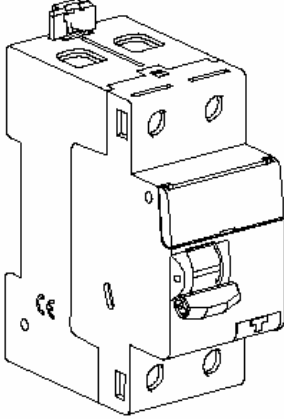


R.C.C.B.'s two-pole LEXIC™

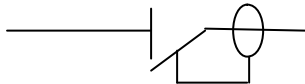
Cat. N°(s) : 086 22/23/25/28/29/30/31/46/47/48/49,
087 77/80/81/82/83/99, 088 00/01/22/23/24/25,
089 06/09/10/11/12/15/16/17/18/ 27/28/29/30/35,
090 53/56/57/58/59/62/63/74/75/76/77/82/86/87
6027 10/11/12/41, 928 30/31/38/39/41



CONTENTS	PAGES
1. Electrical and mechanical characteristics.....	1
2. Installation	4
3. Standards.....	4
4. Environment	4
5. Overall dimensions	5
6. Marking.....	5
7. Derating.....	5
8. Association with upstream protection ..	6
9. Residual current tripping curves	7

1. ELECTRICAL AND MECHANICAL CHARACTERISTICS

Symbol :



Technology :

. Electromagnetic residual current operating by sensitive relay

Product range :

. Two pole - 2 module (2 x 17,8 mm)

Rated current :

. 25 / 25 / 32 / 40 / 63 / 80 / 100 A

Sensitivity :

. 10 / 30 / 100 / 300 / 500 mA

Type :

- . AC (residual sinusoidal alternating current)
- . A (residual alternating current with a DC component)
- . AC-S and A-S (selective)
- . HPI (protected from unwanted trippings)

Rated voltage / Frequency :

. 230 V ~ - 50/60 Hz

Insulation voltage :

. $U_i = 300$ V

Dielectric strength :

. 2000 V – 50 Hz

Insulation resistance :

. 2 M Ω

Pollution degree :

. 2

1. ELECTRICAL AND MECHANICAL CHARACTERISTICS (continued)

Rated residual breaking capacity :

. $I_{\Delta m} = 1000$ A according to EN/IEC 61008-1

Rated making and breaking capacity :

According to EN/IEC 61008-1

$I_n = 16 / 25 / 32 / 40$ A : $I_m = 500$ A

$I_n = 63$ A : $I_m = 630$ A

$I_n = 80$ A : $I_m = 800$ A

$I_n = 100$ A : $I_m = 1000$ A

Rated conditional short-circuit current :

. $I_{nc} = 10$ kA according to EN/IEC 61008-1

Rated conditional residual short-circuit current :

. $I_{\Delta c} = 10$ kA according to EN/IEC 61008-1

Ambient working temperature :

. - 25°C / + 40°C

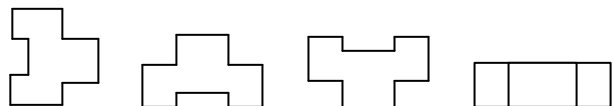
Ambient storage temperature :

. - 40°C / + 70°C

Insulation against an impulse voltage :

. $U_{imp} = 6$ kV

Working positions :



1. ELECTRICAL AND MECHANICAL CHARACTERISTICS (continued)

Total dissipated power :

. By device loaded at In

IΔn	16 A	25 A	32 A	40 A	63 A	80 A	100 A
10 mA Type A and AC	1.6W	-	-	-	-	-	-
30 mA Type A and AC	-	3 W	5 W	8W	8 W	13 W	20 W
Others	-	1.3W	2.1W	3.2W	8 W	13 W	20 W

Protection against unwanted tripping :

- . 0.5μs/100 kHz ring wave : 200A
- . 8/20 μs surge current:
 - type A – AC : 250 A
 - type S, Hpi : 3000 A

Mechanical and electrical endurance :

- . According to EN/IEC 61008-1 :
 - 20 000 operations without load
 - 10 000 operations with load (under In x Cos φ 0,9)
 - 1000 operations by test
 - 1000 operations by earth fault current

Limit rated voltages for test operation triphase :

. Rated voltage for operation : 230 V

IΔn	type	U mini	U maxi
10 mA	All	110 V	250 V
30 mA	All	110 V	250 V
100 mA	All	130 V	250 V
300 mA	A/AC/HPI	125 V	250 V
300 mA	S	110 V	250 V
500 mA	A/AC/HPI	130 V	250 V
500 mA	S	120 V	250 V

Protection degree :

- . Terminals protection against touching : IP20 (connected device)
- . Front face protection against touching : IP40
- . Class II referred to metallic parts
- . Protection against shocks : IK04

Isolating distance (distance between contacts) :

- . Handle in open position (OFF) :
 - over à 4,5 mm

Closing and opening forces by handle operation :

- . 2.3 kg at closing (every rated currents)
- . 0.8 kg at opening (every rated currents)

1. ELECTRICAL AND MECHANICAL CHARACTERISTICS (continued)

Heat and fire resistance :

- . Self extinguishing (glow wire test) :
 - Base, Top and Test : 960°C
 - Handle : 750°C

Average weight per item :

0.23 kg

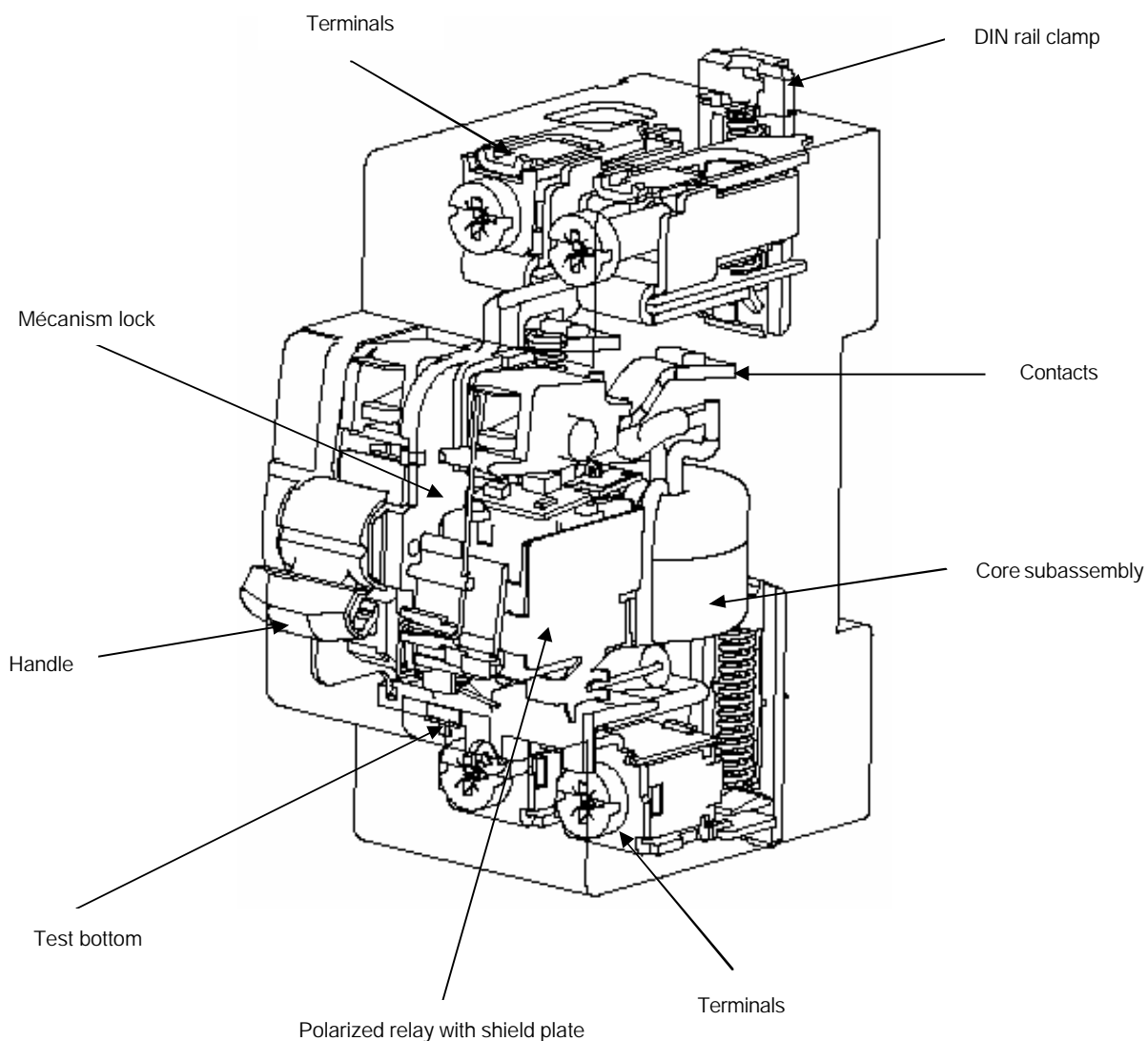
Volume and quantity when packed :

	Volume	Packaging
For all rated currents	0.35 dm3	par 1

1. ELECTRICAL AND MECHANICAL CHARACTERISTICS

(continued)

Mains parts of R.C.C.B. :



2. INSTALLATION

Fixing :

- . On symmetric rail EN 50.022 or DIN 35

Supply :

- . From the top or the bottom

Connection :

- . Terminals with release type captive screw (feeder equipped preventing the insertion of a wire cable under the terminal, terminal half-opened or closed)
- . Alignment and spacing of terminals allowing busbar connection with other products of the same range
- . Terminal depth : 14 mm
- . Terminal capacity : 60 mm²
- . Max acceptable wire size :
 - 35 mm² flexible cables
 - 50 mm² rigid cables
- . Screw head : mixed, slotted and philips/pozidriv n°2

Tightening torque :

- . Minimum/ Maximun : 1,2 Nm / 3,5 Nm
- . Recommended: 2,5 Nm

Wire :

	Without ferrule	With ferrule
Rigid cables	1 x 0,75 à 50 mm ² ou 2 x 0,75 à 16 mm ²	
Flexible cables	1 x 0,75 à 35 mm ² ou 2 x 0,75 à 16 mm ²	1 x 0,75 à 25 mm ²

Wiring accessories :

- . Supply busbar (réf. 049 44/45)
- . Terminal screw covers (réf. 044 44)
- . Lexiclic line distributor (réf. 048 70/74) + wires

Tools required :

- . For terminals :
 - 5,5 mm or pozidriv n°2 screwdriver recommended
- . For fixing :
 - 5,5 mm recommended screwdriver

Sealing :

- . Possible in open or closed position

Locking :

- . Possible with support for padlock (ref. 044 42)

Marking :

- . Circuits marking on front (with label holder)
- . With label design software (ref. 049 58)
- . With electronic title printer (ref. 049 50) + ribbon (ref. 049 53/54)
- . With plates of symbols (ref. 049 99)

2. INSTALLATION (continued)

installation software:

- . XL PRO

Auxiliaries list :

Auxiliaries clipped on the left-hand side of the R.C.C.B.'s

Signalisation auxiliaries:

- . Auxiliary changeover switch (ref. 073 50) (0,5 module)
- . Fault signalling changeover switch (ref. 073 51) (0,5 module)
- . Auxiliary changeover switch, can be modified to a fault signalling switch (ref. 073 53) (0,5 module)
- . Auxiliary changeover switch + fault signalling switch, can be modified to 2 auxiliary changeover switches (ref. 073 54) (1 module)

Control auxiliaries :

- . Shunt trip (ref. 073 60/61) (1 module)
- . Undervoltage release (ref. 073 65/66/68) (1 module)
- . Motor driver control modules (ref. 07370/71/73) (3 modules)

Possible combinations of auxiliaries and R.C.C.B.'s :

Maximum number of auxiliaries = 3.

- . Maximum number of signalling auxiliaries = 2 (only one auxiliary of ½ module width)
- . Maximum number of control auxiliaries = 1
- . Control auxiliary must be positioned on the left-hand side of signalling auxiliaries in case of use of these two kinds of auxiliaries with the same R.C.C.B.

Nota : Motor driver remote control module does not be associated with signalling auxiliaries

3. STANDARDS

Compliance with standards :

- . NF EN 61008-1 / IEC 61008-1
- . EN/IEC 60 529 (IP)
- . EN 50 102 (IK)

4. RESPECT OF ENVIRONMENT

Compliance with European Union Rules :

- . Conformity with directive 2002/95/CE of 27/01/03 called « RoHS » that provides interdiction of dangerous material like lead, mercury, cadmium, hexavalent chrome, retarding of polybromobiphenyles (PBB) and polybromodiphnylethers (PBDE) bromed flame from july 2006 the 1st.
- . Conformity with directive 91/338/CEE of 18/06/91 and decree 94-647 of 27/07/94.

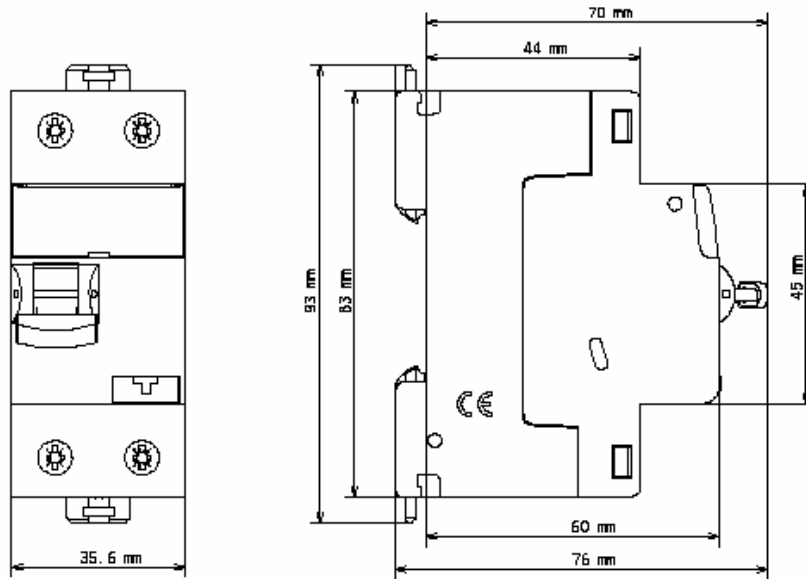
Plastic material :

- . Enclosure plastic parts without halogen :
 - Base, Top and Test : PA 6
 - Handle : PBT
- . Plastic parts marking according to ISO 11469 and ISO 1043

Packaging :

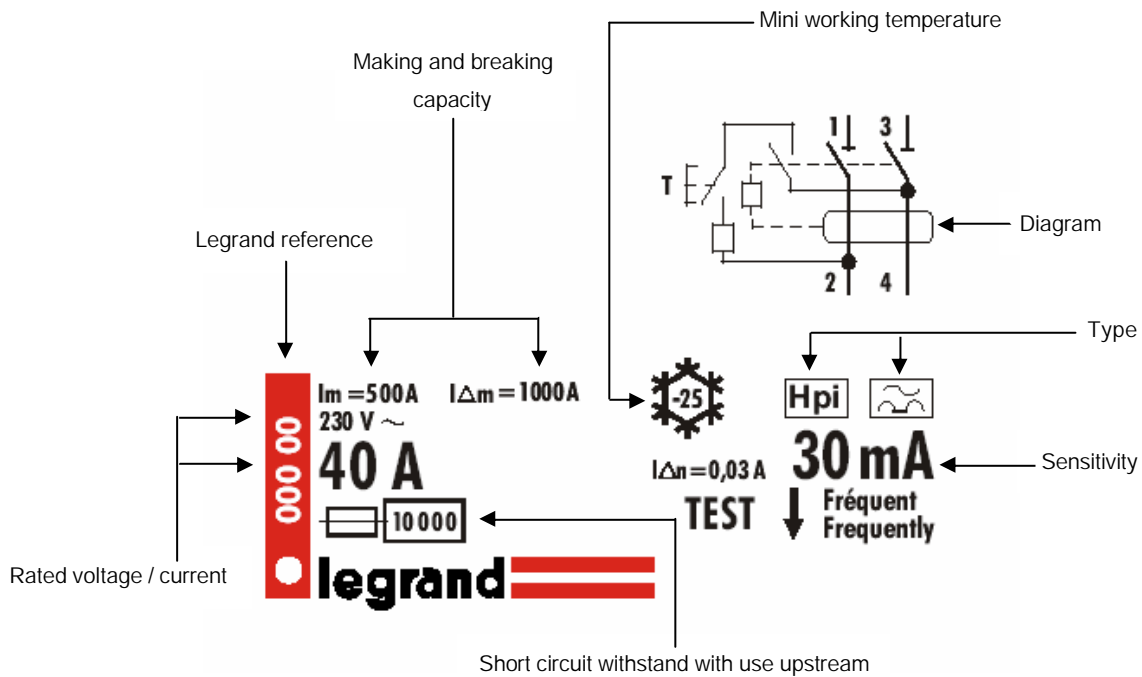
- . Packing design and manufacture according to decree 98-638 of 20/07/98 and directive 94/62/CE

5. OVERALL DIMENSIONS



6. MARKING

Front face marking : by permanent pad printing.



7. DERATING

No derating for R.C.C.B. according to ambient temperature between -25°C et +40°C.

8. ASSOCIATION WITH UPSTREAM PROTECTION

Protection against overloads :

. R.C.C.B. must be protected (upstream or downstream) against overloads by a m.c.b. or a fuse at maximum with the same rate.

8. ASSOCIATION WITH UPSTREAM PROTECTION
(continued)

Protection against short-circuits :

. R.C.C.B. must be protected (upstream) against short-circuits by a m.c.b. or a fuse. R.C.C.B.'s short-circuit withstand complies with the hereunder tables.

In case of single fault (230 / 400 V) – TT, TN and IT network :

DOWNSTREAM	UPSTREAM				
RCCB	MCB				
	DNX	DX (B/C)	DX-H (B/C)	DX-L	DPX 125
16 A	4.5 kA	10 kA	20 kA	50 kA	25 kA
25 A	4.5 kA	10 kA	20 kA	50 kA	25 kA
32 A	4.5 kA	10 kA	20 kA	50 kA	25 kA
40 A	4.5 kA	10 kA	15 kA	50 kA	25 kA
63 A	-	10 kA	12.5 kA	50 kA	25 kA
80 A	-	-	12.5 kA	-	25 kA
100 A	-	-	12.5 kA	-	25 kA

DOWNSTREAM	UPSTREAM					
RCCB	gG FUSE					
	Calibre	≤ 16 A	≤ 25 A	≤ 40 A	≤ 63 A	≤ 80 A
16 A	100 kA	100 kA	100 kA	50 kA	15 kA	10 kA
25 A	-	100 kA	100 kA	50 kA	15 kA	10 kA
32 A	-	-	100 kA	50 kA	15 kA	10 kA
40 A	-	-	100 kA	50 kA	15 kA	10 kA
63 A	-	-	-	50 kA	15 kA	10 kA
80 A	-	-	-	-	15 kA	10 kA
100 A	-	-	-	-	-	10 kA

Maximum value of short-circuit withstand of r.c.c.b.'s function of associated protection in network 230V~/400V-

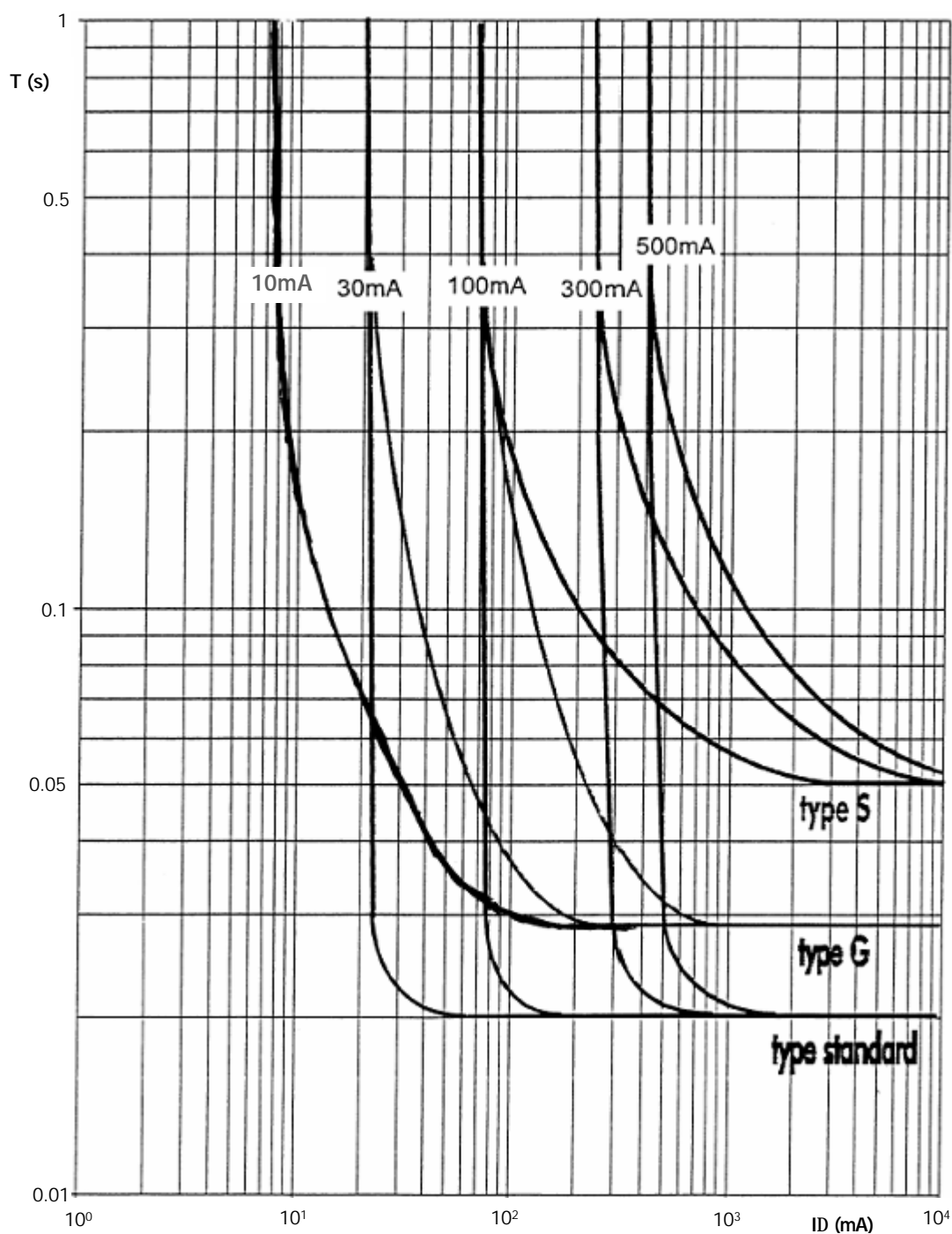
In case of double fault (1 pole at 400 V) – IT network :

DOWN-STREAM	UPSTREAM													
RCCB	MCB													
	DNX et DX 1P+N 1 mod B et C	DX ≤ 63 A B et C	DX-H B et C ≤ 20 A	DX-H B et C 25 A	DX-H B et C 32 et 40 A	DX-H B et C 50 et 63 A	DX-H B et C 80 à 125 A	DX-L DX-MA 50 kA	DX-D ≤ 32 A	DX-D 15 kA 40 à 125 A	DX-D 25 kA 10 à 40 A	DX-MA 2.5 à 40 A	DX-MA 63 A	
Breaking capacity Max	1.5 kA	3 kA	6 kA	5 kA	4 kA	3 kA	4 kA	6 kA	4 kA	3 kA	6 kA	4 kA	6 kA	

9. RESIDUAL CURRENT TRIPPING CURVES

Curve of tripping time in terms of residual current

TYPE AC



9. RESIDUAL CURRENT TRIPPING CURVES (continued)

Curve of tripping time in terms of residual current

TYPE A

