

# DX<sup>3</sup> STOP ARC 6000 A

## Phase + Neutral, neutral on left side

Cat. N°(s): 4 159 12 / 13 / 14

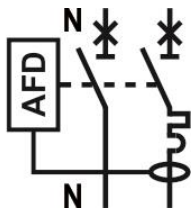


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### 1. DESCRIPTION - USE

Arc fault detection device integrated with thermal-magnetic circuit breaker (MCB) with contact position indication for the protection of a unitary electrical circuit. Reduction of the fire ignition risk in the electrical circuit, protection against short-circuits and overloads, isolation of electrical circuits.

#### Symbol:



#### Technology:

- . Limiting device
- . The Neutral contact closes before and opens after the Phase contact
- . The Phase pole provides protection and isolation for the Phase circuit
- . The Neutral pole provides isolation for the Neutral circuit

### 2. RANGE

#### Polarity:

- . 2 poles including 1 protected pole and 1 neutral pole

#### Width:

- . 2 modules (36 mm)

#### Rated currents In:

- . 10 / 16 / 20 A, C curve

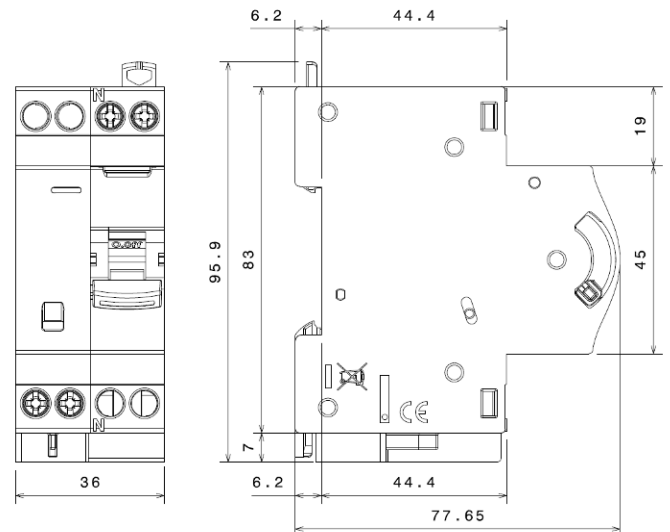
#### Magnetic tripping curves:

- . C curve (between 5 and 10 In)

#### Rated voltage and frequency:

- . 230 V ~, 50 Hz with standard tolerances

### 3. OVERALL DIMENSIONS



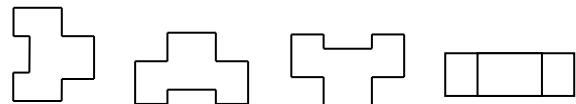
### 4. PREPARATION - CONNECTION

#### Mounting:

- . On symmetrical EN 60.715 rail or DIN 35 rail

#### Operating position:

- . Vertical      Horizontal      Upside down      On the side



#### Power supply:

- . From the top

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

#### Connection:

- Terminals protected against direct contact IP20, wired device
- Cage terminals, with release and captive screws
- Terminals fitted with shutters preventing a cable from being placed under the terminal, with the terminal partly open or closed
- Alignment and spacing of the terminals permitting connection with the other products in the range via prong supply busbars
- Terminal depth: 14 mm at the top and 12 mm at the bottom
- Screw head: mixed, slotted and Pozidriv no. 2
- Tightening torques:
  - Recommended: 1.6 to 2 Nm
  - Min.: 1.2 Nm
  - Max.: 2.8 Nm

#### Conductor type:

- Copper cable or supply busbar
- Cable cross-section

	Without ferrule	With ferrule
Rigid cable	1 x 1.5 to 16 mm <sup>2</sup> 2 x 1.5 to 6 mm <sup>2</sup>	-
Flexible cable	1 x 1.5 to 10 mm <sup>2</sup> 2 x 1.5 to 4 mm <sup>2</sup>	1 x 1.5 to 10 mm <sup>2</sup>

- Prong busbar, alone or with a flexible wire (without ferrule) 10 mm<sup>2</sup> or a connection terminal in the same terminal.

#### Recommended tools:

- For the terminals, screwdriver with 5.5 mm blade or Pozidriv no. 2 screwdriver
- For attaching or removing the DIN rail, screwdriver with 5.5 mm blade or Pozidriv no. 2 screwdriver

#### Manual actuation:

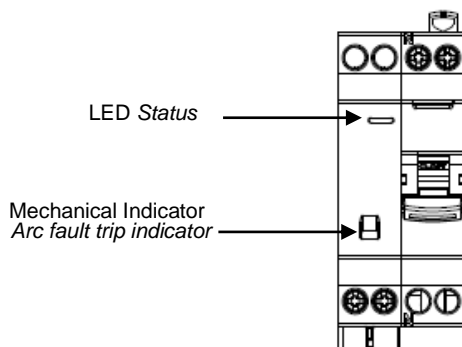
- Ergonomic 2-positions handle
- "I-ON": Device closed
- "O-OFF": Device open

#### Contact status display:

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

#### Arc fault device status display:

- By both indicator light and mechanical indicator



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

#### Indicator meaning code

Indicators state	meaning
	No or incorrect electrical source or/and device switched off
	Normal running: The circuit is monitored and protected by the arc fault device
	Arc fault detected: The device tripped to avoid the risk of fire Installation has to be verified
	Abnormal running: The circuit is not protected by the arc default device.

#### Insulation tests:

- Very important:  
Disconnect output wires and handle must be OFF.

#### Arc fault detection tests:

- The DX<sup>3</sup> STOP ARC is equipped with an auto-test function running continuously. The LED indicates if an abnormal running is detected.

#### Sealing:

- Possible in the open or closed positions

#### Labelling:

- Circuit identification by way of a label inserted in the label holder situated on the front of the product.



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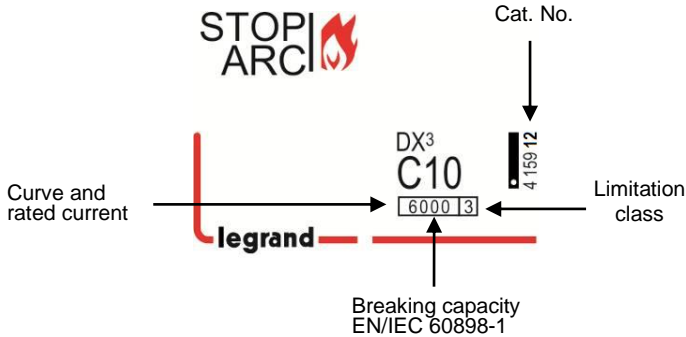
### 5. GENERAL CHARACTERISTICS

#### Neutral earthing system:

- . IT, TT, TN

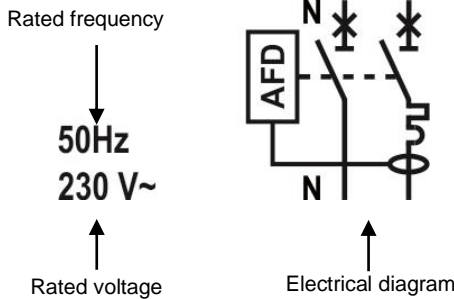
#### Marking on the front side:

- . By permanent ink pad printing



#### Marking on the upper panel:

- . By permanent ink pad printing



- . The upstream and downstream terminals of the neutral pole are marked with an "N" moulded close to the screw heads.

#### Minimum operating voltage:

- . U = 70 V (without auxiliaries)
- . U = 95 V (with auxiliaries)

#### Maximum operating voltage:

- . U = 250 V

#### Arc fault detection device:

- . Compliant with standard IEC/EN 62606:
- . Fully Integrated with a MCB
- . Protects against parallel and series arc fault
- . Protects against earth arc fault
- . State indicators integrated in the device (see chapter Arc fault device status display)

#### Breaking capacity on one single pole (phase pole):

- . In accordance with Icn1 EN/IEC 60898-1: 4.5 kA at 230 V ~

#### Breaking capacity:

Standard	Breaking capacity	Voltage between poles	Breaking capacity
EN/IEC 60898-1	Ics	230 V	6 kA
	Icn		6 kA

#### Isolation distance:

- . The distance between the contacts is greater than 5.5 mm with the handle in the open position.
- . The MCB is suitable for isolation in accordance with standard EN/IEC 60898-1.

### 5. GENERAL CHARACTERISTICS (continued)

#### Installation requirements:

- . The device is intended for unitary circuit protection as per the installation and operating conditions defined by the product standard and shall not be installed upstream of a group of circuit breakers or multiple circuits.

#### Isolation distance:

- . The distance between the contacts is greater than 5.5 mm with the handle in the open position.
- . The DX<sup>3</sup> STOP ARC is suitable for isolation in accordance with standard EN/IEC 60898-1.

#### Insulation voltage:

- . Ui = 400 V in accordance with standard EN/IEC 60898-1

#### Degree of pollution:

- . 2 in accordance with EN/IEC 60898-1

#### Dielectric strength:

- . 2,000 V on input and handle off

#### Rated impulse withstand voltage:

- . Uimp = 4 kV

#### Protection class (protection degree):

- . Terminals protected against direct contact. Protection class against solid objects and liquids (wired device): IP20 in accordance with standards IEC 529 – EN 60529 and NF 20-010
- . Front panel protected against direct contact: IP40
- . Class II in relation to metallic conductive parts
- . Protection class against mechanical impacts IK02 in accordance with standard EN 62262.

#### Plastic materials:

- . Polyamide and P.B.T.

#### Enclosure heat and fire resistance:

- . Resistance to glow wire tests at 960°C, in accordance with standard EN/IEC 60898-1
- . Classification V2, in accordance with standard UL94

#### Higher heating potential:

- . The heat potential is assessed at: 2.60 MJ

#### Closing and opening force via the handle:

- . 4 N on opening
- . 10 N on closing

#### Mechanical endurance:

- . Compliant with standard EN/IEC 60898-1 & EN/IEC 62606
- . Tested with 20,000 operations

#### Electrical endurance:

- . Compliant with standard EN/IEC 60898-1 & EN/IEC 62606
- . Tested with 10,000 operations with load (In x Cos φ 0.9)

#### Sinusoidal vibration resistance in accordance with IEC 60068.2.6:

- . Axes: x – y – z
- . Frequency: 10 to 55 Hz
- . Acceleration: 3g (1g = 9.81m.s<sup>-2</sup>)

#### Resistance to tremors:

- . In accordance with standard EN/IEC 60898-1

#### Ambient temperatures:

- . Operation: from - 25°C to + 40°C
- . Storage: from - 40°C to + 70°C

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

#### EMC Compatibility:

The design of DX3 STOP ARC with its intelligent signal analysis of the power grid avoids any interference with PLC signal. Tests according to IEC 61000 guarantee electromagnetic compatibility with other devices on the power grid.

#### Packaged volume:

Packaging	Volume (dm <sup>3</sup> )
Per 1	0.360

#### Average unit weight per catalogue number:

. 0.19 kg

#### Derating of DX<sup>3</sup> STOP ARC function of the number of devices placed side by side:

When several MCBs are installed side by side and operate simultaneously, the heat dissipation of one pole is limited. This results in an increased operating temperature for the circuit breakers which may cause false tripping. Applying the following coefficients to the operating currents is recommended.

Number of MCBs side by side	Coefficient
2 - 3	0.9
4 - 5	0.8
6 - 9	0.7
≥ 10	0.6

These values are given in the IEC 60439-1 recommendation and NF C 63421 and EN 60439-1 standards.

In order to avoid having to use these coefficients there must be good ventilation and the devices must be kept apart using the spacing elements Cat. No. 4 063 07 (0.5 module).

#### Derating of DX<sup>3</sup> STOP ARC in the event of use with fluorescent tubes:

LEDs and electronic or ferromagnetic ballasts provide a high inrush current for a very short time. These currents are liable to cause tripping of the DX3 STOP ARC.

The maximum number of ballasts per MCB stated by the lamp and ballast manufacturers in their catalogues should be taken into account during installation.

#### Impact of height:

	≤2,000 m	3,000 m	4,000 m	5,000 m
Dielectric strength	2,000 V	1,750 V	1,500 V	1,250 V
Maximum operating voltage	230 V	230 V	230 V	230 V
Derating at 30°C	none	none	none	none

#### Power dissipated:

. with In/Un

In	10 A	16 A	20 A
Power (W) dissipated	2.4	5.8	6.6

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

#### Derating of DX<sup>3</sup> STOP ARC depending on the ambient temperature:

. The nominal characteristics of a circuit breaker are modified depending on the ambient temperature which prevails in the cabinet or enclosure where the MCBs is located.

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

In (A)	-10 °C	0 °C	10 °C	20 °C	30 °C	40 °C	50 °C	60 °C	70 °C
10	12	11.5	11	10.5	10	9.5	9	8.5	8
16	19.2	18.4	17.6	16.8	16	15.2	14.4	13.6	12.8
20	24	23	22	21	20	19	18	17	16

#### Association and coordination of a DX<sup>3</sup> STOP ARC with a protective device located upstream:

This association allows a device's breaking capacity to be increased by combining it with another protective device placed upstream.

This combination makes it possible to use a downstream device with a breaking capacity which is lower than the maximum prospective short-circuit current at its installation point.

#### Association and coordination with upstream fuses:

. Three-phase network (+N) 230/400 V or 240/415 V in accordance with standard EN/IEC 60947-2

. TT neutral earthing or TNS system

		Upstream fuse									
		gG and aM types									
Downstream MCB		≤20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A	160 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	50 kA	50 kA	50 kA	50 kA	50 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	16 A	50 kA	50 kA	50 kA	50 kA	50 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	20 A	-	50 kA	50 kA	50 kA	50 kA	25 kA	25 kA	25 kA	25 kA	25 kA

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### 5. GENERAL CHARACTERISTICS (continued)

#### Association and coordination with upstream MCBs:

- Three-phase network (+N) 230/400 V or 240/415 V in accordance with standard EN/IEC 60947-2
- TT neutral earthing or TNS system

Downstream MCB		Upstream MCB				
		DX <sup>3</sup> 10000/16 kA C curve Ph+N 1 module	DX <sup>3</sup> 10kA - DX <sup>3</sup> 6000/10 kA B, C and D curves			
		≤20 A	≤32 A	40 A	50 A	63 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	16 kA	25 kA	25 kA	25 kA	25 kA
	16 A	16 kA	25 kA	25 kA	25 kA	25 kA
	20 A	-	25 kA	25 kA	25 kA	25 kA

Downstream MCB		Upstream MCB							
		DX <sup>3</sup> 10000/16 kA B, C and D curves							
		≤25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	32 kA	32 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	16 A	32 kA	32 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	20 A	32 kA	32 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA

Downstream MCB		Upstream MCB							
		DX <sup>3</sup> 25 kA B, C and D curves							
		≤25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	50 kA	50 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	16 A	50 kA	50 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	20 A	50 kA	50 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA

Downstream MCB		Upstream MCB					
		DX <sup>3</sup> 36 kA C curve					
		≤25 A	32 A	40 A	50 A	63 A	80 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
	16 A	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
	20 A	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA

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### 5. GENERAL CHARACTERISTICS (continued)

#### Association and coordination with upstream MCBs:

- . Three-phase network (+N) 230/400 V or 240/415 V in accordance with standard EN/IEC 60947-2
- . TT neutral earthing or TNS system

Downstream MCB		Upstream MCB									
		DX <sup>3</sup> 50 kA B and C curves					DX <sup>3</sup> 50 kA D curve				
		≤25 A	32 A	40 A	50 A	63 A	≤25 A	32 A	40 A	50 A	63 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
	16 A	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
	20 A	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA

#### Association and coordination with upstream Moulded Case Circuit Breakers (MCCBs):

- . Three-phase network (+N) 230/400 V or 240/415 V in accordance with standard EN/IEC 60947-2
- . TT neutral earthing or TNS system

Downstream MCB		Upstream MCCB							
		DPX <sup>3</sup> 160 16 kA							
		16 A	25 A	40 A	63 A	80 A	100 A	125 A	160 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	22 kA	22 kA	22 kA	22 kA	22 kA	22 kA	22 kA	22 kA
	16 A	-	22 kA	22 kA	22 kA	22 kA	22 kA	22 kA	22 kA
	20 A	-	22 kA	22 kA	22 kA	22 kA	22 kA	22 kA	22 kA

Downstream MCB		Upstream MCCB							
		DPX <sup>3</sup> 160 25 kA/36 kA & 50 kA							
		16 A	25 A	40 A	63 A	80 A	100 A	125 A	160 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA
	16 A	-	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA
	20 A	-	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA

Downstream MCB		Upstream MCCB	
		DPX <sup>3</sup> 250 AB 36 kA	
		130 A	240 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	30 kA	30 kA
	16 A	25 kA	25 kA
	20 A	25 kA	25 kA

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

#### Association and coordination with upstream Moulded Case Circuit Breakers (MCCBs):

- . Three-phase network (+N) 230/400 V or 240/415 V in accordance with standard EN/IEC 60947-2
- . TT neutral earthing or TNS system

		Upstream MCCB							
		DPX <sup>3</sup> 250 ≤ 70 kA thermal-magnetic				DPX <sup>3</sup> 250 ≤ 70 kA electronic			
Downstream MCB		100 A	160 A	200 A	250 A	40 A	100 A	160 A	250 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA
	16 A	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA
	20 A	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA

		Upstream MCCB	
		DPX <sup>3</sup> 400 AB 36 kA	
Downstream MCB		400 A	
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	25 kA	
	16 A	25 kA	
	20 A	25 kA	

		Upstream MCCB								
		DPX3 630 ≤ 100 kA thermal-magnetic				DPX3 630 ≤ 100 kA electronic				
Downstream MCB		250 A	320 A	400 A	500 A	630 A	160 A	250 A	400 A	630 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	13 A	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	16 A	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	20 A	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA



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

#### Association and coordination with upstream Moulded Case Circuit Breakers (MCCBs):

- . Three-phase network (+N) 230/400 V or 240/415 V in accordance with standard IEC 60947-2
- . TT neutral earthing or TNS system

		Upstream MCCB	
		DPX <sup>3</sup> 1600 ≤ 100 kA	DPX <sup>3</sup> 1250 ≤ 70 kA
Downstream MCB		630 A to 1,250 A	630 A to 1,600 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	<b>25 kA</b>	<b>25 kA</b>
	16 A	<b>25 kA</b>	<b>25 kA</b>
	20 A	<b>25 kA</b>	<b>25 kA</b>

#### Selectivity between two levels of protection

- . The downstream MCB must always have a magnetic threshold and a rated current lower than those of the upstream protection.
- . Selectivity or Discrimination is said to be total (T) if there is discrimination up to the value of breaking capacity (in accordance with standard EN/IEC 60947-2) of the downstream MCB.

#### Discrimination with upstream fuses:

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

		Upstream fuse							
		gG cartridge							
Downstream MCB		32 A	40 A	50 A	63 A	80 A	100 A	125 A	160 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	-	<b>1600</b>	<b>2200</b>	<b>3200</b>	<b>3600</b>	<b>7000</b>	<b>T</b>	<b>T</b>
	16 A	-	<b>1400</b>	<b>1800</b>	<b>2600</b>	<b>3000</b>	<b>5600</b>	<b>8000</b>	<b>T</b>
	20 A	-	<b>1200</b>	<b>1500</b>	<b>2200</b>	<b>2500</b>	<b>4600</b>	<b>6300</b>	<b>10000</b>

		Upstream fuse								
		aM cartridge								
Downstream MCB		25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A	160 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	-	<b>1100</b>	<b>1700</b>	<b>2500</b>	<b>5000</b>	<b>7800</b>	<b>T</b>	<b>T</b>	<b>T</b>
	16 A	-	<b>1000</b>	<b>1400</b>	<b>2100</b>	<b>4000</b>	<b>6000</b>	<b>9000</b>	<b>T</b>	<b>T</b>
	20 A	-	-	<b>1300</b>	<b>1800</b>	<b>3400</b>	<b>5100</b>	<b>7000</b>	<b>T</b>	<b>T</b>

- . T = Total discrimination

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### 5. GENERAL CHARACTERISTICS (continued)

#### Discrimination with upstream MCBs:

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

		Upstream MCB											
		DX <sup>3</sup> 4500/6 kA - DX <sup>3</sup> 6000/10 kA - DX <sup>3</sup> 10000/16 kA B curve											
Downstream MCB		10 A	13 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	-	-	-	80	100	128	160	200	252	3000	5000	T
	16 A	-	-	-	-	-	128	160	200	252	2000	3600	5500
	20 A	-	-	-	-	-	-	160	200	252	1600	3000	4000

		Upstream MCB											
		DX <sup>3</sup> 4500/6 kA - DX <sup>3</sup> 6000/10 kA - DX <sup>3</sup> 10000/16 kA C curve											
Downstream MCB		10 A	13 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	-	98	120	150	187	240	300	375	472	3000	5000*	T*
	16 A	-	-	-	150	187	240	300	375	472	2000	3600*	5500*
	20 A	-	-	-	-	187	240	300	375	472	1600	3000	4000*

		Upstream MCB											
		DX <sup>3</sup> 4500/6 kA - DX <sup>3</sup> 6000/10 kA - DX <sup>3</sup> 10000/16 kA D curve											
Downstream MCB		10 A	13 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	-	-	192	240	300	384	480	600	756	3000	5000	T
	16 A	-	-	-	240	300	384	480	600	756	2000	3600	5500
	20 A	-	-	-	-	300	384	480	600	756	1600	3000	4000

. T = Total discrimination

. \*: If the discrimination value stated in the table is greater than the breaking capacity of the upstream circuit breaker then the breaking capacity of the upstream device must be taken as the discrimination value (the discrimination value may not exceed the breaking capacity of the upstream device).

# DX<sup>3</sup> STOP ARC 6000 A

## Phase + Neutral, neutral on left side

Cat. N°(s): 4 159 12 / 13 / 14

### 5. GENERAL CHARACTERISTICS (continued)

#### Discrimination with upstream MCBs:

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

		Upstream MCB										
		DX <sup>3</sup> 25 kA B curve										
Downstream MCB		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	-	-	80	100	500	700	1000	1800	3000	5000	T
	16 A	-	-	-	-	300	500	700	1300	2000	3600	5500
	20 A	-	-	-	-	-	400	500	1000	1600	3000	4000

		Upstream MCB										
		DX <sup>3</sup> 25 kA C curve										
Downstream MCB		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	-	120	150	187	500	700	1000	1800	3000	5000	T
	16 A	-	-	150	187	300	500	700	1300	2000	3600	5500
	20 A	-	-	-	187	300	400	500	1000	1600	3000	4000

		Upstream MCB										
		DX <sup>3</sup> 25 kA D curve										
Downstream MCB		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A	125 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	-	192	240	300	500	700	1000	1800	3000	5000	T
	16 A	-	-	240	300	384	500	700	1300	2000	3600	5500
	20 A	-	-	-	300	384	480	600	1000	1600	3000	4000

. T = Total discrimination

# DX<sup>3</sup> STOP ARC 6000 A

## Phase + Neutral, neutral on left side

Cat. N°(s): 4 159 12 / 13 / 14

### 5. GENERAL CHARACTERISTICS (continued)

#### Discrimination with upstream modular MCBs:

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

		Upstream MCB							
		DX <sup>3</sup> 50 kA B curve							
Downstream MCB		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	-	-	150	210	500	700	1200	1800
	16 A	-	-	-	-	300	500	700	1300
	20 A	-	-	-	-	-	400	500	1000

		Upstream MCB								
		DX <sup>3</sup> 50 kA C curve								
Downstream MCB		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	-	120	150	210	500	700	1200	1800	3000
	16 A	-	-	150	187	300	500	700	1300	2000
	20 A	-	-	-	187	300	400	500	1000	1600

. T = Total discrimination

#### Discrimination with upstream MCBs:

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

		Upstream MCB							
		DX <sup>3</sup> 50 kA D curve							
Downstream MCB		10 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A
DX <sup>3</sup> STOP ARC P+N 6000A C curve	10 A	-	192	240	300	500	700	1200	1800
	16 A	-	-	240	300	384	500	700	1300
	20 A	-	-	-	300	384	480	600	1000

#### Discrimination with upstream Moulded Case Circuit Breakers (MCCBs):

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

Downstream circuit breaker	Upstream MCCB	
DX <sup>3</sup> STOP ARC P+N 6000A C curve	DPX <sup>3</sup> all models all ratings	DMX <sup>3</sup> all models all ratings
	T	T

. T = Total discrimination

# DX<sup>3</sup> STOP ARC 6000 A

## Phase + Neutral, neutral on left side

Cat. N°(s): 4 159 12 / 13 / 14

### 6. COMPLIANCE AND APPROVALS

#### In accordance with standards:

- . IEC/EN 60898-1
- . IEC/EN 62606

#### Usage in special conditions:

- . Category C in accordance with the classification defined in Appendix Q of standard IEC/EN 60947-1.
- . Category C = Environment subject to temperature (-25°C to +70°C), humidity.

#### Respect for the environment – Compliance with European Union Directives:

- . Compliance with Directive 2002/95/EC of 27/01/03 known as "RoHS" which provides for a restriction on the use of dangerous substances such as lead, mercury, cadmium, hexavalent chromium and polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) brominated flame retardants from 1<sup>st</sup> July 2006
- . Compliance with the Directive 91/338/EEC of 18/06/91 and decree 94-647 of 27/07/04

#### Plastic materials:

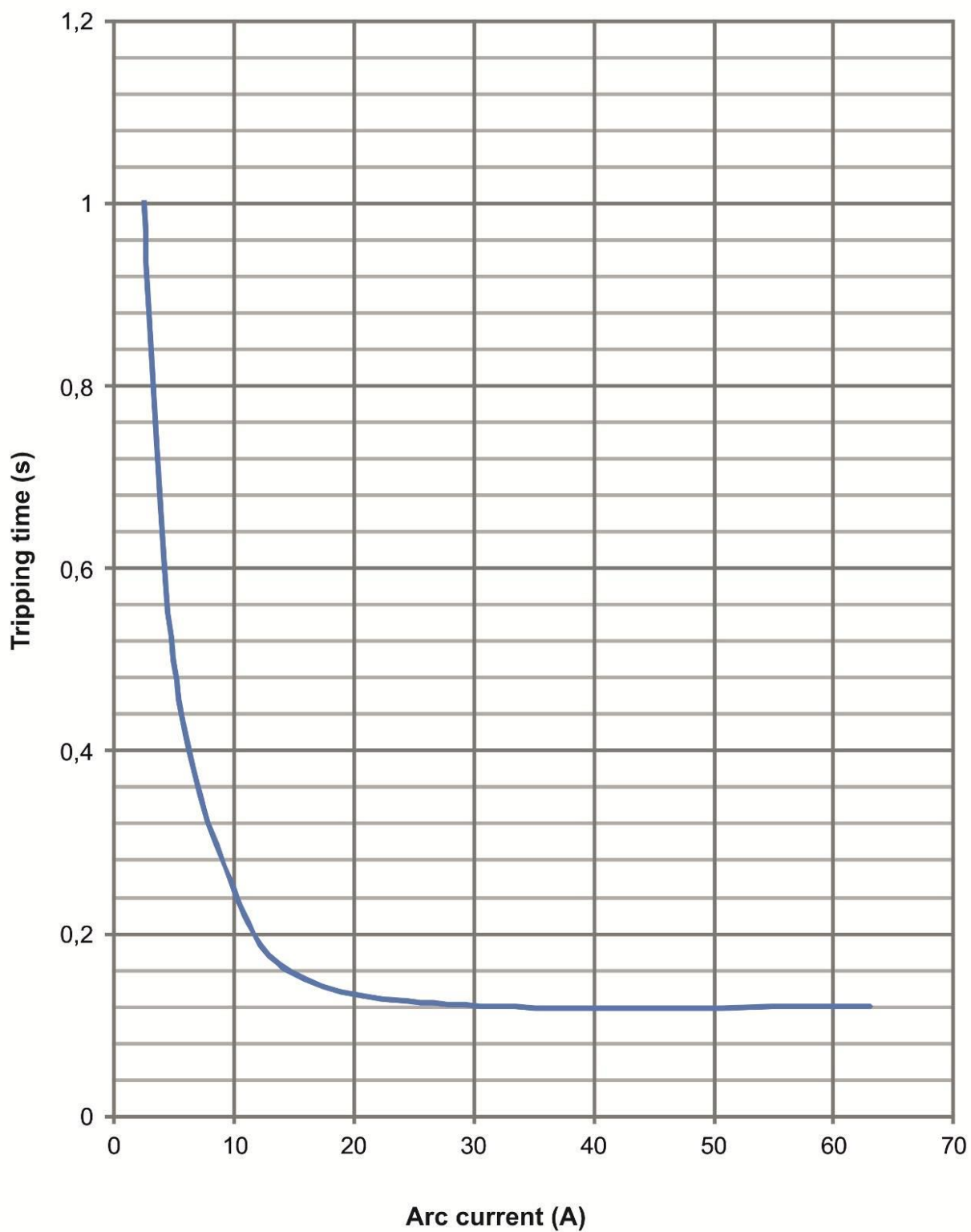
- . Halogen free plastic materials.
- . Labelling of parts compliant with ISO 11469 and ISO 1043.

#### Packaging:

- . Design and manufacture of packaging compliant with decree 98-638 of 20/07/98 and Directive 94/62/EC

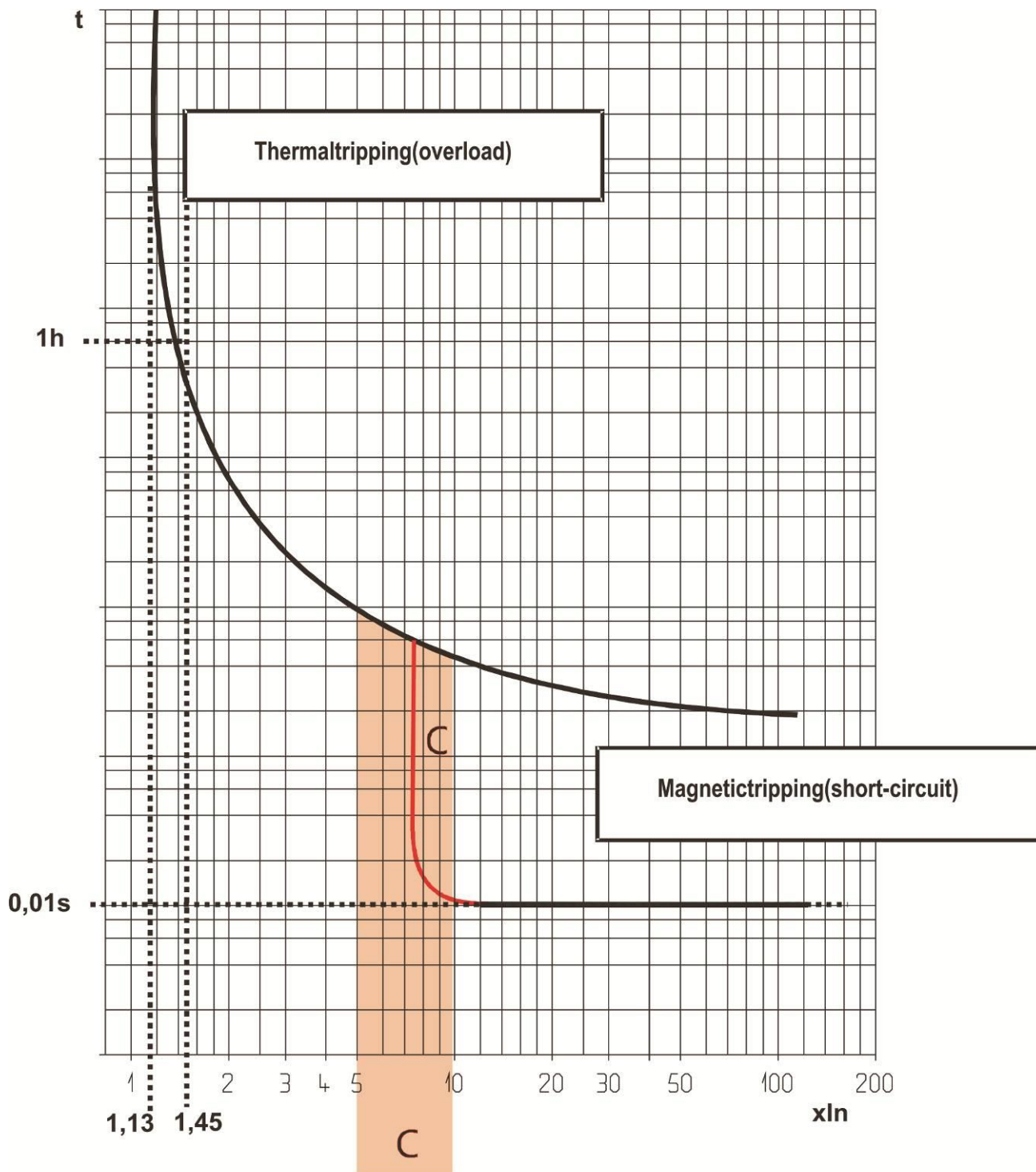
**7. CURVES**

Arc tripping time curve



7. CURVES (continued)

Thermal-magnetic tripping curve range typical of B and C curve DX<sup>3</sup> STOP ARC:



Thermal tripping at ambient temperature = 30°C  
 In = circuit breaker rated current

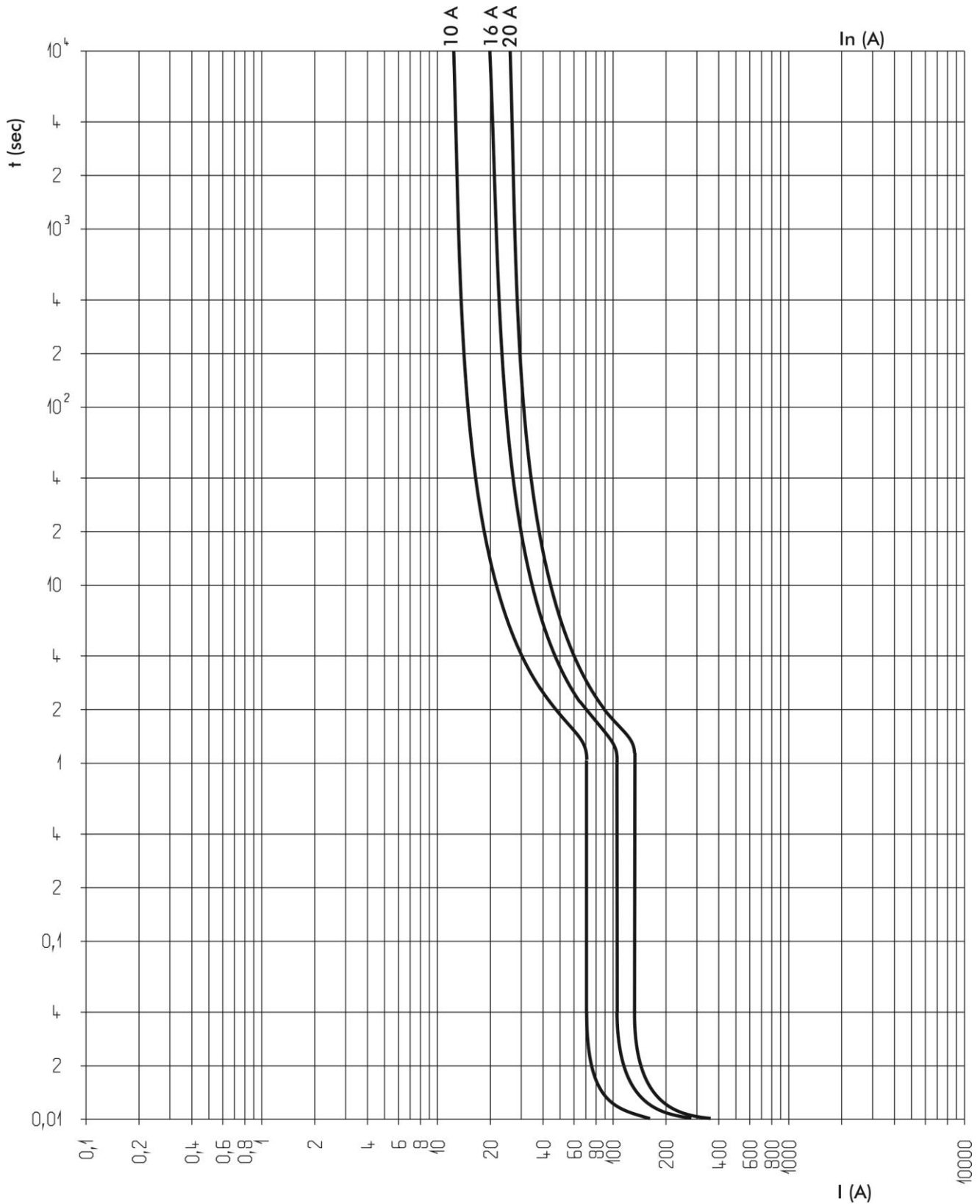
# DX<sup>3</sup> STOP ARC 6000 A

## Phase + Neutral, neutral on left side

Cat. N°(s): 4 159 12 / 13 / 14

### 7. CURVES (continued)

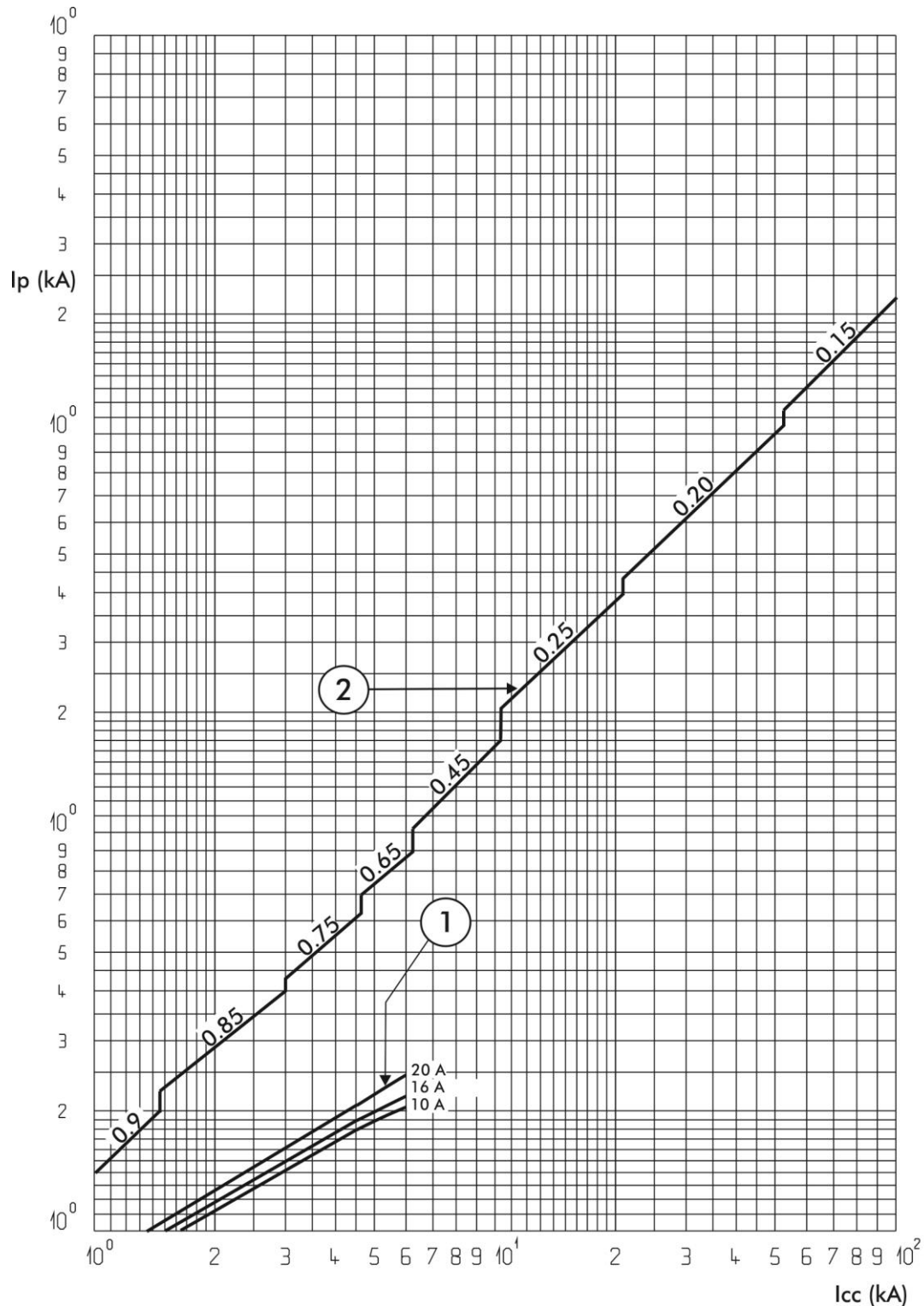
Average thermal-magnetic tripping curves range typical of C curve DX<sup>3</sup> STOP ARC





**7. CURVES (continued)**

**Current limiting curves:**

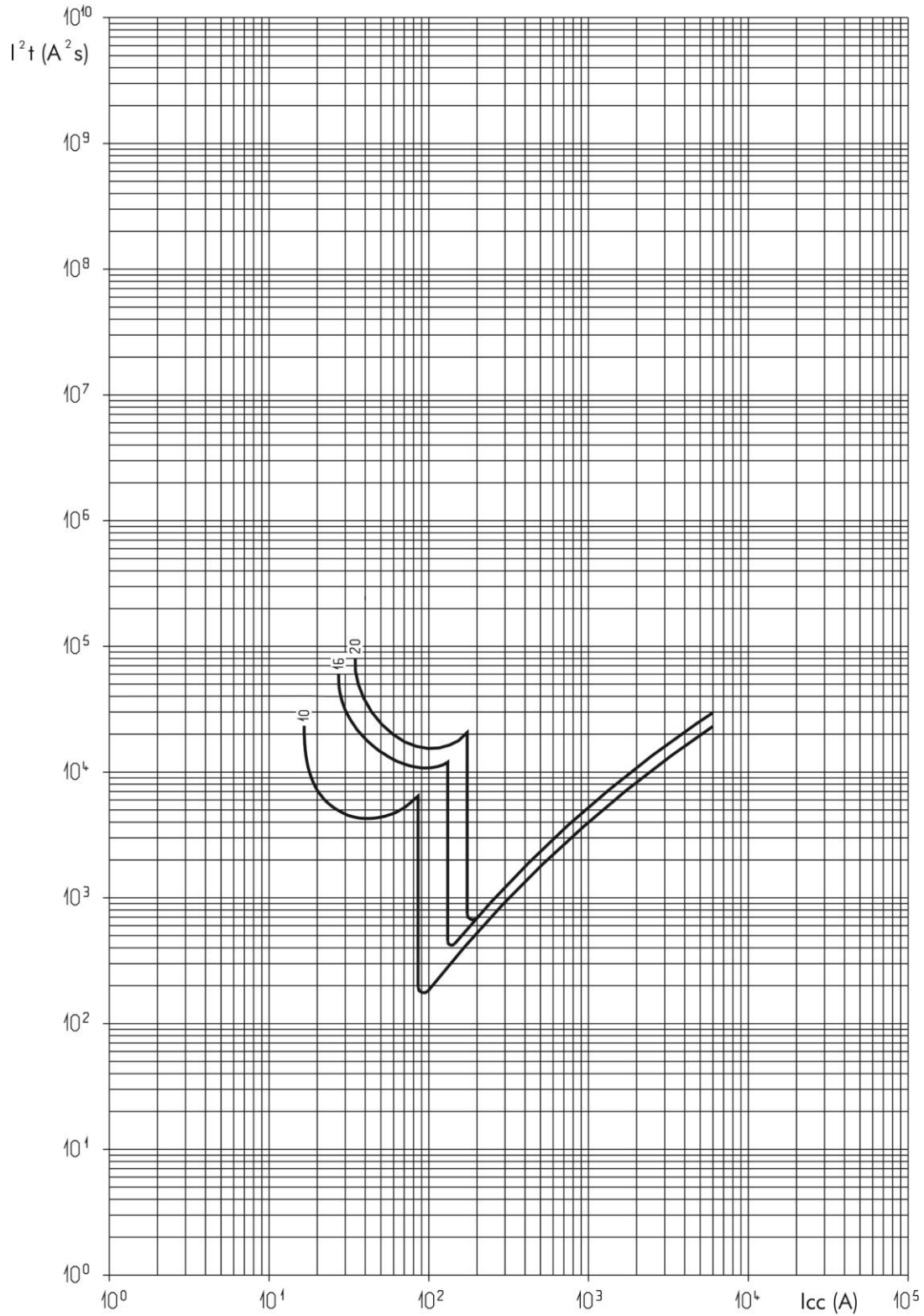


$I_{cc}$  = Prospective short-circuit symmetrical current (rms value in kA)  
 $I_p$  = Maximum peak value (in kA)  
 1 = Short-circuit rms currents (max. peak)  
 2 = Unlimited peak currents (max.), corresponding to power factors shown above (0.15 to 0.9)

**7. CURVES (continued)**

**Thermal stress limiting curves:**

. C curve (230V/50Hz)



I<sub>cc</sub> = prospective short-circuit symmetrical current (rms value in A)  
 I<sup>2</sup>t = limited thermal stress (in A s)<sup>2</sup>

# DX<sup>3</sup> STOP ARC 6000 A

## Phase + Neutral, neutral on left side

Cat. N°(s): 4 159 12 / 13 / 14

### 8. AUXILIARIES AND ACCESSORIES

#### Wiring accessories:

- . Supply busbar:
  - HX<sup>3</sup> single-pole universal supply busbar (Cat. No. 4 049 26 / 37)
- . Connection terminals (cat. No. 4 049 05)
- . Sealable screwcover (cat. No. 4 063 04)

#### Signalling auxiliaries:

- . Auxiliary contact (0.5 module, Cat. No. 4 062 58)
- . Fault signalling contact (0.5 module, Cat. No. 4 062 60)
- . Auxiliary contact that can be changed into fault signalling contact (0.5 module, Cat. No. 4 062 62)
- . Auxiliary contact + fault signalling contact that can be changed into 2 auxiliary contacts (1 module, Cat. No. 4 062 66)

#### Control auxiliaries:

##### Only possible with a signalling auxiliary positioned between the control auxiliary and the DX<sup>3</sup> STOP ARC

- . Shunt trip (1 module, Cat. No. 4 062 76, 78)
- . Under voltage release (1 module, Cat. No. 4 062 80, 82)
- . Autonomous shunt trip release for N/C push-button (1.5 module, Cat. No. 4 062 87)
- . Power Overvoltage Protection (1 module, Cat. No. 4 062 86)

#### Possible combinations of auxiliaries and the DX<sup>3</sup> STOP ARC:

- . The auxiliaries are installed to the left of the DX<sup>3</sup> STOP ARC
- . Maximum number of auxiliaries = 2
- . Maximum number of 1 module signalling auxiliaries = 1

#### Locking options:

- . Via padlock 5 mm in diameter (Cat. No. 4 063 13) or padlock 6 mm in diameter (Cat. No. 0 227 97) and padlock support (Cat. No. 4 063 03)

#### Installation software:

- . XL PRO<sup>3</sup>