

DX™ RCDs

residual current devices - types AC and A



0089 12



0089 18



0090 13



Technical information (p. 399)
Dimensions (p. 417)

Conform to BS EN 61008-1

Pack	Cat. Nos.		Double pole - 230 V~	
	Type AC	Type A	Nominal rating (A)	Number of 17.5 mm modules
1	0089 06	0090 53	10 mA	2
			16	
1	0089 09	0090 56	30 mA	2
			25	
1	0089 10	0090 57	40	2
1	0089 11	0090 58	63	2
1	0089 12	0090 59	80	2
1	6027 10		100	2
1	0089 15	0090 56	100 mA	2
			25	
			40	
			63	
1	0089 16		40	2
1	0089 17		63	2
1	0089 18		80	2
1	Type AC		100 mA discriminating	2
	6027 11		100	
1	Type AC		300 mA	2
	0089 27	0090 74	25	
	0089 28	0090 75	40	
	0089 29	0090 76	63	
	0089 30	0090 77	80	
1	Type AC	Type A	300 mA discriminating	2
	0089 35	0090 82	63	

Pack	Cat. Nos.		Four pole - 400 V~ neutral on right	
	Type AC	Type A	Nominal rating (A)	Number of 17.5 mm modules
1	0089 93	0091 40	30 mA	4
			25	
			40	
			63	
1	0089 94	0091 41	40	4
1	0089 95	0091 42	63	4
1	0089 96	0091 43	80	4
1	0089 99	0091 46	100 mA	4
			25	
			40	
			63	
1	0090 00	0091 47	40	4
1	0090 01	0091 48	63	4
1	0090 02	0091 49	80	4
1	0090 11	0091 58	300 mA	4
			25	
			40	
			63	
			80	
1	0090 12	0091 59	40	4
1	0090 13	0091 60	63	4
1	0090 14	0091 61	80	4
1	0090 23	0091 71	500 mA	4
			25	
			40	
			63	
1	0090 24	0091 72	40	4
1	0090 25	0091 72	63	4
1	0090 26	0091 73	80	4
1	Type AC	Type A	300 mA discriminating	4
	0090 18	0091 65	40	
1	0090 19	0091 66	63	4

Pack	Cat. Nos.	Auxiliary changeover switch	
1	0073 52	Clips on the left hand side of the Residual Current Device Allows insertion of the supply busbar at the top. Indicates the position of the switches Compulsory if mounting other auxiliaries	
		6 A - 250 V~	Number of 17.5 mm modules 0-5

Pack	Cat. Nos.	Four pole - 400 V~ neutral on left	
1	0086 96	30 mA	4
		80	
1	0087 14	300 mA	4
		80	

DX™ RCD protection

■ BS EN 61008-1 and IEC 61009-1 standards

- The BS EN 61008-1 standard relates to RCDs
- The BS EN 61009-1 standard relates to RCBO or to add-on modules
- Type S (Selective) is standard
- Safety is increased, particularly in terms of breaking capacity, involuntary activation tests and immunity to electro-magnetic interference (E.M.C.)
- Necessity for a fool-proof system when using MCBs and differential modules together
- It should only be possible to remove the MCB from the add-on module by breaking a part
- RCDs are passive (mechanical latching) 2 pole devices L + N either side

It is recommended that the RCDs are checked every month by pressing test button "T"

■ Technical information

Test voltage

	RCD	RCD	RCBO	RCD add-on module for MCB	RCBO	RCD add-on module for MCB
	2 P	4 P	P + N	≤ 63 A	2 P/4 P	80 to 125 A
Min.	100 V (10/30 mA) 170 V (300 mA)	195 V (30 mA) 230 V (100 mA) 215 V (300 mA) 295 V (500 mA)	100 V~ (10/30 mA) 170 V~ (300 mA)	170 V~	170 V~	195 V~
Max.	265 V	440 V	265 V~	440 V~	440 V~	440 V~

Service life

	RCCB	RCCB	RCBO	add-on module		RCBO
	2 P	4 P	P + N	≤ 63 A	80 to 125 A	2 P/4 P
Mechanical	20 000	20 000	20 000	20 000	20 000	20 000
On load at $\ln \times \cos \varphi$ 0.9	10 000		10 000	10 000	10 000	10 000
Via test	2 000		2 000	1 000	500	1 000
By fault current	2 000		2 000	1 000	500	1 000

Max. connection cross-section

	RCCB	RCBO	RCD add-on module for MCB ≤ 63 A	RCD add-on module for MCB
Flexible cable	25 mm ²	25 mm ²	25 mm ²	50 mm ²
Rigid cable	35 mm ²	35 mm ²	35 mm ²	70 mm ²

Power loss at I_n in W

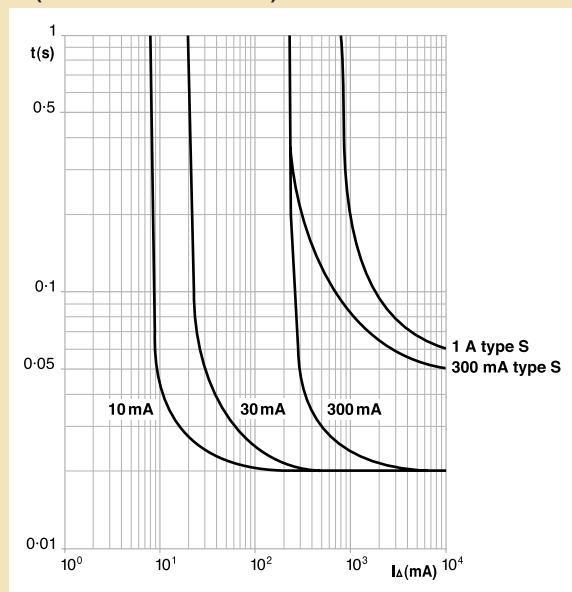
		RCD add-on module for MCB			For RCBO: add the dissipated powers of MCB and RCD add-on module
		≤ 32	≤ 63	125 A	
2 P	30 mA	1.03	0.5	4.7	
	300 mA	0.7	0.5	4.7	
3 P/4 P	30 mA	2	0.6	5.5	
	300 mA	0.6	0.6	5.5	

	RCCB 2 P	RCCB 4 P
16 A	5 W	-
25 A	8 W	11 W (30 mA) 8.5 W (others)
40 A	11.5 W	24 W (30 mA) 14.5 W (others)
63 A	13 W	36.5 W
80 A	15.5 W	50 W

Residual current breaking capacity of DX RCBOs and DX-H $I_{\Delta m}$ according to IEC 61009-1

Add-on modules DX and DX-h	6000 A
RCBOs	P+N (2 modules) 3000 A 2 P (4 modules) 6000 A 4 P (7 modules) 6000 A 4 P (4 modules) 4500 A

■ Tripping curves⁽¹⁾ (immediate or selective)



type S = selective
(1) = Average curves

Withstand to short-circuits of RCDs (in kA)

RCD downstream	MCB upstream				
	DX ≤ 63 A	DX-h ≤ 63 A	DX ≥ 80 A to 125 A	DPX ≤ 63 A	
2 P	16 A	10	10	6	6
	25 A	10	10	6	6
	40 A	10	10	6	6
	63 A	10	10	6	6
	80 A	10	10	6	6
4 P	25 A	10	20	20	25
	40 A	10	15	20	25
	63 A	10	12.5	12.5	25
	80 A			12.5	25

Marking

Example :



type A



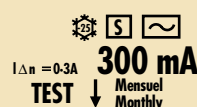
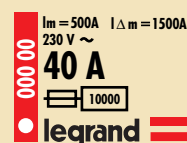
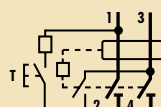
type A C



type AC S

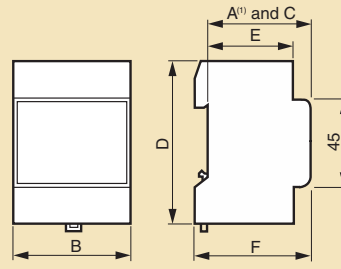
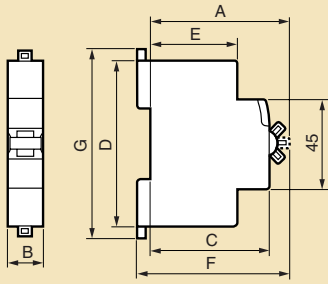


type A-S



modular DIN rail equipment

dimensions



Description	Dimension (mm)										
	A	B					C	D	E	F	G
		1-pole	1-pole + N	2-pole	3-pole	4-pole					
Residential MCBs	70	17.7					60	83	44	76	88.5
Thermal-magnetic MCBs											
DX, DX-D, DX-H up to 63 A	70	17.7		35.6	53.4	71.2	60	83	44	76	94
DX-D, DX-H from 80 to 125 A	70	26.7		53.4	80.1	106.8	60	83	44	76	89
Earth leakage modules											
Up to 63 A	70			35.6	53.4	53.4	60	93	44	76	99
From 80 to 125 A	70			71.1	107.2	107.2	60	88	44	76	89
RCBOs	70		35.6	71.2		124.6	60	83	44	76	94
4-pole RCBOs with 4 modules	70					71.2	60	83	44	76	94
RCDs											
2-pole	70			35.6			60	83	44	76	94
4-pole	71.5					71.2	60	83	44	77.5	94
Auxiliary contacts											
Cat. Nos. 0073 50/51/52/53	70			8.7			60	83	44	76	83
Auxiliary contact											
Cat. No. 0073 54	70			17.7			60	83	44	76	83
Control auxiliaries											
Cat. Nos. 073 60/61/65/66/68	70			17.7			60	83	44	76	83
Remote control	80.5			54			80.5	83	44	80.5	89
Fuse carriers	67	17.7	17.7	35.6	53.4	71.2	60	83	44	73	94
Voltage surge protectors	70	17.7		35.6	53.4	71.2		86	44	70	
Isolating switches											
20 - 32 A	68	17.7		17.7	35.6	53.4	60	83	44	74	94
63 - 100 - 125 A	68	17.7		35.6	53.4	71.2	60	83	44	74	94
Changeover switches											
0043 82/85/88	68			17.7			60	83	44	74	94
0043 83/86	68			35.6			60	83	44	74	94
Push-buttons/push-button switches with indicators	68			17.7			60	83	44	74	94
Contactors 20 A	62	17.8		17.8	35.6	35.6	60	83	44	67.5	94
Light sensitive switch											
4 functions 0037 25	60			88			60	70	37.5	66	84
Buzzers/bells	60			17.5			60	76	44	66	85
Timer 0047 02	60			17.8			60	94	44	66	94

Description		Dimension (mm)					
		A ⁽¹⁾	B	C	D	E	F
Programmable time switches	0037 00	60	17.8	60	83	44	66
Cat. Nos.	0037 30/40	60	17.8	60	86	37.5	66
	0037 52/53/55	60	53	60	89	44	66
	0037 06	60	35.6	60	90	44	66
	0037 61/63/64/71/81	60	35.6	60	90	44	66
	0037 10	60	106.5	60	89	44	66
	0037 20	60	71.5	60	83	44	66
	0047 61	60	35.6	60	90	44	66
0047 63	60	35.6	60	90	44	66	
0047 71	60	35.6	60	90	44	66	
6047 70	60	35.6	60	90	44	66	
6047 72	60	35.6	60	90	44	66	
6047 74	60	35.6	60	90	44	66	
6047 77	60	35.6	60	90	44	66	
Light sensitive switch	Cat. No. 0037 21	60	35.6	60	90	44	66
Voltmeters - Ammeters		60	70	60	83	44	66
Selector switches		69	52.5	60	74	44.5	74
Contactors 40 and 63 A - 2 modules		62	35.6	60	83	44	68
Contactors 40 and 63 A - 3 modules		62	53.4	60	83	44	68
Auxiliaries for contactors 20 A		60	9	60	83	44	66
Transformers							
	Cat. Nos. 0042 20/25	60	35.8	60	89	44	66
	Cat. Nos. 0042 51/52	60	71.5	60	89	44	66
	Cat. Nos. 0042 53/54	60	89	60	95	44	66

(1) Maximum projection