              | <b>20.0</b> | <b>18.7</b> | <b>18.0</b> | <b>17.3</b> | <b>16.6</b> | <b>16.0</b> | <b>15.4</b> | <b>14.7</b> | <b>14.1</b> |
| 20     | <b>27.7</b>              | <b>25.0</b> | <b>23.2</b> | <b>22.4</b> | <b>21.6</b> | <b>20.8</b> | <b>20.0</b> | <b>19.2</b> | <b>18.4</b> | <b>17.6</b> |
| 25     | <b>34.5</b>              | <b>31.5</b> | <b>29.5</b> | <b>28.3</b> | <b>27.2</b> | <b>26.0</b> | <b>25.0</b> | <b>24.0</b> | <b>22.7</b> | <b>21.7</b> |
| 30     | <b>41.7</b>              | <b>38.3</b> | <b>36.0</b> | <b>34.5</b> | <b>33.0</b> | <b>31.5</b> | <b>30.0</b> | <b>28.8</b> | <b>27.3</b> | <b>26.1</b> |
| 32     | <b>45.8</b>              | <b>41.0</b> | <b>37.8</b> | <b>36.5</b> | <b>34.9</b> | <b>33.3</b> | <b>32.0</b> | <b>30.7</b> | <b>29.1</b> | <b>27.8</b> |

**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      | <b>3000 V</b> | <b>2500 V</b> | <b>2000 V</b> | <b>1500 V</b> |
| Max operational Voltage | <b>400 V</b>  | <b>400 V</b>  | <b>400 V</b>  | <b>400 V</b>  |
| Derating at 40°C        | <b>none</b>   | <b>none</b>   | <b>none</b>   | <b>none</b>   |

**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                                   | <b>0.9</b>  |
| 4 - 5                                   | <b>0.8</b>  |
| 6 - 9                                   | <b>0.7</b>  |
| ≥ 10                                    | <b>0.6</b>  |

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 <sup>3</sup> 25kA<br>B, C, D, Z and MA<br>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 <sup>3</sup> 25kA<br>B, C, D, Z and MA<br>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. downstream                         |     | m.c.b. upstream      |      |      |      |      |      |                      |      |      |      |      |
|-------------------------------------------|-----|----------------------|------|------|------|------|------|----------------------|------|------|------|------|
|                                           |     | DX <sup>3</sup> 36kA |      |      |      |      |      | DX <sup>3</sup> 50kA |      |      |      |      |
|                                           |     | C curve              |      |      |      |      |      | B, C and D curves    |      |      |      |      |
|                                           |     | ≤25A                 | 32A  | 40A  | 50A  | 63A  | 80A  | ≤25A                 | 32A  | 40A  | 50A  | 63A  |
| DX <sup>3</sup> 25kA<br>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. downstream                       |     | m.c.b. upstream      |      |      |      |      |      |                      |      |      |      |      |
|-----------------------------------------|-----|----------------------|------|------|------|------|------|----------------------|------|------|------|------|
|                                         |     | DX <sup>3</sup> 36kA |      |      |      |      |      | DX <sup>3</sup> 50kA |      |      |      |      |
|                                         |     | C curve              |      |      |      |      |      | B and C curves       |      |      |      |      |
|                                         |     | ≤25A                 | □2A  | 40A  | 50A  | 63A  | 80A  | ≤25A                 | 32A  | 40A  | 50A  | 63A  |
| DX <sup>3</sup> 25kA<br>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. downstream                       |     | m.c.b. upstream      |      |      |      |      |
|-----------------------------------------|-----|----------------------|------|------|------|------|
|                                         |     | DX <sup>3</sup> 50kA |      |      |      |      |
|                                         |     | D curve              |      |      |      |      |
|                                         |     | ≤25A                 | 32A  | 40A  | 50A  | 63A  |
| DX <sup>3</sup> 25kA<br>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 <sup>3</sup> 160 / DPX <sup>3</sup> 160 + diff. |      |      |      |      |      |      |      |
|                                                     |     | 36kA              |      |      |      |      |      | 36 - 50kA                                           |      |      |      |      |      |      |      |
|                                                     |     | 16A               | 25A  | 40A  | 63A  | 100A | 125A | 16A                                                 | 25A  | 40A  | 63A  | 80A  | 100A | 125A | 160A |
| DX <sup>3</sup> 25kA<br>B, C, D, Z and MA<br>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 <sup>3</sup> 25kA<br>B, C, D, Z and MA<br>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 <sup>3</sup> 250 / DPX <sup>3</sup> 250+diff.<br>(Thermo-Magnetic & electronic) |      |      |      | DPX 400AB |      | DPX / H / L 250<br>(Thermo-Magnetic & electronic) |      |      |      |      |      |
|                                                     |     | 36 - 50 - 70kA                                                                      |      |      |      | 36kA      |      | 25A                                               | 40A  | 63A  | 100A | 160A | 250A |
|                                                     |     | 100A                                                                                | 160A | 200A | 250A | 320A      | 400A |                                                   |      |      |      |      |      |
| DX <sup>3</sup> 25kA<br>B, C, D, Z and MA<br>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<br>(Thermo-Magnetic & electronic) |      |      |      | DPX / H / L 1250<br>(Thermo-Magnetic) |             | DPX / H 1600<br>(Thermo-Magnetic) |  |
|                                                     |     | 36 – 70 – 100kA                                   |      |      |      | 50 – 70 – 100kA                       |             | 50 – 70kA                         |  |
|                                                     |     | 250A                                              | 320A | 400A | 500A | 630A                                  | 500 à 1250a | 630 à 1600a                       |  |
| DX <sup>3</sup> 25kA<br>B, C, D, Z and MA<br>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 <sup>3</sup> 25kA<br>B, C, D, Z and MA<br>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 <sup>3</sup> 25kA<br>B, C, D, Z and MA<br>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 <sup>3</sup> 36kA |      |      |      |      |      | DX <sup>3</sup> 50kA |      |      |      |      |
|                                                     |     | C curve              |      |      |      |      |      | B, C and D curves    |      |      |      |      |
|                                                     |     | ≤25A                 | 32A  | 40A  | 50A  | 63A  | 80A  | ≤25A                 | 32A  | 40A  | 50A  | 63A  |
| DX <sup>3</sup> 25kA<br>B, C, D, Z and MA<br>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 <sup>3</sup> 160 / DPX <sup>3</sup> 160 + diff. |      |      |      |      |      |      |      |
|                                           |     | 36 - 50kA                                           |      |      |      |      |      |      |      |
| m.c.b. downstream                         |     | 16A                                                 | 25A  | 40A  | 63A  | 80A  | 100A | 125A | 160A |
| DX <sup>3</sup> 25kA<br>B, C and Z curves | ≤6A | 55kA                                                | 55kA | 55kA | 55kA | 55kA | 55kA | 55kA | 55kA |
|                                           | 10A | 55kA                                                | 55kA | 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 |
|                                           | 32A | -                                                   | -    | 55kA | 55kA | 55kA | 55kA | 55kA | 55kA |

|                                         |     | m.c.b. upstream                                     |      |      |      |      |      |      |      |
|-----------------------------------------|-----|-----------------------------------------------------|------|------|------|------|------|------|------|
|                                         |     | DPX <sup>3</sup> 160 / DPX <sup>3</sup> 160 + diff. |      |      |      |      |      |      |      |
|                                         |     | 36 - 50kA                                           |      |      |      |      |      |      |      |
| m.c.b. downstream                       |     | 16A                                                 | 25A  | 40A  | 63A  | 80A  | 100A | 125A | 160A |
| DX <sup>3</sup> 25kA<br>D and MA curves | ≤6A | 55kA                                                | 55kA | 55kA | 55kA | 55kA | 55kA | 55kA | 55kA |
|                                         | 10A | 55kA                                                | 55kA | 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.b. upstream |      |      |      |      |           |      |      |                                                                                       |      |      |      |
|-----------------------------------------------------|-----|-----------------|------|------|------|------|-----------|------|------|---------------------------------------------------------------------------------------|------|------|------|
|                                                     |     | DPX 160         |      |      |      |      | DPX 250ER |      |      | DPX <sup>3</sup> 250 / DPX <sup>3</sup> 250 + diff.<br>(Thermo-Magnetic & electronic) |      |      |      |
|                                                     |     | 50kA            |      |      |      |      | 50kA      |      |      | 50 - 70kA                                                                             |      |      |      |
|                                                     |     | 25A             | 40A  | 63A  | 100A | 125A | 100A      | 160A | 250A | 100A                                                                                  | 160A | 200A | 250A |
| DX <sup>3</sup> 25kA<br>B, C, D, Z and MA<br>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.b. upstream |      |      |      |      |      |                                                 |      |      |      |      |      |
|-----------------------------------------------------|-----|-----------------|------|------|------|------|------|-------------------------------------------------|------|------|------|------|------|
|                                                     |     | DPX 250         |      |      |      |      |      | DPX H / L 250<br>(Thermo-Magnetic & electronic) |      |      |      |      |      |
|                                                     |     | 36kA            |      |      |      |      |      | 70 - 100kA                                      |      |      |      |      |      |
|                                                     |     | 25A             | 40A  | 63A  | 100A | 160A | 250A | 25A                                             | 40A  | 63A  | 100A | 160A | 250A |
| DX <sup>3</sup> 25kA<br>B, C, D, Z and MA<br>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<br>(Thermo-Magnetic & electronic) |      |      |      |      |      | DPX H / L 630<br>(Thermo-Magnetic & electronic) |      |      |      |      |      |
|                                                     |     | 36kA                                      |      |      |      |      |      | 70 – 100kA                                      |      |      |      |      |      |
|                                                     |     | 25A                                       | 40A  | 63A  | 100A | 160A | 250A | 25A                                             | 40A  | 63A  | 100A | 160A | 250A |
| DX <sup>3</sup> 25kA<br>B, C, D, Z and MA<br>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<br>(Thermo-Magnetic) | DPX / H 1600<br>(electronic) |
|                                                     |     | 50 – 70 – 100kA                       | 50 – 70kA                    |
|                                                     |     | 500 à 1250a                           | 630 à 1600a                  |
| DX <sup>3</sup> 25kA<br>B, C, D, Z and MA<br>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 <sup>3</sup> 25kA<br>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 <sup>3</sup> 25kA<br>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 <sup>3</sup> 25kA<br>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 <sup>3</sup> 25kA<br>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. upstream      |      |      |                      |      |      |
|-------------------------------------------|-----|----------------------|------|------|----------------------|------|------|
|                                           |     | DX <sup>3</sup> 25kA |      |      | DX <sup>3</sup> 25kA |      |      |
|                                           |     | Curves B, C          |      |      | Curve D              |      |      |
| m.c.b. downstream                         |     | 80A                  | 100A | 12A  | 80A                  | 100A | 12A  |
| DX <sup>3</sup> 25kA<br>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 <sup>3</sup> 25kA<br>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 <sup>3</sup> 25kA<br>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 <sup>3</sup> 25kA<br>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 <sup>3</sup> 25kA<br>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.c.b. upstream                                    |     |     |     |     |      |      |      |                |       |       |       |       |
|-------------------------------------------|-------|------------------------------------------------------|-----|-----|-----|-----|------|------|------|----------------|-------|-------|-------|-------|
|                                           |       | DPX <sup>3</sup> 160<br>DPX <sup>3</sup> 160 + diff. |     |     |     |     |      |      |      | DPX 160        |       |       |       |       |
|                                           |       | 25 – 36 – 50kA                                       |     |     |     |     |      |      |      | 25 – 36 – 50kA |       |       |       |       |
|                                           |       | 16A                                                  | 25A | 40A | 63A | 80A | 100A | 125A | 160A | 25A            | 40A   | 63A   | 100A  | 160A  |
| DX <sup>3</sup> 25kA<br>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 <sup>3</sup> 25kA<br>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 <sup>3</sup> 25kA<br>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.c.b. upstream |      |      |              |      |      |      |                 |      |      |       |      |      |
|-------------------------------------------|-------|-------------------|------|------|--------------|------|------|------|-----------------|------|------|-------|------|------|
|                                           |       | DPX 250ER         |      |      | DPX 250ER AB |      |      |      | DPX 250 / H / L |      |      |       |      |      |
|                                           |       | 25 – 36 – 50kA    |      |      | 36kA         |      |      |      | 25 - 70 - 100kA |      |      |       |      |      |
| m.c.b. downstream                         |       | 100A              | 160A | 250A | 90A          | 130A | 170A | 240A | 25A             | 40A  | 63A  | 100A  | 160A | 250A |
| DX <sup>3</sup> 25kA<br>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 <sup>3</sup> 25kA<br>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 <sup>3</sup> 25kA<br>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 <sup>3</sup> 250 & DPX <sup>3</sup> 250 + diff<br>(Thermo-Magnetic & electronic) |      |      |      | DPX 400AB |      | DPX / H / L 630<br>(Thermo-Magnetic & electronic) | DPX / H / L 1250 | DPX / H 1600<br>(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 <sup>3</sup> 25kA<br>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 <sup>3</sup> 25kA<br>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 <sup>3</sup> 25kA<br>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                            |

# Circuit breaker DX<sup>3</sup> 25 kA

## 1 module per pole

Cat N°(s): 4 097 15 to 4 099 37

### 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 1<sup>st</sup> 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.

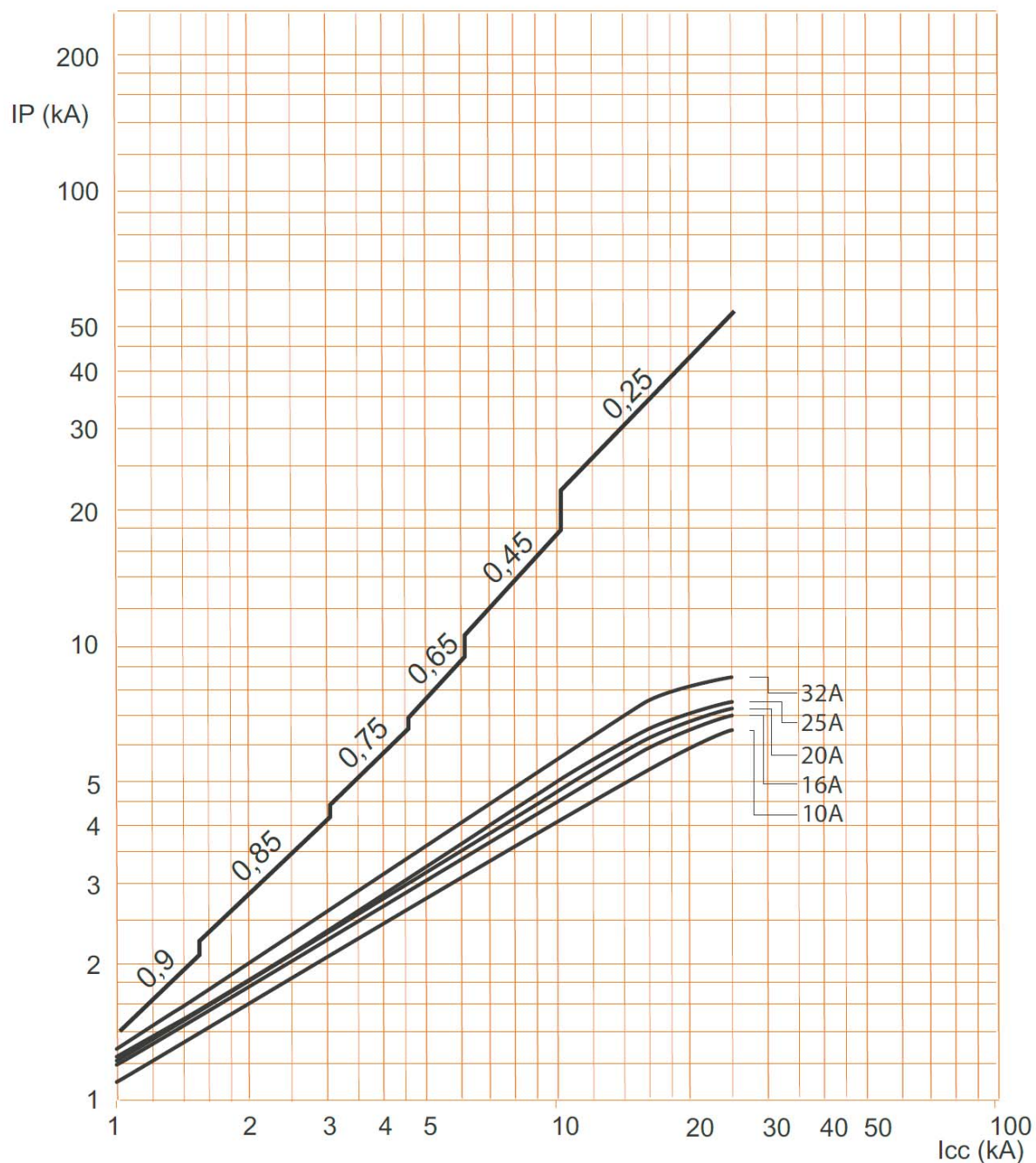
#### Packaging:

- . 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:



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

. IP = Max peak value ( kA )

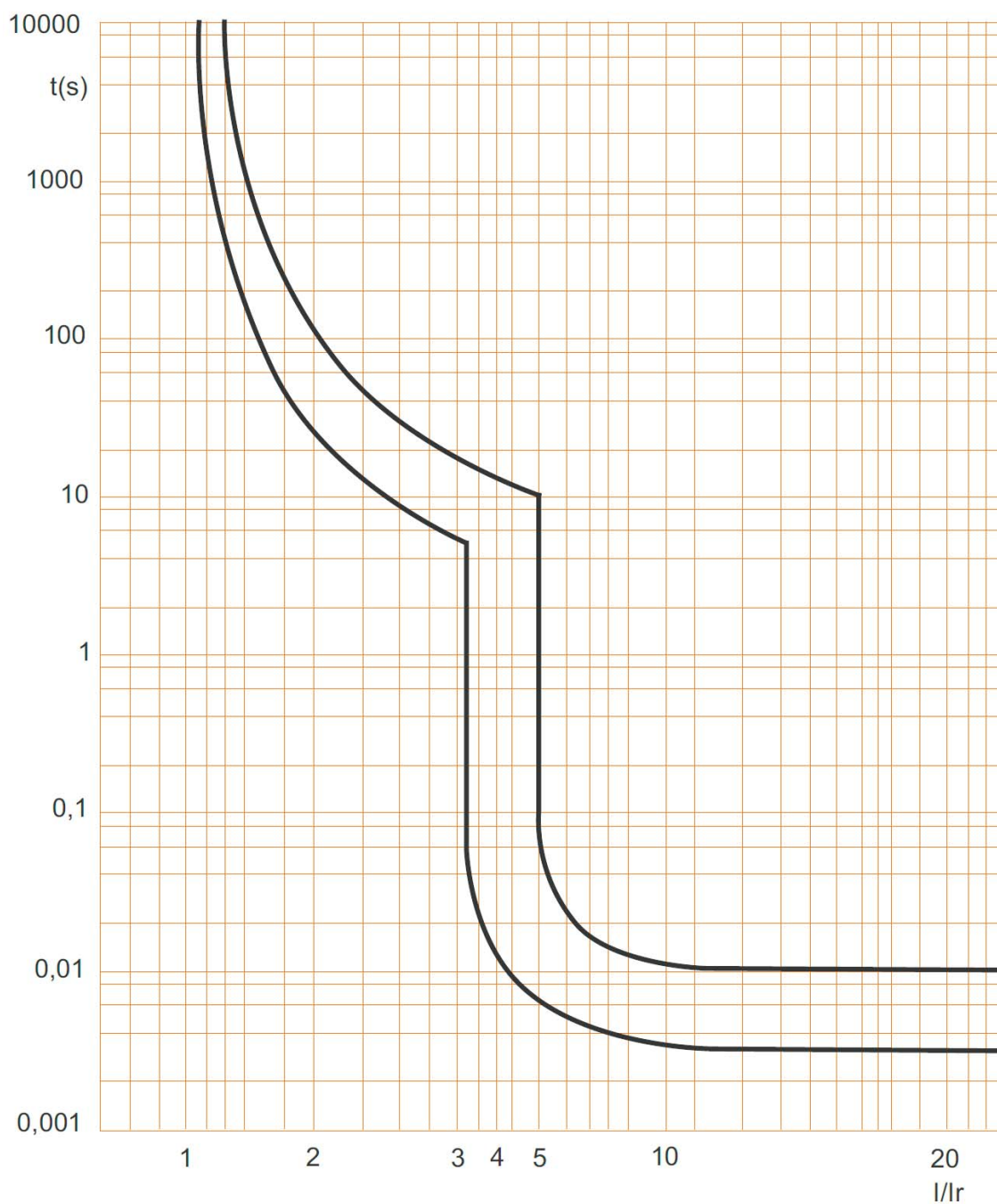
# Circuit breaker DX<sup>3</sup> 25 kA

## 1 module per pole

Cat N°(s): 4 097 15 to 4 099 37

### 7. CHARACTERISTIC CURVES *(continued)*

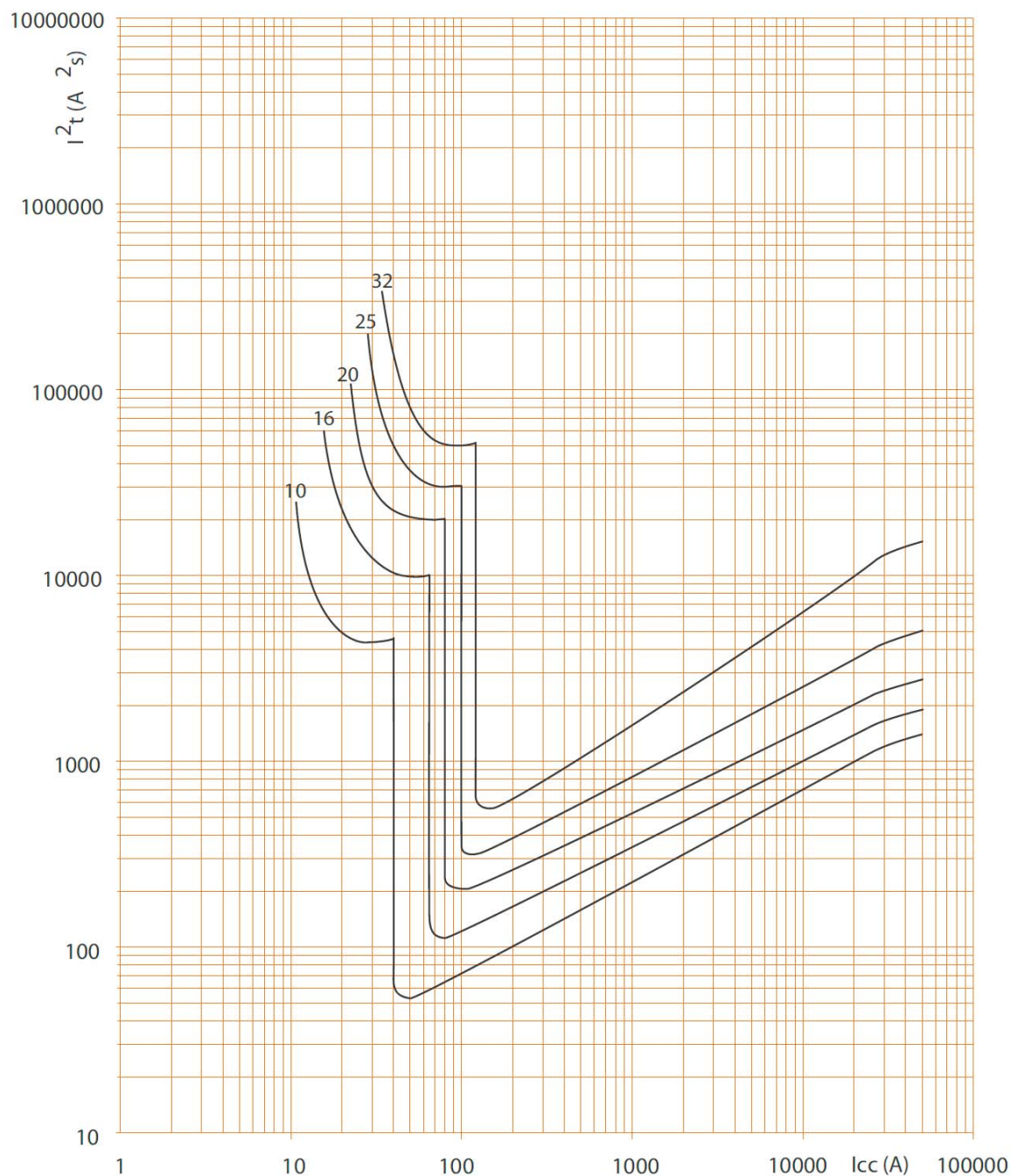
Operating characteristic of circuit breakers B curve:



## 1 module per pole

### 7. CHARACTERISTIC CURVES *(continued)*

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



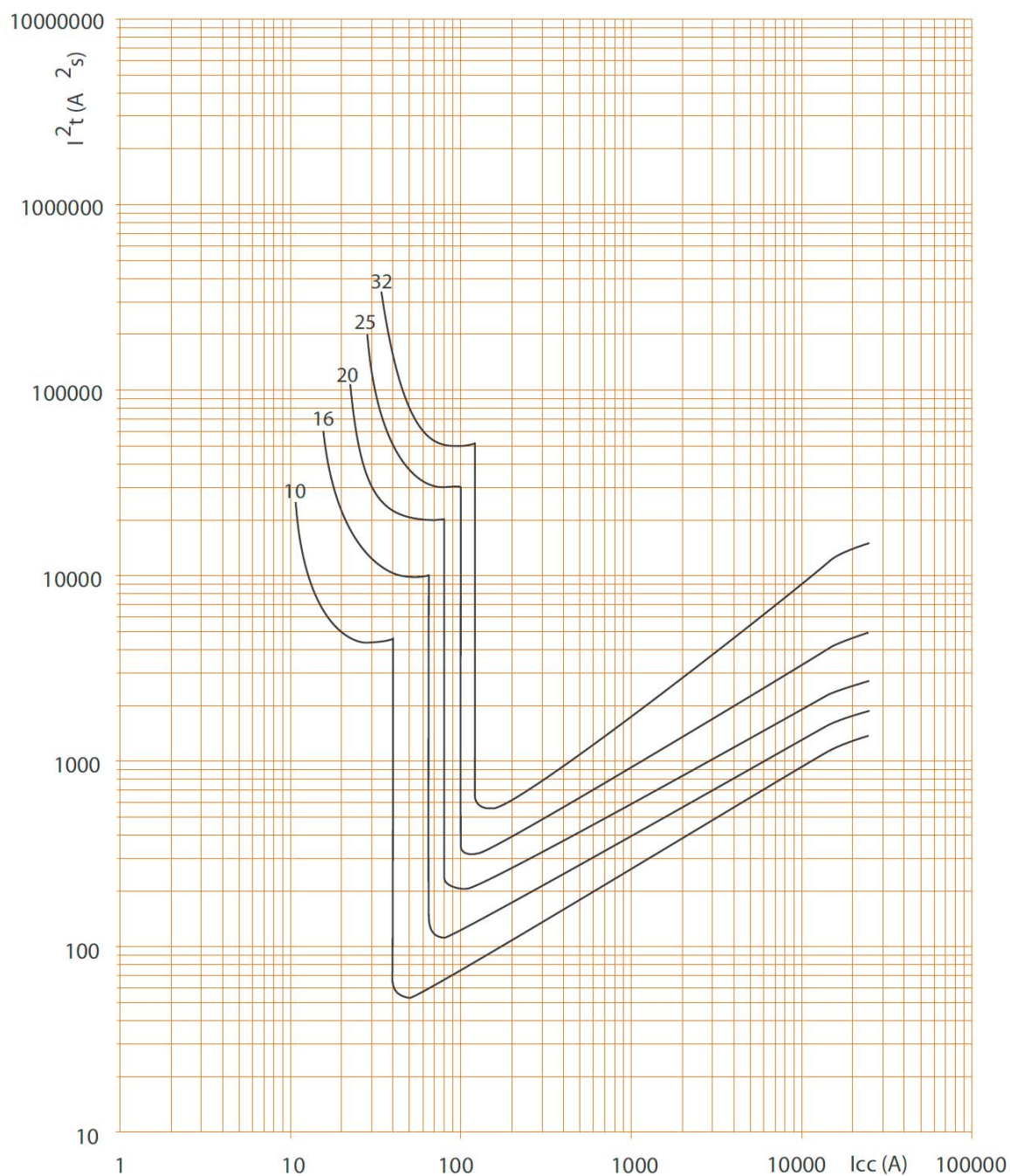
.  $I_{cc}$  = Square value of symmetric component of the short circuit current ( kA ).

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

## 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 ( $A^2s$ ).

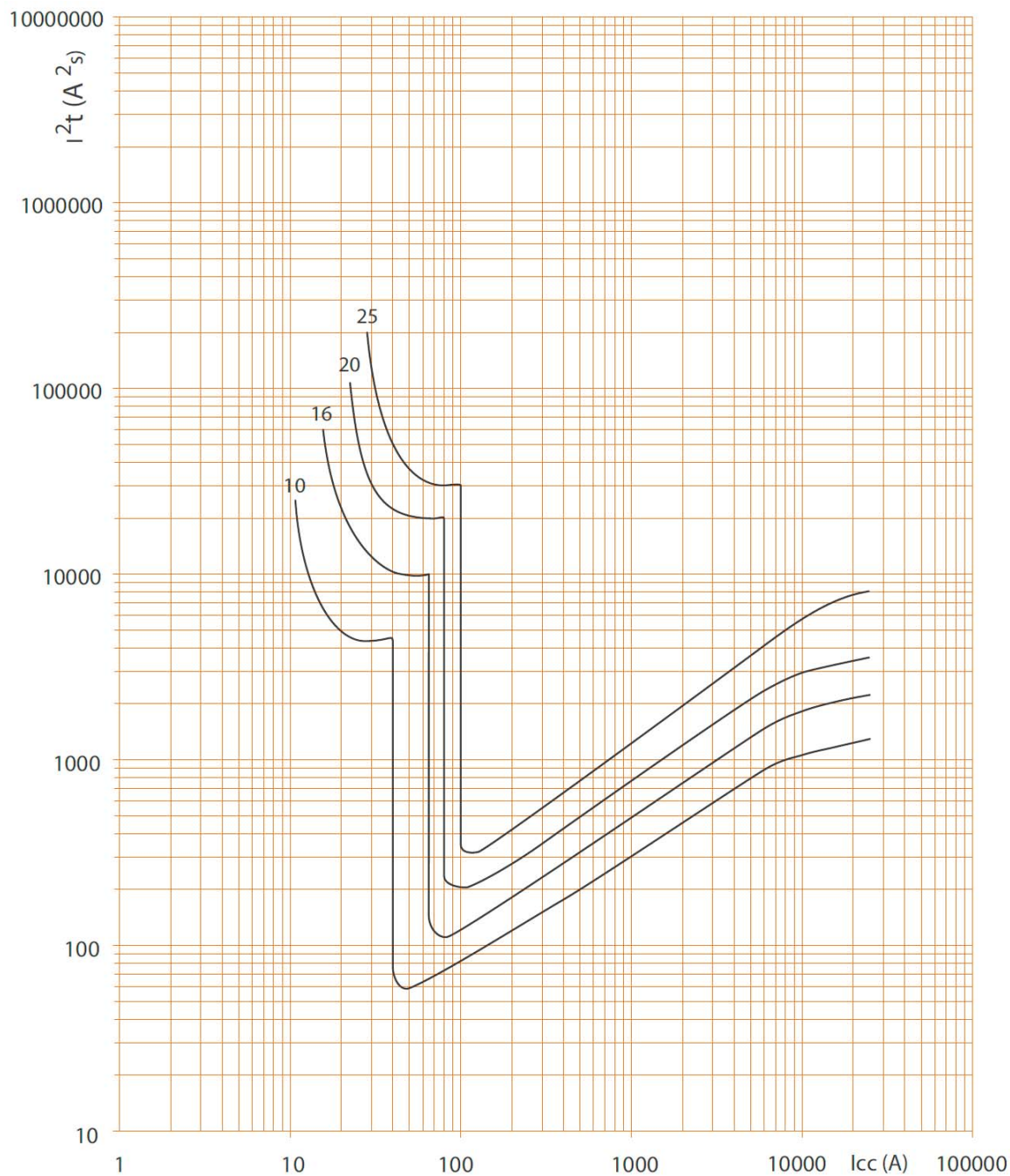
# Circuit breaker DX<sup>3</sup> 25 kA

## 1 module per pole

Cat N°(s): 4 097 15 to 4 099 37

### 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 (A<sup>2</sup>s).

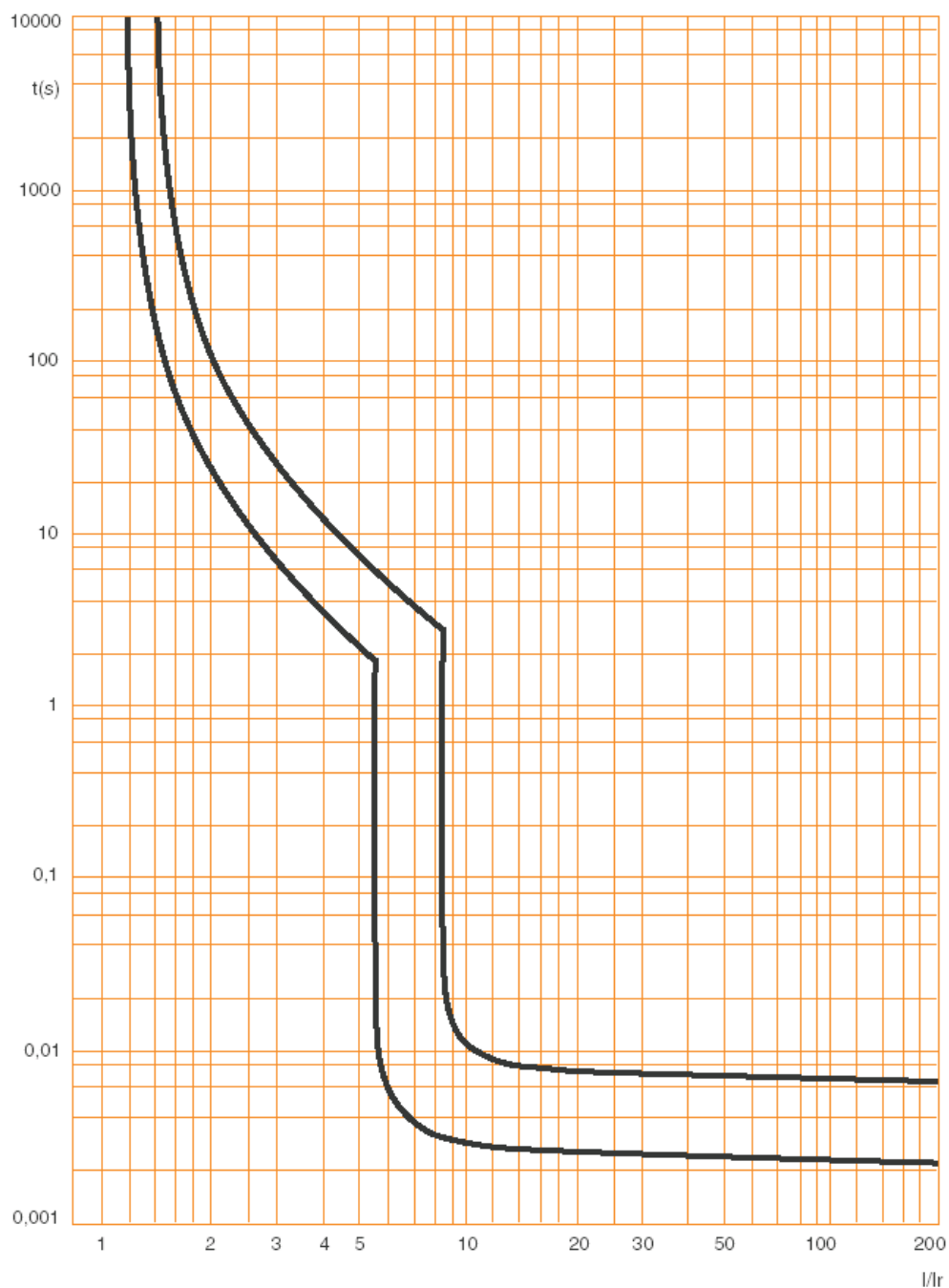
# Circuit breaker DX<sup>3</sup> 25 kA

## 1 module per pole

Cat N°(s): 4 097 15 to 4 099 37

### 7. CHARACTERISTIC CURVES *(continued)*

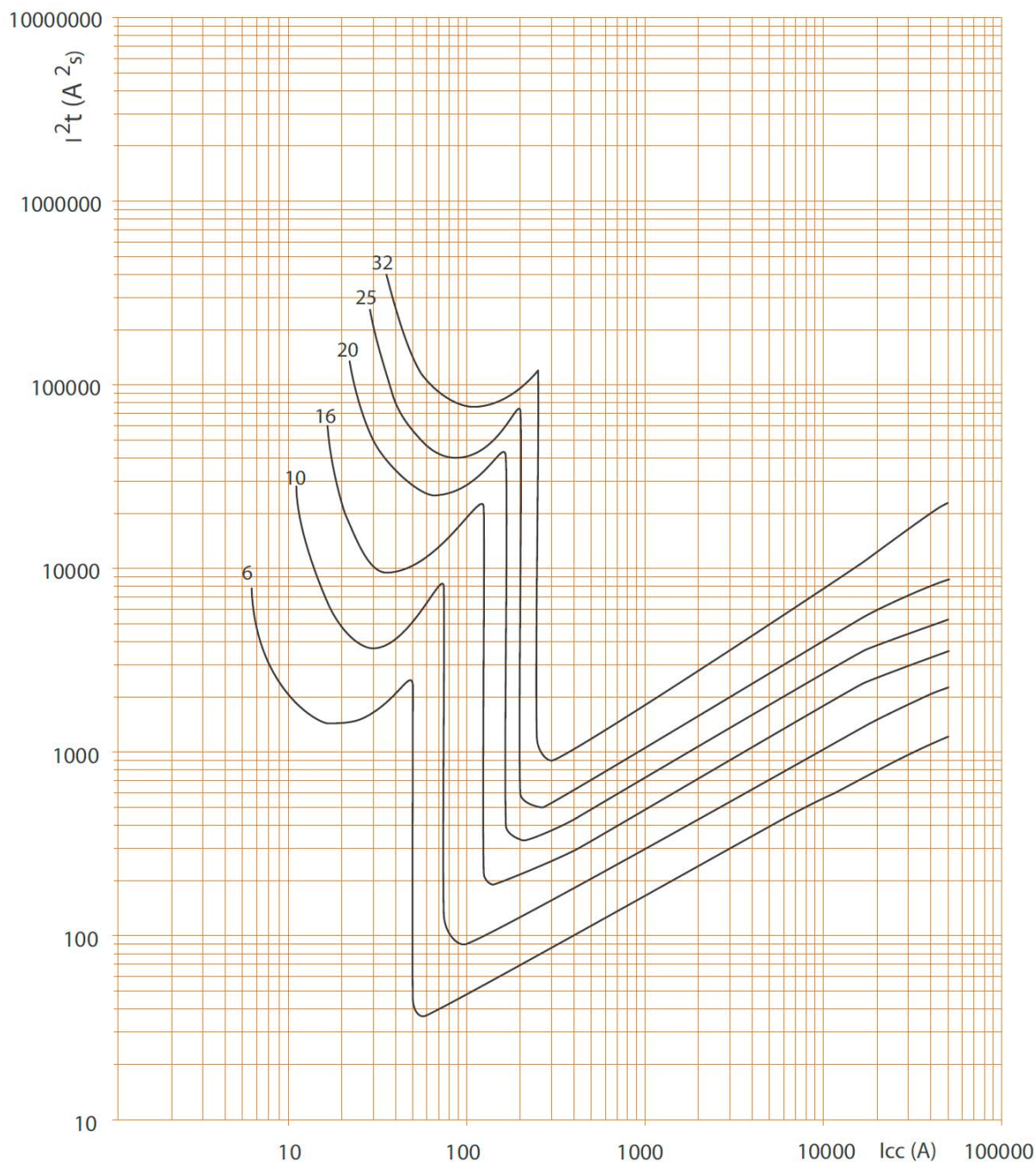
Operating characteristic of circuit breakers C curve:



## 1 module per pole

7. CHARACTERISTIC CURVES *(continued)*

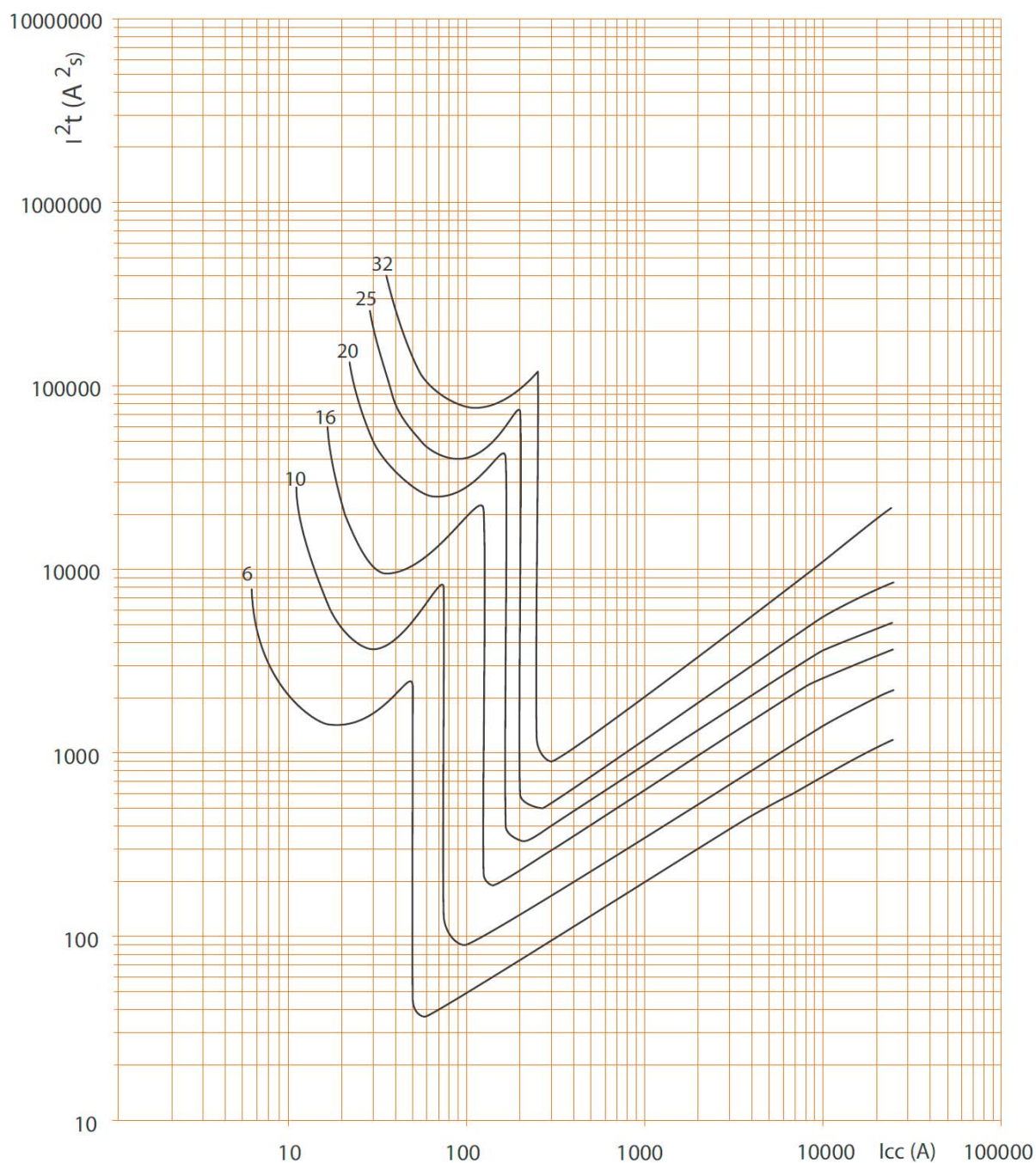
. Limiting thermal energy curve of circuit breakers C curve, 2P (230V~ / 50Hz) :

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

## 1 module per pole

7. CHARACTERISTIC CURVES *(continued)*

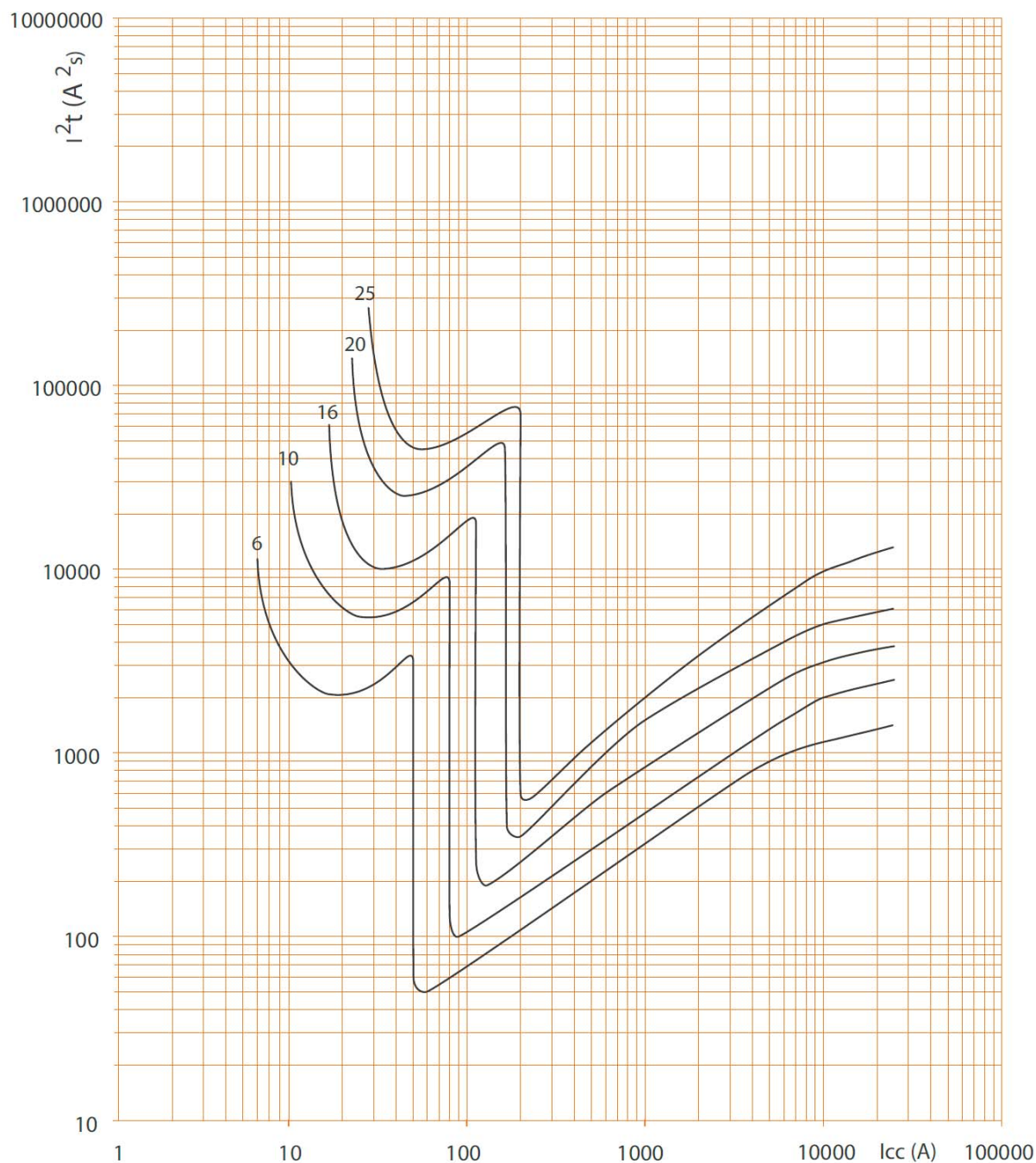
. Limiting thermal energy curve of circuit breakers C curve, 2P (400V~ / 50Hz) :

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

## 1 module per pole

### 7. CHARACTERISTIC CURVES *(continued)*

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



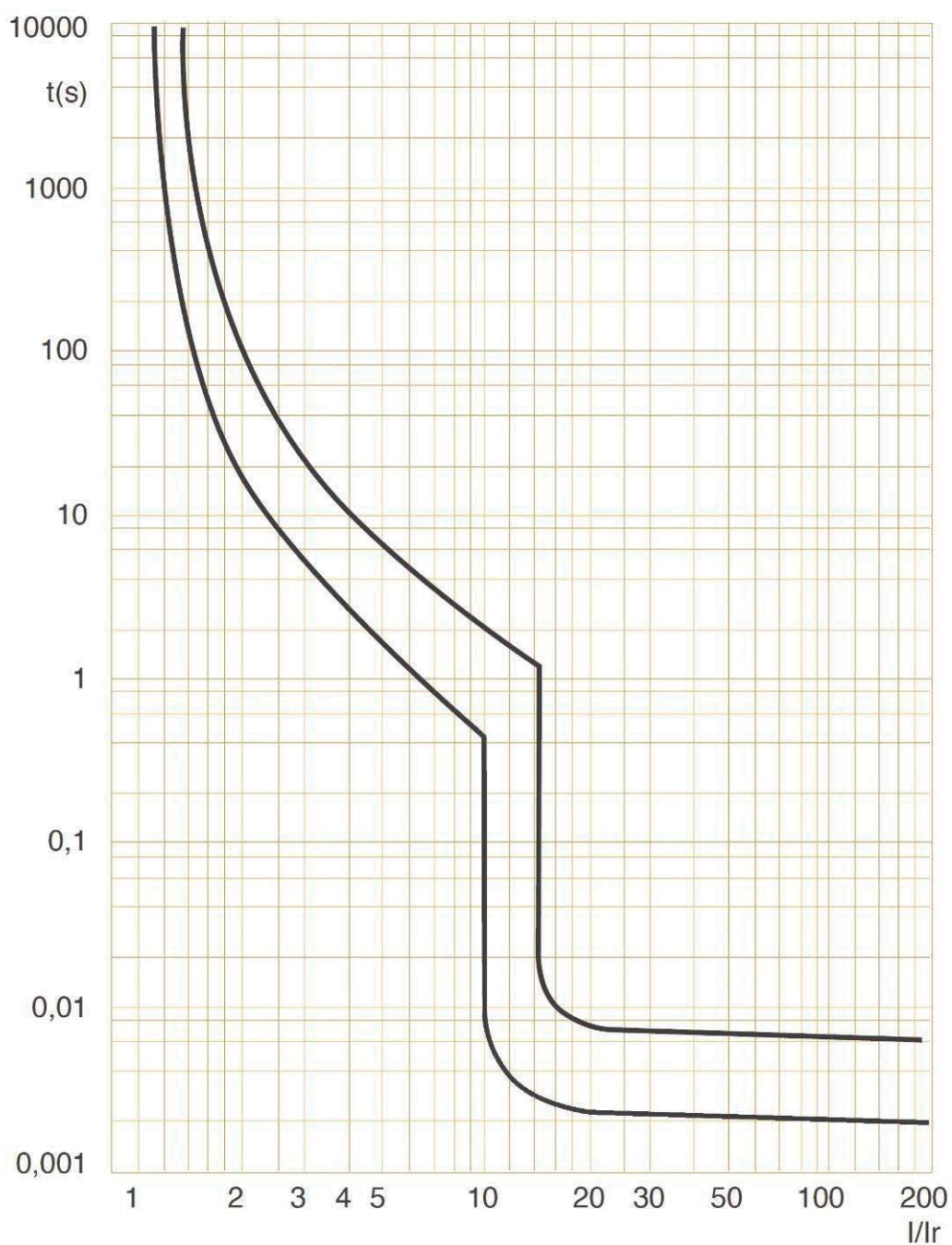
.  $I_{cc}$  = Square value of symmetric component of the short circuit current ( kA ).

.  $I^2t$  = Thermal energy limited (A<sup>2</sup>s).

## 1 module per pole

### 7. CHARACTERISTIC CURVES *(continued)*

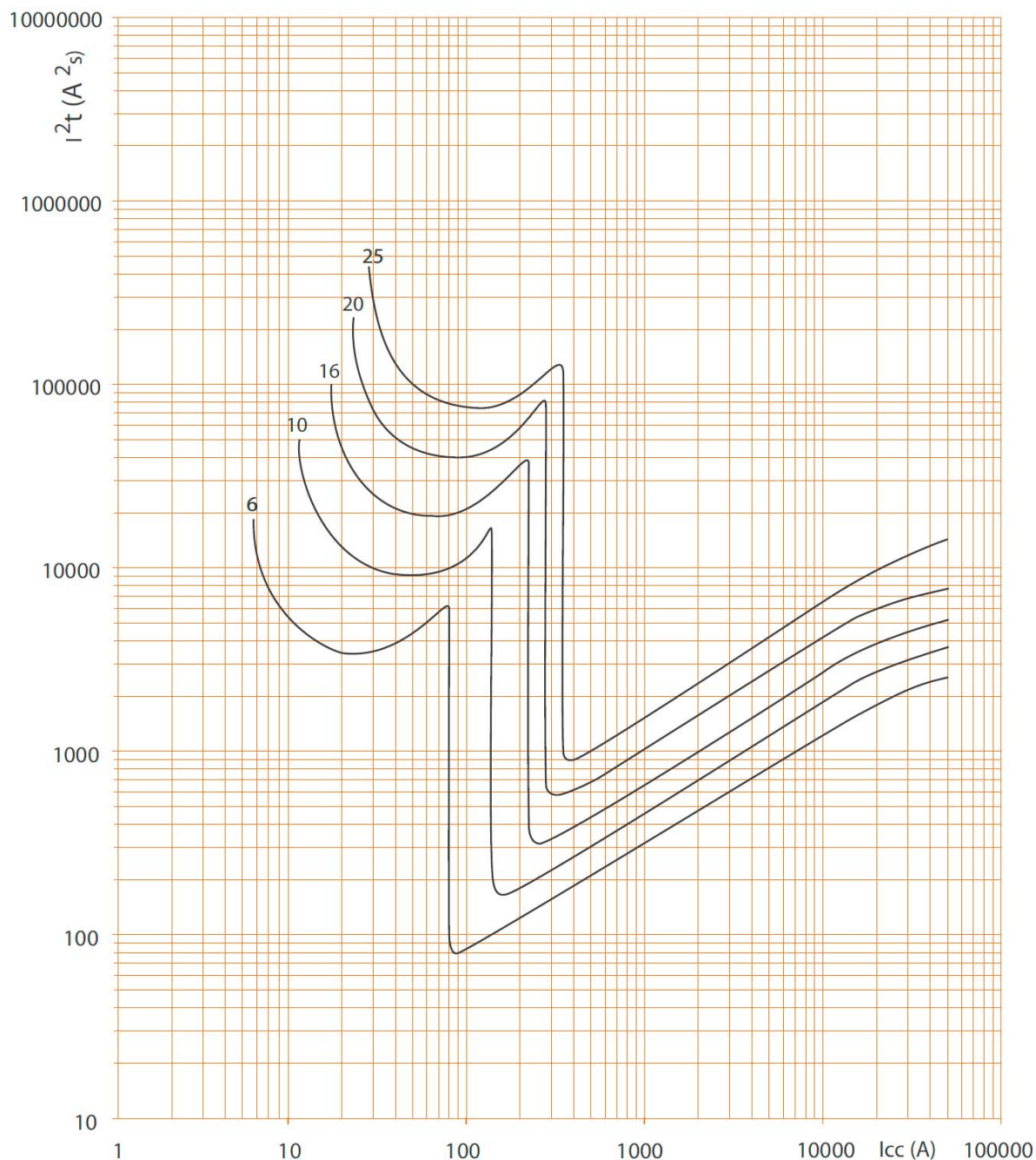
Operating characteristic of circuit breakers D curve:



## 1 module per pole

7. CHARACTERISTIC CURVES *(continued)*

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



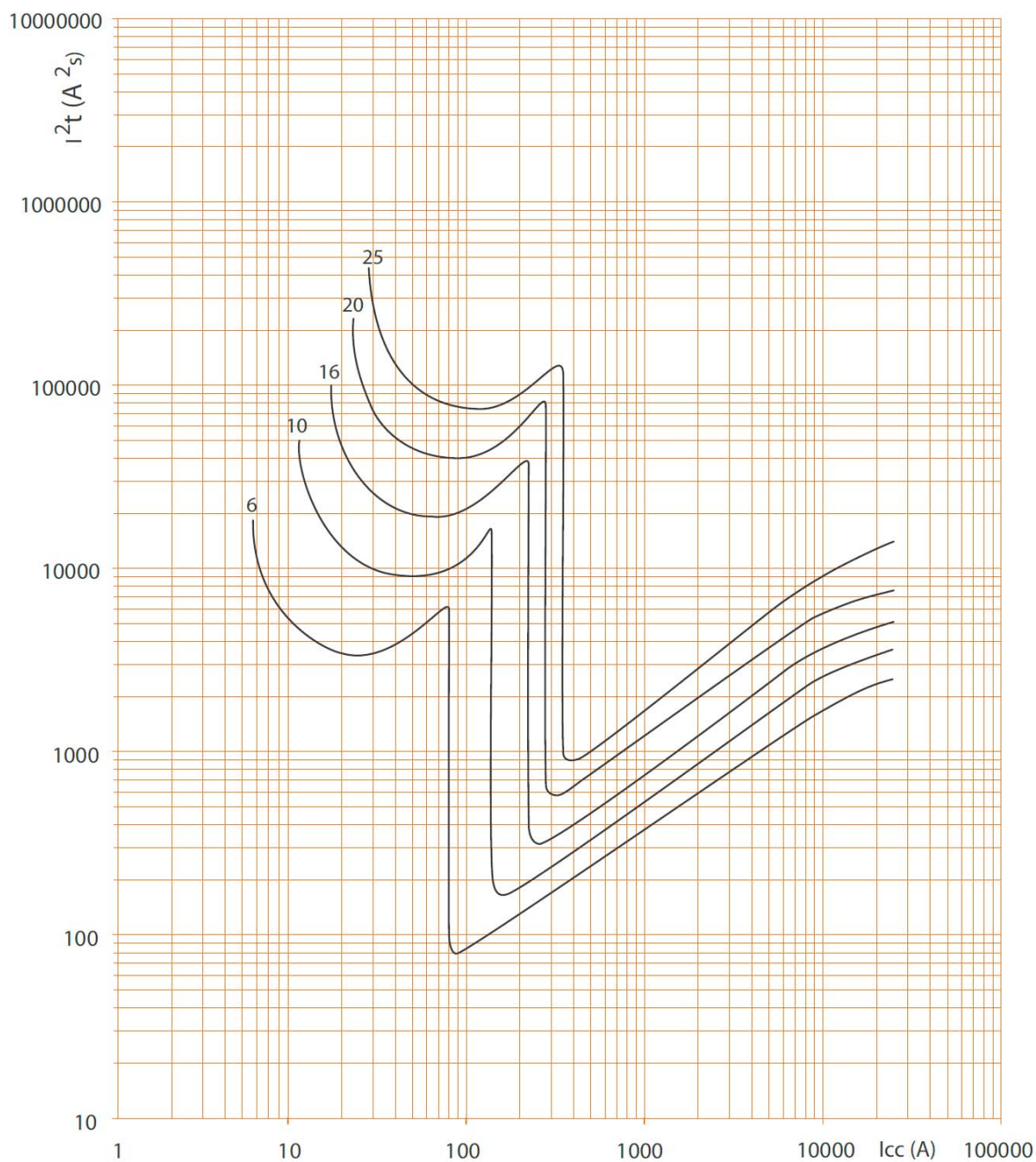
.  $I_{cc}$  = Square value of symmetric component of the short circuit current ( kA ).

.  $I^2t$  = 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) :



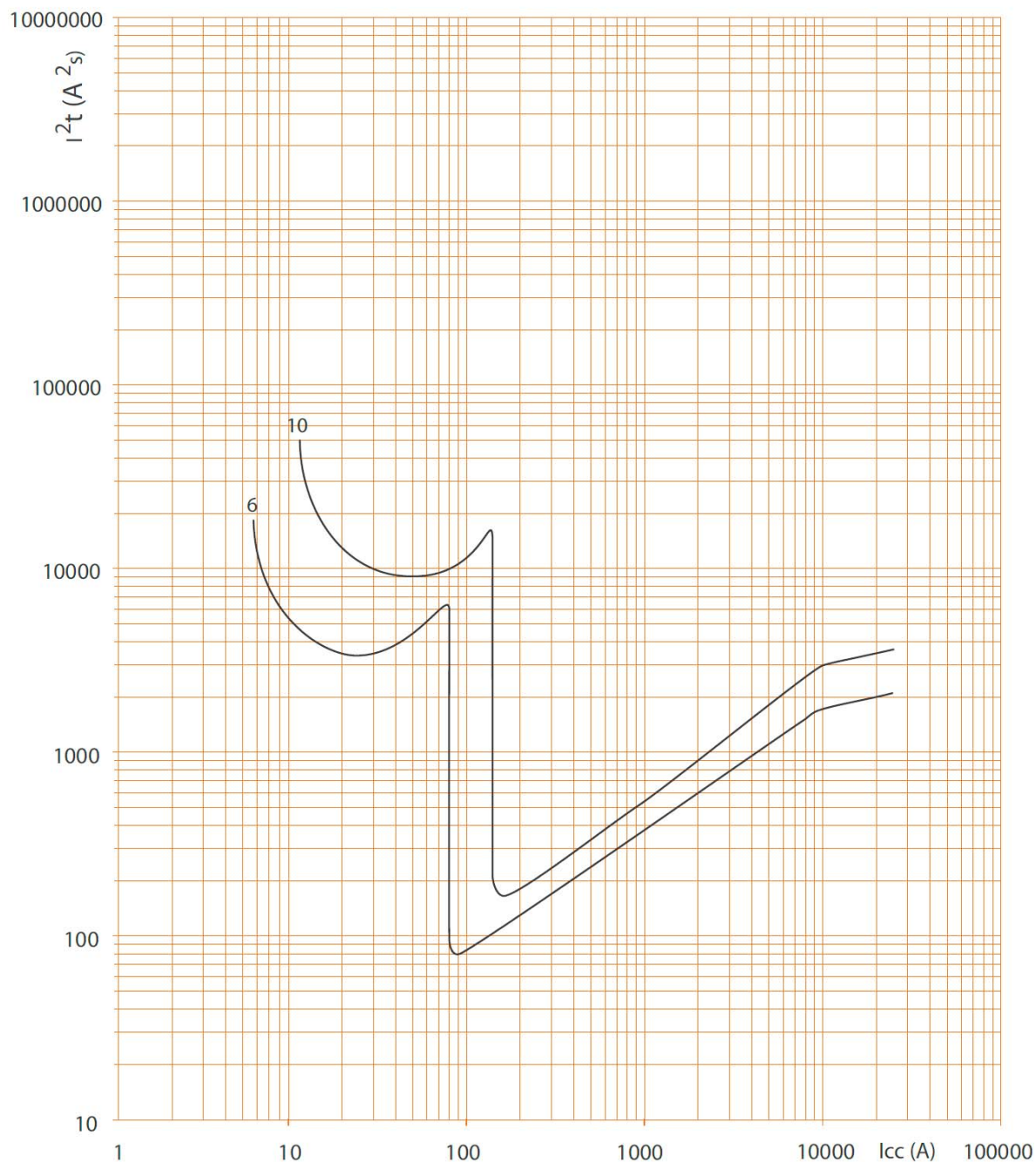
.  $I_{cc}$  = Square value of symmetric component of the short circuit current ( kA ).

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

## 1 module per pole

7. CHARACTERISTIC CURVES *(continued)*

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



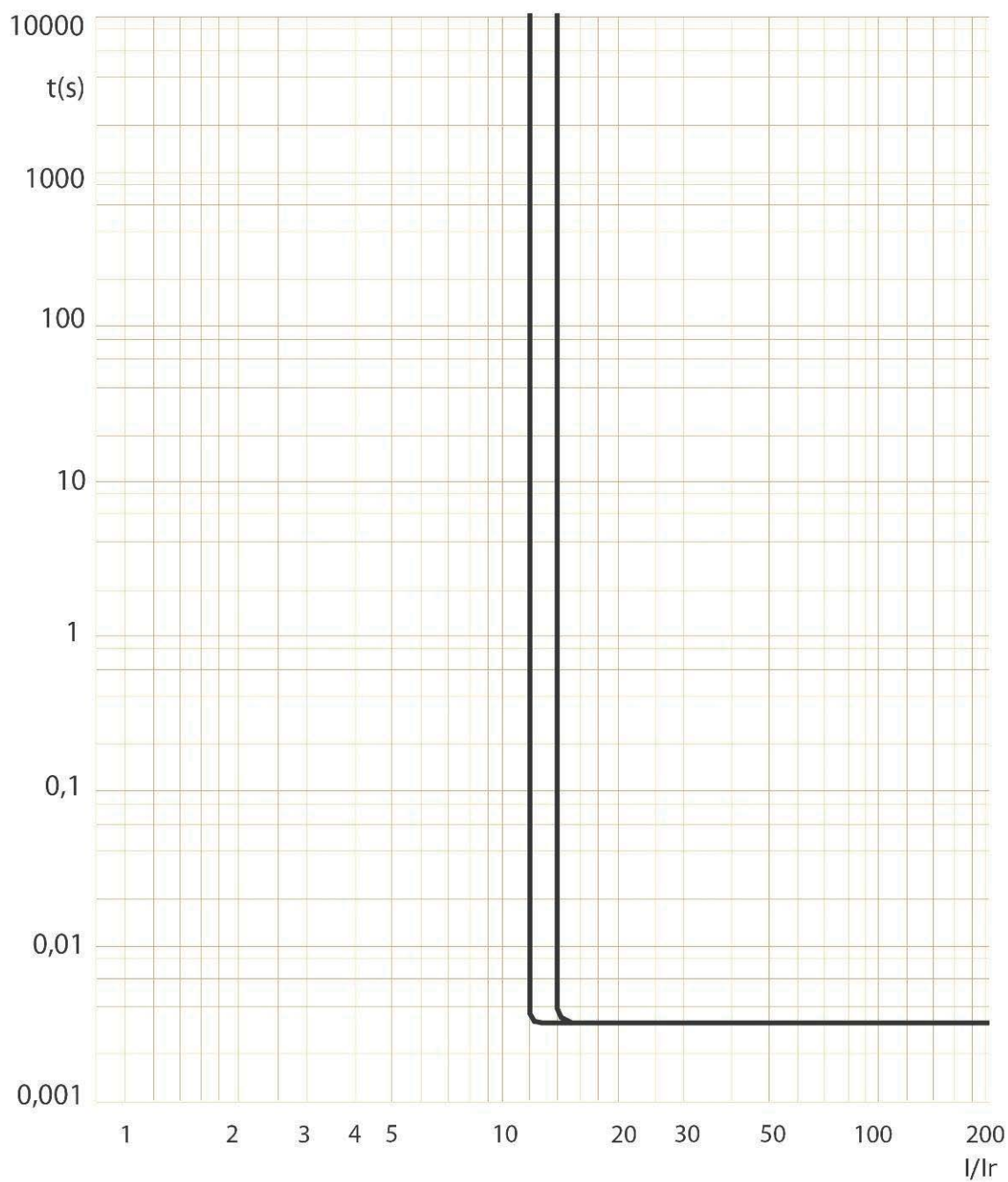
.  $I_{cc}$  = Square value of symmetric component of the short circuit current ( kA ).

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

## 1 module per pole

7. CHARACTERISTIC CURVES *(continued)*

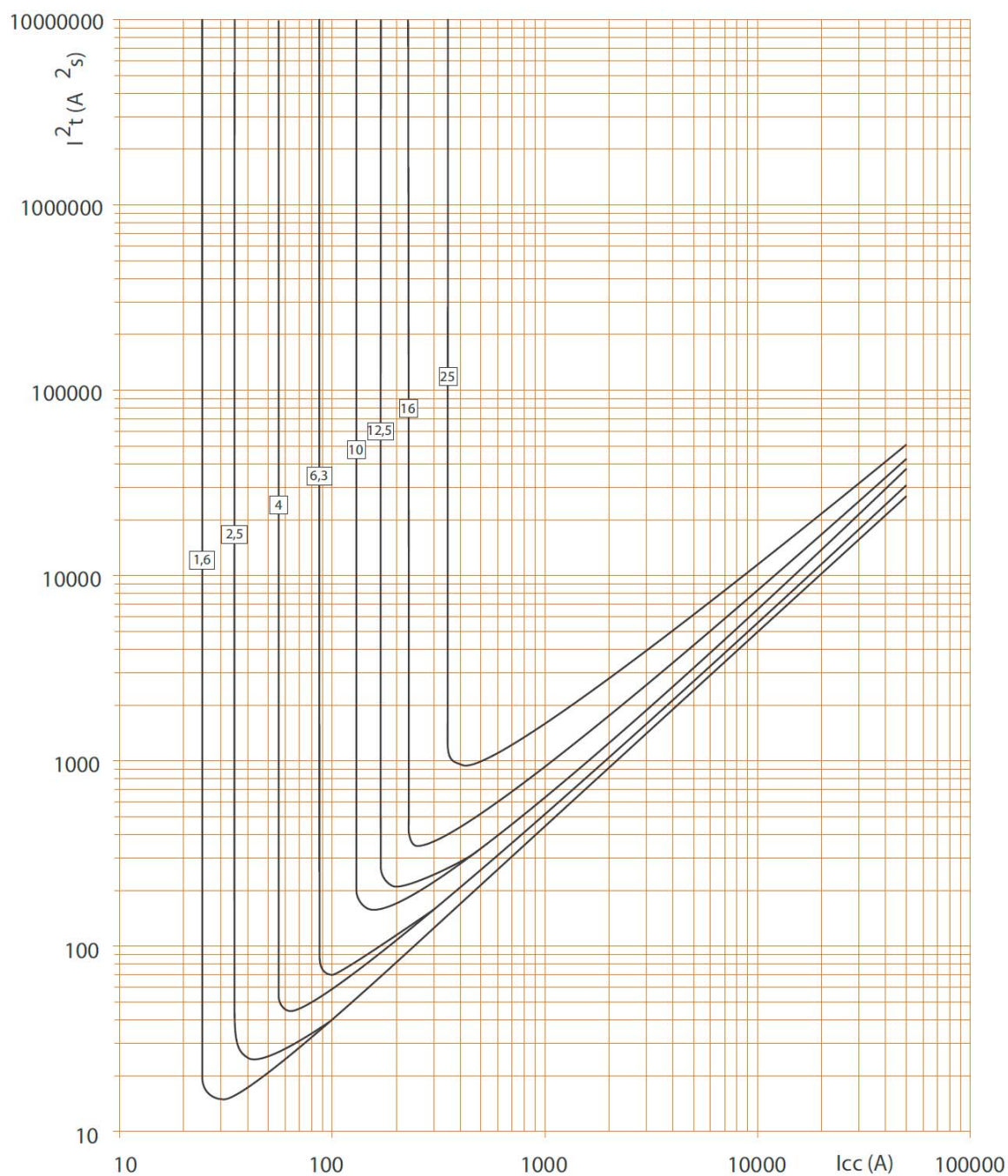
Operating characteristic of circuit breakers MA curve:



## 1 module per pole

7. CHARACTERISTIC CURVES *(continued)*

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



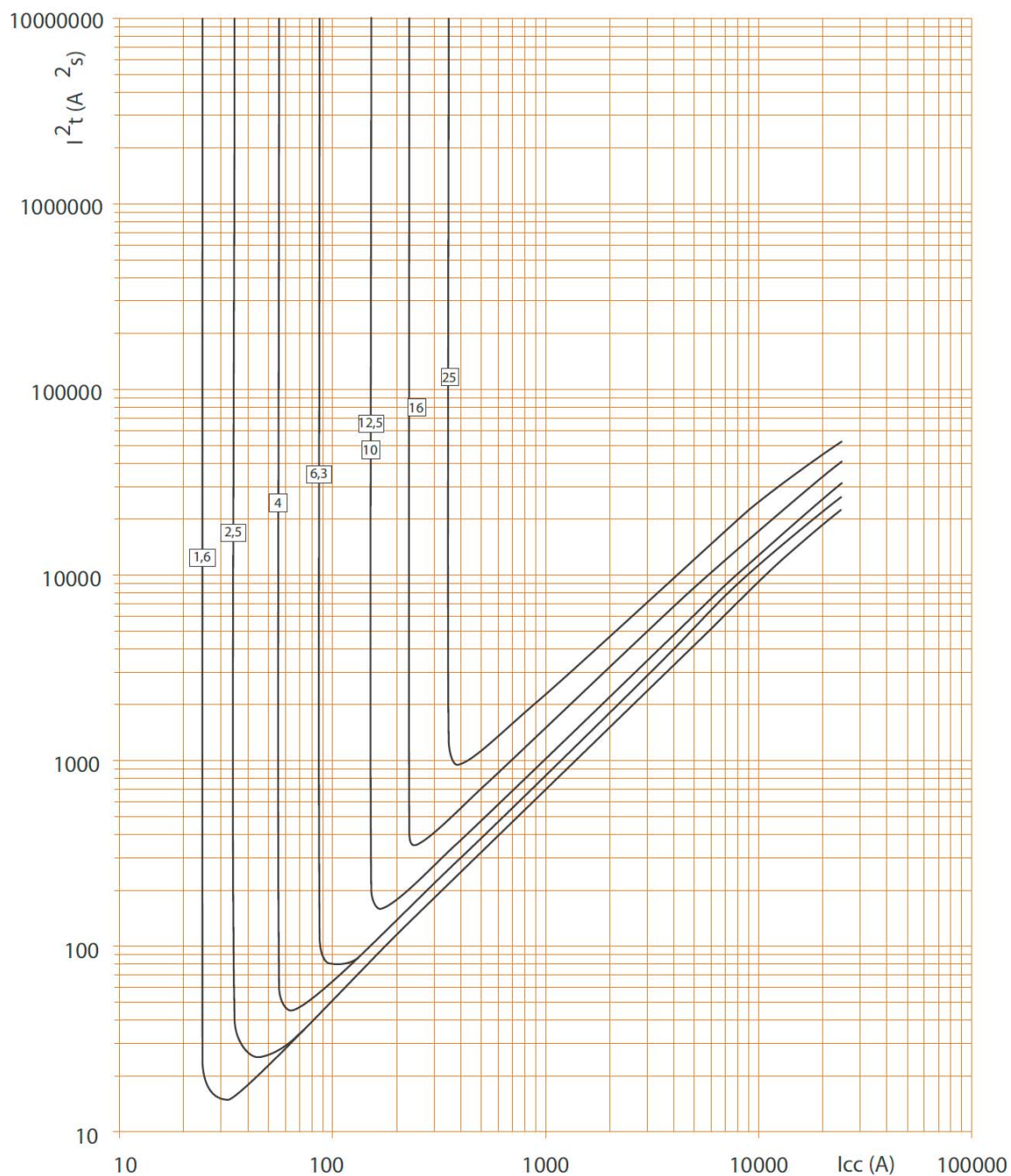
. Icc = Square value of symmetric component of the short circuit current ( kA ).

. 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) :



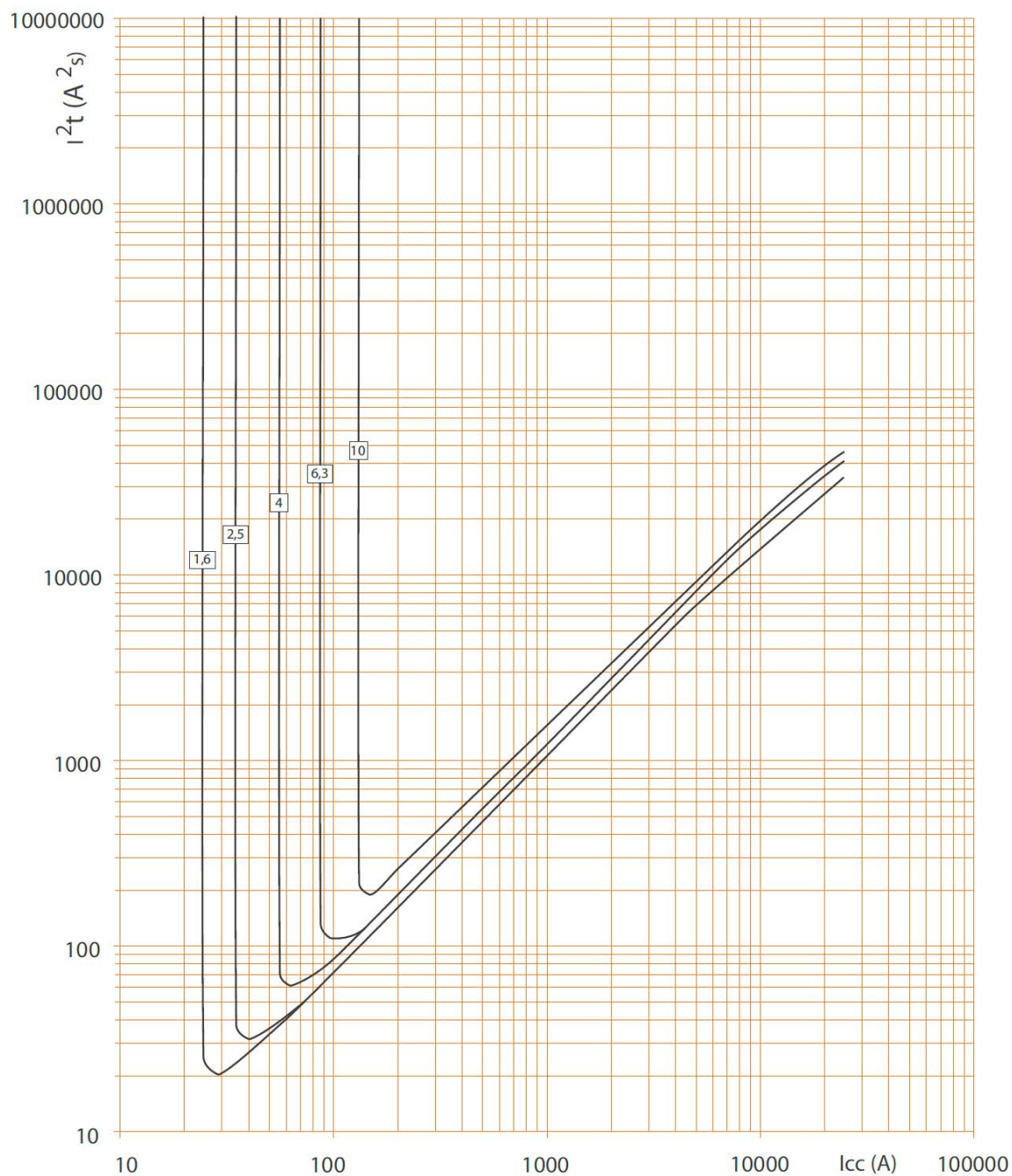
. Icc = Square value of symmetric component of the short circuit current ( kA ).

. 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) :



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

. I²t = Thermal energy limited (A²s).

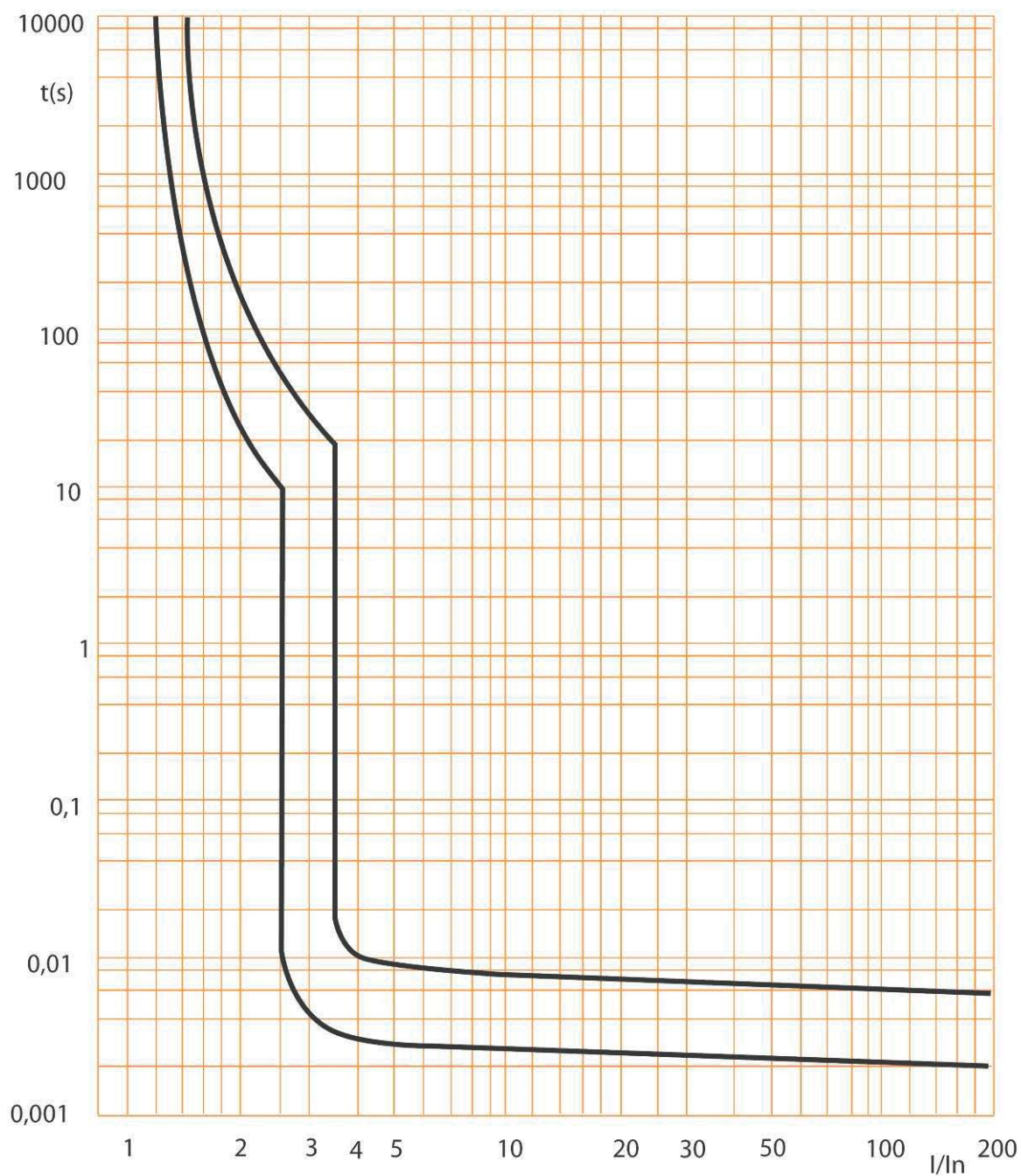
# Circuit breaker DX<sup>3</sup> 25 kA

## 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:



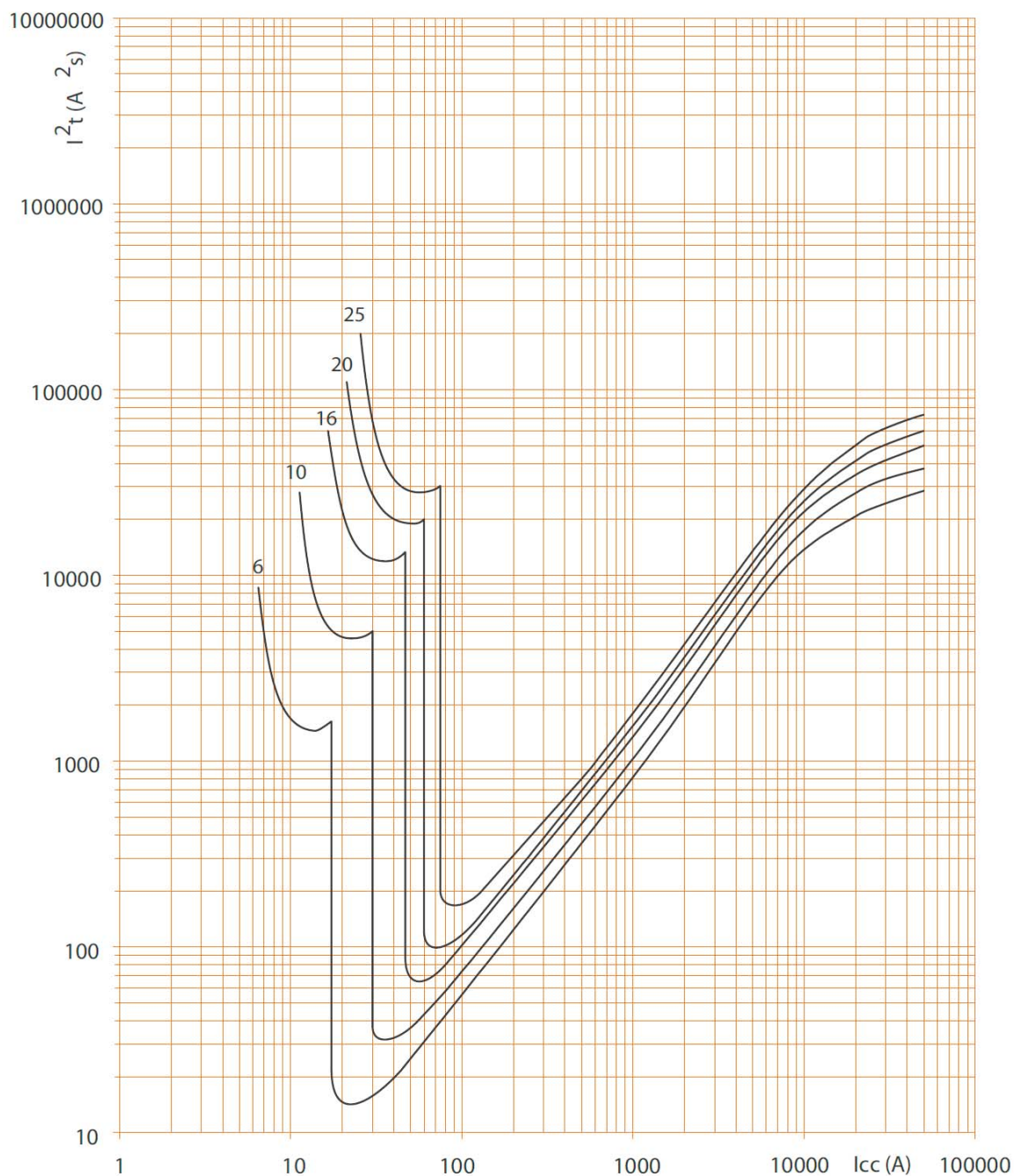
# Circuit breaker DX<sup>3</sup> 25 kA

## 1 module per pole

Cat N°(s): 4 097 15 to 4 099 37

### 7. CHARACTERISTIC CURVES *(continued)*

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



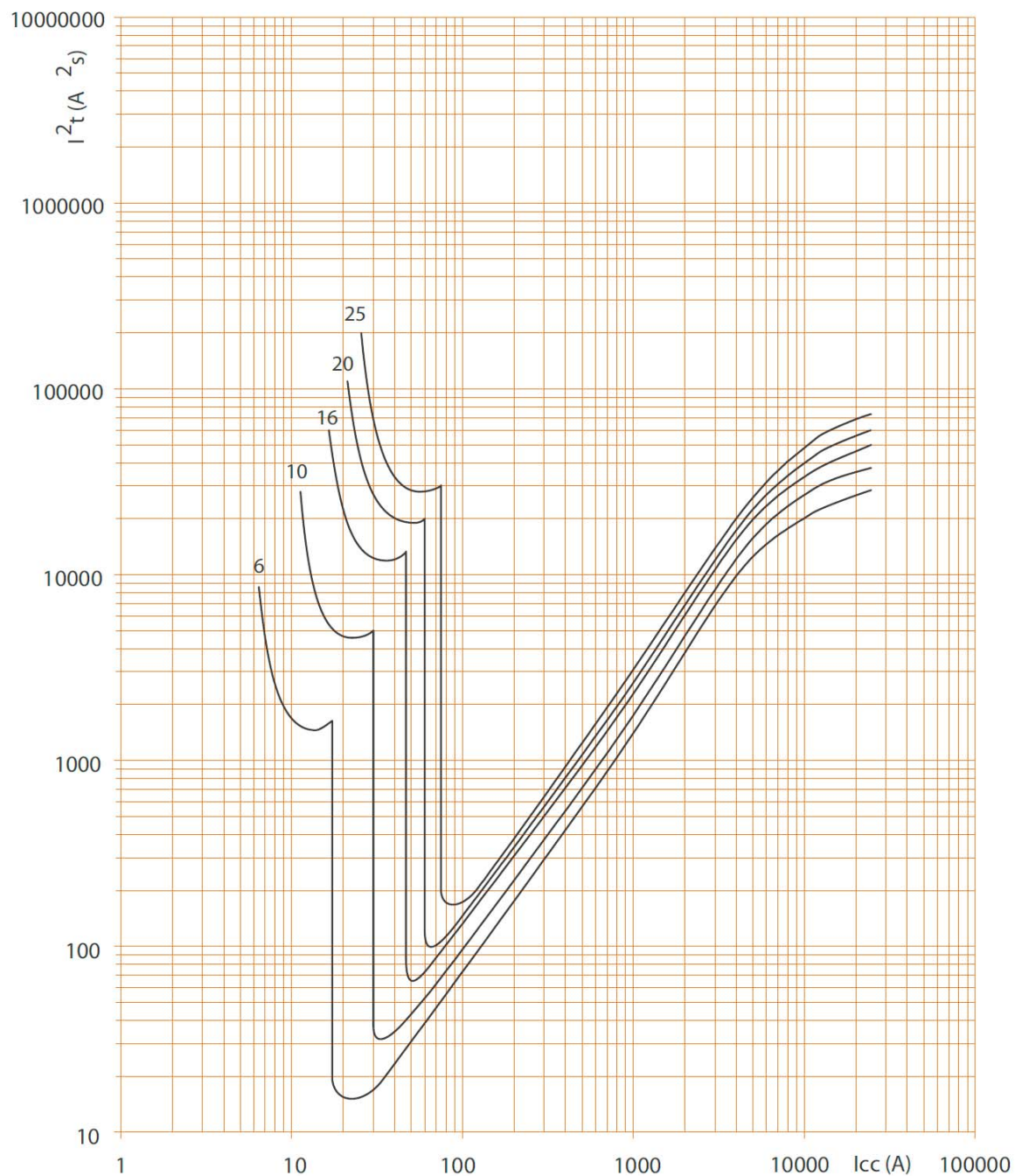
.  $I_{cc}$  = Square value of symmetric component of the short circuit current ( kA ).

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

## 1 module per pole

### 7. CHARACTERISTIC CURVES *(continued)*

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



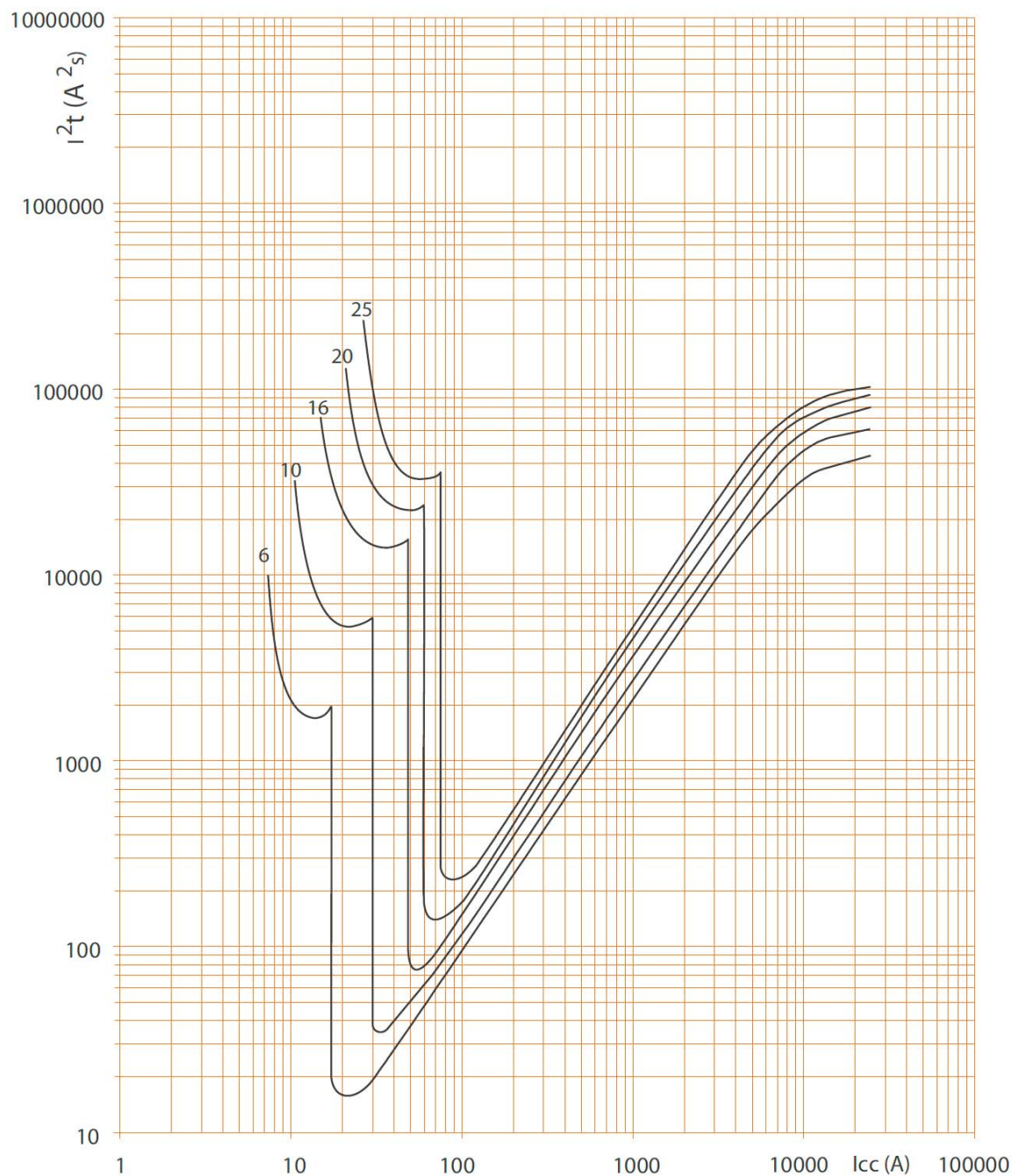
.  $I_{cc}$  = Square value of symmetric component of the short circuit current ( kA ).

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

## 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 ( $A^2s$ ).

## 1 module per pole

## 8. AUXILIARIES AND ACCESSORIES

## Coupling with differential block associable up to 63A:

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

## Wiring accessories:

- . Pin busbar HX<sup>3</sup> traditional.
- . Sealable screw cover (cat n° 4 063 04).
- . Insulating shields (cat n° 4 063 05)
- . Dispatcher row Lexiclic
- . Dispatcher row HX<sup>3</sup>.

## 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 PRO<sup>3</sup>