

# Product Data Sheet

Type: RCBO Ph+N (Right) 6kA

## Summary :

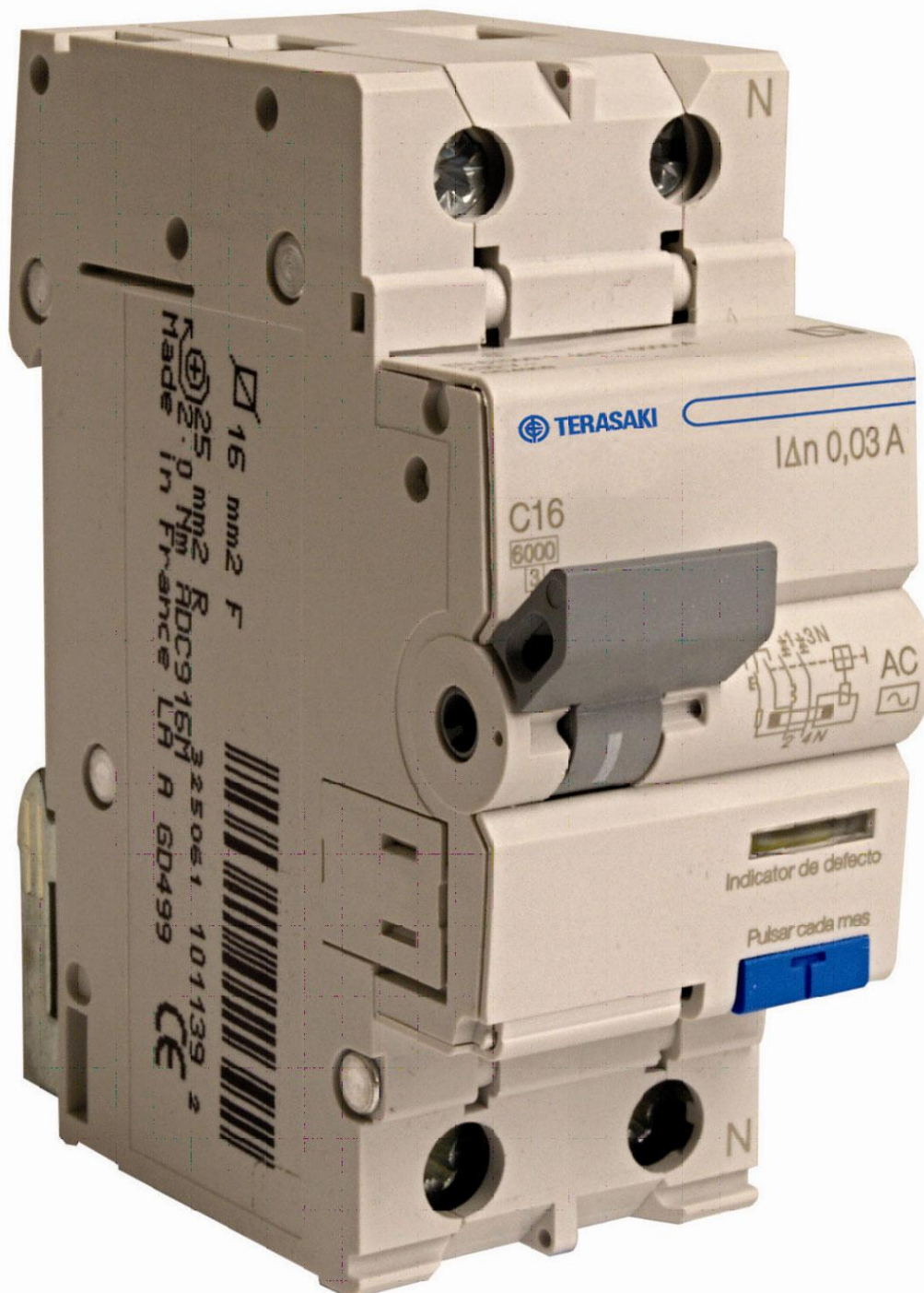
<b>1</b>	<b>Description</b> .....	<b>2</b>
<b>2</b>	<b>Technical characteristics</b> .....	<b>3</b>
<b>3</b>	<b>Dimensions, weight and packaging</b> .....	<b>4</b>
<b>4</b>	<b>Approval, Standards and specifications</b> .....	<b>4</b>
<b>5</b>	<b>Installation</b> .....	<b>4</b>
5.1	Diagram connection.....	4
5.2	Mounting & Connection data .....	5
<b>6</b>	<b>General information</b> .....	<b>5</b>
6.1	Auxiliaries .....	5
6.2	Accessories: .....	6
<b>7</b>	<b>Front marking</b> .....	<b>6</b>
7.1	Range .....	7
7.2	Tripping curves (thermal and magnetic).....	8
7.2.1	B Curve devices .....	8
7.2.2	C Curve devices .....	9
7.3	Thermal constraints curves at 240V .....	10
7.3.1	B curve devices .....	10
7.3.2	C curve devices.....	11

## 1 Description

The RCBOs are compact combination devices which ensures protection against electrical overload, short circuits and earth leakage protection.

They will ensure the protection of the people in the domestic and commercial facilities.

The PRODUCTS are all featuring 1-pole with switched neutral and 2-modules wide.

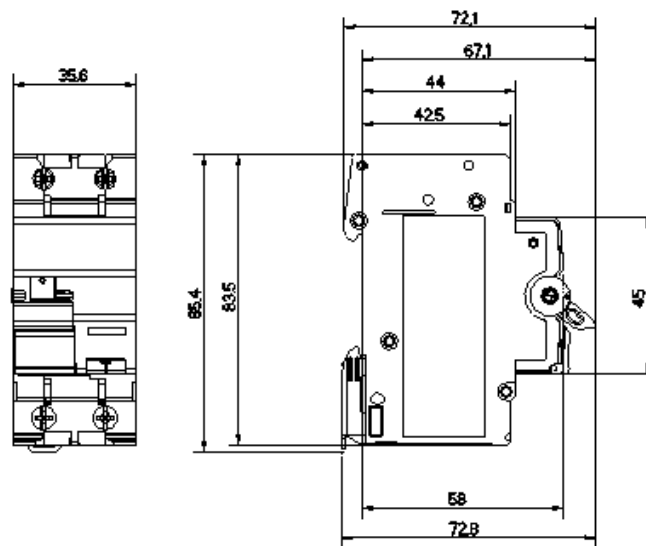


## 2 Technical characteristics

Rated current In:	6, 10, 13, 16, 20, 25, 32 & 40A	
Rated voltage Un:	230 VAC	
Rated operational voltage (Ue):	230 (+10%/–15%)	
Rated Frequency:	50Hz	
Rated residual current (IΔn):	0.01A, 0.03A & 0.1A	
Poles	1 protected (magnetic & thermal) with switched neutral	
Tripping curve	B, C	
Type	AC & A	
Functionally	Independent of line voltage	
Neutral position:	Right	
Operating test voltage:	-Min:195V -Max:440V	
Rated short circuit capacity (Icn):	6kA (230V)	EN / IEC 61 009-1
Rated residual making & breaking capacity (IΔm):	6000A 1500A	EN / IEC 61 009-1 (GDE version) EN / IEC 61 009-1 (V1 version)
Surge current impulse (8/20μS):	250 <sup>a</sup>	
Overvoltage category	III	
Rated impulse withstand strength	(Uimp) U <sub>1,2/50</sub> AC peak	4kV 5.0kV at 2000m
Rated insulation voltage (Ui)	500V in an environment with pollution degree 2	
Degree of protection	IP 2x	
Position of use:	Performances not affected if installed vertically, horizontally or flat	
Ambient temperature:	-25°C to + 40°C (A type) -5°C to +40°C (AC type)	
Storage temperature:	-55°C to + 70°C	
Installation altitude:	2000 meters max	
Resistance to climatic changes:	Conforming to IEC 60068-2-30: Damp heat, cyclic (12 h + 12 h cycle) (25°C/55°C; 93%/97% rel.hum., 28 cycles)	
Operation: without load	2000 operating cycles for RCBOs having In ≤ 25 A 1000 operating cycles for RCBOs having In > 25 A.	
Operation: under load	<p>For RCBOs having IΔn &gt; 0,010 A</p> <p>for the first 1000 operating cycles by using the manual operating means; for the following 500 operating cycles by using the test device for the last 500 operating cycles by passing through one pole a residual operating current of value IΔn.</p> <p>For RCBOs having IΔn ≤ 0,010 A</p> <p>for the first 500 operating cycles by using the manual operating means; for the following 750 operating cycles by using the test device for the last 750 operating cycles by passing through one pole a residual operating current of value IΔn</p>	
Dielectric strength	2500V according to EN/IEC 61009-1 §9.7.3	
Energy limitation class:	3 according to EN 61009-1	
Rating temperature:	30°C	
Dielectric strength:	2500V	
Autoextinguibility	For externals parts: 960°C; for all other parts: 650°C	
Tropicalisation:	All climates* (*Not compatible with salted and chlorinated environments)	

### 3 Dimensions, weight and packaging

- Quantity per pack: 1
- Weight: 225g



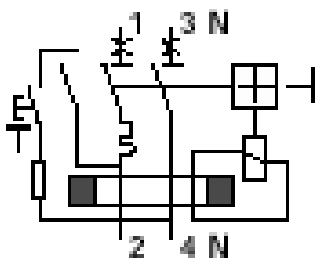
### 4 Approval, Standards and specifications

The PRODUCT complies with following standards and European Directives:

- EN 61009-1
- IEC 61009-
- EN 60715
- EN 60 947-2
- IEC 1543 (EMC)
- Directive. 2002/95/EC (ROHS)

### 5 Installation

#### 5.1 Diagram connection



## 5.2 Mounting & Connection data

- Tightening torque: Recommended terminal torque:  
On the Top terminals: 2 Nm  
Bi-connect terminals: 2 Nm
- Terminal depth: On the top terminals: 11,8mm  
On the bottom terminals: 13,2mm
- Top terminals capacity: Flexible with cap: 16mm<sup>2</sup>  
Rigid cable: 25mm<sup>2</sup>
- Bottom terminals capacity: Flexible with cap: 16mm<sup>2</sup>  
Rigid cable: 25mm
- Tunnel terminal: Screw head pozidrive size 2 and slot 6 mm
- Mounting: Din rail EN 50.022-35
- Supply: Feed either top or bottom
- Type of cable: only copper cables are suitable

## 6 General information

- Flag indicator:
  - for the contact position: no
  - for earth fault indication: yes (Yellow Flag)
- CE marking
- Local Languages on packaging labels
- Copy protection with "made by hager" engraved in mouldings
- Datecode on shoulder
- Space for identification of circuits on products (V1 version)
- Options: The range is compatible with Terasaki accessories.

Auxiliaries foreseen for MCBs are all compatible with RCBO.

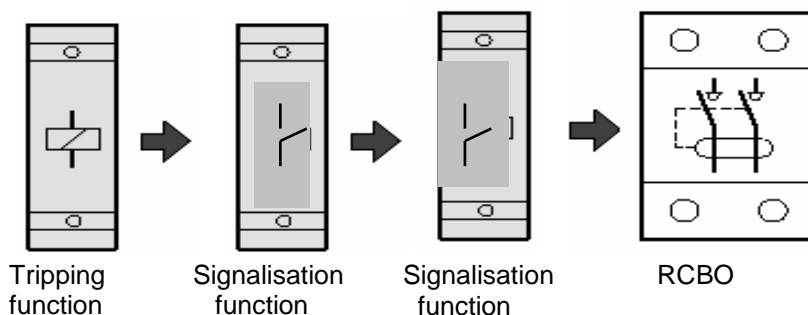
The auxiliaries have to be mounted on the left of the product. No tool is necessary for assembling.

### 6.1 Auxiliaries

In order to be coherent with the modular protection products the mounting order of the different auxiliaries must be identical to MCBs.

**1° & 2° signalisation function**

**3° tripping function**



## 6.2 Accessories:

- The locking kit  
Allows locking of the device toggle in the “off” position.  
The locking kit is sealable.



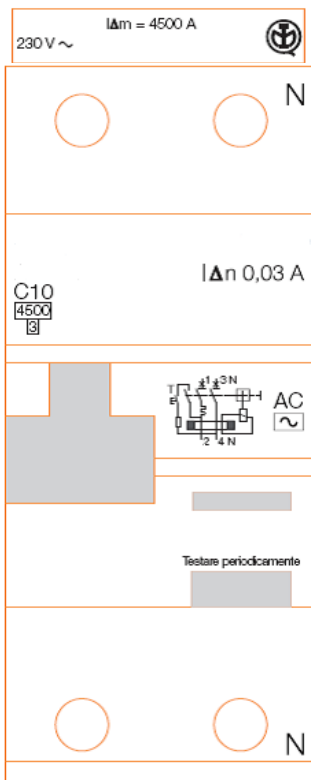
- Sealing kit



## 7 Front marking

Laser marking, text written in English -25 to 63A  
Tampoprint, text written in English - 80&100A - no marking on shoulder

Hereunder an example of marking:



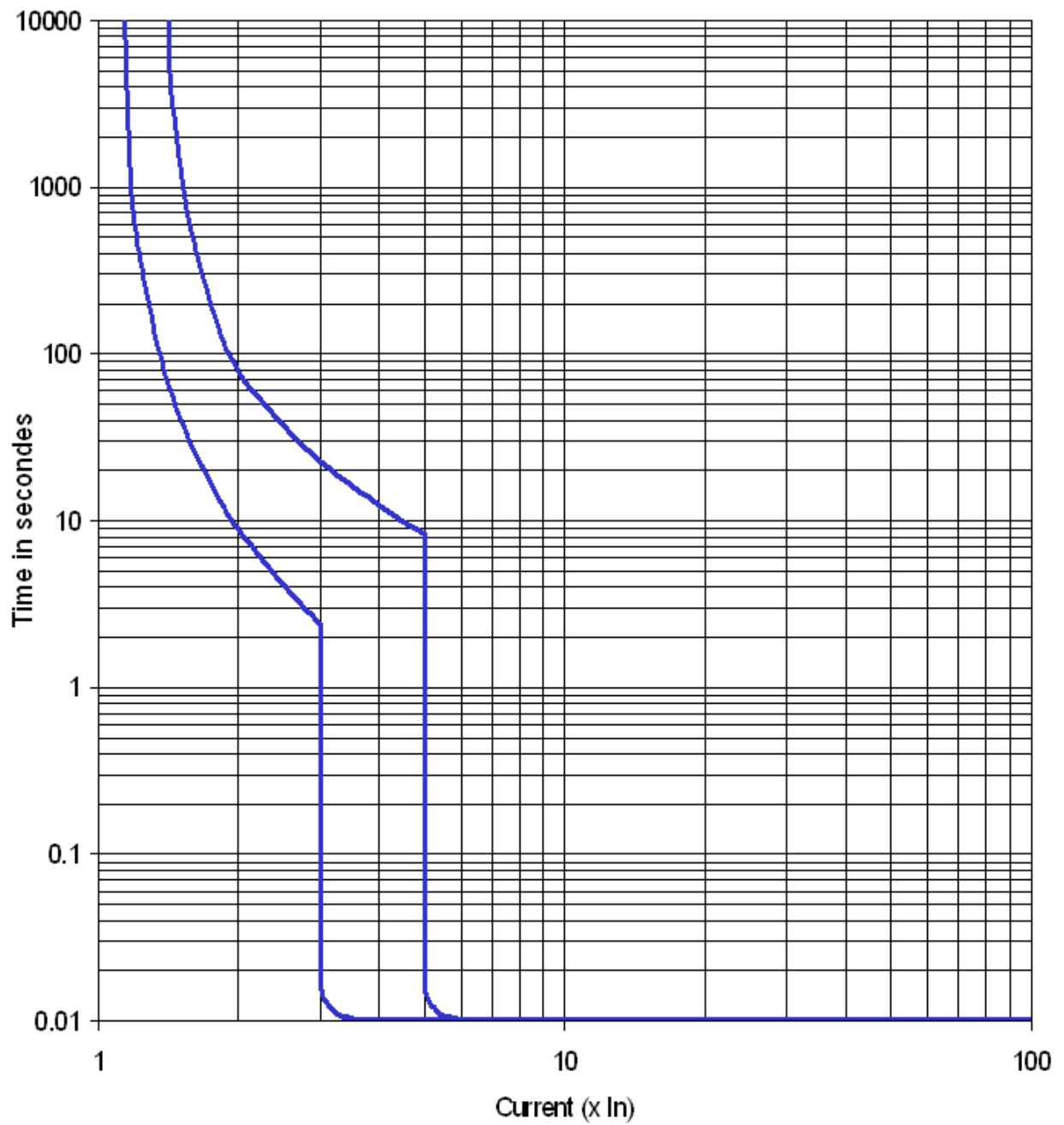
## 7.1 Range

Poles	Sensitivity and type	Rating	New Terasaki internal reference
<b>1P+N</b>	<b>30mA AC</b>	<b>6</b>	<b>103209</b>
		<b>10</b>	<b>103216</b>
		<b>16</b>	<b>103223</b>
		<b>20</b>	<b>103230</b>
		<b>25</b>	<b>103247</b>
		<b>32</b>	<b>103254</b>
		<b>40</b>	<b>103261</b>
	<b>300mA AC</b>	<b>6</b>	<b>103278</b>
		<b>10</b>	<b>103285</b>
		<b>16</b>	<b>103292</b>
		<b>20</b>	<b>103308</b>
		<b>25</b>	<b>103315</b>
		<b>32</b>	<b>104145</b>
		<b>40</b>	<b>104152</b>
	<b>30mA A</b>	<b>6</b>	<b>103322</b>
		<b>10</b>	<b>103339</b>
		<b>16</b>	<b>103346</b>
		<b>20</b>	<b>103353</b>
		<b>25</b>	<b>103360</b>
		<b>32</b>	<b>103377</b>
		<b>40</b>	<b>103384</b>

## 7.2 Tripping curves (thermal and magnetic)

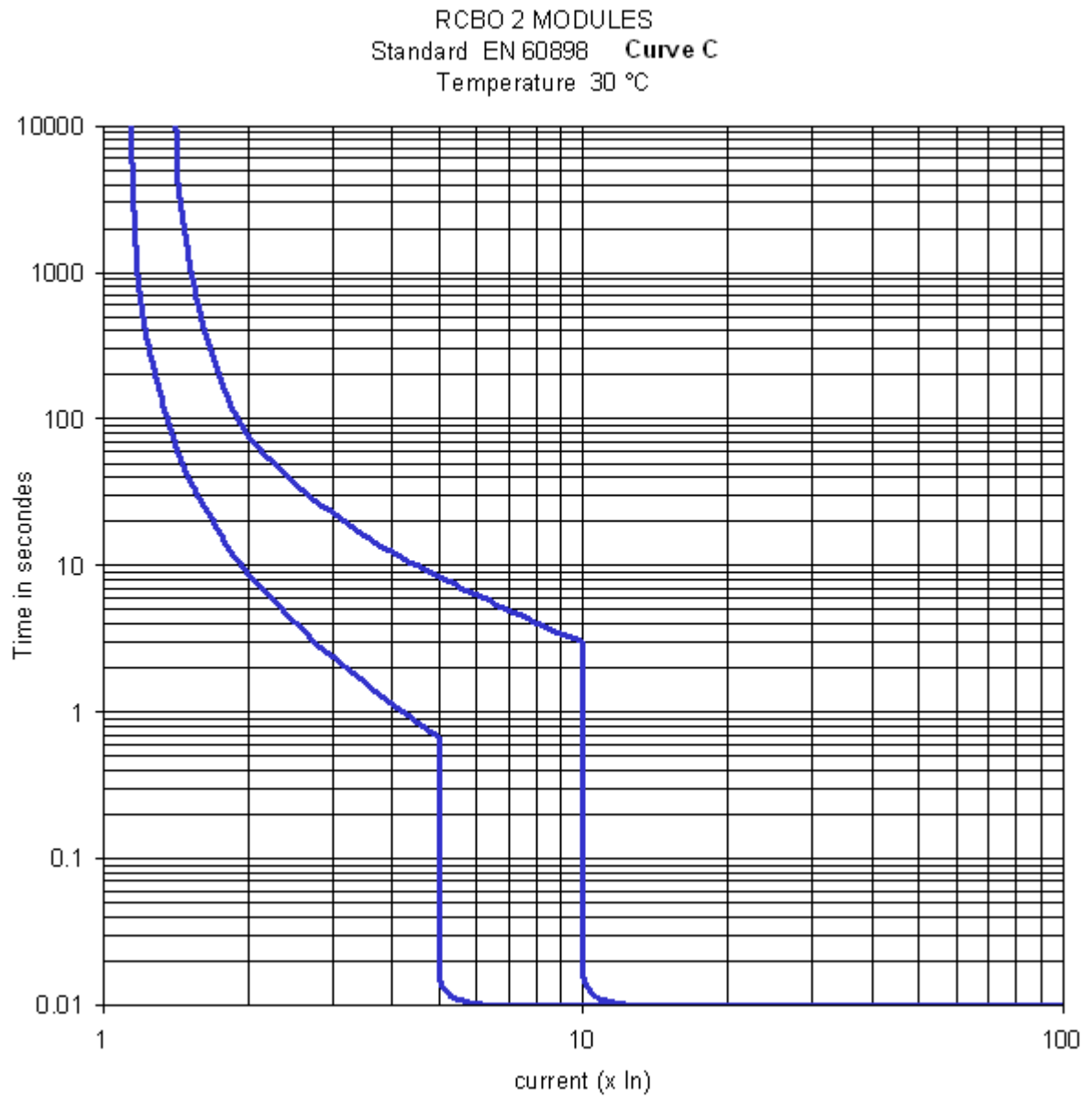
### 7.2.1 B Curve devices

RCBO 2 MODULES  
 Standard EN 60898 **Curve B**  
 Temperature 30 °C



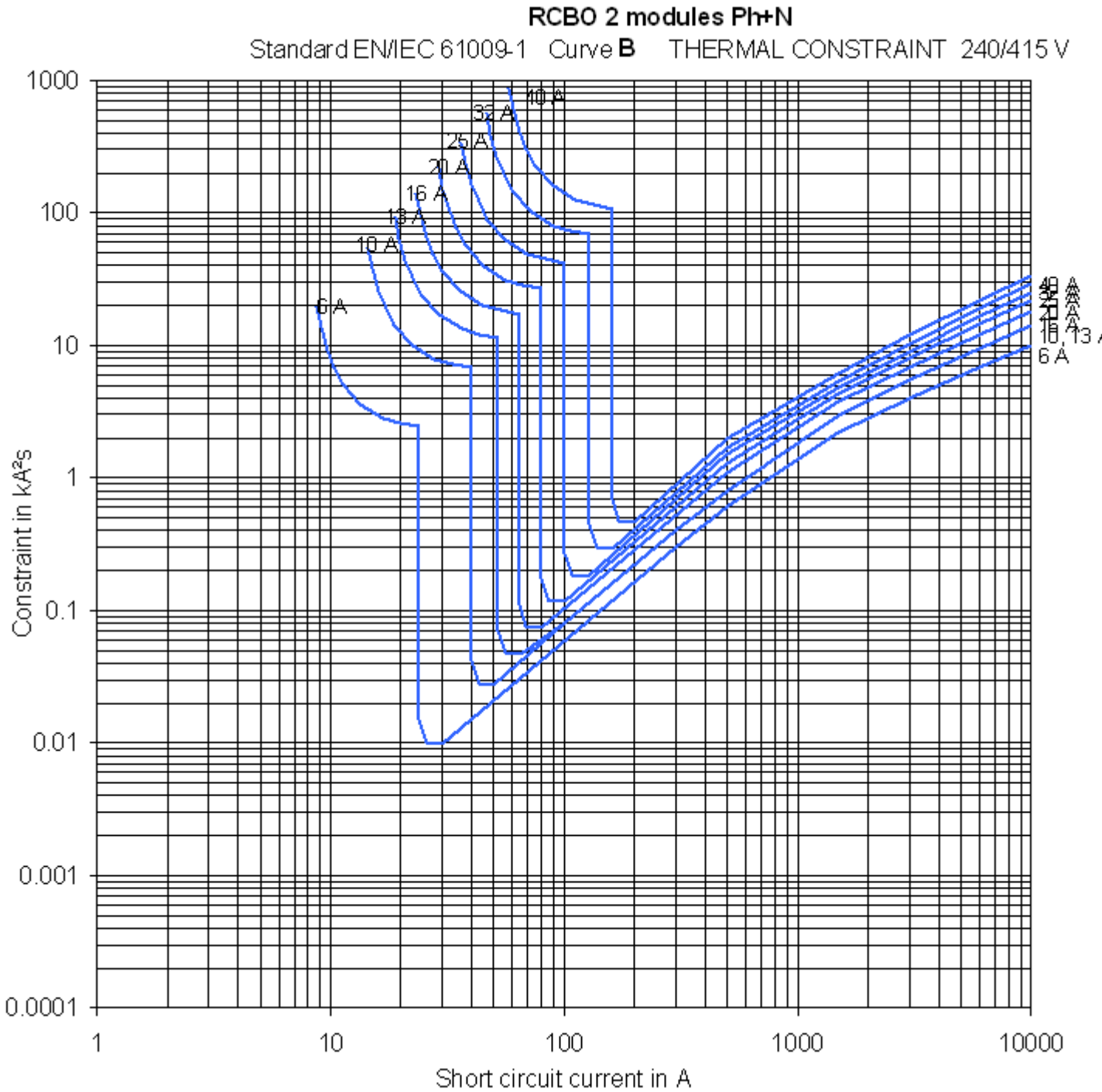


## 7.2.2 C Curve devices



**7.3 Thermal constraints curves at 240V**

**7.3.1 B curve devices**



7.3.2 C curve devices

