Protection and Control

[DRX™]

MCCBs: DRX™

DRX100
...the universal solution for
residential and commercial

ADVANTAGES

- Electrical accessories mounted by simply clipping on front panel
- Electrical accessories common to the whole range
- Up to 3 locks (padlock) in open position (off)
- Direct and vari-depth rotary handle
- Certifications: LOVAG (IEC 60947-1-2), CCC, approved by Nema, JIS, KS

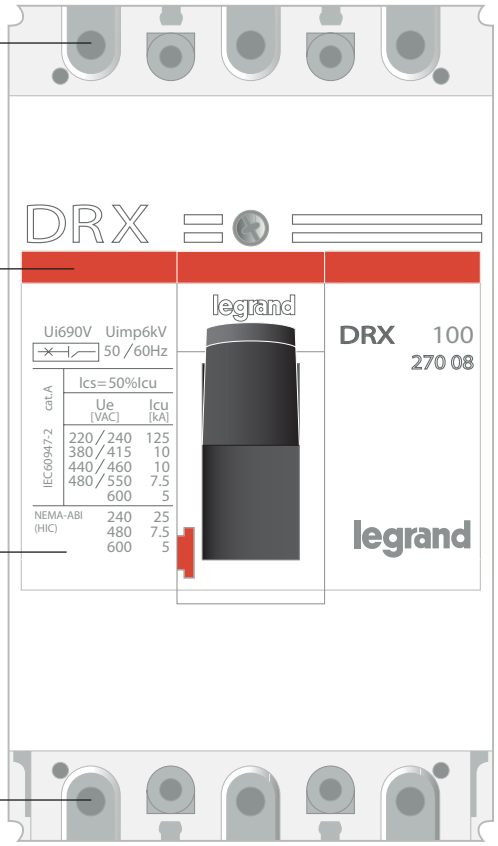
Thermal-magnetic MCCBs

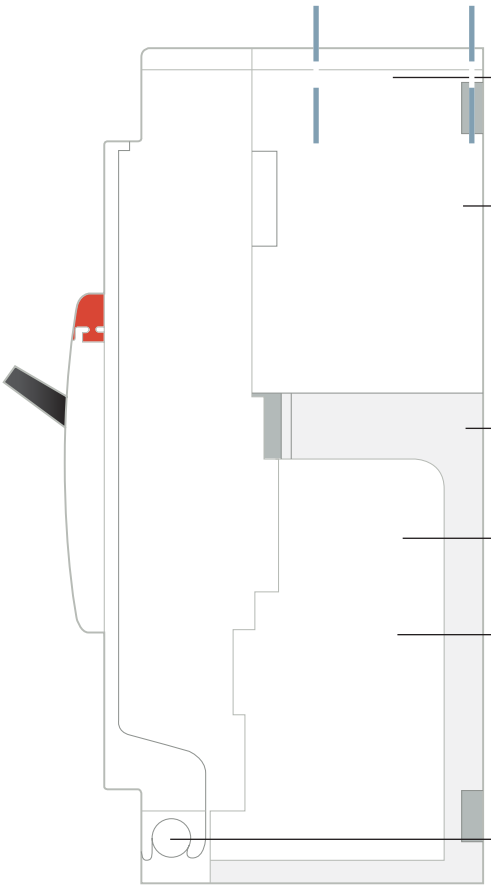
DRX 100: 3 and 4 poles

Exclusive system: with a single action, change from the 50 mm standard to the 45 mm DIN standard

- Thermal-magnetic protection
- Nominal currents from 60 to 100 A
- 10KA
- No temperature derating at +50°C

2 types of connection:
standard and with cage terminals





24 mm distance between base and terminal, for mounting in busbars

Suitable for all environments (tropicalization, pollution, salt corrosion, etc.)

Removable plate that clips onto a DIN rail

Installation in any position

Standard dimensions
- 3-pole DRX 100: 75 x 60 x 130 mm
- 4-pole DRX 100: 100 x 60 x 130 mm

Hinged front cover

DRX™ 100
thermal-magnetic MCCBs from 60 to 100 A


0270 08


0270 18


0270 08 (Hinged cover)

DRX™ 100
accessories for DRX MCCBs


0271 76



0271 83


0271 71

Dimensions (p. 23)
Technical characteristics and operating curves (p. 24-25)

For switching, control, isolation and protection of low-voltage electrical lines in conformity with standard IEC 60947-2
Fixed thermal and fixed magnetic
Supplied with:
- M8 Terminals
- Fixing screws
- Insulating shields (2 for 3 Pl and 3 for 4P)

Pack	Cat. nos	**DRX 100**
		Icu breaking capacity 10 kA (415 V±)
	3 P	In
1/12	0270 06*	60 A
1/12	0270 07*	75 A
1/12	0270 08*	100 A
	4 P	In
1	0270 16	60 A
1	0270 17	75 A
1	0270 18	100 A

Pack	Cat. Nos.	**Plate for fixing on rail**
1	0271 87	DIN rail adaptor for DRX 100
		Rotary handles
		Direct on DRX
1	0271 76	For DRX 100
		Vari-depth handle
		Comprises: the connecting rod, the bracket, the drilling template, the mounting accessories, the door locking mechanism
1	0271 77	For DRX 100
		Padlocking
1	0271 80	Accessory for locking in “OFF” position
		Connection accessories
		Insulating shields
		Insulate connection between each pole
1	0271 81	Set of 2 shields for 3 pole
		Sealable terminal shields
1	0271 83	For DRX 100 - 3 pole
		Cage terminals
1	0271 71	For DRX 100 - 3 pole
		Spreader Links
1	6250 10	3 links set for TP
1	6250 11	4 links set for FP

* For enclosures refer page 184

Bold catalogue numbers are products normally available with Legrand (India) stockists.
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

DRX™ 100
electrical accessories

DRX™ 100
technical characteristics

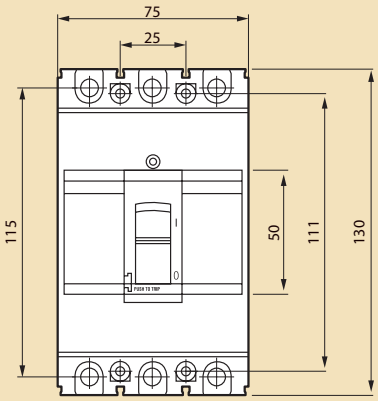
0271 40

0271 54

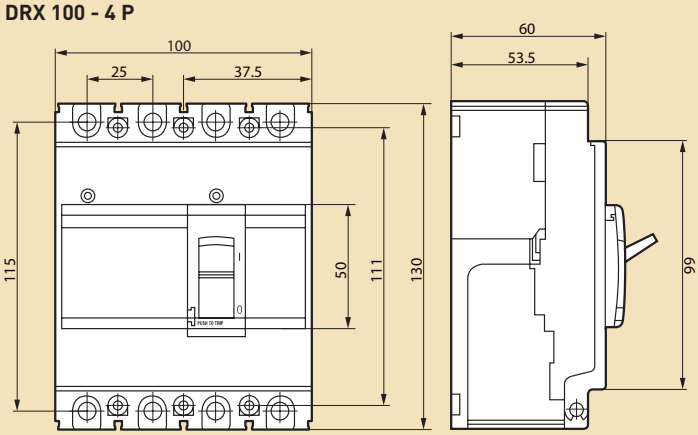
		Electrical accessories
		Auxiliary contact blocks
		For left-hand mounting only
1	0271 40	Block with 1 auxiliary (1 AUX)
1	0271 41	Block with 1 alarm (1 AL)
1	0271 42	Block with 1 auxiliary + 1 alarm (1 AUX + 1 AL)
		Current shunt coils
		For mounting on either the left or right-hand side of the MCCB
1	0271 54	200/277 V~ and ⎓
1	0271 55	380/480 V~ and ⎓
		Undervoltage release coils
		For mounting on either the left or right-hand side of the MCCB
1	0271 64	200/240 V~
1	0271 65	380/415 V~

■ Dimensions

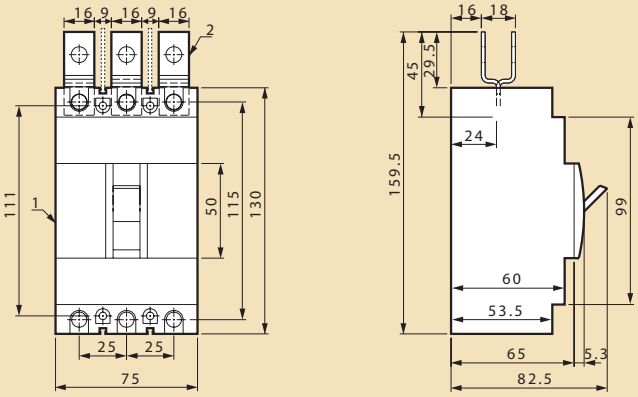
DRX 100 - 3 P



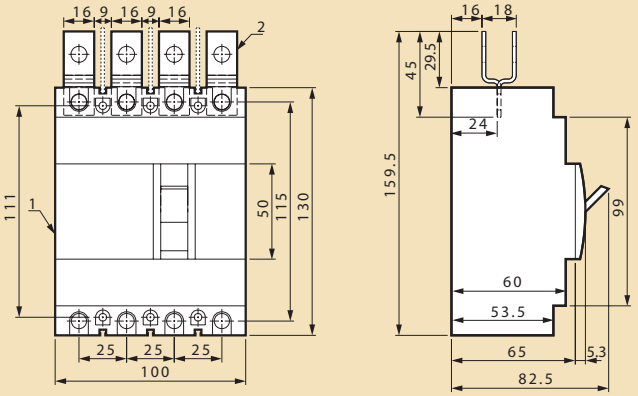
DRX 100 - 4 P



DRX 100 - 3P with spreaders



DRX 100 - 4P with spreaders



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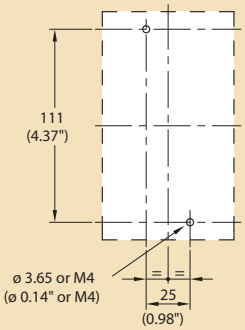
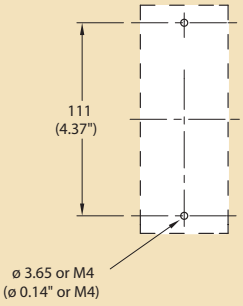
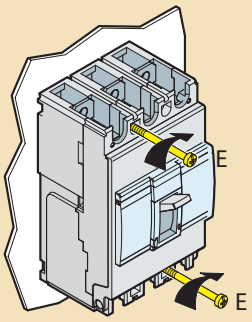
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

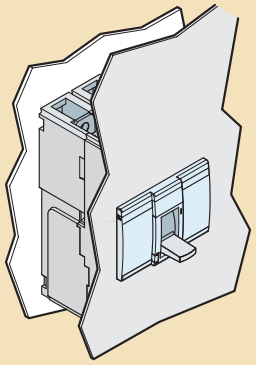
■ Fixing on plate

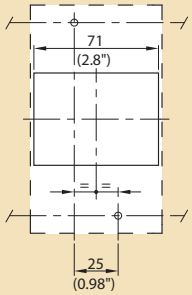


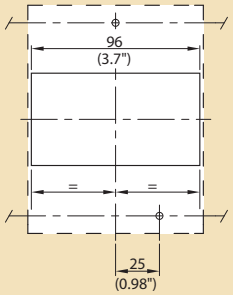


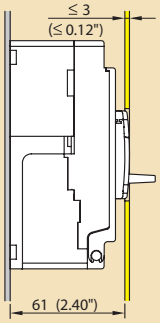


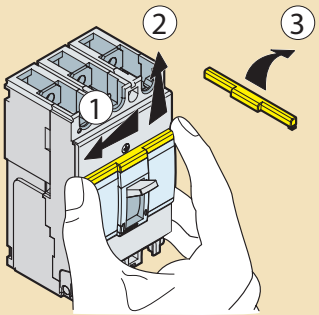
■ Door cut-out

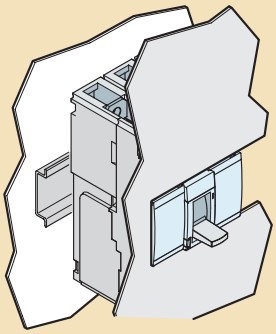


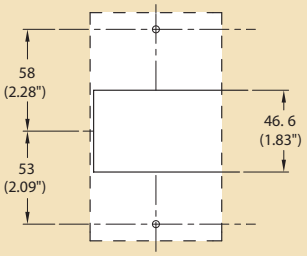


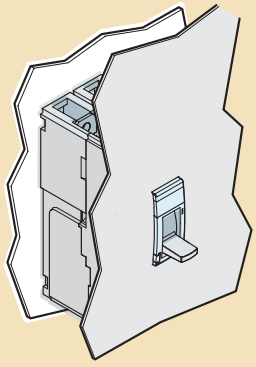


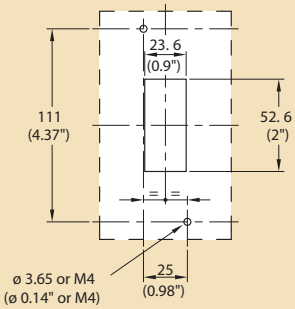


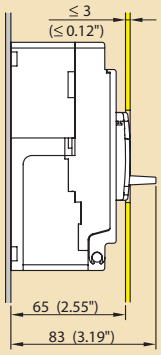








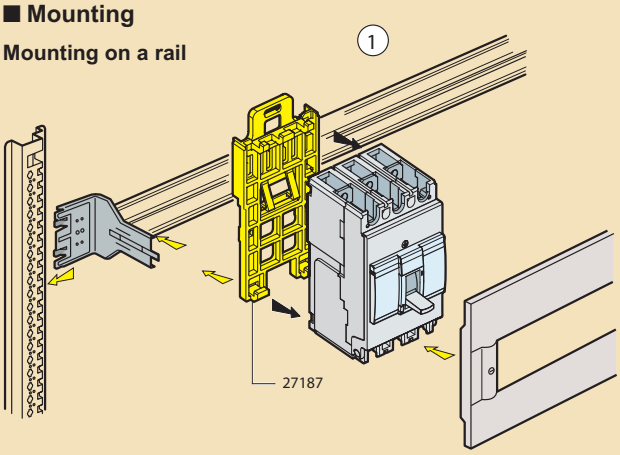




DRX™ 100
technical characteristics

■ Mounting

Mounting on a rail

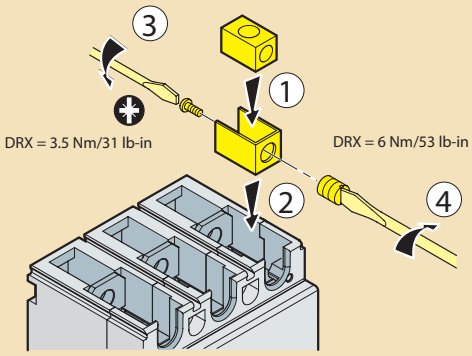


■ Connection

DRX front terminal

Cable connection

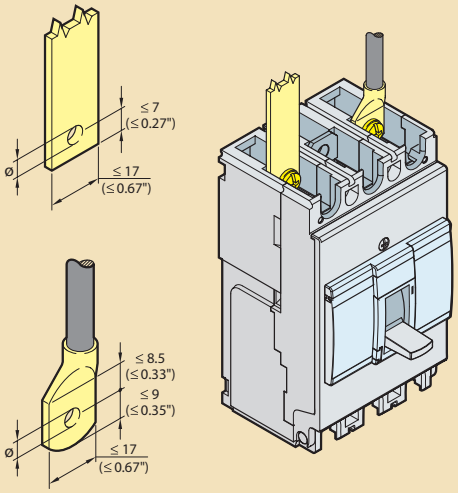
DRX = 27171 (3 P)
27173 (4 P)



Flexible 2,5 ❷ 10 mm²10 ❷ 35 mm² #14 ❷ #8 AWG or Solid 2,5 ❷ 16 mm²10 ❷ 50 mm² #14 ❷ #6 AWG	Flexible #8 ❷ #2 AWG Solid #8 ❷ #1/0 AWG

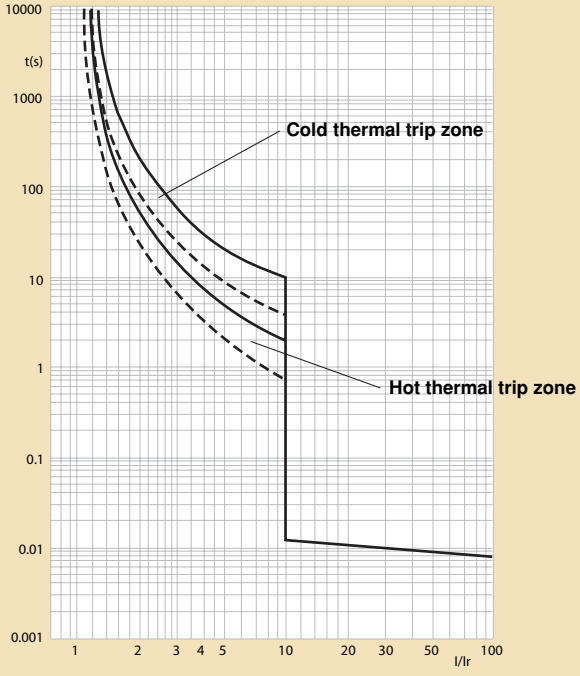
2,5 to 4 mm² #14 to #10 AWG flexible cables connection via crimped end-barrels

Busbar connection



■ Curve

DRX 100 Imax = 100 A 3 P - 4 P



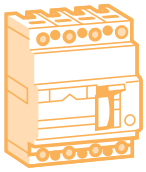
Technical characteristics		DRX
Number of poles		3 P - 4 P
Nominal current In (A)		60 -100
Neutral protection for 4 P version (%)		100
Rated insulation voltage Ui (V)		690
Rated impulse withstand current Uimp (kV)		6
Rated operating voltage (50/60 Hz) Ue (V)		600
Ultimate breaking capacity Icu (kA) EC 60947-2	220/240 V~	25
	380/415 V~	10
	440/460 V~	10
	480/550 V~	7.5
	600 V~	5
Standard breaking capacity Ics (% Icu)		50
Utilization category		A
Suitable for isolation		YES
Endurance (cycles)	mechanical	20000
	electrical	8000

[DPX™]

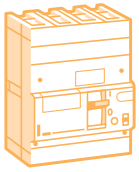
MCCBs: DPX™

The compact range of DPX MCCBs are available in just 6 frame sizes. These MCCBs are available with thermal magnetic or microprocessor based electronic releases. Apart from this they come in various mounting options, optional remote controls and can also be used as automatic transfer switches. In DPX MCCBs, Line and Load can be interchanged

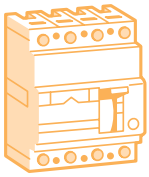
Choice



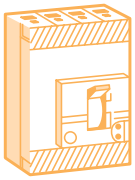
DPX 125
Current rating from 16 to 125 A
Breaking capacity from 16 to 36 kA
Thermal magnetic release



DPX 160
Current rating 160 Amp
Breaking capacity 36 kA & 50 kA
Thermal magnetic release

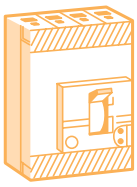


DPX 250 ER
Current rating from 100 to 250 A
Breaking capacity 36kA and 50 kA
Thermal magnetic release



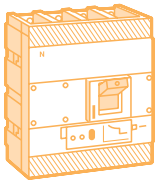
DPX 250
Current rating from 25 to 250 A
Breaking capacity from 36 to 100 kA
Thermal magnetic release

DPX 250 Electronic
Current rating from 40 to 250 A
Breaking capacity 70 kA
Electronic release



DPX 630
Current rating from 400 to 630 A
Breaking capacity from 36 to 100 kA
Thermal magnetic release

DPX 630 Electronic
Current rating from 160 to 630 A
Breaking capacity from 36 to 70 kA
Electronic release



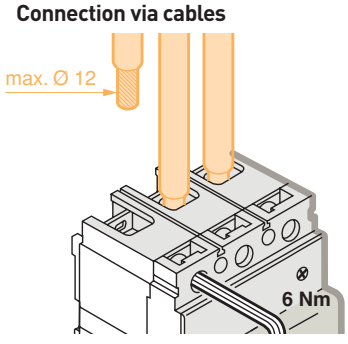
DPX 1250
Current rating from 500 to 1250 A
Breaking capacity from 50 to 100 kA
Thermal magnetic release

DPX 1600 Electronic
Current rating from 630 to 1600 A
Breaking capacity from 50 to 70 kA
Electronic release

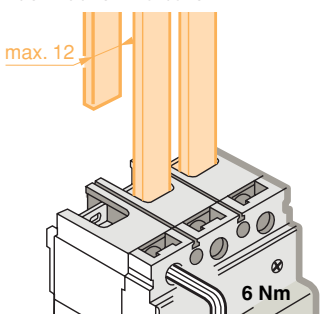
Connection (2 options)

Via front terminals
Connect directly on plate
(bar or cable with lug)
or via cage terminal (cables)
or on a base
(for plug-in or draw-out versions)

Connection via cables

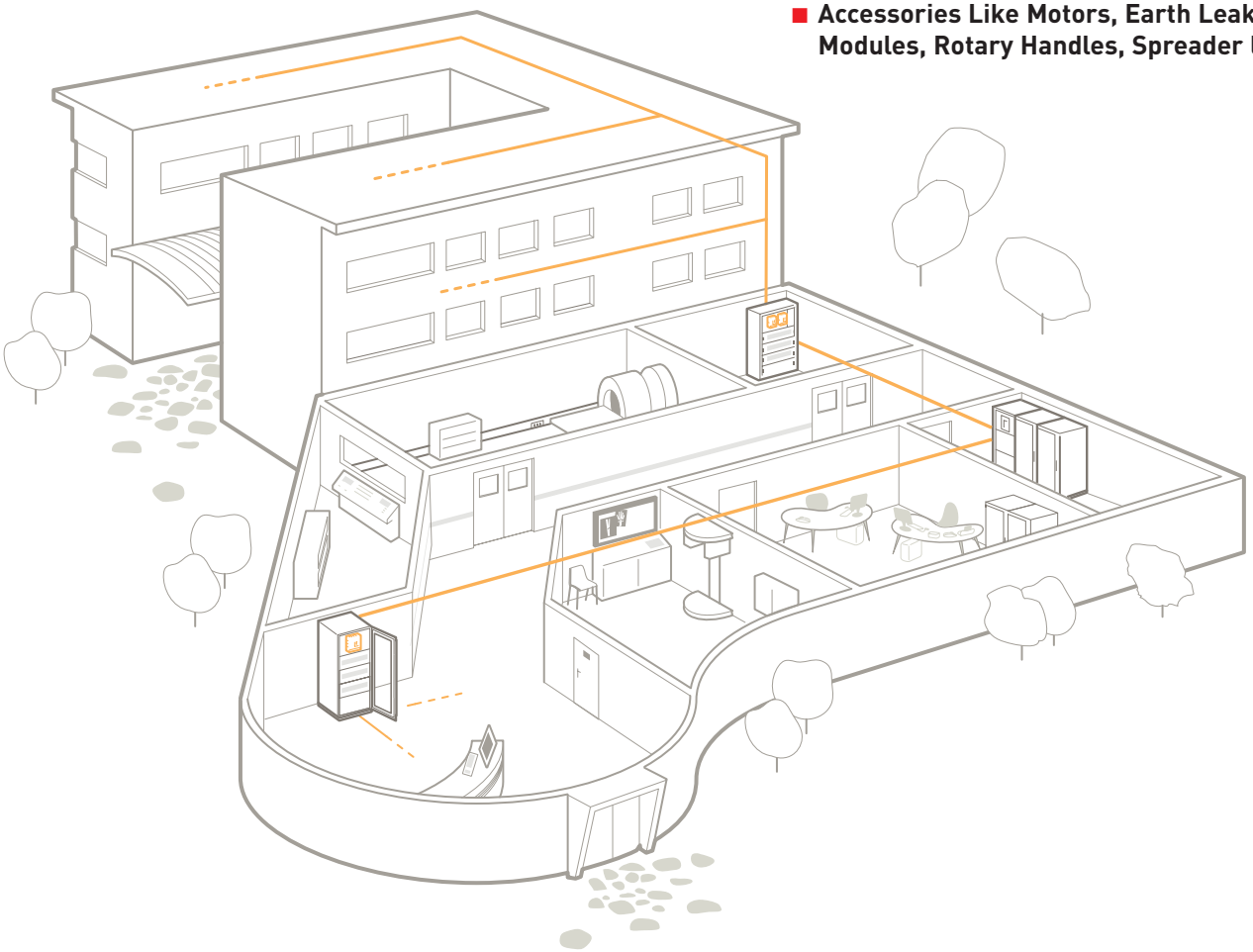


Connection via bars



Advantages of the systems

- **6 Breaking Capacities**
  16, 25, 36, 50, 70 & 100 kA
- **6 Frame sizes**
  DPX 125, 160, 250 ER, 250, 630 & 1250/1600.
- **Current Ratings from 16-1600 A**
- **Thermal Magnetic & Microprocessor range.**
- **Common Auxillaries**
- **Accessories Like Motors, Earth Leakage Modules, Rotary Handles, Spreader links.**



[DPX™]

Mounting, Control and connection accessories

MOUNTING ACCESSORIES

- **Rear terminals**
  (against order only)

- **Terminal shields**
  (against order only)

- **Flat rear terminals**
  (against order only)

- **Spreader links**
  (against order only)

- **Din Rail Adaptor**
  (for DPX 125, 160 & 250 ER)a

CONTROL ACCESSORIES

- **Earth leakage modules**
  - Can be fitted side by side or underneath

- **Remote control motor operators**

  Available frame sizes
  - DPX 250
  - DPX 630
  - DPX 1250
  - DPX 1600

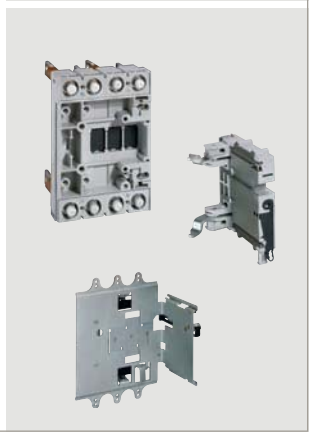
- **Rotary handle**

  Available in two versions
  - Direct on DPX
  - Vary depth handle

CONNECTION ACCESSORIES

- **Connection terminals and accessories**

- **Base for plug-in version and "debrolift" mechanism for draw-out version**



DPX™ MCCBs
selection chart for DPX MCCBs

		DPX						
								
Type and frame size		DPX 125			DPX 160		DPX 250 ER	
		DPX-E	DPX	DPX	DPX	DPX-H	DPX	DPX
Number of poles		3-4	3-4	3-4	3-4	3-4	3-4	
Nominal rating In (A)		16 -125	16 -125	16 -125	160		100-250	
Electrical characteristics conforming to								
EN 60947 - 2 and IS 13947 - 2								
Rated operating voltage Ue (V a.c. at 50-60 Hz)		500			500		500	
Rated operating voltage Ue (V d.c.)		250			250		250	
Rated insulation voltage Ui (V a.c.)		500			500		500	
Rated impulse withstand voltage Uimp (kV)		6			6		6	
Category of use		A			A		A	
Type of MCCB		E						
Ultimate breaking capacity	230/240 V ∿	22	35	50	50	65	50	65
Icu(kA)	400/415 V ∿	**16**	**25**	**36**	**36**	**50**	**36**	**50**
	250 V=	16	25	30	36	40	36	45
Standard breaking capacity Ics (% Icu)		100	50	75	75	50	75	50
Maximum Cable cross section	Rigid Cable	70 mm²			95 mm²		185 mm²	
	Flexible cable	50 mm²			70 mm²		150 mm²	
	Copper bar & lug width	12 mm Cu bar			188 mm Cu bar		22 mm Cu bar	
Rated closing capacity on short-circuit (400 VA)		32	52.5	75.6	75.6	100	75.6	105
Rated short-time withstand current Icw (kA) for 1 sec.								
Endurance (o.c. cycle)	mechanical	25000			20000		20000	
	electrical	8000			8000		8000	
Isolation capability		•			•		•	
Type of protection								
Thermal-magnetic release		•			•		•	
Electronic release		-					-	
Earth leakage modules	side by side	•			•		•	
	underneath	•			-		•	
External accessories								
Remote control		-			-		-	
Fixed type		•			•		•	
Plug-in type		•			•		•	
Draw-out type		-					-	
Rotary handle		•			•		•	
Supply inverter		-			•		•	
Dimensions and weight								
Dimensions (L x H x D) (mm)	3-pole	75.6 x 120 x 74			90 x 150 x 74		90 x 176 x 74	
	4-pole	101 x 120 x 74			120 x 150 x 74		120 x 176 x 74	
Weight (kg)	3-pole	1	1	1	1.1		1.6	
	4-pole	1.2	1.2	1.2	1.5		2.1	

DPX






	DPX 250			DPX 250 Micro-processor Release	DPX 630			DPX 630 Microprocessor Release			DPX 1250			DPX 1600 Microprocessor Release	
	DPX	DPX-H	DPX-L	DPX	DPX	DPX-H	DPX-L	DPX	DPX-H	DPX-L	DPX	DPX-H	DPX-L	DPX-H	
	3-4			3-4	3-4			3-4			3-4	3-4	3-4	3-4	
	25-250			40-250	400-630			160-630			500-1250			630-1600	
	690			690	690			690			690			690	
	250			-	250			-			250			-	
	690			690	690			690			690			690	
	8			8	8			8			8			8	
	A			A	A			B(160 - 400A)		A(630 A)	A			B	
		H	L	-		H	L		H	L		H	L		H
	60	100	170	100	60	100	170	60	100	170	80	100	170	60	100
	36	**70**	**100**	**70**	**36**	**70**	**100**	**36**	**70**	**100**	**50**	**70**	**100**	**50**	**70**
	36	40	40	-	36	40	40	-	-	-	50	50	50	-	-
	100	75	50	75	100	75	50	100	75	50	75	75	50	100	75
	185 mm²			185 mm²	300 mm² or 2 x 240 mm²			300 mm² or 2 x 240 mm²			2 or 4 x 240 mm²			2 or 4 x 240 mm²	
	150 mm²			150 mm²	240 mm² or 2 x 185 mm²			240 mm² or 2 x 185 mm²			2 or 4 x 185 mm²			2 or 4 x 185 mm²	
	25 mm			25 mm	32 mm			32 mm			50 mm			50 mm	
	75.6	154	220	154	75.6	154	220	76.6	154	220	105	154	220	105	154
				3		-			5			-		20	
	20000			20000	15000			15000			10000			10000	
	8000			8000	5000			5000			4000			3000	
	•			•	•			•			•			•	
	•			-	•			-			•			-	
	-			•	-			•			-			•	
	-			-	-			-			-			-	
	•			•	•			•			-			-	
	•			•	•			•			•			•	
	•			•	•			•			•			•	
	•			•	•			•			-			-	
	•			•	•			•			•			•	
	•			•	•			•			•			•	
	•			•	•			•			•			•	
	105 x 200 x 105			105 x 200 x 105	140 x 260 x 105			140 x 260 x 105			210 x 320 x 140			210 x 320 x 140	
	140 x 200 x 105			140 x 200 x 105	183 x 260 x 105			183 x 260 x 105			280 x 320 x 140			280 x 320 x 140	
	2.5			2.5	5.5			5.3 ≤ 400 < 5.8			12.2 ≤ 800 > 18			12.2 ≤ 800 > 18	
	3.7			3.7	6.4			6.8 ≤ 400 < 7.4			15.1 ≤ 800 > 23.4			15.1 ≤ 800 > 23.4	

DPX™ 125
MCCBs from 16 to 125 A and earth leakage modules

DIN rail Mounting

6253 28

6253 28 + 0260 13

Dimensions (p. 70)
Technical data (p. 52)

Confirm to IEC 60947-2
Fixed version - Front terminals
Thermal release adjustable from 0.7 to 1 In
Fixed magnetic release / integrated label holder and accepts common auxiliaries

Pack	Cat. nos	DPX-E 125
		Breaking capacity Icu : 16 kA (380/415 V AC)
	3 P	In
1/6	0250 16	16 A
1/6	6253 17	25 A
1/6	6253 18	40 A
1/6	**6253 19**	63 A
1/6	**6253 20**	100 A
1/6	**6253 21**	125 A
	4 P	In
1/6	0250 24	16 A
1/6	6253 25	25 A
1/6	6253 26	40 A
1/6	**6253 27**	63 A
1/6	**6253 28**	100 A
1/6	**6253 29**	125 A

		DPX 125
		Breaking capacity Icu : 25 kA (380/415 V AC)
	3 P	In
1/6	0250 36	16 A
1/6	6253 37	25 A
1/6	6253 38	40 A
1/6	**6253 39**	63 A
1/6	**6253 40**	100 A
1/6	**6253 41**	125 A
	4 P	In
1/6	0250 44	16 A
1/6	6253 45	25 A
1/6	6253 46	40 A
1/6	**6253 47**	63 A
1/6	**6253 48**	100 A
1/6	**6253 49**	125 A
	3 P+ N/2	In
1/6	6253 42	100 A
1/6	6253 43	125 A

Pack	Cat. nos.	DPX 125
		Breaking capacity Icu : 36 kA (380/415 V AC)
	3 P	In
1	0250 50	16 A
1	6253 51	25 A
1/6	6253 52	40 A
1/6	6253 53	63 A
1	6253 54	100 A
1/6	6253 55	125 A
	4 P	In
1	0250 58	16 A
1	6253 59	25 A
1	6253 60	40 A
1	6253 61	63 A
1	6253 62	100 A
1	**6253 63**	125 A
	3 P+ N/2	In
1/6	6253 56	100 A
1	6253 57	125 A

		Electronic earth leakage modules
		Can be fitted directly onto DPX-E 125 and DPX 125 Operating voltage : 230 to 500 V AC Adjustable, sealable sensitivity : 0.03 - 0.3 - 1 - 3 A Adjustable, sealable time delay : 0 - 0.3 - 1 - 3 s Equipped with : • Test and reset push-button • Isolator switch for electronic circuits (for HV commissioning tests) to open the DPX automatically
		Mounted side by side
	4 P	In
1/6	0260 13	125 A
		Mounted underneath
		In
1/6	0260 14	125 A

Electrical Auxiliaries (p. 48)

Residual current relays and coils (p. 49)

Bold catalogue numbers are products normally available with Legrand (India) stockists.
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

DPX™ 125
rotary handles and other accessories

DPX™ 125


0262 01


0262 07


0262 00


6250 05

Dimensions (p. 75-77)

Pack	Cat. nos.	
		Rotary handles
		Available in two versions • Direct on DPX • Vary-depth handle The vary-depth handle includes the connecting rod, the self-adhesive drilling template, the mounting accessories and the door locking mechanism
1/32	**0262 01**	Direct on DPX
1/10	0262 75	Vary-depth handle
		Phase barriers
1	0262 07	Used to isolate the connections between each pole Set of 3 insulated shields
		Padlock support
1	0262 00	For locking in “OFF” position
		Accessory for mounting on DIN rail
1/12	**0262 08**	DIN rail adaptor
1/10	0262 99	Spacer for DIN rail adaptor
		Spreader links
1	**6250 01**	A set of 3 links for 3 pole DPX to terminate high capacity aluminium cable of size 95 mm2 / aluminium busbar of size 15 x 3 mm
1	**6250 05**	A set of 4 links for 4 pole DPX to terminate high capacity aluminium cable of size 95 mm2 / aluminium busbar of size 15 x 3 mm
		Electronic control box
		For detecting the absence of voltage or a drop in voltage : triggers the opening of a power supply source
1	0261 93	Standard
1	0261 94	Advanced

Padlock support fixing illustration (p. 35)

Din rail mounting illustration (p. 35)

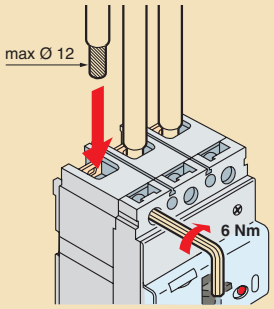
* NB : For the automatic version, add 2 remote controls and 2 auxiliary contacts, 2 shunt trips and one mechanical inverter plate in addition to the 2 MCCBs

* For enclosures refer page 184

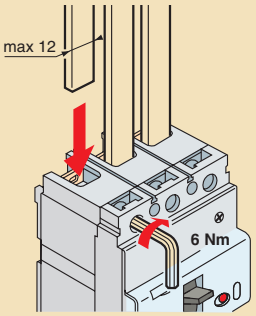
■ Connection

DPX front mounting

connection by cables

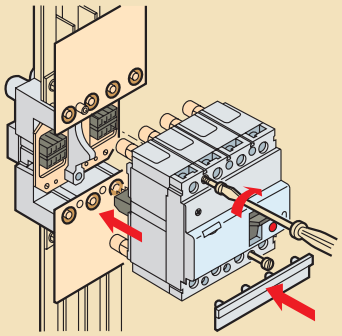


connection by busbars

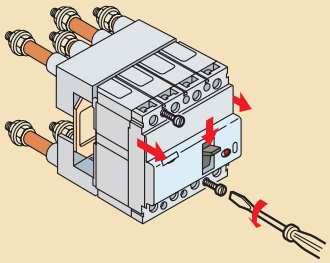


Plug in version

front mounting



rear mounting



For overload and short circuit protection from 0.5 A to 63 A

see p. 90

DPX™ 160
MCCBs of 160 A

DPX™ 160
earth leakage modules

DIN rail Mounting

0251 51

0251 51 + 0260 21

Dimensions (p. 70)
Technical Data (p. 53)

Confirm to IEC 60947-2 and EN 60947-3
Fixed version - Front terminals
Max. rated voltage 500V∿ -50/60Hz
Thermal release adjustable from 0.64 to 1 In
Fixed magnetic at 10 In

Pack	Cat. nos.		DPX 160
	3 P	4 P	Breaking capacity Icu : 36 kA (400V∿)
1	0251 51	0251 59	In 160 A
			DPX-H 160
	3 P	4 P	Breaking capacity Icu : 50 kA (400V∿)
1	0251 65	0251 73	In 160 A

Pack	Cat. nos.	Electronic earth leakage modules
		Can be fitted directly onto DPX Operating voltage : 230 to 500 V AC Adjustable, sealable sensitivity : 0.03 - 0.3 - 1 - 3 A Adjustable, sealable time delay : 0 - 0.3 - 1 - 3 s Equipped with : • Test and reset push-button • Isolator switch for electronic circuits (for HV commissioning tests) to open the DPX automatically **Mounted side by side**
1	4 P 0260 21	In 160 A

Residual current relays and coils
(p. 49)

DPX™ 160
rotary handles and other accessories


0262 11


0262 10


0262 09


0262 99

Pack	Cat. nos.	
		Rotary handles
		Available in two versions • Direct on DPX • Vary-depth handle The vary-depth handle includes the connecting rod, the bracket, the self-adhesive drilling template, the mounting accessories and the door locking mechanism
1	0262 11	Direct on DPX
1	0262 77	Vary-depth handle
		Phase barriers
		Used to isolate the connections between each pole
1	0262 07	Set of 3 insulation shields
		Padlock
1	0262 10	For locking in “OFF” position
		Accessories for mounting on DIN rail
1	0262 09	Din rail fixing plate
1	0262 99	Spacer for Din rail equipment
		Supply inverter type - mounting plate
		For mechanical interlocking of 2 DPX of the same size for use in normal or automatic modes.
1	0264 01	Mounting plate for mechanical interlock.
		Electronic control box
		For detecting the absence of voltage or a drop in voltage : triggers the opening of a power supply source
1	0261 93	Standard
1	0261 94	Advanced
		Spreader links
1	**6250 14**	A set of 3 links for 3 pole DPX to terminate high capacity aluminium cable of size 120 mm² aluminium busbar of size 20 x 5mm
1	**6250 18**	A set of 4 links for 4 pole DPX to terminate high capacity aluminium cable of size 120 mm² aluminium busbar of size 20 x 5 mm

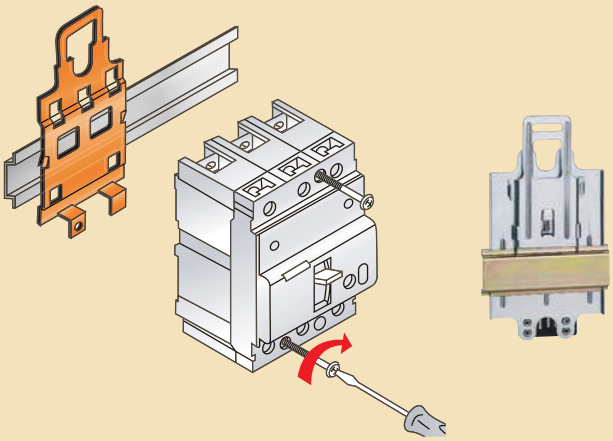
* NB : For the automatic version, add 2 remote controls and 2 auxiliary contacts, 2 shunt trips and one mechanical inverter plate in addition to the 2 MCCBs

* For enclosures, refer page 184

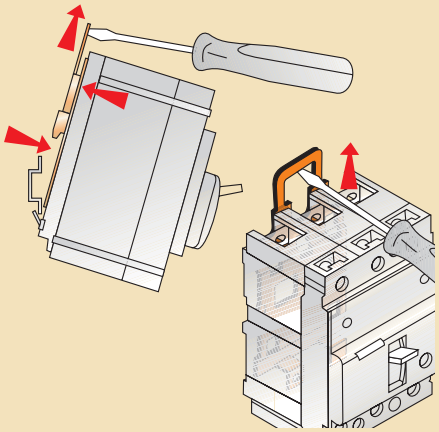
DPX™ MCCBs
for DPX 125 and DPX 160

■ Installations

DIN rail adaptor

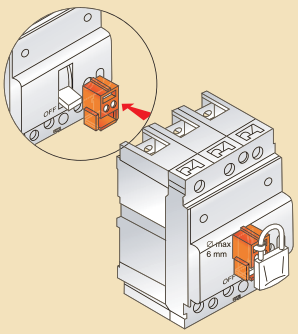


Tighten the screws that mount the MCCB on the Din rail adaptor

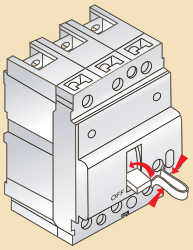


Use a screwdriver to remove the MCCB from the Din rail

Padlock support



Press the metal clip on to the dolly of the MCCB



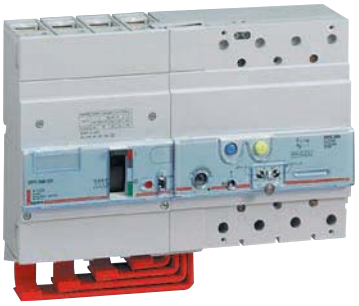
The padlock support locks the operating lever in “OFF” condition

DPX™ 250 ER
MCCBs from 100 to 250 A

DPX™ 250 ER
earth leakage modules

DIN rail Mounting

252 56



0252 56 0260 36

Dimensions (p. 71)
Technical Data (p. 54)

Confirm to IEC 60947-2
Fixed version - Front terminals
Thermal release adjustable from 0.64 to 1 In
Fixed magnetic at 10 In
Integrated label holder and accpets
Common auxiliaries

Pack	Cat. nos.		DPX 250 ER
			Breaking capacity Icu : 36 kA (380/450 V AC)
	3 P	4 P	In
1/6	0252 24	0252 34	100 A
1/6	0252 25	0252 35	160 A
1/6	0252 30	0252 37	200 A
1/6	**0252 26**	**0252 36**	250 A
			Breaking capacity Icu : 50 kA (380/450 V AC)
	3 P	4 P	In
1	0252 44	0252 54	100 A
1	0252 45	0252 55	160 A
1	**0252 46**	**0252 56**	250 A

Pack	Cat. nos.	Electronic earth leakage modules
		Can be fitted onto DPX 250 ER Adjustable and sealable sensitivity : 0.03 - 0.3 - 1 - 3 A Adjustable tripping : 0 - 0.3 - 1 - 3 s Switch for mechanical tests on operation and insulation of the device in case of installation" insulation test
	4 P	Nominal operating voltage :
	250 A	230 - 500 V AC
1/6	0260 36	Mounted side-by-side via right-hand clips
1/6	0260 38	Mounted underneath

DPX™ 250 ER
rotary handles and other accessories

DPX™ 250 ER


0262 11


0262 07


0262 10

Dimensions (p. 75-77)

Pack	Cat. nos.	
		Rotary handles
		Available in two versions • Direct on DPX • Vary-depth handle The vary-depth handle includes the connecting rod, the bracket, the self-adhesive drilling template, the mounting accessories and the door locking mechanism
1/20	0262 11	Direct on DPX
1/10	0262 77	Vary-depth handle
		Phase barriers
		Used to isolate connection between each pole
1	0262 07	Set of 3 insulating dividers
		Padlock support
1/24	0262 10	For locking a handle in "OFF" position
		Accessory for mounting on DIN rail
1/12	0262 09	DIN rail adaptor
1/10	0262 99	Spacer for DIN rail adaptor
		Spreader links
1	**6250 14**	A set of 3 links for 3 pole DPX to terminate high capacity aluminium cable of size 120 mm² aluminium busbar of size 20 x 5mm
1	**6250 18**	A set of 4 links for 4 pole DPX to terminate high capacity aluminium cable of size 120 mm² aluminium busbar of size 20 x 5 mm
		Supply inverter type - mounting plate
		For mechanical interlocking of 2 DPX of the same size for use in manual mode
1	0264 02	Mounting plate for fixed version

Padlock support fixing illustrations (p. 35)

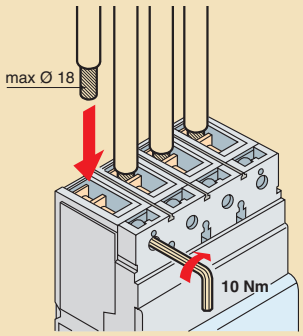
Din rail mounting illustration (p. 35)

* For enclosures, refer page 184

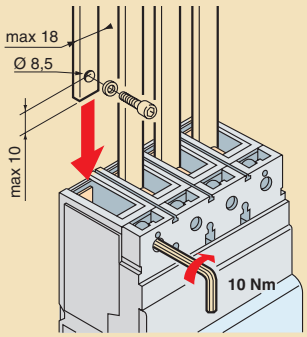
■ Connection

DPX front mounting

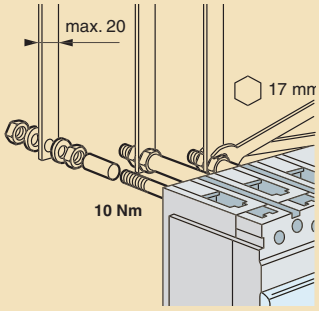
connection by cables



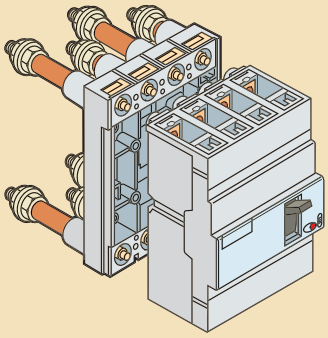
connection by busbars



DPX rear mounting



Plug in version rear mounting



Electrical auxiliaries

see p. 48

DPX™ 250
MCCBs from 25 to 250 A

0253 49

Dimensions (p. 71)
Technical Data (p. 55)

Confirm to IEC 60947-2
Fixed version - Front terminals
Thermal release adjustable from 0.64 to 1 In
Magnetic release adjustable from 3.5 to 10 In

Pack	Cat. nos.		DPX 250
			Breaking capacity Icu : 36 kA (380/415 V AC)
	3 P	4 P	In
1	0253 28	0253 45	40 A
1	0253 29	0253 46	63 A
1	0253 30	0253 47	100 A
1	0253 31	0253 48	160 A
1	**0253 32**	0253 49	250 A
	3 P+ N/2		In
1	0253 40		100 A
1	0253 41		160 A
1	0253 42		250 A

Pack	Cat. nos.		DPX-H 250
			Breaking capacity Icu : 70 kA (380/415 V AC)
	3 P	4 P	In
1	0253 52	0253 69	40 A
1	0253 53	0253 70	63 A
1	0253 54	0253 71	100 A
1	0253 55	0253 72	160 A
1	0253 56	0253 73	250 A
	3 P+ N/2		In
1	0253 64		100 A
1	0253 65		160 A
1	0253 66		250 A

Pack	Cat. nos.		DPX-L 250
			Breaking capacity Icu : 100 kA (380/415 V AC)
	3 P	4 P	In
1	0253 80	0253 89	100 A
1	0253 81	0253 90	160 A
1	0253 82	0253 91	250 A
	3 P+ N/2		In
1	0253 86		100 A
1	0253 87		160 A
1	0253 88		250 A

DPX™ 250
MCCBs from 40 to 250 A with microprocessor release

0254 23

Microprocessor Release

Confirm to IEC 60947-2
Fixed version - Front terminals
Max rated voltage 690 V∿ - 50/60 Hz
Adjustment : refer pg.55 performace data
Integrated label holder and accepts common auxilliaries

Pack	Cat. nos.		DPX-H 250
			Breaking capacity Icu : 70 kA (380/415 V AC) **S1- adjustment of Ir, Im**
	3 P	4 P	In
1	0254 13	0254 19	40 A
1	0254 15	0254 21	100 A
1	0254 16	0254 22	160 A
1	0254 17	0254 23	250 A

Bold catalogue numbers are products normally available with Legrand (India) stockists.
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

DPX™ 250
earth leakage modules and rotary handles


0260 55


0262 79


0262 22

Dimensions (p. 75-77)

Can be fitted directly onto DPX 250 and DPX-H 250.
Operating voltage : 230 to 500 VA

Pack	Cat. nos.	Earth leakage modules
1	4 P 0260 55	Adjustable, sealable sensitivity : 0.03 - 0.3 - 1 - 3 A Adjustable, sealable time delay : 0 - 0.3 - 1 - 3 s Equipped with : Test and reset pushbutton Isolator switch for electronic circuits (for commissioning tests) to open the DPX automatically **Mounted underneath** In 250 A

Pack	Cat. nos.	Rotary handles
		Available in two versions • Direct on DPX • Vary-depth handle The vary-depth handle includes the connecting rod, the bracket, the self-adhesive drilling template, the mounting accessories and the door locking mechanism
1/6	0262 22	Direct on DPX
1/10	0262 79	Vary-depth handle

Electrical auxiliaries (p. 48)

Residual current relays and coils (p. 49)

Earth leakage protection for specialised application

see p. 100-101

DPX™ 250
other mounting accessories


OS0262 25/3


0262 30

Pack	Cat. nos.	Locking accessory for rotary handle
1	OS0262 25/3	For locking the rotary handle (Direct type only) (set of 3 locks with keys)

Pack	Cat. nos.	Phase barriers
		Used to isolate the connections between each pole
1	0262 30	Set of 3 insulation shields

Pack	Cat. nos.	Padlock support
1/24	0262 21	For locking handle in "OFF" position

Pack	Cat. nos.	Spreader links
1	6250 14	A set of 3 links for 3 pole DPX to terminate high capacity aluminium cable of size 240 mm² / aluminium busbar of size 30 x 5 mm
1	6250 18	A set of 4 links for 4 pole DPX to terminate high capacity aluminium cable of size 240 mm² / aluminium busbar of size 30 x 5 mm

Pack	Cat. nos.	Motor
		For remote making and breaking of a DPX MCCB and reset in the event of tripping on a fault A lock prevents operation when working on the line.
1	0261 34	Front operated 230 V ∿/⎓

Pack	Cat. nos.	Supply inverter type mounting plate
		For mechanical interlocking of 2 DPX of the same size for use in manual or automatic modes
1	0264 08	Mounting plate for fixed version

Pack	Cat. nos.	Electronic control box
		For detecting the absence of voltage or a drop in voltage : triggers the opening of a power supply source
1	0261 93	Standard
1	0261 94	Advanced

Padlock support fixing illustrations (p. 35)

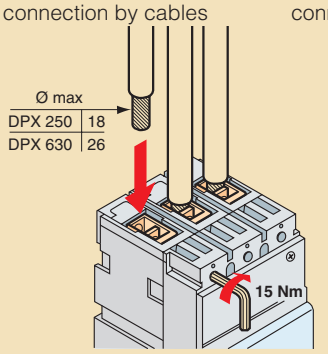
* For enclosures, refer page 184

* NB : For the automatic version, add 2 remote controls and 2 auxiliary contacts, 2 shunt trips and one mechanical inverter plate in addition to the 2 MCCBs

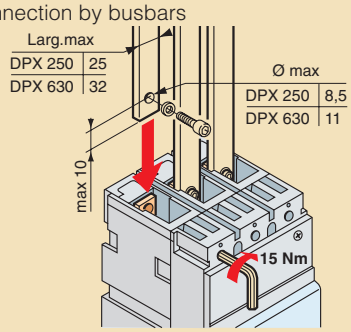
■ Connection

DPX front mounting

connection by cables

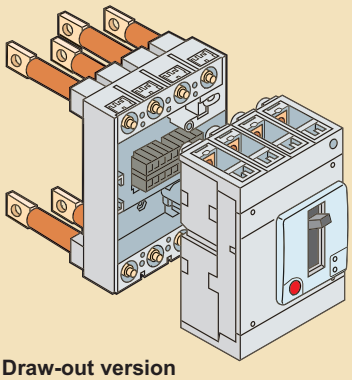


connection by busbars



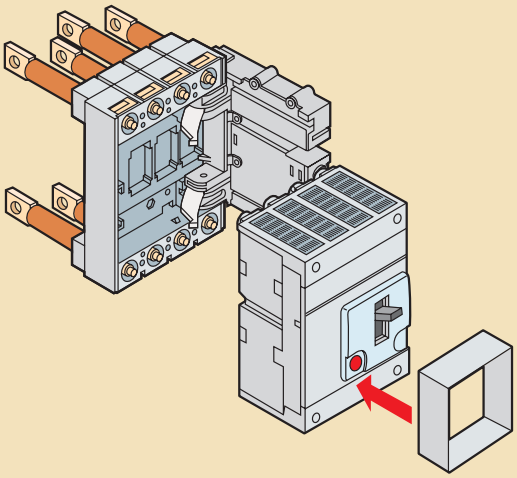
Plug in version

connection rear mounting

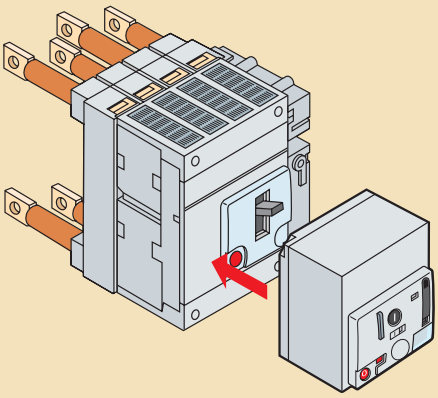


Draw-out version

draw-out mechanism

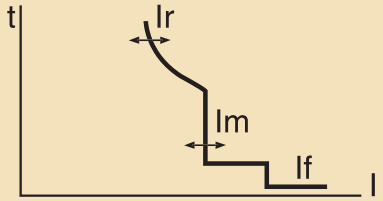


Motor operator



■ Performance data

S1 - Adjustment of overload and short circuit currents (Ir and Im)



- Long delay protection against overloads with an adjustable threshold based on the rms value of the current:
  Ir = 0.4 - 0.5 - 0.6 - 0.7 - 0.8 - 0.9 - 0.95 - 1 x In (8 steps)
  Tr = 5 s (fixed at 6 tr)
- Short delay protection against short-circuits with an adjustable Im threshold:
  Im = 1.5 - 2 - 3 - 4 - 5 - 6 - 8 - 10 x Ir (8 steps)
  Tm = 0.05 s (fixed)
- Instantaneous protection if with fixed threshold: If = 3 kA

DPX™ 630
MCCBs from 250 to 630 A

0255 53

Dimensions (p. 72)
Technical Data (p. 56)

Confirm to IEC 60947-2
Fixed version - Front terminals
Thermal release adjustable from 0.8 to 1 In
Magnetic release adjustable from 5 to 10 In
Integrated label holder and accepts common auxiliaries

Pack	Cat. nos. 3 P	Cat. nos. 3P+N/2	DPX 630
			Breaking capacity Icu : 36 kA (380/415 V AC)
			In
1	**0255 23**	0255 33	400 A
1	0255 24	0255 34	630 A

Pack	Cat. nos. 3 P	Cat. nos. 3P+N/2	DPX-H 630
			Breaking capacity Icu : 70 kA (380/415 V AC)
			In
1	0255 43	0255 53	400 A
1	0255 44	0255 54	630 A

Pack	Cat. nos. 3 P	Cat. nos. 3P+N/2	DPX-L 630
			Breaking capacity Icu : 100 kA (380/415 V AC)
			In
1	0255 63	0255 73	400 A
1	0255 64	0255 74	630 A

DPX™ 630
earth leakage modules for DPX 630, DPX-H 630, DPX-L 630

0260 61

Can be fitted directly onto any DPX 630
Operating voltage : 230 to 500 V AC

Pack	Cat. nos. 4 P	Earth leakage module
		Adjustable, sealable sensitivity : 0.03 - 0.3 - 1 - 3 A
		Adjustable, sealable time delay : 0 - 0.3 - 1 - 3 s
		Equipped with :
		• Test and reset push-button
		• Isolator switch for electronic circuits (for commissioning tests) to open the DPX automatically
		Mounted underneath
		In
1	0260 61	400 A
1	0260 65	630 A

DPX™ 630
MCCBs from 160 to 630 A with microprocessor release

0256 07(1)

Dimensions (p. 72)
Technical Data (p. 57)

Confirm to IEC 60947-2
Fixed version - Front terminals
supplied with incoming terminal mounted
sealable adjustments
Fault indicator on front panel
Adjustment : see pg. 44

DPX 630

Breaking capacity Icu : 36 kA (380/415 V AC)

Pack	Cat. nos. 3 P	Cat. nos. 4 P(2)	In
			S1 - Adjustment of Ir, Im
1	0256 00	0256 04	160 A
1	0256 01	0256 05	250 A
1	0256 02	0256 06	400 A
1	0256 03	0256 07	630 A
			S2 - Adjustment of Ir, Tr, Im, Tm
1	0256 25	0256 29	160 A
1	0256 26	0256 30	250 A
1	0256 27	0256 31	400 A
1	0256 28	0256 32	630 A
			Sg - Adjustment of Ir, Tr, Im, Tm, Ig, Tg
1	0256 50	0256 54	160 A
1	0256 51	0256 55	250 A
1	0256 52	0256 56	400 A
1	0256 53	0256 57	630 A

DPX-H 630

Breaking capacity Icu : 70 kA (380/415 V AC)

Pack	Cat. nos. 3 P	Cat. nos. 4 P(1)	In
			S1 - Adjustment of Ir, Im
1	0256 08	0256 12	160 A
1	0256 09	0256 13	250 A
1	0256 10	0256 14	400 A
1	0256 11	0256 15	630 A
			S2 - Adjustment of Ir, Tr, Im, Tm
1	0256 33	0256 37	160 A
1	0256 34	0256 38	250 A
1	0256 35	0256 39	400 A
1	0256 36	0256 40	630 A
			Sg - Adjustment of Ir, Tr, Im, Tm, Ig, Tg
1	0256 58	0256 62	160 A
1	0256 59	0256 63	250 A
1	0256 60	0256 64	400 A
1	0256 61	0256 65	630 A

Padlock support fixing illustrations
(p. 35)

* Microprocessor-based
(2) Adjustment of neutral on front panel
(1) Minimum current for indicator lamp operation : 30% of In

DPX™ 630
rotary handle and other accessories

0262 41

OS0262 25/3

Pack	Cat. nos.	
		Rotary handles
		Available in two versions - Direct on DPX & Vary-depth handle The vary-depth handle includes the connecting rod, the bracket, the self-adhesive drilling template, the mounting accessories and the door locking mechanism
1/6	0262 41	Direct on DPX
1	0262 81	Vary-depth handle
		Locking accessory for rotary handle
1	OS0262 25/3	For Locking the rotary handle (Direct type only) (set of 3 locks with keys)
		Phase barriers
1	0262 30	Used to isolate the connections between each pole Set of 3 insulation shields
		Padlock support
1	0262 40	For locking a handle in the “OFF” position For handle
		Spreader links
1	6250 04	A set of 3 links for 3 pole DPX to terminate high capacity aluminium cable of size 500 mm² / aluminium busbar of size 40 x 10 mm
1	6250 08	A set of 4 links for 4 pole DPX to terminate high capacity aluminium cable of size 500 mm² / aluminium busbar of size 40 x 10 mm
		Motor
1	0261 44	For remote making and breaking of a DPX MCCB and reset in the event of tripping on a fault A lock prevents operation when working on the line. Front operated 230 V ∿/⎓
		Supply inverter type
1	0264 09	Mounting plate - For mechanical interlocking of 2 DPX of the same size for use in manual or automatic modes Mounting plate for fixed version
		Electronic control box
1	0261 93	For detecting the absence of voltage or a drop in voltage : triggers the opening of a power supply source Standard
1	0261 94	Advanced

* For enclosures, refer page 184

* For the automatic version, add 2 remote controls and 2 auxiliary contacts, 2 shunt trips and one mechanical inverter plate in addition to the 2 MCCBs.

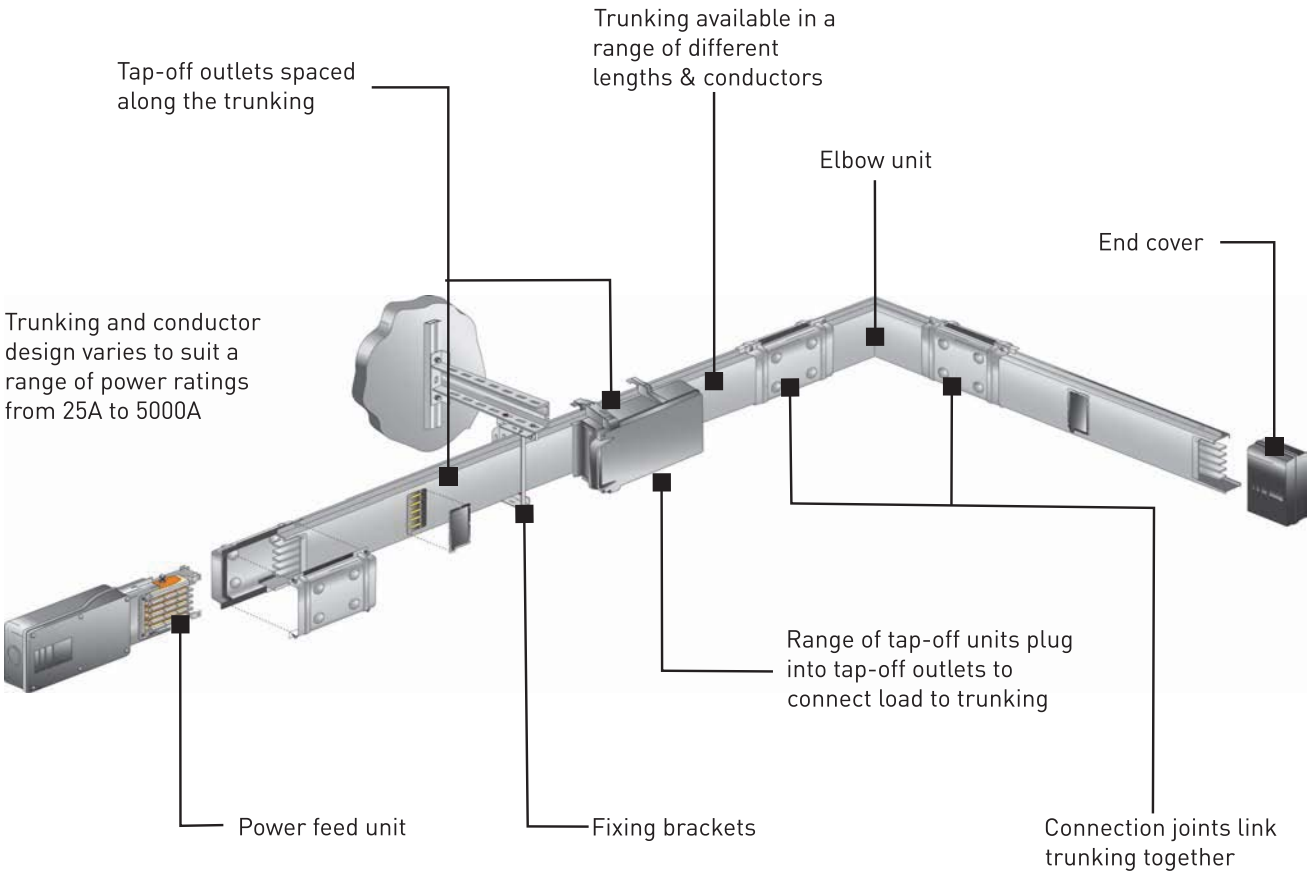
Bold catalogue numbers are products normally available with Legrand (India) stockists.
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

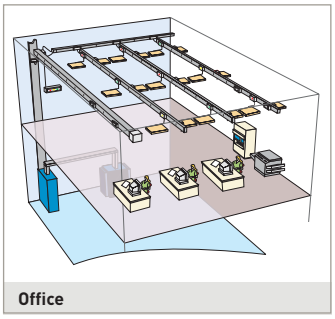
Safe, simple & adaptable

Zucchini™

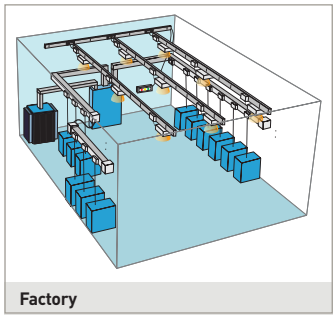
Busbar Trunking System

NEW !

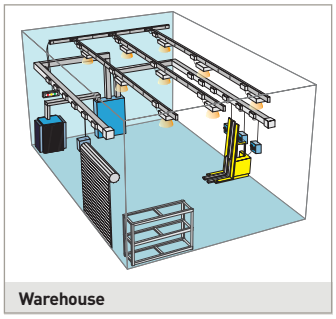




Office



Factory



Warehouse

A Comprehensive Range

Low Power (25A, 40A, 63A)
- Lighting busway
- 2, 4 & 6 pole
- IP 55 protection
- Tap off units at each 0.5mt interval
- Copper busbars

Medium Power (63A - 1000A)
- Riser mains application
- IP 40, IP 52, IP 55 protection
- Tap off units at each 1mt interval
- Aluminium & copper busbars

High Power (1000A - 5000A)
- Air insulated type construction
- IP 30/31 protection
- Tap off boxes at each 1mt interval
- Aluminium & copper busbars

Super Compact (630A - 5000A)
- Sandwich type construction
- IP 56 protection
- Tap off boxes at each 1mt interval
- Aluminium & copper busbars

discover more on : www.zucchinispa.it

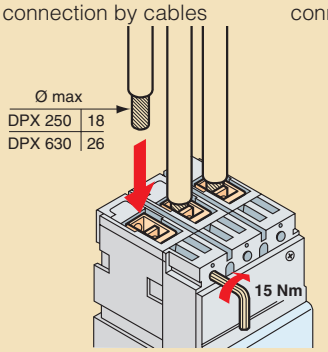
for product enquires and prices please contact Legrand personnel

DPX™ 630
MCCBs from 160 to 630 A electronic release*

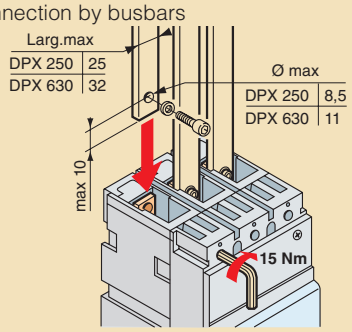
■ Connection

DPX front mounting

connection by cables

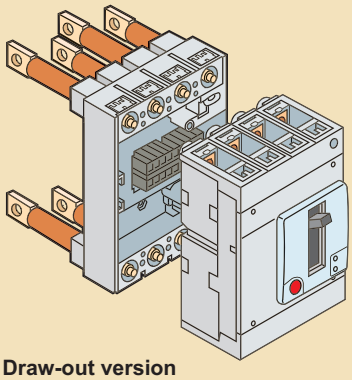


connection by busbars



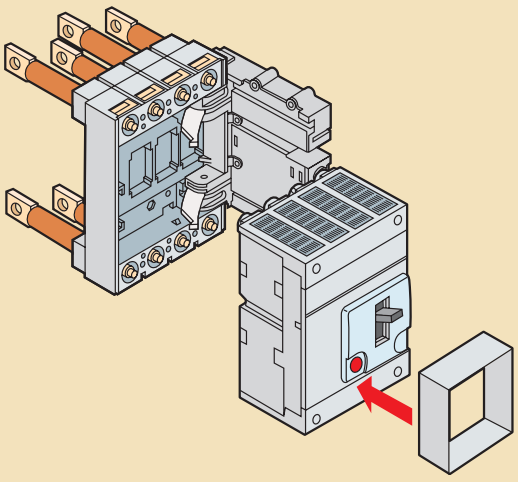
Plug in version

connection rear mounting

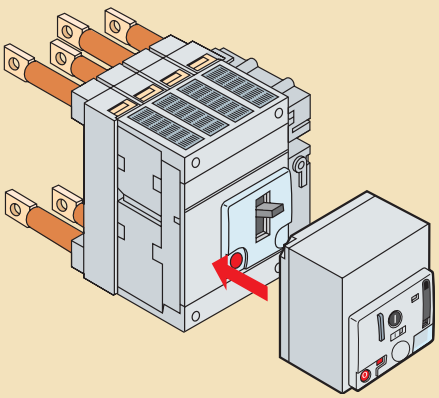


Draw-out version

draw-out mechanism

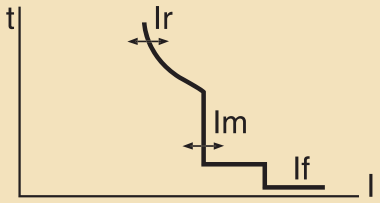


Motor operator



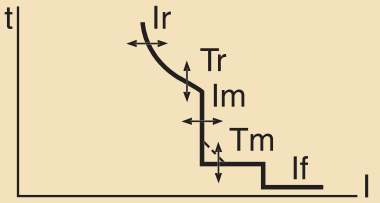
■ Performance data

S1 -
Adjustment of overload and short circuit currents (Ir and Im)



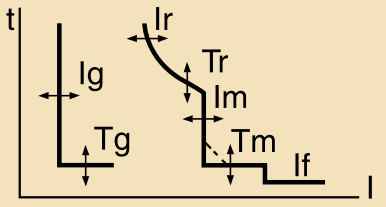
- Long delay protection against overloads with an adjustable threshold based on the rms value of the current:
  Ir = 0.4 - 0.5 - 0.6 - 0.7 - 0.8 - 0.9 - 0.95 - 1 x In (8 steps)
  Tr = 5 s
- Short delay protection against short-circuits with an adjustable Im threshold:
  Im = 1.5 - 2 - 3 - 4 - 5 - 6 - 8 - 10 x Ir (8 steps)
  Tm = 0.05 s (fixed)
- Instantaneous protection if with fixed threshold: If = 5 kA

S2 -
Adjustment of overload and short circuit currents as well as time (Ir, Tr, Im and Tm)



- Long delay protection against overloads with an adjustable threshold based on the rms value of the current:
  Ir = 0.4 - 0.5 - 0.6 - 0.7 - 0.8 - 0.9 - 0.95 - 1 x In (8 steps)
  Tr = 5 - 10 - 20 - 30 s (4 steps)
- Short delay protection against short-circuits with an adjustable Im threshold:
  Im = 1.5 - 2 - 3 - 4 - 5 - 6 - 8 - 10 x Ir (8 steps)
  Tm = 0.01 - 0.1 - 0.2 - 0.3 s (4 steps)
- Instantaneous protection against short-circuits with fixed threshold : If = 5 kA

Sg -
Adjustment of overload, short circuit and earth fault currents as well as time (Ir, Tr, Im, Tm, Ig and Tg)



- Long delay protection against overloads with an adjustable threshold based on the rms value of the current :
  Ir = 0.4 - 0.5 - 0.6 - 0.7 - 0.8 - 0.9 - 0.95 - 1 x In
  (8 steps)
  Tr = 5 - 10 - 20 - 30 s (4 steps)
- Short delay protection against short-circuits with an adjustable Im threshold:
  Im = 1.5 - 2 - 3 - 4 - 5 - 6 - 8 - 10 x Ir (8 steps)
  Tm = 0.01 - 0.1 - 0.2 - 0.3 s (4 steps)
- Instantaneous protection against short-circuits with fixed threshold: If = 5 kA
- Earth fault measurement:
  Ig = 0.2 - 0.3 - 0.4 - 0.5 - 0.6 - 0.7 - 0.8 - 1 x In (8 steps)
  Tg = 0.1 - 0.2 - 0.5 - 1 s (4 steps)

DPX™ 1250
MCCBs from 500 to 1250 A

0258 04

Dimensions (p. 73)
Technical data (p. 57)

Confirm to IEC 60947-2
Fixed version - Front terminals
Max. rated voltage 690 V A - 50/60 Hz
Thermal release adjustable from 0.8 to 1 In
Magnetic release adjustable from
5 to 10 < 1 000 A ≤ 3 to 6 In
Integrated label holder

Pack	Cat. nos.		DPX 1250
			Breaking capacity Icu : 50 kA (400 V A)
	3 P	4 P(1)	In
1	0258 00	0258 07	500
1	0258 01	0258 08	630 A
1	0258 02	0258 09	800 A
1	0258 03	0258 10	1000 A
1	0258 04	0258 11	1250 A

			DPX-H 1250
			Breaking capacity Icu : 70 kA (400 V ∿)
	3 P	4 P(1)	In
1	0258 14	0258 21	500 A
1	0258 15	0258 22	630 A
1	0258 16	0258 23	800 A
1	0258 17	0258 24	1000 A
1	0258 18	0258 25	1250 A

			DPX-L 1250
			Breaking capacity Icu : 100 kA (400 V ∿)
	3 P	4 P(1)	In
1	0258 28	0258 37	500 A
1	0258 29	0258 38	630 A
1	0258 30	0258 39	800 A
1	0258 31	0258 40	1000 A
1	0258 32	0258 41	1250 A

DPX™ 1250
rotary handles and other accessories

0262 61

OS0262 25/3

0262 66

0262 60

Confirm to IEC 60947-2
Fixed version - Front terminals
Max. rated voltage 690 V A - 50/60 Hz
Thermal release adjustable from 0.8 to 1 In
Magnetic release adjustable from 5 to 10 < 1 000 A ≤ 3 to 6 In
Integrated label holder

Pack	Cat. nos.	Rotary handles
		Available in two versions • Direct on DPX • Vary-depth handle The vary-depth handle includes the connecting rod, the bracket, the self-adhesive drilling template, the mounting accessories and the door locking mechanism
1	0262 61	Direct on DPX
1	0262 83	Vary-depth handle

		Locking accessories for rotary handle
1	OS0262 25/3	For locking the rotary handle (Direct type only) (set of 3 locks with keys)

		Phase barriers
		Used to isolate the connections between each pole
1	0262 66	Set of 3 insulation shields

		Padlock support
		For locking the handle in "OFF" position
1	0262 60	For handle

		Motor
		For remote making and breaking of a DPX MCCB and reset in the event of tripping on a fault A lock prevents operation when working on the line.
1	0261 53	Front operated 230 V ∿/⎓

		Supply inverter type
		Mounting plate
1	0264 10	For mechanical interlock of 2 DPX MCCBs
		Electronic control box
		For detecting the absence of voltage or a drop in voltage : triggers the opening of a power supply source
1	0261 93	Standard
1	0261 94	Advanced

(1) For automatic version add 2 motor operators and necessary auxiliaries

Bold catalogue numbers are products normally available with Legrand (India) stockists.
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

DPX™ 1600
MCCBs from 630 to 1600 A with microprocessor release

0257 08

0257 58

Dimensions (p. 74)
Technical data (p. 58-59)

Pack	Cat. nos.		
			Microprocessor release
			Confirm to IEC 60947-2 Fixed version - Front terminals Supplied with incoming terminals mounted
			DPX 1600
			Breaking capacity Icu : 50 kA (380/415 V AC)
			S1 - Adjustment of Ir, Im
	3 P	4 P	In
1	0257 01	0257 05	630 A
1	0257 02	0257 06	800 A
1	0257 03	0257 07	1250 A
1	0257 04	0257 08	1600 A
			Sg - Adjustment of Ir, Tr, Im, Tm, Ig, Tg
1	0257 50	0257 54	630 A
1	0257 51	0257 55	800 A
1	0257 52	0257 56	1250 A
1	0257 53	0257 57	1600 A
			DPX-H 1600
			Breaking capacity Icu : 70 kA (380/415 V AC) Max. rated voltage 690VA - 50/60 Hz
			S1 - Adjustment of Ir, Im
	3 P	4 P	In
1	0257 09	0257 13	630 A
1	0257 10	0257 14	800 A
1	0257 11	0257 15	1250 A
1	0257 12	0257 16	1600 A
			Sg - Adjustment of Ir, Tr, Im, Tm, Ig, Tg
1	0257 58	0257 62	630 A
1	0257 59	0257 63	800 A
1	0257 60	0257 64	1250 A
1	0257 61	0257 65	1600 A

DPX™ 1600
rotary handles and other accessories

0262 61

OS0262 25/3

0262 66

0262 60

Confirm to IEC 60947-2
Fixed version - Front terminals
Max. rated voltage 690 V A - 50/60 Hz
Thermal release adjustable from 0.8 to 1 In
Magnetic release adjustable from 5 to 10 < 1 000 A ≤ 3 to 6 In
Integrated label holder

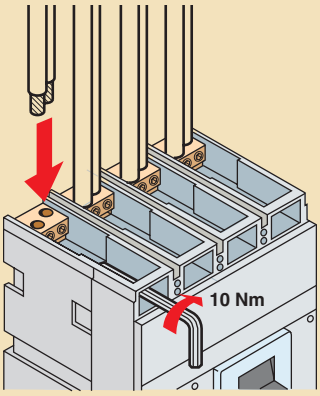
Pack	Cat. nos.	
		Rotary handles
		Available in two versions • Direct on DPX • Vary-depth handle The vary-depth handle includes the connecting rod, the bracket, the self-adhesive drilling template, the mounting accessories and the door locking mechanism
1	0262 61	Direct on DPX
1	0262 83	Vary-depth handle
		Locking accessories for rotary handle
1	OS0262 25/3	For locking the rotary handle (set of 3 locks with keys)
		Phase barriers
1	0262 66	Used to isolate the connections between each pole Set of 3 insulation shields
		Padlock support
1	0262 60	For locking the handle in "OFF" position For handle
		Motor
1	0261 53	For remote making and breaking of a DPX MCCB and reset in the event of tripping on a fault A lock prevents operation when working on the line. Front operated 230 V ∿/⎓
		Supply inverter type
		Mounting plate
1	0264 10	Factory-assembled version only Kindly check with our sales staff for more details
		Electronic control box For detecting the absence of voltage or a drop in voltage : triggers the opening of a power supply source
1	0261 93	Standard
1	0261 94	Advanced

DPX™ 1600
MCCBs from 630 to 1600 A and microprocessor release

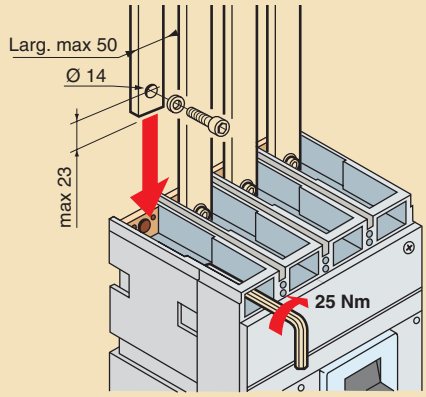
■ Connection

Fixed version front mounting

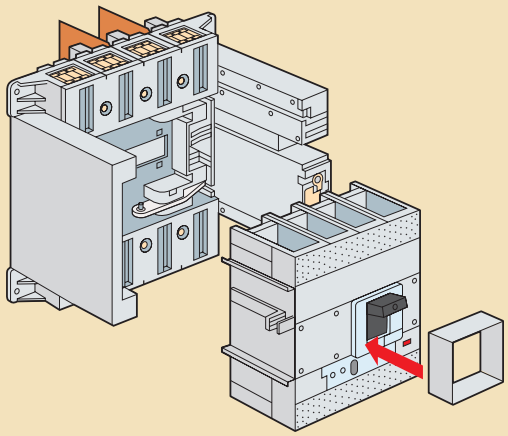
connection by cables



connection by busbars

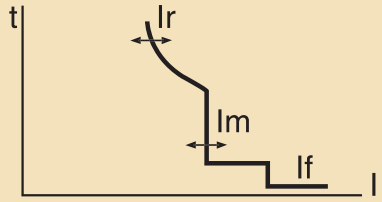


Draw-out version



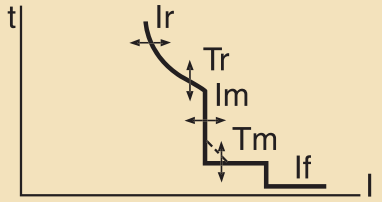
■ Performance data

S1 -
Adjustment of overload and short circuit currents (Ir and Im)



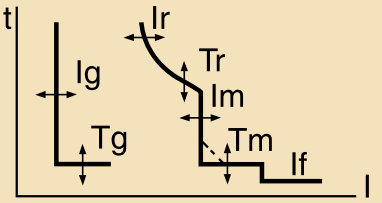
- Long delay protection against overloads with an adjustable threshold based on the rms value of the current:
  Ir = 0.4 - 0.5 - 0.6 - 0.7 - 0.8 - 0.9 - 0.95 - 1 x In (8 steps)
  Tr = 5 s
- Short delay protection against short-circuits with an adjustable Im threshold:
  Im = 1.5 - 2 - 3 - 4 - 5 - 6 - 8 - 10 x Ir (8 steps)
  Tm = 0.05 s (fixed)
- Instantaneous protection if with fixed threshold : If = 5 kA

S2 -
Adjustment of overload and short circuit currents as well as time (Ir, Tr, Im and Tm)



- Long delay protection against overloads with an adjustable threshold based on the rms value of the current :
  Ir = 0.4 - 0.5 - 0.6 - 0.7 - 0.8 - 0.9 - 0.95 - 1 x In (8 steps)
  Tr = 5 - 10 - 20 - 30 s (4 steps)
- Short delay protection against short-circuits with an adjustable Im threshold:
  Im = 1.5 - 2 - 3 - 4 - 5 - 6 - 8 - 10 x Ir (8 steps)
  Tm = 0.01 - 0.1 - 0.2 - 0.3 s (4 steps)
- Instantaneous protection against short-circuits with fixed threshold:
  If = 5 kA

Sg -
Adjustment of overload, short circuit and earth fault currents as well as time (Ir, Tr, Im, Tm, Ig and Tg)



- Long delay protection against overloads with an adjustable threshold based on the rms value of the current:
  Ir = 0.4 - 0.5 - 0.6 - 0.7 - 0.8 - 0.9 - 0.95 - 1 x In (8 steps)
  Tr = 5 - 10 - 20 - 30 s (4 steps)
- Short delay protection against short-circuits with an adjustable Im threshold:
  Im = 1.5 - 2 - 3 - 4 - 5 - 6 - 8 - 10 x Ir (8 steps)
  Tm = 0.01 - 0.1 - 0.2 - 0.3 s (4 steps)
- Instantaneous protection against short-circuits with fixed threshold:
  If = 5 kA
- Earth fault measurement:
  Ig = 0.2 - 0.3 - 0.4 - 0.5 - 0.6 - 0.7 - 0.8 - 1 x In (8 steps)
  Tg = 0.1 - 0.2 - 0.5 - 1 s (4 steps)

DPX™
control and signalling auxiliaries


0261 60


0261 83


0261 98

Technical data (p. 48)

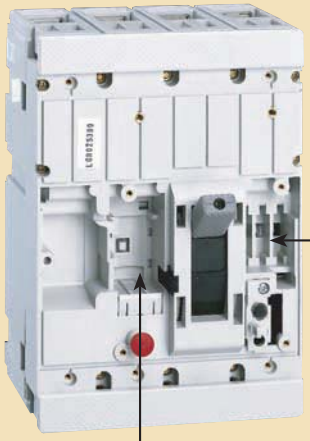
Pack	Cat. nos.	Auxiliary contact or fault signalling contact
		For signalling the state of the contacts or opening of the MCCB on a fault
		For DPX MCCBs from 125 A to 1600 A
1/24	**0261 60**	Changeover switch 3 A - 240 V

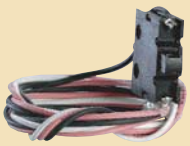
	Shunt inrush power 300 VA	Shunt trip
		Allow remote tripping of a DPX
		For MCCBS from 16 to 1 600 A
1	0261 64	Coil voltage 24 V AC and DC
1	0261 65	Coil voltage 48 V AC and DC
1	0261 66	Coil voltage 110 V AC and DC
1	0261 67	Coil voltage 230 V AC and DC
1	0261 68	Coil voltage 400 V AC and DC

	Undervoltage power consumption 5 VA	Undervoltage releases
		For protection against under voltage
		For DPX 125
1	0261 73	Coil voltage 230 V∿
1	0261 74	Coil voltage 400 V∿
		For MCCBS from DPX 160 to DPX 1600
1	0261 83	Coil voltage 230 V∿
1	0261 84	Coil voltage 400 V∿

		Electronic test unit
1	0261 98	For checking the operating characteristics of an electronic MCCB via 2 n electronic unit PALM III C • identification of the undervoltage release • checking correct operation of the undervoltage release • monitoring of trip curves • memorisation of causes of last trip : overload, short-circuit (instantaneous or short delay), earth fault and phase affected • memorisation of number of occasions the device has tripped on a fault since installation • measurement of current values for each phase • measurement of internal temperatures of the device

DPX™
common auxiliaries from 16 to 1600 A





Auxiliary contact or fault signal

A single cat. no. 0261 60 auxiliary contact or fault signal (according to which compartment is selected)

Undervoltage releases

Shunt releases

Provision of auxiliaries (framewise)

DPX Frames	Fault signalling contact	Auxiliary contact	Shunt OR UV release
DPX 125	1	1	1
DPX 160	1	1	1
DPX 250 ER	1	1	1
DPX 250	1	1	1
DPX 630	2	2	1
DPX 1250 / 1600	1	3	1

For overload and short circuit protection for DC applications

see p. 90

Bold catalogue numbers are products normally available with Legrand (India) stockists.
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

DPX™ residual current relay & coils

0290 98

0260 88

0260 93 coil for use with relay

Dimensions (p. 76)

Add residual current protection to DPX
MCCBs equipped with shunt trip or undervoltage release

Pack	Cat. nos.	Residual current relay
1	2 modules 0260 88	Detects fault currents and when used with a shunt trip or an undervoltage release, it gives the trip command to on MCCB or a switch • Comprises : - a tinged, sealable window - an auxiliary contact - a green Led indicating energisation - 3 yellow Leds indicating respectively the max. phase earth insulation current : 20, 40 and 60 % - a red Led indicating Fixed : exceeding of the insulation fault current value Flashing : breaking of one of the connections between coils and relays • For use with coils : - Ø 35 and 80 mm Adjustable sensitivity : 0.03, 0.05, 0.075, 0.1, 0.15,0.2, 0.3, 0.5, 0.75, 1, 1.5, 2, 3, 5, 7.5, 10, 15, 20, 30 A - Ø 110 to 210 mm Adjustable sensitivity : 0.3, 0.5, 0.75, 1, 1.5, 2, 3, 5, 7.5, 10, 15, 20, 30 A - Ø 150 mm Adjustable sensitivity : 0.5, 0.75, 1, 1.5, 2, 3, 5, 7.5, 10, 15, 20, 30 A - Ø 300 mm Adjustable sensitivity : 1, 1.5, 2, 3, 5, 7.5, 10, 15, 20, 30 A • Adjustable sensitivity : 0, 0.15, 0.25, 0.5, 1, 2.5, 5 seconds • Supply voltage : 230/240 V - 50/60 Hz Residual current relay to clip on rail

		Coils
		For use with residual current relay cat. no 260 88 (above) 1 coil per DPX
1/12	0260 92	Coil Ø 35 mm
1/10	0260 93	Coil Ø 80 mm
1	0260 94	Coil Ø 110 mm
1	0260 95	Coil Ø 140 mm
1	0260 96	Coil Ø 210 mm
1	0260 97	Coil Ø 150 mm - open
1	0260 98	Coil Ø 300 mm - open

Ekinoxe™ MCCB's Distribution Boards

(refer pg. 181)

■ Technical data

A circuit breaker is both a circuit-breaking device which can make, withstand and break currents whose intensity is at most equal to its nominal current (In), and a protection device which can automatically break overcurrents which may occur as a result of faults in installations.

Legrand circuit breakers are divided into two main categories: DPX MCCBs (moulded cases), and Lexic MCBs (modular). The choice of the characteristics of an MCB depends on the size of the installation

Circuit breakers also perform the following functions:

- Manual or automatic control of a circuit
- Isolation with positive contact indication (DPX) and visible contact indication for plug-in and draw-out devices
- Emergency breaking
- Residual current protection
- Undervoltage protection

The technologies used

Overcurrents are detected by three different devices: thermal for overloads, magnetic for short-circuits and electronic for both. Thermal and magnetic releases, which are usually combined (thermal-magnetic MCBs), use a tried and tested, low-cost technology, but provide less flexibility of adjustment than electronic releases.

Thermal release

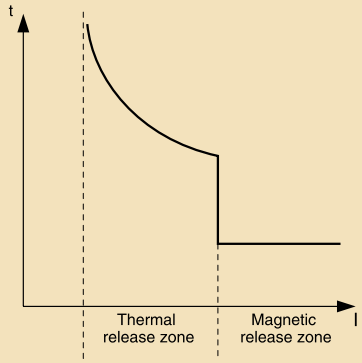
This consists of a bimetallic strip which bends when heated beyond the normal operating values, thus releasing the lock which holds the contacts. The reaction time of a bimetallic strip is in inverse proportion to the intensity of the current. As a result of its thermal inertia, each reclosing of the faulty circuit reduces its reaction time. DPX MCCBs can be used to set the trip current Ir between certain limits (0.64 to 1 In depending on the model).

Magnetic release

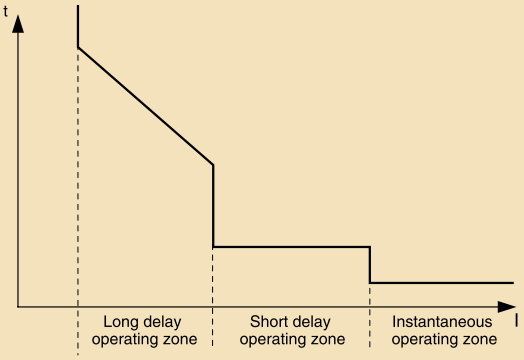
This consists of a magnetic loop whose effect releases the lock which holds the contacts, thus triggering a break if there is a high overcurrent. The response time is very short (around one hundredth of a second). DPX MCCBs have an Im setting (up to 10 x Ir), which can be used to set the release value to the protection conditions of the installation (fault current and indirect contact). Moreover, this setting can be used to find the best discrimination conditions between the devices.

■ Typical tripping curves

Thermal-magnetic release



The electronic release (Microprocessor-based)



A coil, placed on each conductor, constantly measures the current in each conductor. This information is processed by an electronic module which controls the tripping of the CB when the values of the settings are exceeded. The curve of the release shows three zones of operation.

“Long delay” operating zone

This is similar to the characteristic of a thermal release. It protects conductors against overloads.

“Short delay” operating zone

This provides protection against lower intensity short-circuits, generally at the end of the line. The trip threshold can usually be adjusted. The period of the delay may be increased by thresholds up to one second, to ensure discrimination with devices placed downstream.

“Instantaneous” operating zone

This provides protection against high intensity short-circuits. It is factory set at a fixed value (5 to 20 kA depending on the model).

DPX™ MCCBs

■ Technical data

The electronic releases of the DPX have a number of innovative additional functions, depending on the model.

- Thermal memory: in the context of “long delay” protection, the release memorises the image of the temperature rise produced by an overload. This “thermal memory” is regularly refreshed if no other overload occurs. However, if there are successive overloads, the effects are cumulative and the operation time of the device will be proportionally reduced. Protection of the cable is thus maintained.
- Adjustment of the neutral current on the front panel (0%, 50%, 100% of the phase current).
- Logical discrimination: a special link between two devices can be used to assign an additional 50 ms delay to the device installed upstream in order to give the downstream device time to break the circuit.
- Load shedding function: when a device is crossed by a current greater than 105% of Ir, it is possible, using the output contacts, to shed the non-priority circuits. The load shedding information is cancelled when the device’s load returns to less than 85% of Ir.
- Signalling of the load on the device via LEDs on the front panel (green: normal ; red continuous: I • 0.9 ∞ Ir ; red flashing: I • 1.05 ∞ Ir).
- Connector on front panel for connecting the electronic test unit cat. no. 0261 99.
- Self-protection if there is a microprocessor problem.
- Device for detecting significant earth faults, with adjustment of the current Ig from 0.2 to 1 ∞ In, and the time Tg from 0.1 to 1 second.

■ Choice of protection devices

Earth leakage modules electronic type

All DPX circuit-breakers up to 630 A can be fitted with earth leakage modules without modifying their technical characteristics and with the same options for accessories.

General characteristics

There are two versions of the 63 A, 125 A, 160 A and 250 A earth leakage module with the same technical characteristics but a different method of mounting :

- mounted side by side
- mounted underneath

They are available in 5 ratings depending on the rating of the circuit-breaker :

125 A for the DPX 125 from 100 to 125 A

250 A for the DPX 250 ER

250 A for the DPX 250

400 A for the DPX 630

630 A for the DPX 630

Installation of earth leakage modules is a purely mechanical task and neither device needs to be be dismantled.

If earth leakage modules are mounted on the underneath, the electrical connection is direct. If they are mounted side by side, the conductors have to be connected.

■ Electronic type

- Earth leakage module with electronic release
- Type A RCD (DC components)
- Time delay and sensitivity can be adjusted :

  IΔn = 30 mA - 300 mA - 1 A - 3 A

  t = instantaneous - 0.3 s - 1 s - 3 s
- The combined characteristics of the earth leakage modules and circuit-breakers mean that they can be used as protection devices for distribution boards (high sensitivity IΔn = 30 mA) or as general protection devices.
- If the sensitivity is set to 30 mA, the time delay is automatically cancelled.

A switch is used to disconnect the electronic components from the AC supply and open the circuit-breaker automatically, in order to isolate the installation without the risk of damaging the RCD electronics.

For 3-pole and 4-pole DPX > DPX 630 and side-operated DPX, use RCD kits.

■ Connecting the DPX

Version	Connection	DPX 125	DPX 160	DPX 250	DPX 630	DPX 1250/1600
Fixed	Front terminals	-	Mounted	Mounted	Mounted	Mounted
	Cage terminals	Mounted	•	•	•	•
	High capacity cage terminals	-	-	-	•	•
	Connection extension rods	-	-	•	•	•
	Spreaders	•	•	•	•	-
	Threaded rear terminals	•	•	•	•	-
	Flat rear terminals	-	-	•	•	-
	Short flat rear terminals	-	-	-	-	•
	Long flat rear terminals	-	-	-	-	•
Plug-in	Front terminals	•	•	•	•	-
	Threaded rear terminals	•	•	•	•	-
	Flat rear terminals	-	-	•	•	-
Draw-out	Front terminals	-	-	•	•	•
	Threaded rear terminals	-	-	•	•	•

DPX mounting versions

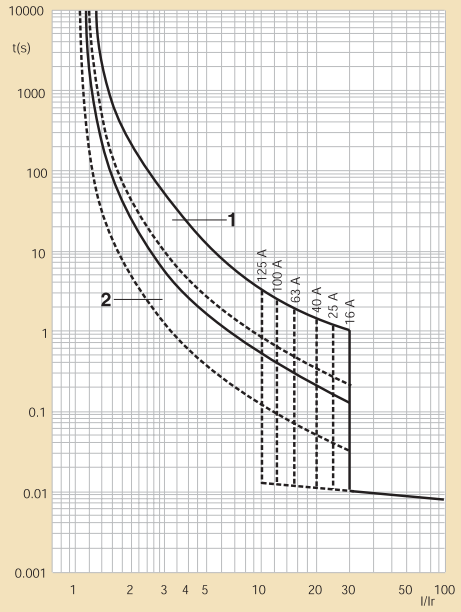
Mounting		DPX 125			DPX 160			DPX 250		DPX 630		DPX 1250 1600
		On its own	+ Side ELM	+ Downstr. ELM	On its own	Side ELM	+ Downstr. ELM	On its own	+ Downstr. ELM	On its own	+ Downstr. ELM	On its own
On rail		•	•	-	•	•	–	–	–	–	-	-
Fixed	Front terminals	•	•	•	•	•	•	•	•	•	•	•
	Rear terminals	•	-	•	•	-	•	•	•	•	•	•
Plug-in	Front terminals	•	-	•	•	-	-	•	•	•	•	-
	Rear terminals	•	-	•	•	-	-	•	•	•	•	-
Draw-out	Rear terminals	-	-	-	-	-	-	•	•	•	•	•
	Rear terminals	-	-	-	-	-	-	•	•	•	•	•

■ Technical data

Electrical characteristics

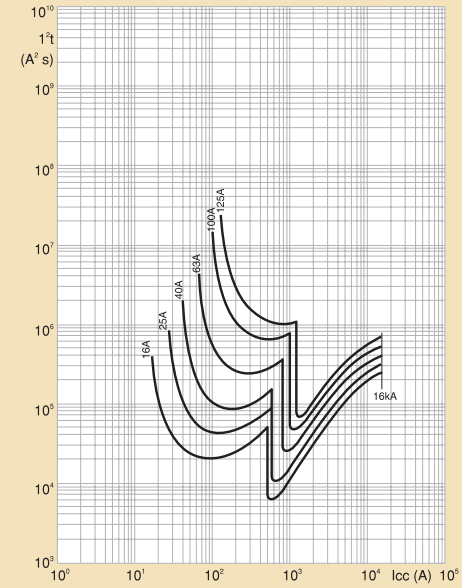
Maximum nominal operating voltage	500 V~ - 250 V⎓
Nominal frequency	50/60 Hz
Nominal rating (40°C)	16 to 125 A
Category of use	A
Thermal adjustment	0.7 to 1 In
Maximum permitted cross-sections - rigid cables	 70 mm²
- flexible cables	50 mm²
- copper bar (width)	12 mm

Performance data for 3- and 4-pole DPX 125



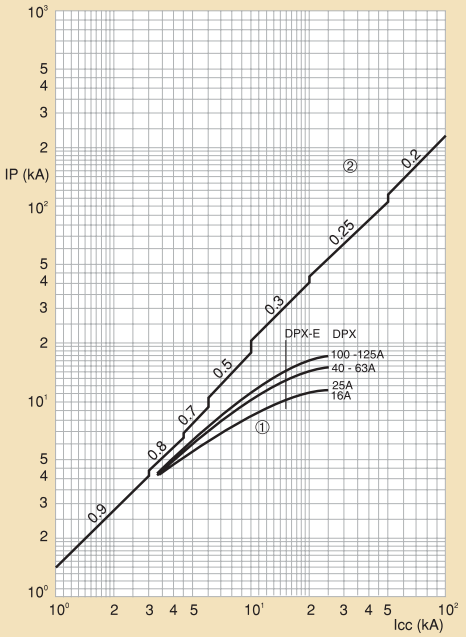
at ambient θ = 40 °C
I = actual current
Ir = max. adjustment current of thermal release
① = thermal release zone when cold
② = thermal release zone when hot (in steady state)

Thermal stress limitation curve



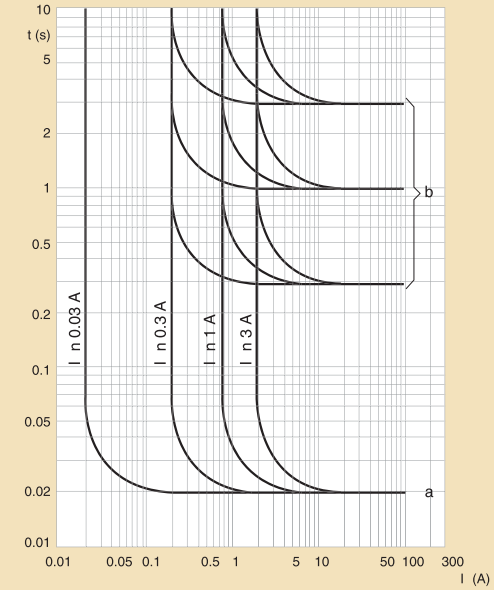
Icc = prospective short-circuit symmetrical current (rms value in A)
I²t = limited thermal stress (in A²s)

Current limitation curves



Icc = prospective short-circuit symmetrical current (rms value in kA)
IP = maximum peak value (in kA)
1 = max. peak rms short-circuit currents
2 = max. unlimited peak currents, corresponding to power factors indicated above (0.15 to 0.9)

Differential tripping earth fault curves



IΔ(A) = residual current
IΔn = nominal residual current
a = instantaneous trip
b = 3 possibilities for adjustment of the time delay (0.3, 1 and 3 seconds)

■ Technical data

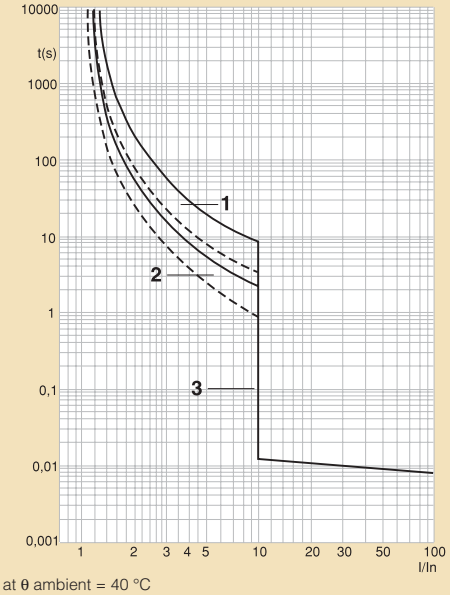
Electrical characteristics

Maximum nominal operating voltage	500 V~ - 250 V⎓
Nominal frequency	50/60 Hz
Nominal rating (40°C)	160 A
Category of use	A
Thermal adjustment	0.7 to 1 In
Maximum permitted cross-sections - rigid cables	 95 mm²
- flexible cables	70 mm²
- copper bar (width)	18 mm

Breaking capacity (kA) (EN 60947-2 and IEC 60947-2)

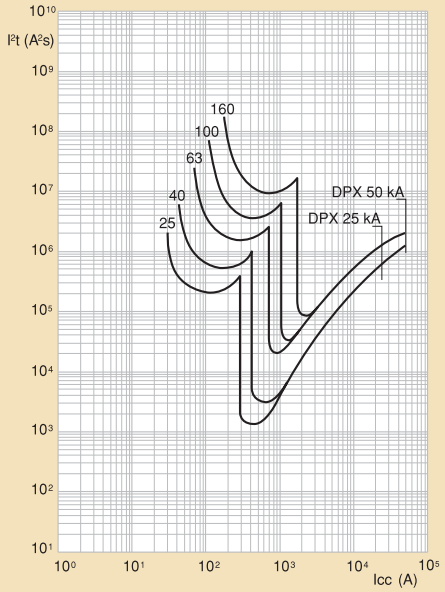
	DPX 160 36 kA		DPX 160 50 kA	
Ue	Icu (kA)	Ics (% Icu)	Icu (kA)	Ics (% Icu)
400 V~	36	75	50	50
230 V~	50	75	65	50

Performance data



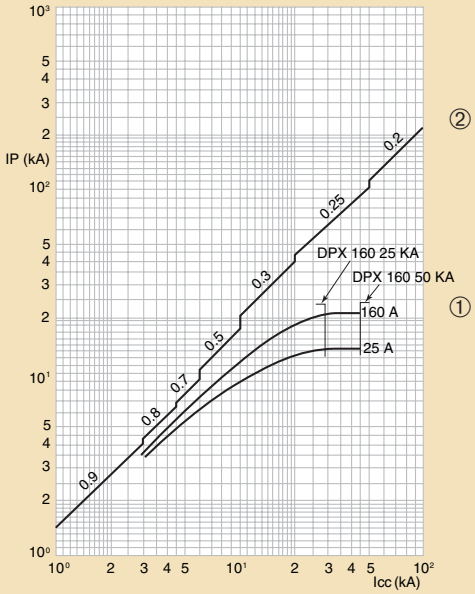
at θ ambient = 40 °C
I = actual current
Ir = max. adjustment current of thermal release
① = thermal release zone when cold
② = thermal release zone when hot (in steady state)

Thermal stress limitation curves



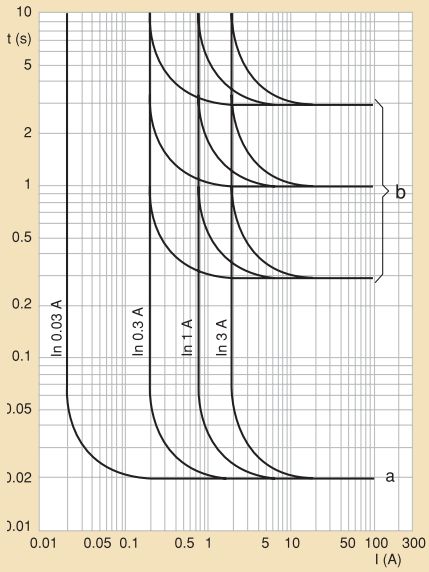
Icc = prospective short-circuit symetrical current (rms value in A)
I²t = limited thermal stress (in A²s)

Thermal stress limitation curves



Icc = prospective short-circuit symetrical current (rms value in A)
IP = maximal peak value (kÂ)
① = current, max. peak, short-circuit rms
② = current, unlimited peak (max.), correspondto power factors shown above (0.15 to 0.9)

Tripping current curves (earth leakage modules)



IΔ = earth leakage current
IΔn = nominal earth leakage current
a = instantaneous tripping point
b = 3 possible delay setting (0.3, 1 and 3 seconds)

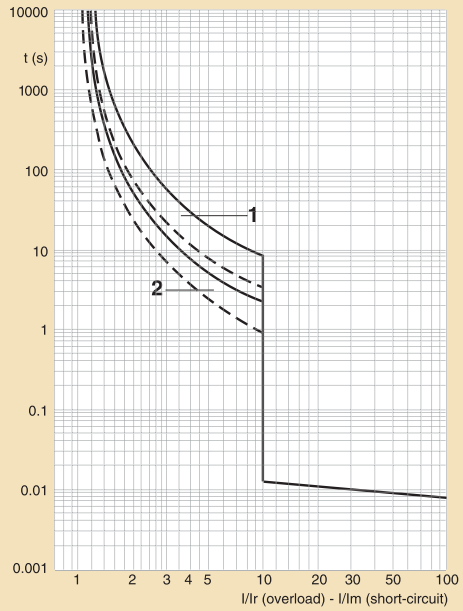
(1) Trip current for 50/60 hz
For direct current, multiply by 1.5

■ Technical data

Electrical characteristics

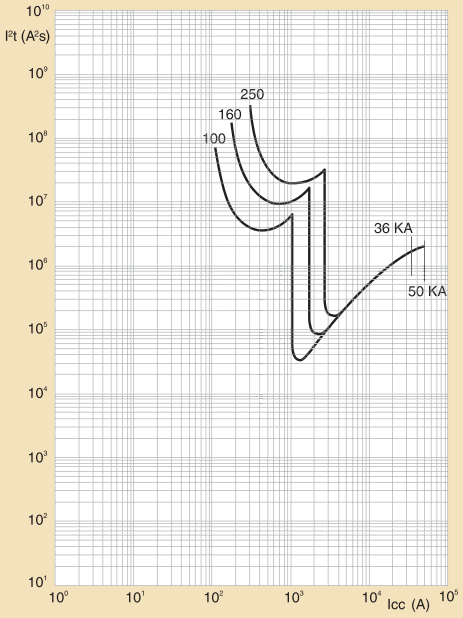
Maximum nominal operating voltage	500 V~ - 250 V⎓
Nominal frequency	50/60 Hz
Nominal rating (40° C)	100 to 250 A
Category of use	A
Thermal adjustment	0.64 to 1 In
Magnetic release	10 In
Maximum permitted cross-sections - rigid cables(1)	185 mm²
- flexible cables(1)	150 mm²
- copper bar (width)	22 mm

Performance data for DPX 250 ER



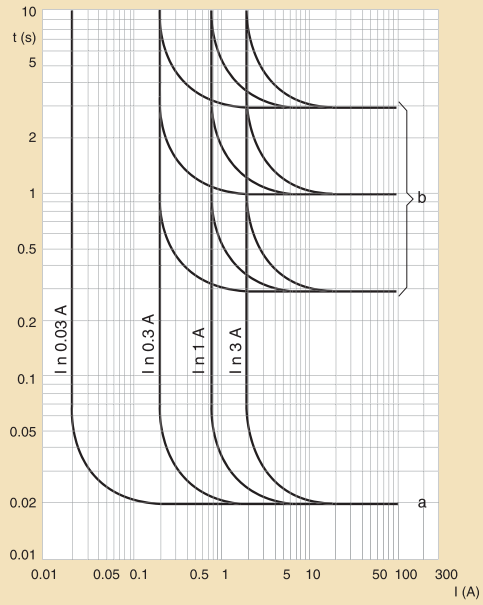
at ambient θ = 40° C
I = actual current
Ir = max. adjustment current of thermal release
1 = thermal release zone when cold
2 = thermal release zone when hot (in steady state)

Thermal stress limitation curves



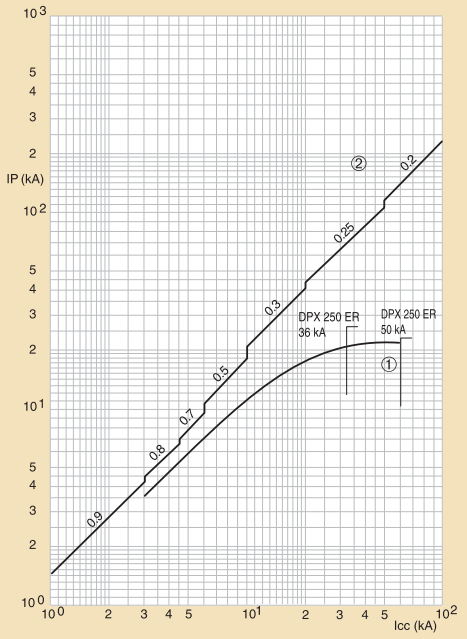
Icc = prospective short-circuit symmetrical current (rms value in A)
I²t = limited thermal stress (in A²s)

Tripping current curves (earth leakage modules)



IΔ(A) = earth leakage current
IΔn = nominal earth leakage current
a = instantaneous tripping point
b = 3 possible delay settings (0.3, 1 and 3 seconds)

Current limitation curves



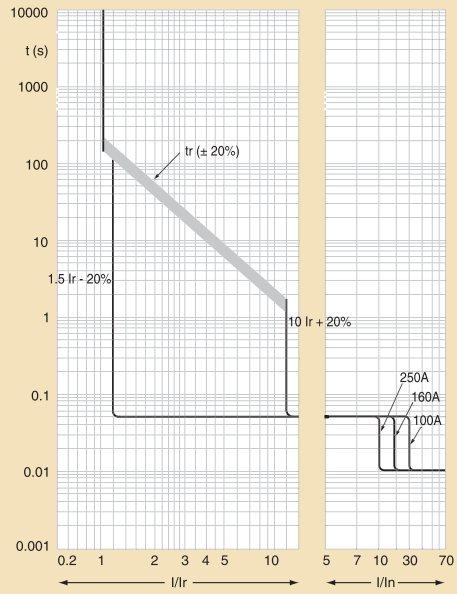
Icc = prospective short-circuit symmetrical current (rms value in kA)
IP = maximum peak value (in kA)
① = max. peak rms short-circuit currents
② = max. unlimited peak currents, corresponding to power factors indicated above (0.15 to 0.9)

■ Technical data

Electrical characteristics for DPX 250 (microprocessor release)

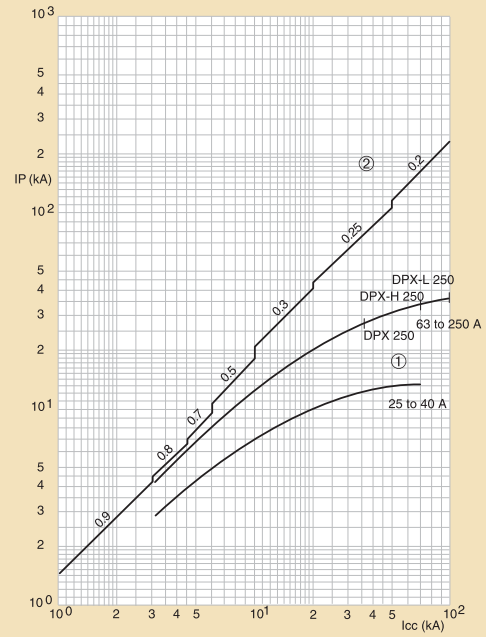
Maximum nominal operating voltage	690 V~
Nominal frequency	50/60 Hz
Nominal rating (40° C)	40 to 250 A
Category of use	A
Overload protection	0.4 to 1 In
Short circuit protection	1.5 to 10 In
Maximum permitted cross-sections - rigid cables(1)	185 mm²
- flexible cables(1)	150 mm²
- copper bar (width)	25 mm

Performance data for DPX 250 (microprocessor release)



Icc = prospective short-circuit symmetrical current (rms value in A)
IP = maximum peak value (kA)
1 = current, max. peak, short-circuit rms
2 = current, unlimited peak (max.) corresponding to power factors shown above (0.15 to 0.9)

Current limitation curves



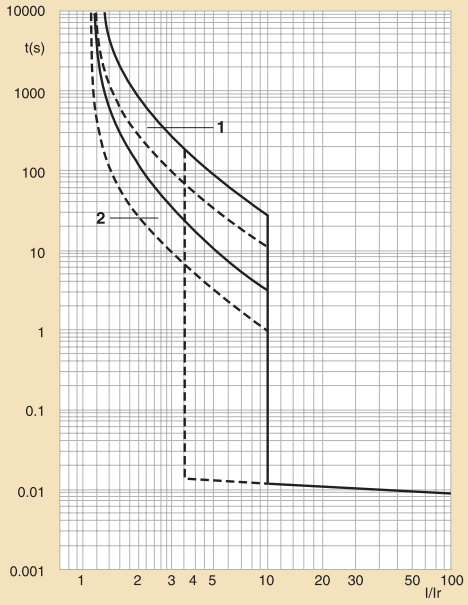
Icc = prospective short-circuit symmetrical current (rms value in kA)
IP = maximum peak value (in kA)
① = max. peak rms short-circuit currents
② = max. unlimited peak currents, corresponding to power factors indicated above (0.15 to 0.9)

Electrical characteristics for DPX 250 (thermal magnetic release)

Maximum nominal operating voltage	690 V~ - 250 V⎓
Nominal frequency	50/60 Hz
Nominal rating (40° C)	25 to 250 A
Category of use	A
Thermal adjustment	0.64 to 1 In
Magnetic release	3.5 to 10 In
Maximum permitted cross-sections - rigid cables(1)	185 mm²
- flexible cables(1)	150 mm²
- copper bar (width)	25 mm

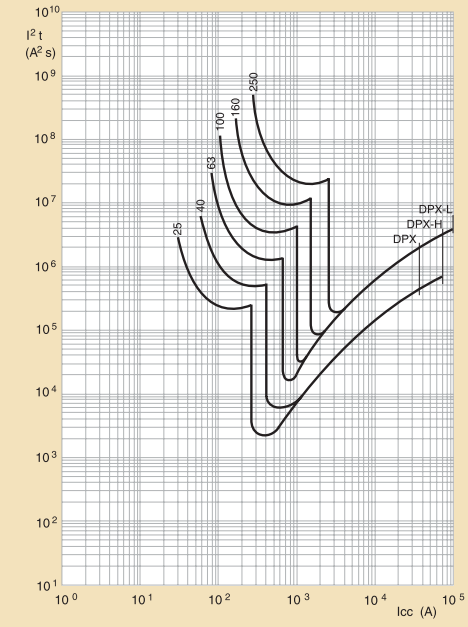
(1) With cage terminal cat. no. 292 48

Performance data for DPX 250



at ambient θ = 40° C
I = actual current
Ir = max. adjustment current of thermal release
1 = thermal release zone when cold
2 = thermal release zone when hot (in steady state)

Thermal stress limitation curves



Icc = prospective short-circuit symmetrical current (rms value in A)
I²t = limited thermal stress (in A²s)

For tripping current curves of DPX 250 (Earth leakage modules) kindly refer the relevant curve on pg.54

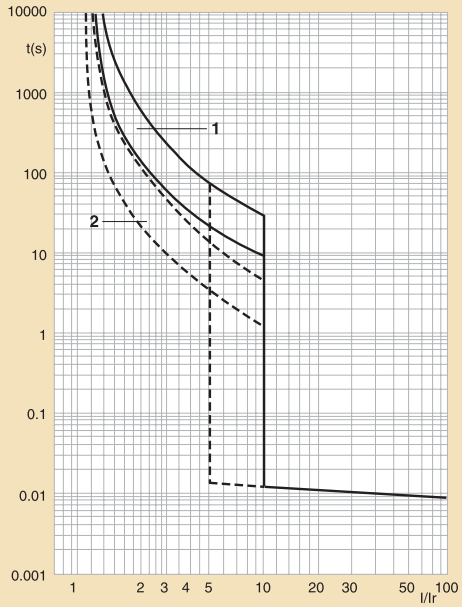
■ Technical data

Electrical characteristics (thermal magnetic release)

Maximum nominal operating voltage	690 V∿ - 250 V=
Nominal frequency	50/60 Hz
Nominal rating (40° C)	400 to 630 A
Category of use	A
Thermal adjustment	0.8 to 1 In
Magnetic release	5 to 10 In
Maximum permitted cross-sections - rigid cables(1)	 300 mm²
- flexible cables(1)	240 mm²
- copper bar (width)	32 mm

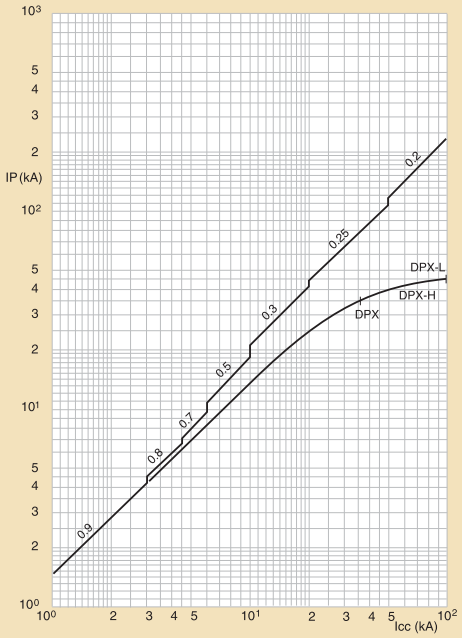
(1) With cage terminal cat. no. 0292 58

Performance data for DPX 630



at ambient θ = 40° C
I = actual current
Ir = max. adjustment current of thermal release
1 = thermal release zone when cold
2 = thermal release zone when hot (in steady state)

Current limitation curves



Icc = prospective short-circuit symmetrical current (rms value in kA)
IP = maximum peak value (in kA)

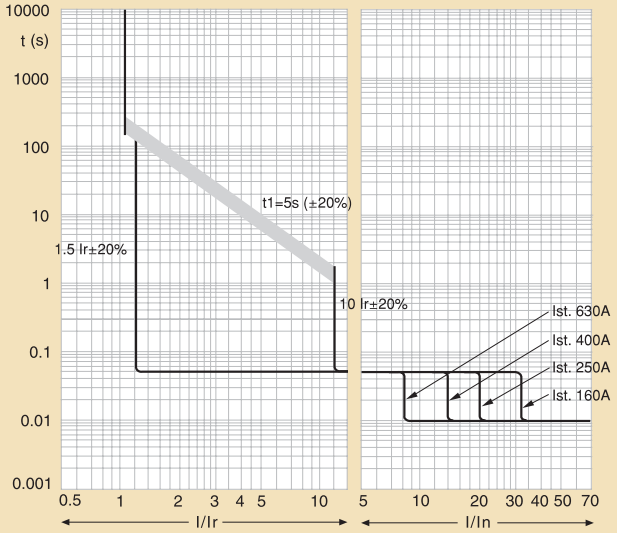
Electrical characteristics (microprocessor release)

MCCBs

Maximum nominal operating voltage	690 V∿
Nominal frequency	50/60 Hz
Nominal rating (40° C)	160 to 630 A
Category of use	A for In : 630 A B for In : 160 and 400 A
Adjustment current	Ir : from 0.4 to 1 In
Maximum permitted cross-sections - rigid cables(1) (1) With terminals cat. no 0262 50	 300 mm² (or 2 x 240 mm²)
- flexible cable(1) (1) With terminals cat. no 0262 50	240 mm² (or 2 x 185 mm²)
- copper bar (width)	32 mm

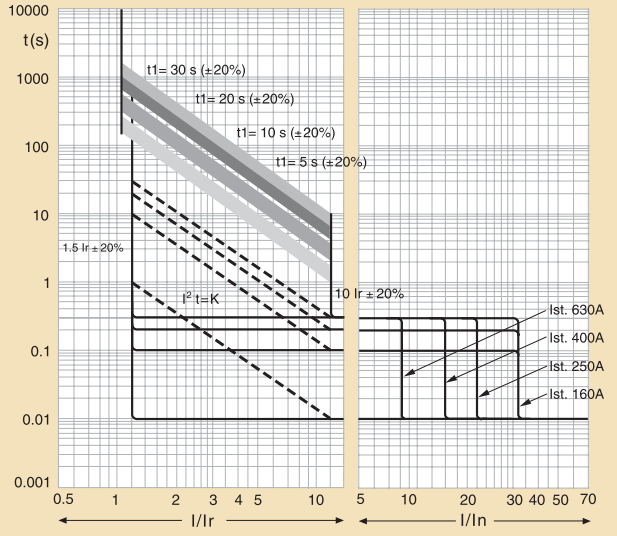
(1) For 2 cables, use terminals cat. no 0292 78 : for 4 cables, use terminals cat. no 0292 79

Performance data for DPX 630 (S1)



In = nominal current
I = actual current
Ir = max. adjustment current of thermal release

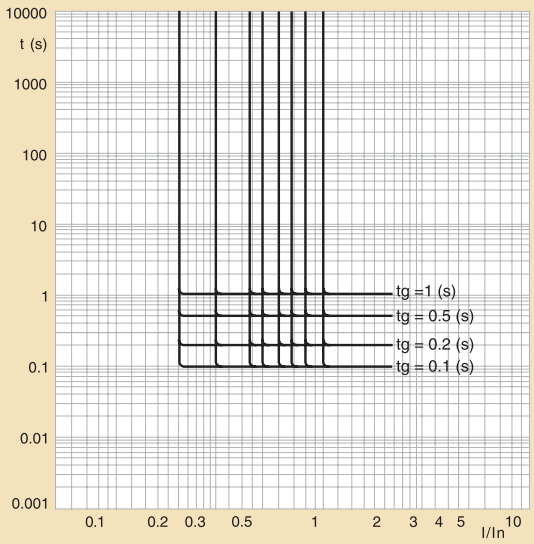
Performance data for DPX 630 (S_2-Sg)



in = nominal current
I = actual current
Ir = max. adjustment current of thermal release

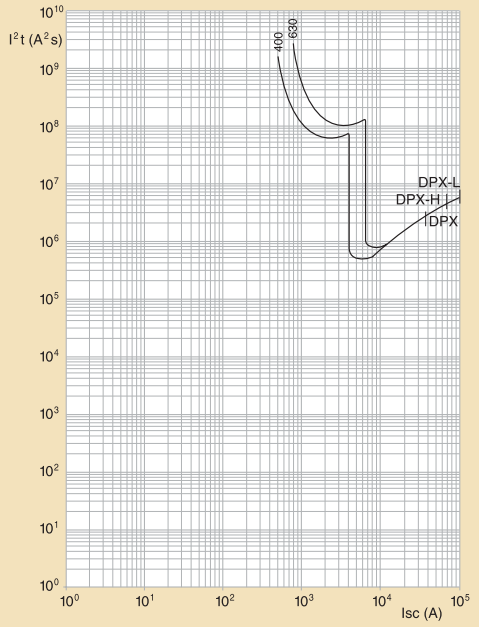
■ Technical data

Performance data (earth fault) Sg



I = actual current / In = nominal current

Thermal stress limitation curves



Isc = prospective short-circuit symmetrical current (rms value in A)
I^2t = limited thermal stress (in A^2s)

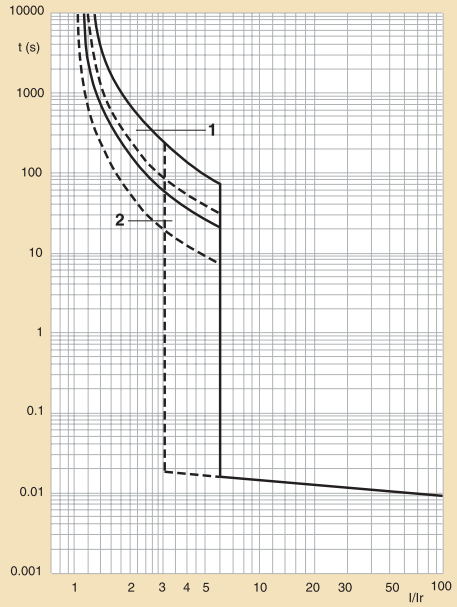
■ Technical data

Electrical characteristics

Maximum nominal operating voltage	690 V~ - 250 V⎓ (2)
Nominal frequency	50/60 Hz
Nominal rating (40° C)	500 to 1250 A
Category of use	A
Thermal adjustment	0.8 to 1 In
Magnetic release	
- 500 to 800 A	5 to 10 In
- 1000 and 1250 A	3 to 6 In
Maximum permitted cross-sections	
- 2 or 4 rigid cables (1)	240 mm^2
- 2 or 4 flexible cables (1)	185 mm^2
- copper bar (width)	50 mm

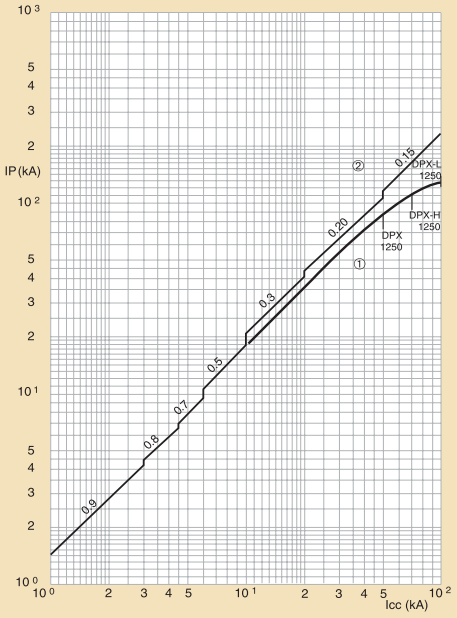
(1) For 2 cables, use terminals cat. no 0292 78 : for 4 cables, use terminals cat. no 0292 79
(2) Direct current: magnetic protection only

Performance data for DPX 1250



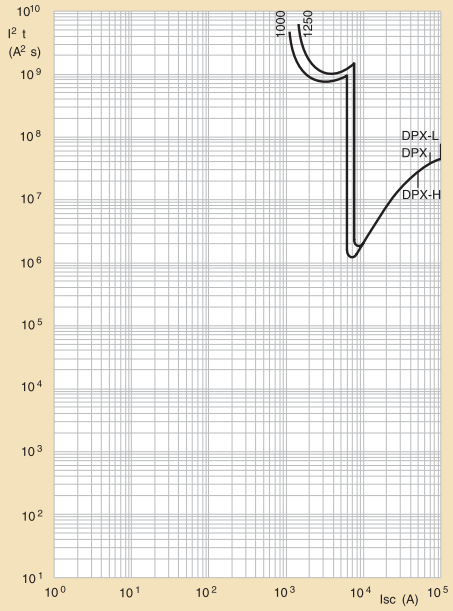
at ambient θ = 40° C
I = actual current / Ir = max. adjustment current of thermal release
1 = thermal release zone when cold
2 = thermal release zone when hot (in steady state)

Current limitation curves

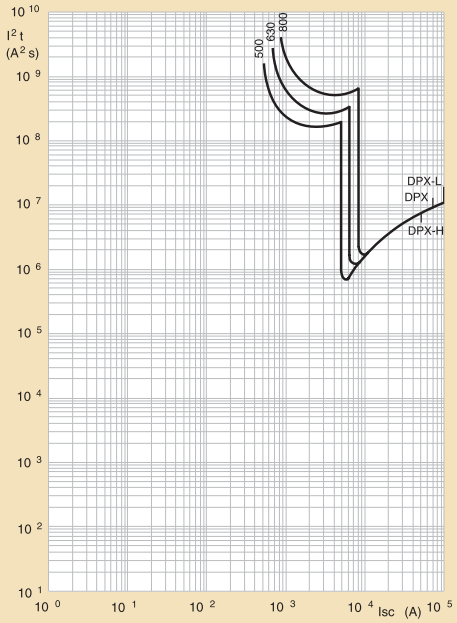


at ambient θ = 40° C
I = actual current
Ir = max. adjustment current of thermal release
1 = thermal release zone when cold
2 = thermal release zone when hot (in steady state)

Thermal stress limitation curves



Icc = prospective short-circuit symmetrical current (rms value in A)
I²t = limited thermal stress (in A²s)



■ Technical data

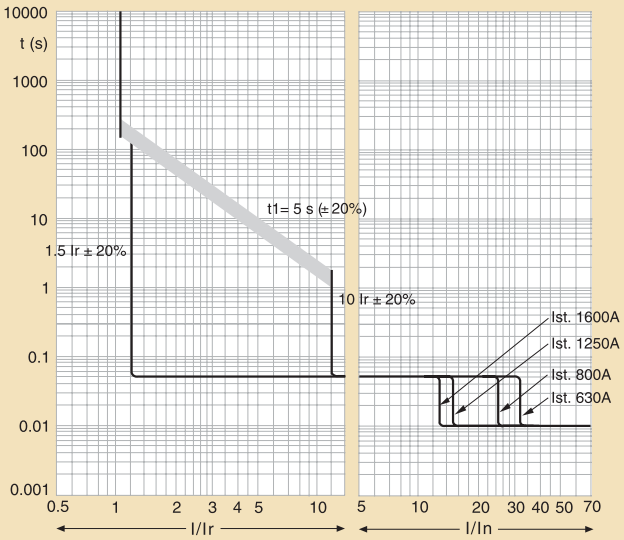
Electrical characteristics

MCCBs and trip-free switches

Maximum nominal operating voltage	690 V~
Nominal frequency	50/60 Hz
Nominal rating (40° C)	630 to 1600 A
Category of use	B
Adjustment current	from 0.4 to 1 In
Maximum permitted cross-sections - 2 or 4 rigid cables(1)	 240 mm²
- 2 or 4 flexible cables(1)	185 mm²
- copper bar (width)	50 mm

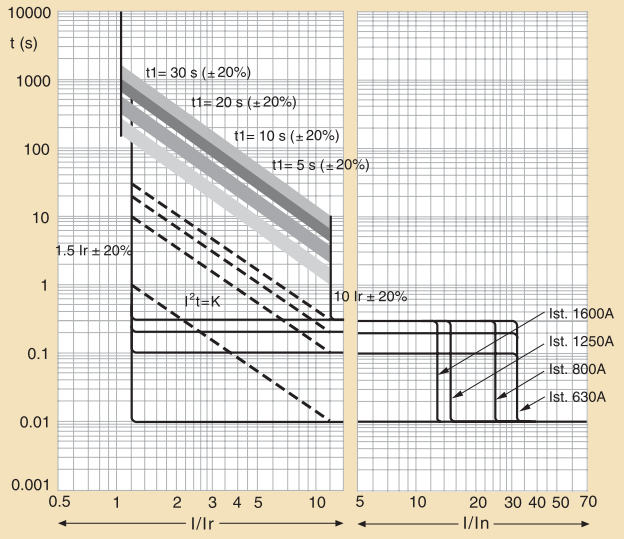
(1) For 2 cables, use terminals cat. no 0262 69 : for 4 cables, use terminals cat. no 0262 70

Performance data for DPX 1600 (S1)



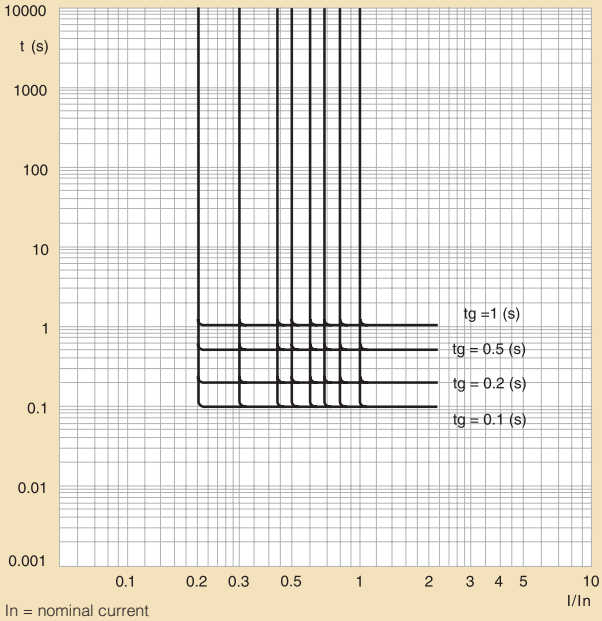
In = nominal current
I = actual current
Ir = max. adjustment current of thermal release

Performance data for DPX 1600 (Sg)



In = nominal current
I = actual current
Ir = max. adjustment current of thermal release

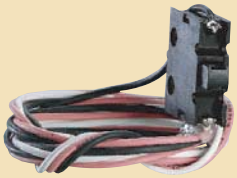
Performance data (Earth fault) Sg



In = nominal current
I = actual current

■ Technical data

Auxiliary contact or fault signalling contact



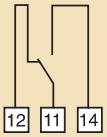


Diagram of auxiliary contact

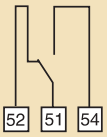


Diagram of fault signalling contact

Maximum service current

Vn	In
400 V a.c.	1.5 A
230 V a.c.	3 A
110 V a.c.	4 A
230 V d.c.	0.25 A
110 V d.c.	0.5 A
48 V d.c.	1.7A

Shunt trip

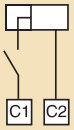


Diagram of shunt trip

Vn	24V a.c./d.c.
	48V a.c./d.c.
	110 to 130V a.c./d.c.
	220 to 250V a.c./d.c.
	380 to 440V a.c./d.c.
Pw	300 VA (a.c. 50-60 Hz)
	300W (d.c.)
V (working)	≥ 75% Vn

Under voltage releases

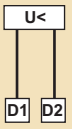


Diagram of under voltage releases

Vn	24V a.c./d.c.
	48V d.c.
	210V a.c.
	400V a.c.
Pw	5 VA (a.c. 50-60 Hz)
	1.6W (d.c.)
Vs (opening)	≤ 35 to 70% V~
V (reset)	≥ 85% V~

■ Technical data

Association and co-ordination of MCCBs and MCBs

In 3 phase networks + N 400 / 415 V~ according to IEC 60947-2		MCCBs upstream															Fuses upstream	
		DPX E 125	DPX 125	DPX 160	DPX 250 ER			DPX/H/L 250				DPX/H/L 630	DPX/H/L 630		DPX/H/L 1250 A	DPX/H/L 1600 A	gG TYPE 80 kA	
MCBs downstream		16 to 125 A	16 to 125 A	160 A	100 A	160 A	250 A	63 A	100 A	160 A	250 A	250 to 400 A	160 & 400 A	630 A	500 to 1250 A	630 to 1600 A	20 to 50 A	63 to 125 A
Lexic 10 kA(1)/ Loadkontakt 10 kA(1) C(3) curves	0.5 to 16 A	16 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	80 kA	80 kA
	20 A	16 kA	25 kA	20 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	80 kA	80 kA
	25 A	16 kA	25 kA	15 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	20 kA	20 kA	80 kA	80 kA
	32 A	16 kA	25 kA	20 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	15 kA	15 kA	80 kA	80 kA
	40 A	16 kA	2 5 kA	20 kA	25 kA	25 kA	20 kA	25 kA	25 kA	25 kA	20 kA	20 kA	20 kA	20 kA	15 kA	15 kA	80 kA	80 kA
	50 A	16 kA	25 kA	15 kA	25 kA	20 kA	15 kA	25 kA	25 kA	20 kA	15 kA	15 kA	15 kA	15 kA	12.5 kA	12.5 kA	-	80 kA
	63 A	16 kA	25 kA	15 kA	20 kA	15 kA	15 kA	20 kA	20 kA	15 kA	15 kA	15 kA	15 kA	15 kA	12.5 kA	12.5 kA	-	80 kA

In 3 phase networks + N 230 / 240 V~ according to IEC 60947-2		MCCBs upstream															Fuses upstream	
		DPX E 125	DPX 125	DPX 160	DPX 250 ER			DPX/H/L 250				DPX/H/L 630	DPX/H/L 630	DPX/H/L 1250 A	DPX/H/L 1600 A		gG TYPE 80 kA	
MCBs downstream		16 to 125 A	16 to 125 A	160 A	100 A	160 A	250 A	63 A	100 A	160 A	250 A	250 to 400 A	160 & 630 A	500 to 1250 A	630 to	800 to 1600 A	20 to 50 A	63 to 125 A
Lexic 10 kA(1)/ Loadkontakt 10 kA(1) C(3) curves	0.5 to 40 A	22 kA	35 kA	35 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	80 kA	80 kA
	50 A	16 kA	25 kA	25 kA	36 kA	36 kA	36 kA	45 kA	45 kA	36 kA	30 kA	30 kA	30 kA	25 kA	25 kA	25 kA	-	80 kA
	63 A	16 kA	25 kA	25 kA	30 kA	30 kA	30 kA	-	45 kA	30 kA	30 kA	30 kA	30 kA	25 kA	25 kA	25 kA	-	80 kA

(1) For 3 phase outgoing circuit i.e. 3 and 4 pole MCBs.
(2) For single phase outgoing circuit i.e. 1 and 2 pole MCBs.
(3) The magnetic threshold of the upstream circuit breaker must be higher than the magnetic threshold of the downstream circuit breaker.

Note: Lexic MCBs from 0.5 A to 4 A follow D characteristics

Association and co-ordination of MCCBs

In 3 phase networks + N 400 / 415 V~ accordingto IEC 60947-2

Downstream		Upstream													
		DPX 125	DPX 125	DPX 160/ DPX 250 ER	DPX 160/ DPX 250 ER	DPX 250	DPX-H 250	DPX-L 250	DPX 630	DPX-H 630	DPX-L 630	DPX 1 250	DPX-H 1250	DPX-L 1250	DPX 1600
		25 kA	36 kA	36 kA	50 kA	36 kA	70 kA	100 kA	36 kA	70 kA	100 kA	50 kA	70 kA	100 kA	50 kA
DPX-E 125	16 to 125 A	25	36	36	50	36	65	65	36	65	65	50	65	65	40
DPX 125 (25 kA)	16 to 125 A	-	36	36	50	36	65	65	36	65	65	50	65	65	40
DPX 125 (36 kA)	16 to 125 A	-	-	-	50	-	70	70	-	70	70	50	70	70	40
DPX 250 ER (36 kA)	100 to 250 A	-	-	-	-	-	70	70	-	70	70	-	70	70	-
DPX 250 ER (50 kA)	100 to 250 A	-	-	-	-	-	70	70	-	70	70	-	70	70	-
DPX 250	25 to 250 A	-	-	-	-	-	70	100	-	70	100	50	70	100	50
DPX-H 250	25 to 250 A	-	-	-	-	-	-	100	-	-	100	-	-	100	-
DPX-L 250	100 to 250 A	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DPX 630	160 to 630 A	-	-	-	-	-	-	-	-	70	100	50	70	100	50
DPX-H 630	160 to 630 A	-	-	-	-	-	-	-	-	-	100	-	-	100	-
DPX-L 630	160 to 630 A	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DPX 1250	500 to 1 250 A	-	-	-	-	-	-	-	-	-	-	-	70	100	-
DPX-H 1250	500 to 1 250 A	-	-	-	-	-	-	-	-	-	-	-		100	-
DPX-L 1250	500 to 1 250 A	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DPX 1600	630 to 1 600 A	-	-	-	-	-	-	-	-	-	-	-	-	-	-

In 3-phase networks + N 230/240 V according to IEC 60947-2

Downstream		Upstream													
		DPX 125	DPX 125	DPX 160/ DPX 250 ER	DPX 160/ DPX 250 ER	DPX 250	DPX-H 250	DPX-L 250	DPX 630	DPX-H 630	DPX-L 630	DPX 1 250	DPX-H 1 250	DPX-L 1 250	DPX 1 600	DPX-H 1600
		35 kA	40 kA	50 kA	65 kA	60 kA	100 kA	170 kA	60 kA	100 kA	170 kA	80 kA	100 kA	170 kA	80 kA	100 kA
DPX-E 125	16 to 125 A	35	40	50	65	60	65	65	60	65	65	65	65	65	50	50
DPX 125 (35 kA)	16 to 125 A	-	40	50	65	60	65	65	60	65	65	65	65	65	50	50
DPX 125 (40 kA)	16 to 125 A	-	-	50	65	60	70	70	-	70	70	65	70	70	50	50
DPX 250 ER (50 kA)	100 to 250 A	-	-	-	-	-	70	70	-	70	70	-	70	70	70	-
DPX 250 ER (65 kA)	100 to 250 A	-	-	-	-	-	70	70	-	70	70	-	70	70	70	-
DPX 250	25 to 250 A	-	-	-	-	-	70	170	-	100	170	80	100	170	70	100
DPX-H 250	25 to 250 A	-	-	-	-	-	-	170	-	-	170	-	-	170	-	-
DPX-L 250	25 to 250 A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DPX 630	160 to 630 A	-	-	-	-	-	-	-	-	100	170	80	100	170	70	100
DPX-H 630	160 to 630 A	-	-	-	-	-	-	-	-	-	170	-	-	170	-	-
DPX-L 630	160 to 630 A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DPX 1250	500 to 1 250 A	-	-	-	-	-	-	-	-	-	-	-	100	170	70	100
DPX-H 1250	500 to 1 250 A	-	-	-	-	-	-	-	-	-	-	-	-	170	-	-
DPX-L 1250	500 to 1 250 A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DPX 1600	630 to 1 250 A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100

■ Technical data

Motor protection

By using DPX MCCBs for short circuit protection of motor with starters consisting of contactor + thermal relay, it is possible to get conditional short circuit current indicated in the table below referring to the co-ordination foreseen by IEC 947-4-1.

Type of (kA) DPX-MCCBs	In (A)	Breaking capacity Co-ordination	
		Type 1	Type 2
DPX - E 125	25	16	4.5
	40	16	4.5
	63	16	4.5
DPX 125	63	25	4.5
	100	25	4.5
	125	25	4.5
DPX 250 ER	100	36	5
	160	36	5
	250	36	5
DPX 250	40	36	6
	63	36	6
	100	36	6
	160	36	6
	250	36	6
DPX 630	250	36	10
	320	36	10
	400	36	10
DPX 1250	500	50	15
	630	50	15
	800	50	15

Type 1 => The contactor's contact could weld and the thermal release maybe damaged.
Type 2 => Total protection.

■ Capacitor banks

This table shows the rated current of the DPX MCCB when controlling capacitor banks so as to guarantee its function and short circuit protection.
Overload protection is not necessary since these installations can not be overloaded.
This data refers to short circuit protection in absence of harmonics or heavy transitory currents.

	Three-phase network at 230 V - 50 Hz		Three-phase network at 400 V - 50 Hz	
	Bank Power KvAR	DPX MCCBs In (A)	Bank Power KvAR	DPX MCCBs In (A)
DPX 125	7.5	25	5	16
	10	40	7.5	16
	15	63	10	25
	20	100	15	40
	25	100	25	63
	30	125	30	100
	35	125	35	100
	-	-	40	100
	-	-	50	100
	-	-	60	125
DPX 250 ER / DPX 250	40	160	75	160
	50	250	90	250
	60	250	100	250
	70	250	110	250
	-	-	120	250
DPX 630	80	320	135	320
	90	320	150	320
	100	400	160	400
	110	400	180	400
	-	-	190	400
DPX 1250	120	500	200	500
	130	500	225	500
	140	500	240	500
	-	-	150	630
	-	-	175	630
DPX 1250	240	1250	275	630
	275	1250	300	630
	300	1250	360	800
	-	-	400	1000

■ Release adjustment steps

Technical data

Please find release adjustment steps for DPX MCCBs

	Thermal Steps	Magnetic Steps
DPX 125	0.7 - 0.85 - 1 In	Fixed depends on In;
	-	16 - 25 A : 16 In
	-	40 A : 14 In
	-	63 A : 12 In
	-	100 - 125 A : 10 In
DPX 160 / DPX 250 ER	0.64 - 0.8 - 1 In	Fixed at 10 In
DPX 250	0.64 - 0.8 - 1 In	3.5 - 7 - 10 In
DPX 630	0.8 - 1 In	5 - 6 - 7 - 8 - 9 - 10 In
DPX 1250	0.8 - 1 In	500 - 800 A : 5 - 6 - 7 - 8 - 9 - 10 In
	-	1000 - 1250 A : 3 - 4 - 5 - 6 In
DPX 250/DPX 630/ DPX 1600 Electronic	0.4 - 0.5 - 0.6 - 0.7 - 0.8 - 0.9 - 0.95 - 1 In	1.5 - 2 - 3 - 4 - 5 - 6 - 8 - 10 In

selectivity tables
MCCBs/MCCBs

Up-stream circuit-breaker

Down stream circuit-breaker		DPX-E 125 DPX 125 (25 /36 kA)				DPX 160 DPX-H 160 (36/50 kA)		DPX 250 ER (36/50 kA)			DPX 250 DPX-H 250 DPX-L 250				DPX 250 microprocessor DPX-H 250 microprocessor DPX-L 250 microprocessor				
	In (A)	40	63	100	125	40	63	100	160	250	63	100	160	250	40	63	100	160	250
DPX-E 125	16	0.8	1	1.2	1.2		0.63	1	1.6	2.5	0.63	1	1.6	2.5	3.5	3.5	3.5	3.5	3.5
	25	0.8	1	1.2	1.2			1	1.6	2.5		1	1.6	2.5	3.5	3.5	3.5	3.5	3.5
	40		1	1.2	1.2			1	1.6	2.5		1	1.6	2.5		3.5	3.5	3.5	3.5
	63			1.2	1.2				1.6	2.5			1.6	2.5			3.5	3.5	3.5
	100								1.6	2.5			1.6	2.5				3.5	3.5
	125								1.6	2.5			1.6	2.5				3.5	3.5
DPX 125 (25 kA)	16	0.8	1	1.2	1.2		0.63	1	1.6	2.5	0.63	1	1.6	2.5	3.5	3.5	3.5	3.5	3.5
	25	0.8	1	1.2	1.2			1	1.6	2.5		1	1.6	2.5	3.5	3.5	3.5	3.5	3.5
	40		1	1.2	1.2			1	1.6	2.5		1	1.6	2.5		3.5	3.5	3.5	3.5
	63			1.2	1.2				1.6	2.5			1.6	2.5			3.5	3.5	3.5
	100								1.6	2.5			1.6	2.5				3.5	3.5
	125								1.6	2.5			1.6	2.5				3.5	3.5
DPX 125 (36 kA)	16	0.8	1	1.2	1.2		0.63	1	1.6	2.5	0.63	1	1.6	2.5	3.5	3.5	3.5	3.5	3.5
	25	0.8	1	1.2	1.2			1	1.6	2.5		1	1.6	2.5	3.5	3.5	3.5	3.5	3.5
	40		1	1.2	1.2			1	1.6	2.5		1	1.6	2.5		3.5	3.5	3.5	3.5
	63			1.2	1.2				1.6	2.5			1.6	2.5			3.5	3.5	3.5
	100								1.6	2.5			1.6	2.5				3.5	3.5
	125								1.6	2.5			1.6	2.5				3.5	3.5
DPX 160 DPX 250 ER (36/50 kA)	25					0.4	0.63	1	1.6	2.5	0.63	1	1.6	2.5	3.5	3.5	3.5	3.5	3.5
	40						0.63	1	1.6	2.5	0.63	1	1.6	2.5		3.5	3.5	3.5	3.5
	63							1	1.6	2.5		1	1.6	2.5			3.5	3.5	3.5
	100								1.6	2.5			1.6	2.5				3.5	3.5
	160									2.5				2.5					3.5
	250																		
DPX 250	25										0.63	1	1.6	2.5	3.5	3.5	3.5	3.5	3.5
	40										0.63	1	1.6	2.5		3.5	3.5	3.5	3.5
	63											1	1.6	2.5			3.5	3.5	3.5
	100												1.6	2.5				3.5	3.5
	160													2.5					3.5
	250																		
DPX 250 electronic	40															0.63	1	1.6	2.5
	63																1	1.6	2.5
	100																	1.6	2.5
	160																		2.5
	250																		
DPX-H 250 DPX-L 250	25	0.8	1	1.2	1.2		0.63	1	1.6	2.5	0.63	1	1.6	2.5	3.5	3.5	3.5	3.5	3.5
	40	0.8	1	1.2	1.2			1	1.6	2.5		1	1.6	2.5	3.5	3.5	3.5	3.5	3.5
	63		1	1.2	1.2			1	1.6	2.5		1	1.6	2.5		3.5	3.5	3.5	3.5
	100			1.2	1.2				1.6	2.5			1.6	2.5			3.5	3.5	3.5
	160								1.6	2.5			1.6	2.5				3.5	3.5
	250								1.6	2.5			1.6	2.5				3.5	3.5
DPX-H 250 micro. DPX-L 250 micro.	40	0.8	1	1.2	1.2			1	1.6	2.5		1	1.6	2.5	3.5	3.5	3.5	3.5	3.5
	63		1	1.2	1.2			1	1.6	2.5		1	1.6	2.5		3.5	3.5	3.5	3.5
	100			1.2	1.2				1.6	2.5			1.6	2.5			3.5	3.5	3.5
	160								1.6	2.5			1.6	2.5				3.5	3.5
	250								1.6	2.5			1.6	2.5				3.5	3.5

	DPX 630 DPX-H 630 DPX-L 630		DPX 630 microprocessor DPX-H 630 microprocessor DPX-L 630 microprocessor				DPX 1 250 DPX-H 1 250 DPX-L 1 250					DPX 1 600 S1 DPX-H 1 600 S1		DPX 1 600 Sg DPX-H 1 600 Sg		DPX 1 600 S1 Sg DPX-H 1 600 S1 Sg	
	400	630	160	250	400	630	500	630	800	1 000	1 250	630	800	630	800	1 250	1 600
	6	8	8	8	8	8	12	T	T	T	T	T	T	T	T	T	T
	6	8	8	8	8	8	12	T	T	T	T	T	T	T	T	T	T
	6	8	6	6	6	6	12	T	T	T	T	T	T	T	T	T	T
	6	8	6	6	6	6	12	T	T	T	T	T	T	T	T	T	T
	4	8	6	6	6	6	12	T	T	T	T	T	T	T	T	T	T
	4	8	6	6	6	6	12	T	T	T	T	T	T	T	T	T	T
	6	8	8	8	8	8	12	16	16	16	16	T	T	T	T	T	T
	6	8	8	8	8	8	12	16	16	16	16	T	T	T	T	T	T
	6	8	6	6	6	6	12	16	16	16	16	T	T	T	T	T	T
	6	8	6	6	6	6	12	16	16	16	16	T	T	T	T	T	T
	4	8	6	6	6	6	12	16	16	16	16	T	T	T	T	T	T
	4	8	6	6	6	6	12	16	16	16	16	T	T	T	T	T	T
	6	8	8	8	8	8	12	16	16	16	16	25	25	T	T	T	T
	6	8	8	8	8	8	12	16	16	16	16	25	25	T	T	T	T
	6	8	6	6	6	6	12	16	16	16	16	25	25	T	T	T	T
	6	8	6	6	6	6	12	16	16	16	16	25	25	T	T	T	T
	4	8	6	6	6	6	12	16	16	16	16	25	25	T	T	T	T
	4	8	6	6	6	6	12	16	16	16	16	25	25	T	T	T	T
	4	6.3	8	8	8	8	12	16	16	16	16	20	20	T	T	T	T
	4	6.3	8	8	8	8	12	16	16	16	16	20	20	T	T	T	T
	4	6.3	6	6	6	6	12	16	16	16	16	20	20	T	T	T	T
	4	6.3	6	6	6	6	12	16	16	16	16	20	20	T	T	T	T
	4	6.3		6	6	6	12	16	16	16	16	20	20	T	T	T	T
	4	6.3			6	6	12	16	16	16	16	20	20	T	T	T	T
	4	6.3	8	8	8	8	12	16	16	16	16	20	20	T	T	T	T
	4	6.3	8	8	8	8	12	16	16	16	16	20	20	T	T	T	T
	4	6.3	6	8	8	8	12	16	16	16	16	20	20	T	T	T	T
	4	6.3	6	8	8	8	12	16	16	16	16	20	20	T	T	T	T
	4	6.3		8	8	8	12	16	16	16	16	20	20	T	T	T	T
	4	6.3			6	6	12	16	16	16	16	20	20	T	T	T	T
	4	6.3	8	8	8	8	12	16	16	16	16	20	20	T	T	T	T
	4	6.3	6	6	6	6	12	16	16	16	16	20	20	T	T	T	T
	4	6.3	6	6	6	6	12	16	16	16	16	20	20	T	T	T	T
	4	6.3		6	6	6	12	16	16	16	16	20	20	T	T	T	T
	4	6.3			6	6	12	16	16	16	16	20	20	T	T	T	T
	4	6.3	8	8	8	8	12	16	16	16	16	20	20	30	30	30	36
	4	6.3	8	8	8	8	12	16	16	16	16	20	20	30	30	30	36
	4	6.3	6	8	8	8	12	16	16	16	16	20	20	30	30	30	36
	4	6.3	6	8	8	8	12	16	16	16	16	20	20	30	30	30	36
	4	6.3		8	8	8	12	16	16	16	16	20	20	30	30	30	36
	4	6.3			6	6	12	16	16	16	16	20	20	30	30	30	36
	4	6.3	8	8	8	8	12	16	16	16	16	20	20	30	30	30	36
	4	6.3	6	6	6	6	12	16	16	16	16	20	20	30	30	30	36
	4	6.3	6	6	6	6	12	16	16	16	16	20	20	30	30	30	36
	4	6.3		6	6	6	12	16	16	16	16	20	20	30	30	30	36
	4	6.3			6	6	12	16	16	16	16	20	20	30	30	30	36

(all readings to be multiplied by 1000)

selectivity tables (continued)
MCCBs/MCCBs

Up-stream circuit-breaker

Down stream circuit-breaker		DPX-E 125 DPX 125 (25 /36 kA)				DPX 160 DPX-H 160 (36/50 kA)		DPX 250 ER (36/50 kA)			DPX 250 DPX-H 250 DPX-L 250				DPX 250 microprocessor DPX-H 250 microprocessor DPX-L 250 microprocessor				
	In (A)	40	63	100	125	40	63	100	160	250	63	100	160	250	40	63	100	160	250
DPX 630	250																		
	320																		
	400																		
	500																		
	630																		
DPX-H 630 DPX-L 630	250																		
	320																		
	400																		
	500																		
	630																		
DPX 630 elec.	160																		
	250																		
	400																		
	630																		
DPX-H 630 elec. DPX-H 630 elec.	160																		
	250																		
	400																		
	630																		
DPX 1 250	500																		
	630																		
	800																		
	1 000																		
	1 250																		
DPX-H 1 250 DPX-L 1 250	500																		
	630																		
	800																		
	1 000																		
	1 250																		
DPX 1600 micro.	630																		
	800																		
DPX/DPX-H DPX 1600 micro.	630																		
	800																		
DPX/DPX-H DPX 1600 micro. S1 Sg	1 250																		

	DPX 630 DPX-H 630 DPX-L 630		DPX 630 microprocessor DPX-H 630 microprocessor DPX-L 630 microprocessor				DPX 1 250 DPX-H 1 250 DPX-L 1 250					DPX 1 600 S1 DPX-H 1 600 S1		DPX 1 600 Sg DPX-H 1 600 Sg		DPX 1 600 S1 Sg DPX-H 1 600 S1 Sg	
	400	630	160	250	400	630	500	630	800	1 000	1 250	630	800	630	800	1 250	1 600
	4	6.3			6	6	10	10	10	10	10	15	15	20	20	20	T
	4	6.3			6	6	10	10	10	10	10	15	15	20	20	20	T
		6.3				6	10	10	10	6	7,5	15	15	20	20	20	T
		6.3						10	10	6	7,5	10	10	20	20	20	T
									10	6	7,5		10	20	20	20	T
	4	6.3			6	6	10	10	10	10	10	15	15	20	20	20	36
	4	6.3			6	6	10	10	10	10	10	15	15	20	20	20	36
		6.3				6	10	10	10	6	7.5	15	15	20	20	20	36
		6.3						10	10	6	7.5	10	10	20	20	20	36
									10	6	7.5		10		20	20	36
		6.3		5	5	5	5	6.3	8	6	8	15	15	20	20	20	T
		6.3			5	5	5	6.3	8	6	8	15	15	20	20	20	T
		6.3				5	5	6.3	8	6	8	15	15	20	20	20	T
									8	6	8		15		20	20	T
		6.3		5	5	5	5	6.3	8	6	8	15	15	20	20	20	36
		6.3			5	5	5	6.3	8	6	8	15	15	20	20	20	36
		6.3				5	5	6.3	8	6	8	15	15	20	20	20	36
									8	6	8		15		20	20	36
								5	8		7.5	15	15	20	20	20	20
									8		7.5		15		20	20	20
																20	20
											7.5					20	20
																	20
								5	8		7.5	15	15	20	20	20	20
									8		7.5		15		20	20	20
																20	20
											7.5					20	20
																	20
													15		15	15	20
																15	20
													15		15	15	20
																15	20
																	20

■ Technical data

Influence of ambient temperature

Variation in thermal tripping characteristics

	Thermal adjustment	Currents in amps in accordance with thermal adjustment													
		10°C		20°C		30°C		40°C		50°C		60°C		70°C	
		min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
DPX 125	In = 16 A	13	18	12	17	12	17	11	16	10	15	10	14	9	13
	In = 25 A	20	28	19	27	18	26	17	25	16	24	16	23	16	22
	In = 40 A	32	45	30	43	29	42	28	40	27	38	26	37	25	36
	In = 63 A	49	70	48	68	46	66	44	63	42	60	40	58	38	55
	In = 100 A	79	112	76	108	73	104	70	100	67	96	64	92	61	88
	In = 125 A	98	140	95	135	91	130	87	125	84	120	80	115	76	110
DPX 160 / 250 ER	In = 100 A	81	127	75	118	70	109	64	100	58	91	52	82	47	73
	In = 160 A	131	205	122	190	112	175	102	160	93	145	83	130	74	115
	In = 250 A	198	310	185	290	173	270	160	250	147	230	134	210	122	190
DPX 250	In = 100 A	81	127	75	118	70	109	63	100	58	91	52	82	48	73
	In = 160 A	131	205	122	190	112	175	100	160	93	145	83	130	73	115
	In = 250 A	198	310	185	290	173	270	160	250	147	230	130	210	115	190
DPX 630	In = 250 A	260	335	240	307	220	281	200	250	189	230	160	205	130	180
	In = 320 A	335	422	307	384	281	352	250	320	230	288	205	256	180	225
	In = 400 A	422	528	384	480	352	440	320	400	288	360	256	320	225	280
DPX 1250	In = 500 A	475	590	455	570	430	535	400	500	380	480	360	450	340	420
	In = 630A	590	735	570	705	535	670	500	630	480	600	450	570	420	540
	In = 800 A	735	920	705	880	670	840	630	800	600	760	570	720	540	680
	In = 1000 A	920	1150	880	1100	840	1050	800	1000	760	950	720	900	680	850
	In = 1250 A	1150	1440	1100	1380	1050	1310	1000	1250	950	1190	900	1125	850	1080

Microprocessor MCCBs (DPX 250 / 630 / 1600) have the advantage of not being sensitive to temperature variations

Table of weights (Kg)

	Fixed				Plug-in				Draw-out				Module electronic	
	Front terminal		Rear terminal		Front terminal		Rear terminal		Front terminal		Rear terminal			
	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	side	under
DPX 125	1	1.2	1.2	1.6	1.4	1.8	1.5	2.1	-	-	-	-	-	-
DPX-E 125	1	1.2	1.2	1.6	1.4	1.8	1.5	2.1	-	-	-	-	-	-
DPX-H 125	1	1.2	1.2	1.6	1.4	1.8	1.5	2.1	-	-	-	-	-	-
DPX-I 125	0.99	1.1	1.1	1.5	1.3	1.7	1.4	2	-	-	-	-	-	-
Earth leakage mod.	-	-	-	-	-	-	-	-	-	-	-	-	0.8	1.2
DPX 250	2.5	3.7	3.5	5	4.3	5.8	4.6	6.1	7	8.2	8	9.5	-	-
DPX-H 250	2.5	3.7	3.5	5	4.3	5.8	4.6	6.1	7	8.2	8	9.5	-	-
DPX-L 250	2.5	3.7	3.5	5	4.3	5.8	4.6	6.1	7	8.2	8	9.5	-	-
DPX-I 250	2.3	3.5	3.3	4.8	4.1	5.6	4.4	5.9	6.8	8	7.8	9.3	-	-
Earth leakage mod.	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4
DPX 630	4.5	6.4	6.2	8.7	7.3	10	7.8	10.8	9.9	10.9	11.6	13.2	-	-
DPX-H 630	4.5	6.4	6.2	8.7	7.3	10	7.8	10.8	9.9	10.9	11.6	13.2	-	-
DPX-L 630	4.5	6.4	6.2	8.7	7.3	10	7.8	10.8	9.9	10.9	11.6	13.2	-	-
DPX-I 630	3.9	5.8	5.6	8.1	6.7	9.4	7.2	10.2	8.4	10.3	10.1	12.6	-	-
Earth leakage mod.	-	-	-	-	-	-	-	-	-	-	-	-	-	2.8
DPX 630 S1	12.2	15.1	15	19.2	-	-	-	-	-	-	32	41	-	-
DPX-H 630 S2	12.2	15.1	15	19.2	-	-	-	-	-	-	32	41	-	-
DPX-L 630 Sg	12.2	15.1	15	19.2	-	-	-	-	-	-	32	41	-	-
Earth leakage mod.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DPX 1250	18	23.4	18.2	23.7	-	-	-	-	-	-	38	47.5	-	-
DPX-H 1250	18	23.4	18.2	23.7	-	-	-	-	-	-	38	47.5	-	-
DPX-L 1250	18	23.4	18.2	23.7	-	-	-	-	-	-	38	47.5	-	-
DPX 1600 S1	25.5	32	22.5	29	-	-	-	-	-	-	56	70	-	-
DPX-L 1600 Sg	25.5	32	22.5	29	-	-	-	-	-	-	56	70	-	-

Connection cross-sections

Head devices	Width (mm)	Connection via terminal (mm²)				Connection via bars (mm)	Connection via cage terminals (mm²)		Connection via spreader links (mm²)		Catalogue no.
		copper cable		aluminium cable			rigid cable	flexible cable	cable	busbar	spreader links
DPX : Standard MCCBs		standard lugs	compact lugs	standard lugs	compact lugs						TP / FP
DPX 125	12	-	-	-	-	5 x 12	70	50	95	15 x 3	625 001/005
DPX 250 ER	22	50	-	-	-	6 x 18	185	150	240	30 x 5	625 014/018
DPX 250	25	95	185	95	185	4 x 25	185	150	240	30 x 5	625 014/018
DPX 400-630	32	150	300	240	300	5 x 32	2 x 240	2 x 185	500	40 x 10	625 004/008
DPX 1250-1600	50	300	-	300	-	10 x 50 or 10 x 80/100 with spreaders	(2-4) x 240	(2-4) x 185	-	-	-

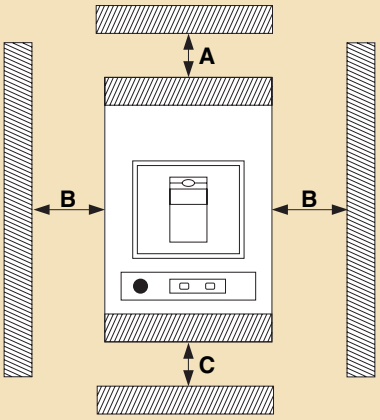
■ Technical data

Tightening torque for MCCBs in Nm

DPX 250 ER to 400 A with connected earth leakage modules, take the tightening torque values on the connector plate; for DPX 125 A, take the tightening torque values on the terminals.

	Max. tightening torque on connection plate	Max. tightening torque on terminals
DPX 125	6	10
DPX 250 ER	10	12
DPX 250	15	15
DPX 630	24	36
DPX 1600	25	50

Required clearance in an installation



Circuit breakers	A (mm) from wall to earth	B (mm) from side to earth wall	C (mm) from wall to earth
DPX 125	60	20	20
DPX 160 / 250 ER	60	20	20
DPX 250	70	25	25
DPX 630	70	25	25
DPX 1250	90	40	40
DPX 1600	90	40	40

Where not indicated distances are considered as zero

Power loss per pole for DPX circuit breakers

Circuit breakers **Rated current In (A)**

	16	25	40	63	100	125	160	200	250	320	400	500	630	800	1000	1250	1600
DPX-E/DPX125	1.36	2.69	2.40	4.17	6.50	9.38	-	-	-	-	-	-	-	-	-	-	-
DPX 160	-	-	-	-	-	-	15.36	-	-	-	-	-	-	-	-	-	-
DPX/DPX-H250 ER	-	-	-	-	7.50	-	15.36	-	25.00	-	-	-	-	-	-	-	-
DPX/DPX-H/DPX-L250	-	-	-	7.50	-	14.08	-	15.63	-	-	-	-	-	-	-	-	-
DPX/DPX-H/DPX-L630	-	-	-	-	-	2.97	-	-	-	18.56	-	46.04	-	-	-	-	-
DPX/DPX-H/DPX-L1250	-	-	-	-	-	-	-	-	-	-	-	15.88	25.60	35.00	54.69	54.69	-
DPX/DPX-H1600	-	-	-	-	-	-	-	-	-	-	-	-	13.89	22.40	46.88	46.88	76.80

Power loss per pole for DPX earth leakage modules (W)

Size 125 (side-mount)	0.09	0.22	0.56	1.39	2.00	3.12					
Size 125 (underneath)	0.04	0.11	0.27	0.67	1.00	1.56					
Size 160 (side-mount)		0.09	0.24	0.60	1.00		2.56				
Size 250		0.02	0.05	0.12	0.30		0.77		1.88		
Size 630									1.25	2.05	3.20

Provision of auxiliaries (framewise)

DPX Frames	Fault signalling contact	Auxiliary contact	Shunt OR UV release
DPX 125	1	1	1
DPX 160	1	1	1
DPX 250 ER	1	1	1
DPX 250	1	2	1
DPX 630	2	2	1
DPX 1250/1600	1	3	1

DPX™ MCCBS

DPX MCCBs and ELMs

Current (A)	Breaking capacity ICU (kA)	Frame	3P	3P+1/2 N	4P	ELM (side by side) 4P	ELM (underneath) 4P
16	16	DPX 125	0250 16	-	0250 24	0260 13	0260 14
	25		0250 36	-	0250 44	0260 13	0260 14
	36		0250 50	-	0250 58	0260 13	0260 14
25	16	DPX 125	6253 17	-	6253 25	0260 13	0260 14
	25		6253 37	-	62534 5	0260 13	0260 14
	36	DPX 125	6253 51	-	6253 59	0260 13	0260 14
40	16	DPX 125	6253 18	-	6253 26	0260 13	0260 14
	25		6253 38	-	6253 46	0260 13	0260 14
	36	DPX 125	0250 52	-	6253 60	0260 13	0260 14
		DPX 250	0253 28	-	0253 45	-	0260 55
	70	DPX 250	0253 52	-	0253 69	-	0260 55
		DPX 250 - S1	0254 13	-	0254 19	-	0260 55
63	16	DPX 125	6253 19	-	6253 27	0260 13	0260 14
	25		6253 39	-	6253 47	0260 13	0260 14
	36	DPX 125	6253 53	-	6253 61	0260 13	0260 14
		DPX 250	0253 29	-	0253 46	-	0260 55
	70	DPX 250	0253 53	-	0253 70	-	0260 55
100	16	DPX 125	6253 20		6253 28	0260 13	0260 14
	25		6253 40	6253 42	6253 48	0260 13	0260 14
	36	DPX 125	6253 54	6253 56	6253 62	0260 13	0260 14
		DPX 250 ER	0252 24	-	0252 34	0260 36	0260 38
		DPX 250	0253 30	6253 40	0253 47	-	0260 55
	70	DPX 250	0253 54	0253 64	0253 71	-	0260 55
		DPX 250 - S1	0254 15	-	0254 21	-	0260 55
125	16	DPX 125	6253 21	-	6253 29	0260 13	0260 14
	25		6253 41	6253 43	6253 49	0260 13	0260 14
	36		6253 55	6253 57	6253 63	0260 13	0260 14
160	36	DPX 160	0251 51	-	0251 59	0260 21	-
		DPX 250 ER	0252 25	-	0252 35	0260 36	0260 38
		DPX 250	0253 31	0253 41	0253 48	-	0260 55
		DPX 630 - S1	0256 00	-	0256 04	-	0260 61
		DPX 630 - S2	0256 25	-	0256 29	-	0260 61
		DPX 630 - Sg	0256 50	-	0256 54	-	0260 61
	50	DPX 160	0251 65	-	0251 73	0260 21	-
		DPX 250 ER	0252 45	-	0252 55	0260 36	0260 38
	70	DPX 250	0253 55	0253 65	0253 72	-	0260 55
		DPX 250 - S1	0254 16	-	0254 22	-	0260 55
		DPX 630 - S1	0256 08	-	0256 12	-	0260 61
		DPX 630 - S2	0256 33	-	0256 37	-	0260 61
		DPX 630 - Sg	0256 58	-	0256 62	-	0260 61
250	36	DPX 250 ER	0252 26	-	0252 36	0260 36	0260 38
		DPX 250	0253 32	0253 42	0253 49	-	0260 55
		DPX 630 - S1	0256 01	-	0256 05	-	0260 61
		DPX 630 - S2	0256 26	-	0256 30	-	0260 61
		DPX 630 - Sg	0256 51	-	0256 55	-	0260 61
	50	DPX 250 ER	0252 46	-	0252 56	0260 36	0260 38
	70	DPX 250	0253 56	0253 66	0253 73	-	0260 55
		DPX 250 - S1	0254 17	-	0254 23	-	0260 55
		DPX 630 - S1	0256 09	-	0256 13	-	0260 61
		DPX 630 - S2	0256 34	-	0256 38	-	0260 61
		DPX 630 - Sg	0256 59	-	0256 63	-	0260 61
400	36	DPX 630	0255 23	0255 33	-	-	0260 61
		DPX 630 - S1	0256 02	-	0256 06	-	0260 61
		DPX 630 - S2	0256 27	-	0256 31	-	0260 61
		DPX 630 - Sg	0256 52	-	0256 56	-	0260 61
	70	DPX 630	0255 43	0255 53	-	-	0260 61
		DPX 630 - S1	0256 10	-	0256 14	-	0260 61
		DPX 630 - S2	0256 35	-	0256 39	-	0260 61
		DPX 630 - Sg	0256 60	-	0256 64	-	0260 61
	100	DPX 630	0255 63	0255 73	-	-	0260 61
630	36	DPX 630	0255 24	0255 34	-	-	0260 61
		DPX 630 - S1	0256 03	-	0256 07	-	0260 61
		DPX 630 - S2	0256 28	-	0256 32	-	0260 61
		DPX 630 - Sg	0256 53	-	0256 57	-	0260 61
	70	DPX 630	0255 44	0255 54	-	-	0260 61
		DPX 630 - S1	0256 11	-	0256 15	-	0260 61
		DPX 630 - S2	0256 36	-	0256 40	-	0260 61
		DPX 630 - Sg	0256 61	-	0256 65	-	0260 61
	100	DPX 630	0256 64	0255 74	-	-	0260 61

Bold catalogue numbers are products normally available with Legrand (India) stockists.
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

DPX™ MCCBS

DPX MCCBs and ELMs

Current (A)	Breaking capacity ICU (kA)	Frame	3P	3P+1/2 N	4P	ELM (side by side) 4P	ELM (underneath) 4P
800	50	DPX 1250	0258 02	-	0258 09	-	-
		DPX 1600 - S1	0257 02	-	0257 06	-	-
		DPX 1600 - Sg	0257 51	-	0257 55	-	-
	70	DPX 1250	0258 16	-	0258 23	-	-
		DPX 1600 - S1	0257 10	-	0257 14	-	-
		DPX 1600 - Sg	0257 59	-	0257 63	-	-
	100	DPX 1250	0258 30	-	0258 39	-	-
1000	50	DPX 1250	0258 03	-	0258 10	-	-
	70		0258 17	-	0258 24	-	-
	100		0258 31	-	0258 40	-	-
1250	50	DPX 1250	0258 04	-	0258 11	-	-
		DPX 1600 - S1	0257 03	-	0257 07	-	-
		DPX 1600 - Sg	0257 52	-	0257 56	-	-
	70	DPX 1250	0258 18	-	0258 25	-	-
		DPX 1600 - S1	0257 11	-	0257 15	-	-
		DPX 1600 - Sg	0257 60	-	0257 64	-	-
	100	DPX 1250	0258 32	-	0258 41	-	-
1600	50	DPX 1600 - S1	0257 04	-	0257 08	-	-
		DPX 1600 - Sg	0257 53	-	0257 57	-	-
	70	DPX 1600 - S1	0257 12	-	0257 16	-	-
		DPX 1600 - Sg	0257 61	-	0257 65	-	-

Equipment for plug-in and draw-out mccbs (on request)

Frame		Plug-in			Draw-out		
		Front terminal mounting base + tulip contacts	Rear terminal mounting base + tulip contacts	Flat rear terminal mounting base + tulip contacts	Front terminal mounting base + tulip contacts	Rear terminal mounting base + tulip contacts	Flat terminal mounting base + tulip contacts
DPX 125	3P	+ 0263 02 0263 08	+ 0263 03 0263 08	- -	- -	- -	- -
	4P	+ 0263 04 0263 09	+ 0263 05 0263 09	- -	- -	- -	- -
DPX 250 ER	3P	+ 0265 14 0265 12	+ 0265 16 0265 12	- -	- -	- -	- -
	4P	+ 0265 15 0265 13	+ 0265 17 0265 13	- -	- -	- -	- -
DPX 250	3P	+ 0265 31 0265 29 -	+ 0265 33 0265 29 -	+ 0265 35 0265 29 -	+ 0265 31 0265 29 + 0265 45	+ 0265 33 0265 29 -	+ 0265 35 0265 29 -
	4P	+ 0265 32 0265 30 -	+ 0265 34 0265 30 -	+ 0265 36 0265 30 -	+ 0265 32 0265 30 + 0265 46	+ 0265 34 0265 30 + 0265 46	+ 0265 36 0265 30 0265 46
	4P + ELM	+ 0265 37 0265 30 -	+ 0265 38 0265 30 -	+ 0265 39 0265 30 -	+ 0265 37 0265 30 + 0265 47	+ 0265 38 0265 30 + 0265 47	+ 0265 39 0265 30 + 0265 47
DPX 630	3P	+ 0265 52 0265 50 -	+ 0265 54 0265 50 -	+ 0265 56 0265 50 -	+ 0265 52 0265 50 + 0265 66	+ 0265 54 0265 50 + 0265 66	+ 0265 56 0265 50 + 0265 66
	4P	+ 0265 53 0265 51 -	+ 0265 55 0265 51 -	+ 0265 57 0265 51 -	+ 0265 53 0265 51 + 0265 67	+ 0265 55 0265 51 + 0265 67	+ 0265 57 0265 51 + 0265 67
	4P + ELM	+ 0265 58 0265 51 -	+ 0265 59 0265 51 -	+ 0265 60 0265 51 -	+ 0265 58 0265 51 + 0265 68	+ 0265 59 0265 51 + 0265 68	+ 0265 60 0265 51 + 0265 68
DPX 1600	3P	-	-	-	0265 82	-	0265 84
	4P	-	-	-	0265 83	-	0265 85

* Adjustable on the front

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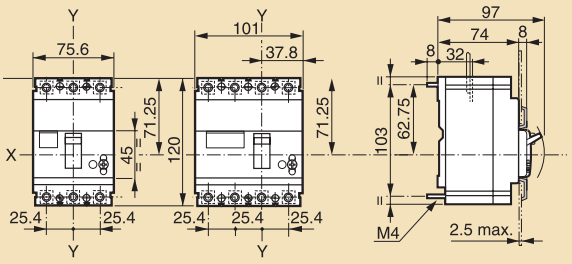
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

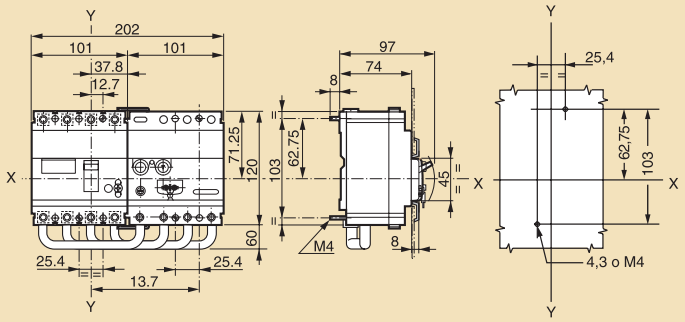
DPX™ 125

■ Dimensions

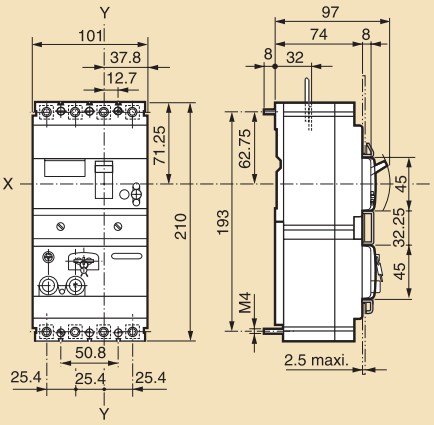
Fixed version, front terminals



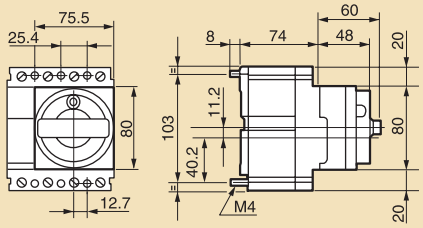
Fixed version, front terminals with earth leakage modules mounted side by side



Fixed version, front terminals with earth leakage modules mounted underneath

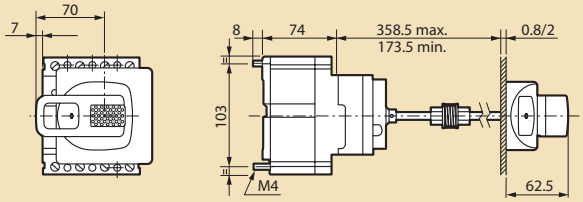


Direct rotary handle



Rotary handle-vary-depth on door

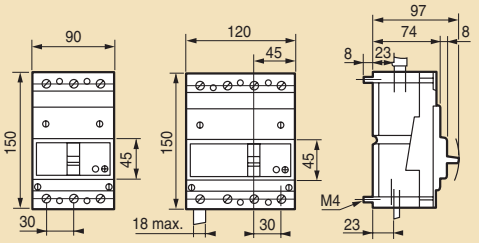
Mounting with flexible seal



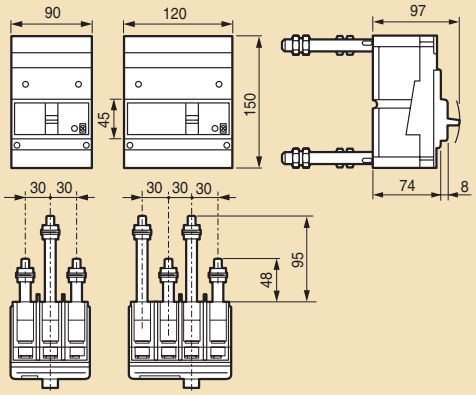
DPX™ 160

■ Dimensions

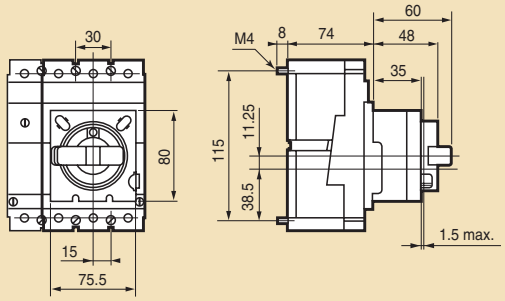
Fixed version, front terminals



Fixed version, rear terminals

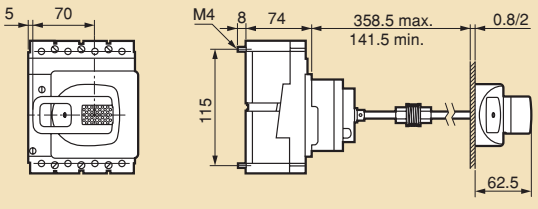


Direct rotary handle



Rotary handle-vary-depth on door

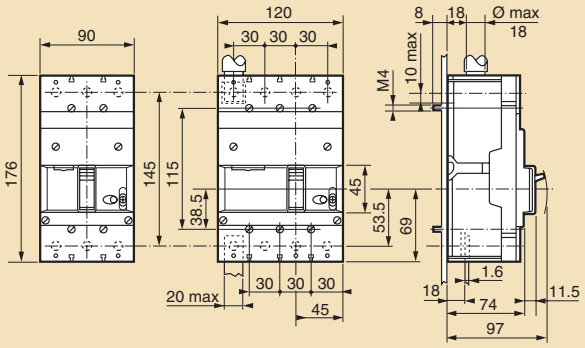
Mounting with flexible seal



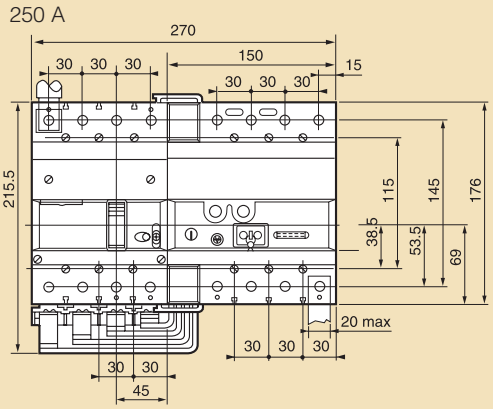
1 inch = 25.4 mm

■ Dimensions

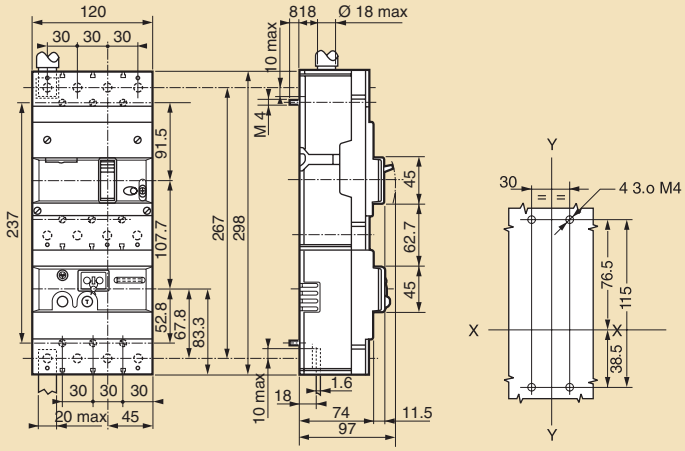
Fixed version, front terminals



Fixed version, front terminals with earth leakage modules mounted side by side

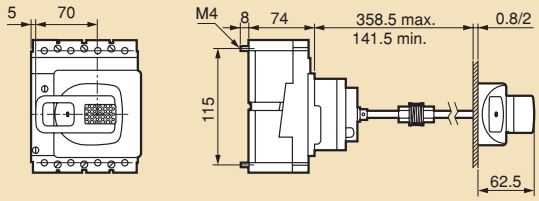


Fixed version, front terminals with earth leakage modules mounted underneath



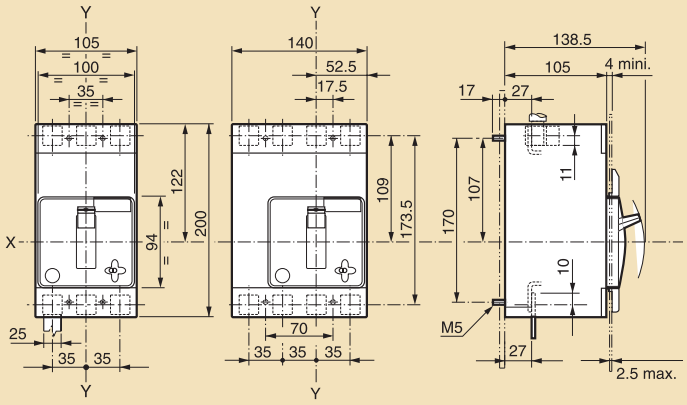
Rotary handle-vary-depth on door

Mounting flexible seal

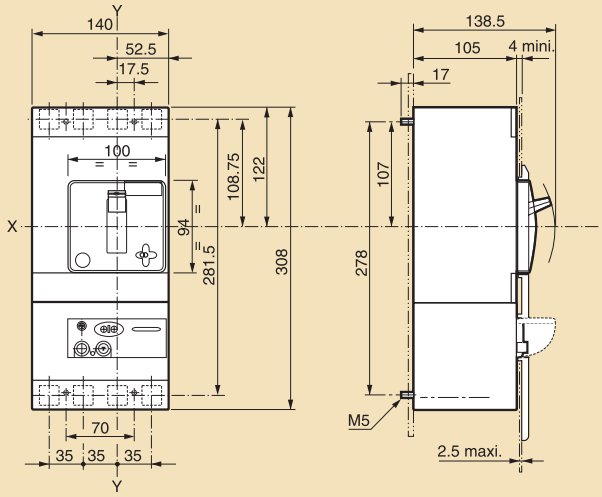


■ Dimensions

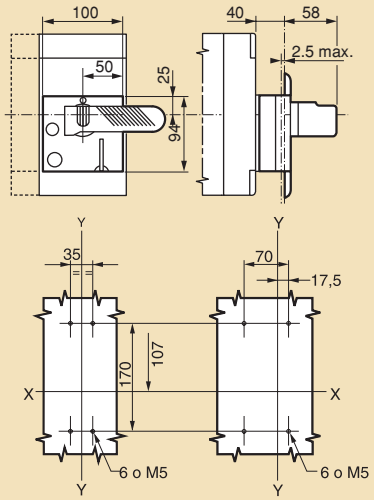
Fixed version, front terminals



Fixed version, front terminals with earth leakage modules mounted underneath

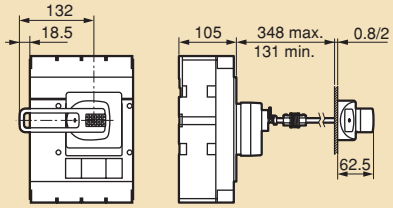


Rotary handles



Rotary handle-vari-depth on door

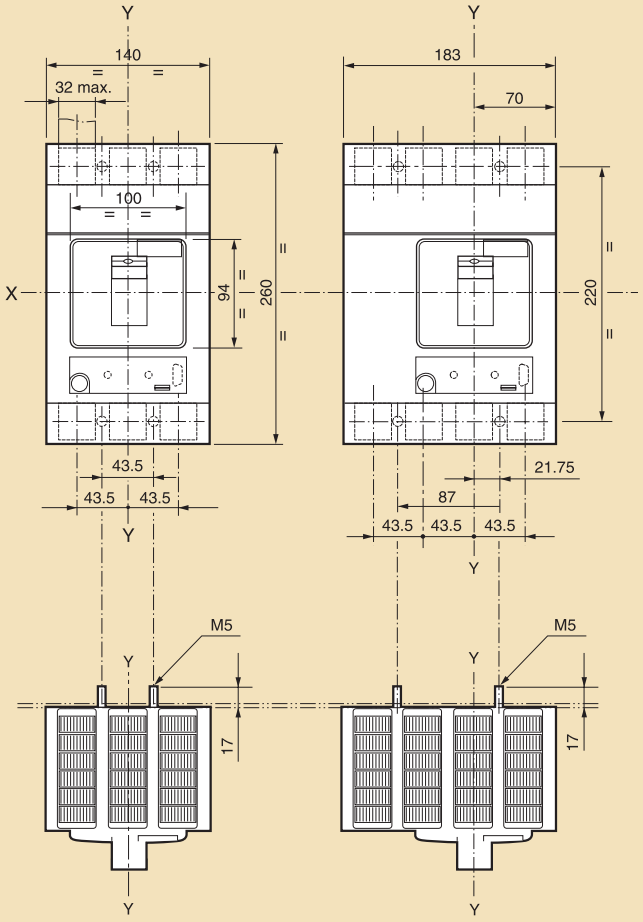
Mounting with flexible seal



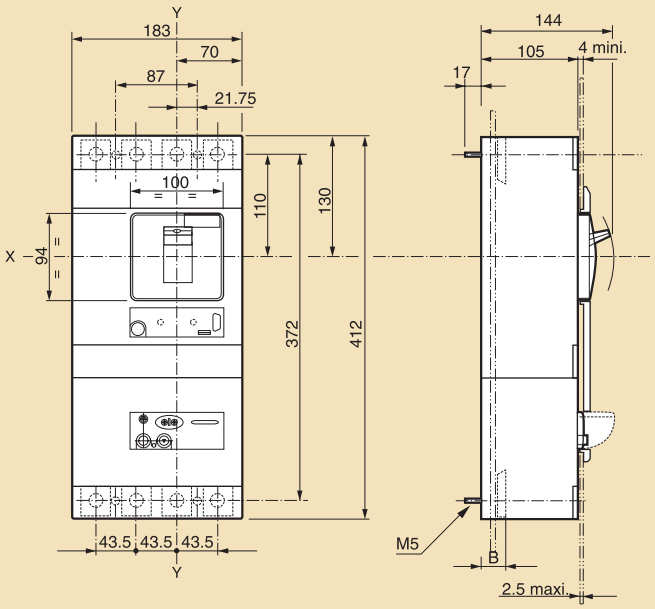
1 inch = 25.4 mm

■ Dimensions

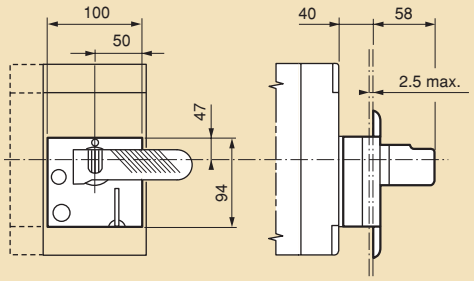
Fixed version, front terminals

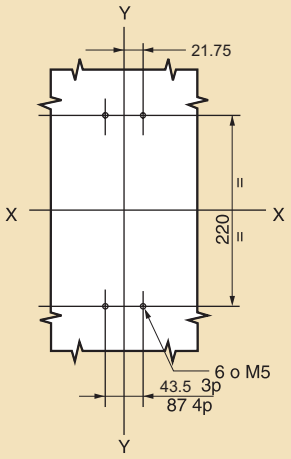


Fixed version, front terminals with earth leakage modules mounted underneath



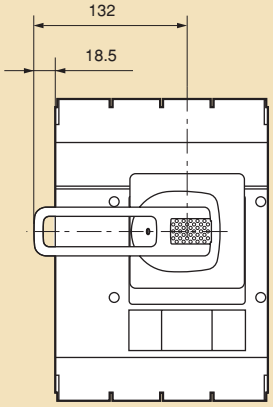
Rotary handles

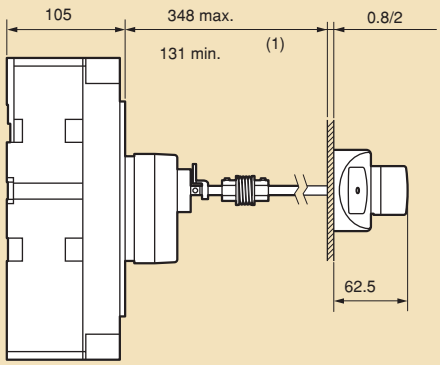




Rotary handle-vari-depth handle on door

Mounting with flexible seal

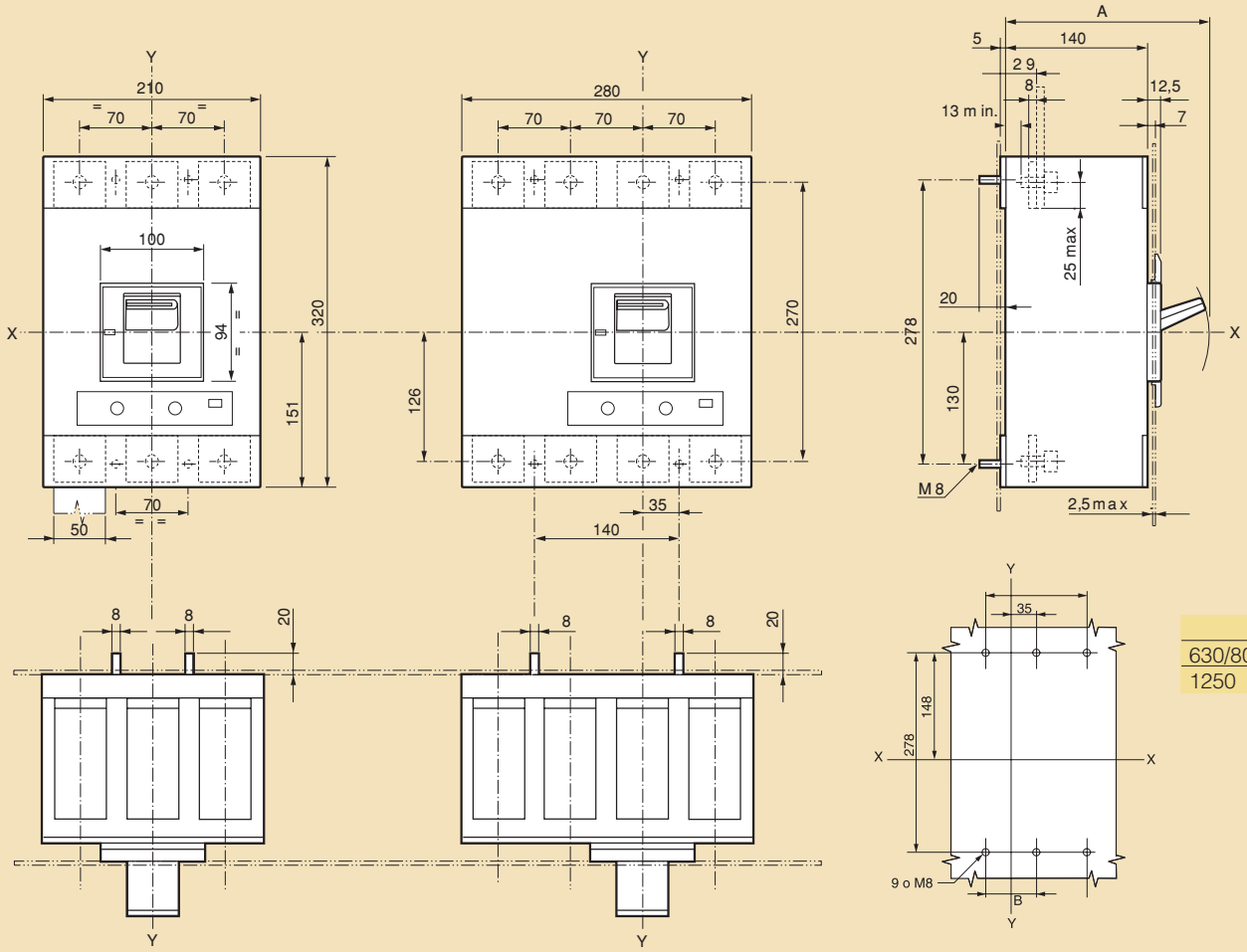




1 inch = 25.4 mm

■ Dimensions

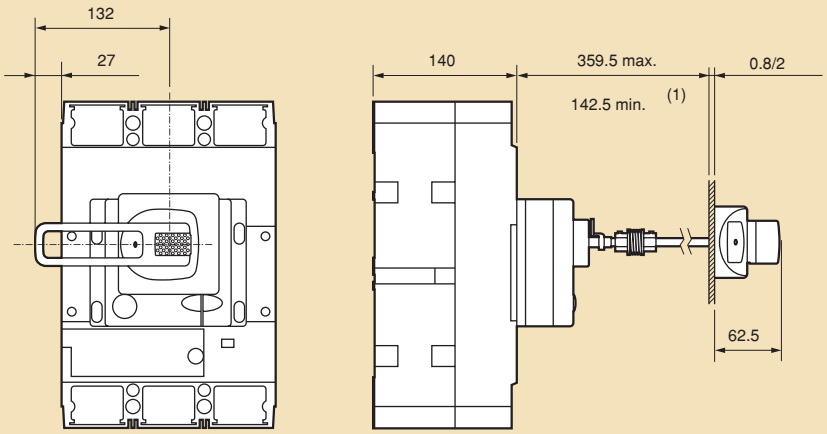
Fixed version, front terminals



	A
630/800	193.6
1250	212.5

Rotary handle-vari-depth handle on door

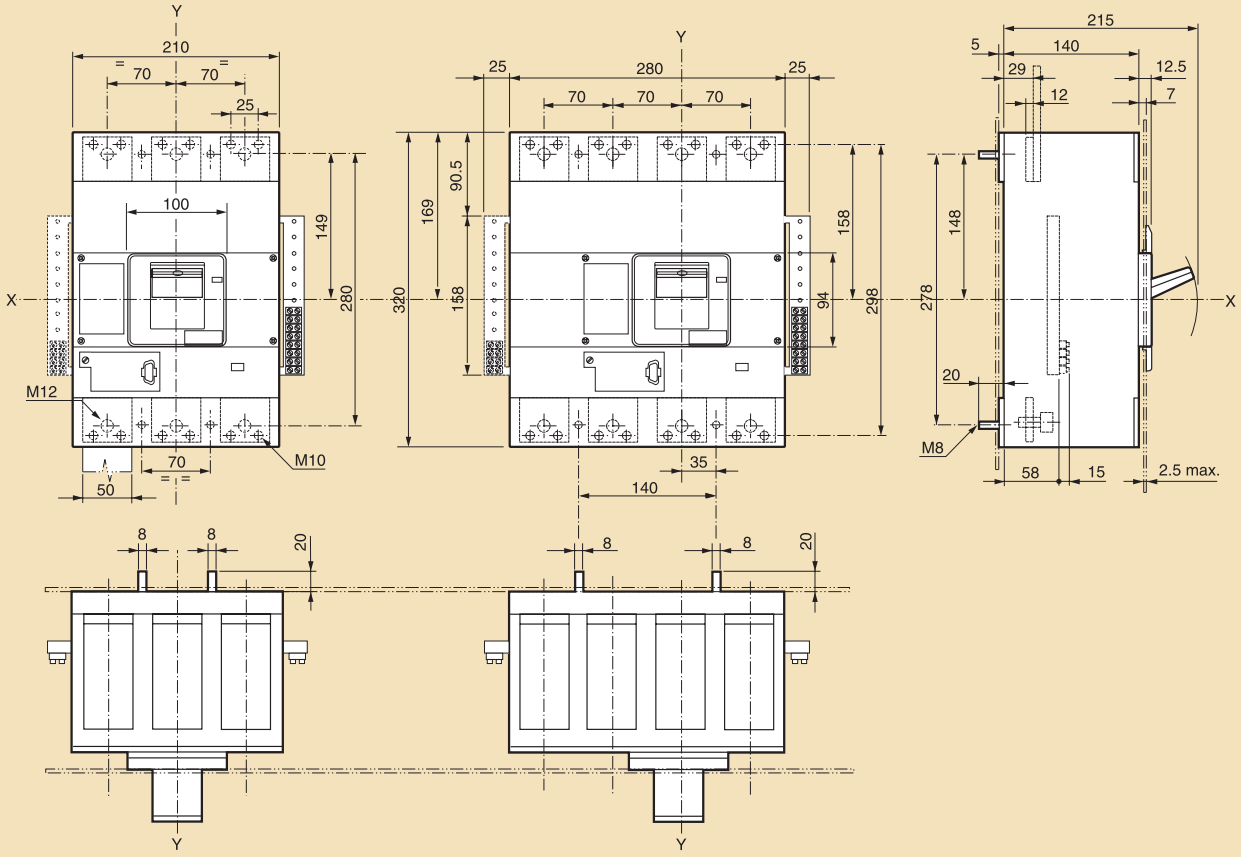
Mounting with flexible seal



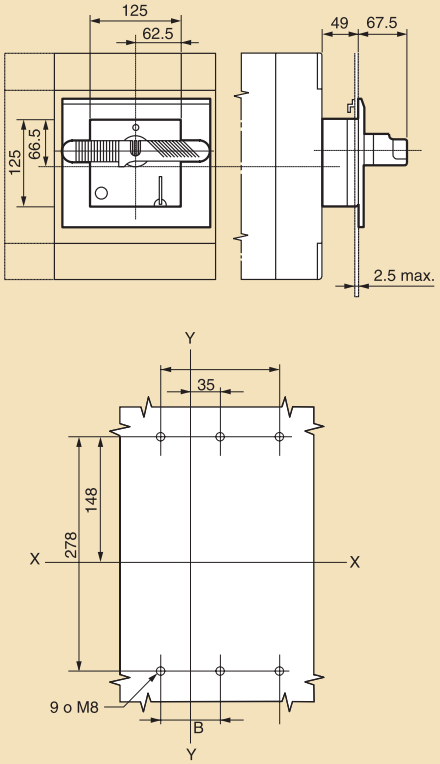
1 inch = 25.4 mm

■ Dimensions

Fixed version, front terminals

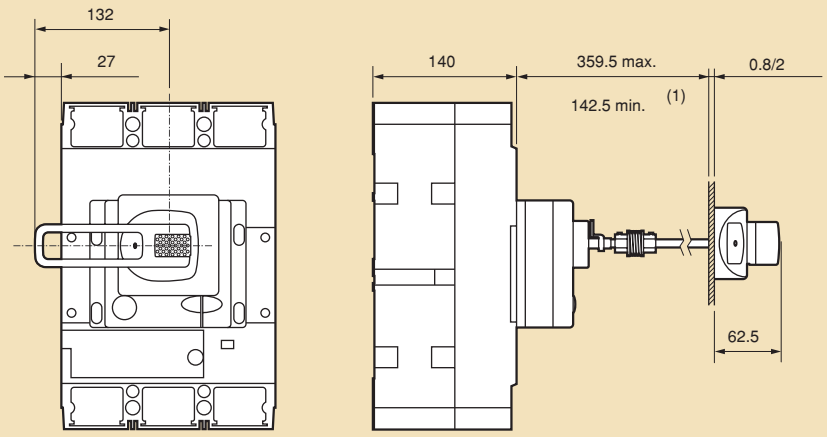


Direct on DPX rotary handles



Rotary handle-vari-depth handle on door

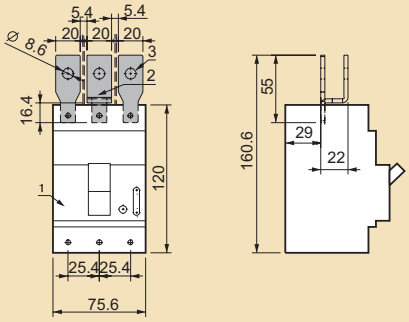
Mounting with flexible seal



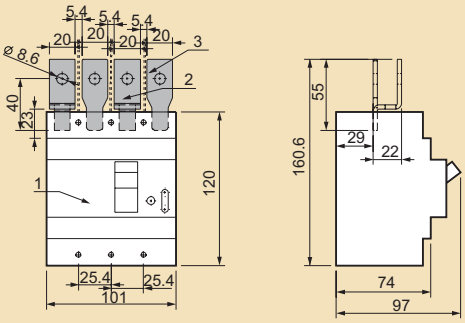
1 inch = 25.4 mm

■ Dimensions

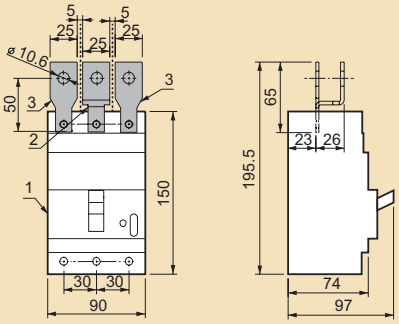
DPX 125 (TP)



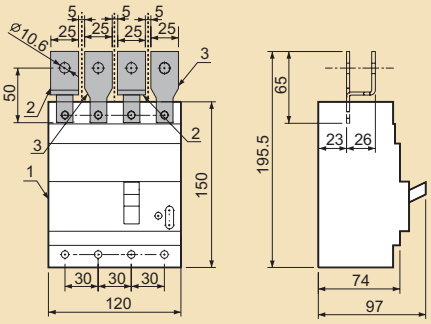
DPX 125 (FP)



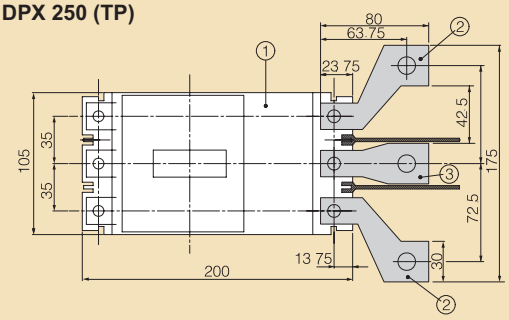
DPX 160 (TP)



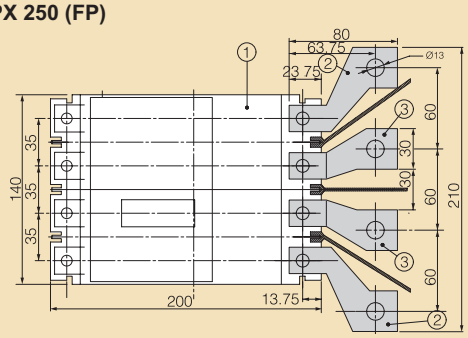
DPX 160 (FP)



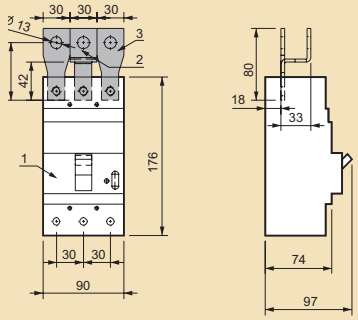
DPX 250 (TP)



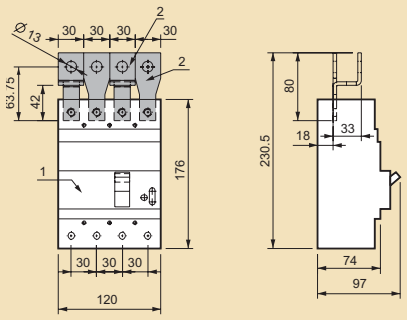
DPX 250 (FP)



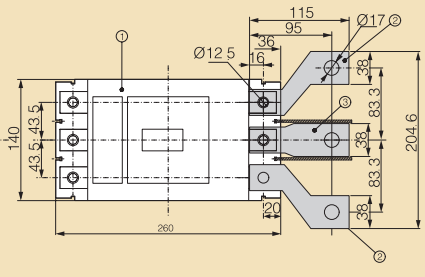
DPX 250 ER (TP)



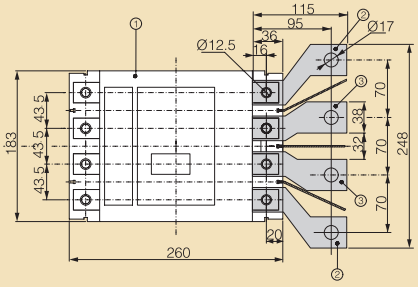
DPX 250 ER (FP)



DPX 630 (TP)



DPX 630 (FP)



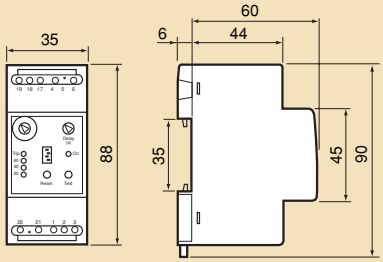
1 inch = 25.4 mm

DPX™ residual current relay
coils for DPX

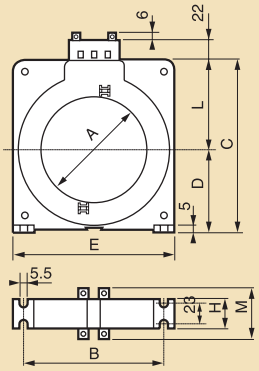
DPX™
motor operators

■ Dimensions

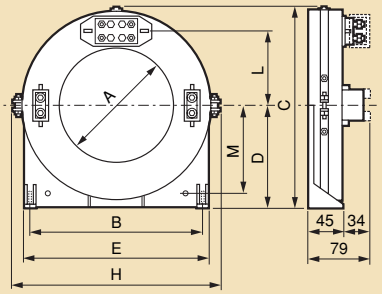
Residual current relay cat. no. 0260 88



Coils cat. nos. 0260 92/93/94/95/96

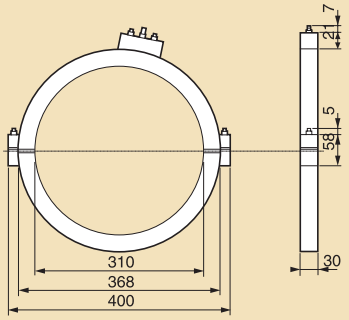


Coils cat. no. 0260 97



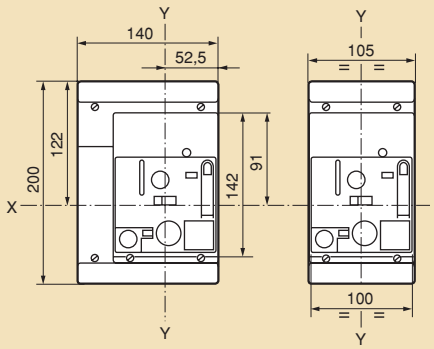
Cat. nos.	A	B	C	D	E	H	L	M
0260 92	35	75	85	42	92	36	43	56
0260 93	80	108	132	67	125	36	65	56
0260 95	140	177	206	104	200	36	102	56
0260 96	210	270	295	150	290	44	145	64
0260 97	150	225	259	133	245	275	95	113

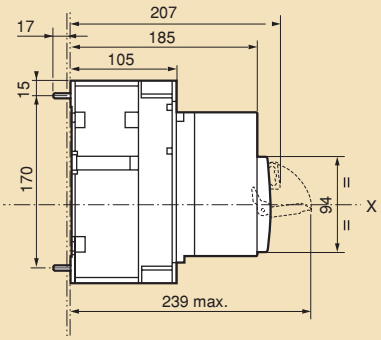
Cat. no. 0260 98



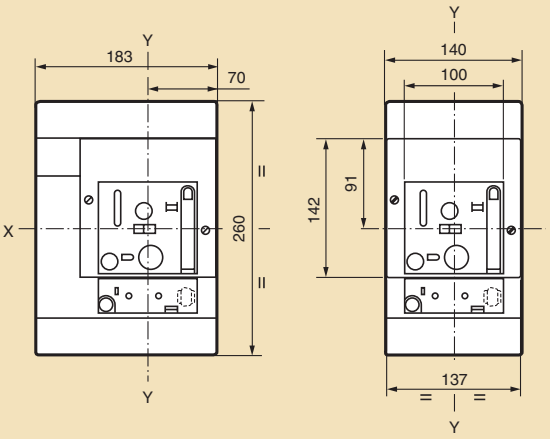
■ Dimensions

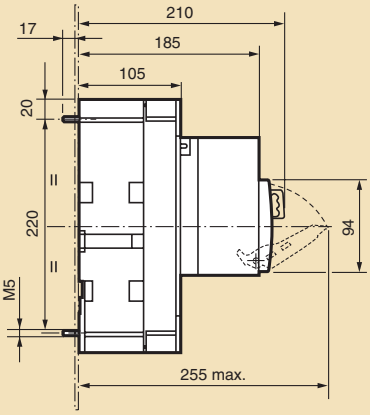
DPX 250





DPX 630

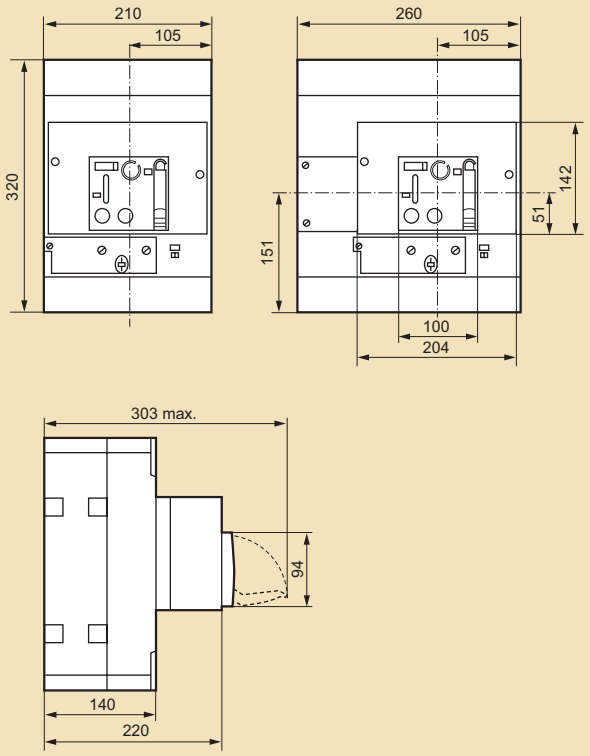




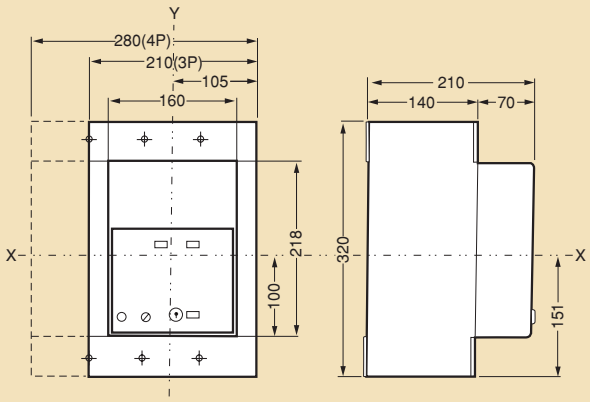
1 inch = 25.4 mm

DPX™
motor operators

DPX 1250 - 1600 - factory assembled with 0261 54 motor



DPX 1250 - 1600 - with 0261 53 motor



DRX™ 100
the universal solutions for residential and commercial requirement

(refer pg. 22)

1 inch = 25.4 mm

Automatic transfer switch DPX

Maintaining continuity of supply becomes crucial especially at places where even a small delay in supply could result huge losses. The DPX range of MCCBs can be efficiently used as an Automatic Transfer Switch at places that require instant power switching. When connected with the electronic control box (line changeover unit) it gives you the flexibility to manage that automatic changeover between two supply lines effectively with remote controls.

AUTOMATIC

When the changeover is made automatically

NON-AUTOMATIC

Manual	-	**When an operator manually performs the changeover**
Motorised	-	**When an operator organises the changeover from a remote location using motorised MCCBs and push buttons**

■ Technical data

Handling continuity problems efficiently

Maintaining continuity of supply becomes crucial especially at places where even a small delay in supply could result in huge losses. The DPX range of MCCBs can be efficiently used as an Automatic Transfer Switch at places that require instant power switching. When connected with the electronic control box (line changeover unit) it gives you the flexibility to manage the automatic changeover between two supply lines effectively with remote controls.

■ Line changeover systems

Manual line changeover

The standard installation may be carried out by using manually operated DPX circuit breakers in fixed version, combined with mechanical interlocks. The mechanical interlock between DPX circuit breakers consists of a support plate on which two circuit breakers are arranged side-by-side. For particular versions (plug-in or draw-out version between two or more circuit breakers), special interlocks with factory pre-setting are available against order.

Motorised controlled line changeover

The electrically controlled line changeover may be carried out by using interlocked DPX circuit breakers equipped with remote controls.

Automatic line changeover

Automatic line changeover is the most advanced and flexible solution. This system is carried out by combining the components used for the electrically controlled line changeover with the electronic control box. This device allows to manage the automatic changeover between two supply sources with simple programming while safety requirements are never compromised.

■ Electronic control box

General characteristics

Electronic Control Box allows to manage the automatic changeover between two supply lines with maximum flexibility.
The electronic device with microprocessor is very compact (144 x 144 mm).

Yet, it is able to perform a large number of functions such as :

- Quick acquisition of voltage levels
- Effective value of line voltage check
- Selection of operating mode (auto/man/test/off)
- Selection of voltage thresholds
- Selection of changeover time
- Display of selected parameters (voltage and time)
- Alarm display
- Starting signal to DG, can be given, in case of primary source failure
- Manual changeover line 1/ line 2
- Lockout of simultaneous switching over between lines
- Diagnostic test

■ Technical characteristics

- Setting of voltage thresholds on main and secondary line to check between 0.7 and 1Ue (280 - 400 V AC)
- Two models, depending on the supply voltages -230 V AC, 24 V DC
- Changeover time from main line to secondary line 0.5 to 30 s
- Main line resetting time 4 s
- 3-digit data display
- LED - signalling the operating state
- Outgoing relay changeover contacts rating (line circuit breakers control) 16 A 230 V in AC
- Alarm contact rating - 5 A 230 V in AC
- External connections with flexible cable max. 2.5 mm^2
- Operating temperature : 0 to 60° C
- Self-extinguishing polycarbonate casing with sealable transparent shield
- Front degree of protection IP 41 without shield, IP 54 with shield
- Flush-mounting version (144 x 144 mm)

Standard manual changeover switches

General characteristics

The manual changeover switches consist of separate parts that have to be assembled by the user or that may be factory assembled.

The changeover set for DPX circuit breakers consists of support plates equipped with a rocking mechanical interlock on which the circuit breakers in their different versions are fixed.

Standard mechanical interlocks

All fixed version DPX circuit breakers with front or rear terminals, except DPX 125 circuit breakers, may be equipped with standard mechanical interlock. They may be equipped with remote controls or with rotary handles.

Selection

Cat. nos.	Description
0261 93	Electronic Control Box - Standard
0261 94	Electronic Control Box - Advanced
0264 01	Mechanical interlock for two DPX 160 circuit breakers
0264 02	Mechanical interlock for two DPX 250 ER circuit breakers
0264 08	Mechanical interlock for two DPX 250 circuit breakers
0264 09	Mechanical interlock for two DPX 630 circuit breakers
0264 10	Mechanical interlock for two DPX 1250 or DPX 1600 circuit breakers (factory assembled only)

■ Ready to Install ATS

	Cat. nos.	Type	Breaking cap	Primary MCCB	Secondary MCCB
DPX 250 ATS	6253 81	Thermal - magnetic 250 Amps	36kA	0253 49	0253 49
	6253 82	Thermal - magnetic 250 Amps	70kA	0253 73	0253 73
	6253 83	Micropro-cessor 250 Amps	70kA	0254 23	0254 23

	Cat. nos.	Type	Breaking cap	Primary MCCB	Secondary MCCB
DPX 630 ATS	6253 84	Thermal - magnetic 630 Amps	36kA	0255 34	0255 34
	6253 85	Thermal - magnetic 630 Amps	70kA	0255 54	0255 54
	6253 87	Micropro-cessor S1 630 Amps	36kA	0256 07	0256 07
	6253 88	Micropro-cessor S1 630 Amps	70kA	0256 15	0256 15
	6253 89	Micropro-cessor S2 630 Amps	36kA	0256 32	0256 32
	6253 90	Micropro-cessor S2 630 Amps	70kA	0256 40	0256 40
	6253 91	Micropro-cessor Sg 630 Amps	36kA	0256 57	0256 57
	6253 92	Micropro-cessor Sg 630 Amps	70kA	0256 65	0256 65

Note : Arrangement to supply the recommended voltage to the electronic control box should be made in the panel.

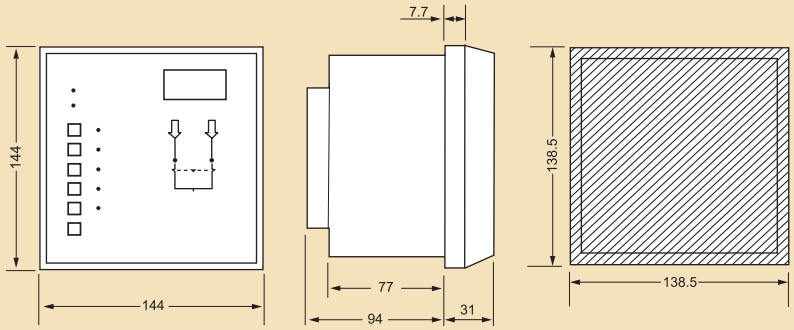
Closer look at protection

Widest range of electronic MCCBS (Microprocessor-based)

- > Only DPX offers the widest range of microprocessor MCCBs from 40 A to 1600 A.
- > It allows precise overload settings from 40% to 100% of the rated current to assure you closer protection. Apart from ensuring smooth co-ordination between upstream and downstream MCCBs.
- > DPX electronic MCCBs also give you the convenience of segregating priority and non priority loads. Thereby making it one of its kind in closer protection

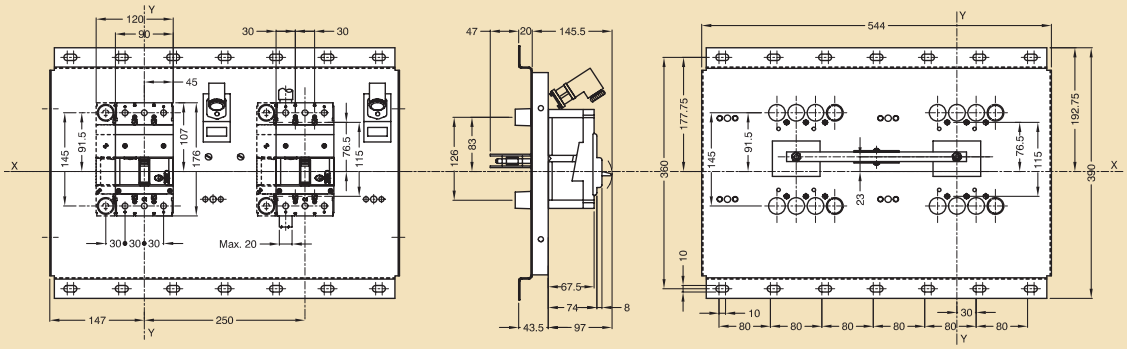
■ Dimensions

Electronic control box



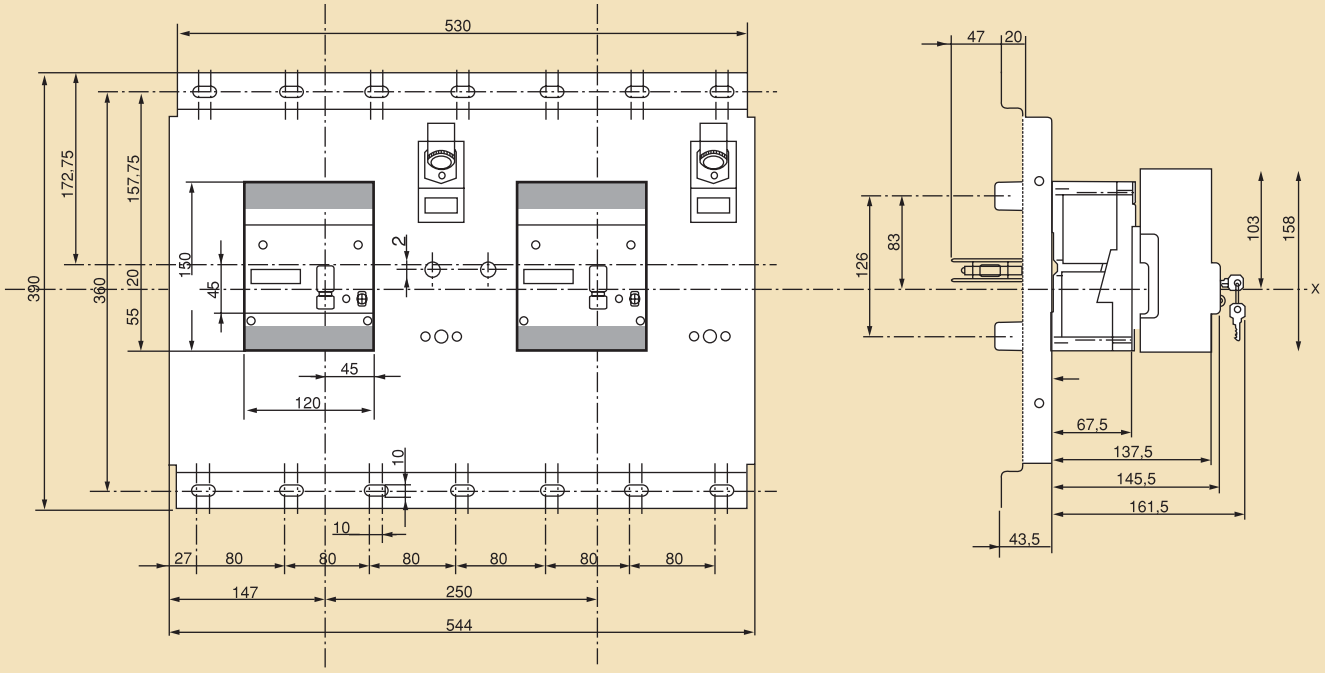
Mechanical interlock

2 DPX 160 circuit breakers



Mechanical interlock

2 DPX 160 circuit breakers with remote control

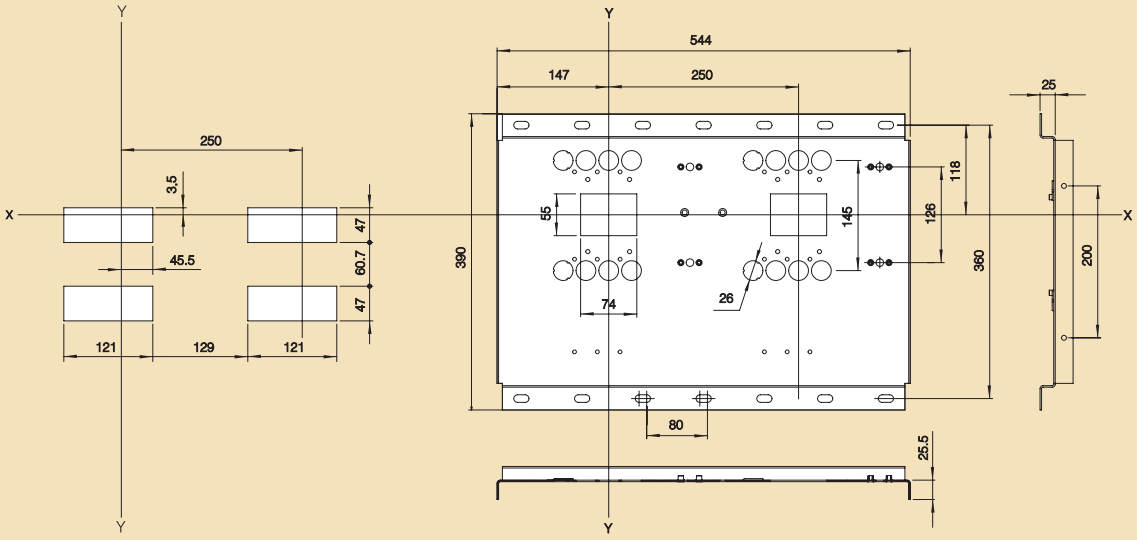


1 inch = 25.4 mm

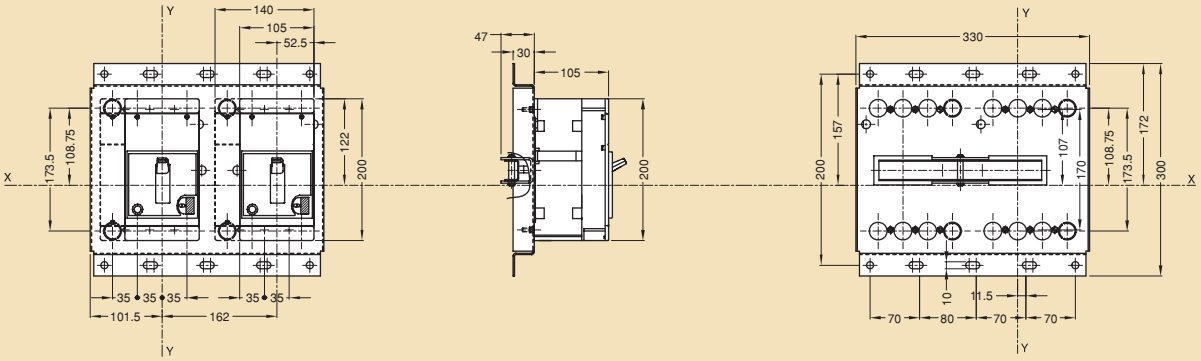
Note : For all details on installation, please refer to the detailed instruction catalogue.

■ Dimensions

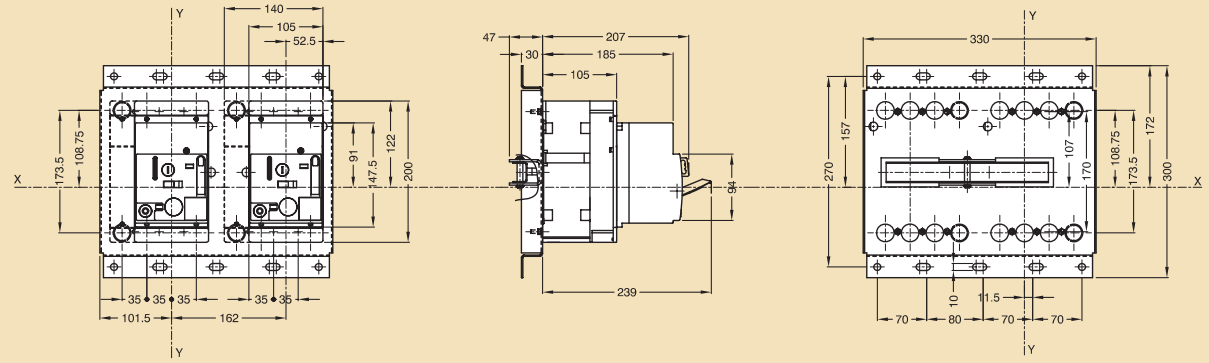
2 DPX 250 ER circuit breakers



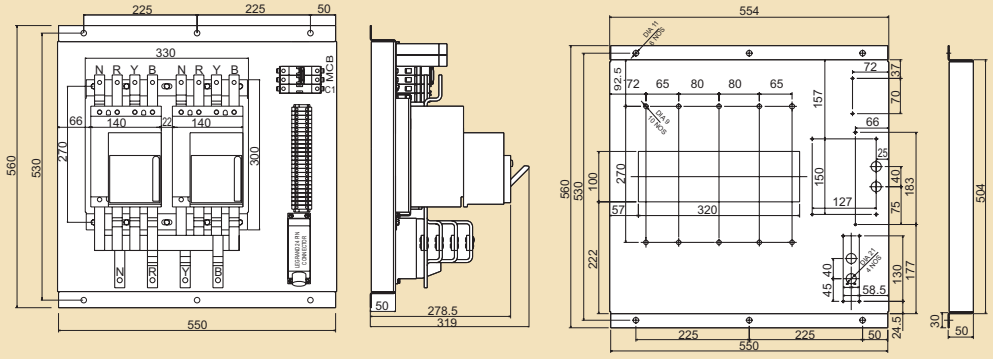
2 DPX 250 circuit breakers



2 DPX 250 circuit breakers with remote control

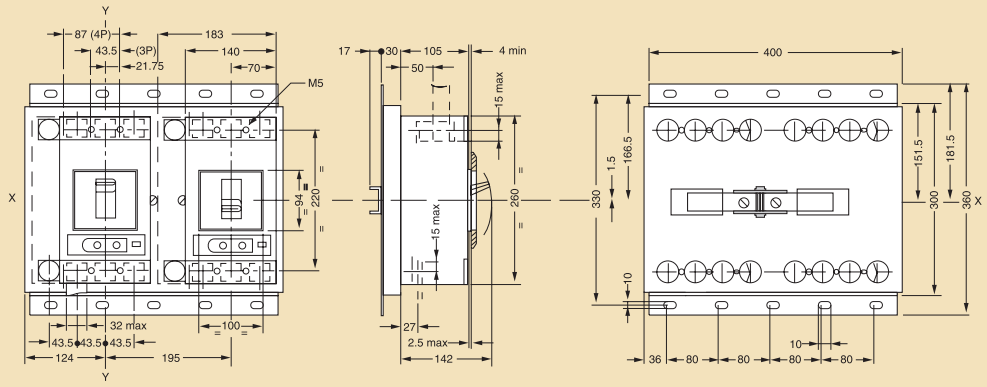


DPX 250 ready to install ATS

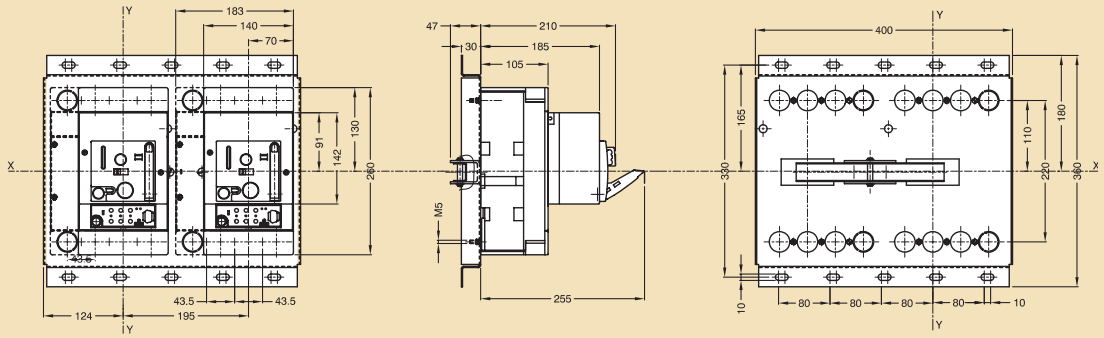


1 inch = 25.4 mm
Note : For all details on installation, please refer to the detailed instruction catalogue.

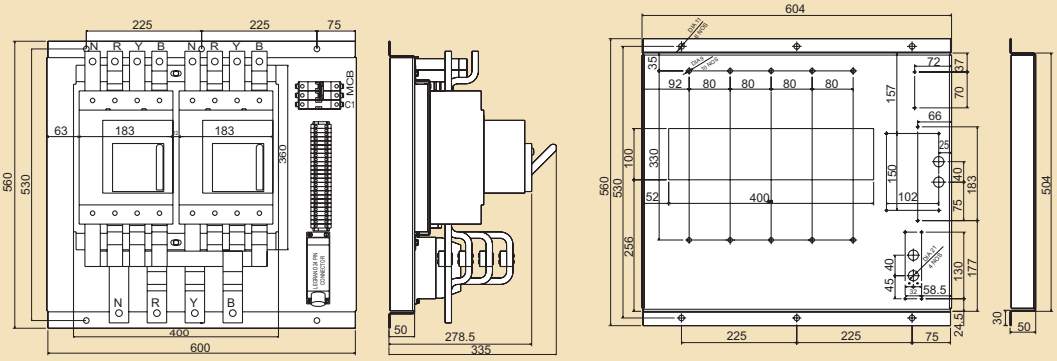
2 DPX 630 circuit breakers



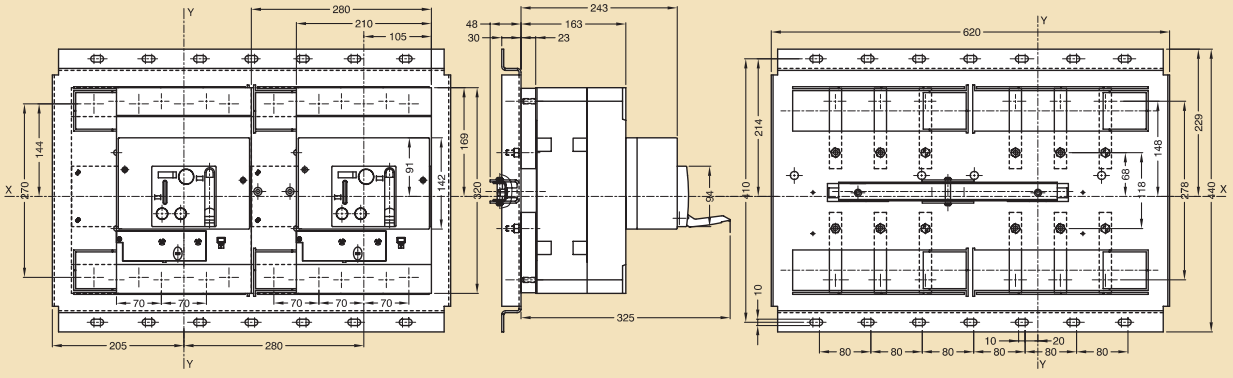
2 DPX 630 circuit breakers with remote control



DPX 630 Ready to Install ATS

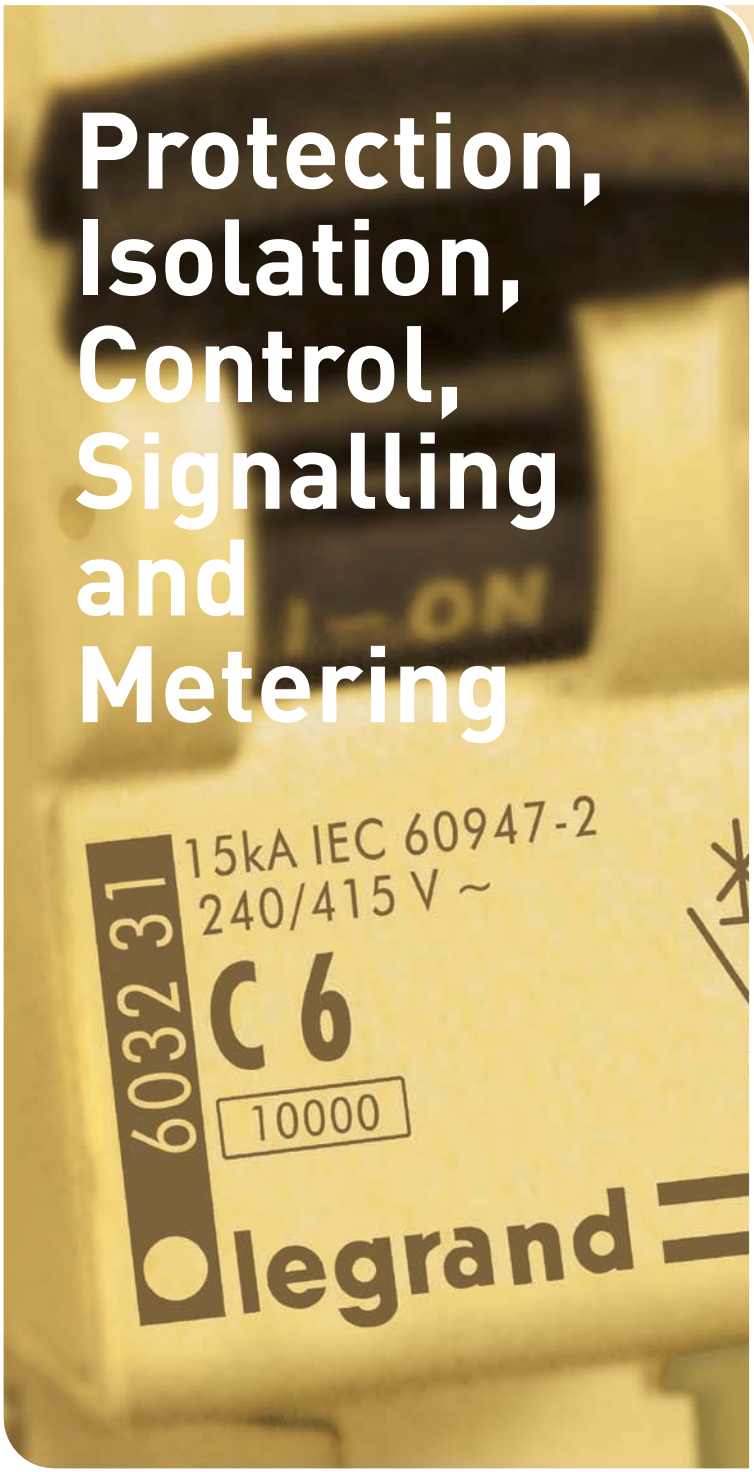


2 DPX 1250 or 2 DPX 1600 circuit breakers with remote control (factory assembled)



1 inch = 25.4 mm
Note : For all details on installation, please refer to the detailed instruction catalogue.

Protection, Isolation, Control, Signalling and Metering



Lexic : Protection, isolation, control, signalling and metering

Remote control dimmer

(p. 143)

New in 2008/09

[LEXIC™]

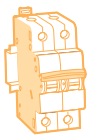
Safe, simple and flexible

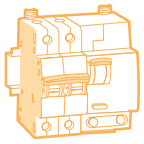
The simplicity and flexibility of the Lexic system allows you to organize your electrical distribution system exactly as you want.

Modular Lexic range

Protection & Isolation


MCB

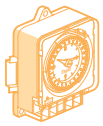

ISOLATOR

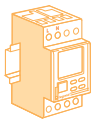

RCD

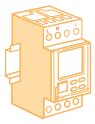

MPCB


VOLTAGE SURGE PROTECTOR

Controlling

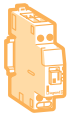

ANALOGUE TIME SWITCH

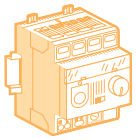

DIGITAL ASTROREX TIME SWITCH


DIGITAL ALPHAREX TIME SWITCH


TIME-LAG SWITCH


TIME DELAY RELAY

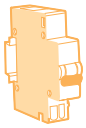

POWER CONTACTOR

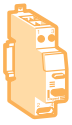

REMOTE CONTROL DIMMER

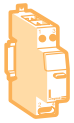

CHANGEOVER SWITCH

Signalling

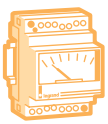

SIGNALLING AUXILIARY


COMMAND AUXILIARY


PUSH BUTTON CONTROL SWITCH

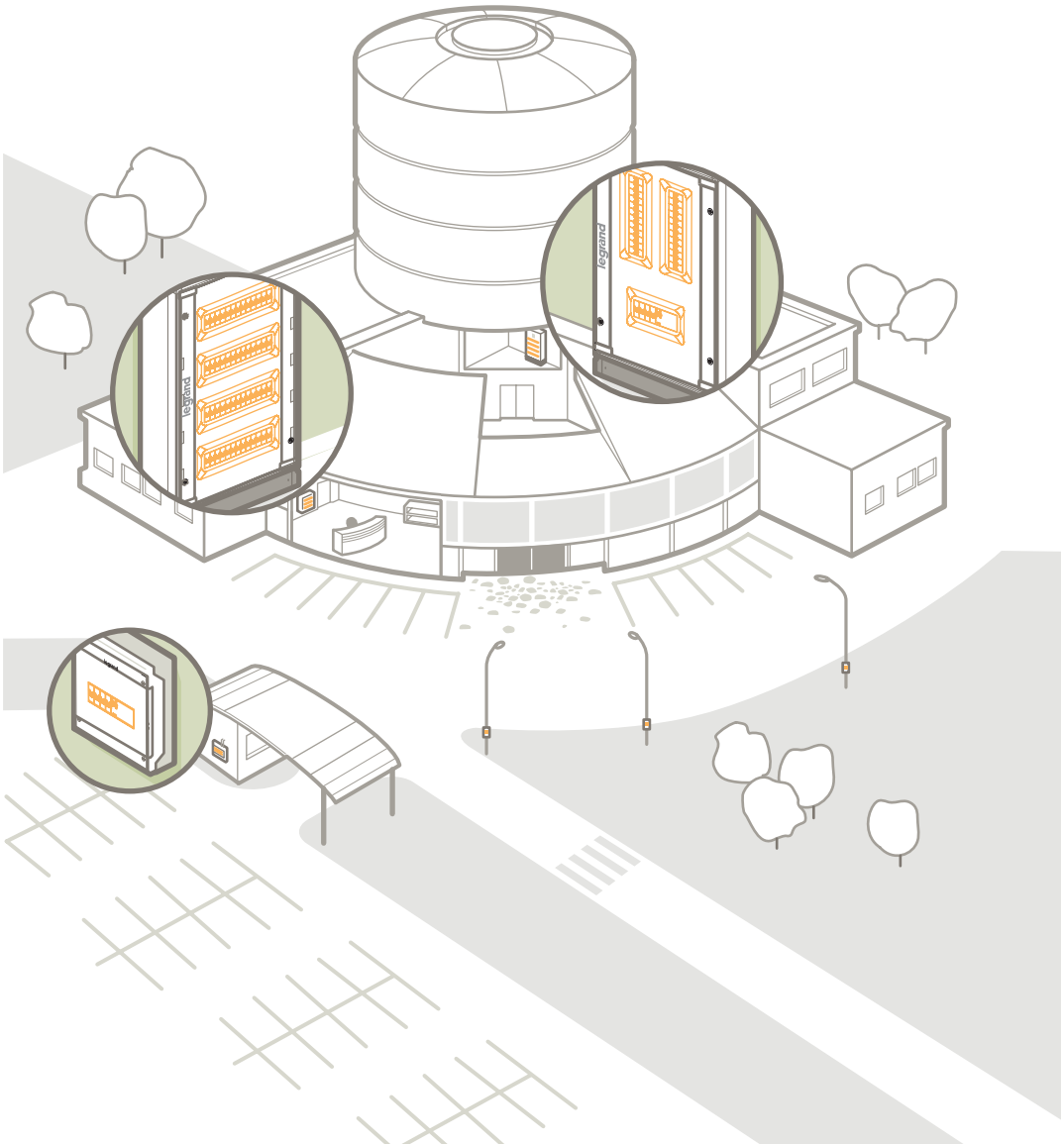

INDICATOR

Metering


ANALOGUE ENERGY METER


SELECTOR SWITCH

Magic of modularity

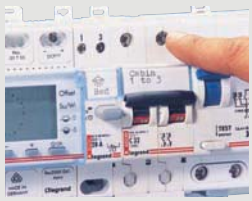


[LEXIC™]

Safe, simple and flexible

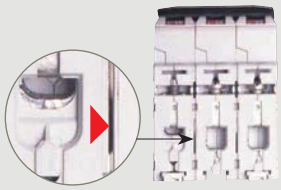
Lexic combines the latest technology with aesthetics and flexibility to design modular concepts for protection, isolation, controlling, signalling and metering.

SAFE



IP 20 degree of protection
Lexic offers IP 20 degree of protection. All the active, live parts are out of human reach, ensuring safety of installers.

Transparent label holder
Ensures circuit indentification and hence safety under any circumstance.

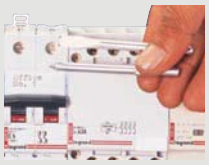


Air circulation
When two poles are placed adjacent to each other, these channels form a tunnel resulting in very effective air circulation around individual poles.

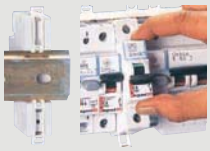
2 - position dolly
It clearly informs the user of the operational status of these devices - red colour for ON and green for OFF, thus enhancing safety.

Fully insulated safety shutters
These provide safety in connection. While closing, they guide the cable towards the cage terminal and the sliding shutter gives total protection to the installer.

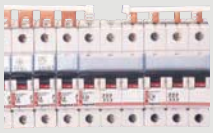
SIMPLE



Combihead screws
Lexic modular devices are provided with combihead screws enabling the use of standard as well as Philips screwdrivers - manual or power.



2 dual position DIN rail clamps
Every device is provided with 2 dual position DIN rail clamps. Hence, a device can be easily changed from a bank of devices connected by a busbar without disturbing your existing wiring.



No modification of the busbar
You have the freedom to mount most of the Lexic devices without modifying the busbar.

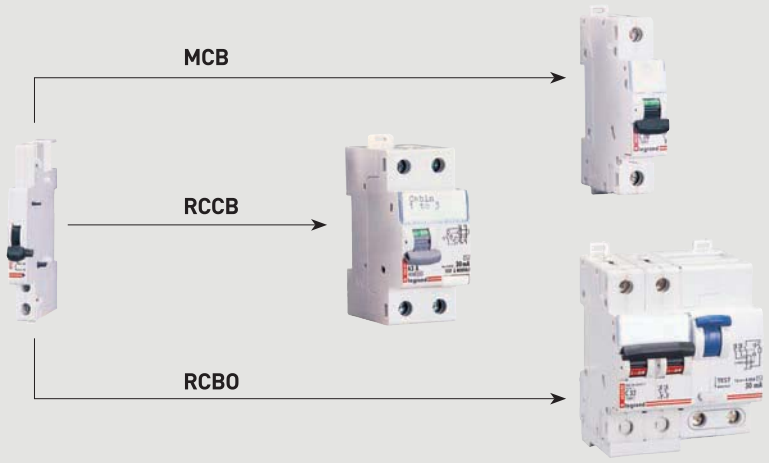
FLEXIBLE

Large cable terminals
An exclusive feature specific to the Indian market, these MCB terminals are suitable for cable upto 35mm^2 cross section area. Thus making it suitable for copper and aluminium cables.

Bi-connect terminals
You have the choice of using either a busbar or cable to make connections. Further, both the upper and lower terminals of MCBs are bi-connect types thus providing ultimate flexibility.

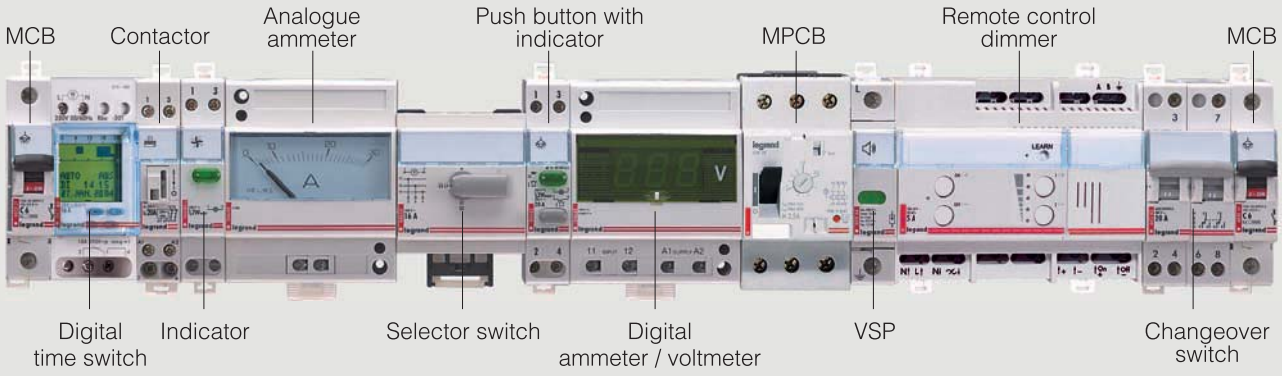
Two types of busbars
Two types of busbars can be used - fork type and pin type.

COMMON AUXILIARIES



They can be connected to the main devices easily and quickly on site, even at the last moment.

MAGIC OF MODULARITY



Lexic
thermal magnetic MCBs up to 125 A


6032 31

6032 51

6032 67

6032 85


0064 76

Dimensions (p. 155)
Technical data (p. 93-99)

10 kA ISI marked as per IS 8828 - 1996 (IEC 60898) (0.5-63A)
15 kA conforming to IEC 60947 upto 25 A rating
Integrated label holder
Biconnect upper and lower terminals
35 sq. mm cage terminals with safety shutters
Air channel for low temperature rise
Clip on auxiliaries
10kA as per IEC 60898 (80-125A)

Single pole 240 / 415 V~

Pack	Cat. nos.		Nominal rating (A)	Number of 17.5 mm modules
	D curve	C curve		
1/10/120	6032 24		0.5	1
1/10/120	6032 25		1	1
1/10/120	6032 26		1.6	1
1/10/120	6032 27		2	1
1/10/120	6032 28		3	1
1/10/120	6032 29		4	1
1/**10**/120	6049 51	**6032 31**	6	1
1/**10**/120	6049 52	**6032 33**	10	1
1/**10**/120	6049 53	**6032 34**	16	1
1/**10**/120	6049 54	**6032 35**	20	1
1/**10**/120	6049 55	**6032 36**	25	1
1/**10**/120	6049 56	**6032 37**	32	1
1/10/120	6049 57	6032 38	40	1
1/10/120	6049 58	6032 39	50	1
1/10/120	6049 59	6032 40	63	1
1/5/160		0063 83	80	1.5
1/5/160		0063 84	100	1.5
1/5/160		0063 85	125	1.5

Single pole + Neutral 240 V~

	D curve	C curve	Nominal rating (A)	Number of 17.5 mm modules
1/5/60	6032 41		0.5	2
1/5/60	6032 42		1	2
1/5/60	6032 43		1.6	2
1/5/60	6032 44		2	2
1/5/60	6032 45		3	2
1/5/60	6032 46		4	2
1/5/60		6032 48	6	2
1/5/60		6032 50	10	2
1/**5**/60		**6032 51**	16	2
1/**5**/60		**6032 52**	20	2
1/5/60		6032 53	25	2
1/**5**/60		**6032 54**	32	2
1/5/60		6032 55	40	2
1/5/60		6032 56	50	2
1/5/60		6032 57	63	2

Common auxiliaries (p. 110)

For terminating aluminium cables in MCBs of 32 A and above, use of entry terminal 6034 48 is mandatory.

Double pole 415 V~

Pack	Cat. nos.		Nominal rating (A)	Number of 17.5 mm modules
	D curve	C curve		
1/5/60	6032 58		0.5	2
1/5/60	6032 59		1	2
1/5/60	6032 60		1.6	2
1/5/60	6032 61		2	2
1/5/60	6032 62		3	2
1/5/60	6032 63		4	2
1/**5**/60	6049 61	**6032 65**	6	2
1/**5**/60	6049 62	**6032 67**	10	2
1/**5**/60	6049 63	**6032 68**	16	2
1/**5**/60	6049 64	**6032 69**	20	2
1/5/60	6049 65	**6032 70**	25	2
1/**5**/60	6049 66	**6032 71**	32	2
1/5/60	6049 67	6032 72	40	2
1/5/60	6049 68	6032 73	50	2
1/5/60	6049 69	6032 74	63	2
1/40		0064 75	80	3
1/40		0064 76	100	3
1/40		0064 77	125	3

Triple pole 415 V~

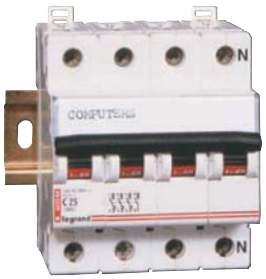
	D curve	C curve	Nominal rating (A)	Number of 17.5 mm modules
1/40	6032 75		0.5	3
1/40	6032 76		1	3
1/40	6032 77		1.6	3
1/40	6032 78		2	3
1/40	6032 79		3	3
1/40	6032 80		4	3
1/40	6049 71	**6032 82**	6	3
1/40	6049 72	**6032 84**	10	3
1/40	6049 73	**6032 85**	16	3
1/40	6049 74	**6032 86**	20	3
1/40	6049 75	**6032 87**	25	3
1/40	6049 76	**6032 88**	32	3
1/40	6049 77	6032 89	40	3
1/40	6049 78	6032 90	50	3
1/40	6049 79	6032 91	63	3
1/9		0064 95	80	4.5
1/9		0064 96	100	4.5
1/9		0064 97	125	4.5

Common auxiliaries (p. 110)

For terminating aluminium cables in MCBs of 32 A and above, use of entry terminal 6034 48 is mandatory.

Bold catalogue numbers are products normally available with Legrand (India) stockists.
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

Lexic
thermal magnetic MCBs up to 63 A


6033 04


6033 22

Dimensions (p. 155)
Technical data (p. 93-99)

10 kA ISI marked as per IS 8828 - 1996 (IEC 60898)
15 kA conforming to IEC 60947 upto 25 A rating
Integrated label holder
Biconnect upper and lower terminals
35 sq. mm cage terminals with safety shutters
Air channel for low temperature rise
Clip on auxiliaries

Triple pole + Neutral 415 V~

Pack	Cat. nos. D curve	Cat. nos. C curve	Nominal rating (A)	Number of 17.5 mm modules
1/32	6032 92		0.5	4
1/32	6032 93		1	4
1/32	6032 94		1.6	4
1/32	6032 95		2	4
1/32	6032 96		3	4
1/32	6032 97		4	4
1/32		6032 99	6	4
1/32		6033 01	10	4
1/32		6033 02	16	4
1/32		6033 03	20	4
1/32		6033 04	25	4
1/32		**6033 05**	32	4
1/32		**6033 06**	40	4
1/32		6033 07	50	4
1/32		**6033 08**	63	4

Four pole 415 V~

Pack	D curve	C curve	Nominal rating (A)	Number of 17.5 mm modules
1/32	6033 09		0.5	4
1/32	6033 10		1	4
1/32	6033 11		1.6	4
1/32	6033 12		2	4
1/32	6033 13		3	4
1/32	6033 14		4	4
1/32	6049 81	6033 16	6	4
1/32	6049 82	6033 18	10	4
1/32	6049 83	6033 19	16	4
1/32	6049 84	6033 20	20	4
1/32	6049 85	6033 21	25	4
1/32	6049 86	**6033 22**	32	4
1/32	6049 87	**6033 23**	40	4
1/32	6049 88	6033 24	50	4
1/32	6049 89	**6033 25**	63	4
1/9		0065 70	80	6
1/9		0065 71	100	6
1/9		0065 72	125	6

For terminating aluminium cables in MCBs and Isolators of 32 A and above, use of entry terminal 6034 48 is mandatory.

Lexic
Isolators up to 80 A


6040 03


6040 08


6040 16

Conforms to IS 13947-3 (IEC 60947-3)
Integrated label holder
Biconnect upper and lower terminals
35 sq. mm cage terminals with safety shutters
Clip on auxiliaries

Double pole 415 V~

Pack	Cat. nos.	Nominal rating (A)	Number of 17.5 mm modules
1/**5**/60	6040 01	32	2
1/**5**/60	**6040 02**	40	2
1/**5**/60	6040 03	63	2

Triple pole 415 V~

		Nominal rating (A)	Number of 17.5 mm modules
1/40	6040 07	32	3
1/40	**6040 08**	40	3
1/40	**6040 09**	63	3
1/40	6040 10	80	3

Four pole 415 V~

		Nominal rating (A)	Number of 17.5 mm modules
1/32	6040 13	32	4
1/32	**6040 14**	40	4
1/32	**6040 15**	63	4
1/32	6040 16	80	4

For terminating aluminium cables in MCBs and Isolators of 32 A and above, use of entry terminal 6034 48 is mandatory.

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Lexic
MCBs for DC applications up to 63 A

6033 55

Dimensions (p. 155)
Technical data (p. 93-99)

6 kA as per IS 13947 - 2 (IEC 60947 - 2)
Integrated label holder
Bi-connect upper and lower terminal
35 sq. mm cage terminals with safety shutters
Air channel for low temperature rise
Clip on auxiliaries

Single pole 250 V⎓

Pack	Cat. nos. D curve	Cat. nos. C curve	Nominal rating (A)	Number of 17.5 mm modules
1/10/120	6033 26		0.5	1
1/10/120	6033 27		1	1
1/10/120	6033 28		1.6	1
1/10/120	6033 29		2	1
1/10/120	6033 30		3	1
1/10/120	6033 31		4	1
1/10/120		6033 33	6	1
1/10/120		6033 35	10	1
1/10/120		6033 36	16	1
1/10/120		6033 37	20	1
1/10/120		6033 38	25	1
1/10/120		6033 39	32	1
1/10/120		6033 40	40	1
1/10/120		6033 41	50	1
1/10/120		6033 42	63	1

Double pole 250 V⎓

	D curve	C curve	Nominal rating (A)	Number of 17.5 mm modules
1/5/60	6033 43		0.5	2
1/5/60	6033 44		1	2
1/5/60	6033 45		1.6	2
1/5/60	6033 46		2	2
1/5/60	6033 47		3	2
1/5/60	6033 48		4	2
1/5/60		6033 50	6	2
1/5/60		6033 52	10	2
1/5/60		6033 53	16	2
1/5/60		6033 54	20	2
1/5/60		6033 55	25	2
1/5/60		6033 56	32	2
1/5/60		6033 57	40	2
1/5/60		6033 58	50	2
1/5/60		6033 59	63	2

For terminating aluminium cables in MCBs of 32 A and above, use of entry terminal 6034 48 is mandatory.

Lexic
DC MCBs

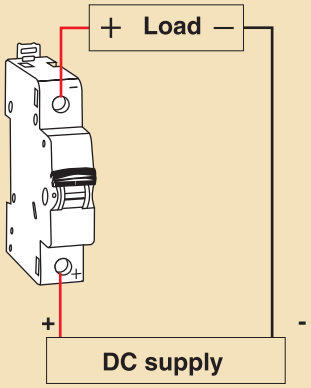
■ Technical data

Correct polarity connections for DC MCBs

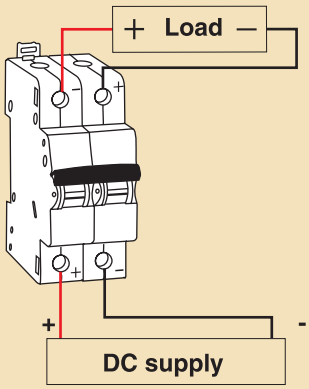
• Supply terminals

When supply is given at lower terminals

Single pole MCB



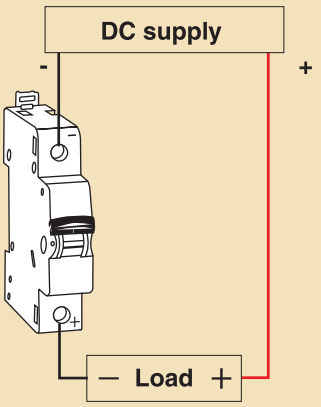
Double pole MCB



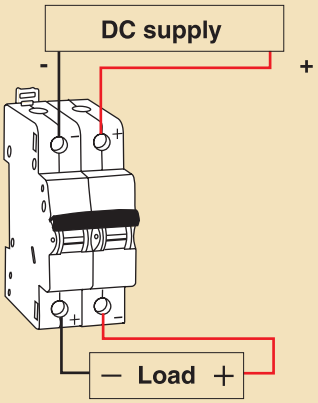
• Supply terminals

When supply is given at upper terminals

Single pole MCB



Double pole MCB



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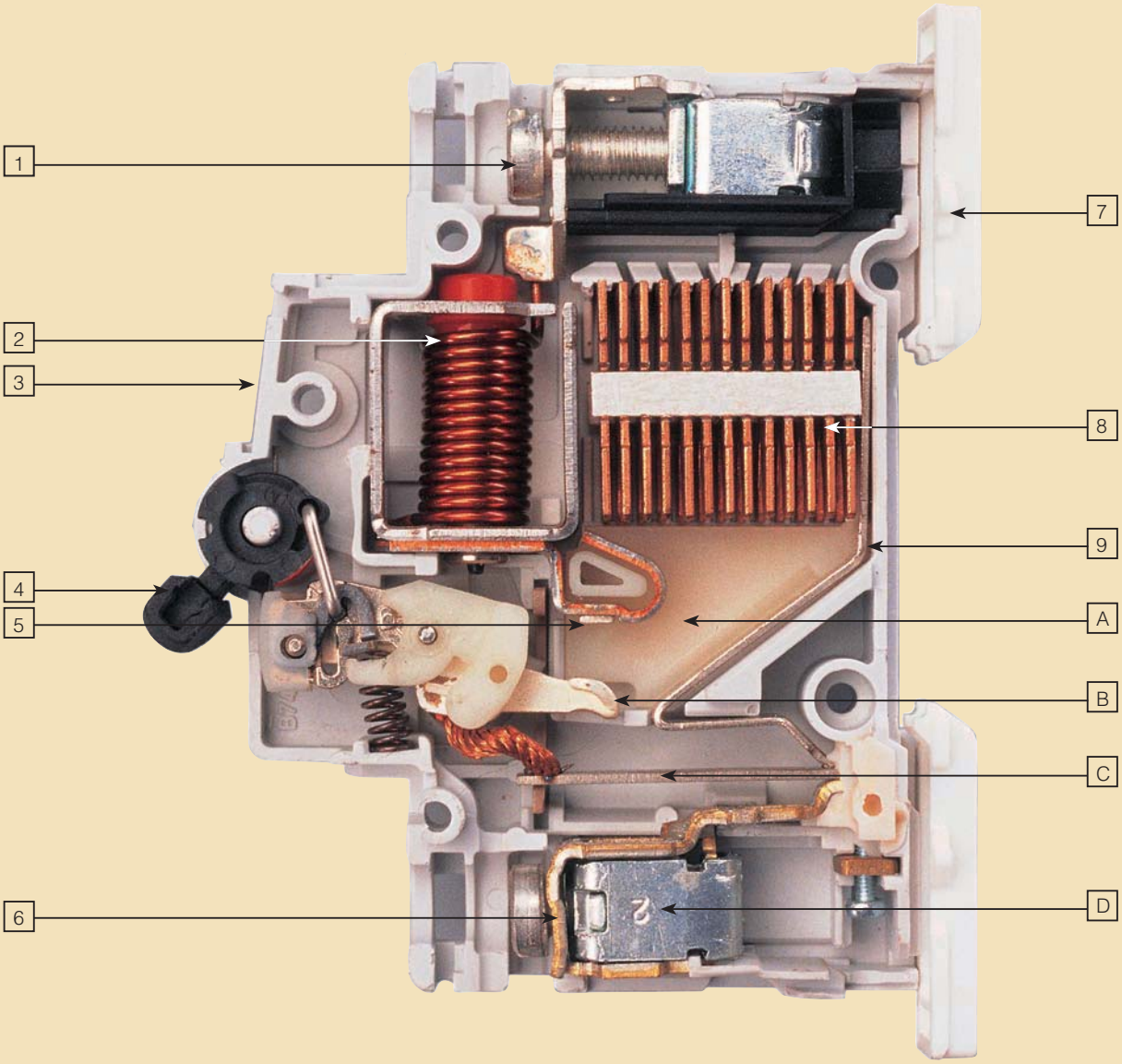
Lexic MCB
cross sectional view of Lexic AC MCB



1	Combihead terminal screw	8	Arc chute
2	Solenoid	9	Arc runner
3	Label holder	A	Gas chamber
4	Large two position dolly	B	Moving contact
5	Fixed contact	C	Bimetallic strip
6	Bus bar terminal	D	`35 mm² box terminal
7	Two position DIN rail clamp		

■ Technical data

Specification	IS 8828 of 1996; IEC 60898 of 1995
Number of poles	SP, DP, TP, FP, SPN and TPN
Characteristic	C and D
Breaking capacity	10 kA - 0.5 A to 125 A As per IS 8828 of 1996 (IEC 60898) 15 kA - 0.5 A to 25 A 10 kA - 32 A to 63 A 12.5 kA - 80 A to 125 A As per IS 13947 - 2 (IEC 60947 - 2)
Rated voltage	240 / 415 V AC
Current limitation class	3 as per EN 60898, IEC 60898
Frequency	50 to 60 Hz
Minimum operating voltage	12 V AC
Enclosure	Moulded self-extinguishing thermo set plastic in light bone grey colour.
Mounting position	Optional
Fixing	Snap fixing on standard DIN rail profile - 35 x 7.5 Surface mounting with two screws
Maximum cable size	Top/Bottom - 0.5 to 63A - 1 to 35 mm² for rigid cable - 80 to 125A - 1 to 70 mm² Top/Bottom - 0.5 to 63A - 1 to 25 mm² for flexible standard cable - 80 to 125A - 1 to 50 mm²
Applied connection torque	2.5 Nm
Mechanical endurance	10,000 operation
Electrical endurance	10,000 operation (cos Ø = 0.85 to 0.9)
Permissible ambient temp.	0.5 to 63A - Maximum + 55°C Minimum - 5°C 80 to 125A Maximum + 75°C Minimum - 25°C

Note : Lexic AC MCBs are also suitable for DC operations
0.5 to 63A-60 V DC, Breaking capacity 1kA,
80 to 125A-80 V DC, Breaking capacity 4kA,

Power dissipated in Watt per pole at In

In A	0.5	1	1.6	2	3	4	6	10	16	20	25	32	40	50	63	80	100	125
Type C							1.2	1.53	1.85	1.98	2.4	3.1	4	4.5	5.5	8.5	10	15.6
Type D	2.2	2.2	2.2	2.2	2.4	2.5	1.2	1.53	1.85	1.98	2.4	3.1	4	4.5	5.5			
Permitted limit as per IEC 60898	3	3	3	3	3	3	3	3	3.5	4.5	4.5	6	7.5	9	13			

Derating according to ambient temperature

In at 30°C	Ambient temperature						
	0° C	10° C	20° c	30° C	40° C	50° C	60° C
0.5	0.55	0.53	0.51	0.5	0.48	0.46	0.45
1	1.1	1.07	1.03	1	0.97	0.93	0.9
1.6	1.8	1.7	1.65	1.6	1.55	1.49	1.44
2	2.2	2.1	2.06	2	1.94	1.86	1.8
3	3.3	3.2	3.1	3	2.9	2.8	2.6
4	4.4	4.28	4.12	4	3.88	3.72	3.6
6	6.6	6.4	6.2	6	5.8	5.5	5.4
10	11	10.7	10.3	10	9.7	9.3	9
16	18	17.3	16.6	16	15.4	14.7	14.1
20	22.4	21.6	20.8	20	19.2	18.4	17.6
25	28.3	27.2	26	25	24	22.7	21.7
32	36.2	34.9	33.3	32	30.7	29.1	27.8
40	46	44	42	40	38	36	34
50	57.5	55	52.5	50	47.5	45	42.5
63	73.1	69.9	66.1	63	59.8	56.1	52.9
80	92	88	84	80	76	72	69
100	114	110	105	100	95	90	86
125	141	137	131	125	119	113	108

■ Lexic DC MCBs

Specification	IS 13947-2 ; IEC 60947-2
No. of poles	SP And DP
Breaking capacity	6 kA at 250 V DC As per IS 13947-2 ; IEC 60947-2
Rated Voltage	250 V DC
Minimum Operating Voltage	12 V DC
Permissible ambient temperature	- 5° C to + 55° C

■ Lexic Isolators

Specification	As per IS 13947-3 and IEC 60947-3
Rating and no. of poles	DP - 32, 40, 63 TP - 32, 40, 63, 80 FP - 32, 40, 63, 80
Rated operational voltage and frequency	415 V, 50/60 Hz
Utilization category	AC 22 (for resistive & moderate inductive load)
Insulation voltage Ui	660 V AC
Impulse voltage Uimp	6 kV (1.2 / 50 µ s surge)
Short time with stand capacity	Icw = 1000 A for 0.3 second
Short circuit making capacity Im	1000 A
Endurance	Electrical - 10000 operation (cos Ø 0.85 to .09 lag) Mechanical - 10000 operation
Terminals	Top - 1 to 35 mm² copper / aluminium rigid cable, biconnect terminal, 14 mm deep terminal shutter Bottom - 1 to 35 mm² copper / aluminium rigid cable, biconnect terminal, 14 mm deep with terminal shutter

Choice of Lexic MCBs for capacitor banks

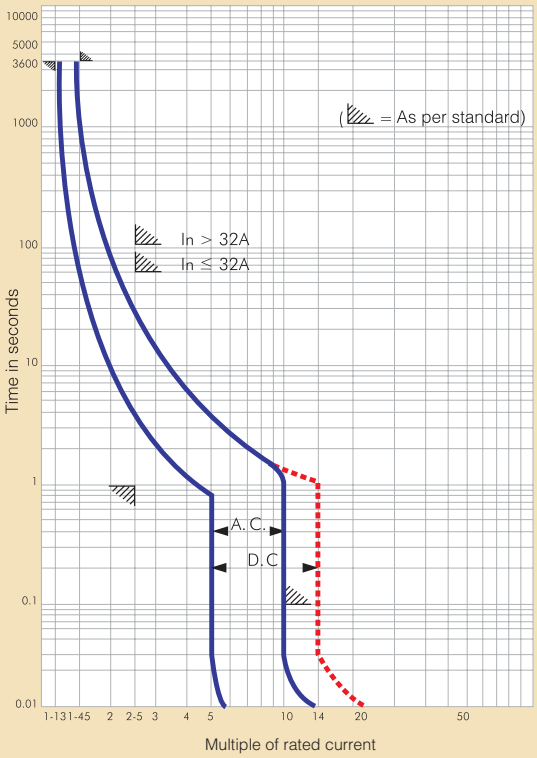
This table shows the rated current of Lexic MCBs to be used when controlling capacitor banks so as to guarantee its function and shortcircuit protection.
Overload protection is not necessary since these installations cannot be overloaded.
This data refers to shortcircuit protection in absence of harmonics or heavy transitory currents.

	Lexic MCB rating in amps			
	C characteristic		D characteristic	
Power of capacitor bank in KVAR	Single phase 240 V	Three phase 415 V	Single phase 240 V	Three phase 415 V
0.5	10	6	3	1
1	20	6	6	2
1.5	32	10	10	3
2.5	40	16	10	4
3	50	16	16	4
3.5	63	20	16	6
4	63	25	16	6
4.5	...	25	20	10
5	...	32	20	10
5.5	...	32	25	10
6	...	32	25	10
6.5	...	40	25	10
7	...	40	32	10
7.5	...	50	32	16
8	...	50	32	16
8.5	...	50	40	16
9	...	50	40	16
9.5	...	63	40	16
10		63	40	16
10.5	80	63	60	16
11	80		50	16
11.5	80		50	16
12	80		50	20
12.5	80		50	20
13	100	...	63	20
13.5	100	...	63	20
14	100	...	63	20
14.5	100	...	63	25
15	100	...	63	25
15.5	100	...		25
16	100	...		25
16.5	125	...	...	25
17	125	...	...	25
17.5	125	...	...	25
18	125	...	...	32
18.5	125	...	...	32
19	125	...	...	32
19.5	125	...	...	32
20	125	...	...	32
20.5	...	...	...	32
21	...	...	...	32
21.5	...	...	...	32
22	...	...	...	32
22.5	...	...	...	32
23	...	...	...	32
23.5	...	...	...	40
24	...	...	...	40
24.5	...	...	...	40
25	...	...	...	40
25.5	...	...	...	40
26	...	...	...	40
26.5	...	...	...	40
27	...	...	...	40
27.5	...	...	...	40
28	...	...	...	40
28.5	...	...	...	40
29	...	...	...	50
29.5	...	...	...	50
30	...	...	...	50
30.5	...	80	...	50
31	...	80	...	50
31.5	...	80	...	50
32	...	80	...	50
32.5	...	80	...	50
33	...	80	...	50
33.5	...	80	...	50
34	...	80	...	50
34.5	...	80	...	50
35	...	80	...	50
35.5	...	80	...	50
36	...	80	...	50
36.5	...	80	...	63
37	...	80	...	63
37.5	...	80	...	63
38	...	80	...	63
38.5	...	80	...	63
39	...	100	...	63
39.5	...	100	...	63
40	...	100	...	63
40.5	...	100	...	63
41	...	100	...	63
41.5	...	100	...	63
42	...	100	...	63
42.5	...	100	...	63
43	...	100	...	63
43.5	...	100	...	63
44	...	100	...	63
44.5	...	100	...	63
45	...	100	...	63
45.5 to 48	...	100	...	...
48.5 to 60	...	125	...	...

■ Technical data

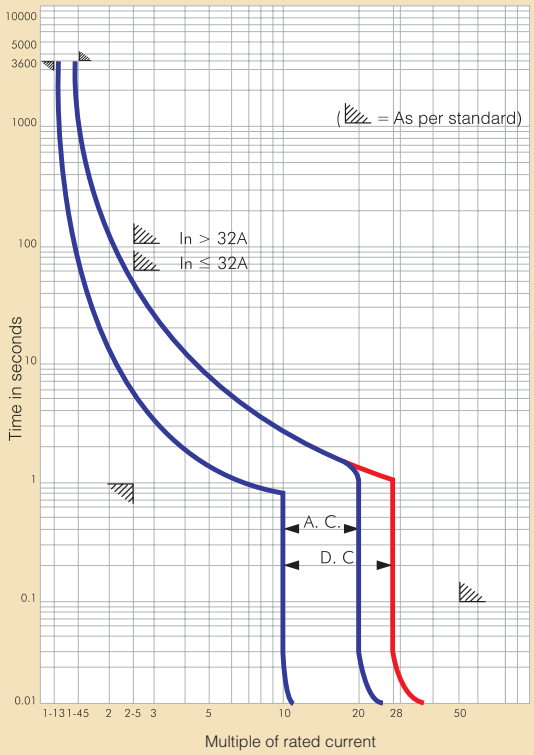
Time current characteristics for C curve

Rating - 6 to 63A Ref. calibration Temp. : 30°C
Ref. standard : IS 8828
IEC 60898



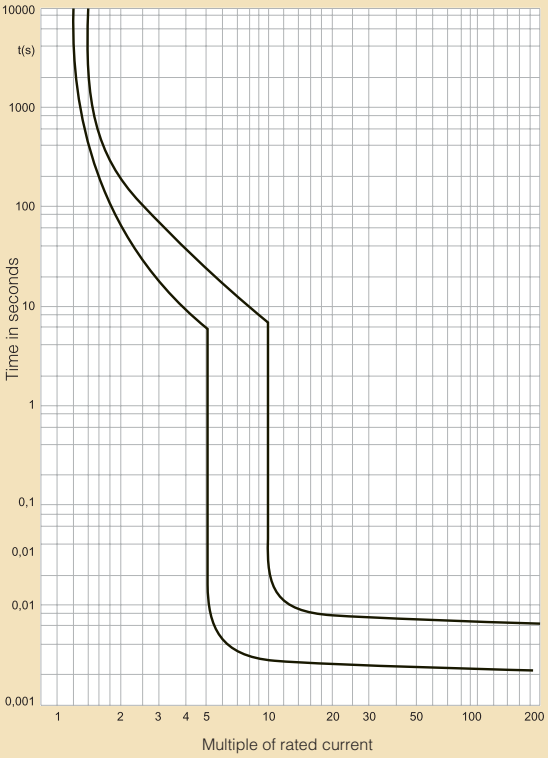
Time current characteristics for D curve

Rating - 0.5 to 63A Ref. calibration Temp. : 30°C
Ref. standard : IS 8828
IEC 60898



Time current characteristics for C curve

Rating - 80A to 125A Ref. calibration Temp. : 30°C
Ref. standard : IS 8828
IEC 60898



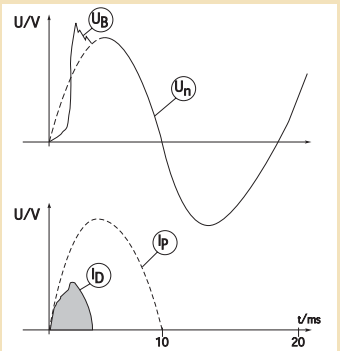
Tripping characteristics

Standards has established different tripping characteristics depending on minimum and maximum values of magnetic trip.

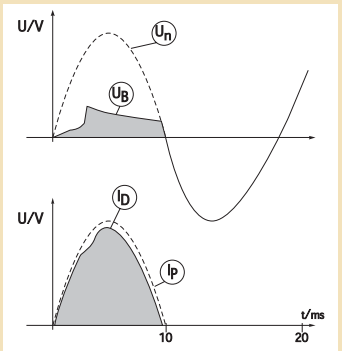
Lexic MCB	Type	Im1	Im2	Typical application
0.5 A to 63 A	D	10 In	20 In	Protection of cable and appliance which has very high starting currents.
6 A to 125 A	C	5 In	10 In	Protection of cable used for lighting load, power load and induction loads with high starting current.

Im1 - hold limit
Im2 - Trip limit

Lexic MCBs versus zero point extinguishing MCBs



Current limiting Lexic MCB



Zero point extinguishing MCB

Un = Mains Voltage
UB = Arc Voltage
ID = Let-through short circuit current
IP = Prospective short circuit current

■ Technical data

Association of protection devices

Association is the technique by which the breaking capacity of a MCB is increased by coordinating it with another protection device, placed upstream. This coordination makes it possible to use a protection device with a breaking capacity which is lower than the maximum prospective short-circuit current at its installation point

The breaking capacity of a protection device must be at least equal to the maximum short-circuit which may occur at the point at which this device is installed.

In exceptional cases, the breaking capacity may be lower than the maximum prospective short-circuit, as long as:

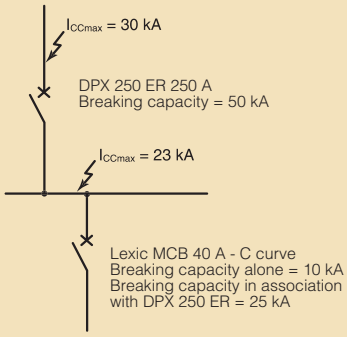
- It is associated with a device upstream which has the necessary breaking capacity at its own installation point
- The downstream device and the trunking being protected can withstand the power limited by the association of the devices.

Association therefore leads to substantial savings.

The association values given in the tables on the following pages are based on laboratory tests carried out in accordance with IEC 60947-2.

Note: In the case of single phase circuits (protected by P+N or 2P MCBs) in a 415 V AC supply, supplied upstream by a 3-phase circuit, it is advisable to use the association tables for 230 V.

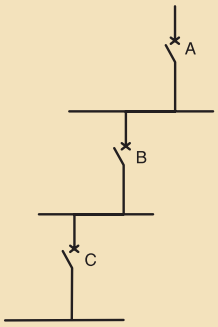
Example of association



3-level association

An association may be created on three levels if one of the conditions below is met.

- The upstream device A must have an adequate breaking capacity at its installation point. Devices B and C are associated with device A. Simply check that the association values B + A and C + A have the necessary breaking capacity.
In this case, there is no need to check the association between devices B and C.



- The association is made between successive devices: Upstream device A, which has an adequate breaking capacity at its installation point, device C is associated with device B which is in turn associated with device A.

Simply check that the association values C+B and B+A have the necessary breaking capacity. In this case, there is no need to check the association between devices A and C.

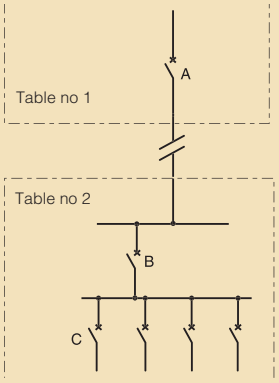
Association in IT connection systems

The values given in the tables should only be used for TN and TT systems.

Although this practice is not widely used, these values may also be used for installations with IT systems. It is therefore advisable to check that each protection device, on its own, can break, on a single pole, the maximum double fault current at the point in question.

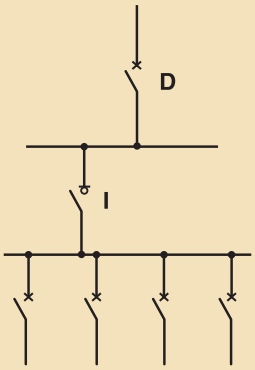
Association between distribution boards

Association applies to devices installed in the same distribution board as well as in different boards. It is therefore generally possible to benefit from the advantages of the association between devices located, for example, in a main distribution board and in a secondary board.



MCB - switch association

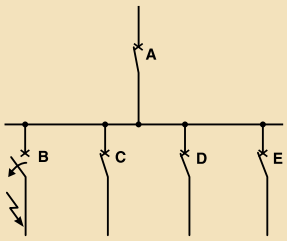
The switches must be systematically protected by an MCB placed upstream. There is considered to be protection against overloads if the rating of switch I is at least equal to that of the upstream MCB, D. If this is not the case, the thermal stresses (devices and conductors) must be checked.
The tables on the following pages give the breaking capacity limits of the MCB - switch associations.



Discrimination of protection devices

Discrimination is a technique which consists of coordinating the protection in such a way that a fault on one circuit only trips the protection placed at the head of that circuit, thus avoiding rendering the remainder of the installation inoperative. Discrimination improves continuity of service and safety of the installation

Discrimination rules are set by the regulations concerning public buildings and for safety installations in general.



Discrimination between A and B is said to be “total” if it is provided up to the value of the maximum prospective short-circuit at the point at which B is installed.

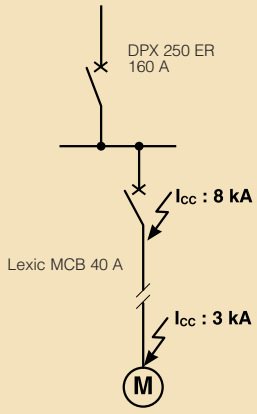
By extension, in the tables on the following pages, total discrimination, indicated by T, means that there is discrimination up to the breaking capacity of device B.

Discrimination between A and B is said to be “partial” in the other cases.

The discrimination limit (given in the following tables) is therefore defined. This gives the short-circuit current value below which only MCB B will open and above which MCB A will also open.

There are a number of techniques for providing discrimination:

- Current discrimination, used for terminal circuits which have low short-circuits.
- Time discrimination, provided by a delay on tripping the upstream MCB
- Logical discrimination, a variant of time discrimination, used on electronic MCBs via a special link between the devices.



Since almost all faults occur during use, partial discrimination may be adequate if the discrimination limit is higher than the value of the maximum short-circuit which may occur at the point of use (or at the end of the trunking). This is referred to as “operating discrimination“. This technique is very often adequate, more economical and less restricting in terms of implementation.

The discrimination limit for the association DPX 250 ER (160 A) with Lexic MCB 40 A (C curve) is 6 kA. Since the prospective ISC at the point of installation is 8 kA, the discrimination is not total. However, there is discrimination at the point of use at which the prospective short-circuit is only 3 kA.

Current discrimination

This technique is based on the offset of the intensity of the tripping curves of the upstream and downstream MCBs. It is checked by comparing these curves and checking that they do not overlap. It applies for the overload zone and the short-circuit zone, and the further apart the ratings of the devices, the better the discrimination.

- On overloads

To have discrimination in the overload zone, the ratio of the setting currents (Ir) must be at least 2.

- On short-circuits

To have discrimination in the short circuit zone, the ratio of the magnetic setting currents (Im) must be at least 1.5.

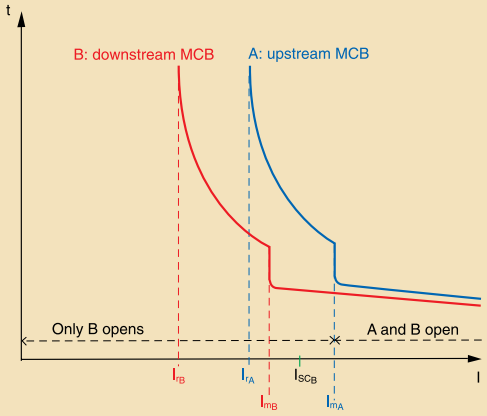
The discrimination limit is then equal to the magnetic release current ImA of the upstream MCB. The discrimination is then total as long as IscB is less than ImA.

Current discrimination is therefore very suitable for terminal circuits where the short-circuits are relatively weak.

In other cases, time discrimination may be used together with current discrimination.

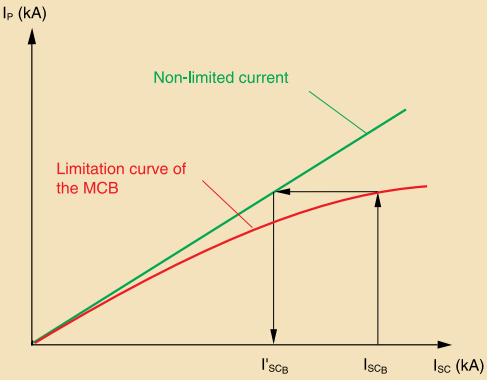
Current discrimination

The discrimination is total for Isc_B



I_{SCB} : maximum short-circuit at the point at which MCB B is installed

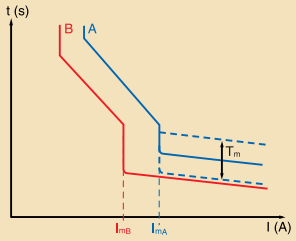
When the downstream MCB B is a limiting device, the short-circuit current is limited in terms of time and amplitude. The discrimination is therefore total if the limited current IscB, which device B allows to pass, is lower than the tripping current of device A



I_{SCB} : prospective short-circuit at the point at which the device is installed
I'_{SCB} : short-circuit limited by device B

Time discrimination

This technique is based on the offset of the times of the tripping curves of the MCBs in series. It is checked by comparing the curves and is used for discrimination in the short-circuit zone. It is also used in addition to current discrimination in order to obtain discrimination beyond the magnetic setting current of the upstream MCB (ImA).



The following is necessary:

- It must be possible to set a time delay on the upstream MCB
- The upstream MCB must be able to withstand the short-circuit current and its effects for the whole period of the time delay
- The trunking through which this current passes must be able to withstand the thermal stresses (I^2t).

The non-tripping time of the upstream device must be longer than the breaking time (including any time delay) of the downstream device.

DPX MCBs have a number of time delay setting positions for creating discrimination with a number of stages.

■ Technical data

Association and co-ordination of MCCBs and MCBs (in kA)

In 3 phase networks + N 400/415 V according to IEC 60947-2

		MCCBs Upstream									
		DPX-E 125	DPX 125	DPX/ DPX-H 160	DPX 250 ER			DPX/H/L 250		DPX/H/L 630	
MCBs downstream		16 to 125A	16 to 125A	25 to 160A	63A	160A	250A	160A	250A	250 to 400A	
Lexic - 10 kA MCB	0.5 to 20 A	16	25	25	25	25	25	25	25	25	
	25A	16	25	25	25	25	25	25	25	25	
	32A	16	25	25	25	25	25	25	25	25	
	40A	16	25	25	25	25	25	25	20	20	
	50A	16	25	20	25	20	20	20	15	15	
	63A	16	25	15		15	15	15	15	15	
	80A	16	20	20	20	20	20	20	20	20	
	100A	16	20	20	20	20	20	20	20	20	
	125A			15	15	15	15	15	15	15	

In 3 phase networks + N 230/240 V according to IEC 60947-2

		MCCBs upstream								
		DPX-E 125	DPX 125	DPX/ DPX-H 160	DPX 250 ER			DPX/H/L 250		DPX/H/L 250
MCBs downstream		16 to 125A	16 to 125A	25 to 160A	63A	160A	250A	160A	250A	250 to 400A
Lexic - 10 kA MCB	0.5 to 20 A	22	35	35	50	50	50	50	50	50
	32 & 40A	22	35	35	50	50	50	50	50	50
	50A	16	25	25	36	36	36	36	30	30
	63A	16	25	15	25	30	30	30	30	30
	80A	16	25	25	25	25	25	25	25	25
	100A	16	25	25	25	25	25	25	25	25
	125A			25	25	25	25	25	25	25

TT or TNS neutral earthing systems :
For a 230 / 400 V supply in order to determine the breaking capacity of a 2 P MCB used as L + N (230 V) downstream a 2 P or 4 P circuit breaker use values indicated in the table for 230/240 V

Selectivity tables MCBs/MCCBs

		MCCBs upstream														
		DPX														
		DPX 125				DPX 160			DPX 250 ER				DPX/H/L 250			
MCBs downstream		40 A	63 A	100 A	125 A	63 A	100 A	160 A	63 A	100 A	160 A	250 A	63 A	100 A	160 A	250 A
Lexic - 10 kA MCB	0.5 to 4 A	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	6 A	6 000	6 000	T	T	T	T	T	T	T	T	T	6 000	T	T	T
	10 A	5 000	5 000	7 500	7 500	5 000	T	T	5 000	T	T	T	5 000	T	T	T
	13 A	4 000	4 000	6 000	6 000	5 000	T	T	5 000	T	T	T	4 000	T	T	T
	16 A	4 000	4 000	6 000	6 000	4 000	T	T	4000	T	T	T	4 000	T	T	T
	20 A	3 000	3 000	5 000	5 000	4 000	8 000	T	4 000	8 000	T	T	4 000	8 000	T	T
	25 A	3 000	3 000	4 500	4 500	3 000	6 000	8 500	3 000	6 000	8 500	T	3 000	6 000	T	T
	32 A		2 000	4 000	4 000	2 000	5 000	7 000	2000	5 000	7 000	T	2 000	5 000	T	T
	40 A		2 000	3 000	3 000	2 000	4 000	6 000	2 000	4 000	6 000	T	2 000	5 000	T	T
	50 A			3 000	3 000		4 000	5 500		4 000	5 500	7 000		4 000	8 000	T
	63 A			3 000	3 000		3 000	5 000		3 000	5 000	6 000		4 000	8 000	T
	80 A				2000		2000	5000		2500	5000	6000		3000	8000	T
	100A							4000			4000	5000			7500	T
	125A							2000			2000	3000			3000	8000

T: total selection, up to downstream circuit breaker breaking capacity according to IEC 60947-2

(1) The magnetic threshold of the upstream circuit breaker must be higher than the magnetic threshold of the downstream circuit breaker

Selectivity limits Fuses / MCBs

MCBs downstream		upstream fuse							
		gG type							
		32A	40a	50A	63A	80A	100A	125A	160A
Lexic 10 kA C curve	0.5 to 6A	1 600	1 900	2 500	4 000	4 600	11 000	25 000	T
	8A	1 600	1 900	2 500	4 000	4 600	11 000	25 000	T
	10A		1 600	2 200	3 200	3 600	7 000	11 000	20 000
	13A		1 600	2 200	3 200	3 600	7 000	11 000	20 000
	16A		1 400	1 800	2 600	3 000	5 600	8 000	15 000
	20A		1 200	1 500	2 200	2 500	4 600	6 300	10 000
	25A			1 300	2 000	2 200	4 100	5 500	8 000
	32A			1 200	1 700	1 900	3 500	4 500	7 000
	40A					1 700	3 000	4 000	5 000
	50A					1 600	2 600	3 500	4 500
	63A						2 400	3 300	4 500
	80A						3000	6000	8000
	100A							4000	5000
	125A								4000

T : Total selectivity up to breaking capacity of downstream circuit breaker according to EN 60947-2

DPX/H/L 630 Electronic		DPX/H/L 1250	DPX/H/L 1600
160 & 400 A	630A	500 to 1250A	800 to 1600A
25	25	25	25
25	25	20	20
25	25	15	15
20	20	15	15
15	15	12.5	12.5
15	15	12.5	12.5
20	15	15	12.5
20	15	15	12.5
15	12.5	12.5	12.5

DPX/H/L 630 Electronic		DPX/H/L 1250	DPX/H/L 1600
160 & 400 A	630A	500 to 1250A	800 to 1600A
50	50	50	50
50	50	50	50
30	25	25	25
30	25	25	25
25	25	25	16
25	25	25	16
25	25	25	16

Association of fuses and Lexic MCBs

In 3 phase networks (+ N) 400/415 V according to IEC 60947-2

MCBs downstream		Fuses upstream gG type		
		20 to 50 A		63 to 160 A
Lexic 10kA	0.5 A to 40 A	100		100
	50 to 63 A	-		100
		100 A	125 A	160 A
	80 A	100	100	100
	100 A	-	100	100
	125 A	-	-	100

Association of fuses and Lexic MCBs

In 3 phase networks (+ N) 230/240 V according to IEC 60947-2

MCBs downstream		Fuses upstream gG type		
		20 to 50 A		63 to 160 A
Lexic 10kA	0.5 A to 40 A	100		100
	50 A to 63 A	-		100
		100 A	125 A	160 A
	80 A	100	100	100
	100 A		100	100
	125 A			100

DPX															
DPX/H/L 630 elec.			DPX/H/L 630				DPX/H/L 1250					DPX/H 1600 elec.			
250 A	320 A	400A	160 A	250 A	400 A	630 A	500 A	630 A	800 A	1 000 A	1 250 A	630 A	800 A	1 250 A	1 600 A
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
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T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T

■ Selection chart*

Lexic MCBs (10 kA) and RCBOs
3 phase motor application

Motor H.P.	KW	MCB rating (A)	
		Star Delta	DOL
1	0.75	-	1.6 A
1.5	1.10	-	2 A
2	1.50	-	3 A
3	2.25	-	4 A
4	3.00	-	10 A
5	3.75	10 A	10 A
6	4.50	10 A	10 A
7.5	5.50	16 A	16 A
10	7.50	16 A	20 A
12.5	9.30	20 A	25 A
15	11.00	25 A	32 A
17.5	13.00	25 A	32 A
20	15.00	40 A	40 A
25	18.50	40 A	50 A
30	22.50	50 A	63 A
35	26.00	63 A	-

Selectivity limits MCB / MCB (average values in Amp.)

MCBs downstream		MCBs upstream											
		Lexic 10 kA											
		6A	10A	16A	20A	25A	32A	40A	50A	63A	80A	100A	125A
Lexic 10 kA	0.5 to 4A	45	75	120	150	187	240	300	375	472	480	600	750
	2A	45	75	120	150	187	240	300	375	472	480	600	750
	3A	45	75	120	150	187	240	300	375	472	480	600	750
	6A	75	120	150	187	240	300	375	472	480	480	600	750
	10A			120	150	187	240	300	375	472	480	600	750
	16A				150	187	240	300	375	472	480	600	750
	20A					187	240	300	375	472	480	600	750
	25A						240	300	375	472	480	600	750
	32A							300	375	472	480	600	750
	40A								375	472	480	600	750
	50A									472	480	600	750
	63A										480	600	750
	80A											600	750
	100A												750
	125A												

(1) The MCB downstream must always have a magnetic threshold and a nominal rating inferior to upstream MCBs

For MCB/RCBO ratings :

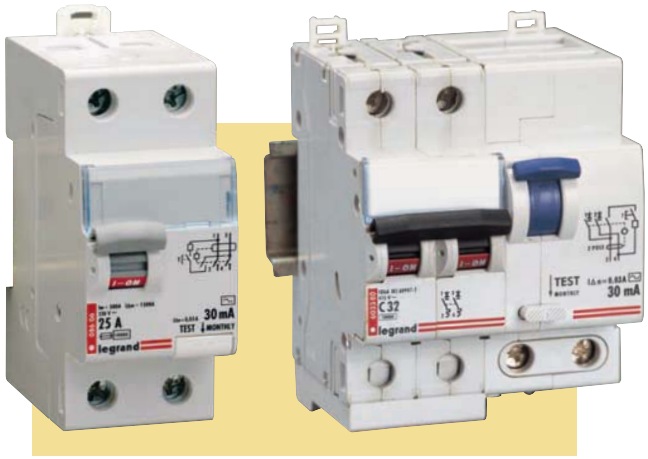
Single phase = P = VI

Three phase = P = $\sqrt{3}$ VI Cos φ = 1.732 x VI x 0.8

Note : One lighting circuit can have upto 800 W or upto 10 points.
One power circuit can have upto 3000 W or upto 2 power points.
* The data given above is only for guidance.
The exact rating must be selected only after considering the motor characteristics.

Protection against earth leakage

RCCB RCBO



> Type AC

Sensitive to residual alternating currents
Use : Standard applications

> Type A-S

Sensitive to residual alternating currents with DC components
Delayed trip for discrimination with other RCDs
Use : Special applications like rectifier bridge, etc.

> Type Hpi

Enhanced immunity to unwanted tripping in environments with disturbances. Detects faults with DC components
Use : Special applications like DG sets, computers, printers, thyristors, etc.

Lexic
RCCBs upto 63 A

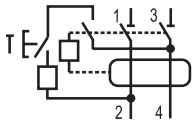
0086 08

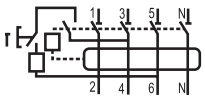
6021 31

Dimensions (p. 155)
Technical data (p. 104-109)

Protection against earth leakage
ISI marked as per IS 12640 (part 1) - 2000
Conforms to IEC 61008-1
Integrated label holder
Bi-connect terminal
35 mm. cage terminals with safety shutters
Clip on auxiliaries

Pack	Cat. nos.	Nominal rating (A)	Number of 17.5 mm modules
		Type AC	
		Double pole 230 V~	
		30 mA	
1/5/60	**0086 06**	25	2
1/5/60	**0086 07**	40	2
1/5/60	0086 08	63	2
		100 mA	
1/5/60	**0086 09**	25	2
1/5/60	**0086 10**	40	2
1/5/60	0086 11	63	2
		300 mA	
1/5/60	0086 12	25	2
1/5/60	0086 13	40	2
1/5/60	0086 14	63	2
		Four pole 400 V~	
		30 mA	
1/32	6021 26	25	4
1/32	**6021 27**	40	4
1/32	**6021 28**	63	4
		100 mA	
1/32	6021 29	25	4
1/32	**6021 30**	40	4
1/32	**6021 31**	63	4
		300 mA	
1/32	6021 32	25	4
1/32	**6021 33**	40	4
1/32	**6021 34**	63	4





Common auxiliaries (p. 110)

For terminating aluminium cables in RCCBs of 32 A and above, use of entry terminal 6034 48 is mandatory.

Lexic
RCCBs 63A

602172

6021 67

Dimensions (p. 155)
Technical data (p. 104-109)

Protection against earth leakage
Conform to new standards
IEC 61008-1
Integrated label holder
Bi-connect lower terminal
Terminals with safety shutters
Clip on auxiliaries

Pack	Cat. nos.	Type A-S	
		Double pole - 230 V~	
		300 mA discriminating	
		Nominal rating (A)	Number of 17.5 mm modules
1/5/60	6021 72	63	2
		Four pole - 400 V~ neutral on right	
		300 mA discriminating	
1/32	6021 67	63	4

Lexic
RCCBs upto 80 A

602168

6021 66

Dimensions (p. 155)
Technical data (p. 104-109)

Protection against earth leakage
Enhanced immunity to unwanted tripping in environments with disturbances eg. DG sets, Computers, Printers, etc.
Detects faults with DC components eg. Thyristors, Trio, etc.
Conforms to IEC 61008-1
Integrated label holder
Bi-connect lower terminals
Terminals with safety shutters
Clip on auxiliaries
Minimum operating temperature - 25° C

Pack	Cat. nos.	Type Hpi	
		Double pole 230 V~	
		30 mA	
		Nominal rating (A)	Number of 17.5 mm modules
1/5/60	6021 68	25	2
1/5/60	6021 69	40	2
1/5/60	6021 70	63	2
		Four pole 400 V~	
		30 mA	
1/32	6021 64	25	4
1/32	6021 65	40	4
1/32	6021 66	63	4

Most compact range of MCCBs in India

DPX MCCBs (p. 32-45)

For terminating aluminium cables in RCCBs of 32 A and above, use of entry terminal 6034 48 is mandatory.

Bold catalogue numbers are products normally available with Legrand (India) stockists.
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

Lexic
RCBOs up to 63 A

6033 80

6033 99

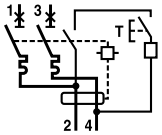
Dimensions (p. 155)
Technical data (p. 104-109)

3 in 1 protection : Earth leakage, overload and short circuit
10 kA ISI marked as per IS 12640 (part 2) - 2001
Conforms to IEC 61009 - 1
Integrated label holder
Bi-connect terminal.
35 sq. mm cage terminals with safety shutters
Clip on auxiliaries

Type AC

Double pole 240/415 V~

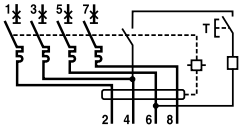
Pack	Cat. nos.	Nominal rating (A)	Number of 17.5 mm modules
		30 mA	
1/32	6034 14	6	4
1/32	6034 16	10	4
1/32	**6033 77**	16	4
1/32	**6033 79**	25	4
1/32	**6033 80**	32	4
1/32	**6033 81**	40	4
1/32	6033 82	63	4
		100 mA	
1/32	6034 24	6	4
1/32	6034 26	10	4
1/32	6033 83	16	4
1/32	**6033 85**	25	4
1/32	**6033 86**	32	4
1/32	**6033 87**	40	4
1/32	6033 88	63	4
		300 mA	
1/32	6033 89	16	4
1/32	**6033 91**	25	4
1/32	**6033 92**	32	4
1/32	6033 93	40	4
1/32	6033 94	63	4



Type AC

Four pole 240/415 V~

Pack	Cat. nos.	Nominal rating (A)	Number of 17.5 mm modules
		30 mA	
1/16	6033 95	16	8
1/16	6033 97	25	8
1/16	**6033 98**	32	8
1/16	**6033 99**	40	8
1/16	**6034 00**	63	8
		100 mA	
1/16	6034 01	16	8
1/16	6034 03	25	8
1/16	**6034 04**	32	8
1/16	**6034 05**	40	8
1/16	**6034 06**	63	8
		300 mA	
1/16	6034 07	16	8
1/16	6034 09	25	8
1/16	**6034 10**	32	8
1/16	**6034 11**	40	8
1/16	**6034 12**	63	8



80 A,100 A,125 A, please consult us

For terminating aluminium cables in RCBOs of 32 A and above, use of entry terminal 6034 48 is mandatory.

80 A,100 A,125 A, please consult us

For terminating aluminium cables in RCBOs of 32 A and above, use of entry terminal 6034 48 is mandatory.

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Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

Lexic
SPN RCBOs upto 40 A

0078 63

Dimensions (p. 155)
Technical data (p. 104-109)

3 in 1 protection : Earth leakage, overload and short circuit
10 kA as per IEC 60947-2
Integrated label holder
Terminals with safety shutters
Compact 2 modules
Clips on auxiliaries
Neutral on left

Pack	Cat. nos.	Type AC	
		SPN 230 V~	
		30 mA	
		Nominal rating (A)	Number of 17.5 mm modules
1/5/60	**0078 60**	6	2
1/5/60	0078 61	10	2
1/5/60	**0078 63**	16	2
1/5/60	0078 64	20	2
1/5/60	**0078 65**	25	2
1/5/60	**0078 66**	32	2
1/5/60	**0078 67**	40	2
		300 mA	
1/5/60	0078 71	6	2
1/5/60	0078 72	10	2
1/5/60	0078 74	16	2
1/5/60	0078 75	20	2
1/5/60	0078 76	25	2
1/5/60	0078 77	32	2
1/5/60	**0078 78**	40	2

Lexic
SPN RCBOs upto 40 A

0085 67

3 in 1 protection : Earth leakage, overload and short circuit
10 kA as per IEC 60947-2
Enhanced immunity to unwanted tripping in environments with disturbances eg. Diesels, Computers, Printers, etc.
Detects faults with DC components eg. thyristors, trio, etc.
Integrated label holder
Terminals with safety shutters
Compact 2 modules
Clips on auxiliaries
Minimum operating temperature -25° C
Neutral on left

Pack	Cat. nos.	Type Hpi	
		SPN 230 V~	
		30 mA	
		Nominal rating (A)	Number of 17.5 mm modules
1/5/60	0085 67	25	2
1/5/60	0085 68	32	2
1/5/60	0085 69	40	2

Lexic RCDS
Technical data for Lexic RCDs

		RCCB	
		Type AC	**Type A-S**
Specification		IS 12640 (part 1) 2000 IEC 61008 - 1	IEC 61008 - 1 NFC 61 - 150 EN 61008 - 1
No. of modules	- Double pole	2	2
	- Four pole	4	4
Electrical characteristics			
Nominal rating In (A)	- Double pole	25, 40, 63	63
	- Four pole	25, 40, 63	63
Rated sensitivity (mA)	- Double pole	30, 100, 300	300
	- Four pole	30, 100, 300	300
Rated frequency (Hz)		50 / 60	50 / 60
Rated operating voltage Ue (V AC)	- Double pole	230	230
	- Four pole	230 / 415	400
Minimum operating voltage (V AC)		12	12
Minimum operating voltage for test button (V AC)(1)			
	- Double pole	170	170
	- Four pole	196	196
Rated insulation voltage Ui (V AC)	- Double pole	250	250
	- Four pole	500	500
Rated impulse withstand voltage Uimp (kV)		6	6
Breaking capacity			**As per IS 12640 (part 1) 2000, IEC 61008 - 1**
Rated making & breaking capacity (Im)			
	- Up to 40 A	500 A	-
	- From 63 A and above	630 A	630 A
Rated residual making & breaking capacity (IΔm)			
	- Up to 40 A	1000 A	-
	- From 63 A and above	630 A	630 A
Rated conditional short circuit current (Inc)		10000 A	10000 A
Rated conditional residual short circuit current (IΔc)		10000 A	10000 A
Rated service short circuit capacity (Ics)		-	-
Rated short circuit capacity (Icn)		-	-
Operating temperature (°C)		-5 to 55	- 5 to 55
Endurance (0.C cycle)	- Mechanical	20,000	20,000
	- On load at in X cos φ 0.9	10,000	10,000
	- Via test button	2,000	2,000
	- By fault current (sensitivity)	2,000	2,000
Testing		By pressing test button grey dolly will come to OFF position It is recommended to test RCCB once a month	By pressing test button grey dolly will come to OFF position It is recommended to test RCCB once a month
Fault indication	- Earth leakage	Grey dolly will come to OFF position	Grey dolly will come to OFF position
	- Overload and shortcut	-	-
Resetting		Switch on grey dolly	Switch on grey dolly
Terminals	- Rigid	1 - 35 sq. mm	1 - 35 sq. mm
	- Flexible	1 - 25 sq. mm	1 - 25 sq. mm
Type of protection			
Earth leakage		•	•
Overload		-	-
Short circuit		-	-
Add on electrical accessories*			
Auxiliary		•	•
Fault signaling		•	•
Shunt trip		•	•
Under voltage		•	•

* - Accessories are mounted on the left hand side of the product.
At a time a maximum of three accessories can be mounted.
(1) - Between phase and neutral

	RCBO			
	Type Hpi	**Type AC**	**Type AC - 2 modules**	**Type Hpi**
	NFC 61 - 150 EN 61008 - 1 IEC 61008 - 1	IS 12640 (part 2) 2001 IEC 61009 - 1	NFC 61 - 410 EN 61009 - 1 IEC 61009 - 1	NFC 61 - 410 EN 61009 - 1 IEC 61009 - 1
	2	4	2	2
	4	8	-	-
	25, 40, 63, 80	6, 10, 16, 25, 32, 40, 63	6, 10, 16, 20, 25, 32, 40	25, 32, 40
	25, 40, 63, 80	16, 25, 32, 40, 63	-	-
	30	30, 100, 300	30, 300	30
	30	30, 100, 300	-	-
	50 / 60	50 / 60	50 / 60	50 / 60
	230	230 / 415	230	230
	400	415	-	-
	12	12	12	12
	170	170	170	170
	196	196	-	-
	250	500	250	250
	500	500	-	-
	6	6	6	6
		As per IS 12640 (part 2) 2001, IEC 61009 - 1		
	500 A	10000 A	6000 A	6000 A
	630 A	10000 A	-	-
	1000 A	10000 A	4500 A	4500 A
	630 A	10000 A	-	-
	10000 A	-	-	-
	10000 A	-	-	-
	-	7500 A	6000 A	6000 A
	-	10000 A	6000 A	6000 A
	- 25 to 55	- 5 to 55	- 5 to 55	- 25 to 55
	20,000	20,000	20,000	20,000
	10,000	10,000	10,000	10,000
	2,000	1,000	1,000	1,000
	2,000	1,000	1,000	1,000
	By pressing test button, grey dolly will come to OFF position It is recommended to test RCCB once a month	By pressing test button, black and blue dolly will come to OFF position It is recommended to test RCBO once a month	By pressing test button, black dolly will come to OFF position It is recommended to test RCBO once a month	By pressing test button, black dolly will come to OFF position It is recommended to test RCBO once a month
	Grey dolly will come to OFF position	Black & blue dolly will come to OFF position	Black dolly will come to OFF position & blue indicator will appear on front face window	Black dolly will come to OFF position & blue indicator will appear on front face window
	-	Black dolly will come to OFF position	Black dolly will come to OFF position	Black dolly will come to OFF position
	Switch on grey dolly	Switch on blue dolly followed by black dolly	Switch on black dolly	Switch on black dolly
	1 - 35 sq. mm	1 - 35 sq. mm	0.75 - 16 sq. mm	0.75 - 16 sq. mm
	1 - 25 sq. mm	1 - 25 sq. mm	0.75 - 10 sq. mm	0.75 - 10 sq. mm
	•	•	•	•
	-	•	•	•
	-	•	•	•
	•	•	•	•
	•	•	•	•
	•	•	•	•
	•	•	•	•

Earth leakage protection for specialised application

RCCB

RCBO

> Type Hpi

Enhanced immunity to unwanted tripping in environments with disturbances. Detects faults with DC components
Use : Special applications like DG sets, computers, printers, thyristors, etc.

Lexic
RCDs

■ Technical data

Withstand to short-circuits of RCCBs (in kA)

RCD downstream		Lexic MCB upstream
2 P	16 A	10
	25 A	10
	40 A	10
	63 A	10
4 P	25 A	10
	40 A	10
	63 A	10

Marking example :

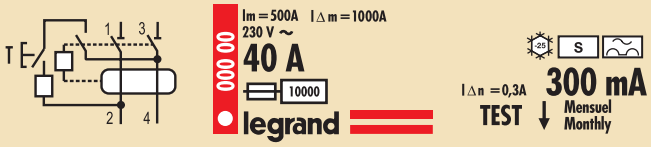
Type A

Type AC

Type A-S S

Type Hpi Hpi -25

according to IEC 61008-1 and IEC 61009-1



Note : We offer Type AC, Type A-S and Type Hpi RCDs

■ Technical data

Nature and consequences of electrical risks

Direct and indirect contact

All electrical risks for people are the result of direct or indirect contact. What are these contacts ? And how can we protect ourselves against them?

All the answers appear in the following section.

Electrical risks do not just concern people : these risks - especially fire affect installations as well. A 500 mA current, for example, flowing through combustible material is sufficient to ignite such material after a certain time. Every electrical installation is subject to current leakages which can vary considerably depending on such factors as the installation's condition, age, environment, etc.

These current leaks may flow through the fabric of the building (trunking, metal girders or other metal components), generating heat which in turn may lead to fire.

Direct contacts

Direct contact is caused by humans and may be due to either carelessness or clumsiness.

What is a direct contact? How can we protect ourselves? Here are the answers...

This is when someone makes contact with a live electrical component of a device or installation.

For example :

- a person inadvertently touching a live cable.
- a child sticking a metal object into a power socket.
- using male/male extensions or unprotected test cables.

In this case only basic protection is effective

Other examples

Someone touching a live busbar in a distribution panel or cabinet, or someone touching flush-mounted electrical trunking with the end of a tool, etc. In this case basic protection plus additional protection is effective.

How can we protect ourselves?

There are two ways (independent of the neutral earthing system) of ensuring that personnel are protected against direct contact.

• Preventing access to live parts where possible.

Basic protection via physical or electrical isolation of live parts.

This protection must ensure that live parts cannot be touched, even inadvertently.

How?

By using barriers, enclosures, closed cabinets which physically or electrically isolate live parts presenting a danger to the user, shuttered sockets, or insulation.

• Additional protection

Must be provided by a 30-mA residual current device such as Lexic range of residual current devices. This protection is required in case the basic protection detailed above fails.

Indirect contacts

Indirect contacts are independent of humans : it results from an internal hardware fault.

What is an indirect contact?
How can we protect ourselves? Here are the answers...

What is an indirect contact?

This is when a person makes contact with a metal earthed part which has accidentally been powered up following an insulation fault. This type of contact is very dangerous as, unlike direct contact, it is completely unexpected. For example, a person touching the metal frame of an electrical appliance which has defective insulation may be electrocuted through no fault of their own if the appliance is not protected.

How can we protect ourselves?

There are three possibilities :

- Preventing access to potentially dangerous metal components via class II protection.
- Good connection of all exposed conductive parts to an effective earth.
- A protective RCD according to the neutral earthing system.

A person is in danger of electrocution if the fault current raises the voltage of the accessible metal part above 50 V to earth.

Important note:

Under the Indian Electricity Rules [rules 61 (A), 71 (1) and 73 (1)], installation of an RCCB is mandatory in all installations of 5 KW and above, in all luminous tube signs and X-ray installations. The bureau of Indian standards recommends that RCCBs installed at construction sites, temporary installations, agriculture and horticulture premises, limit the residual current to 30 mA.

■ Technical data

Residual current devices, selection and operation

The main function of a residual current device is to ensure that people are protected from any risk of electrocution. It can also ensure protection against risk of fire.

What is the nature of these risks ? What are the consequences ?

Here are the answers...

Risks of electrocution-

The dangerous effects of electricity depend on two factors-:

- the flowing time through the human body
- the current value

These two factors are independent and the importance of the risk varies in accordance with the level of each factor.

The dangerous current value through a human body depends on the touch voltage and touch resistance of the human body.

In practice, the current value is defined using a standard "safety" voltage of 50 V. This voltage takes into account the maximum current which can be withstood by a human being with a minimum internal electrical resistance in given conditions. It also takes into account the maximum permissible time for the current to pass through the body without dangerous physio-pathological effects.

50 V is considered as the safe limit of voltage for human body in dry condition.

How does an electrical current affect the human body?

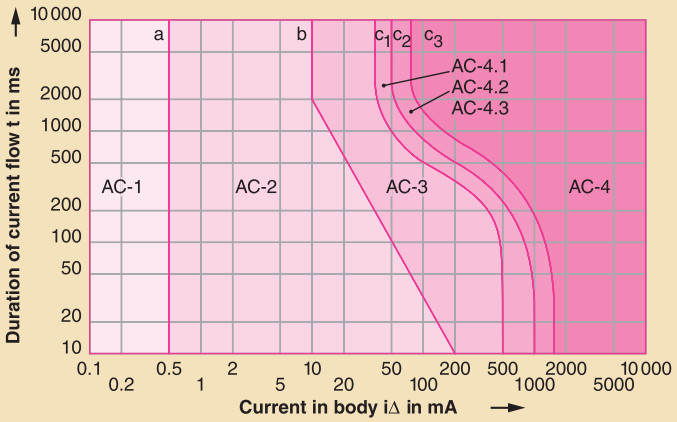
When subject to a voltage, the human body reacts like any other receiver with a given internal resistance. An electrical current passes through the body with three serious risks :

- Locking of the muscles, or tetanisation : the muscles through which the current passes contract and remain contracted : if this includes the rib cage, breathing may be impeded.
- Action on the heart : the cardiac rhythm is completely disrupted (ventricular fibrillation).
- Thermal effects may cause varying levels of damage to body tissue, including severe burns in the case of very high currents.

Examples of electrocution by direct or indirect contact.

Effect of current on human body

The standards define the following curves, which take into account the two parameters required to assess the risk :



iΔ : current flowing through body.
t : time taken for current to pass through body.

These curves show the various zones of effect of an alternating current on people : they derive from IEC 60 479 and determine

4 main risk zones

Zone designation	Physiological effects	
zone AC-1	Usually no reaction	
zone AC-2	Usually no harmful physiological effects	
zone AC-3	Usually no organic damage to be expected. Likelihood of cramp like muscular contractions and difficulty in breathing for durations of current-flow longer than 2 s. Reversible disturbances of formation and conduction of impulses in the heart, including atrial fibrillation and transient cardiac arrest without ventricular fibrillation increasing with current magnitude and time	
zone AC-4	Increasing with magnitude and time, dangerous pathophysiological effects such as cardiac arrest, breathing arrest and serious burns may occur in addition to the effects of zone-3	
zone AC-4.1	Probability of ventricular fibrillation increasing up to about 5%	C1 - C2
zone AC-4.2	Probability of ventricular fibrillation up to about 50%	C2 - C3
zone AC-4.3	Probability of ventricular fibrillation above 50%	

* For durations of current flow below 10 ms, the limit for the body current at line b remains constant at a value of 200 mA.

A residual current device continuously measures the difference between the value of the input and the output currents. If the value is not equal to zero, this indicates a leak.

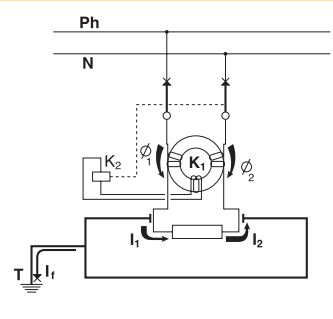
When this leak reaches the level at which the differential is set (its sensitivity), the device trips and breaks the circuit.

What are the operating principles of a residual current device?

What are the selection criteria for a residual current device? Here are the answers...

Operating principle of a residual current device

No fault present



Therefore no current is induced in coil K_1, and coil K_2 is not excited. The contacts do not open. The equipment operates normally

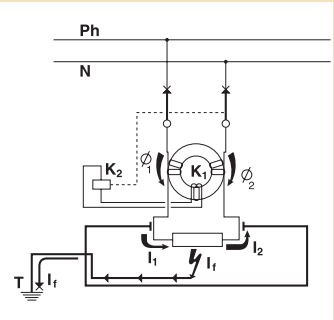
$I_f = 0$, thus

$I_1 = I_2$

$\varnothing_1 = \varnothing_2$

$\varnothing_1 - \varnothing_2 = 0$

Insulation fault



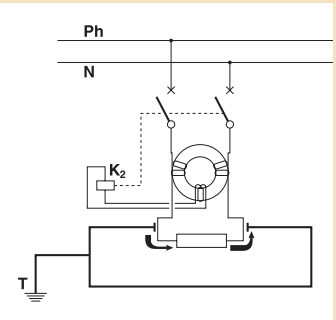
A current is thus induced in coil K_1...

$I_f \neq 0$

$I_1 > I_2$, thus

$\varnothing_1 > \varnothing_2$, thus

$\varnothing_1 - \varnothing_2 \neq 0$



...coil K_2 is excited, the contacts open and the equipment is automatically switched OFF

Selecting a residual current device

First determine your requirement. This exists on two levels :

1 The need to protect against direct or indirect contacts.

2 The need to ensure protection against overloads and short-circuits.

If protection against indirect contact is required, use residual current devices with a sensitivity of : 30 mA,
100 mA,
300 mA,

The rating (40, 63 A, etc.) is selected according to the load.

If protection against direct contact is required, use residual current device with a sensitivity of 30 mA.

The sensitivity of a residual current device IΔn is the current level at which tripping is sure to occur. To do this, the standards concerning residual current devices stipulate that tripping must occur between IΔn / 2 and IΔn.

Types of residual current device

There are 2 types of RCD : the AC type and the A type

Both types are produced in the "S" (discriminating) or normal versions. They conform to Indian and International standards IS 12640, IEC 61008 and IEC 61009 as well as European standards EN 61008 and EN 61009.

- **Type A** 

Sensitive to residual alternating currents and residual currents with a DC component.

Use : special applications
- if it is possible that the fault currents are not purely sinusoidal (rectifier bridge, etc.)

- **Type AC** 

Sensitive to residual alternating currents
Use : standard applications

- **Type S** 

Delayed trip for discrimination with other residual current devices.
Use : for discrimination with a downstream device.

- **Type Hpi** 

- Enhanced immunity to unwanted tripping in environments with disturbances. eg. diesels, computers, printers, etc.
- Detects faults with DC components eg. thyristors, trio etc.

Residual current circuit-breaker with or without overload protection? Which do I choose?

Choose a residual current circuit-breaker (RCCB) if you do not need to protect against overload and short circuits (caution! an RCCB must be connected to some form of line protection device : either a circuit-breaker or a fuse).

Choose a residual current circuit-breaker with overload and short circuit protection (RCBO) if this type of protection is not available.

Residual current circuit-breakers without overload and short circuit protection (RCCB)

These provide two functions : fault current detection, measurement and cut-off : and isolation of an installation.

RCCBs are governed by standards IS 12640 (part 1), IEC 61008-1.

Residual current circuit-breakers with overload and short circuit protection (RCBO)

These provide three functions : fault current detection, measurement and cut-off : protection against overloads and short-circuits : and isolation of an installation.

Residual current circuit-breakers are governed by standards IS 12640 (part 2), IEC 61009-1.

The "test" function

A residual current device is a safety device, and it is therefore vital that it is regularly tested. This function is therefore required by the standard governing residual current protective devices, and ensures correct operation. All Lexic RCDs are equipped with this function.

Note : We offer Type AC, Type A-S and Type Hpi RCDs

Lexic
common auxiliaries for MCBs, Isolators, RCBOs and RCCBs up to 63 A


0073 51


0073 68


0073 73

Dimensions (p. 155)
Technical data (p. 111)

Clip on the left-hand side of the MCB (maximum 3)
Allow insertion of the supply busbar at the top
Auxiliaries common for MCBs, Isolators, RCBOs and RCCBs

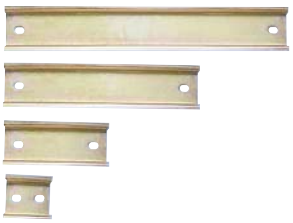
Pack	Cat. nos.	Signalling auxiliaries	Number of 17.5 mm modules
1	**0073 50**	Auxiliary change over switch 6 A - 250 V~ Indicates the position of the MCB, Isolator, RCD.	0.5
1	**0073 51**	Fault signalling changeover switch 6 A - 250 V~ Indicates the tripping of the MCB or RCD in the event of a fault	0.5
1	**0073 53**	Auxiliary changeover switch which can be modified to a fault signaling switch 6 A - 250 V~	0.5
1	0073 54	Auxiliary change over 6 A - 250 VA switch + fault signalling switch which can be modified to 2 auxiliary change over switches.	1
		Command auxiliaries	
		Shunt trip Enables the MCB or RCD to be tripped from a remote location	
1	0073 60	12 to 48 V~ / ⎓	1
1	**0073 61**	110 to 415 V~ 110 to 125 V ⎓	1
		Minimum voltage trips. Time delay adjustable from 0 to 300 ms.	
1	0073 65	24 V ⎓	1
1	0073 66	48 V ⎓	1
1	0073 68	230 V~	1
		Remote control for MCBs	
1	0073 73	Clip on the left hand side of the MCBs motor driven contol module Remote control for DP/TP/FP MCBs. Auxiliary changeover and fault signalling changeover incorporated 230 V AC - 3 modules	3

Lexic
mounting accessories for MCBs, RCBOs and RCCBs DIN rail


0044 42


0044 44


0044 06


S21AD12R
S21AD08R
S21AD04R
S21AD02R

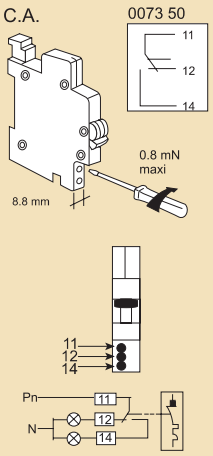
Pack	Cat. nos.	Padlock support
2/100	0044 42	Support for 5 mm and 6 mm padlock for locking MCB in ON / OFF position
		Terminal shields
2/96	0044 44	Terminal shield (4 separable poles) for covering MCB screw terminal to avoid opening of terminals by an unauthorised person. Sealable terminal shield (4 separable poles) for MCBs, RCBOs and RCCBs to seal terminal screws.
		Clip on adaptor
10	0044 06	Enables mounting of panel accessories, such as 22.5mm dia, push buttons in DBs. A hole of requisite diameter can be drilled through the adaptor to fit the panel accessory. 3 module clip on adaptor for rail ⎍
		Labels for Lexic devices
1	6017 99	Label for label holder with printed symbols, alphabets and numbers
		Entry terminals
		Entry terminals are used for terminating aluminium cable. While terminating aluminium cable on MCBs, Isolators, & RCDs, for current rating from 32A and above, the use of entry terminals is mandatory.
1	6034 48	50 mm² entry terminal for MCBs / Isolators / RCCBs
1	6034 49	50 mm² entry terminal for RCBOs
		Din rail
-	S21AD02R	Suitable for 2 poles
-	S21AD04R	Suitable for 4 poles
-	S21AD08R	Suitable for 8 poles
-	S21AD12R	Suitable for 12 poles

Bold catalogue numbers are products normally available with Legrand (India) stockists.
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

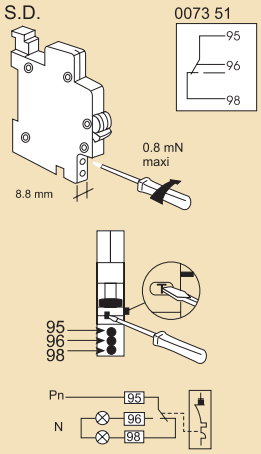
Lexic
clip-on auxiliaries for MCBs, Isolators, RCBOs and RCCBs

■ Technical data

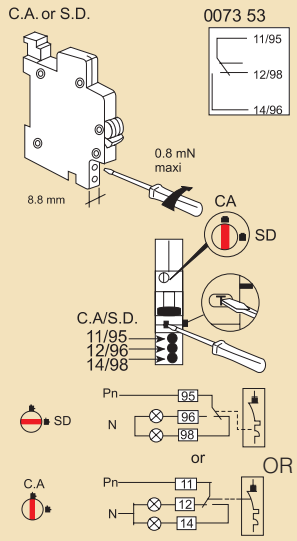
Installations and wiring diagrams
Auxiliary change over switch
Cat. nos 0073 50



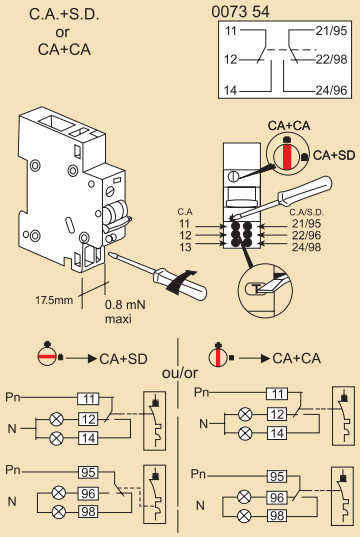
Fault signaling change over switch
Cat. nos 0073 51



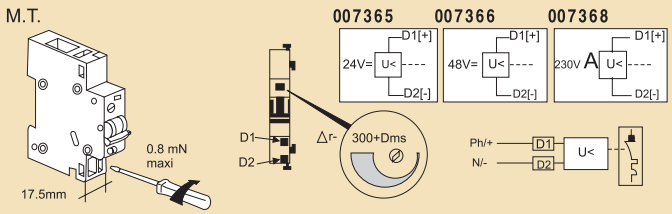
Auxiliary change over switch / Fault signalling change over switch
Cat. nos 0073 53



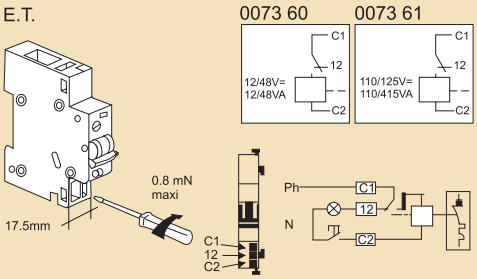
Auxiliary change over switch + Fault signaling change over switch
Cat. nos 0073 54



Minimum voltage trip
Cat. nos 0073 65, 0073 66, 0073 68



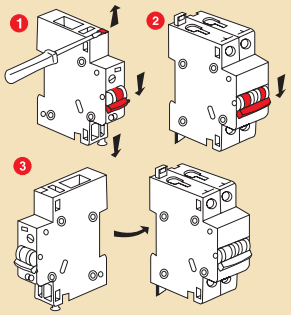
Shunt trip
Cat. nos 0073 60, 0073 61



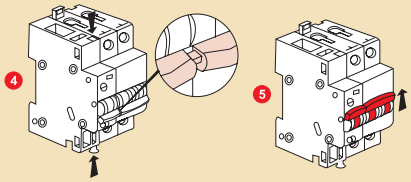
Lexic
clip-on auxiliaries for MCBs, Isolators, RCBOs and RCCBs

■ Technical data

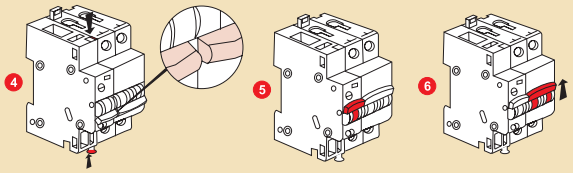
Installations of clip-on auxiliaries on MCB / RCD / Isolators
Cat. nos 0073 50, 0073 51, 0073 53, 0073 60,
0073 71, 0073 65, 0073 66, 0073 68



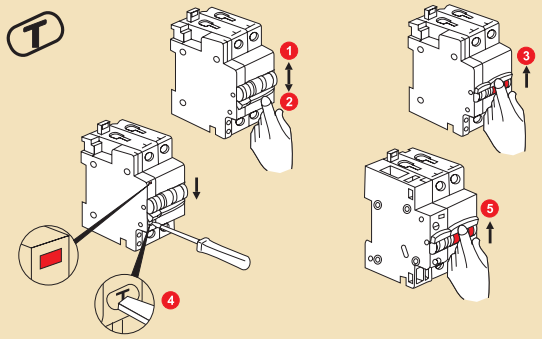
Signalling auxiliaries
Cat. nos 0073 50, 0073 51, 0073 53, 0073 54



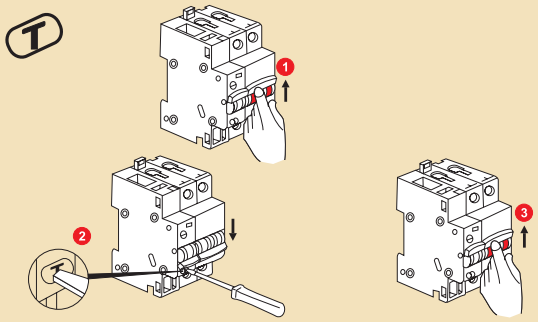
Command auxiliaries
Cat. nos 0073 60, 0073 61, 0073 65, 0073 66, 0073 68



Cat. nos 0073 51

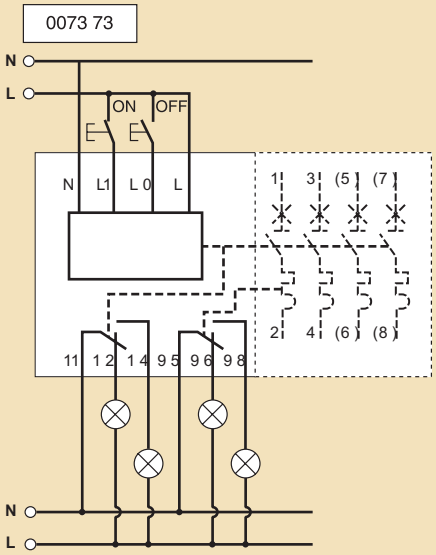


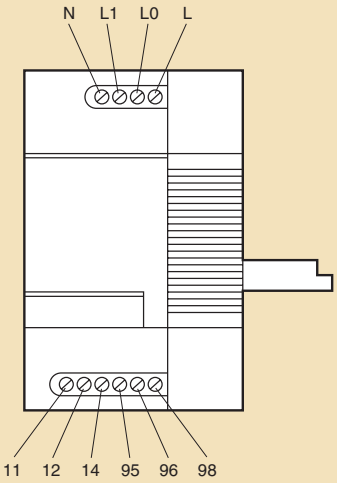
Cat. nos 0073 53, 0073 54



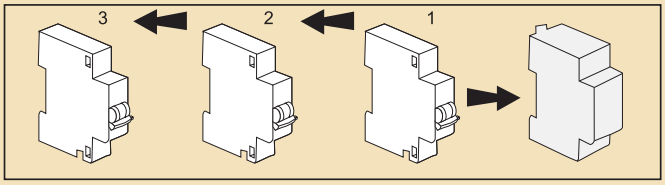
Wiring

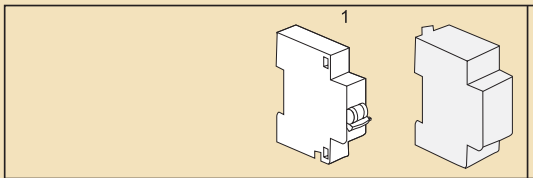
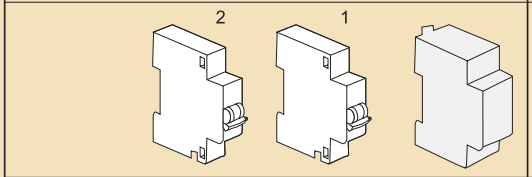
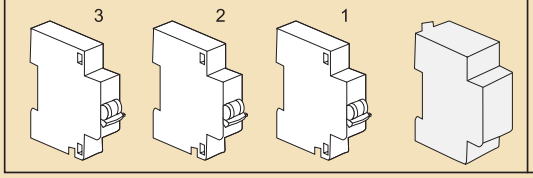
Remote control
Cat. nos 0073 73

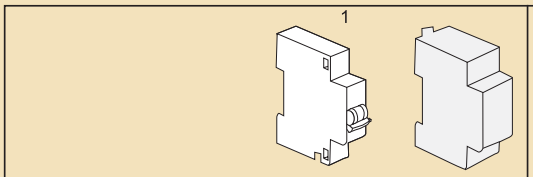
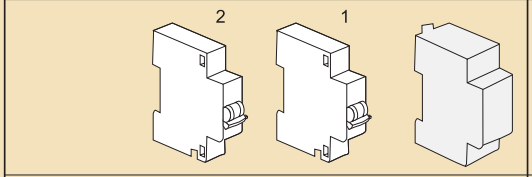
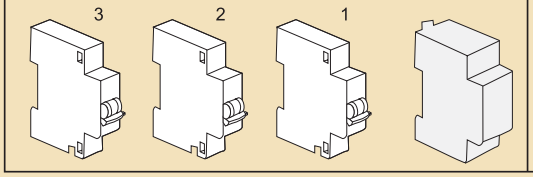




Lexic
clip-on auxiliaries for MCBs, Isolators, RCBOs and RCCBs



			0073 50 0073 60 0073 51 0073 61 0073 53 0073 65 0073 54 0073 66 0073 68	MCB/ RCCB/ RCBO
		0073 54 0073 60 0073 61 0073 65 0073 66 0073 68	0073 50 0073 51 0073 53 0073 54	
	0073 60 0073 61 0073 65 0073 66 0073 68	0073 54	0073 50 0073 51 0073 53 0073 54	

			0073 50 0073 60 0073 54 0073 61 0073 65 0073 66 0073 68	Isolator
		0073 54 0073 60 0073 61 0073 65 0073 66 0073 68	0073 50 0073 54	
	0073 60 0073 61 0073 65 0073 66 0073 68	0073 54	0073 50 0073 54	

Lexic MPCBs

Lexic MPCBs

0028 06 | 0028 17 | 0028 22 | 0028 22 + 0028 06 + 0028 17

Conform to EN/IEC 60947-1, EN/IEC 60947-2, EN/IEC 60947-4-1

Triple pole MPCBs

Depth: 82.5 mm
Enable control and protection of motors up to 15 kW (400 V)

Pack	Cat.Nos	Nominal rating (A)	Thermal adjustement range (A)	Numbers of modules
1	0028 00	0.16	0.1 - 0.16	2.5
1	0028 01	0.25	0.16 - 0.25	2.5
1	0028 02	0.4	0.25 - 0.4	2.5
1	0028 03	0.63	0.4 - 0.63	2.5
1	0028 04	1	0.63 - 1	2.5
1	0028 05	1.6	1 - 1.6	2.5
1	0028 06	2.5	1.6 - 2.5	2.5
1	0028 07	4	2.5 - 4	2.5
1	0028 08	6.5	4 - 6.5	2.5
1	0028 09	10	6.3 - 10	2.5
1	0028 10	14	9 - 14	2.5
1	0028 11	18	13 - 18	2.5
1	0028 12	23	17 - 23	2.5
1	0028 13	25	20 - 25	2.5
1	0028 14	32	24 - 32	2.5

Auxiliaries

Failure contact

		Contact	Capacity	Numbers of modules
1	0028 16	N/C + N/O	6 A/690 V	0.5

Signal contacts

1	0028 17	N/C + N/O	6 A/690 V	0.5
1	0028 18	2 N/C	6 A/690 V	0.5

Undervoltage trips

		Coil voltage	Consumption trip/hold	Numbers of modules
1	0028 22	230 V∿	12/3.5 VA	1
1	0028 23	400 V∿	12/3.5 VA	1

Shunt trips

1	0028 25	230 V∿	3.5 VA	1
1	0028 26	400 V∿	3.5 VA	1

Accessories

IP 65 box

1 — 0028 29 — For motor MCB with auxiliary contact (Cat.Nos 0028 16/17/18) and/or a trip (Cat.Nos 0028 22/ 23/25/26)
With knock out entries for PG 16 cable glands
4 modules

Emergency stop button

1 — 0028 30 — Fits on IP 65 box for replacement of etancheity membrane
Ensures IP 65 protection

Pilot lights

Fixing in front of box Cat.No 0028 29

		Voltage	Color
1	0028 31	230 V∿	Colourless
1	0028 32	400 V∿	Colourless

Padlock

1 — 0028 34 — Padlock in "off" position
3 padlocks max Ø4.5

Technical data

The motor MCB has a signalling system for magnetic tripping that prevents all dangerous shutdown following a short-circuit previously isolated by the device
Takes 3 auxiliaries mounted simultaneously by clipping on
- on the left: 1 undervoltage / shunt trip
- on the right: 1 fault signal + 1 signalling contact

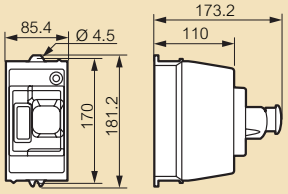
Electrical characteristics

Rated insulating voltage Ui: 690 V
Impulse withstand voltage: 6 kV
Rated frequency: 50/60 Hz
Dissipated power per phase: 0.57-1.46 W
Magnetic tripping: 12 max.
Mechanical lifespan: 100-000 cycles
Electrical lifespan: 32 A (AC3): 100-000 cycles
Operating temperature: -20°C to + 70°C
Use class: A
Protection index: IP 20
Connection cable cross-section (1 or 2 conductors):
flexible wire 1-6 mm² or AWG 16-10

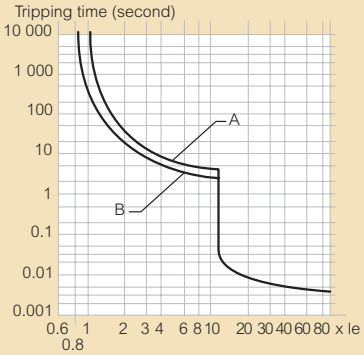
Breaking capacity

Cat. nos	Rating (A)	Short circuit rated breaking capacity (kA)							
		230 V		400 V		500 V		690 V	
		Icu	Ics	Icu	Ics	Icu	Ics	Icu	Ics
0028 00	0.16	100	100	100	100	100	100	100	100
0028 01	0.25	100	100	100	100	100	100	100	100
0028 02	0.4	100	100	100	100	100	100	100	100
0028 03	0.63	100	100	100	100	100	100	100	100
0028 04	1	100	100	100	100	100	100	100	100
0028 05	1.6	100	100	100	100	100	100	100	100
0028 06	2.5	100	100	100	100	100	100	8	8
0028 07	4	100	100	100	100	100	100	8	8
0028 08	6.5	100	100	100	100	100	100	8	8
0028 09	10	100	100	100	100	42	21	8	8
0028 10	14	100	100	25	12.5	10	5	2	2
0028 11	18	100	100	25	12.5	4	2	2	2
0028 12	23	100	100	25	12.5	4	2	2	2
0028 13	25	100	100	25	12.5	4	2	2	2
0028 14	32	100	100	25	12.5	4	2	2	2

IP 65 box 0028 29 equipped with stop button 0028 30



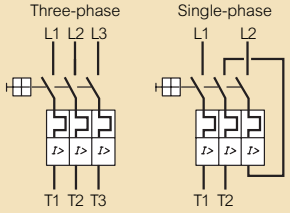
Thermal-magnetic tripping curve

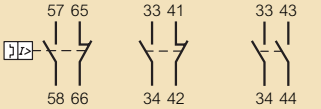


Approximate cold tripping time. To obtain the hot tripping time, multiply the graph value by 0.75
A = Balanced operation over 3 phases
B = Operation over 2 phases (phase absence)

Electrical diagrams

0028 00 to 0028 14





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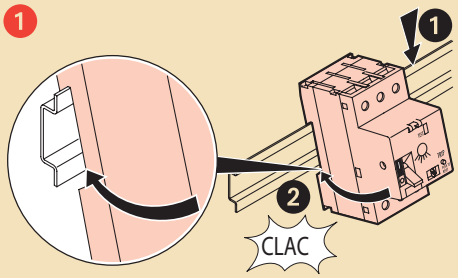
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

■ Assembly

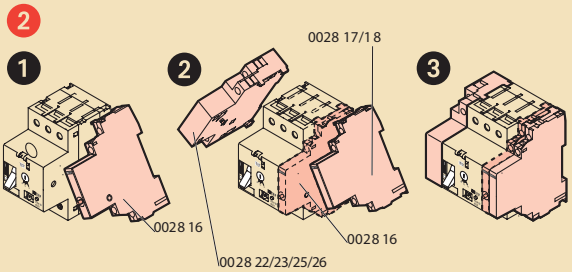
Installations of MPCBs

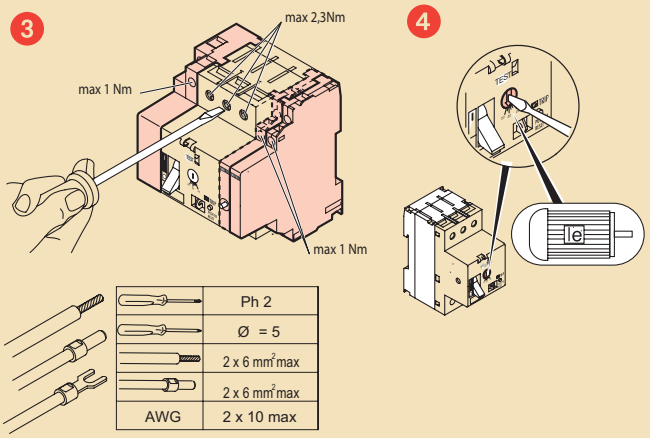
Cat. nos 0028 00 / 01 / 02 / 03 / 04 / 05 / 06 /
07 08 / 09 / 10 / 11 / 12 / 13 / 14



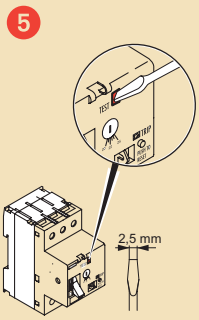
Installations of auxiliaries

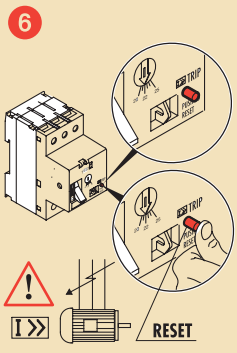
Cat. nos 0028 16 / 17 / 18 / 22 / 23 / 25 / 26





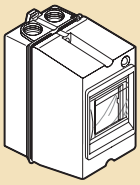
	Ph 2
	Ø = 5
	2 x 6 mm² max
	2 x 6 mm² max
AWG	2 x 10 max

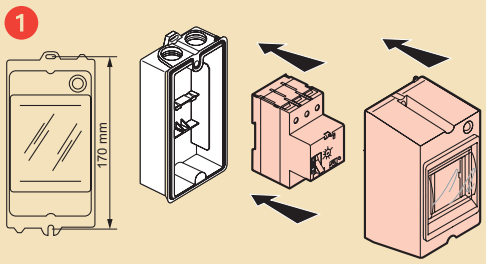


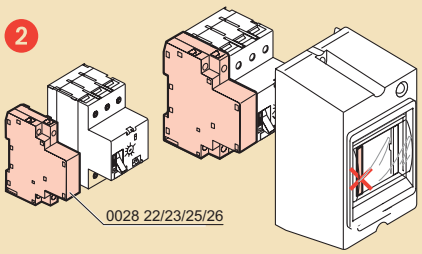


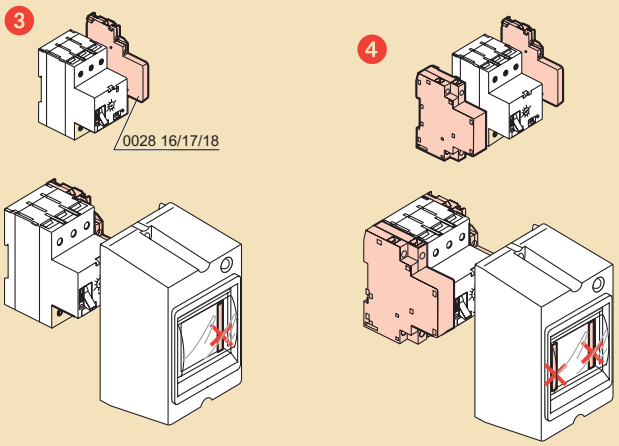
Installations in a IP 65 box

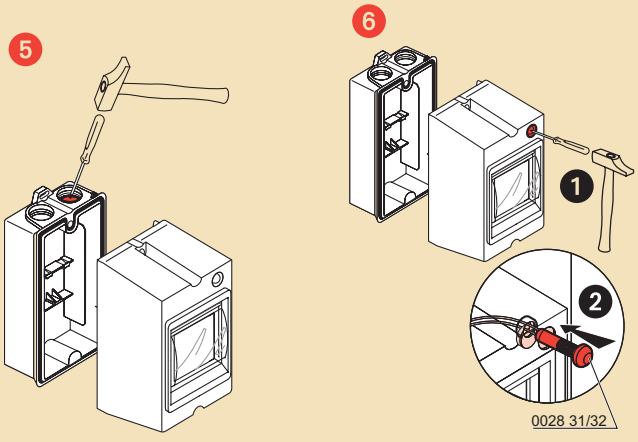
Cat. nos 002816 / 17 / 18 / 22 / 23 / 25 / 26 / 29/ 31 / 32





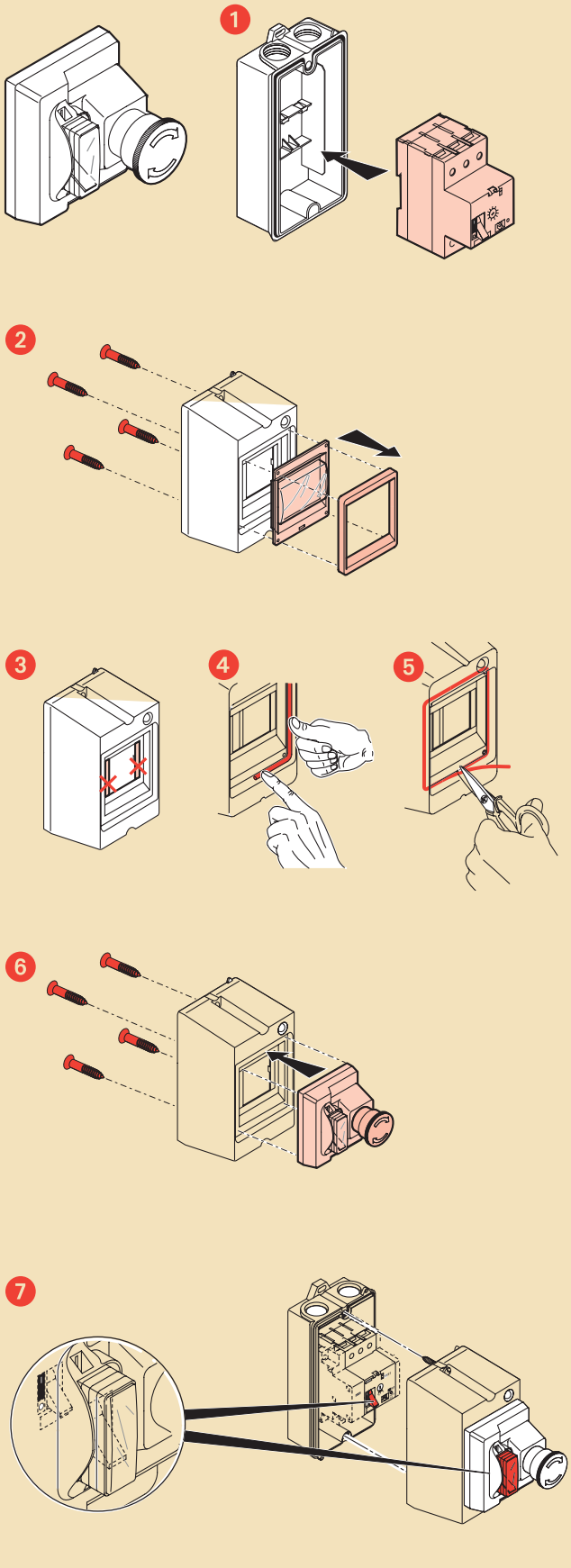




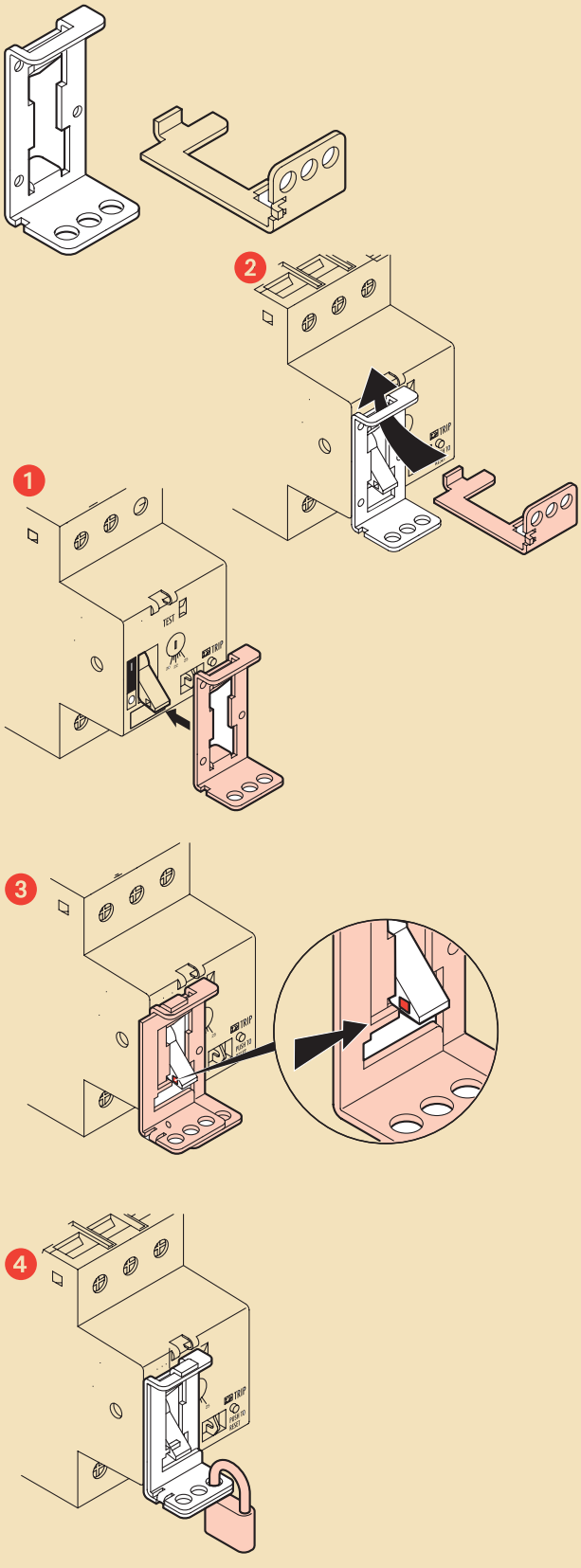


■ Assembly

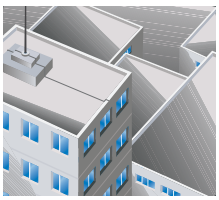
Installations of emergency stop button
Cat. nos 0028 30



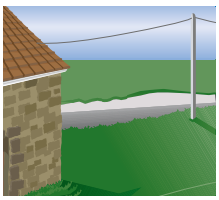
Installations of padlock (padlocking)
Cat. nos 0028 34



a solution for every risk



High protection
Required for buildings equipped with lightning conductors and in very exposed areas.
High flow-to-earth capacity 70 kA.



Increased protection
For overhead electrical power supplies.
Required in areas with average exposure.

Standard protection
Essential for all installations, whatever the type of power supply.

Lexic
voltage surge protectors for power lines


0039 21


0039 38


0039 28

Dimensions (p. 155)
Technical data (p.118-121)

Voltage surge protectors for distribution boards or consumer units
Conform to standard NF C 61-740, IEC 61643-1 and EN 61643-11
Satisfy requirements of guide C 15-443
Fitted with built-in thermal protection
Consist of a base and a plug-in replacement module with status indicator
Green : surge protector operational
Orange : module needs replacing
Can be fitted with a signalling auxiliary to transfer surge protector status
For 230/400 VAC supply
Frequency : 50/60 Hz

High protection - H - Class I - II

I max : 70 kA (8/20 µ s wave)
UP : 2.0 kV (protection level)
For neutral earthing systems : TT, TN, IT

Pack	Cat. nos.		Associated protection by MCB	Number of 17.5 mm modules
1/20	0039 20	1-pole	6032 38	1
1/12	0039 21	2-pole	6032 72	2
1/20	0039 22	3-pole	6032 89	3
1/20	0039 23	4-pole	6033 23	4

Increased protection - I - Class II

I max : 40 kA (8/20 µ s wave)
UP : 1.4 kV (protection level)
For neutral earthing systems : TT, TN

1/20	0039 35	1-pole	6032 35	1
1/12	0039 36	2-pole	6032 69	2
1/20	0039 38	4-pole	6033 20	4

Standard protection - S - Class II

I max : 15 kA (8/20 µ s wave)
UP : 1.2 kV (protection level)
For neutral earthing systems : TT, TN

1/20	0039 40	1-pole	6032 35	1
1/12	0039 41	2-pole	6032 69	2
1/20	0039 43	4-pole	6033 20	4

Accessories

Plug-in replacement modules
With indicator
Green : surge protector operational
Yellow : module needs replacing

		I max (kA)	UP (kV)	For surge protector
5/20	0039 28	70	2.0	0039 20/21/22/23
5/20	0039 39	40	1.4	0039 35/36/38
5/20	0039 44	15	1.2	0039 40/41/43

Signalling auxiliaries

With changeover micro switch
5 A - 250 V AC
Clip onto the base of the surge protector

1/42	0039 55	For 1-pole module
1/42	0039 56	For 2-pole module
1/42	0039 57	For 3-pole module
1/42	0039 58	For 4-pole module

Lexic
voltage surge protectors for telephone lines

0038 28

0038 29

Dimensions (p. 155)
Technical data (p. 118-121)

For protection of : telephone, fax, modem, etc.
connected on the internal telephone line, against over voltages of atmospheric origin
Installed in a distribution box
Connected in series on the telephone line
Provided with a status indicator :
• Green : surge protector operational
• Orange : surge protector needs replacing
Conforms to standard IEC 61643-21 and EN 61643-21

Pack	Cat. nos.	**Voltage surge protector**
		I max: 10kA & In: 5kA (8/20 µs wave)
1	0038 28	For analogue telephone line
1	0038 29	For digital telephone line

Aesthetic and flexible range of Ekinoxe TX DBs

Ekinoxe TX DBs (p. 182)

Lexic
voltage surge protectors

■ Technical data

VSP for power lines

	High Protection	Increased Protection	Standard Protection
Cat. nos.	0039 20/21/22/23	0039 35/ 36/38	0039 40/41/43
Neutral earthing system	TT - TN - IT	TT - TN	TT - TN
Max. steady state voltage (Ue)	440 V ∿	320 V ∿	320 V ∿
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Max. discharge current (I max, wave 8/20 micro second)	70 kA	40 kA	15 kA
Nominal discharge current (In, wave 8/20 micro second)	20 kA	15 kA	5 kA
Leakage current at Uc (Ic)	< 1 mA	< 1 mA	< 1 mA
Up protection level	2 kV	1.4 kV	1.2 kV
Follower current (Is)	Zero	Zero	Zero
Terminal capacity			
- rigid conductor	25 mm²	25 mm²	25 mm²
- flexible conductor	16 mm²	16 mm²	16 mm²
Associated protection by Lexic MCB	40 A	20 A	20 A
Degree of protection	IP 20 installed in enclosure		
Operating temperature	- 10° C to + 40° C		
Storage temperature	- 20° C to + 70° C		

VSP for telephone lines

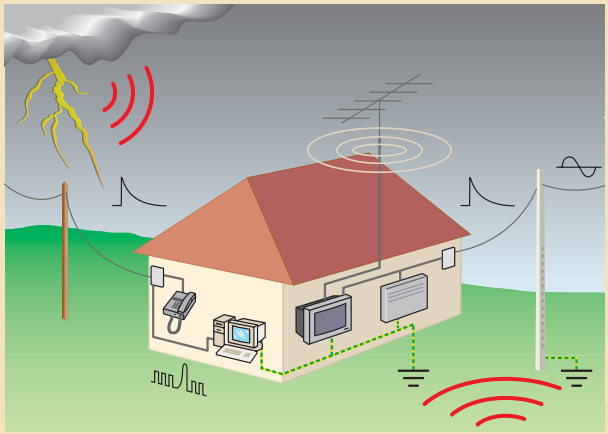
	Analogue line	Digital line
Cat. nos.	0038 28	0038 29
Mav. discharge current (I max, wave 8/20 micro second)	10 kA	10 kA
Nominal discharge current (In, wave 8/20 micro second)	5 kA	5 kA
Up protection level	300 V	100 V
Terminal capacity		
- rigid conductor	2.5 mm²	2.5 mm²
- flexible conductor	2.5 mm²	2.5 mm²
Associated protection by Lexic MCB	20 A	20 A
Degree of protection	IP 20 installed in enclosure	
Operating temperature	- 10° C to + 40° C	
Storage temperature	- 20° C to + 70° C	

■ Lightning

1 - The effects of lightning

Lightning directly or indirectly generates the following effects:

- thermal (blow-outs, fire)
- electrodynamic (loosening of terminals)
- rise in earth voltage (risk of electrocution)
- overvoltages of several thousand volts and destructive induced currents (damage to electrical and electronic equipment, interruption of operation)



2 - Protection against the effects of lightning

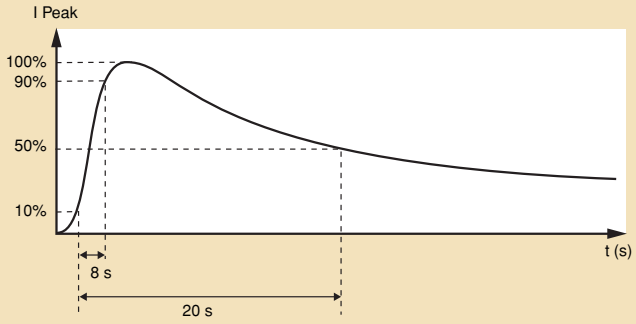
This is based essentially on:

- catching and discharging the current to earth
- the use of voltage surge protectors
- the passive protection of the installation

Passive protection (poor, good) designates the part of the protection provided by the structure and the configuration of the installation itself (neutral earthing system, area, level of equipotentiality, etc.)

■ Regulation

Standard EN 61-643-11, characterises the indirect effects of lightning based on a 8/20 µs waveform, type 2 voltage surge protector and the direct effect by a 10/350 µs wave form type 1 voltage surge protector (v.s.p.)



When a voltage surge protector is installed on the power circuit, it is recommended that one is installed on the communication circuit (telephone line)
More than 1 v.s.p. should be installed in electrical board and as closed as possible to the equipment to be protected
The Lexic range is completed by proximity v.s.p. (type 3) for electrical accessories (Mosaic and multi-outlet extensions)
These proximity accessories are dedicated to the sensitive equipment (electronics, information technology, home cinema etc.)

■ Choice of the level of lightning protection

Prior to the installation of the lightning protection devices, the risk must be assessed, using a number of criteria:

- level of exposure of the area (⚡, ⚡⚡, ⚡⚡⚡)
- location of the building
- power supply, neutral system TT, TN, IT
  - underground
  - overhead
- the presence of a lightning conductor on/close to the building
- the type of equipment to be protected
- the cost of the consequences of the equipment not being available

The level of this lightning protection is indicated as:

- medium (★)
- high (★★)
- very high (★★★)

The protection must be chosen according to the most exacting criterion E.g. whatever the level of exposure, the presence of a lightning conductor requires a very high level of protection

Additional protection will be necessary according to the sensitivity of the equipment to be protected (computing, electronic) and the area of the installation

1 - Defining the required level of protection (★, ★★, ★★★)

Location of the installation	Level of exposure ⚡	⚡⚡	⚡⚡⚡
Building location			
tighly packed buildings		★	★★
scattered buildings	★	★★	★★
isolated	★	★★	★★★
in mountains, close to a stretch of water or on top of a hill	★★	★★★	★★★
Power supply			
overhead	★	★★	★★★
underground		★	★★
Presence or proximity of a lightning conductor	★★★	★★★	★★★

2 - Determining the level of sensitivity of the equipment

Level of sensitivity	Equipment	Protection level
Low sensitivity	motors, heating equipment	> 2 kV
Sensitive	domestic electrical appliances, lights	1.5 to 2 kV
High sensitivity	computer equipment	1.5 kV

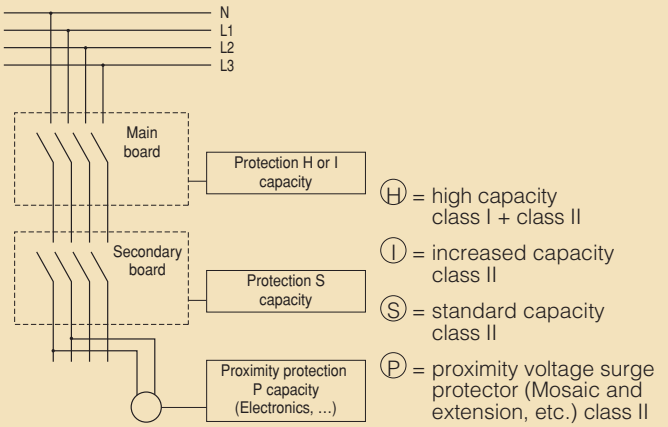
The choice is specific to each installation and depends on:

- the required level of lightning protection (★, ★★, ★★★)
- the sensitivity of the equipment
- the configuration of the installation (passive protection)

voltage surge protectors (continued)

3 - Position of the voltage surge protectors

Legrand voltage surge protectors are available in 4 levels, linked to their lightning impulse discharge capacity according to the 8/20 µs and 10/350 µs waveform



4 - Determine voltage surge protectors capacities

Sensitivity of equipment	Level of lighting protection			Position of the voltage surge protectors
	★	★★	★★★	
Low sensitivity	S	I	H	Head of installation
		S	S	Distribution level
				Application level
Sensitive	S	I	H	Head of installation
		S	S	Distribution level
	P	P	P	Application level
High sensitivity	I	H	H	Head of installation
	S	S	I	Distribution level
	P	P	P	Application level

5 - Choice of the catalogue number

The choice of the catalogue number depends on the electrical layout of the installation (single phase, 3-phase), the neutral earthing system and the required capacity

	Voltage surge protectors for distribution boards					
	High capacity (H)		Increased capacity (I)		Standard capacity (S)	
Neutral earthing system	1P or 1P+N	3P or 3P+N	1P or 1P+N	3P or 3P+N	1P or 1P+N	3P or 3P+N
TT/TNS	0039 21	0039 23	0039 36	0039 38	0039 41	0039 43
TNC	0039 20	0039 22	-	-	-	-
IT with neutral	0039 21	0039 23	-	-	-	-
without neutral	0039 20	0039 22	-	-	-	-

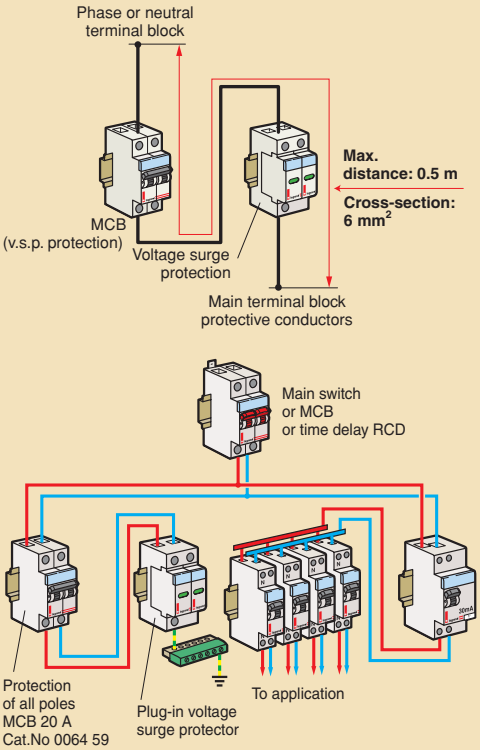
■ Installation

1 - Associated protection

The circuit supplying the v.s.p. can be protected against short circuits and overloads by MCB according to selectivity charts

2 - Connection principles

For the voltage surge protector to perform it's function as well as possible, it must be installed:
- as a tap-off
- keeping as short a connection length as possible between the phase-neutral terminal block and the PE or PEN terminal block
- in accordance with EMC (electromagnetic compatibility) rules: avoid the use of loops, fix the cables against metal conductive parts



3 - Recommanded cross-sections for conductors linking voltage surge protectors

Capacity	Cross-section (mm²)
Standard (S)	6
Increased (I)	10
High (H)	16

4 - Minimum distances between voltage surge protectors in one installation

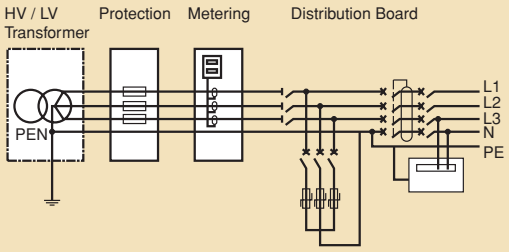
Downstream v.s.p.	Upstream v.s.p.	Distance (in meter)
H	I	6
	S	8
	P	10
I	S	4
	P	6
S	P	2

■ Technical characteristics

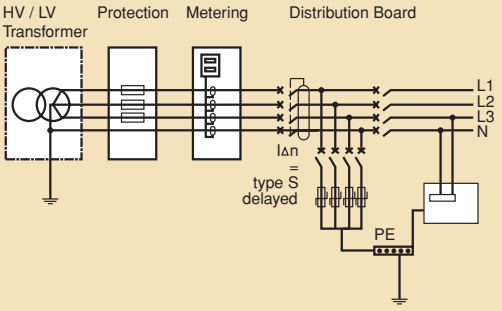
Cat.No	High protection (H) 0039 20/21/22/23	Increased protection (I) 0039 35/36/38	Standard protection (S) 0039 40/41/43
Neutral earthing system	TT - TN - IT	TT - TN	TT - TN
Max. steady state voltage (Uc)	440 V~	320 V~	320 V~
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Type EN-61613-11	1	2	2
Max. discharge current — **I max 8/20 µs**	70 kA	40 kA	15 kA
Max. discharge current — **I imp 10/350 µs**	10 kA	-	-
Nominal discharge current (In, wave 8/20 µs)	20 kA	15 kA	5 kA
Up protection level In	2 kV	1.4 kV	1.2 kV
Ut	440 V	400 V	400 V
Leakage current at Uc (Ic)	< 1 mA	< 1 mA	< 1 mA
Time delay Associated protection - max. (EN-61613-11)	160 A DPX	125 A DPX	20 A MCB C curve
- min.	MCB C curve 40 A	MCB C curve 20 A	MCB C curve 20 A
Follower current If	Zero	Zero	Zero
Terminal capacity - rigid conductor - flexible conductor	25 mm² 16 mm²	25 mm² 16 mm²	25 mm² 16 mm²
Degree of protection	IP 20 installed in enclosure		
Environment - operating temperature - storage temperature		- 10 °C to + 40 °C - 20 °C to + 70 °C	
Response time	25 ms		

■ Installation principle

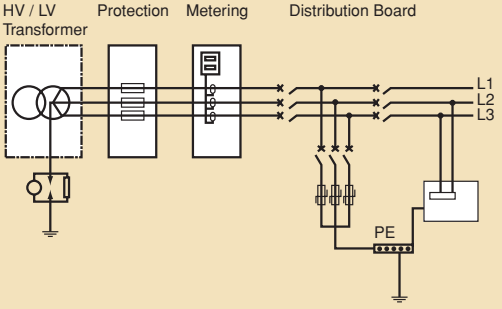
1 - Voltage surge protector in TN system



2 - Voltage surge protector in TT system

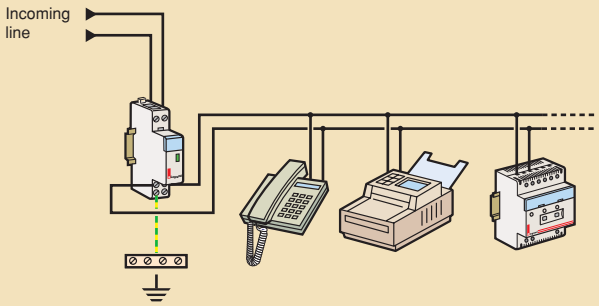


3 - Voltage surge protector in IT system



■ Telephone characteristics

Protection of a telephone line



1 voltage surge protector per pair
- If digital, 2 pairs (2 x 0038 29)
- If analogue, 1 pair (1 x 0038 28)

	Analog 0038 28	Digital 0038 29
Nominal voltage	170 V	48 V
Maximal discharge current (I maxi)	10 kA	
Protection level (UP)	300 V	100 V
Terminal capacity flexible/rigid	0.5 to 2.5 mm²	
Degree of protection	IP 20	
Operating temperature	- 10-°C to + 40 °C	
Storage temperature	- 20-°C to + 70 °C	

Time switches complete control

A complete and wide range of time switches for varied applications like shop window lighting, street lighting, advertising panels, office lighting, staircase illumination, control of sewage and water treatment outdoor / landscape illumination, etc.

ANALOGUE TIME SWITCH

Analogue 24 hours and 7 days time switches for DIN rail and wall mounting with manual over - ride switch.

ANALOGUE TIME SWITCH

Modular analogue 24 hours and 7 days time switches for DIN rail mounting with manual over - ride switch.

DIGITAL TIME SWITCH

Modular digital multifunctional DIN rail mounting, daily or weekly or impulse time switch or hour counter.

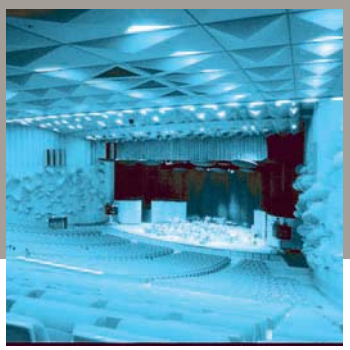
ASTRONOMICAL TIME SWITCH

Astronomical calculation of sunrise / sunset times by setting date, time and position coordinates (degree of longitude and latitude) and thereby switching off/on the loads.

LEGRAND – PROVEN QUALITY

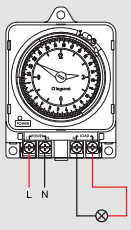
	Australia	
	Canada	Canadian Standards Association (CSA)
	Denmark	Danmarks Elektriske Materielkontroll (DEMKO)
	Germany	Verband Deutscher Elektrotechniker (VDE)
	Finland	FIMKO
	Italy	Instituto Italiano del marchio di qualità (IMQ)
	Norway	Norges Elektriske Materiellkontroll (NEMKO)
	Austria	Verband für Elektrotechnik (ÖVE)
	Poland	Biuro Badawcze d/s Jakoski (BBJ)
	Sweden	Svenska Elektriska Materielkontrollanstalten (SEMKO)
	Switzerland	Schweizerischer Elektrotechnischer Verein (SEV)
	Czech. Republic	Elektrotechnicky Zkusebni Ústav (EZU)
	United States	Underwriters Laboratories (UL)

The above mentioned approvals are valid according to date of printing.

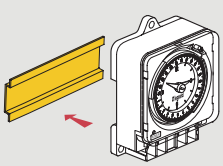


Power Supply indicator

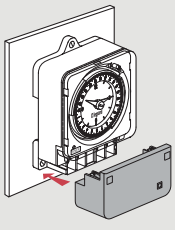
Box with locking features



Easy installation



DIN rail mounting



Wall mounting

Maxi Rex

- Strong load capacity at 20A
- Daily and weekly analogue time switches
- Avaliable with IP 53 box
- Easy and universal installation
- 500h working reserve possible

Rex-Analogue time switches
for DIN rail mounting and wall mounting
MaxiRex

6499 14

6499 15

Dimensions (p. 155)
Technical data (p. 129-135)

230 V∿, 50/60 Hz
Voltage tolerance - ± 10%
Conforms to IEC 60730-1, EN 60730-1
Analogue 24 hrs and 7 days time switch
With 3 position changeover switch (5 terminals)
Suitable for DIN rail mounting, wall mounting and installation in plastic box with locking facility
With manual override switch
Hands can be moved clockwise or anti clockwise for easy setting of time.

Pack	Cat. nos.		Voltage	Frequency
		MaxiRex with 4 terminals (without plastic box)		
		MaxiRex 4QT (with 500 hrs. working reserve) 24 hrs. programme		
1/30	**6499 15**		230 V	50-60 Hz
		MaxiRex with 4 terminals (with plastic box)		
		MaxiRex 4QTB (with 500 hrs. working reserve) 24 hrs. programme		
1	**6499 14**		230 V	50-60 Hz
		MaxiRex 4QWB (with 500 hrs. working reserve) 7 days programme		
1	**6499 36A**		240 V	50-60 Hz
		MaxiRex with 5 terminals (without plastic box)		
		MaxiRex 5QW (with 500 hrs. working reserve) 7 days programme		
1/30	**6499 39A**		230 V	50-60 Hz
		MaxiRex QT 30A (with 100 hrs. running reserve) 24 hrs. programme		
1/30	6499 64		230V	50-60 Hz
		Robust analogue time switch with real 30A switching capacity		
		Accessories		
1/30	6499 49	Terminal cover for MaxiRex 4 and 5		
1/10	6499 48	IP53 plastic box		

Rex-Analogue time switches
for front panel and wall installation
MaxiRex

0497 57

230 V∿, 50/60 Hz
Voltage tolerance - ± 10%
Conforms to IEC 60730-1, EN 60730-1
Double dial time switch
Analogue 24 hrs and 7 days time switch
With 2 nos. of 3 position changeover switch
Suitable for DIN rail mounting and surface mounting
With manual override switch
Hands can be moved clockwise or anti clockwise for easy setting of time.
With 72 x 72 mm display

Pack	Cat. nos.		Voltage	Frequency
		MaxiRex with 4 terminals (without plastic box)		
		MaxiRex 4QT (with 100 hrs. working reserve) 24 hrs. / 24 hrs. programme		
1/30	0497 55		230 V	50/60 Hz
		MaxiRex QWT (with 100 hrs. running reserve) 7 days / 24 hrs. programme		
1/30	0497 57		230 V	50/60 Hz
		Accessories		
1/5	0498 32	Clip-on support frame for fascia mounting		
1	0044 09	DIN rail ⎽⌐ adaptor		

Bold catalogue numbers are products normally available with Legrand (India) stockists.
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

Rex-Analogue time switches
for front panel and wall installation
EconoRex

0499 85

0499 86

Dimensions (p. 155)
Technical data (p. 129-135)

230 V~, 50/60 Hz
Voltage tolerance - ± 10%
Conforms to IEC 60730-1, EN 60730-1
Analogue 24 hrs time switch
With 3 position changeover switch
Suitable for DIN rail mounting and surface mounting
With manual override switch
With 72 X 72 mm display

Pack	Cat. nos.	EconoRex		
1/30	**0499 85**	**EconoRex BQTAP** Surface mounting (with 100 hrs. running reserve) 24 hrs. programme	Voltage 230 V	Frequency 50/60 Hz
1/30	**0499 86**	**EconoRex MQT** Front panel mounting (with 100 hrs. running reserve) 24 hrs. programme	Voltage 230 V	Frequency 50/60 Hz

Pack	Cat. nos.	Accessories
1	0044 07	Accessories for EconoRex BQTAP DIN rail ⌙ adaptor

Rex-Analogue time switches
for DIN rail mounting
MicroRex - 1 module

0037 40

230 V~, 50/60 Hz
Voltage tolerance - ± 10%
Conforms to IEC 60730-1, EN 60730-1
Modular analogue 24 hrs time switch
With 3 position changeover switch
Suitable for DIN rail mounting
With manual override switch
With quartz controlled motor

Pack	Cat. nos.	MicroRex QT11			
1/100	**0037 40**	(with 100 hrs. running reserve) 24 hrs. programme	Voltage 230 V	Frequency 50/60 Hz	Number of 17.5 modules 1

Rex-Analogue time switches
for DIN rail mounting
MicroRex - 3 modules

037 53

Dimensions (p. 155)
Technical data (p. 129-135)

230 V∿, 50/60 Hz
Voltage tolerance - ± 10%
Conforms to IEC 60730-1, EN 60730-1
Modular analogue 24 hrs and 7 days time switch
With 3 position changeover switch
Suitable for DIN rail mounting
With manual override switch
With quartz controlled motor

Pack	Cat. nos.	MicroRex QT31	Voltage	Frequency	Number of 17.5 modules
1/30	**0037 53**	(with 100 hrs. running reserve) 24 hrs. programme	230 V	50/60 Hz	3

Pack	Cat. nos.	MicroRex QW31	Voltage	Frequency	Number of 17.5 modules
1/30	0037 55	(with 100 hrs. running reserve) 7 days programme	230 V	50/60 Hz	3

Rex - digital time switches
AstroRex

047 64

- according to VDE 631-1 and 631-2-7, IEC 60 730-1 and 60 730-2-7, EN 60 730-1 and 60 730-2-7
- with text based programming concept
- Selectable languages: English, German, French, Italian, Spanish and Dutch
- fast programming due to selection of pre-set groups of days Mo-Su, and individual selection of days
- easy programming with PC using Legrand software and data key
- a program consists of an ON and OFF time and their assignment to certain days
- Backup on data key possible
- with additional fuctions:
  - holiday program (permanently ON or OFF)
  - 1 hour-test-outputs are switched ON for 1 hour
  - hour counter for max. 65535 hours.
- backgroundlighting for display and buttons
- running reserve of 6 years for date and time
- programs are stored in a EEPROM
- programs are shown as a weekly matrix on the display
- automatic summer-/wintertime change (daylight saving)
- Precision ± 0,2 sec/day
- manual switching
- lead sealable cover, even with inserted data key
- Calculation of sunrise and sunset by programming date, time and local coordinates.
- No light sensor needed!
- To save energy, a switching off at night is programmable.
- The switching On and OFF times can be adjusted asymetricaly for ± 120 minutes (offset).
- The control input enables the activation of the time switch irrespective to the program. (NOT D22 Astro!)

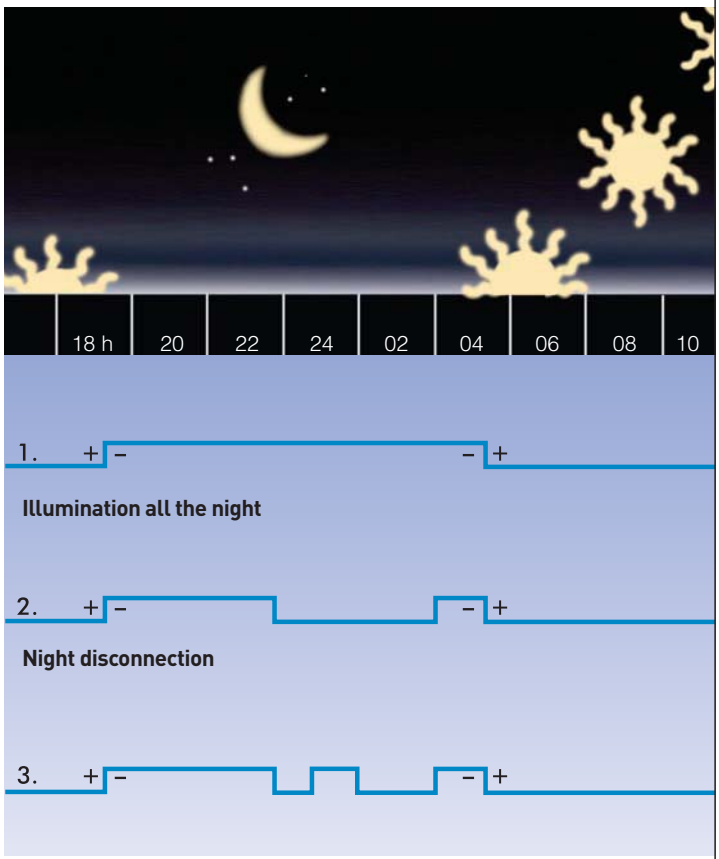
Pack	Cat. nos.	AstroRex D21	Voltage	Frequency	Number of 17.5 modules
1	0047 64	weekly time switch, 1 channel 1 changeover (SPDT) 250 V/50 Hz, 16 A∿ cos φ=1 min. switching time: 1 min. switching stem: 1 min.	230 V	50/60 Hz	2

Pack	Cat. nos.	AstroRex D22	Voltage	Frequency	Number of 17.5 modules
1	0047 67	weekly time switch, 2 channels 2 changeover (SOPDT) 250 V/50 Hz, 16 A∿ cos φ=1 min. switching time: 1 min. switching stem: 1 min.	230 V	50/60 Hz	2

Bold catalogue numbers are products normally available with Legrand (India) stockists.
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

Rex astronomical time switches

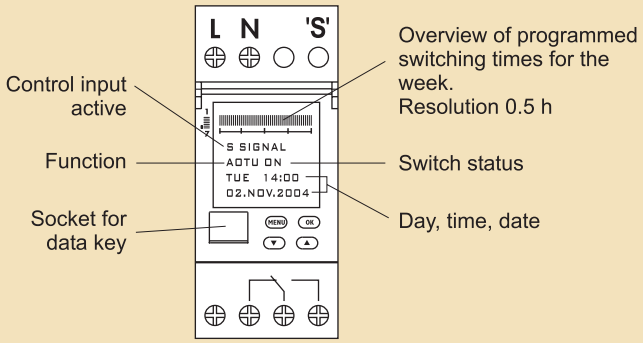
Easy control of light based on the calculation of sunrise and sundown, with no need of installing a light sensor !



Night disconnection using the control contact (+/- = switch-on and switch-off time can be postponed up to +/- 120 minutes)

Astronomical time switches
AstroRex D21

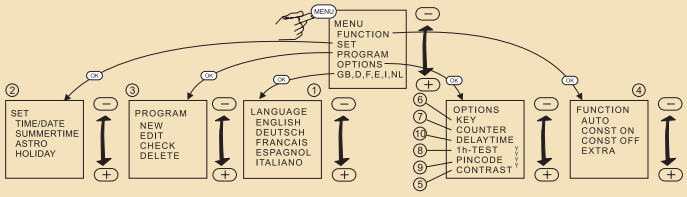
■ Technical data



General information

- **Starting :** After connection of the supply voltage, the clock starts to run with last selected function. The relay position is determined by the currently active program.
- **Backup battery**
  - **Background lighting** switched off.
  - **Data key** READ/WRITE only via the menu.

Overview



'S' = A control i/p signal is superimposed on all program commands (OR circuit), while the control signal is applied, the output is switched 'ON' when the control signal is switched 'OFF', the output is switched 'OFF' after a delay time. Unless an 'ON' command is applied by a program (0 min.... 23 hrs-5 min)

Rex digital time switches
AlphaRex


0047 61

0047 72

0047 73

Dimensions (p. 155)
Technical data (p. 129-135)

- According to VDE 631-1 and 631-2-7, IEC 60 730-1 and 60 730-2-7, EN 60 703-1 and 60 730-2-7
- With text based programming concept
- Selectable languages: English, German, French, Italian, Spanish and Dutch
- Fast programming due to selection of pre-set days Mo-Su, Mo-Fr, Sa-Su and individual selection of days
- Easy programming with PC using Legrand software and data key
- A program consists of an ON and OFF time and their assignment to certain days
- Backup on data key possible
- With additional comfort functions:
  - holiday program
  - random function
  - pulse function (only 1 channel) with pulse duration of 1 sec up to 59 min, 59 sec. and 84 start times
  - hour counter for max. 65 535 hours
- Background lighting for display and buttons
- Running reserve of 6 years for date and time
- Programs are stored in a EEPROM
- Programs are shown as a weekly matrix on the display
- Automatic summer/winter time change (daylight saving)
- Precision ±0.2 sec/day
- Manual switching
- Sealable cover, even with inserted data key

Pack	Cat. nos.	AlphaRex
1	0047 61	AlphaRex D21 weekly time switch, 1 channel Voltage: 230 V | Frequency: 50/60 Hz | Number of 17.5 modules: 2 - 1 changeover (SPDT) 250 V/50 Hz 16 AA cos φ = 1 - 56 programs - min. switching time: 1 min. - switching step: 1 min.
1	0047 71	AlphaRex D22 weekly time switch, 2 channels Voltage: 230 V | Frequency: 50/60 Hz | Number of 17.5 modules: 2 - 2 changeover (SPDT) 250 V/50 Hz 16 AA cos φ = 1 - 56 programs (28 per channel) - min. switching time: 1 min. - switching step: 1 min.

Pack	Cat. nos.	Accessories
1	0047 72	Data key - With the data key, it is possible to transfer programs into the time switch Select the data key function on "READ" on the time switch - The data key can be programmed on PC - Using the data key function "WRITE", programs can be transferred to data key, it allows to easily copy program from one time switch to another one. It can also be used as a backup - One data key allows to save 1 complete time switch program (56 ON/OFF)
1	0047 73	USB-adapter - to read and write data keys on PC - software include - connection via USB port - system requirements: Windows®2000 - Windows®ME, Windows®XP and Windows®98 second edition, 10 MB free disc space - serial adapter on demand

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Rex digital time switches
AlphaRex

■ Brief description of the programming possibilities

Text based programming

The AlphaRex uses clear text to guide you through the options and the programming. Every step is clearly displayed and the selected function is flashing. The integrated background lighting for display and buttons allows easy programming even at bad lighting conditions.

Selection language

Using the "MENU" button, allows to select the requested language. Default language is English.

Time, date, summer/winter time

The actual time (CET) and date have been pre-set in the factory. Default summer/wintertime is EU. Changes can be made by choosing "MENU" and "SET".

Programming

A program consists of an ON and OFF time and the assigned day(s). Before setting the ON and OFF times, the requested days have to be selected. MONDAY-SUNDAY, MONDAY-FRIDAY, SATURDAY-SUNDAY OR INDIVIDUAL. The INDIVIDUAL mode allows to select every single day of the week. It is also possible to program over midnight.

Relay function

With "MENU" and "FUNCTION" it is possible to change the relay position. By default it is "AUTO", the time switch switches at the programmed times. Additional selections are: "CONST ON" CONST OFF" and "EXTRA". With choosing "EXTRA" the stored program will be inversed. When the next programmed switching time has been reached, the time switch returns to normal mode.

Holiday

Selection the "HOLIDAY" function allows to set the start-and end-date of the holidays and has to be activated by selecting "ACTIVE", or deactivate it by selecting "PASSIVE". When the "HOLIDAY" function is activated, the stored program will be ignored during the selected days and replaced by "CONST ON" or "CONST OFF". When holiday is over, the AlphaRex returns to default mode.

- **Data key**

When the time switch is connected to tension, the data key activated automatically the "DATA KEY" menu with the options "READ" and "WRITE".

"WRITE": programs stored in the time switch will be copied into the data key. Eventually stored programs on the data key will be over-written.

"READ": programs stored on the data key will be copied into the time switch. Eventually stored programs on the time switch will be overwritten.

It is only possible to save 1 "time switch program" which consist of max. 56 ON/OFF (1 channel.) or max. 84 ON (1 channel pulse) or max. 2 x 28 ON/OFF (2 channel) on the time switch and the data key.

When inserting the data key without the time switch being connected to tension, the "DATA KEY" menu will not appear automatically, but has to be selected manually.

- **Programming on the PC**

Next to the easy and text based programming directly on the time switch, it is also possible to do it on your PC by using the Legrand software and to transfer the program with the data key to the time switch. To save the PC-created programs on the data key, the USB adapter has to be installed.

System requirements: USB-port; Windows® 98 second edition; Window® 2000; Window®ME or Windows®XP, 10MB free disc space.

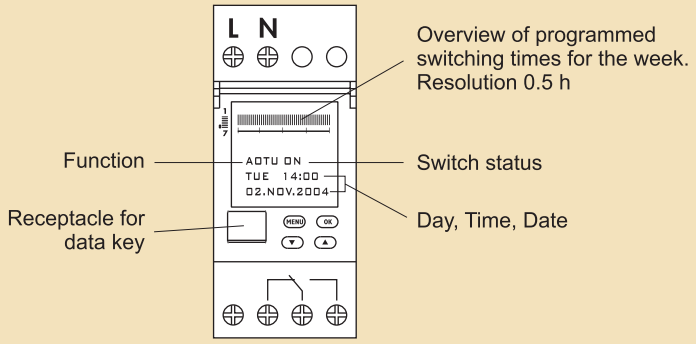
- **Reset**

Pressing simultaneously on all 4 buttons for more than 2 seconds, will causes a deletion of all stored data. Language, time/date, summer-winter time and programs have to be re-installed.

- **Random function**

To stimulate your presence with turning lights ON and OFF on different times everyday. Just setup a normal program, activate the 'Random' function and from now on all ON and OFF times will vary randomly for ±30 minutes.

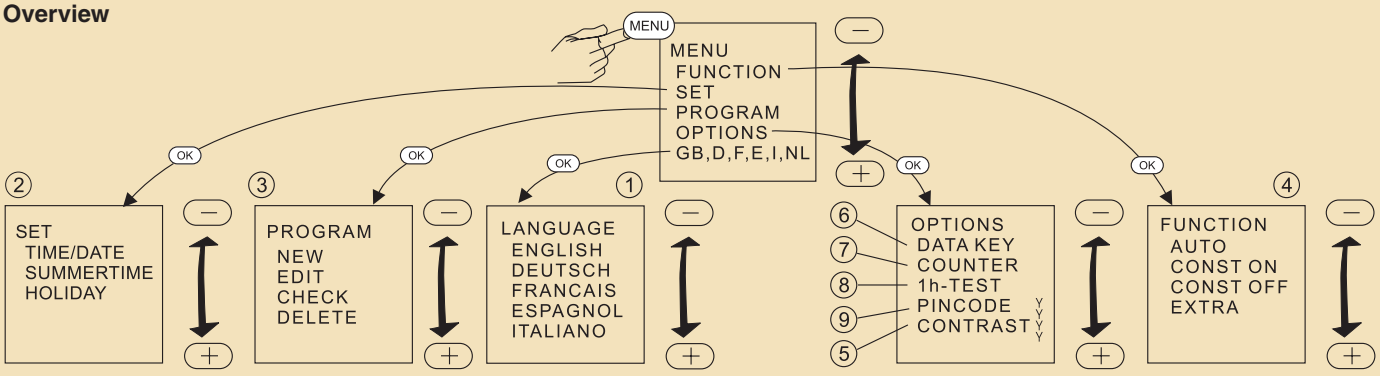
D21 - 1-channel with pulse function



General information

- **Starting :** After applying the supply voltage, the time switch starts automatically with the last selected function. The relay position is set by the current program.
- **Battery backup**
  - **Backlighting** not active.
  - **Data key** READ/WRITE only via the menu.

Overview



Rex time switches

■ Technical data

Analogue time switch

Type	MaxiRex					
	4QTB	4QWB	4QT	5QW	QTT	QWT
Catalogue no.	6499 14	6499 36	6499 15	6499 39	0497 55	0497 57
Voltage	230 V AC	230 V AC	230 V AC	230 V AC	230 V AC	230 V AC
Frequency	50 / 60 hz	50 / 60 hz	50 / 60 hz	50 / 60 hz	50 / 60 hz	50 / 60 hz
No. of channels	1	1	1	1	2	2
Motor	quartz controlled	quartz controlled	quartz controlled	quartz controlled	quartz controlled	quartz controlled
Switching dial	24 hrs	7 days	24 hrs	7 days	24 / 24 hrs	7 days / 24 hrs
Switching capacity for						
Resistive Cos φ = 1	20 A	20 A	20 A	20 A	16 A	16 A
Incandescent lamps	4 A	4 A	4 A	4 A	1000 W	1000 W
Inductive cos φ = 0.6	10 A	10 A	10 A	10 A	10 A	10 A
Contact	SPST				SPDT	
Running reserve	500 hrs	500 hrs	500 hrs	500 hrs	100 hrs	100 hrs
Minimum switching time	10 min	1 hr	10 min	1 hr	30 / 45 min	3 hrs / 45 min
Minimum setting interval	20 min	2 hr	20 min	2 hr	10 / 15 min	1 hr / 15 min
Switching accuracy	± 10 min	± 1 hr	± 10 min	± 1 hr	± 30 / 45 min	± 3 hrs / 45 min
IP rating	IP 53	IP 53	IP 30	IP 30	IP 30	IP 30
Operating temperature	- 10°C to + 50°C	- 10°C to + 50°C	- 10°C to + 50°C	- 10°C to + 50°C	0°C to + 50°C	0°C to + 50°C

Type	MaxiRex	EconoRex		MicroRex		
	QT	BQTAP	MQT	QT11	QT31	QW31
Catalogue no.	6499 64	0499 85	0499 86	0037 40	0037 53	0037 55
Voltage	230 V AC	230 V AC	230 V AC	230 V AC	230 V AC	230 V AC
Frequency	50 / 60 hz	50 / 60 hz	50 / 60 hz	50 / 60 hz	50 / 60 hz	50 / 60 hz
No. of channels	1	1	1	1	1	1
Motor	quartz controlled	quartz controlled	quartz controlled	quartz controlled	quartz controlled	quartz controlled
Switching dial	24 hrs	24 hrs	24 hrs	24 hrs	24 hrs	7 days
Switching capacity for						
Resistive Cos φ = 1	30 A	10 A	16 A	16 A	16 A	16 A
Incandescent lamps	1800 W	1000 W	4 A	4 A	4 A	4 A
Inductive cos φ = 0.6	20 A	4 A	8 A	10 A	10 A	10 A
Contact	SPST	SPDT		SPST	SPDT	
Running reserve	100 hrs	100 hrs	100 hrs	100 hrs	100 hrs	100 hrs
Minimum switching time	10 min	15 min	15 min	15 min	15 min	2 hrs
Minimum setting interval	20 min	15 min	10 min	30 min	30 min	4 hrs
Switching accuracy	± 30 min	± 15 min	± 15 min	± 5 min	± 5 min	± 30 min
IP rating	IP 30	IP 30	IP 30	IP 20	IP 20	IP 20
Operating temperature	- 10°C to + 55°C	0°C to + 50°C	- 10°C to + 55°C	- 10°C to + 55°C	- 10°C to + 55°C	- 10°C to + 55°C

Digital time switch

Type	AlphaRex		AstroRex	
	D21	D22	D21	D22
Catalogue no.	0047 61	0047 71	0047 64	0047 67
Voltage	230 V AC	230 V AC	230 V AC	230 V AC
Frequency	50 / 60 hz	50 / 60 hz	50 / 60 hz	50 / 60 hz
No. of channels	1	2	1	2
Type	24 hrs / 7 days	24 hrs / 7 days	24 hrs	24 hrs
Switching capacity for				
Resistive Cos φ = 1	16 A	16 A	16 A	16 A
Incandescent lamps	8 A	8 A	10 A	10 A
Inductive Cos φ = 0.6	10 A	10 A	4 A	4 A
Contact	1 SPDT	2 SPDT	1 SPDT	2 SPDT
Running reserve	6 yrs	6 yrs	6 yrs	6 yrs
Minimum switching time	1 min(1)	1 min	1 min	1 min
Minimum setting interval	1 min	1 min	1 min	1 min
Switching accuracy	± 0.2 sec / day	± 0.2 sec / day	± 0.2 sec / day	± 0.2 sec / day
IP rating	IP 20	IP 20	IP 20	IP 20
Operating temperature	- 20°C to + 55°C	- 20°C to + 55°C	- 20°C to + 55°C	- 20°C to + 55°C
No of module (17.5 mm)	2	2	2	2

(1) Impulse version 1 sec.

Dimensions in mm,
1 inch = 25.4mm

Rex time switches

■ Technical data

Allowed loads for time switches

	Consumption at 230 V~ 50 Hz	Nominal output (VDE) I Cos φ = 1	Output	Class	Allowed load at 230 V~, 50 Hz Incandescent halogen lamps (230V~)	Fluorescent lamps duo circuit	cos φ = 0.6
Cat.no.	Watt	A	*)	IP	A	A	A
DIN rail mounting							
0037 40	0.38	16	1 S µ	20	4	14	12
0037 53	0.38	16	1 W µ	20	4	14	12
0037 55	0.38	16	1 W µ	20	4	14	12
0047 61	1	16	1 W µ	20	8	-	10
0047 71	1	16	1 W µ	20	8	-	10
0047 64	1	16	1 W µ	20	10	-	4
0047 67	1	16	1 W µ	20	10	-	4
Surface and facia mounting							
6499 15	0.38	16	1 W µ	20	4	14	12
0497 55	0.38	16	1 W µ	20	4	14	12
6499 14	0.38	16	1 W µ	20	4	14	12
0497 57	0.38	16	1W µ	20	4	14	12
6499 39	0.38	10	1 W µ	20	4	8	7
6499 36	0.38	16	1 W µ	20	4	8	8

*) W = changeover contact
S = normal open
µ = distance between contacts 3 mm

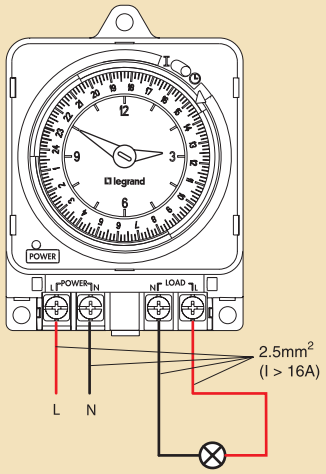
Hint : Loads given for 230 V~ / 50 Hz and contact life time ≥ 5 years

- Staircase time switches and timing relays ≥ 1,00,000 changeovers, corresponding at ca. 27 changeovers / day.
- Time switches ≥ 10,000 changeovers, corresponding at ca. 5 changeovers / day.

■ Wiring diagram

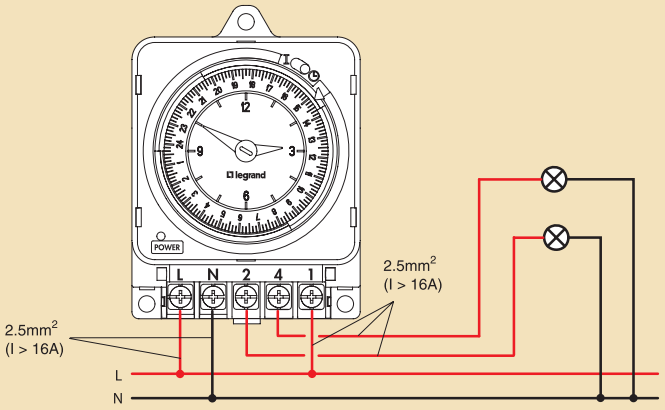
• MaxiRex

Cat. no. 6499 15, 6499 14, 6499 36



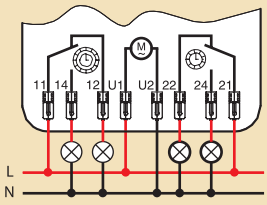
• MaxiRex

Cat. no. 6499 39



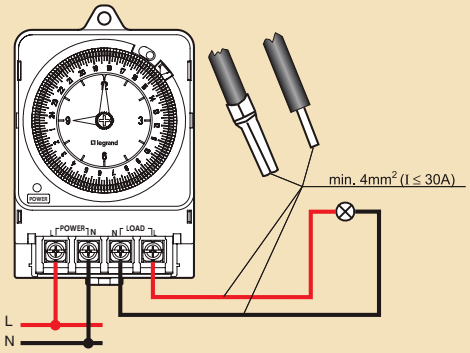
• MaxiRex

Cat. no. 0497 55 and 0497 57



Cat. no. 6499 64

Wiring diagram

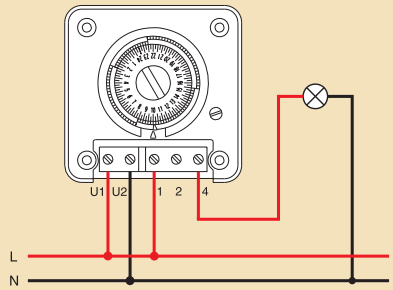


Dimensions in mm,
1 inch = 25.4mm

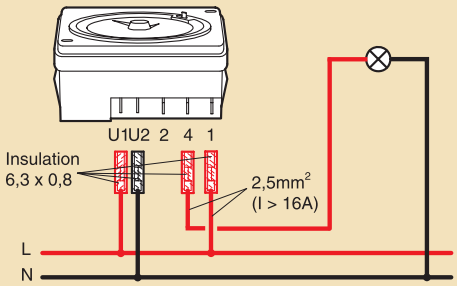
Rex time switches

■ Wiring diagram

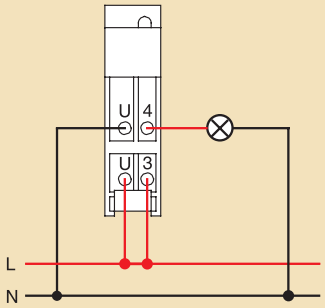
EconoRex BQTAP
Cat. no. 0499 85



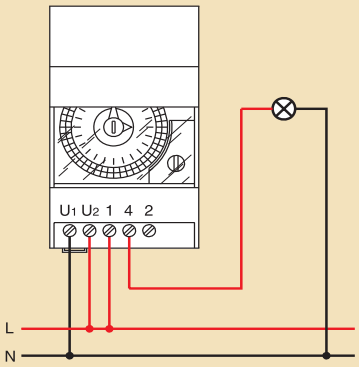
EconoRex MQT
Cat. no. 0499 86



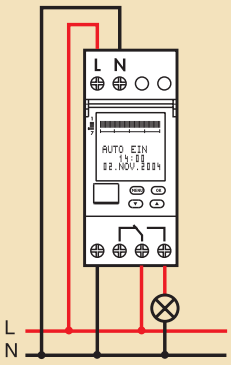
MicroRex QT11
Cat. no. 0037 40



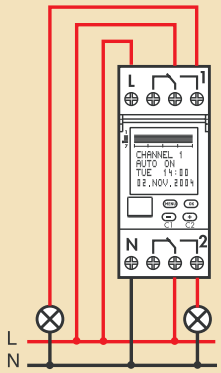
MicroRex QT31
Cat. no. 0037 53 and 0037 55



AlphaRex D21
Cat. no. 0047 61



AlphaRex D22
Cat. no. 0047 71

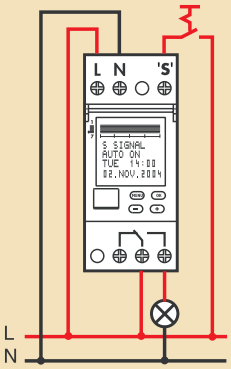


(MENU)
Menu selection, one step back, pressing >1s = back to main display

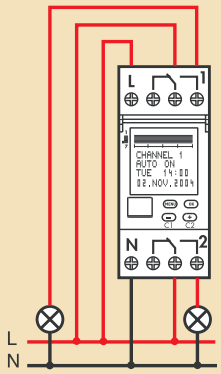
(OK)
Confirmation of selection and parameters

(−) (+)
Selection in the menu, adjusting parameter and selection of the channel (2 channel version only)

AstroRex D21
Cat. no. 0047 64



AstroRex D22
Cat. no. 0047 67



'S' = A control i/p signal is superimposed on all program commands (OR circuit), while the control signal is applied, the output is switched 'ON' when the control signal is switched 'OFF', the output is switched 'OFF' after a delay time. Unless an 'ON' command is applied by a program (0 min.... 23 hrs-5 min)

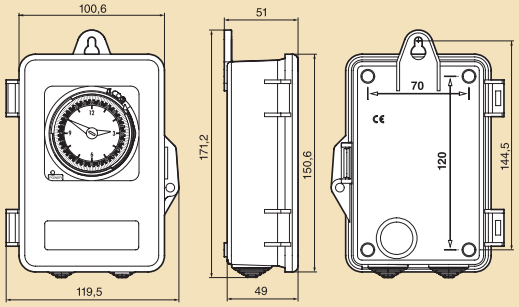
Dimensions in mm,
1 inch = 25.4mm

Rex time switches

■ Dimensions

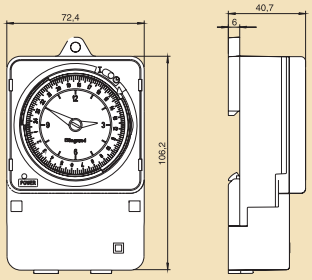
MaxiRex 4QTB and MaxiRex 4QWB

Cat. no. 6499 14 A and 6499 36 A



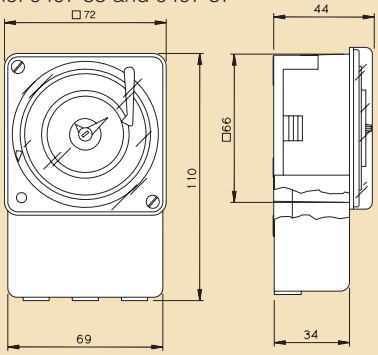
MaxiRex 4QT and MaxiRex 5QW

Cat. no. 6499 15 and 6499 39 with terminal cover



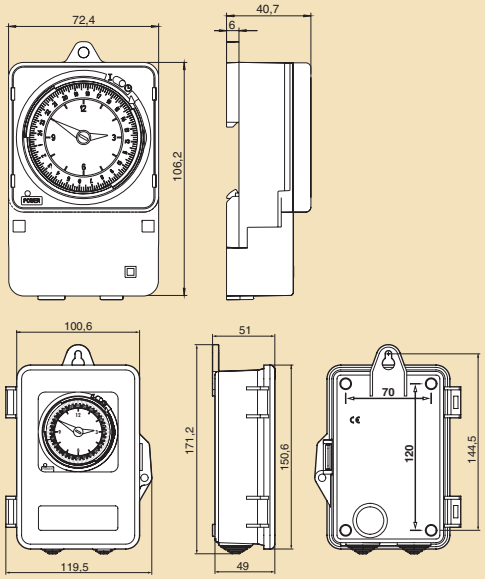
MaxiRex QTT and MaxiRex 4QWT

Cat. no. 0497 55 and 0497 57



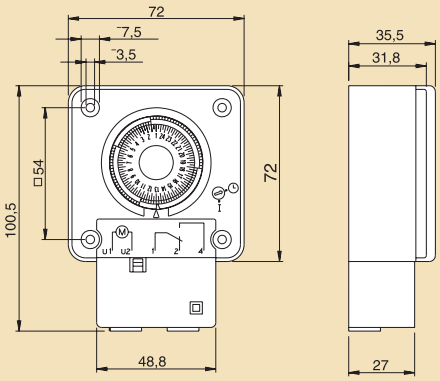
MaxiRex QT

Cat. no. 6499 64



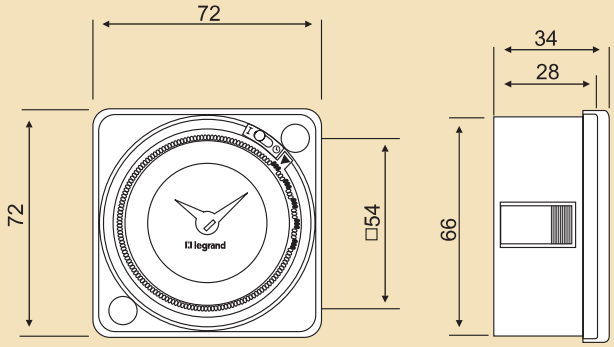
EconoRex BQTAP

Cat. no. 0499 85

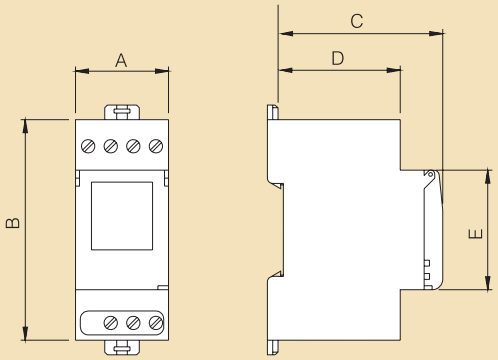


EconoRex

Cat. no. 0499 86



Rex modular time switches



Catalogue no.	Description	A	B	C	D	E
0037 40	MicroRex QT11	17.5	86	60	44	45
0037 53	MicroRex QT31	53	90	60	44	45
0037 55	MicroRex QW31	53	90	60	44	45
0047 61	AlphaRex D21	36	83	60	44	45
0047 71	AlphaRex D22	36	83	60	44	45
0047 64	AstroRex D21	36	83	60	44	45
0047 67	AstroRex D22	36	83	60	44	45

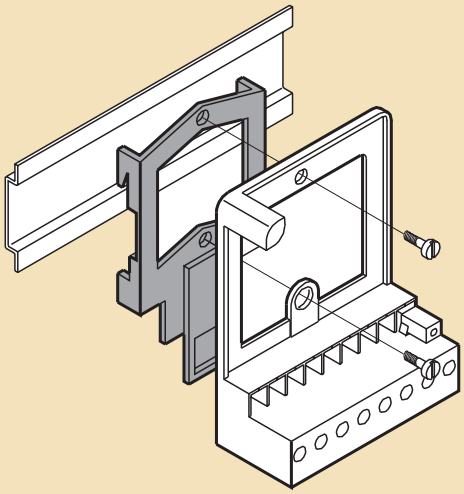
Dimensions in mm,
1 inch = 25.4mm

■ Technical data

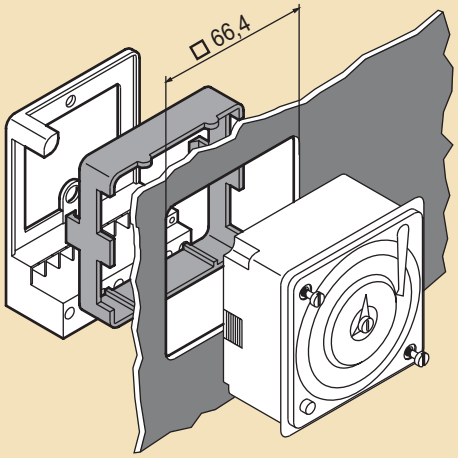
Installation

MaxiRex 0497 55 and 0497 57
DIN rail mounting

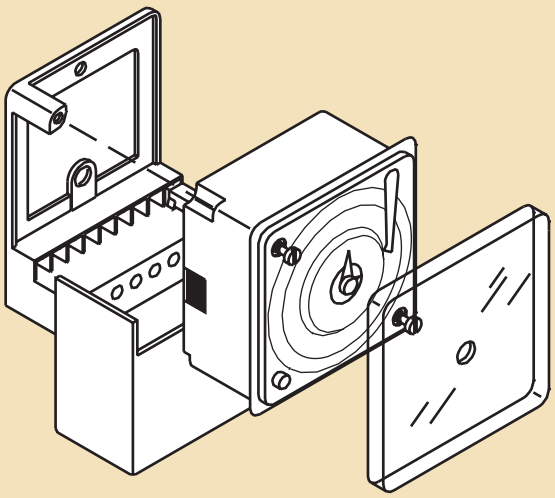
Clipped on to DIN rail
Adaptor to be ordered separately (cat. nos. 0044 09)



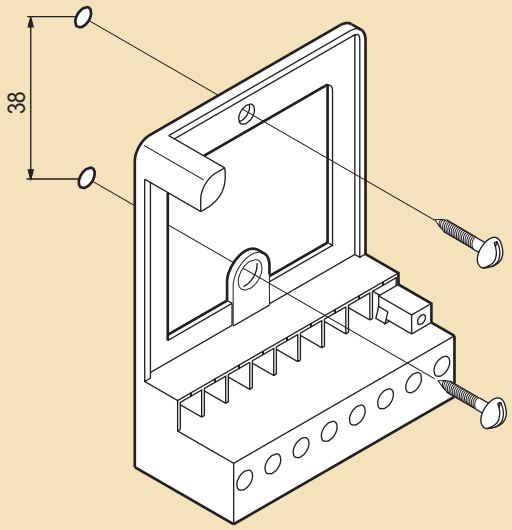
Door mounting with support 0498 32



Mounting

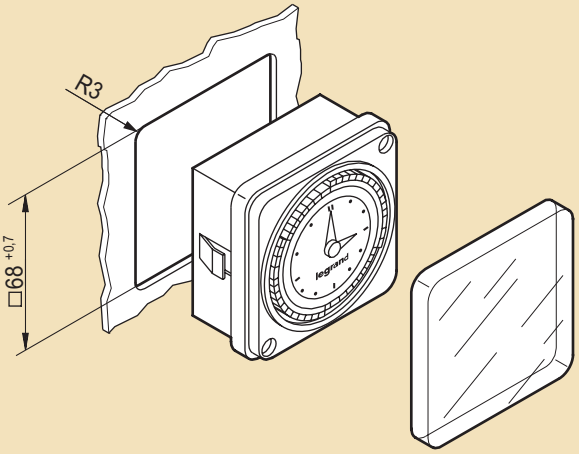


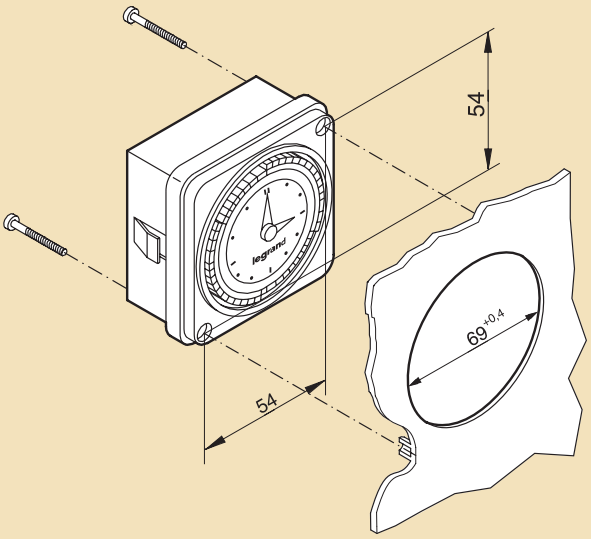
Wall mounting



EconoRex MQT
Front panel and wall installation

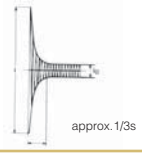
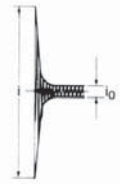
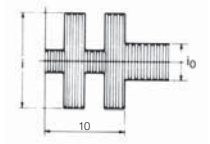
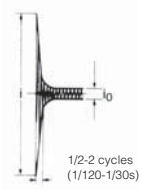
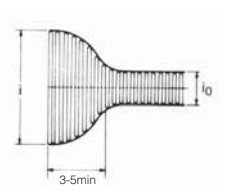
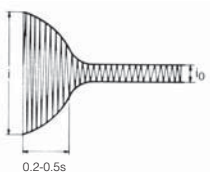
Fixing





Dimensions in mm,
1 inch = 25.4mm

Lexic time switches
for the use of time switches and staircase switches

Mode of loading :	Conduct :	Rule :
Load ohmic	Starting current is permanent current i = i0	Nominal current according to the label (IN)
Electronical ballast for : → 12 V halogen lamps → Fluo lamps (EVG,s)	i / io = 2	1...2 times starting current Current is limited electronically Without any problems. (until IN x 0.8)
→ Incandescent lamps → Halogen lamps (230 V, 50 Hz)	Starting current (i / i0 = 10...15) 	10...15 times starting current Great load of incandescent lamps or load of halogen lamps. (see tabloid) Use a contactor! (from IN x 0,4)
→ Compact fluorescent lamps with ballast → Fluorescent lamps (with electrical ballast)	Starting current (i / i0 = 16) 	16 times starting current critical Use a contactor! (from IN x 0,03)
Fluo lamps: → Inductive, duo, serial compensated	Course of current with fluo tubes (i / i0 = 3) 	3 times starting current (see tabloid) Without any problems (until IN x 0,7)
Gas discharge lamp in shunt compensation: → Fluo lamps → Mercury vapour lamps → Metal halogen vapour lamps → Sodium vapour lamps	  Course of current on capacitor - load. (i / i0 = 20...40)	20...40 times starting current The shunt compensation is very problematic for all switching contacts. Parallel capacitors : time - switches max. 4,7 µF staircase - switches max. 7,0 µF Use a contactor!
Transformer: → Halogen lamp transformer → Separation transformer	Conduct similar to shunt compensation	20...30 times starting current max. 1 / 10 of the nominal load is permissible. Use a contactor!
Motor load: (with starting capacitor) → Ventilator → Pump → Compressor	Course of current on motor load. (i / i0 = 10...50) 	10...50 times starting current Different drives, max. 1 / 10 of the nominal load is permissible. Use a contactor!

The type of load substantially affects its lifespan. In time switches and staircase lighting timers only the current at the start is critical.
Failure through a closed contact is not a problem because of the small number of operations. (inductive load cos φ = < 0.6)

Dimensions in mm,
1 inch = 25.4mm

Lexic
Rex-time lag switch

0047 02

Dimensions (p. 155)
Technical data (p. 136-137)

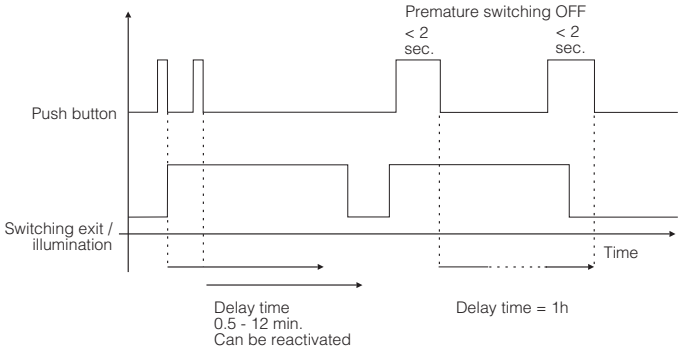
Switching contact: 1 make contact µ, 16 A

Pack	Cat. nos.	Time lag switch	Number of 17.5 mm modules
10/100	0047 02	**Rex800 multi** Time lag switch 0.5 sec - 12 min. 230 V~	1

Rex800 multi
Multi-fuctionlal staircase timer:
- standard staircase timer
- staircase timer with pre-warning fuction
- staircase timer with long time function (1h)
- staircase timer with early warning and long time fuction
- disconnectable time relais
- disconnectable time relais with early warn function
- electronic relais

lighting time switch 0,5-12 min.
for all driving voltages from 8-230 V/AC DC
3-/4-wire connection, 16A/230V~, 50/60 Hz,
2000 W lamp load resistance/Halogen bulbs 230 V,
1000 VA fluorescent lamps, serial compensation
120 VA fluorescent lamps, parallel compensation
Parallel compensation: C <= 100µF at the maximum
maximum length of trip lines: 100 m

Function diagram

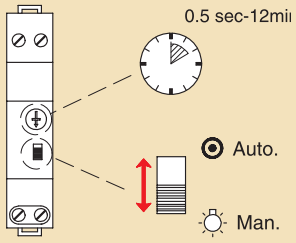


Programming
Short duration: When push button is pressed for less than 2 seconds, light will remain ON for pre-set period, eg. 2 minutes
Long duration: When push button is pressed for more than 2 seconds, light will remain ON for 1 hour, eg. during maintenance or housekeeping

Lexic
Rex-time lag switch

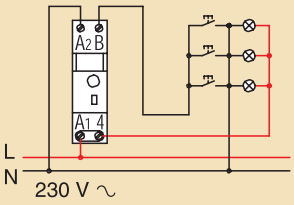
■ Technical data

Rex800

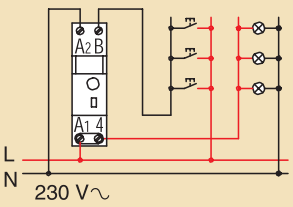


■ Wiring diagram

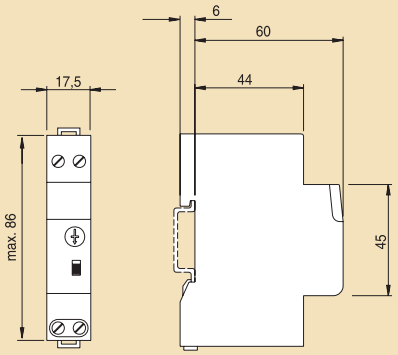
Rex800
3-wire connection



Rex801
4-wire connection



■ Dimensions

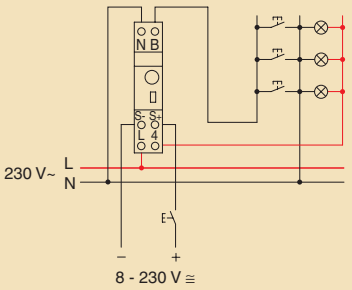


Dimensions in mm, 1 inch = 25.4mm

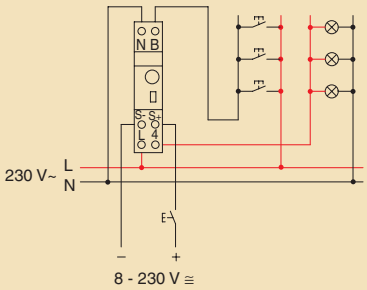
Rex - time lag switch
Rex800 multi

■ Wiring diagram
Rex - time lag switch
Cat. nos. 0047 02

3-wire connection



4-wire connection

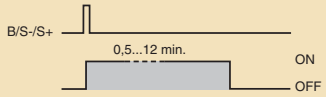


Attention: standard setting is fuction B

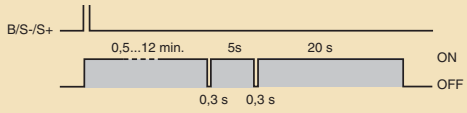
Functions E and F can not be used in houses with flats!

■ Selectable functions

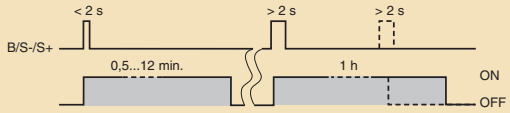
A



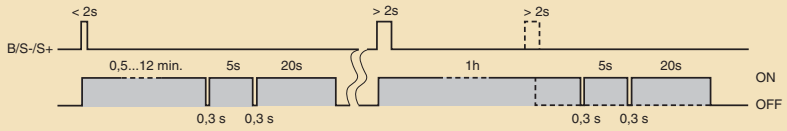
B



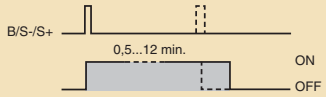
C



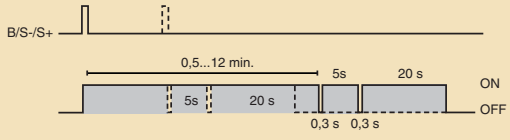
D



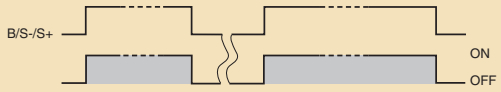
E

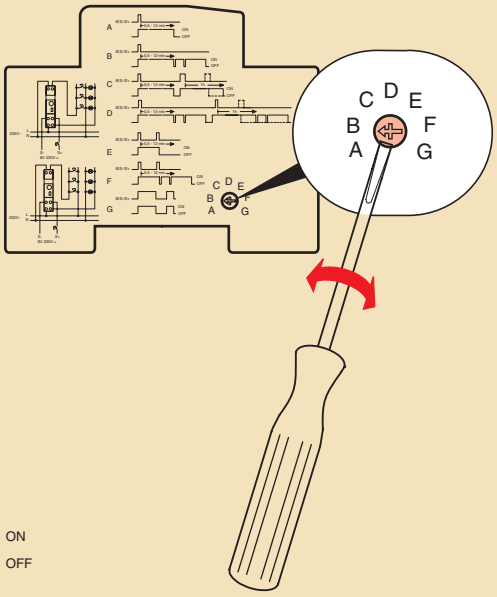


F



G





Dimensions in mm,
1 inch = 25.4mm

Lexic
multifunctional time delay relay

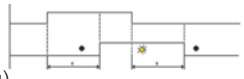
0047 44

Dimensions (p. 155)
Technical data (p. 138-140)

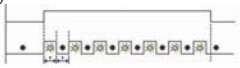
For controlling the switching ON and / or OFF of equipment (lighting, ventilation, control systems, signalling systems) for preset periods from 0.1 s to 100 hours
Supply voltage: 12 V - 230 V AC/DC ±10%
Output: 8 A - 250 V AC (cos φ = 1) per change over switch

Pack	Cat. nos.	Time delay relay	Number of 17.5 mm modules
1	**0047 44**	**Rex801** With 10 functions	1

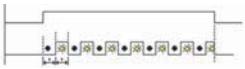
ON/OFF delay
Control input Y1
Contact



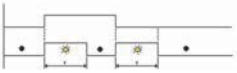
Flasher (impulse starting)
Control input Y1
Contact



Flasher (off-time starting)
Control input Y1
Contact



Passing contact
Control input Y1
Contact



Additive ON delay
Control input Y1
Contact

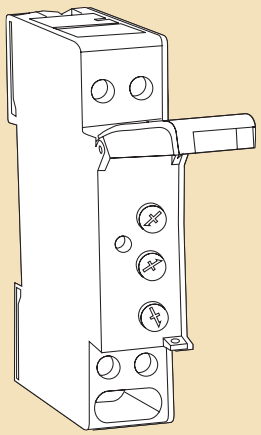
Additive fleeting ON
Control input Y1
Contact

For protection against transient voltage surges

Lexic VSP (p. 113-117)

Lexic
multifunctional time delay relay

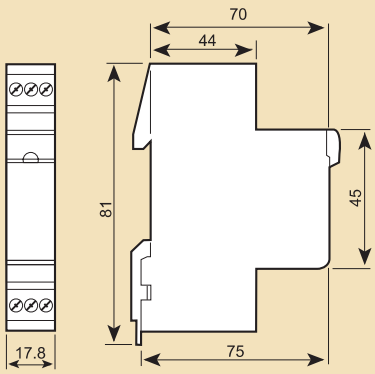
■ Technical data



Characteristics

Distribution voltage	between A1 – A2 : 12 V to 230 V AC / DC
Tolerance	-10 % to +10 %
Frequency	50 to 60 Hz
Control voltage	equal to distribution voltage
Time domain	0.1 seconds up to 100 hours
Power draw	230 V AC / DC = 1.4 W, 12 V AC / DC = 0.5 W
Repeating accuracy	± 0.2 %
Setting accuracy	± 5 % at 25°C
Control impulse	50 ms
Delay time	max. 100 ms
Bridging time in case of voltage cutoff	200 ms
Breaking capacity	8 A (4) 250 V
Bulbs	2 A 250 V
Electrical lifetime	10^5 hysteresis at 2000 W cos φ = 1
Mechanical lifetime	10^7 hysteresis
Length of trip line	max. 20 m
Ambient temperature	- 20°C… + 60°C
Storing temperature	- 30°C… + 70°C
Cross section for connection	single wire 1… 4 mm², multiwire 1.5… 2.5 mm²

■ Dimensions

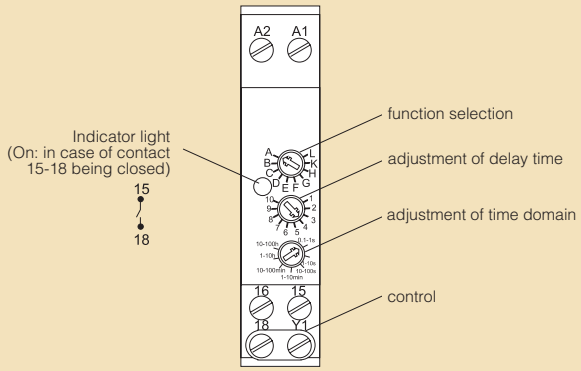


Dimensions in mm, 1 inch = 25.4mm

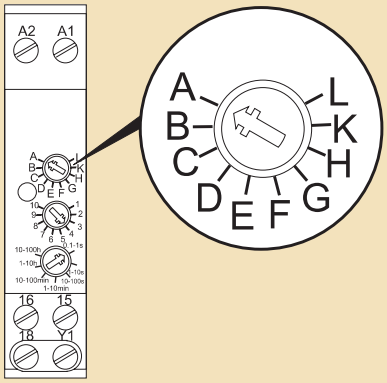
Lexic
multifunctional time delay relay

■ Technical data

Key parts

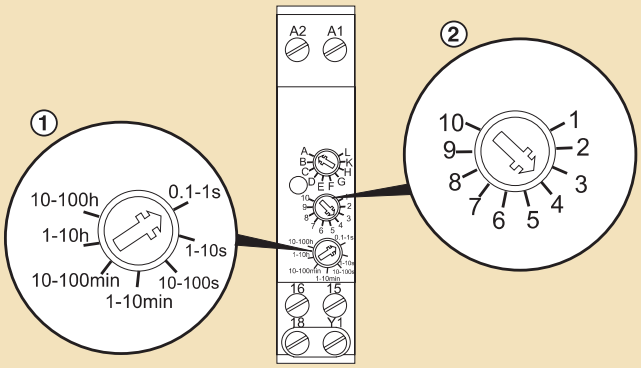


Function selection



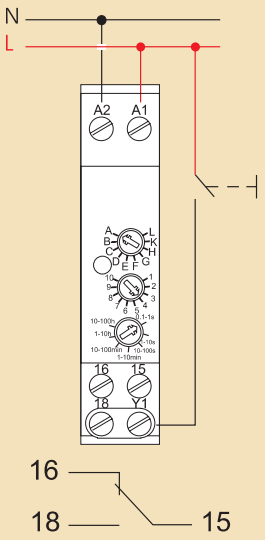
A – with delayed response time
B – with delayed response time, additive
C – with delayed release time
D – with delayed response and release time
E – time relay with flashing indicator, starting with impulse
F – time relay with flashing indicator, starting with break
G – pulse shaper
H – wiping contact relay
K – wipe contact flick contactor
L – wipe contact flick contactor, additive

Adjustment of delay time



1 – adjustment of delay tolerance
2 – precise adjustment of delay time
The position of the delay selector switch 1 multiplied by the potentiometer adjustment 2 = delay time T.
Example: 1 - 10 seconds x 4 = 4 seconds

Connection



In case the time switch is connected to the mains supply, the connection to protective low voltage is not allowed and vice versa, i.e. in case the time switch is connected to protective low voltage, the connection to the mains supply is not allowed.

Remote control dimmer

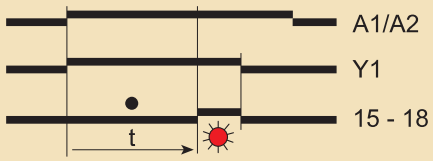
Lexic dimmer (p. 143)

Dimensions in mm,
1 inch = 25.4mm

Lexic
multifunctional time delay relay

■ Technical data

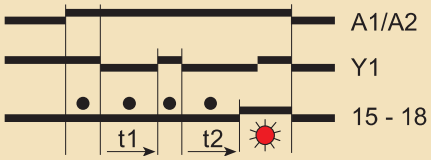
Function A



Time relay with delayed response time

When feeding the control voltage, a certain period of time begins to pass, and at the end of this time period the make contact changes from 15-16 to 15-18. After an interruption, the time period begins to pass again.

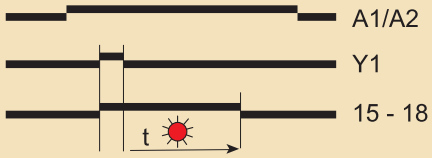
Function B



Time relay with delayed response time, additive

If the sum of control voltage interruptions is equal to the adjusted time, the make contact will close. The make contact remains closed until the distribution voltage is disconnected.

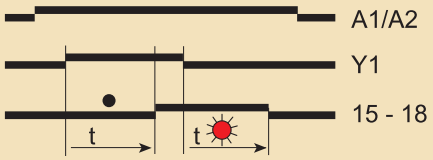
Function C



Time relay with delayed release time

When feeding the control voltage, the make contact changes from 15-16 to 15-18. By interrupting the control voltage, a certain period of time begins to pass, and at the end of this time period the make contact returns to the neutral position 15-16.

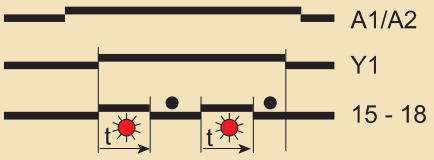
Function D



Time relay with delayed response and release time

When feeding the control voltage, a certain period of time begins to pass, and at the end of this time period the make contact changes from 15-16 to 15-18. If the control voltage is interrupted then, a further time lapse starts which is as long as the first one. At its end the make contact returns to neutral position 15-16. After an interruption of the delayed response time, the period of time begins to pass again.

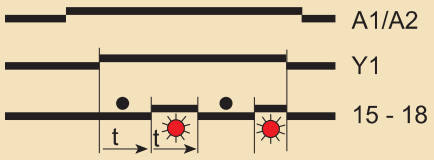
Function E



Time relay with flashing indicator, starting with impulse

As long as the control voltage is fed, the make contact changes between 15-16 and 15-18. When feeding the control voltage, the make contact immediately changes to 15-18.

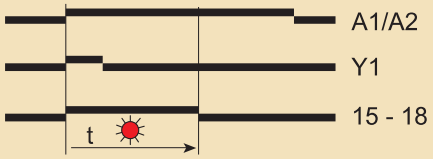
Function F



Time relay with flashing indicator, starting with break

As long as the control voltage is fed, the make contact changes between 15-16 and 15-18. When feeding the control voltage, the make contact remains at 15-16 for the time being.

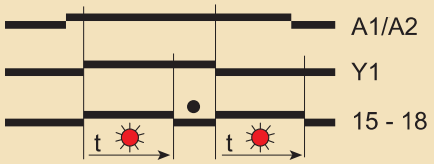
Function G



Pulse shaper

When feeding the control voltage, a certain period of time begins to pass, and at the end of this time period the make contact changes from 15-16 to 15-18.

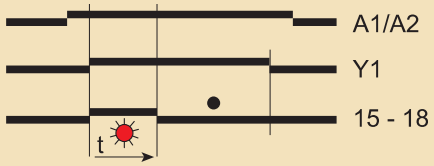
Function H



Wiping contact relay

When feeding the control voltage, a certain period of time begins to pass, and at the end of this time period the make contact changes from 15-16 to 15-18. In case of cutting off the control voltage during the wiping time, the make contact immediately returns to 15-16, and the remaining time is deleted.

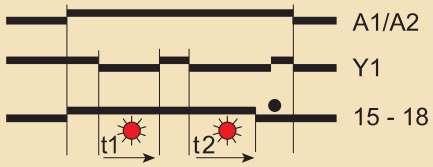
Function K



Wipe contact flick contactor

When feeding the control voltage, the make contact changes from 15-16 to 15-18 and returns after the wiping time has passed. In case of cutting off the control voltage during the wiping time, the make contact immediately returns to 15-16, and the remaining time is deleted.

Function L



Wipe contact flick contactor, additive

When the distribution voltage A1-A2 is connected and the control voltage is fed, the make contact changes from 15-16 to 15-18. If the sum of control voltage interruptions is equal to the adjusted time, the make contact will open and can only be closed after a voltage cutoff.

Safety instructions

- The product may only be installed and mounted by an expert
- The electrical safety can only be guaranteed on condition that the product and all accessories supplied are installed in the according product specific environment and that the EMC regulations are kept.
- In case of any intervention in the product, Legrand accept no liability.

Dimensions in mm,
1 inch = 25.4mm

Modular power management solutions

> Time switches

- Din channel mounting
- Analogue, digital and astronomical versions
- 24 hrs. and 7 days programmes

> Contactors

- Din channel mounting
- Current rating 20 A to 63 A
- 2 pole / 3 pole / 4 pole

Lexic
power contactors

0040 49

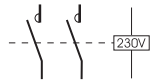
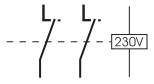
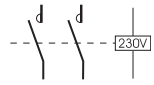
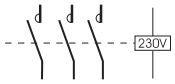
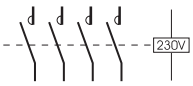
0040 69

0040 78

Dimensions (p. 155)
Technical data (p. 142)

Conform to IEC 61095
Label holder
Manual ON and OFF on front face (use screw driver)
ON and OFF indicator

Power contactors with 230 V~ coil

Pack	Cat. nos.	I max		Type of contact	Number of 17.5 mm modules
		Double pole - 250 V~			
		230 V~ coil			
1/42	**0040 49**	20 A		2 N/O	1
1/42	0040 50	20 A		2 N/C	1
1/42	**0040 68**	40 A		2 N/O	2
		Triple pole – 400 V~			
		230 V~ coil			
1/12	0040 69	40 A		3 N/O	3
		Four pole – 400 V~			
		230 V~ coil			
1/12	**0040 78**	63 A		4 N/O	3

Auxiliary devices for contactors

Auxiliary changeover switch
Fitted on left hand side of contactor
Used to signal the position status of the contacts on the product to which it is connected.

		I max	Voltage	Changeover switch	Number of 17.5 mm modules
1/42	0040 85	5 A	250 V~	N/C + N/O	0.5

Bold catalogue numbers are products normally available with Legrand (India) stockists.
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

■ Technical characteristics

Operating characteristics of contactor

Cat. no.	0040 49	0040 50	0040 68	0040 69	0040 78
Power circuit					
Rated operating current (Ie) - at AC 7a	20 A	20 A	40 A	40 A	63 A
- at AC 7b					
Nominal Voltage (Un)	250 V	250 V	250 V	400 V	400 V
Rated operating voltage (Ui)	250 V	250 V	250 V	400 V	400 V
Rated impulse withstand voltage (U imp)	4 kV	4 kV	4 kV	4 kV	4 kV
Rated operating voltage (Ue) - across the poles (between upstream & downstream of a contact)	250 V	250 V	250 V	400 V	400 V
- phase to phase (between 2 contacts)	400 V	400 V	400 V	400 V	400 V
Rated breaking and making capacity - At AC7a	1.5 x Ie	1.5 x Ie	1.5 x Ie	1.5 x Ie	1.5 x Ie
- At AC7b	8 x Ie	8 x Ie	8 x Ie	8 x Ie	8 x Ie
Dissipated power per contact	1.5 VA				
Contact Type	2 NO	2 NC	2 NO	3 NO	4 NO
Frequency	50 / 60 Hz				
Isolating distance	complies with standard NF EN 61095, i.e. > 3mm				
Degree of pollution (as per IEC 61095)	2				
Short circuit protection by Lexic MCB	20 A	20 A	40 A	40 A	63 A
Control circuit					
Rated voltage (Uc)	230 V				
Operating voltage	from 0.85 Uc to 1.1 Uc				
Control circuit/power circuit insulation voltage	4 kV				
Max. Speed	1200 actuations per hour				
Coil consumption - Inrush (VA)	12 VA	13 VA	14 VA	20 VA	21 VA
- Hold (VA)	3.2 VA	3.2 VA	3.2 VA	6.2 VA	6.2 VA
State change time	50 ms				
Endurance					
Number of off load actuations using handle	1000	1000	1000	1000	1000
Number of off load actuations using electrical control	2,000,00	2,000,000	2,000,000	2,000,000	2,000,000
Number of actuations at Ie in AC7a : 100 000	100,000	100,000	100,000	100,000	100,000
Others					
Terminal capacity - Rigid	1x4 mm² or 2 x 2.5 mm²		1 x 25 mm² or 2 x 16 mm²		
- Flexible	1x4 mm² or 2 x 2.5 mm²		1 x 25 mm² or 2 x 16 mm²		
Operating temperature	- 5°C to + 40°C				
Storage temperature	- 20°C to + 70°C				
Add on accessories - Auxiliary changeover switch	•	•	•	•	•

• Recommendations

Derating of contactors mounted in modular boxes if the internal temperature is > 40 °C

Contactor rating	40 °C	50 °C	60 °C	70 °C
Ie = 16 A	16 A	14 A	12 A	10 A
Ie = 20 A	20 A	18 A	16 A	14 A
Ie = 40 A	40 A	36 A	32 A	29 A
Ie = 63 A	63 A	57 A	50 A	46 A

Install a spacing unit every two contactors (Cat.No 0044 40 or 0044 41)

■ Contactors performance(1)

1 - Lighting

Maximum number of lamps per phase according to the circuit:

- 230 V∿ single phase: values in the table
- 400 V∿ 3-phase + neutral (connection between phase and neutral): values in the table per phase (multiply by 3)
- 230 V∿ 3-phase without neutral (connection between phase): values in the table divided by √3

- Incandescent lamps - Tungsten and 230 V halogen filament

Power unit	40 W	60 W	75 W	100 W	150 W	200 W	300 W	500 W	1 000 W
16 A	40	32	27	21	13	11	8	4	2
20 A	47	37	30	23	15	12	8	5	2
40 A	118	87	72	52	36	26	18	11	7
63 A	156	115	96	71	48	35	25	15	8

Halogen lamps with 12 V ferromagnetic transformer

Power unit	20 W	50 W	75 W	100 W	150 W
16 A	16	11	9	7	4
20 A	19	12	10	8	5
40 A	45	29	25	20	15
63 A	64	42	34	28	19

- Fluorescent tubes - Compact fluorescent without compensation

Power unit	7 W	10 W	18 W	26 W
16 A	52	47	42	27
20 A	56	51	43	28
40 A	105	94	68	53
63 A	128	113	88	79

Compact fluorescent with integrated power supply

Power unit	7 W	11 W	15 W	20 W	23 W
16 A	98	82	62	51	41
20 A	102	85	63	52	42
40 A	125	106	94	71	56
63 A	146	128	113	88	78

Simple and double

Power unit		15 W	18 W	20 W	36 W	40 W	58 W	65 W	115 W	140 W
Non compensated	16 A	24	24	24	22	22	15	15	8	8
	20 A	28	28	28	26	26	17	17	10	10
	40 A	75	75	75	65	65	40	40	22	22
	63 A	105	105	105	93	93	58	58	33	33
Parallel compensated	16 A	16	16	16	16	16	11	11	6	6
	20 A	18	18	18	18	18	13	13	6	6
	40 A	40	40	40	40	40	30	30	14	14
	63 A	60	60	60	60	60	43	43	20	20
Serial compensated(2)	16 A	-	32	32	18	18	11	11	7	7
	20 A	-	38	38	21	21	13	13	9	9
	40 A	-	85	85	45	45	29	29	18	18
	63 A	-	120	120	65	65	40	40	24	24

With electronic ballast

Power unit		18 W	36 W	58 W
Single	16 A	32	28	17
	20 A	35	30	18
	40 A	64	35	27
	63 A	79	46	31
Double(2)	16 A	16	14	8
	20 A	17	15	9
	40 A	32	18	14
	63 A	40	22	15

- Discharge lamps

Sodium vapour high pressure or metal iodide

Power unit		70 W	150 W	250 W	330 W	400 W	1000 W
Without compensation	16 A	9	5	3	3	2	-
	20 A	10	6	3	3	2	1
	40 A	22	15	9	8	6	2
	63 A	30	19	11	9	7	3
With compensation	16 A	6	6	3	2	2	1
	20 A	8	8	3	2	2	1
	40 A	20	20	8	8	7	3
	63 A	25	25	11	10	9	5

Mercury vapour high pressure

Power unit		50 W	80 W	125 W	250 W	400 W	700 W	1000 W
Without compensation	16 A	11	9	7	3	1	-	-
	20 A	12	10	8	3	2	1	-
	40 A	36	27	19	10	7	4	3
	63 A	52	39	27	14	10	6	4
With compensation	16 A	9	7	5	3	1	-	-
	20 A	10	8	6	3	2	1	-
	40 A	25	21	14	7	4	3	2
	63 A	30	25	16	9	5	3	2

2 - Motors - Maximum (kW)

	16 A	20 A	40 A	63 A
230 V single phase motor with capacitor	0.9	1.1	2.5	4
400 V 3-phase motor	2.7	3.3	7.5	12

3 - Heating -

Maximum power according to the number of operations per day (kW)

Operations per day	16 A	20 A	40 A	63 A
230 V single phase supply				
≤50	3.5	4.5	9	14
75	3	3.5	7.5	12
100	2.5	3	6	9.5
250	1.5	2	4	6
500	1	1	2.5	4.5
400 V 3-phase supply				
≤50	10	13	26	41
75	9	11	22	35
100	7	9	17	26
250	3	4	8	13
500	2	3	6	9

(1) For a service life of 10 years with 200 day's annual use
(2) Power unit (W), to multiply by 2 (e.g. 2 x 18 W)

Lexic
Remote control dimmer

NEW

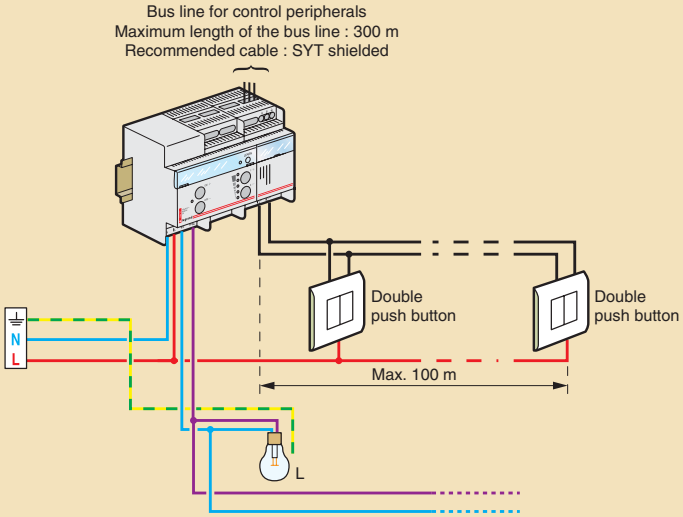
Lexic
Remote control dimmer

0036 71

Dimensions (p. 155)
Technical data (p. 144)

Pack	Cat. nos.	Dimmers	Number of 17.5 mm modules
1	0036 71	DIN rail mounting For incandescent and halogen lamps 230 V~, ELV halogen lamps with ferromagnetic or electronic transformers Can be controlled with simple non illuminated double push-buttons or BUS peripheral	6

■ Dimmer for incandescent and halogen lamps Cat. No. 0036 71



■ Compatible load

Cat.No			❶	❷	❸ Ø-26-/-Ø-36	❹	❺	❻
0036 71	**Max.**	**1-000 W**	yes	yes	no	yes	yes	no
	Min.	**40 W**						

❶ Incandescent lamps
❷ Halogen lamps 230 V
❸ Fluorescent lamps Ø 26 or 36 mm
❹ Halogen lamps with ferromagnetic transformer
❺ Halogen lamps with electronic transformer
❻ Fluocompact lamps with separated electronic ballast 1-10 V

Lexic
Remote control dimmer

■ Technical data

Remote dimmer 1000 W 0036 71

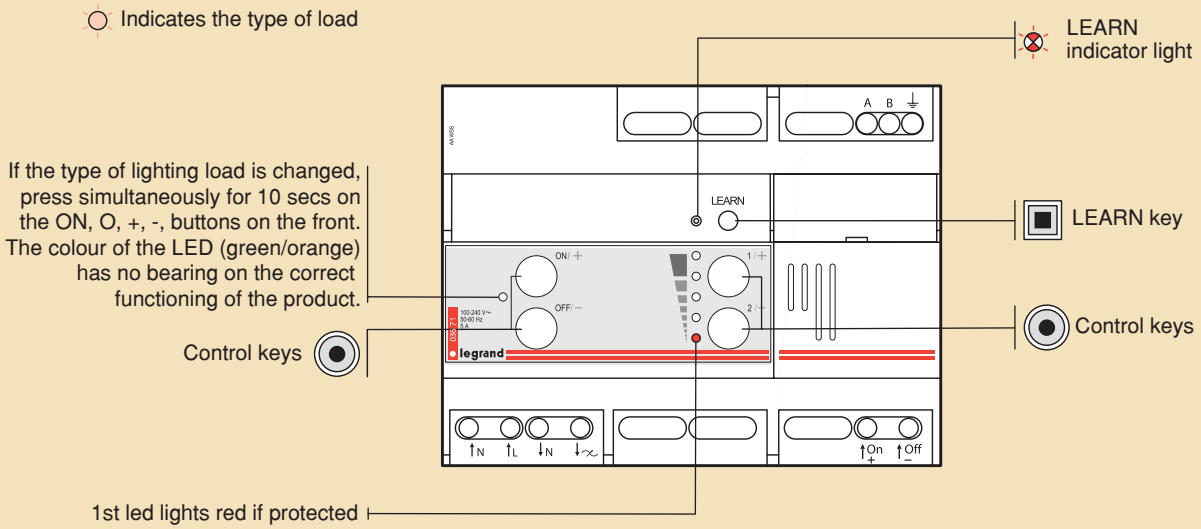
Voltage	100 - 240 V ~
Frequency	50 to 60 Hz
	2 x 1,5 mm² or 1 x 2,5 mm²
Capacity	6 modules
Conforms to	IEC 60669-2-1
	0°C to + 45°C

⚠ Do not mix loads of type ❸ and ❹

	❶	❷	❸	❹
110 V ~	**500 W**	**500 W**	500 VA	500 VA
230 V ±	1000 W	1000 W	1000 VA	1000 VA

❶ Incandescent lamp
❷ Halogen lamp
❸ ELV halogen lamp with ferromagnetic or electronic transformer
❹ ELV halogen lamp with electronic transformer

■ Description



Safety instructions

- This product should be installed preferably by a qualified electrician. Incorrect installation and use can entail risk of electric shock or fire.
- Before carrying out the installation, read the instructions and take account of the product's specific mounting location.
- Do not open up the device. All Legrand products must be opened and repaired only by personnel trained and approved by Legrand. Any unauthorised opening or repair completely cancels all liabilities and the rights to replacement and guarantees.
- Only use Legrand brand accessories.

Protection by electronic device

- In the event of an overload and with temperatures higher than the max. operating temp. the product automatically regulates the power by reducing the lighting.
- In the event of a short-circuit or a very high overload, the remote dimmer switches off. When the fault has been rectified, the product returns to normal functioning.

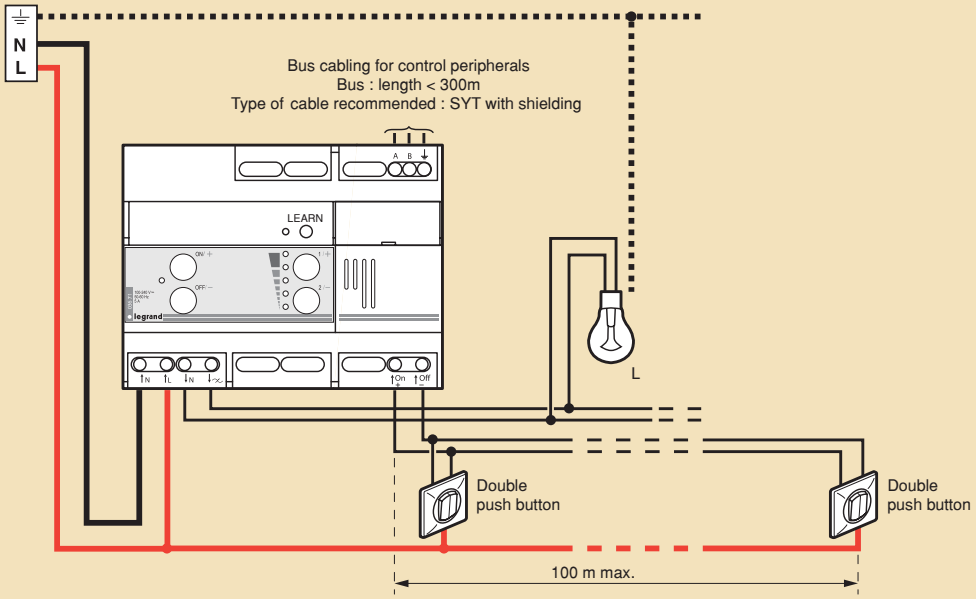
Factory set configuration

- When first powering up, pressing on the ON or OFF keys controls all the remote dimmers cabled into the bus.
- This facility is provided in order to check the correct functioning of all the lights.
- A double press on the LEARN (1) key cancels this general control function.

(1)Programming or learning key.

Lexic
Remote control dimmer

■ Cabling

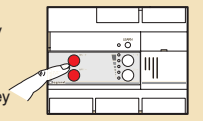


Important

- Ferromagnetic transformers must be charged to over 60% of their nominal power.
- Take into account the efficiency of the ferromagnetic transformers when calculating the acceptable power (example : transformer for a 50W lamp with an efficiency return of 0.78 => actual power consumed by the transformer = 64 VA).

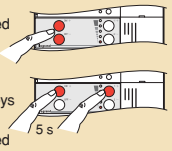
■ Local functioning

Action	L (Ballast 0-10V)
Short press on the ON/+key	⇒
Short press on the OFF/+key	⇒
Long press on the ON/+key	⇒ ↑
Long press on the OFF/+key	⇒ ↓
Short press on the 1/+key	⇒ –66%
Short press on the 2/+key	⇒ –33%
Long press on the 1/+key	⇒ ↑
Long press on the 2/+key	⇒ ↓



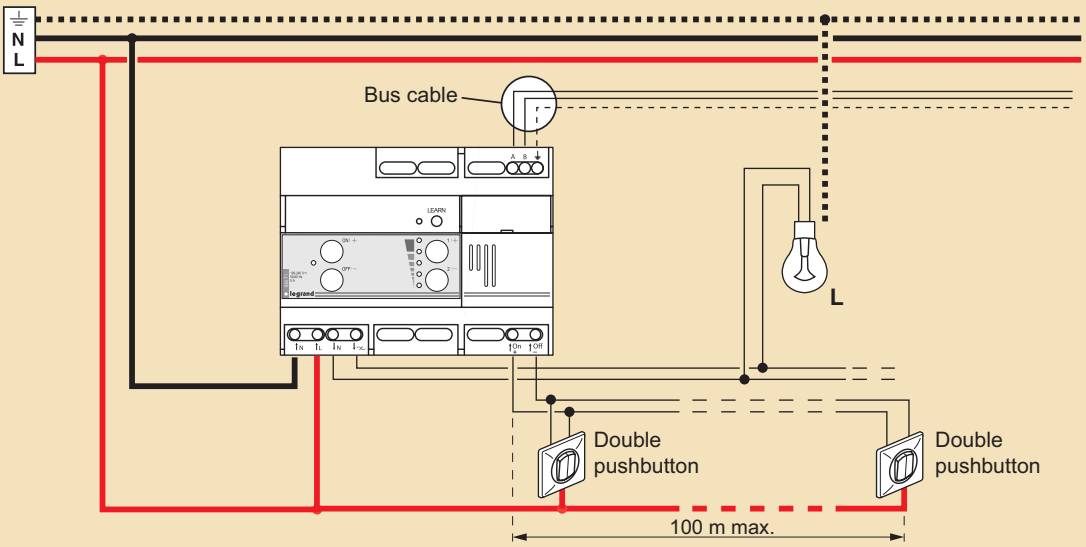
■ Customising the light level of keys 1 and 2x

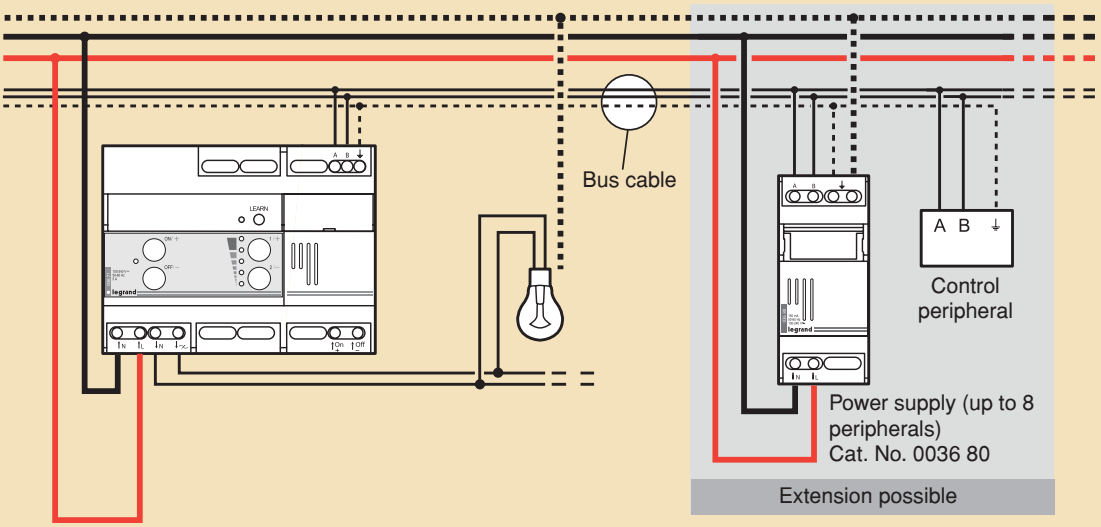
Action	L
Fromkey 1/+ : Adjustment of the light level required - By a long press on the ON/+ key - By a long press on the OFF/- key	⇒ Required level
Saving: - By pressing simultaneously on keys 1/+ and ON/+ The level of key 1/+ is then recorded	⇒ ⇒ After switch-off the load will relight at the required level Required level
Fromkey 2/+ : Adjustment of the required light level - By a long press on the ON/+ key - By a long press on the OFF/- key	⇒ Required level
Saving: - By pressing simultaneously on keys 2/+ and OFF/- The level of key 2/- is then saved	⇒ ⇒ After switch-off the load will relight at the required level Required level



Lexic
Remote control dimmer

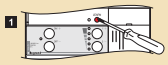
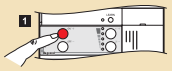
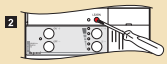
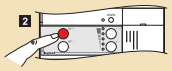
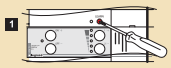
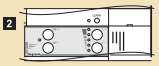
■ Cabling (transmitter / receiver functioning)





Lexic
Remote control dimmer

■ Transmitter / receiver learning

Action	Indicator light status	L
Remote dimmer 1 transmitter		
Press the LEARN key		
Press the ON/+ key		
Remote dimmer 2 receiver (*)		
Press the LEARN key		
Press the ON/+ key		
Press on the LEARN key		
Remote dimmer 2 receiver		

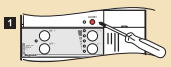
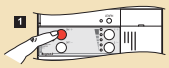
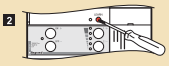
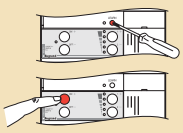
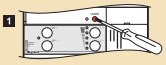
It is not necessary to programme the OFF key of the remote dimmer (transmitter), as it learns automatically.

Note : It is possible to link several remote dimmers 0036 71 and/or 0036 60 to the remote dimmer transmitter by repeating this process for each product.

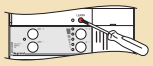
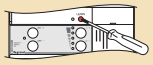
Technical specifications for the remote dimmer when receiving (actor)

The remote dimmer can receive 32 commands from different transmitters (remote dimmers or control peripherals) by carrying out locally the commands coming from the other transmitters : ON, OFF, dimming or lighting at preset levels. The remote dimmer receivers Âl linked by being programmed to the remote dimmer transmitter Âl in lighting, switching off and dimming act in just the same way as the remote dimmer transmitters.

■ Adding or removing a remote dimmer

Action	Indicator light status
Remote dimmer 1 transmitter Press the LEARN key	
Press the ON command key The indicator lights on all trhe linked remote dimmers flash	
Remote dimmer 2 receiver : Removal Press the LEARN key	
Remote dimmer receiver : Adding Press the LEARN key and Press the ON command key	
Remote dimmer 1 transmitter : recording Press the LEARN key The indicator lights on all the products go out	

■ Resetting to factory configuration

Action	Indicator light status
Remote dimmer transmitter	
Press the LEARN key	
Press the LEARN key and keep it pressed for 10 seconds	

Legend
- The indicator light goes out
- The indicator light blinks slowly
- The indicator light blinks rapidly
- The indicator light flashes

Black and White Door Entry Kits

Your home appreciates peace of mind with safety and security.

Legrand video door entry kit

Legrand hands-free video door entry kit

- Available in conventional handset and a hands-free model
- Offers simplicity in identifying your visitors immediately
- Provides comfort of having a dialogue while moving freely
- Comes with ready-to-install kit with mounting guide for your convenience

(refer pg. 331)

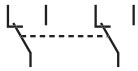
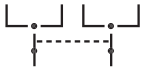
Lexic
change over switches

0043 82

Dimensions (p. 155)

250 V~ - 50/60 Hz
Conform to IEC 60669-1
Power dissipation : 1.5 kW per pole
AC 22 as per IEC 60947-3
Terminal capacity - Rigid : 4 mm²
Flexible : 4 mm²
Degree of protection : IP20

Changeover switches

Pack	Cat. nos.	Nominal rating (A)		Number of 17.5 modules
		Two-way - 250 V~		
10/100	0043 82	20		1
		Double two-way - 400 V~		
5/50	**0043 83**	20		2
		Double two-way with centre off - 400 V~		
5/50	0043 86	20		2

Lexic
push-buttons and control switches


0044 53


0044 54

Dimensions (p. 155)

Supplied in push-button position
Can be converted to control switches
Accept insertion of supply busbars
Conform to standard IEC 60669-1
AC 12 according to IEC 60947-5-1
Nominal rating : 20 A
Rated voltage : 250 V
Power dissipation : 2 kW per pole
Nominal frequency : 50/60 Hz
Terminal capacity - Rigid : 4 mm²
Flexible : 4mm²
Degree of protection : IP20

Pack	Cat. nos.	Single functions 20 A - 250 V~		Number of 17.5mm modules
10/100	0044 53	1 N/O		1
10/60	0044 54	1 N/C		1
10/60	0044 55	2 N/O		1

Pack	Cat. nos.	Dual functions		Number of 17.5mm modules
10/100	0044 63	1 N/O + green indicator[1]		1
10/60	0044 64	1 N/C + red indicator[1]		1

Pack	Cat. nos.	Accessories Coloured control buttons
10/500	0044 73	Green
10/500	0044 74	Red

Lexic
indicators


0044 84


0044 85


0044 86

Dimensions (p. 155)

Supplied with diffuser and lamp E-10 - 230 V~
Replaceable diffuser and lamp
Allow supply busbar to be inserted

Pack	Cat. nos.	Single indicators 250 V~		Number of 17.5 mm modules
10/100	0044 83	Green		1
10/100	0044 84	Red		1
10/100	0044 85	Orange		1
10/100	0044 86	Blue		1

Pack	Cat. nos.	Colour diffusers
10/500	0044 93	Green
10/500	0044 94	Red
10/500	0044 95	Orange
10/500	0044 96	Blue

Pack	Cat. nos.	Replacement lamps E-10 - 1.2 W
10/200	0044 36	230 V neon

[1] supplied with E10 lamps 230 VA

Bold catalogue numbers are products normally available with Legrand (India) stockists.
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

For measuring electrical energy

Lexic
ammeter and voltmeter


0046 02


0046 00


0046 63

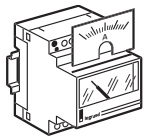
Dimensions (p. 155)
Technical data (p. 151-154)

> Analogue ammeter
- Analogue and digital versions
- Direct or with CTs
- Current measurements range 0-30 A to 0-1200 A

> Digital ammeter / voltmeter
- Measures current or voltage
- Current measurement range 0-1200 A
- Voltage measurement range 0-500 A

> Selector switch
- Ammeter selector switch - 4 position
- Voltmeter selector switch - 4/7 position

Pack	Cat. nos.	Ammeters	Number of 17.5 mm modules
		Analogue ammeter Measures the intensity of the current circulating in an electrical circuit in Amperes (A)	
		Direct connection	
1/12	0046 02	To alternating or direct current Range : 0-30 A	4
		Connected using a 5 A current transformer (CT)	
1/12	0046 00	The meter is fitted with an appropriate dial for the intensity of the current being measured	4
		Measuring dials for ammeter cat. no 0046 00	
2/84	0046 10	0-50 A	
2/84	0046 13	0-100 A	
2/84	0046 15	0-200 A	
2/84	0046 17	0-300 A	
2/84	0046 18	0-400 A	
2/84	0046 20	0-600 A	
2/84	0046 21	0-800 A	
2/84	0046 22	0-1-000 A	
2/84	0046 23	0-1-200 A	



		Voltmeters	Number of 17.5 mm modules
		Analogue voltmeter Used to measure the AC or DC voltage (V) in an electrical circuit	
1/12	0046 60	Range 0-500 V	4
		Digital ammeter / voltmeter	
1	0046 63	Display A, kA, V Measures the current or the voltage of the circuit depending on the connection made - Ammeter mode: connected via a 0 - 5 A current transformer (CT) Reading range adjusted according to CT used (100, 400, 600 or 1-000 A) Voltage: 230 V± - 50/60 Hz Scale: 0 - 4-000 A - Voltmeter mode: measures the AC or DC voltage of an electrical circuit; scale 0 - 500 V	4

Lexic
selector switch and current transformer

0046 52

0047 79

Pack	Cat. nos.	Selector switches
		For manual switching of circuits being measured
1/20	0046 50	**4-position ammeter selector switch** For measuring currents in a 3-phase circuit using only one ammeter with a current transformer (3 modules)
1/20	0046 52	**4-position voltmeter selector switch** For measuring phase-to-phase voltages of a 3-phase circuit without neutral using only one voltmeter (3 modules)
1/20	0046 53	**7-position voltmeter selector switch** For measuring phase-to-phase voltages and phase-neutral voltages of a 3-phase circuit with neutral (3 modules)

Current transformers (CT)

Used with ammeters or electricity meters
Supply a current of 0 to 5 A to the secondary which is proportional to the primary current
Fix to plate or rail EN 50022

Pack	Cat. nos.	Transformation ratio	Precision in %	Power in VA
1/12	0046 31	50/5	3	1.25
1/12	0046 34	100/5	1	2.5
1/12	0046 36	200/5	1	5.5
1/12	0047 75	300/5	1	11
1/12	0046 38	400/5	1	12
1/12	0047 76	600/5	1	12
1/12	0047 77	800/5	1	15
1/12	0047 78	1000/5	1	20
1/12	0047 79	1250/5	1	15

Lexic
ammeter, voltmeter and current transformer

■ Technical data

Ammeter

Type of measurement	Analogue Ferromagnetic		Digital Electronic via shunt
Frequency	50 to 60 Hz		50 to 60 Hz
Precision	± 1.5 %		± 1% to + 1 digit
Operating temperature	– 10°C to + 40°C		– 10°C to + 40°C
Storage temperature	– 20°C to + 80°C		– 20°C to + 70°C
Consumption :			
• voltage circuit	-		4.5 VA
• measurement circuit	1.1 VA		1 VA
Connection	Direct	Via CT	-
Size	6 mm²	4 mm²	2 x 2.5 mm²
Conformity to standards	EN 61010-1		EN 61010-1

Current transformers (CT)

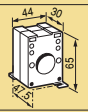
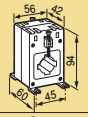
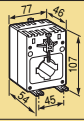
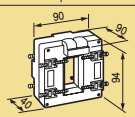
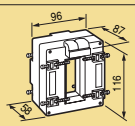
Index of protection	IP 20
Operating frequency	50/60 Hz
Connection size : cage terminals	2 x 2.5 mm²
clips	6.3 x 0.8
Operating temperature	- 10°C to + 60°C
Storage temperature	- 20°C to + 70°C
Conformity to standards	IEC 60044-1

Voltmeter

Type of measurement	Analogue Ferromagnetic	Digital Electronic integration
Frequency	50 to 60 Hz	50 to 60 Hz
Precision	± 1.5 %	± 1% to ± 1 digit
Operating temperature	– 10°C to + 40°C	– 10°C to + 40°C
Storage temperature	– 20°C to + 80°C	– 20°C to + 70°C
Consumption	3 VA	4.5 VA
Connection size	2 x 2.5 mm²	2 x 2.5 mm²
Conformity to standards	EN 61010-1	EN 61010-1

■ Current transformers (CT)

Dimensions

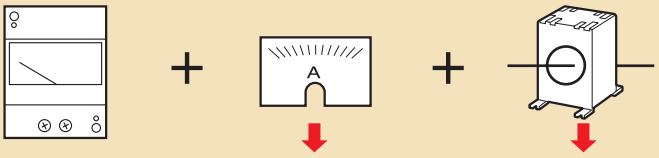
		Opening for cable max. Ø (mm)	Opening for bar w. x th. (mm)	Fixing centres on plate (mm)
CT single-phase				
CT 50/5 100/5 200/5		Ø 21	16 x 12.5	on rail EN 50 022
CT 300/5		Ø 23	20.5 x 12.5 25.5 x 11.5 30.5 x 10.5	50 x 45
CT 400/5		Ø 35	40.5 x 10.5	54 x 45
CT 600/5 800/5 1-000/5		-	32 x 65	on bar
CT 1-250/5		-	34 x 84	on bar

Lexic
ammeter

■ Technical data

Installation

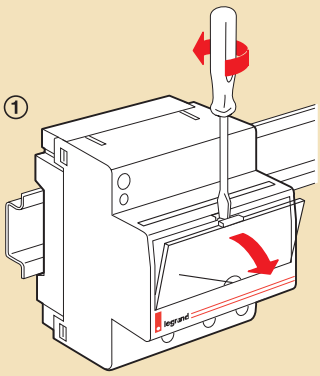
Analogue ammeter
0046 00

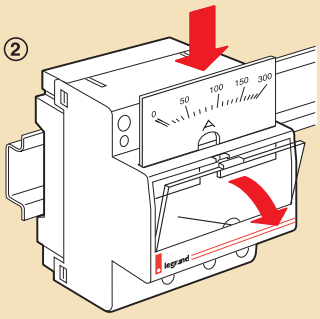


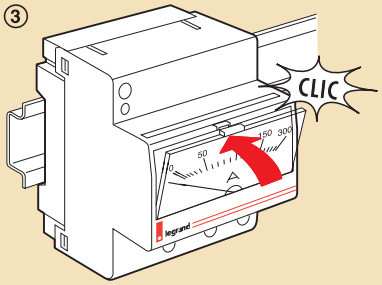
IMAX : 5 A

0046 10	0-50 A
0046 13	0-100 A
0046 15	0-200 A
0046 17	0-300 A
0046 18	0-400 A
0046 20	0-600 A
0046 21	0-800 A
0046 22	0-1000 A
0046 23	0-1200 A

0046 30	50/5 A
0046 23	100/5 A
0046 35	200/5 A
0046 37	300/5 A
0046 38	400/5 A
0046 40	600/5 A
0046 41	800/5 A
0046 42	1000/5 A
0046 43	1200/5 A



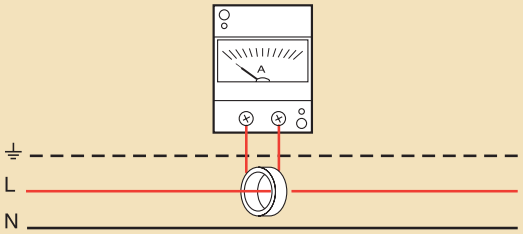




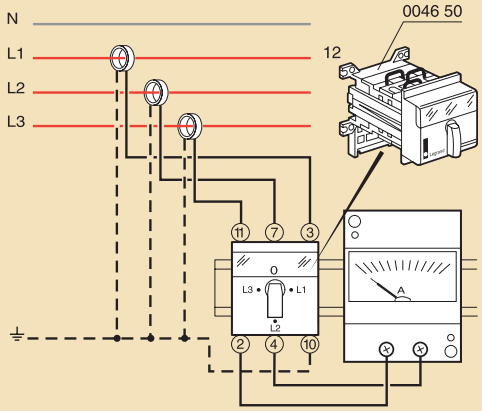
Connection

Analogue ammeter
0046 00

Single phase



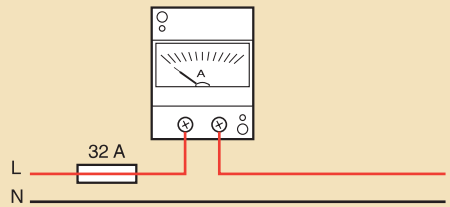
Three phase



0-30 A Analogue ammeter
0046 02

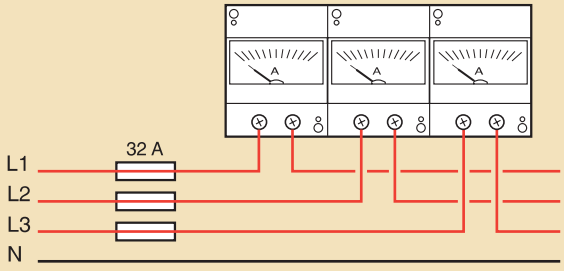
Single phase

IMAX : 30 A



Three phase

IMAX : 30 A

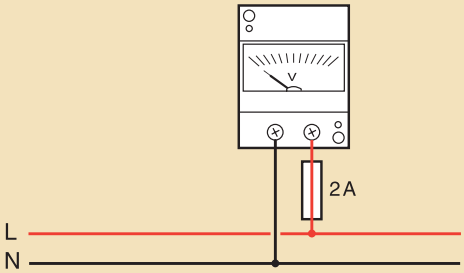


Dimensions in mm,
1 inch = 25.4mm

■ Technical data

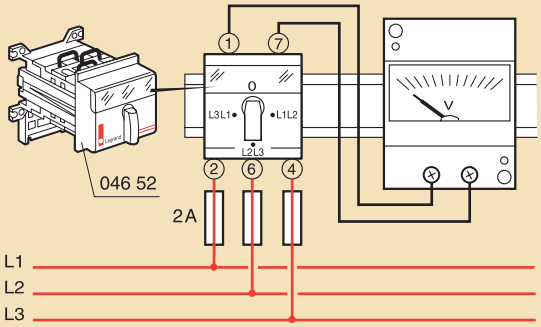
Connection

Analogue voltmeter
0046 60
Single phase



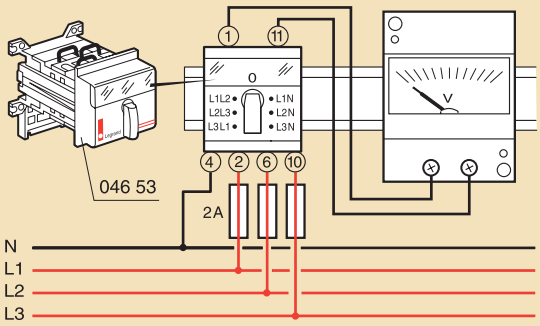
Three - phase

With 4 position switch cat. no. 0046 52 : Measurement between phases in three phase circuit.



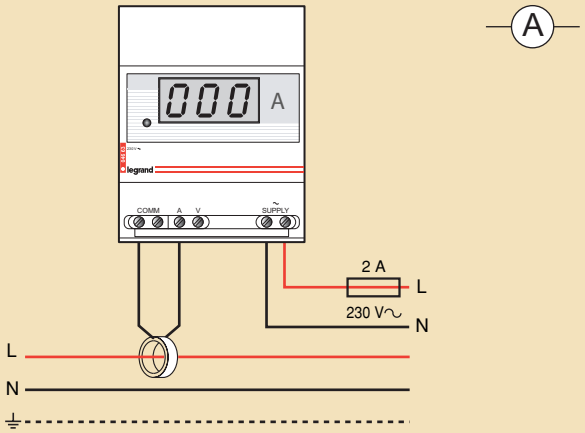
Three-phase

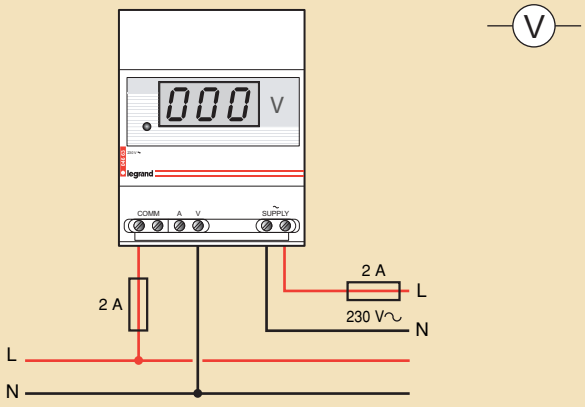
With 7 position switch cat. no. 0046 53 : Measurement between phases and between phase and neutral in a three-phase + neutral circuit.



Connection

Digital ammeter / voltmeter
0046 63
Single phase





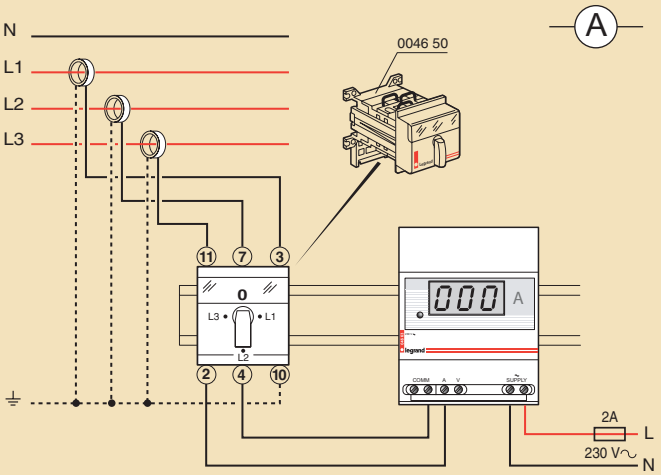
Dimensions in mm,
1 inch = 25.4mm

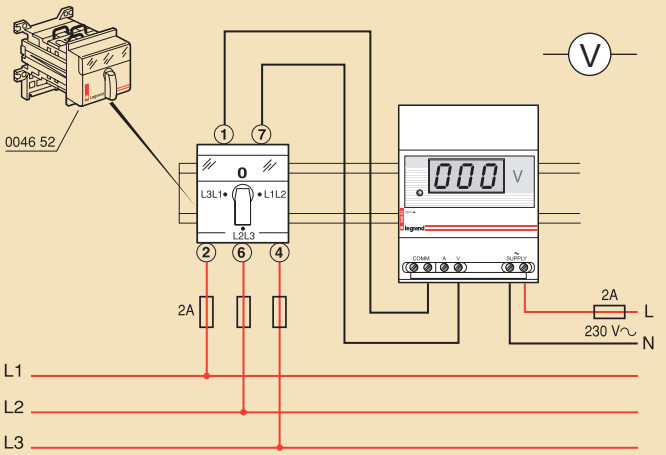
Lexic
ammeter and voltmeter

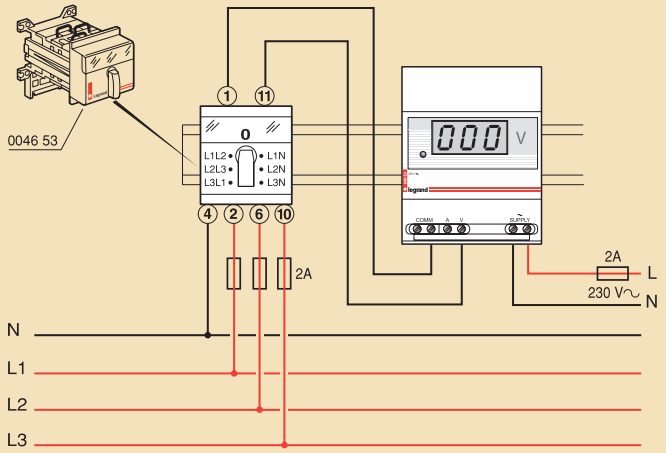
■ Technical data

Connection

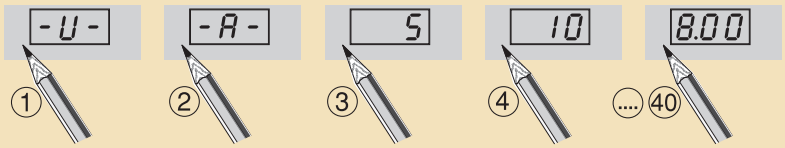
Digital ammeter / voltmeter
0046 63
Three phase







- **Display**

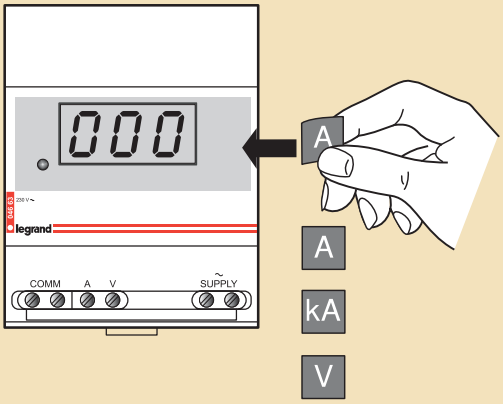


-U- = 500V **-A** **5** = 5A **10** = 10A **8.00** = 8kA

A	5.00	10.0	15.0	20.0	25.0	30.0	40.0	50.0	60.0	70.0	75.0	80.0	100
	120	150	160	200	250	300	400	500	600	700	750	800	
kA	1.00	1.20	1.50	1.60	2.00	2.50	3.00	4.00	5.00	6.00	7.00	7.50	8.00
V	500												

Select the desired measure (V or A) by pressing repeatedly on the button.If“A”is selected,press repeatedly on the button to choose the desired rating (see table below).When the selection display is cleared,your selection has been saved.

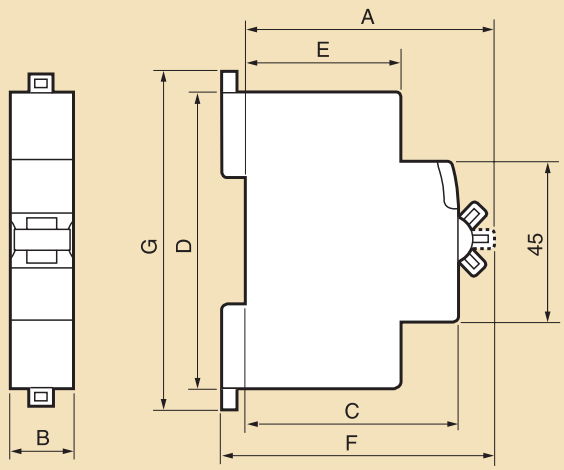
- **Marking**



Dimensions in mm,
1 inch = 25.4mm

Lexic
modular din-rail products

■ Dimensions

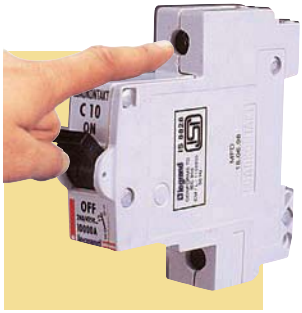


Products	A	B						C	D	E	F	G
		SP	SPN	DP	TP	TPN	FP					
Lexic MCBs (0.5 to 63A)	70	17.7	35.6	35.6	53.4	71.2	71.2	60	83	44	76	94
Lexic MCBs (80 - 125A)	70	26.7	-	53.4	80.1	-	106.8	60	83	44	76	89
Lexic Isolators	70	-	-	35.6	53.4	-	71.2	60	83	44	76	94
Lexic RCCB - type AC (DP)	70	-	-	35.6	-	-	-	60	83	44	76	94
Lexic RCCB - type AC (FP)	71.5	-	-	-	-	-	71.2	60	83	44	77.5	94
Lexic RCCB - type A - S (DP)	70	-	-	35.6	-	-	-	60	83	44	76	94
Lexic RCCB - type A - S (FP)	71.5	-	-	-	-	-	71.2	60	83	44	77.5	94
Lexic RCCB - type Hpi (DP)	70	-	-	35.6	-	-	-	60	83	44	76	94
Lexic RCCB - type Hpi (FP)	71.5	-	-	-	-	-	71.2	60	83	44	77.5	94
Lexic RCBO - type AC	70	-	-	71.2	-	-	142.4	60	83	44	76	94
Lexic RCBO - type AC (DP 2 mod.)	70	-	-	35.6	-	-	-	60	83	44	76	94
Lexic RCBO - type Hpi (DP 2 mod.)	70	-	-	35.6	-	-	-	60	83	44	76	94
Auxiliary contacts cat. no. 0073 50/51/52/53	70	8.7						60	83	44	76	83
Auxiliary contacts cat. no. 0073 54	70	17.7						60	83	44	76	83
Shunt trip cat. no. 0073 60/61	70	17.7						60	83	44	76	83
Minimum voltage trip cat. no. 0037 54	70	17.7						60	83	44	76	83
Remote control for MCB / RCBO	74	54						74	83	44	80.5	89
Lexic MPCB	82.5	44.5						72.2	89	44	87.3	91
Lexic VSP	60	17.7	-	35.6	53.4	-	71.2	-	86	44	70	-
Lexic changeover switch cat. no. 0043 82	68	17.7						60	83	44	74	94
Lexic changeover switch cat. no. 0043 83/86	68	35.6						60	83	44	74	94
Lexic push button cum switch	68	17.7						60	83	44	74	94
Lexic indicators	68	17.7						60	83	44	74	-
Lexic dimmer	66	72						60	88	44	72	90
Lexic contactors 20 A	62	17.8						60	83	44	67.5	-
Lexic contactors 40 A (2 mod.)	60	35.6						61	80	44	67	-
Lexic contactors 40 A / 63 A (3 mod.)	60	54						61	80	44	67	-
Lexic ammeter	60	70						60	83	44	66	-
Lexic voltmeter	60	70						60	83	44	66	-
Lexic selector switch	60	52.5						69	74	44.5	74	-

Dimensions in mm,
1 inch = 25.4mm

Loadkontakt protection against overload and short circuit

Reliable protection since the last two decades

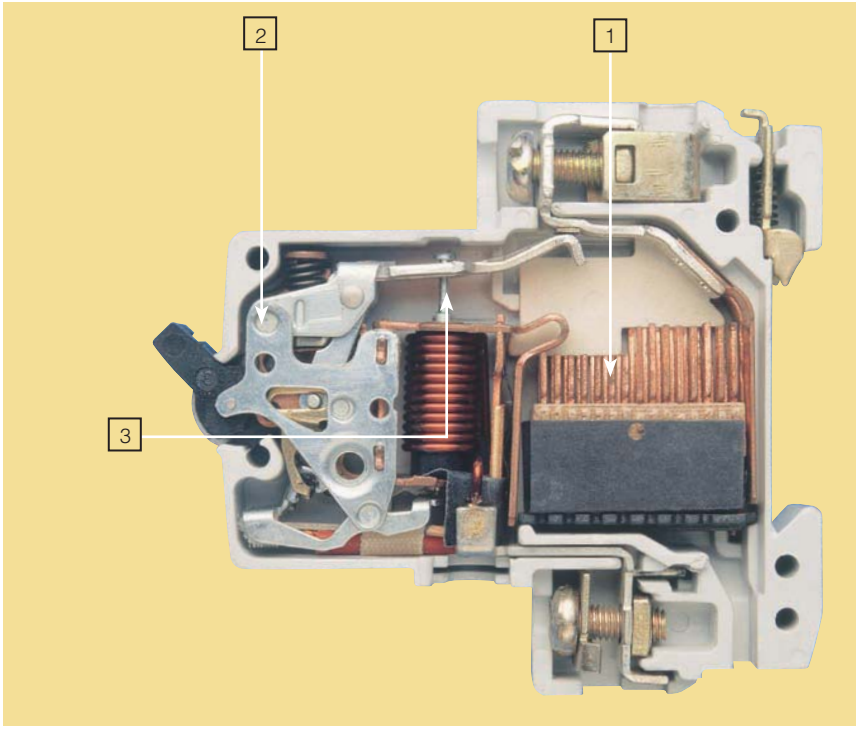


> IS Certification

One of the first MCBs in India to be certified IS 8828 of 1996 which is equivalent to IEC 898 of 1995.

> Protection

- **Finger proof terminals**
  Prevents accidental contact with terminals, thus providing IP 20 degree of protection.
- **Hologram**
  A hologram is incorporated on every Loadkontakt MCB and Isolator indicating its genuineness



> Protection

1 **Arc chamber**
Provided with 15 arcing plates enabling quick and efficient extinguishing of the arc.

2 **Watch mechanism**
All moving parts of MCB are encased between two metal plates as in a watch mechanism, which ensures reliable performance under varying climatic conditions.

3 **Hammer trip mechanism**
Ensures forcible opening of the contacts within one millisecond.

Loadkontakt
MCBs upto 63 A

S211C10R

S212C10R

S213C32R

S214C06R

Dimensions (p. 161)
Technical data (p. 158)

10 kA (6 kA) ISI marked as per IS 8828:1996 (IEC 60898)
Hammer trip principle
Watch mechanism
15 arc plates
Finger proof terminals

Single pole 240/415 V~

Pack	Cat. nos.	C curve	Nominal rating (A)	Number of 17.5 mm modules
1/10/100	S211C00R		0.5	1
1/10/100	S211C01R		1	1
1/10/100	S211C02R		1.6	1
1/10/100	S211C03R		2	1
1/10/100	S211C04R		3	1
1/10/100	S211C05R		4	1
1/**10**/100	**S211C06R**		6	1
1/**10**/100	**S211C10R**		10	1
1/**10**/100	**S211C16R**		16	1
1/**10**/100	**S211C20R**		20	1
1/**10**/100	**S211C25R**		25	1
1/**10**/100	**S211C32R**		32	1
1/10/100	S211C40R		40	1
1/10/100	S211C50R		50	1
1/10/100	S211C63R		63	1

Triple pole 415 V~

Pack	Cat. nos.	C curve	Nominal rating (A)	Number of 17.5 mm modules
1/30	S213C00R		0.5	3
1/30	S213C01R		1	3
1/30	S213C02R		1.6	3
1/30	S213C03R		2	3
1/30	S213C04R		3	3
1/30	S213C05R		4	3
1/30	**S213C06R**		6	3
1/30	**S213C10R**		10	3
1/30	**S213C16R**		16	3
1/30	**S213C20R**		20	3
1/30	S213C25R		25	3
1/30	**S213C32R**		32	3
1/30	S213C40R		40	3
1/30	S213C50R		50	3
1/30	**S213C63R**		63	3

Double pole 415 V~

		C curve	Nominal rating (A)	Number of 17.5 mm modules
1/5/50	S212C00R		0.5	2
1/5/50	S212C01R		1	2
1/5/50	S212C02R		1.6	2
1/5/50	S212C03R		2	2
1/5/50	S212C04R		3	2
1/5/50	S212C05R		4	2
1/**5**/50	**S212C06R**		6	2
1/**5**/50	**S212C10R**		10	2
1/**5**/50	**S212C16R**		16	2
1/**5**/50	**S212C20R**		20	2
1/5/50	S212C25R		25	2
1/**5**/50	**S212C32R**		32	2
1/5/50	S212C40R		40	2
1/5/50	S212C50R		50	2
1/5/50	S212C63R		63	2

Four pole 415 V~

Pack	Cat. nos.	C curve	Nominal rating (A)	Number of 17.5 mm modules
1/30	S214C00R		0.5	4
1/30	S214C01R		1	4
1/30	S214C02R		1.6	4
1/30	S214C03R		2	4
1/30	S214C04R		3	4
1/30	S214C05R		4	4
1/30	S214C06R		6	4
1/30	S214C10R		10	4
1/30	S214C16R		16	4
1/30	S214C20R		20	4
1/30	S214C25R		25	4
1/30	**S214C32R**		32	4
1/30	**S214C40R**		40	4
1/30	S214C50R		50	4
1/30	**S214C63R**		63	4

Loadkontakt
Isolators upto 80 A

S2120401

S2130631

Dimensions (p. 161)
Technical data (p. 158)

AC 22 utilization category as per IS 13947-3
Finger proof terminals

Pack	Cat. nos.	Nominal rating (A)	Number of 17.5 mm modules
Double pole 415 V~			
1/**5**/50	**S212040I**	40	2
1/**5**/50	S212063I	63	2
Triple pole 415 V~			
1/30	**S213040I**	40	3
1/30	**S213063I**	63	3
Four pole 415 V~			
	C curve		
1/30	**S214040I**	40	4
1/30	**S214063I**	63	4
1/30	**S214080I**	80	4

Most compact range of MCCBs in India

DPX MCCBs (p. 28-44)

Loadkontakt
MCBs

■ Technical data

Specification		IS 8828 of 1996; IEC 60898 of 1995
		1, 2, 3 and 4
Characteristic		C
Breaking capacity		As per IS 8828 of 1996 - 0.5 A to 32 A - 10 kA - 40 A to 63 A - 6 kA
Rated voltage		240/415 V~
Frequency		50/60 Hz
Maximum operating voltage		440 V~
Minimum operating voltage		12 V~
Voltage resistance		>2500 V~
Enclosure		Molded self-extinguishing thermo set plastic in light bone grey colour.
Dolly (switching lever)		Black can be locked or lead sealed in ON or OFF position.
Dimensions		Refer to p. 161
Mounting position		Optional
Fixing		Snap fixing on standard DIN rail profile - 35 x 7.5
Terminals	Top	box type M-5 Screw
	Bottom	flat M-5 Screw (upto 32 A) box type M-5 Screw (above 32 A)
Maximum cable size	Top	1 to 25 mm²
	Bottom	for ratings upto 32 A - 1 to 16 mm² for ratings 40, 50 and 63 A - 25 mm²
Mechanical service life		20,000 operations
Electrical endurance at rated load		20,000 operations
Climate resistance		25/95-40/93 (OC/RH) to IEC 68/2 - 30
Permissible ambient temperature		Maximum + 55°C Minimum – 25°C

Note : Loadkontakt AC MCBs are also suitable for DC operations upto 60 V DC - Breaking capacity 1 kA.

Loadkontakt Isolators

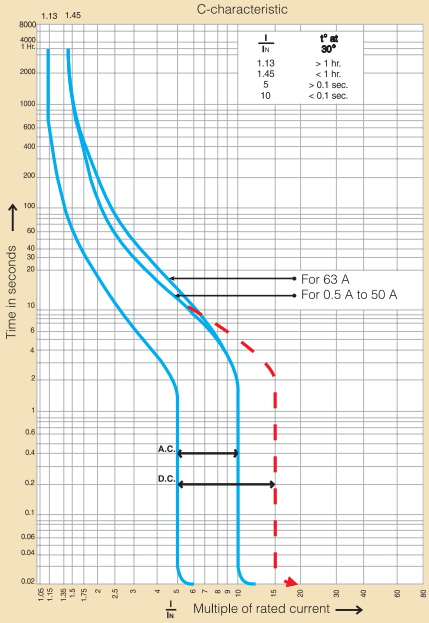
Specification	As per IS 13947-3 and IEC 60947-3
Rating and no. of poles	DP - 40, 63 TP - 40, 63 FP - 40, 63, 80
Rated operational voltage & frequency	415 V, 50/60 Hz
Utilization category	AC 22 (for resistive & moderate inductive load)
Insulation voltage Ui	660 V AC
Impulse voltage Uimp	6 kV (1.2 / 50 µ s surge)
Short time with stand capacity	Icw = 1000 A for 0.3 second
Short circuit making capacity Im	1000 A
Endurance	Electrical - 10000 operation (cos Ø 0.89 to .09) Mechanical - 10000 operation
Terminals	Top - 1 to 25 mm² copper / aluminium rigid cable Bottom - 1 to 25 mm² copper / aluminium rigid cable

Bold catalogue numbers are products normally available with Legrand (India) stockists.
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

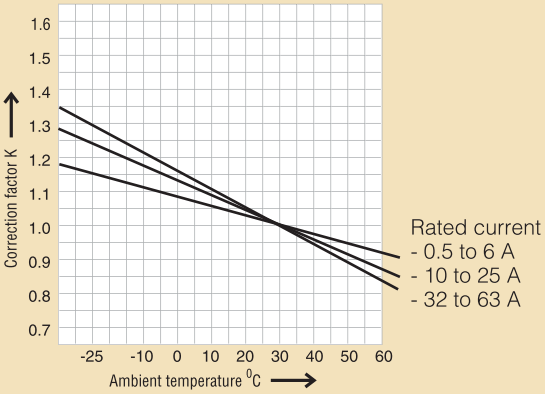
Loadkontakt
MCBs

■ Technical data

Tripping characteristic



Current carrying capacity as function of ambient temperature

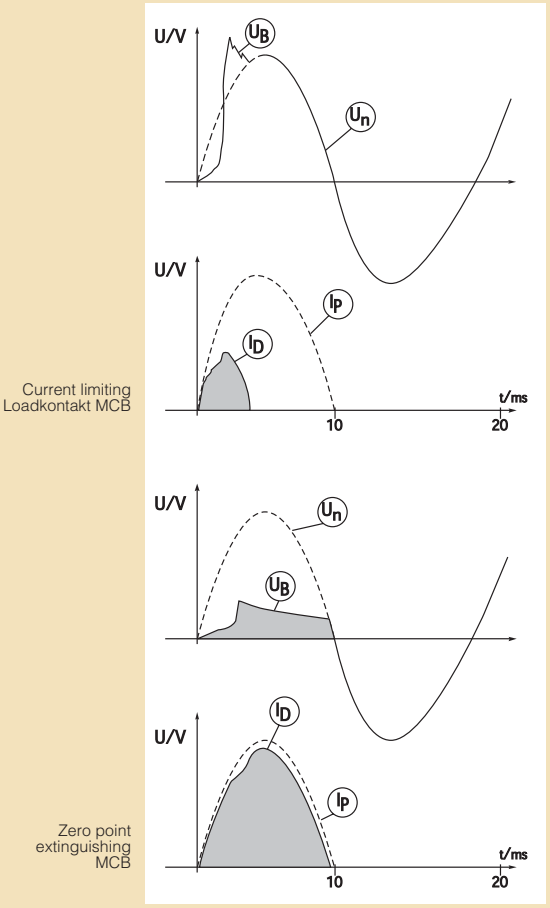


To obtain current carrying capacity of Loadkontakt MCB at temperature other than reference temperature of 30°C, multiply rated current by correction factor K read from above graph at the requisite temperature.

e.g. K at 40°C = 0.95.

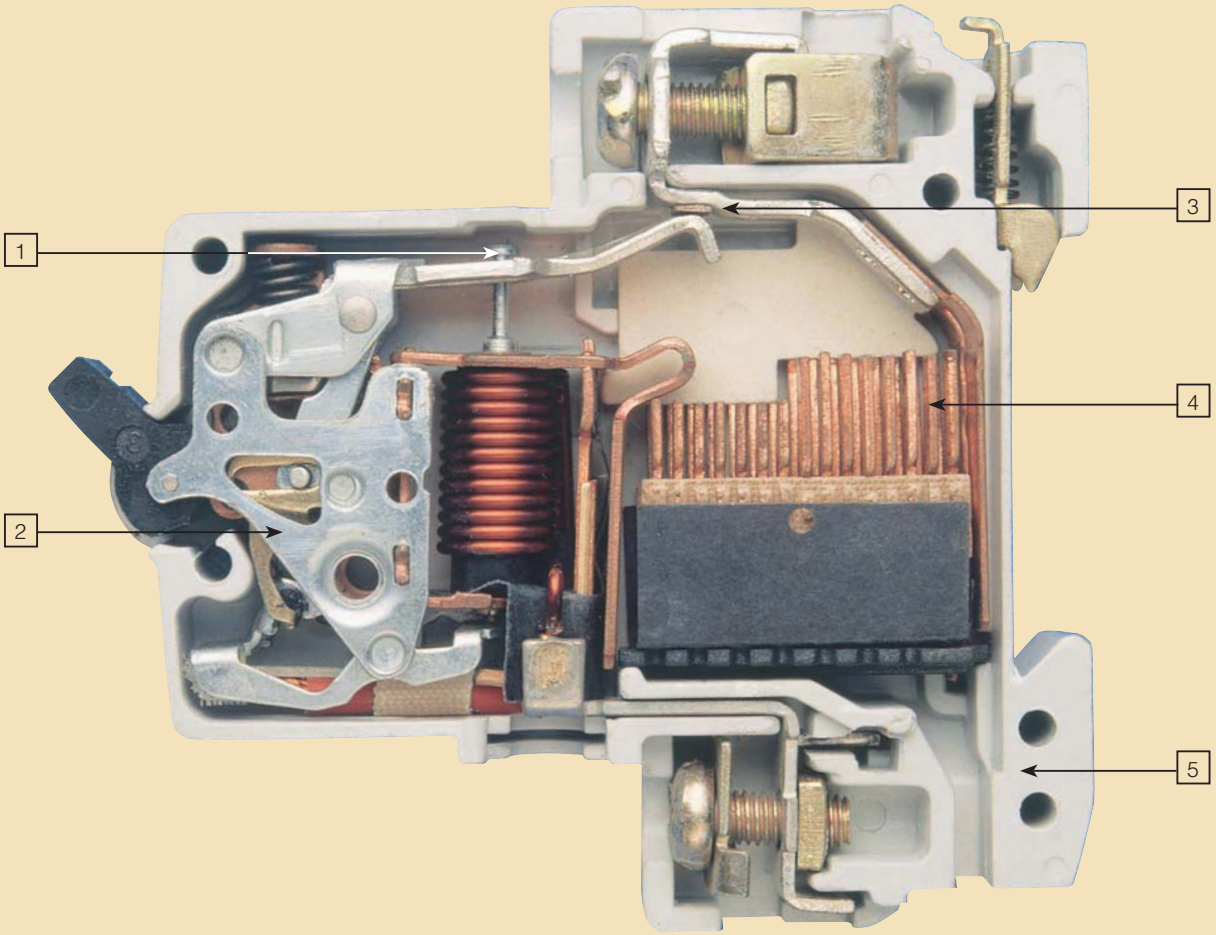
MCB of rating 32 A at reference temperature 30°C, will be rated 32 x 0.95 = 30.4 A at 40°C.

Loadkontakt MCB versus zero point extinguishing MCB



U_n = Mains voltage
U_B = Arc voltage
I_D = Let-through short circuit current
I_P = Prospective short circuit current

Loadkontakt MCBs
internal construction



1 "Hammer trip" ensures forcible separation of contact even as current builds up under short circuit condition

2 All moving parts held between two metal plates like watch mechanism which ensures reliable performance under varying climatic conditions.

3 Silver cadmium contacts (for 0.5 A to 32 A MCBs) and silver graphite contacts (for 40 A to 63 A MCBs)

4 Efficient arc chamber with 15 arc plates for quick build up of arc voltage.

5 Thermosetting plastic body and cover which are self-extinguishing and will not drip under high temperature

Loadkontakt

MCBs
Isolators

■ Technical data

• Operating principle

Under short circuit condition, even as the current builds up, at the set value of 5 In, the magnetic trip takes over. The solenoid plunger (or hammer) forcibly separates the contact and establishes the arc within 1 millisecond.

The arc is then moved into the arc chamber due to which the arc voltage rapidly rises and the short circuit current is killed in 4 to 5 milliseconds.

The current limiting action of the Loadkontakt coupled with ultra short time of interruption ensures that the let-through energy (I^2t) is kept low, thereby reducing the stress and strain on the circuit.

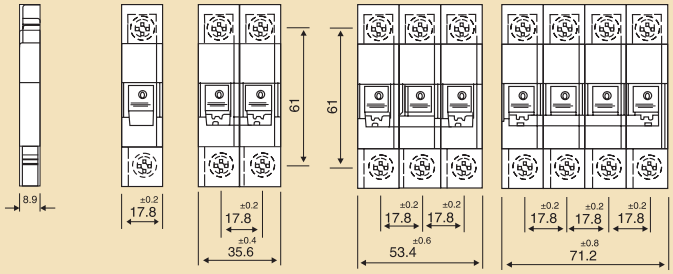
• Back up protection

For Loadkontakt MCBs to have selectivity with back up HRC fuse, the fuse must have minimum rating. Also, in the event that the prospective short circuit exceeds the rupturing capacity of MCB, maximum rating of back up HRC fuse should not be exceeded.

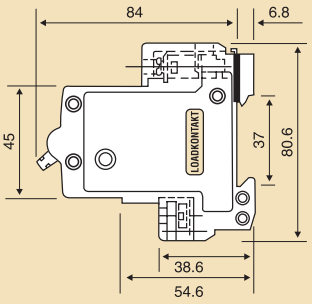
• HRC back up fuse table

Loadkontakt MCB rating Amps	Minimum HRC fuse Amps	Maximum HRC fuse Amps
0.2 to 0.5	4	Not required
1 to 1.6	10	Not required
2	16	Not required
3 to 4	20	32
6	25	63
10	35	100
16	50	100
20 to 32	80	125
40 to 63	100	125

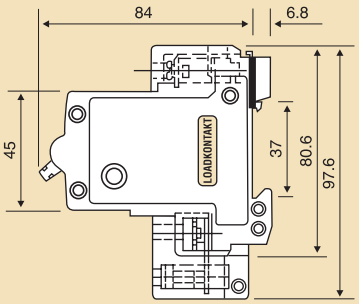
■ Dimensions



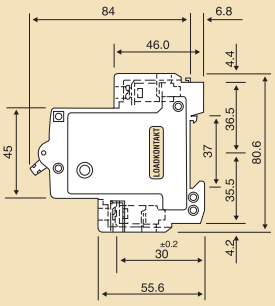
Auxiliary contact pole | SP | DP | TP | FP



MCB 0.5 A TO 32 A

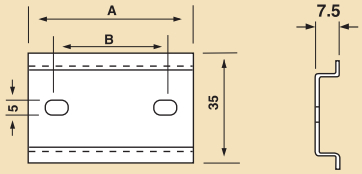


MCB 40 A TO 63 A



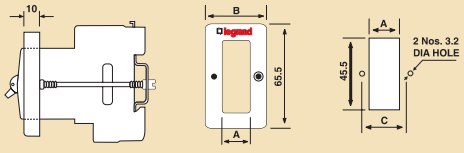
Isolator 40 A TO 80 A

DIN rail for mounting MCBs



Catalogue no.	Suitable for	A (mm)	B (mm)
S21 AD 02R	2 poles	35	20
S21 AD 04R	4 poles	80	60
S21 AD 08R	8 poles	150	130
S21 AD 12R	12 poles	220	200

Flush mounting kits

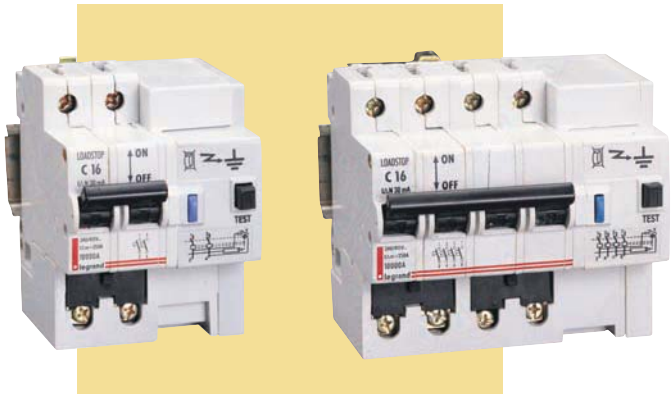


The kit comprises flange frame, fixing bolts and mounting rail.

Catalogue no.	Suitable for	A (mm)	B (mm)	B (mm)
S21 AF 01R	single pole	18	38	28
S21 AF 03R	triple pole	54	74	64

Dimensions in mm,
1 inch = 25.4mm

For protection against earth leakage, overload and short circuit



> IS certification

Loadstop RCBO has the certification as per, IS 12640 (part 2) of 2001.

> 3 in 1 protection

Combined protection to electrical installations from hazards caused by earth leakage, overload & short circuit.

> Clear identification of fault

In case of earth leakage, the blue button pops out and dolly goes to off position. In the event of overload or short circuit, only the dolly moves to off position.

> Breaking capacity

For faults up to 10/6 kA, Loadstop RCBO requires no back up devices such as fuses, MCBs etc.

> Termination

Large terminals enable ease of wiring and accepts higher cross section of wire (25 mm^2).

Loadstop
RCBOs upto 63 A

E216030R

E416030R

Dimensions (p. 163)
Technical data (p. 163)

10kA (6kA) ISI marked as per IS 12640 (part 2) 2001
Clear identification of fault: Blue reset button pops out in case of earth leakage and dolly goes to off position
Three in one protection: earth leakage, over load and short circuit

Pack	Cat. nos.	Double pole 415 V~	
		30 mA	
	C curve	Nominal rating (A)	Number of 17.5 mm modules
1/24	**E216030R**	16	4
1/24	**E225030R**	25	4
1/24	**E232030R**	32	4
1/24	**E240030R**	40	4
1/24	E263030R	63	4
		100 mA	
1/24	E216100R	16	4
1/24	**E225100R**	25	4
1/24	E232100R	32	4
1/24	**E240100R**	40	4
1/24	E263100R	63	4
		300 mA	
1/24	E216300R	16	4
1/24	E225300R	25	4
1/24	E232300R	32	4
1/24	**E240300R**	40	4
1/24	E263300R	63	4

		Four pole 415 V~	
		30 mA	
	C curve	Nominal rating (A)	Number of 17.5 mm modules
1/18	E416030R	16	6
1/18	E425030R	25	6
1/18	E432030R	32	6
1/18	**E440030R**	40	6
1/18	**E463030R**	63	6
		100 mA	
1/18	E416100R	16	6
1/18	E425100R	25	6
1/18	E432100R	32	6
1/18	**E440100R**	40	6
1/18	**E463100R**	63	6
		300 mA	
1/18	E416300R	16	6
1/18	E425300R	25	6
1/18	**E432300R**	32	6
1/18	**E440300R**	40	6
1/18	**E463300R**	63	6

Note : Breaking capacity for current ratings 16 A to 32 A is 10 kA.
Breaking capacity for current ratings 40 A and 63 A is 6 kA.

Bold catalogue numbers are products normally available with Legrand (India) stockists.
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

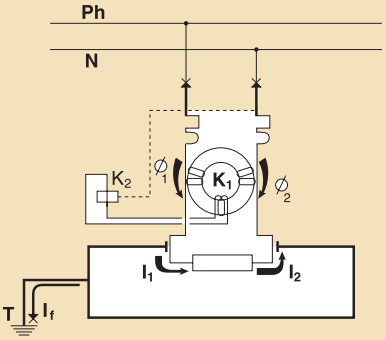
Loadstop
RCBOs upto 63 A

■ Technical data

Operating principle of Loadstop RCBO
No fault present

Therefore no current is induced in coil K_1, and coil K_2 is not excited. The contacts do not open. The equipment operates normally.

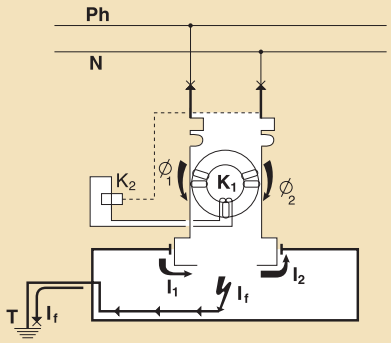
$I_f = 0$, thus
$I_1 = I_2$
$\varnothing_1 = \varnothing_2$
$\varnothing_1 - \varnothing_2 = 0$



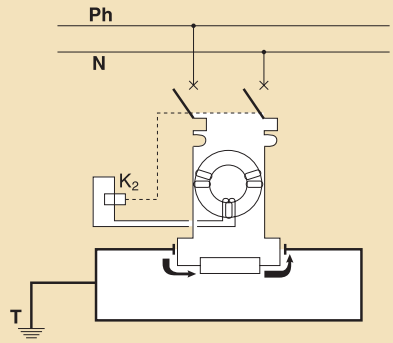
Insulation fault

A current is thus induced in coil K_1...

$I_f \neq 0$
$I_1 > I_2$, thus
$\varnothing_1 > \varnothing_2$, thus
$\varnothing_1 - \varnothing_2 \neq 0$



... coil K_2 is excited, the contacts open and the equipment is automatically switched off.

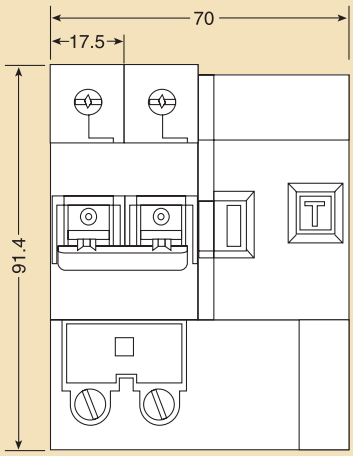


Notes

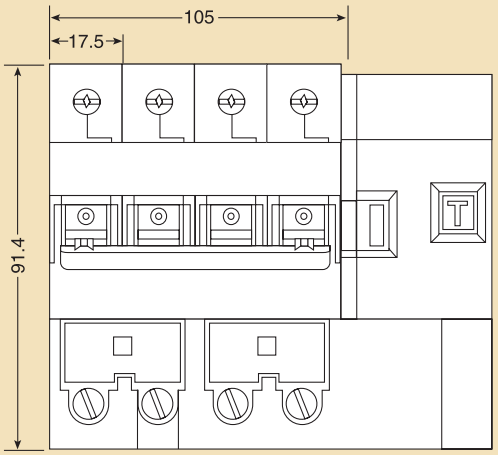
- Indian standard specification IS 12640:1988, Annexure A Clause 2.2.10 A - 2.4 emphasise that the use of RCBO is not considered as a sole means of protection and does not obviate the need to apply other protective measures
- Further, Clause 2.2.10 A - 3.5 emphasises that the rated tripping current of RCBOs for use in household and similar installations shall not exceed 30mA.

■ Dimensions

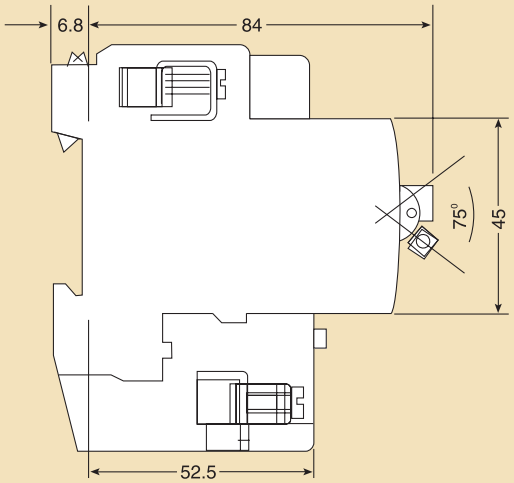
Two pole RCBO



Four pole RCBO



Side view of RCBO



Dimensions in mm,
1 inch = 25.4mm

Loadster
circuit breakers upto 60 A

L43105RO

L43205RO

Dimensions (p. 165)
Technical data (p. 166)

Conforms to IEC 60947-2
Breaking capacity upto 3 kA
Surface mounting

Single pole 240/415 V~

Pack	Cat. nos.	Nominal rating (A)
1/55	L43001RO	0.5
1/55	L43003RO	1
1/55	L43004RO	2
1/55	L43005RO	2.5
1/**55**	**L43105RO**	5
1/55	L43107RO	7.5
1/**55**	**L43110RO**	10
1/55	L43112RO	12.5
1/**55**	**L43115RO**	15
1/**55**	**L43120RO**	20
1/55	L43125RO	25
1/**55**	**L43130RO**	30
1/55	L43135RO	35
1/55	L43140RO	40
1/55	L43150RO	50
1/55	L43160RO	60

Double pole 240/415 V~

		Nominal rating (A)
1/24	L43205RO	5
1/24	L43210RO	10
1/24	L43215RO	15
1/24	L43220RO	20
1/24	L43225RO	25
1/24	L43230RO	30
1/24	L43235RO	35
1/24	L43240RO	40
1/24	L43250RO	50
1/24	L43260RO	60

Loadster
circuit breakers upto 60 A

L43305RO

L43420RO

Dimensions (p. 165)
Technical data (p. 166)

Conforms to IEC 60947-2
Breaking capacity 3 kA
Surface mounting

Triple pole 240/415 V~

Pack	Cat. nos.	Nominal rating (A)
1/16	L43305RO	5
1/16	L43310RO	10
1/16	**L43315RO**	15
1/16	L43320RO	20
1/16	L43325RO	25
1/16	**L43330RO**	30
1/16	L43335RO	35
1/16	L43340RO	40
1/16	L43350RO	50
1/16	**L43360RO**	60

Four pole 240/415 V~

		Nominal rating (A)
1/12	L43405RO	5
1/12	L43410RO	10
1/12	L43415RO	15
1/12	L43420RO	20
1/12	L43425RO	25
1/12	**L43430RO**	30
1/12	L43435RO	35
1/12	L43440RO	40
1/12	L43450RO	50
1/12	**L43460RO**	60

Note: Breaking capacity for current rating 0.5 A to 2.5 A is 1500 A
Breaking capacity for current rating 5 A to 60 A is 3000 A

Bold catalogue numbers are products normally available with Legrand (India) stockists.
Cat. nos. that are not bold - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.

Loadster
isolators

Loadster Isolators

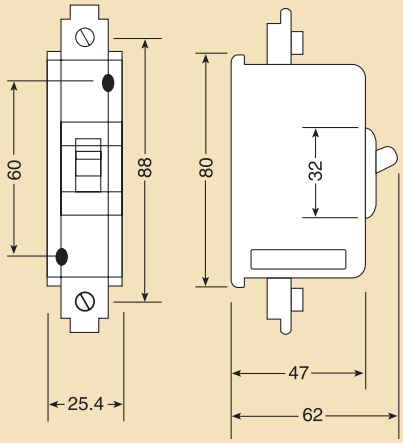
L43299IO

Dimensions (p. 165)

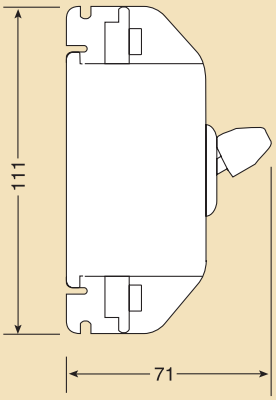
Pack	Cat. nos.	Single pole + Neutral 240/415 V~
		Nominal rating (A)
1/16	L43098IO	30
1/16	L43099IO	60
1/16	L43100IO	100
		Triple pole 240/415 V~
		Nominal rating (A)
1/16	L43298IO	30
1/16	L43299IO	60
1/16	L43300IO	100
		Four pole 240/415 V~
		Nominal rating (A)
1/12	L43398IO	30
1/12	L43399IO	60
1/12	L43400IO	100

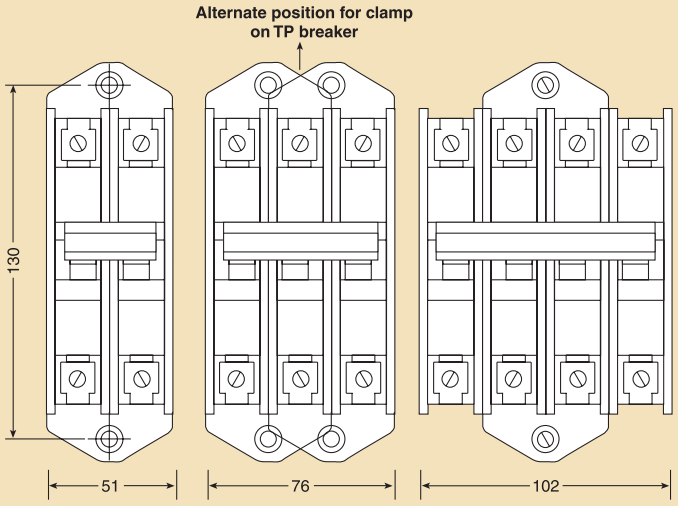
■ Dimensions

Side view of single pole Loadster



Side view of multiple pole Loadsters





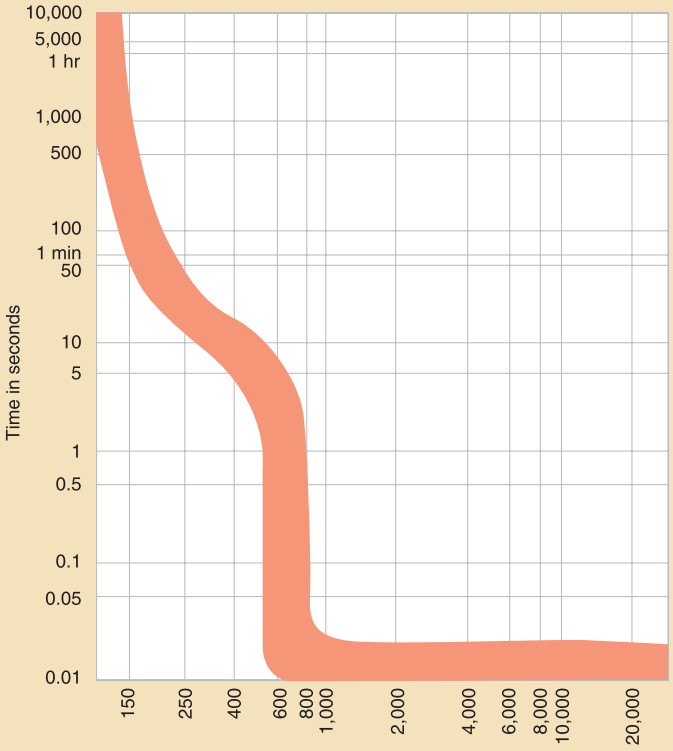
Dimensions in mm,
1 inch = 25.4mm

Loadster MCBs

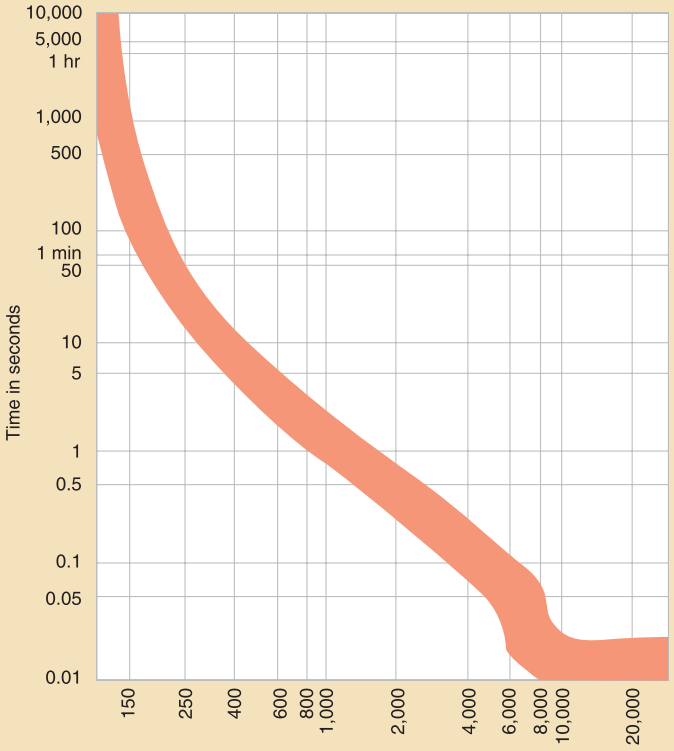
■ Technical data

Tripping characteristics at reference ambient temperature 40° C

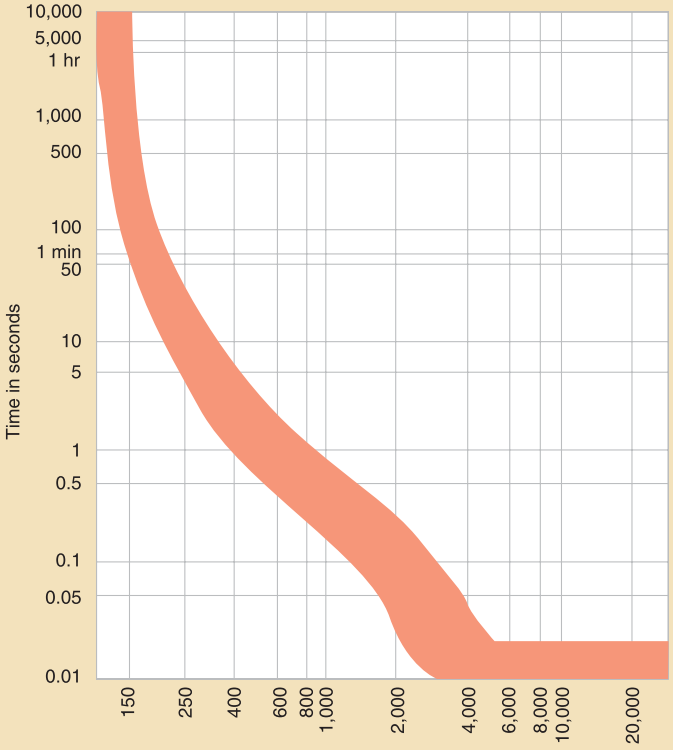
Percent rated current (0.5/2.5 amps.)



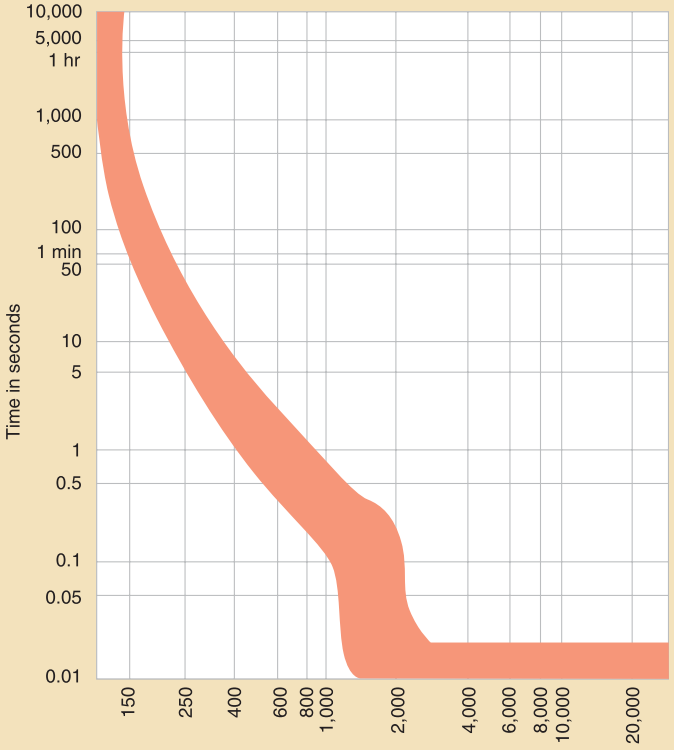
Percent rated current (5/10 amps.)



Percent rated current (15-30 amps.)

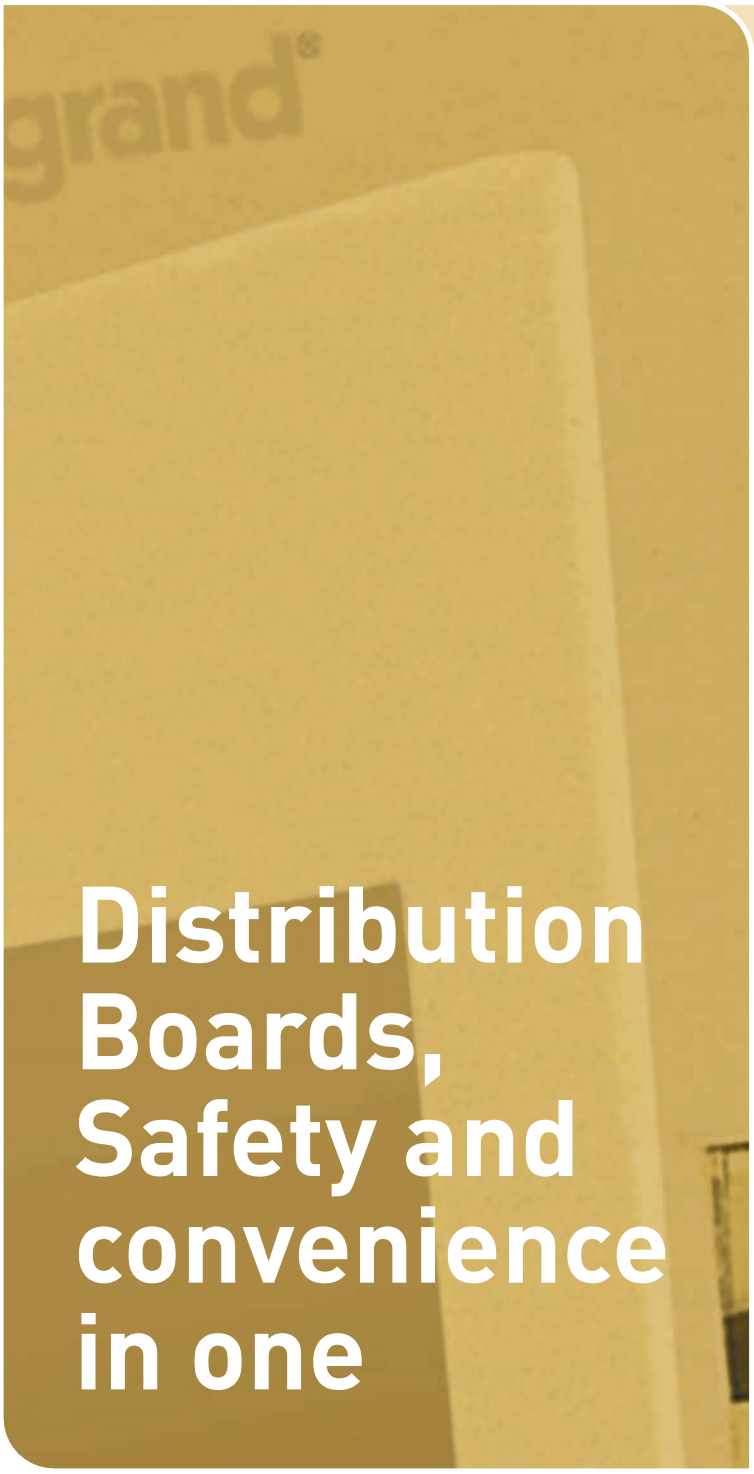


Percent rated current (35-60 amps.)



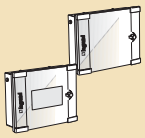
Magic of modularity

- Solutions for protection, isolation, controlling, signaling and metering requirements have never been more simpler.
- LEXIC range of modular DIN rail mounted products gives you the flexibility and freedom to design a distribution system as per your choice



Distribution Boards, Safety and convenience in one

Distribution boards for Lexic products,



P. 178
SPN DBs

P. 180
VTPN DBs

P. 183
Metra Plug and Socket DBs

Dimensions of Distribution boards

P. 187
SPN DBs

P. 192
TPN DBs,
DPX 125 MCCB and
DPX 250 ER MCCB DBs

P. 196
Metal one way enclosures

Multiple applications

With Ekinoxe, you have a variety of distribution boards that think 'Safety First'. Combined perfectly with great aesthetics, that suit any decor, Ekinoxe is ready for use in residences, offices, commercial and industrial complexes.

... Wide Range

SPN IP43 DB with Metal Door

ETPN IP43 DB with Acrylic Door

VTPN IP20 DB

VTPN MCCB IP20 DB

VTPN MCCB DB with Meter Box

Flexy IP20 DB with Cable End Box

Flexy IP43 DB with Metal Door

Flexy IP43 DB with Acrylic Door

Phase Selector IP20 DB

7 Segment MCCB DB

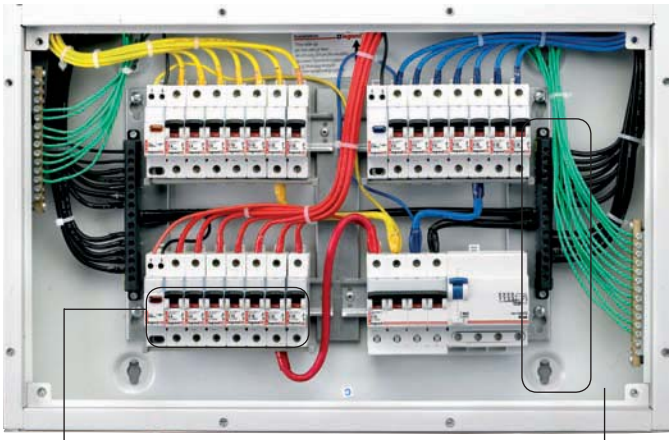
Metra Plug & Socket DB

P17 Tempra Plug & Socket DB

Unique Features for Total Protection

From being totally shockproof, to withstanding any damage, to zero vulnerability; unique features that offer total protection and deliver absolute safety.

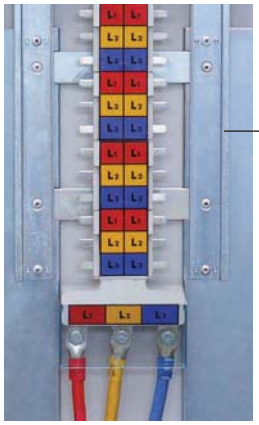
... Safe



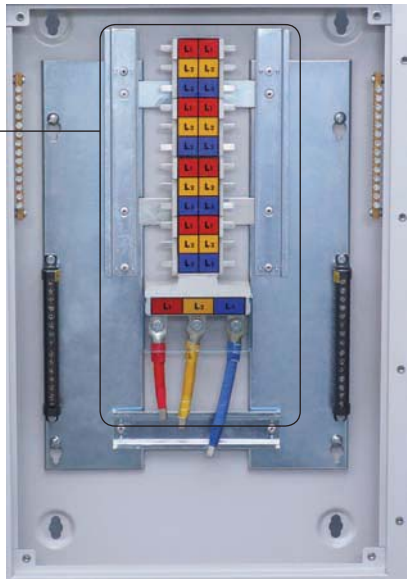
Busbar and neutral links are shrouded. Thus, there's no chance of accidental contact with live parts, and no possibility of shock during use.

Protect Plus for Busbars

Safe Shroud for Neutral Links



Compact Convenience
New compact and fully shrouded VTPN Busbar assembly ensures streamlined dimensions and complete safety.



CornerSafe
Corner shields, with their smooth edges ensures the most vulnerable part of the DBs, are protected, against physical damages like bending, peeling of paint, etc. and prevents rusting.

Superior withstanding capacity of busbars:
Busbars of Ekinoxe DBs usually have a withstanding capacity of 10 KA. However, the busbar of DPX MCCB DBs have a withstanding capacity of 36 KA.
ERDA Certified

DoorSecure
Door earthing makes the entire Ekinoxe DB totally shockproof.

IP

Degree of protection
IP measures the protection against ingress of solid and liquid particles (Refer table on page 186).
Ekinoxe is available with IP 20, IP 43 and IP 54 degree of protection.
ERDA Certified

IK

IK measures protection against mechanical impact. (Refer table on page 186).
Ekinoxe is the first range of DBs in India to have IK 08 for IP 20 DBs, and IK 09 for IP 42 and IP 54 DBs.
ERDA Certified

Attention to every detail

From assemly to preventing damage during plastering or maintenace work, to convertible keylocks; the attention to every detail is simply pleasing.

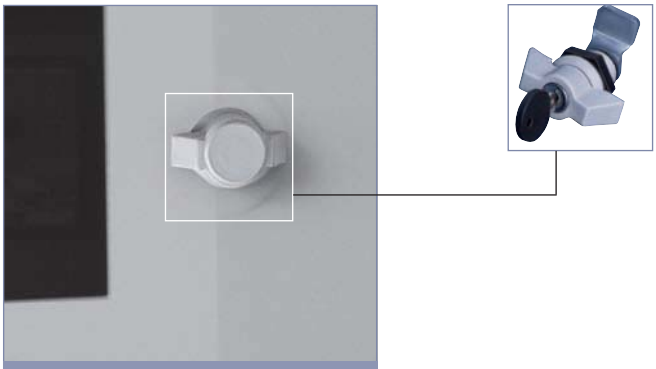
... User-Friendly

InstallEase
The Pan Assembly ensures that the entire internal assembly can be stored safely when not in use. Moreover MCBs/RCDs/MCCBs can be conveniently assembled on the din rail and the entire pan assembly can be simply fixed onto the DB

Visual anti insertion facility
While mounting, DBs can be under- or over flushed. To avoid this, two markers are provided on the boxes. The lower marks the level upto which an IP 20 DB should be flushed, while the upper one is the flush level for an IP 42 / IP 54 DB

DustGuard
The Masking Sheet, when fitted onto the box, will prevent cement from entering the box during plastering. Thus keeping internal components safe.

Door-Reverse
For more convenience, the door can be reversed at the place of installation.



Keylock Convertible
The DBs come with an ergonomically designed lock. In future, if the lock has to be converted to a panel lock, it can be done at site simply by replacing the normal lock. Panel locks are sold as an accessory (refer p. 185.)

Add on metering block
Ammeter/voltmeter, if required alongwith VTPN MCCB DBs, can be fitted onto the Metering Box.
This box in turn, can be fitted on the top of the
VTPN MCCB DBs.

Door and shield independent
During maintenace jobs, just the shied can be removed - not the entire door - so the plaster is not affected.

Cable End Box:
Cable end boxes also have a provision for mounting terminal blocks. Hence, they can also be used as terminal block enclosure.

[EKINOXE™]

Aesthetic Design

Made to be sleek and stylish

Beautifully Designed Distribution Board
For the most elegant-looking, eyecatching Distribution Boards, look no further than Ekinoxe.

E-Curves:
Elegantly designed curved outlines with a professional matt finish, make Ekinoxe an eyecatching creation.

One-Look:
A completely integrated design gives Ekinoxe a compact, streamlined look.

Smartcolour:
A stylish never before colour in DBs gives Ekinoxe a unique look - that blends perfectly with any decor. For consistency, the box and shield are of the same colour.
colour : RAL 7035
fine textured

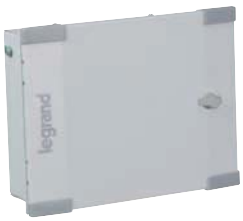
Ekinoxe has been designed to provide a new dimention of protection in homes, offices and industries. With a stylish colour, elegant curves and distinctive finish. Ekinoxe blends in perfectly with any interior decor.

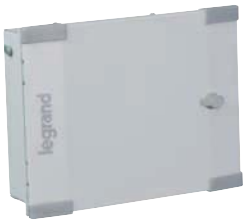
Ekinoxe SPN DBs

for Lexic MCB, Isolator, RCCB and RCBO


6077 00


6077 20


6077 10


6077 30

Dimensions (p. 187)

- As per IS 8623
- Suitable for Flush mounting and Surface mounting. With 100 A copper busbar
- With neutral bar, earth bar and cable ties for cable management
- Fully insulated busbar and neutral bar
- Door earthing
- Corner sheilds for better protection
- Pan assembly for ease of installation
- Masking sheet
- Reversible doors for IP 43 & IP54 DBs

Pack	Cat. nos.		Nos. of modules
		IP 20 - IK 08	
1	6077 00	4 Way	4
1	**6077 01**	8 way	8
1	**6077 02**	12 way	12
1	6077 03	16 way	16
		IP 43 - IK 09 with metal door	
1	6077 10	4 Way	4
1	**6077 11**	8 Way	8
1	**6077 12**	12 Way	12
1	6077 13	16 Way	16
		IP 43 - IK 09 with acrylic door	
1	6077 20	4 Way	4
1	6077 21	8 Way	8
1	**6077 22**	12 way	12
1	6077 23	16 Way	16
		IP 54 - IK 09	
1	6077 30	4 Way	4
1	6077 31	8 Way	8
1	6077 32	12 Way	12
1	6077 33	16 Way	16

Ekinoxe TPN DBs - ETPN DBs

for Lexic MCB, Isolator, RCCB and RCBO


6077 07


6077 26


6077 15


6077 35

Dimensions (p. 188)

- As per IS 8623
- Suitable for Flush mounting and Surface mounting
- With 100 A copper busbar for each phase
- With neutral bar, earth bar and cable ties for cable management
- Fully insulated busbar and neutral bar
- Door earthing
- Corner sheilds for better protection
- Pan assembly for ease of installation
- Masking sheet
- Reversible doors for IP 43 & IP 54 DBs
- With provision for FP MCB/Isolator/RCCB/RCBO as incomer and SP MCBs as outgoing
- Supplied with wire set
- Can be converted to PPI DB at site by using conversion kit. Refer Pg.186 for a ready reconer table

Pack	Cat. nos.		Nos. of modules
		IP 20 - IK 08	
1	**6077 05**	4 Way	8+12
1	**6077 06**	6 way	8+18
1	**6077 07**	8 way	8+24
1	6077 08	12 way	8+36
1	6077 09	16 way	8+48
		IP 43 - IK 09 with metal door	
1	**6077 15**	4 Way	8+12
1	**6077 16**	6 way	8+18
1	**6077 17**	8 way	8+24
1	6077 18	12 way	8+36
1	6077 19	16 way	8+48
		IP 43 - IK 09 with acrylic door	
1	6077 25	4 Way	8+12
1	6077 26	6 way	8+18
1	6077 27	8 way	8+24
1	6077 28	12 way	8+36
1	6077 29	16 way	8+48
		IP 54 - IK 09	
1	6077 35	4 Way	8+12
1	6077 36	6 way	8+18
1	6077 37	8 way	8+24
1	6077 38	12 way	8+36
1	6077 39	16 way	8+48

Ekinoxe TPN DBs - 7 segment DBs

for Lexic MCB, Isolator, RCCB and RCBO

6078 25

6078 35

6014 55 G

Dimensions (p. 189)

- As per IS 8623
- DBs with phase segregation and seperation between incomer and outgoings
- Suitable for Flush mounting and Surface mounting
- With 100 A copper busbar for each phase
- With neutral bar, earth bar and cable ties for cable management
- Fully insulated busbar and neutral bar
- Door earthing
- With provision for FP MCB/Isolator/RCCB/RCBO as incomer, DP MCB/Isolator/RCCB/RCBO as subincomer and SP MCBs as outgoing
- Supplied with wire set

Pack	Cat. nos.	IP 20 - IK 08	Nos. of modules
1	6078 25	4 Way	8+12+12
1	6078 26	6 Way	8+12+18
1	6078 27	8 Way	8+12+24
1	6078 28	12 Way	8+12+36
		IP 42 - IK 09 with metal door	
1	6078 35	4 Way	8+12+12
1	6078 36	6 Way	8+12+18
1	6078 37	8 Way	8+12+24
1	6078 38	12 Way	8+12+36

Pack	Cat. nos.	**IP 20 protection**	Capacity of 17.5 mm module
1	6014 50 G	4 Way	8+12+12
1	6014 51 G	6 Way	8+12+18
1	6014 52 G	8 Way	8+12+24
1	6014 53 G	12 Way	8+12+36
		IP 42 protection – metal door	
1	6014 54 G	4 Way	8+12+12
1	6014 55 G	6 Way	8+12+18
1	6014 56 G	8 Way	8+12+24
1	6014 57 G	12 Way	8+12+36

Ekinoxe TPN DBs - 7 segment MCCB DBs

for Lexic MCB, Isolator, RCCB and RCBO

6078 46

6077 56

Dimensions (p. 189)

- As per IS 8623
- DBs with phase segregation and seperation between incomer and outgoings
- Suitable for Flush mounting and Surface mounting
- With 100 A copper busbar for each phase
- With neutral bar, earth bar and cable ties for cable management
- Fully insulated busbar and neutral bar
- Door earthing
- With provision for DPX 125 MCCB and ELM (underneath) MCCB as incomer, DP MCB/Isolator/RCCB/RCBO as subincomer and SP MCBs as outgoing
- Supplied with wire set

Pack	Cat. nos.	IP 20 - IK 08	Nos. of modules
1	6078 45	4 Way	DPX 125+12+12
1	6078 46	6 way	DPX 125+12+18
1	6078 47	8 way	DPX 125+12+24
1	6078 48	12 way	DPX 125+12+36
		IP 42 - IK 09 with metal door	
1	6078 55	4 Way	DPX 125+12+12
1	6078 56	6 Way	DPX 125+12+18
1	6078 57	8 Way	DPX 125+12+24
1	6078 58	12 Way	DPX 125+12+36

Protection against overload, shortcircuit and earth leakage

refer pg. 102

Bold catalogue numbers are products normally available with Legrand (India) stockists. **Cat. nos. that are not bold** - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.
#IK - Refer pg. 186 for ready reconer table.

Ekinoxe TPN DBs - phase selector DBs

for Lexic MCB, Isolator, RCCB and RCBO

6078 66

6078 76

Dimensions (p. 190)

- As per IS 8623
- With inbuilt 3 nos. of 63A phase selector switches and 3 nos piano switches
- Suitable for Flush mounting and Surface mounting
- With 100 A copper busbar for each phase
- With neutral bar, earth bar and cable ties for cable management
- Fully insulated busbar and neutral bar
- Door earthing
- With provision for FP MCB/Isolator/RCCB/RCBO as incomer and SP MCBs as outgoing
- Supplied with wire set

Pack	Cat. nos.		Nos. of modules
		IP 20 - IK 08	
1	6078 65	4 Way	8+12
1	6078 66	6 way	8+18
1	6078 67	8 way	8+24
1	6078 68	12 way	8+36
		IP 42 - IK 09 with metal door	
1	6078 75	4 Way	8+12
1	6078 76	6 Way	8+18
1	6078 77	8 Way	8+24
1	6078 78	12 Way	8+36

Ekinoxe TPN DBs - VTPN DBs

for Lexic MCB, Isolator, RCCB and RCBO

6077 41

6077 61

6077 51

6077 71

Dimensions (p. 191)

- As per IS 8623
- Suitable for Flush mounting and Surface mounting
- With 200 A copper busbar
- With 2 neutral bars, 2 earth bars and cable ties for cable management
- Fully insulated busbar and neutral bar
- Door earthing
- Corner sheilds for better protection
- Pan assembly for ease of installation
- Masking sheet
- Reversible doors for IP 43 & IP 54 DBs
- With provision for FP MCB/Isolator/RCCB/RCBO as incomer and SP / TP MCBs as outgoing

Pack	Cat. nos.		Nos. of modules
		IP 20 - IK 08	
1	**6077 40**	4 Way	8+12
1	**6077 41**	8 way	8+24
1	6077 42	12 way	8+36
		IP 43 - IK 09 with metal door	
1	**6077 50**	4 Way	8+12
1	**6077 51**	8 Way	8+24
1	6077 52	12 Way	8+36
		IP 43 - IK 09 with acrylic door	
1	6077 60	4 Way	8+12
1	6077 61	8 Way	8+24
1	6077 62	12 way	8+36
		IP 54 - IK 09	
1	6077 70	4 Way	8+12
1	6077 71	8 Way	8+24
1	6077 72	12 Way	8+36

Ekinoxe TPN DBs - DPX 125 MCCB DBs

for Lexic MCB


6077 81


6077 91


6078 01

Dimensions (p. 192)

- As per IS 8623
- Suitable for Flush mounting and Surface mounting
- With 250 A copper busbar
- With 2 neutral bars, 2 earth bars and cable ties for cable management
- Fully insulated busbar and neutral bars
- Door earthing
- Corner sheilds for better protection
- Pan assembly for ease of installation
- Masking sheet
- Reversible doors for IP 43 & IP 54 DBs
- With provision for DPX 125 MCCB and ELM (underneath) MCCB as incomer and SP / TP MCBs as outgoing

Pack	Cat. nos.		Nos. of modules
		IP 20 - *IK 08	
1	6077 80	4 Way	DPX 125+12
1	6077 81	8 way	DPX 125+24
1	6077 82	12 way	DPX 125+36
		IP 43 - *IK 09 with metal door	
1	6077 90	4 Way	DPX 125+12
1	6077 91	8 Way	DPX 125+24
1	6077 92	12 Way	DPX 125+36
		IP 54 - *IK 09	
1	6078 00	4 Way	DPX 125+12
1	6078 01	8 Way	DPX 125+24
1	6078 02	12 way	DPX 125+36

Ekinoxe TPN DBs - DPX 250 ER MCCB DBs

for Lexic MCB


6078 12


6078 22


6078 32

Dimensions (p. 192)

- As per IS 8623
- Suitable for Flush mounting and Surface mounting
- With 250 A copper busbar
- With 2 neutral bars, 2 earth bars and cable ties for cable management
- Fully insulated busbar and neutral bar
- Door earthing
- Corner sheilds for better protection
- Pan assembly for ease of installation
- Masking sheet
- Reversible doors for IP 43 & IP 54 DBs
- With provision for DPX 250 ER MCCB and ELM (underneath) MCCB as incomer and SP / TP MCBs as outgoing

Pack	Cat. nos.		Nos. of modules
		IP 20 - *IK 08	
1	6078 10	4 Way	DPX 250 ER+12
1	6078 11	8 way	DPX 250 ER+24
1	6078 12	12 way	DPX 250 ER+36
		IP 43 - *IK 09 with metal door	
1	6078 20	4 Way	DPX 250 ER+12
1	6078 21	8 Way	DPX 250 ER+24
1	6078 22	12 Way	DPX 250 ER+36
		IP 54 - *IK 09	
1	6078 30	4 Way	DPX 250 ER+12
1	6078 31	8 Way	DPX 250 ER+24
1	6078 32	12 way	DPX 250 ER+36

Most compact range of MCCBs in India

DPX MCCBs (p.36)

Bold catalogue numbers are products normally available with Legrand (India) stockists. **Cat. nos. that are not bold** - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.
*IK - Refer pg. 186 for ready reconer table.

Ekinoxe Flexy DBs
for Lexic modular products


6077 65


6077 46


6077 47

Dimensions (p. 193)

- As per IS 8623
- Suitable for Flush mounting and Surface mounting
- Complete flexibility to organise the distribution as per the site requirements.
- Busbars to be selected as per distribution requirement
- With neutral bars and earth bars
- Fully shrouded neutral bars
- Door earthing
- Corner sheilds for better protection
- Pan assembly for ease of installation
- Masking sheet
- Reversible doors for IP 43 DBs

Pack	Cat. nos.		Nos. of modules
		IP 20 - IK 08	
1	6077 45	2 row of 13 modules	26
1	6077 55	3 row of 13 modules	39
1	6077 65	4 row of 13 modules	52
		IP 43 - IK 09 with metal door	
1	6077 46	2 row of 13 modules	26
1	**6077 56**	3 row of 13 modules	39
1	**6077 66**	4 row of 13 modules	52
		IP 43 - IK 09 with acrylic door	
1	6077 47	2 row of 13 modules	26
1	6077 57	3 row of 13 modules	39
1	6077 67	4 row of 13 modules	52

Ekinoxe TX DBs
for Lexic products


6070 54 6070 53 6070 52 6070 51

Dimensions (p. 193)
Installation (p. 194)

Pack	Cat. nos.	
		Surface - mounting distribution boxes
		IP 30 Class II ⧈ protection Conform to standard IEC 60 439-3 Supplied with IP 20 terminal blocks
1	6070 51	1 row of 18 modules
1	6070 52	2 rows of 18 modules
1	6070 53	3 rows of 18 modules
1	6070 54	4 rows of 18 modules
		Doors - White RAL 9010
1	6070 76	For distribution box cat. no 6070 51
1	6070 77	For distribution box cat. no 6070 52
1	6070 78	For distribution box cat. no 6070 53
1	6070 79	For distribution box cat. no 6070 54
		Doors - Transparent
1	6070 71	For distribution box cat. no 6070 51
1	6070 72	For distribution box cat. no 6070 52
1	6070 73	For distribution box cat. no 6070 53
1	6070 74	For distribution box cat. no 6070 54
		Flush - mounting distribution boxes
		IP 40 Class II ⧈ protection Conform to IEC 60 439-3 Supplied with IP 20 terminal blocks
		With white door RAL 9010
1	6070 66	2 rows of 18 modules
1	6070 67	3 rows of 18 modules
1	6070 68	4 rows of 18 modules
		With transparent doors
1	6070 62	2 rows of 18 modules
1	6070 63	3 rows of 18 modules
1	6070 64	4 rows of 18 modules

Ekinoxe Metra plug and socket DBs

for Lexic MCBs, RCCBs & RCBOs

6078 40

6078 60

6078 61

Dimensions (p. 194-195)

Pack	Cat. nos.	For Lexic MCBs As per IS 8623 Suitable for Flush mounting and Surface mounting Suitable for protection of appliances like AC/Geyser etc Supplied with neutral links With provision for SP MCB #IK 08	Nos. of modules
1	**6078 40**	10 A SP, 2P + E	1
1	**6078 41**	20 A SP, 2P + E	1
1	**6078 43**	20 A DP, 2P + E	2
1	**6078 50**	20 A TP, 3P + E	3
1	**6078 51**	32 A TP, 3P + E	3

Pack	Cat. nos.	For Lexic RCCBs and RCBOs As per IS 8623 Suitable for Flush mounting and Surface mounting Suitable for protection of appliances like AC/Geyser etc Supplied with neutral links With provision for SP / DP RCCBs/RCBOs #IK 08	Nos. of modules
1	**6078 60**	20A DP RCBO, 2P + E	4
1	6078 61	20A FP RCBO, 2P + E	8
1	6078 62	30A FP RCBO, 3P + E	8

Ekinoxe P17 Tempra plug and socket DBs

for Lexic MCBs/RCCBs/RCBOs

6078 71

6078 80

Dimensions (p. 195)

- As per IS 8623
- Suitable for Flush mounting and Surface mounting
- Suitable for protection of appliances like AC/Geyser etc.
- Supplied with neutral links
- With provision for MCBs/RCCBs/RCBOs
- #IK 08

Pack	Cat. nos.		Nos. of modules
1	6078 70	16A 2P+E-DP	2
1	6078 71	32A 3P+E-FP	8
1	6078 72	32A 3P+N+E-FP	8
1	6078 80	63A 3P+N+E-FP	8

Bold catalogue numbers are products normally available with Legrand (India) stockists. **Cat. nos. that are not bold** - delivery within 4 weeks from the date of order.
Bold packing quantity is our mandatory packing. Orders to be placed by Legrand (India) stockists in multiples of the same.
#IK - Refer pg. 186 for ready reconer table.
Lexic Circuit breakers to be ordered seperately

Metal & Plastic one way enclosures

for Lexic MCBs/RCCBs/RCBOs/DRX MCCBs/DPX MCCBs


6078 81


6078 82


6078 83


6078 84


6078 85


0013 58


0013 56


6079 05

Dimensions (p. 196-198)

- As per IS 8623
- For independent mounting of MCBs/RCCBs/RCBOs
- With provision for MCBs/RCCBs/RCBOs
- #IK 08

Pack	Cat. nos.	Metal one way enclosures	Nos. of modules
1	**6078 81**	SP Enclosure	1
1	**6078 82**	DP Enclosure	2
1	**6078 83**	TP Enclosure	3
1	**6078 84**	FP Enclosure	4
1	6078 85	FP RCBO Enclosure	8
		Plastic one way enclosures	Capacity of 17.5 mm modules
		For independent mounting of RCD / MCB / Isolator	
1	**0013 56**	For 2 poles	2
1	**0013 57**	For 4 poles	4
1	**0013 58**	For 6 poles	6
		Metal enclosures for MCCB poles	
1	**6079 00**	DPX 125	3 & 4
1	**6079 01**	DPX 160	3 & 4
1	**6079 02**	DPX 250 ER	3 & 4
1	**6079 03**	DPX 250	3 & 4
1	**6079 04**	DPX 630	4
1	**6079 05**	DRX 100	3 & 4

Ekinoxe Cable End Box


6077 43


6077 44

Dimensions (p. 199)

- Useful for keeping extra cables
- Possible to mount on the top or bottom of the DB
- Provison for mounting terminal blocks
- Can be used as a terminal box adaptor also

Pack	Cat. nos.	For IP 20 DBs
1	6077 43	For SPN 4 way DB
1	6077 53	For SPN 8 way DB
1	6077 63	For SPN 12 way DB
1	6077 73	For SPN 16 way DB
1	6077 83	For ETPN 4 way DB
1	6077 73	For ETPN 6 way DB
1	6077 93	For ETPN 8 way DB
1	6078 03	For ETPN 12 way DB
1	6078 03	For ETPN 16 way DB
1	6077 63	For all VTPN DB
1	6078 13	For all DPX MCCB DB
1	6077 63	For all Flexy DBs
		For IP 43 DBs
1	6077 44	For SPN 4 way DB
1	6077 54	For SPN 8 way DB
1	6077 64	For SPN 12 way DB
1	6077 74	For SPN 16 way DB
1	6077 84	For ETPN 4 way DB
1	6077 74	For ETPN 6 way DB
1	6077 94	For ETPN 8 way DB
1	6078 04	For ETPN 12 way DB
1	6078 04	For ETPN 16 way DB
1	6077 64	For all VTPN DB
1	6078 14	For all DPX MCCB DBs
1	6077 64	For all Flexy DBs

for cable end box of IP 42 DBs, contact Legrand (India) Stockist

Ekinoxe DBs
meter box,
per phase isolation kit & panel locks


6077 75


6077 76


6078 95


6014 70 G

Dimensions (p. 199)

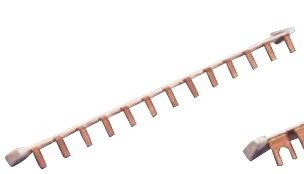
Pack	Cat. nos.	Meter box
		Suitable for mounting Lexic metering products Possible to mount on the top of the DB Provsion for mounting Ammeter/ Voltmeter/Ammeter Selector Switch/ Voltmeter Selector Switch #IK 08
1	6077 75	For all DPX MCCB IP 20 DB
1	6077 76	For all DPX MCCB IP 43 DBs
1	6077 77	For all DPX MCCB IP 54 DBs

		Per phase Isolation Kit
		To be used for converting ETPN DB to per phase Isolation DB
1	6078 90	PPI convertion kit for ETPN 4 way DB
1	6078 91	PPI convertion kit for ETPN 6 way DB
1	6078 92	PPI convertion kit for ETPN 8 way DB
1	6078 93	PPI convertion kit for ETPN 12 way DB
1	6078 94	PPI convertion kit for ETPN 16 way DB

		Panel locks
1	6078 95	Panel lock for IP 43 SPN DBs
1	6078 96	Panel lock for IP 54 SPN DBs
1	6078 97	Panel lock for IP 43 ETPN, VTPN, DPX MCCB & Flexy DBs
1	6078 98	Panel lock for IP 54 ETPN, VTPN, DPX MCCB & Flexy DBs

		Blanking plates
10	6014 70 G	

Supply busbars - insulated


6070 02


6070 12


6070 22


6070 23

Pack	Cat. nos.	Pin type supply busbars		
		100 A copper busbars with insulated sleeve		
		SP I/C and SP O/G		
			Max. no. of devices connected	Number of 17.5 mm modules
1	0049 26		13	13
1	0049 37		57	57
		SPN I/C and SPN O/G		
1	0049 38		6	12
1	0049 39		28	56
		TPN I/C and SPN O/G		
3/30	0049 40		5	12
10	0049 41		27	56
		TP I/C and TP O/G		
1	0049 42		4	12
1	0049 43		19	57
		FP I/C and FP O/G		
3/30	0049 44		3	12
10	0049 45		14	56

		Fork type supply busbars		
		100 A copper busbars with insulated sleeve		
		SP I/C and SP O/G		
1	0049 11		12	12
1	0049 12		57	57
		SPN I/C and SPN O/G		
1	0049 13		6	12
1	0049 14		28	56
		TPN I/C and SPN O/G		
3/30	0049 15		5	12
10	0049 16		27	56
		TP I/C and TP O/G		
1	0049 17		4	12
1	0049 18		19	57
		FP I/C and FP O/G		
3/30	0049 19		3	12
10	0049 20		14	56

		Accessories for fork and pin type busbars
6	0049 89	End caps for SP
6	0049 90	End caps for DP & TP
20/840	0049 91	End caps for FP

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#IK - Refer pg. 186 for ready reconer table.

Ekinoxe DBs
for Converting ETPN DB to PPI DB

PPI DB IP 20 - IK 08

No. of ways	Combine		No. of modules
	ETPN DB	PPI Kit	
4 way	4 way 607705	4 way kit 607890	8+12
6 way	6 way 607706	6 way kit 607891	8+18
8 way	8 way 607707	8 way kit 607892	8+24
12 way	12 way 607708	12 way kit 607893	8+36
16 way	16 way 607709	16 way kit 607894	8+48

PPI DB IP 43 - IK 09 with metal door

No. of ways	Combine		No. of modules
	ETPN DB	PPI Kit	
4 way	4 way 607715	4 way kit 607890	8+12
6 way	6 way 607716	6 way kit 607891	8+18
8 way	8 way 607717	8 way kit 607892	8+24
12 way	12 way 607718	12 way kit 607893	8+36
16 way	16 way 607719	16 way kit 607894	8+48

PPI DB IP 43 - IK 09 with acrylic door

No. of ways	Combine		No. of modules
	ETPN DB	PPI Kit	
4 way	4 way 607725	4 way kit 607890	8+12
6 way	6 way 607726	6 way kit 607891	8+18
8 way	8 way 607727	8 way kit 607892	8+24
12 way	12 way 607728	12 way kit 607893	8+36
16 way	16 way 607729	16 way kit 607894	8+48

PPI DB IP 54 - IK 09

No. of ways	Combine		No. of modules
	ETPN DB	PPI Kit	
4 way	4 way 607735	4 way kit 607890	8+12
6 way	6 way 607736	6 way kit 607891	8+18
8 way	8 way 607737	8 way kit 607892	8+24
12 way	12 way 607738	12 way kit 607893	8+36
16 way	16 way 607739	16 way kit 607894	8+48

IK

Protection against mechanical impact: protection index - IK
According to standard:
IEC 62262, BS EN 62262 and NF EN 62262
• This table can be used to ascertain the resistance of a product to an impact given in Joules from the IK code (graduated from 00 to 10)
It can also be used to ascertain the correspondence with the old IP code 3rd digit and the corresponding external "Ag" conditions

IK	Tests	Impact energy (in Joules)	"AG" of NF C 15-100
IK 00		0	
IK 01	0.2 kg, 75 mm	0.15	
IK 02	0.2 kg, 100 mm	0.2	AG1
IK 03	0.2 kg, 175 mm	0.35	
IK 04	0.2 kg, 250 mm	0.5	
IK 05	0.2 kg, 350 mm	0.7	
IK 06	0.5 kg, 200 mm	1	
IK 07	0.5 kg, 400 mm	2	AG2
IK 08	1.7 kg, 295 mm	5	AG3
IK 09	5 kg, 200 mm	10	
IK 10	5 kg, 400 mm	20	AG4

IPXX

Index of protection

IP* index of protection of enclosures of electrical equipment in accordance with standards IEC 529, BS 5490, DIN 400 50 and NF C 20-010**
Up to 1000 V± and 1500 V= (standard UTE C 20 010)

1st figure-: protection against solid bodies

IP	tests	
0		No protection
1	Ø 50 mm	Protected against solid bodies larger than 50 mm (eg-: accidental contact with the hand)
2	Ø 12,5 mm	Protected against solid bodies larger than 12 mm (eg-: finger)
3	Ø 2,5 mm	Protected against solid bodies larger than 2.5 mm (eg-: tools, wires)
4	Ø 1 mm	Protected against solid bodies larger than 1 mm (eg-: fine tools and small wires)
5		Protected against dust (no harmful deposit)
6		Completely protected against dust

2nd figure-: protection against liquids

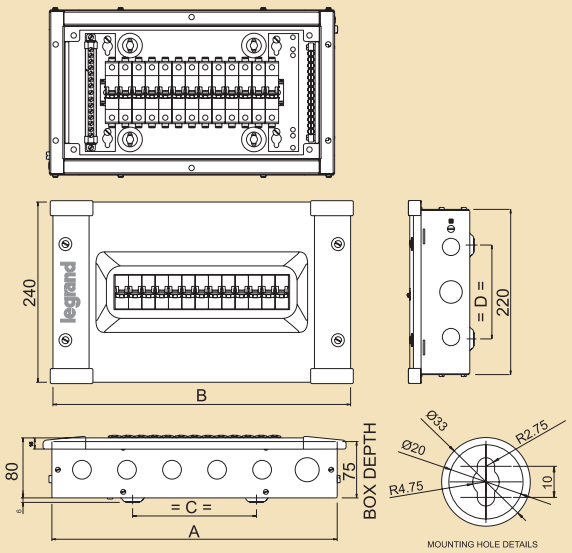
IP	tests	
0		No protection
1		Protected against vertically-falling drops of water (condensation)
2	15°	Protected against drops of water falling at up to 15° from the vertical
3	60°	Protected against drops of rain water at up to 60° from the vertical
4		Protected against projections of water from all directions
5		Protected against jets of water from all directions
6		Protected against jets of water of similar force to heavy seas
7	1 m, 15 cm min	Protected against the effects of immersion
8		Protected against prolonged effects of immersion under pressure

The contents of all the above charts are for guidance only, if you have any doubt as to the interpretation of the information contained therein, please refer either to the standard itself or contact Legrand. (I) Pvt. Ltd.
In accordance with our policy of continuous improvement, Legrand reserves the right to change specifications and designs without notice. All information given here is correct at the time of going to press.

SPN DBs
for Lexic MCB, Isolator, RCCB and RCBO

■ Dimensions

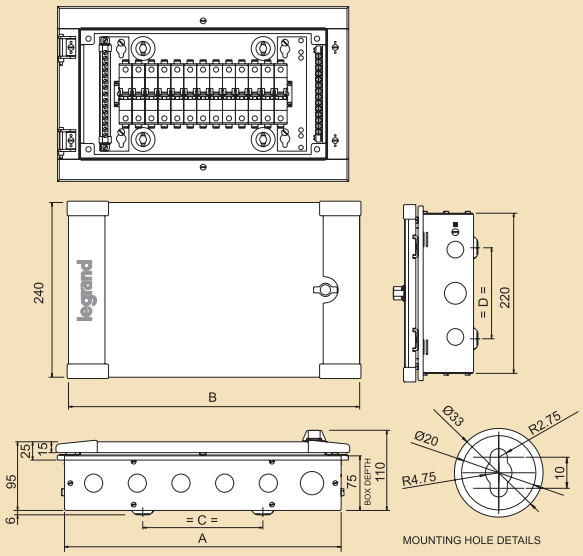
IP 20 - IK 08



Box clear depth = 75mm (Excluding MTG Hole Embossing)
SPN 4/8/12/16W IP20 DB

						Top		Bottom		Sides	
Cat. no.	No. of ways	A	B	C	D	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out
6077 00	4	218	238	118	100	1 no.	2 nos.	1 no.	2 nos.	1 no.	2 nos.
6077 01	8	290	310	190	100	1 no.	3 nos.	1 no.	3 nos.	1 no.	2 nos.
6077 02	12	380	400	165	125	1 no.	5 nos.	1 no.	5 nos.	1 no.	2 nos.
6077 03	16	450	470	235	125	1 no.	6 nos.	1 no.	6 nos.	1 no.	2 nos.

IP 43 - IK 09 with metal door

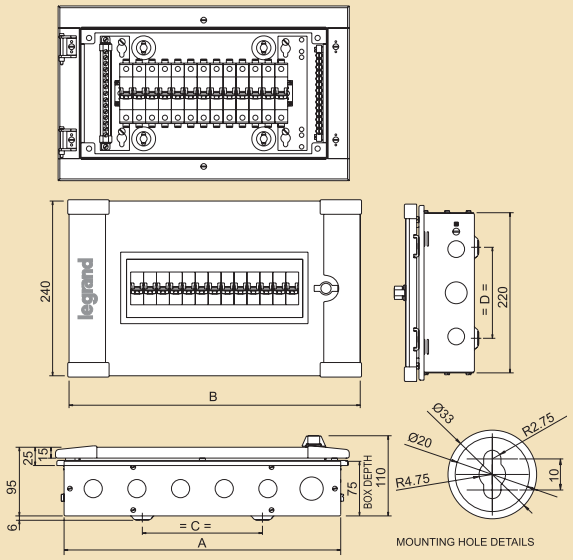


Box clear depth = 75mm (Excluding MTG Hole Embossing)
SPN 4/8/12/16W IP43 DB

						Top		Bottom		Sides	
Cat. no.	No. of ways	A	B	C	D	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out
6077 10	4	218	238	118	100	1 no.	2 nos.	1 no.	2 nos.	1 no.	2 nos.
6077 11	8	290	310	190	100	1 no.	3 nos.	1 no.	3 nos.	1 no.	2 nos.
6077 12	12	380	400	165	125	1 no.	5 nos.	1 no.	5 nos.	1 no.	2 nos.
6077 13	16	450	470	235	125	1 no.	6 nos.	1 no.	6 nos.	1 no.	2 nos.

■ Dimensions

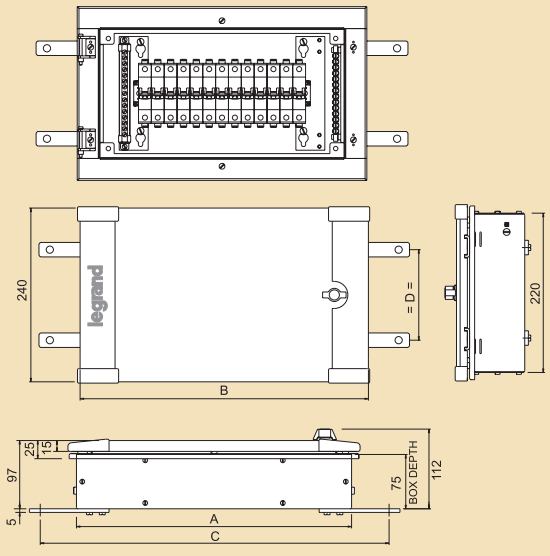
IP 43 - IK 09 with acrylic door



Box clear depth = 75mm (Excluding MTG Hole Embossing)
SPN 4/8/12/16W IP43 DB with acrylic door

						Top		Bottom		Sides	
Cat. no.	No. of ways	A	B	C	D	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out
6077 20	4	218	238	118	100	1 no.	2 nos.	1 no.	2 nos.	1 no.	2 nos.
6077 21	8	290	310	190	100	1 no.	3 nos.	1 no.	3 nos.	1 no.	2 nos.
6077 22	12	380	400	165	125	1 no.	5 nos.	1 no.	5 nos.	1 no.	2 nos.
6077 23	16	450	470	235	125	1 no.	6 nos.	1 no.	6 nos.	1 no.	2 nos.

IP 54 - IK 09



Box clear depth = 75mm (Excluding MTG Hole Embossing)
SPN 4/8/12/16W IP54 DB

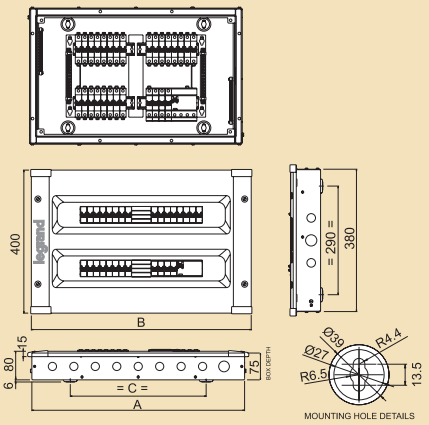
Cat. no.	No. of ways	A	B	C	D
6077 30	4	218	238	318	100
6077 31	8	290	310	390	100
6077 32	12	380	400	480	125
6077 33	16	450	470	550	125

All dimensions are in mm
1 inch = 25.4mm
Accuracy of dimensions = ± 2mm

TPN DBs - ETPN DBs
for Lexic MCB, Isolator, RCCB and RCBO

■ Dimensions

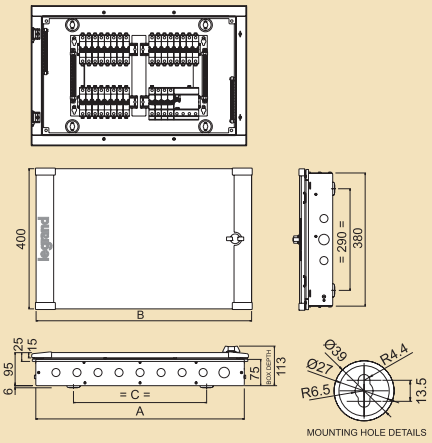
IP 20 - IK 08



Box clear depth = 75mm (Excluding MTG Hole Embossing)
ETPN 4/6/8/12/16W IP20 DB

Cat. no.	No. of ways	A	B	C	Top		Bottom		Sides	
					Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out
6077 05	4	415	435	295	1 no.	5 nos.	1 no.	5 nos.	1 no.	2 nos.
6077 06	6	450	470	330	1 no.	6 nos.	1 no.	6 nos.	1 no.	2 nos.
6077 07	8	595	615	380	1 no.	8 nos.	1 no.	8 nos.	1 no.	2 nos.
6077 08	12	740	760	450	1 no.	10nos.	1 no.	10nos.	1 no.	2 nos.
6077 09	16	740	760	450	1 no.	10nos.	1 no.	10nos.	1 no.	2 nos.

IP 43 - IK 09 with metal door

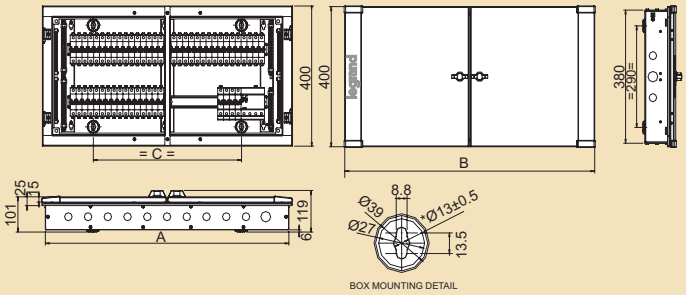


Box clear depth = 75mm (Excluding MTG Hole Embossing)
ETPN 4/6/8/12/16W IP20 DB

Cat. no.	No. of ways	A	B	C	Top		Bottom		Sides	
					Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out
6077 15	4	415	435	295	1 no.	5 nos.	1 no.	5 nos.	1 no.	2 nos.
6077 16	6	450	470	330	1 no.	6 nos.	1 no.	6 nos.	1 no.	2 nos.
6077 17	8	595	615	380	1 no.	8 nos.	1 no.	8 nos.	1 no.	2 nos.

■ Dimensions

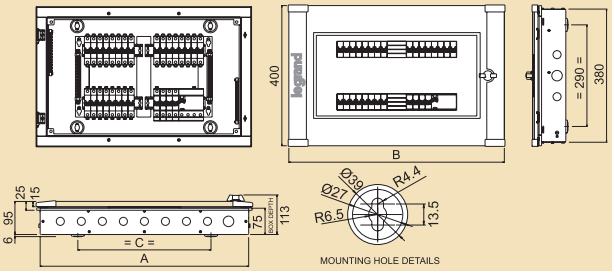
IP 43 - IK 09 with metal door



Box clear depth = 75mm (Excluding MTG Hole Embossing)
ETPN 12/16W IP 43 DB with metal door.

Cat. no.	No. of ways	A	B	C	Top		Bottom		Sides	
					Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out
6077 18	12	740	760	450	1 no.	10nos.	1 no.	10nos.	1 no.	2 nos.
6077 19	16	740	760	450	1 no.	10nos.	1 no.	10nos.	1 no.	2 nos.

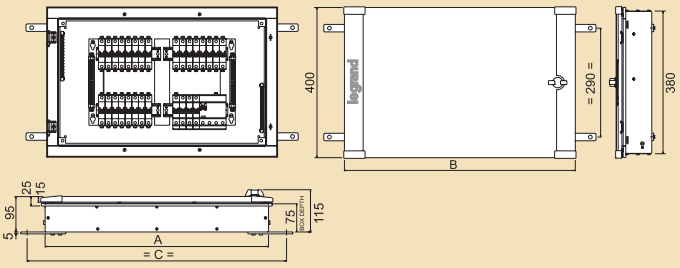
IP 43 - IK 09 with acrylic door



Box clear depth = 75mm (Excluding MTG Hole Embossing)
ETPN 4/6/8/12/16W IP43 DB with acrylic door

Cat. no.	No. of ways	A	B	C	Top		Bottom		Sides	
					Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out
6077 25	4	415	435	295	1 no.	5 nos.	1 no.	5 nos.	1 no.	2 nos.
6077 26	6	450	470	330	1 no.	6 nos.	1 no.	6 nos.	1 no.	2 nos.
6077 27	8	595	615	380	1 no.	8 nos.	1 no.	8 nos.	1 no.	2 nos.
6077 28	12	740	760	450	1 no.	10nos.	1 no.	10nos.	1 no.	2 nos.
6077 29	16	740	760	450	1 no.	10nos.	1 no.	10nos.	1 no.	2 nos.

IP 54 - IK 09



Box clear depth = 75mm (Excluding MTG Hole Embossing)
ETPN 4/6/8/12/16W IP43 DB

Cat. no.	No. of ways	A	B	C
6077 35	4	415	435	515
6077 36	6	450	470	550
6077 37	8	595	615	695
6077 38	12	740	760	840
6077 39	16	740	760	840

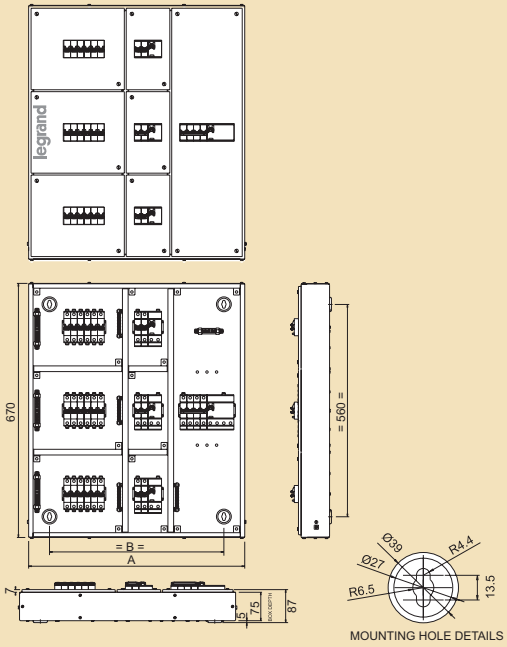
All dimensions are in mm
1 inch = 25.4mm
Accuracy of dimensions = ± 2mm

TPN DBs - 7 segment DBs

for Lexic MCB, Isolator, RCCB and RCBO

■ Dimensions

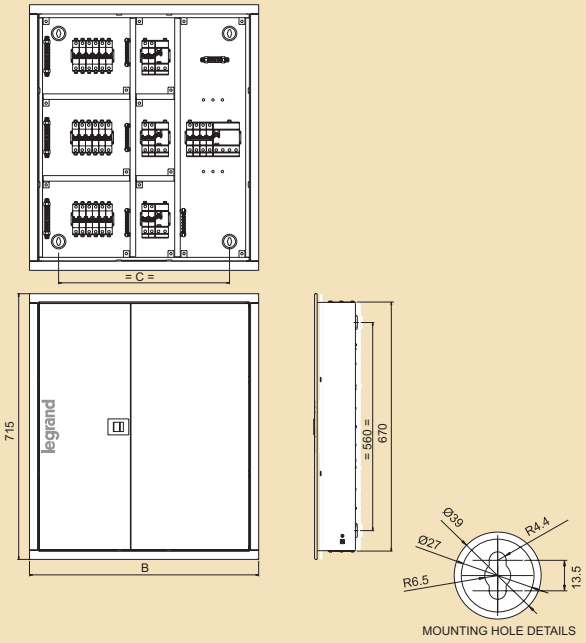
IP 20 - IK 08



Box clear depth = 75mm (Excluding MTG Hole Embossing)
7 comp Lexic MCB/RCD 4/6/8/12W IP43 DB

Cat. no.	No. of ways	A	B
6078 25	4	535	425
6078 26	6	570	460
6078 27	8	625	515
6078 28	12	700	590

IP 42 - IK 09 with metal door



Box clear depth = 110mm (Excluding MTG Hole Embossing)
7 comp Lexic MCB/RCD 4/6/8/12W IP42 DB

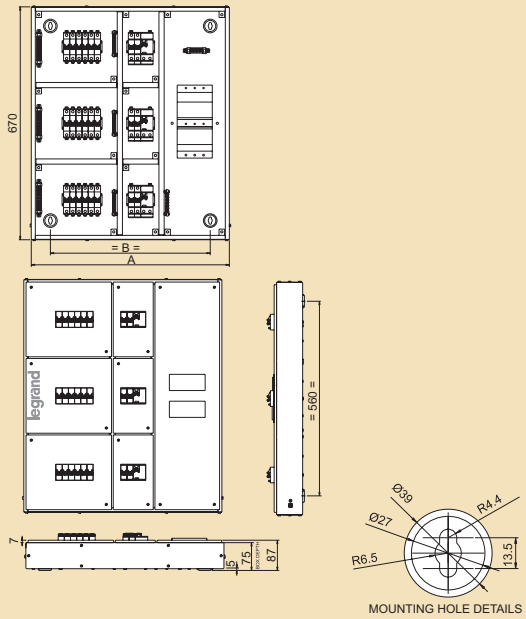
Cat. no.	No. of ways	A	B	C
6078 35	4	535	582	425
6078 36	6	570	617	460
6078 37	8	625	672	515
6078 38	12	700	747	590

TPN DBs - 7 segment MCCB DBs

for Lexic MCB, Isolator, RCCB and RCBO

■ Dimensions

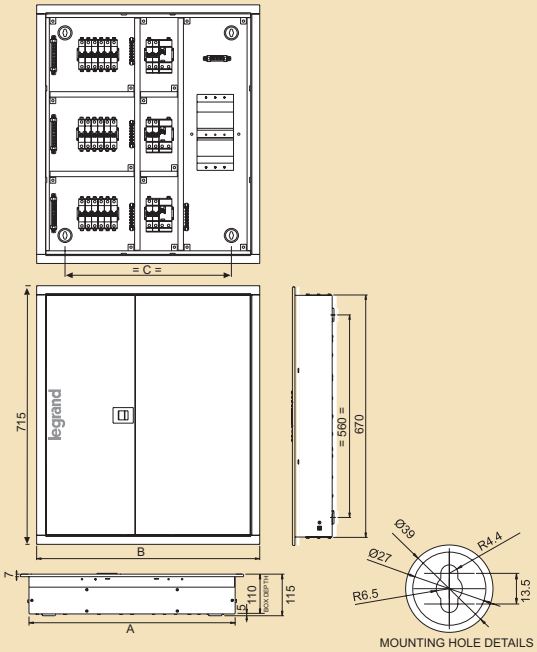
IP 20 - IK 08



Box clear depth = 75mm (Excluding MTG Hole Embossing)
7 comp Lexic MCB/RCD 4/6/8/12W IP20 DB

Cat. no.	No. of ways	A	B
6078 45	4	535	425
6078 46	6	570	460
6078 47	8	625	515
6078 48	12	700	590

IP 42 - IK 09 with metal door



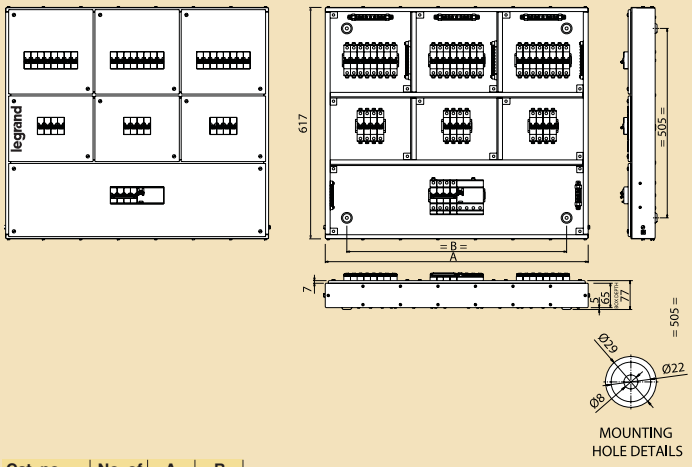
Box clear depth = 110mm (Excluding MTG Hole Embossing)
7 comp Lexic MCB/RCD 4/6/8/12W IP20 DB

Cat. no.	No. of ways	A	B	C
6078 55	4	535	582	425
6078 56	6	570	617	460
6078 57	8	625	672	515
6078 58	12	700	747	590

All dimensions are in mm
1 inch = 25.4mm
Accuracy of dimensions = ± 2mm

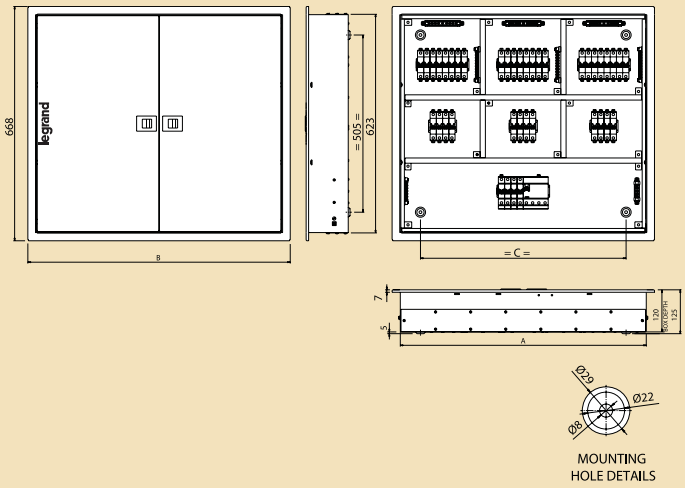
TPN DBs
common for Lexic MCB / Isolator / RCD and Loadkontakt / Loadstop

7 Segment DBs - IP 20



Cat. no.	No. of ways	A	B
6014 50 G	4	491	376
6014 51 G	6	596	481
6014 52 G	8	701	586
6014 53 G	12	911	796

7 Segment DBs - IP 42 - metal door

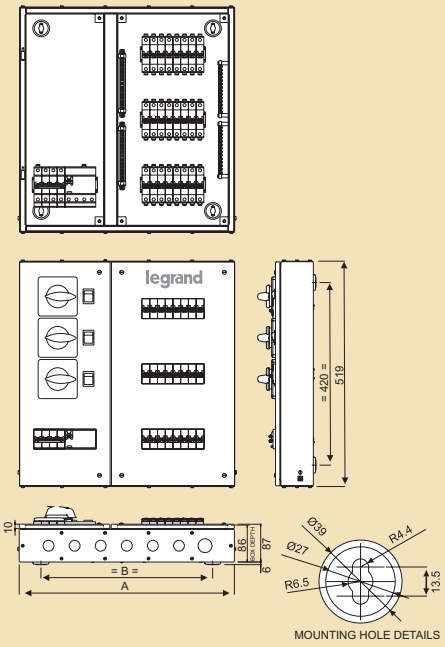


Cat. no.	No. of ways	A	B	C
6014 54 G	4	491	538	376
6014 55 G	6	596	643	481
6014 56 G	8	701	748	586
6014 57 G	12	911	958	796

TPN DBs - Phase selector DBs
for Lexic MCB, Isolator, RCCB and RCBO

■ Dimensions

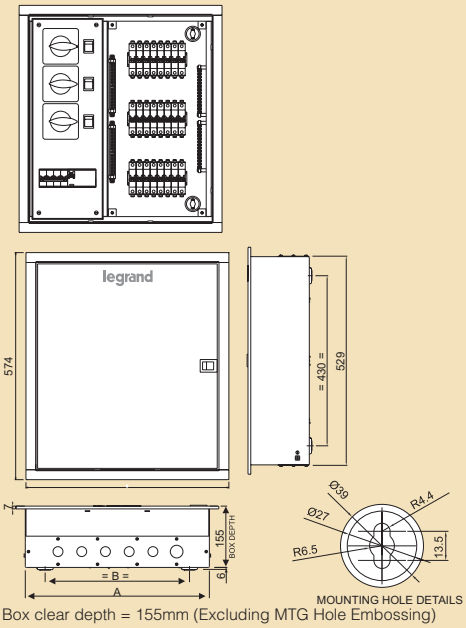
IP 20 - IK 08



Box clear depth = 86mm (Excluding MTG Hole Embossing)
Phase selector 4/6/8/12W IP20 DB

Cat. no.	No. of ways	A	B	Top Ø 32 Knock out	Top Ø 25 Knock out	Bottom Ø 32 Knock out	Bottom Ø 25 Knock out
6078 65	4	425	325	1 no.	5 nos.	1 no.	5 nos.
6078 66	6	460	360	1 no.	5 nos.	1 no.	5 nos.
6078 67	8	495	395	1 no.	6 nos.	1 no.	6 nos.
6078 68	12	570	470	1 no.	7 nos.	1 no.	7 nos.

IP 42 - IK 09 with metal door



Box clear depth = 155mm (Excluding MTG Hole Embossing)
Phase selector 4/6/8/12W IP42 DB

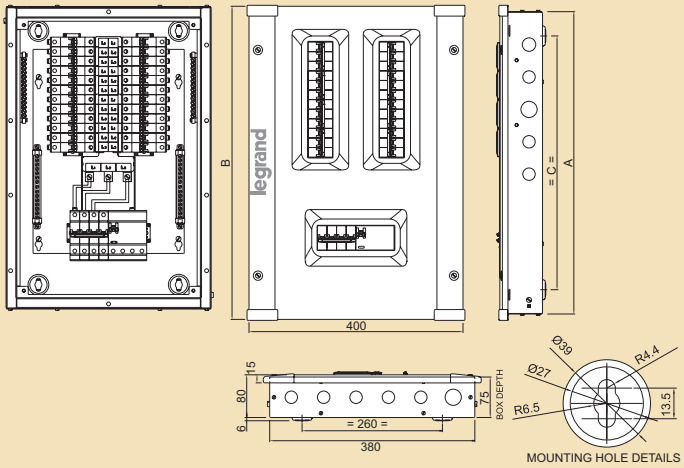
Cat. no.	No. of ways	A	B	C	Top Ø 32 Knock out	Top Ø 25 Knock out	Bottom Ø 32 Knock out	Bottom Ø 25 Knock out
6078 75	4	395	295	443	1 no.	4 nos.	1 no.	4 nos.
6078 76	6	430	330	478	1 no.	5 nos.	1 no.	5 nos.
6078 77	8	465	365	513	1 no.	5 nos.	1 no.	5 nos.
6078 78	12	540	440	588	1 no.	7 nos.	1 no.	7 nos.

All dimensions are in mm
1 inch = 25.4mm
Accuracy of dimensions = ± 2mm

TPN DBs - VTPN DBs
for Lexic MCB, Isolator, RCCB and RCBO

■ Dimensions

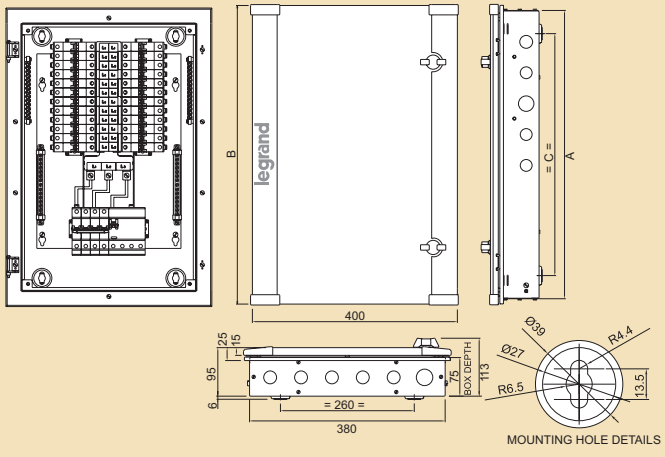
IP 20 - IK 08



Box clear depth = 75mm (Excluding MTG Hole Embossing)
VTPN 4/8/12W IP20 DB

					Top		Bottom		Sides	
Cat. no.	No. of ways	A	B	C	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out
6077 40	4	450	470	360	1 no.	5 nos.	1 no.	5 nos.	1 no.	4 nos.
6077 41	8	560	580	470	1 no.	5 nos.	1 no.	5 nos.	1 no.	4 nos.
6077 42	12	690	710	600	1 no.	5 nos.	1 no.	5 nos.	1 no.	4 nos.

IP 43 - IK 09 with metal door

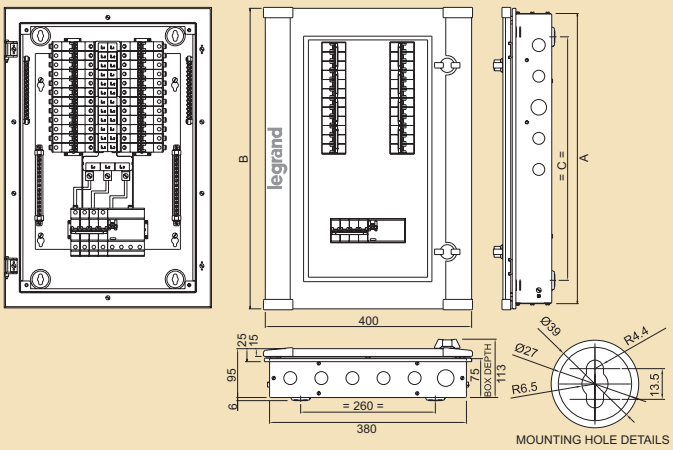


Box clear depth = 75mm (Excluding MTG Hole Embossing)
VTPN 4/8/12W IP43 DB

					Top		Bottom		Sides	
Cat. no.	No. of ways	A	B	C	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out
6077 50	4	450	470	360	1 no.	5 nos.	1 no.	5 nos.	1 no.	4 nos.
6077 51	8	560	580	470	1 no.	5 nos.	1 no.	5 nos.	1 no.	4 nos.
6077 52	12	690	710	600	1 no.	5 nos.	1 no.	5 nos.	1 no.	4 nos.

■ Dimensions

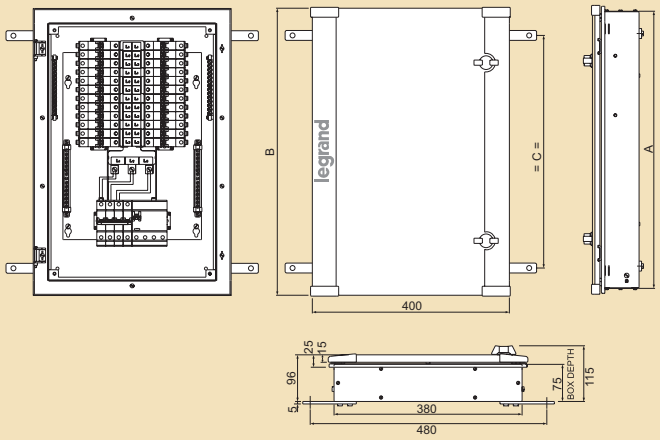
IP 43 - 09 with acrylic door



Box clear depth = 75mm (Excluding MTG Hole Embossing)
VTPN 4/8/12W IP43 DB with acrylic door

					Top		Bottom		Sides	
Cat. no.	No. of ways	A	B	C	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out
6077 60	4	450	470	360	1 no.	5 nos.	1 no.	5 nos.	1 no.	4 nos.
6077 61	8	560	580	470	1 no.	5 nos.	1 no.	5 nos.	1 no.	4 nos.
6077 62	12	690	710	600	1 no.	5 nos.	1 no.	5 nos.	1 no.	4 nos.

IP 54 - IK 09



Box clear depth = 75mm (Excluding MTG Hole Embossing)
VTPN 4/8/12W IP54 DB

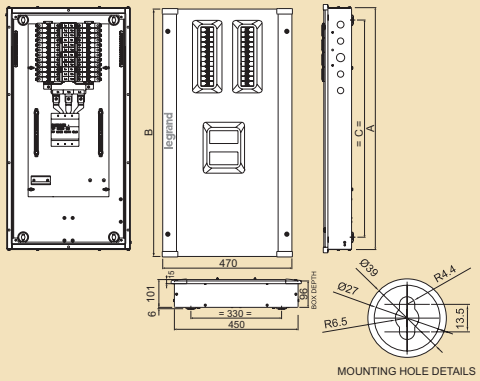
Cat. no.	No. of ways	A	B	C
6077 70	4	450	470	360
6077 71	8	560	580	470
6077 72	12	690	710	600

All dimensions are in mm
1 inch = 25.4mm
Accuracy of dimensions = ± 2mm

TPN DBs - DPX 125 MCCB DBs
for Lexic MCB

■ Dimensions

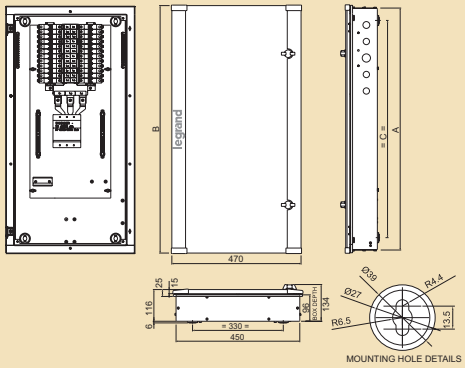
IP 20 - IK 08



Box clear depth = 96mm (Excluding MTG Hole Embossing)
VTPN 4/8/12W IP20 125A MCCB DB

Cat. no.	No. of ways	A	B	C	Sides	
					Ø 32 Knock out	Ø 25 Knock out
6077 80	4	770	790	680	1 no.	4 nos.
6077 81	8	880	900	790	1 no.	4 nos.
6077 82	12	990	1010	900	1 no.	4 nos.

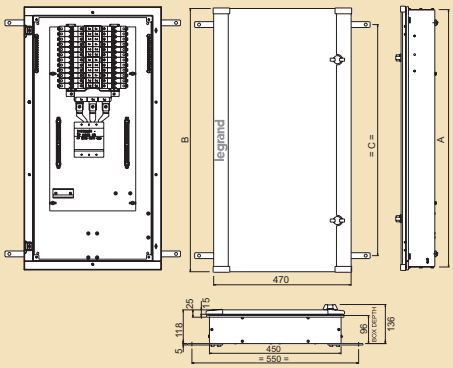
IP 43 - IK 09 with metal door



Box clear depth = 96mm (Excluding MTG Hole Embossing)
VTPN 4/8/12W IP43 125A MCCB DB

Cat. no.	No. of ways	A	B	C	Sides	
					Ø 32 Knock out	Ø 25 Knock out
6077 90	4	770	790	680	1 no.	4 nos.
6077 91	8	880	900	790	1 no.	4 nos.
6077 92	12	990	1010	900	1 no.	4 nos.

IP 54 - IK 09



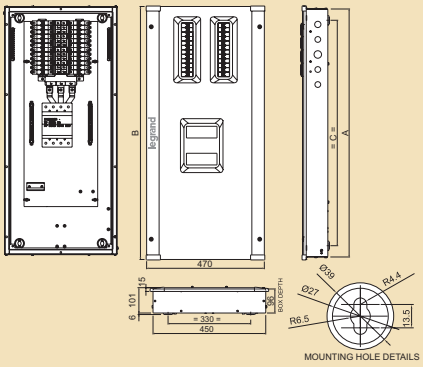
Box clear depth = 96mm (Excluding MTG Hole Embossing)
VTPN 4/8/12W IP54 125A MCCB DB

Cat. no.	No. of ways	A	B	C
6078 00	4	770	790	680
6078 01	8	880	900	790
6078 02	12	990	1010	900

TPN DBs - DPX 250 ER MCCB DBs
for Lexic MCB

■ Dimensions

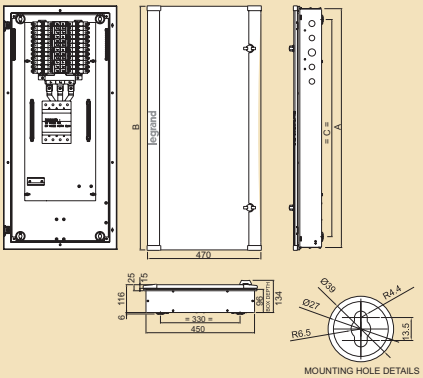
IP 20 - IK 08



Box clear depth = 96mm (Excluding MTG Hole Embossing)
VTPN 4/8/12W IP20 250ER MCCB DB

Cat. no.	No. of ways	A	B	C	Sides	
					Ø 32 Knock out	Ø 25 Knock out
6078 10	4	880	900	790	1 no.	4 nos.
6078 11	8	990	1010	900	1 no.	4 nos.
6078 12	12	1100	1120	1010	1 no.	4 nos.

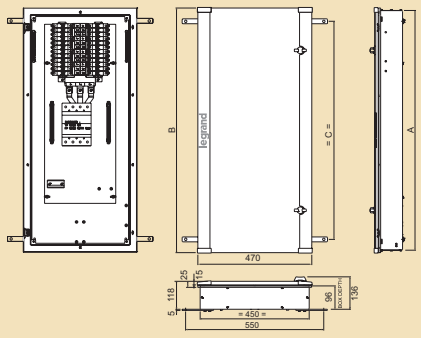
IP 43 - IK 09 with metal door



Box clear depth = 96mm (Excluding MTG Hole Embossing)
VTPN 4/8/12W IP43 250ER MCCB DB

Cat. no.	No. of ways	A	B	C	Sides	
					Ø 32 Knock out	Ø 25 Knock out
6078 20	4	880	900	790	1 no.	4 nos.
6078 21	8	990	1010	900	1 no.	4 nos.
6078 22	12	1100	1120	1010	1 no.	4 nos.

IP 54 - IK 09



Box clear depth = 96mm (Excluding MTG Hole Embossing)
VTPN 4/8/12W IP54 250ER MCCB DB

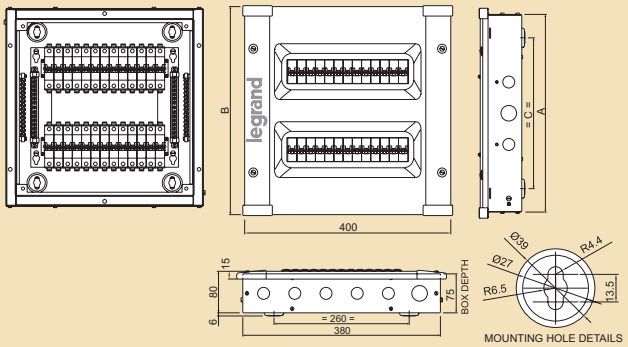
Cat. no.	No. of ways	A	B	C
6078 30	4	880	900	790
6078 31	8	990	1010	900
6078 32	12	1100	1120	1010

All dimensions are in mm
1 inch = 25.4mm
Accuracy of dimensions = ± 2mm

Flexy DBs

■ Dimensions

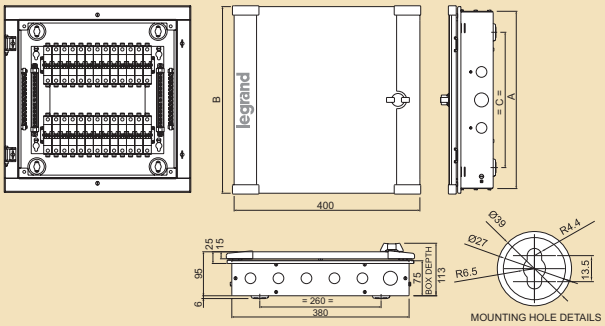
IP 20 - IK 08



Box clear depth = 75mm (Excluding MTG Hole Embossing)
13M 2R/3R/4R IP20 DB

					Top		Bottom		Sides	
Cat. no.	No. of rows	A	B	C	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out
6077 45	2	380	400	290	1 no.	5 nos.	1 no.	5 nos.	1 no.	2 nos.
6077 55	3	560	580	470	1 no.	5 nos.	1 no.	5 nos.	1 no.	4 nos.
6077 65	4	690	710	600	1 no.	5 nos.	1 no.	5 nos.	1 no.	4 nos.

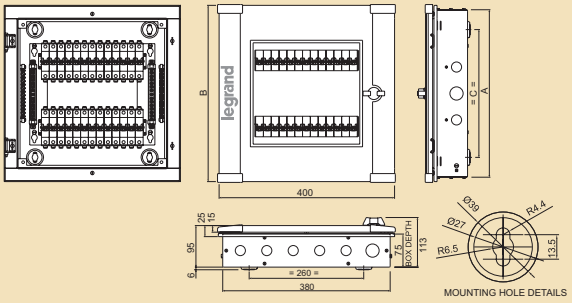
IP 43 - IK 09 with metal door



Box clear depth = 75mm (Excluding MTG Hole Embossing)
13M 2R/3R/4R IP43 DB

					Top		Bottom		Sides	
Cat. no.	No. of rows	A	B	C	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out
6077 46	2	380	400	290	1 no.	5 nos.	1 no.	5 nos.	1 no.	2 nos.
6077 56	3	560	580	470	1 no.	5 nos.	1 no.	5 nos.	1 no.	4 nos.
6077 66	4	690	710	600	1 no.	5 nos.	1 no.	5 nos.	1 no.	4 nos.

IP 43 - IK 09 with acrylic door



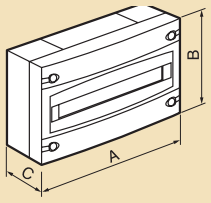
Box clear depth = 75mm (Excluding MTG Hole Embossing)
13M 2R/3R/4R IP43 DB with acrylic door

					Top		Bottom		Sides	
Cat. no.	No. of rows	A	B	C	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out	Ø 32 Knock out	Ø 25 Knock out
6077 47	2	380	400	290	1 no.	5 nos.	1 no.	5 nos.	1 no.	2 nos.
6077 57	3	560	580	470	1 no.	5 nos.	1 no.	5 nos.	1 no.	4 nos.
6077 67	4	690	710	600	1 no.	5 nos.	1 no.	5 nos.	1 no.	4 nos.

Ekinoxe TX DBs
for Lexic products

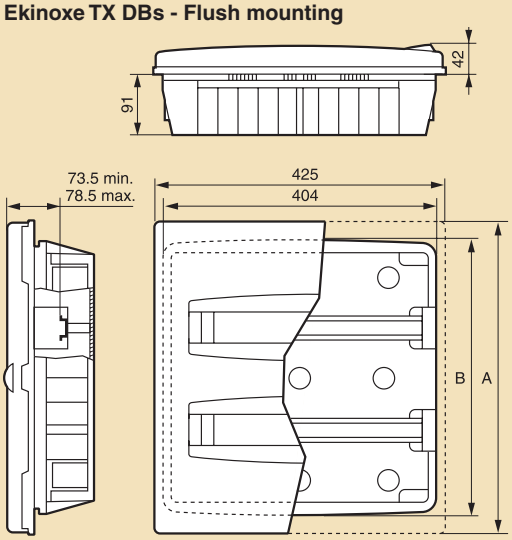
■ Dimensions

Ekinoxe TX DBs - Surface mounting



	A	B	C
1 row	425	310	117
2 row	425	460	117
3 row	425	610	117
4 row	425	760	117

Ekinoxe TX DBs - Flush mounting



	A	B
1 row	460	402
2 row	610	552
3 row	760	702

All dimensions are in mm
1 inch = 24.4mm
Accuracy of dimensions = ± 2mm

Ekinoxe TX DBs
for Lexic products

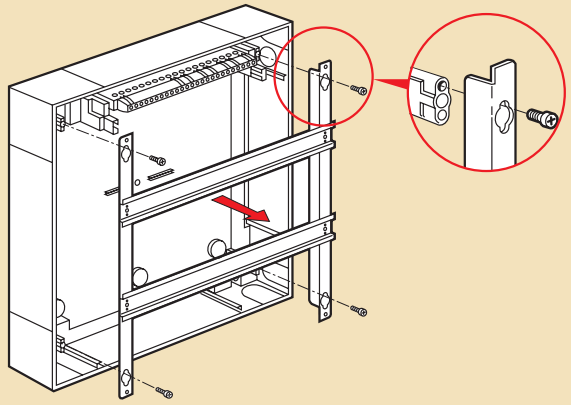
Metra plug and socket DBs
for Lexic MCBs

■ Installations

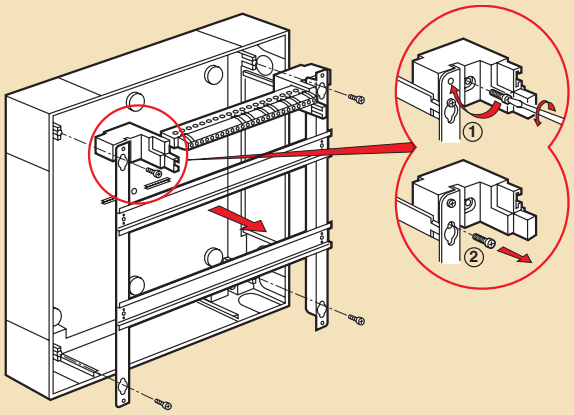
Ekinoxe TX DBs - Surface mounting

Installation of chassis and terminal block support

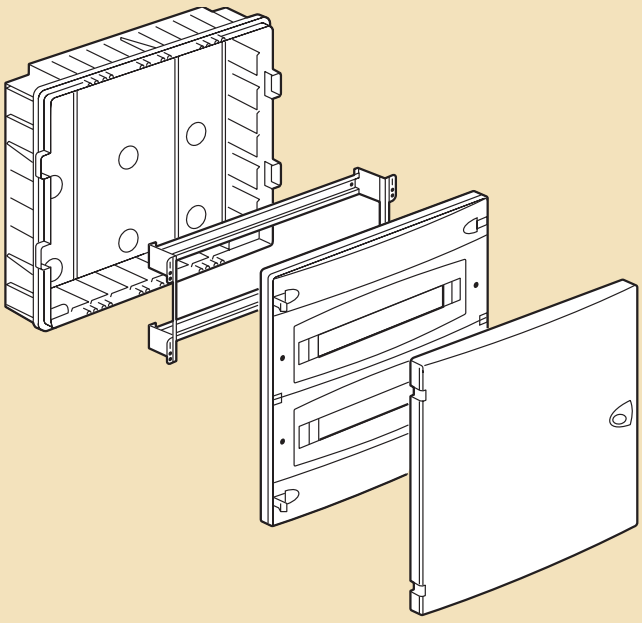
• Removal of chassis only



• Removal of chassis with terminal blocks

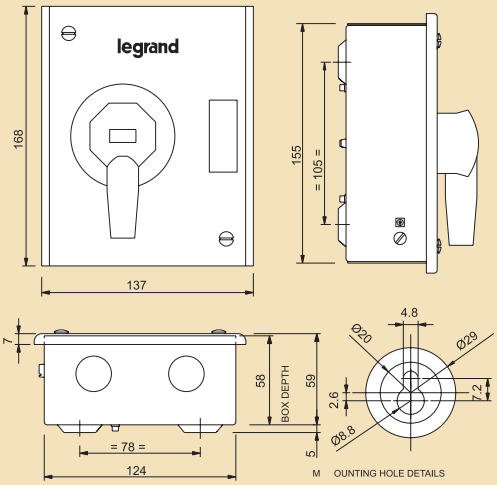


Ekinoxe TX DBs - Flush mounting



■ Dimensions

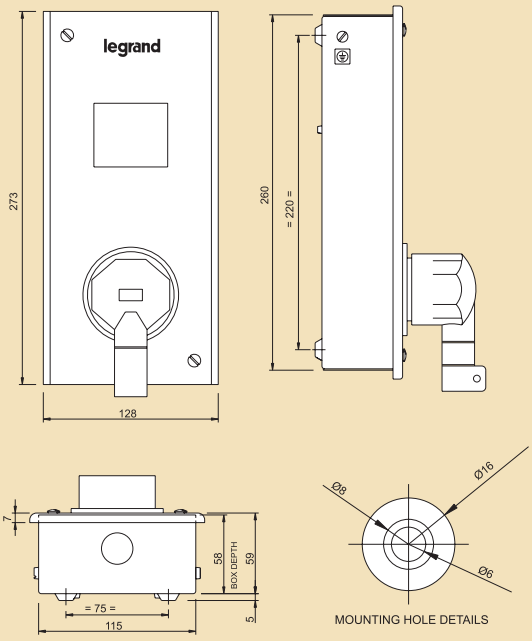
SP MCB



Box clear depth = 58mm (Excluding MTG Hole Embossing)
Metra 10A/20A SP MCB P&S DB

		Top	Bottom
Cat. no.	No. of ways	Ø 25 Knock out	Ø 25 Knock out
6078 40	10A SP MCB	2 nos.	2 nos.
6078 41	20A SP MCB	2 nos.	2 nos.

TP MCB



Box clear depth = 58mm (Excluding MTG Hole Embossing)
Metra 20A/32A TP MCB P&S DB

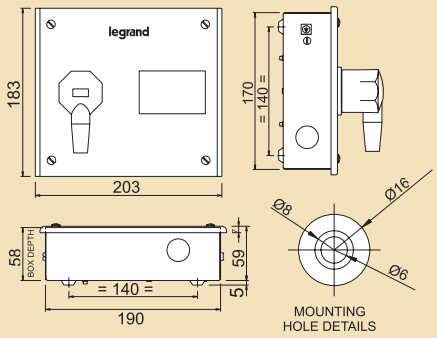
		Top	Bottom
Cat. no.	No. of ways	Ø 25 Knock out	Ø 25 Knock out
6078 50	20A TP MCB	1 nos.	1 nos.
6078 51	32A TP MCB	1 nos.	1 nos.

All dimensions are in mm
1 inch = 25.4mm
Accuracy of dimensions = ± 2mm

Metra plug and socket DBs
for Lexic RCCBs and RCBOs

■ Dimensions

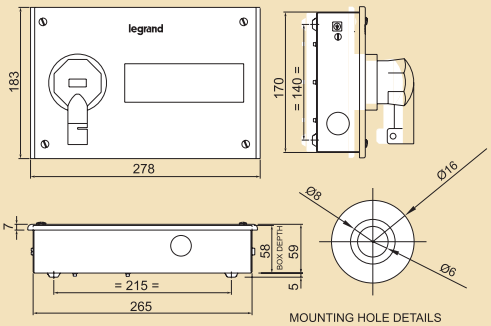
DP RCBO



Box clear depth = 58mm (Excluding MTG Hole Embossing)
Metra 20A DP RCBO P&S DB

Cat. no.	No. of ways	Top Ø 25 Knock out	Bottom Ø 25 Knock out	Side Ø 25 Knock out
6078 60	20A DP RCBO	1 no	1 no	1 no

FP RCBO



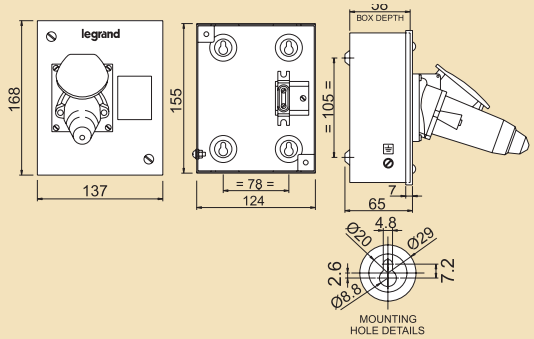
Box clear depth = 58mm (Excluding MTG Hole Embossing)
Metra 20A/32A FP RCBO P&S DB

Cat. no.	No. of ways	Top Ø 25 Knock out	Bottom Ø 25 Knock out	Side Ø 25 Knock out
6078 61	20A FP RCBO	1 no	1 no	1 no
6078 62	32A FP RCBO	1 no	1 no	1 no

P17 Tempra plug and socket DBs
for Lexic MCBs / RCCBs / RCBOs

■ Dimensions

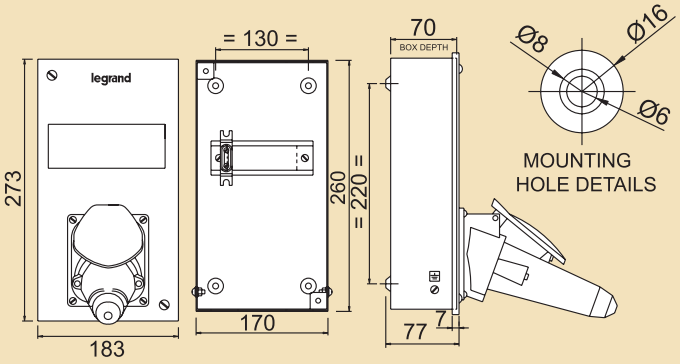
16A DP



Box clear depth = 58mm (Excluding MTG Hole Embossing)
Tempra 16A (2P + E) P&S DB

Cat. no.	No. of ways	Top Ø 25 Knock out	Bottom Ø 25 Knock out
6078 70	16A 2P+E DP	2 nos	2 nos

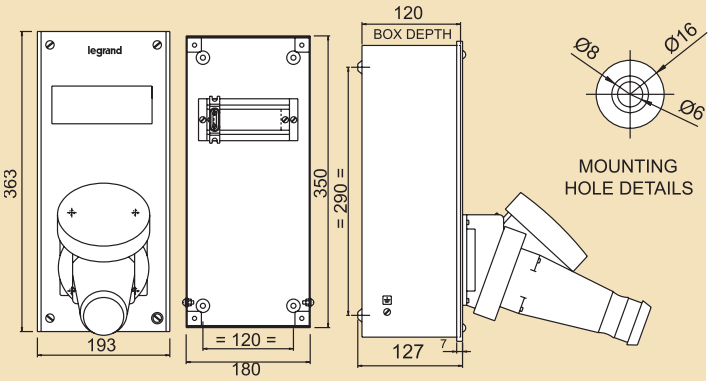
32A FP



Box clear depth = 70mm (Excluding MTG Hole Embossing)
Tempra 32A (3P + E & 3P + N + E) P&S DB

Cat. no.	No. of ways	Top Ø 25 Knock out	Bottom Ø 25 Knock out
6078 71	32A 3P+E 8P	2 nos	2 nos
6078 72	32A 3P+N+E 8P	2 nos	2 nos

63A FP



Box clear depth = 120mm (Excluding MTG Hole Embossing)
Tempra 63A (3P + N + E) P&S DB

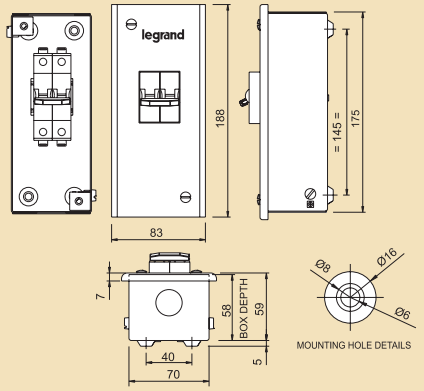
Cat. no.	No. of ways	Top Ø 25 Knock out	Bottom Ø 25 Knock out
6078 80	63A 3P+N+E 8P	2 nos	2 nos

All dimensions are in mm
1 inch = 25.4mm
Accuracy of dimensions = ± 2mm

Metal one way enclosures
for Lexic MCBs / RCCBs / RCBOs

■ Dimensions

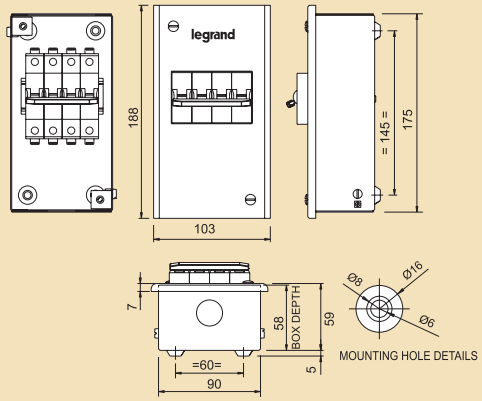
SP/DP MCB



Box clear depth = 58mm (Excluding MTG Hole Embossing)
Enclosure SP/DP MCB

Cat. no.	No. of ways	Top Ø 25 Knock out	Bottom Ø 25 Knock out
6078 81	SP MCB	1 no	1 no
6078 82	DP MCB	1 no	1 no

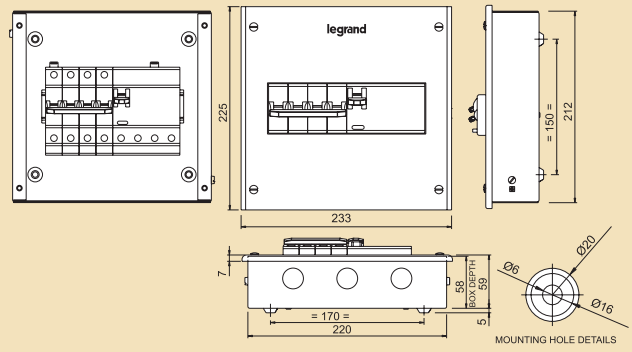
TP/FP MCB



Box clear depth = 58mm (Excluding MTG Hole Embossing)
Enclosure TP/FP MCB

Cat. no.	No. of ways	Top Ø 25 Knock out	Bottom Ø 25 Knock out
6078 83	TP MCB	1 no	1 no
6078 84	FP MCB	1 no	1 no

FP RCBO

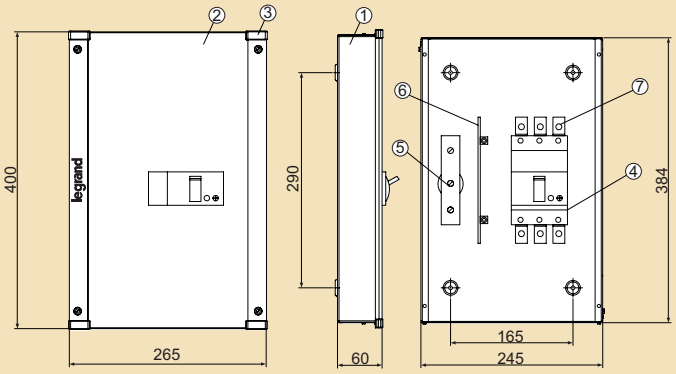


Box clear depth = 58mm (Excluding MTG Hole Embossing)
Enclosure FP RCBO

Cat. no.	No. of ways	Top Ø 25 Knock out	Bottom Ø 25 Knock out
6078 85	FP RCBO	3 nos	3 nos

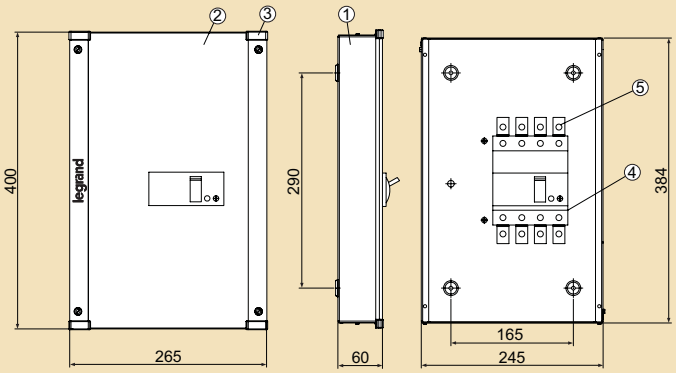
Metal one way enclosures
for DRX / DPX MCCBs

DRX 100A TP



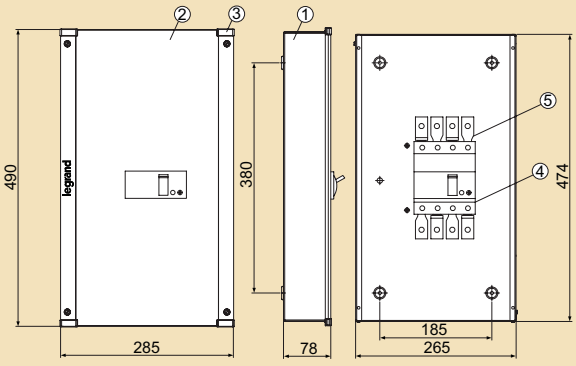
No.	Description
1	Box
2	Shield
3	Corner Piece
4	100A TP DRX MCCB
5	Neutral Link
6	Bakelite Phase Barrier
7	Spreader Link

DRX 100A FP



No.	Description
1	Box
2	Shield
3	Corner Piece
4	100A FP DRX MCCB
5	Spreader Link

DPX 125A FP

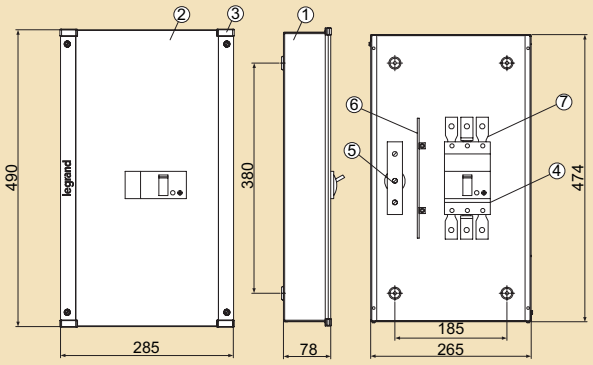


No.	Description
1	Box
2	Shield
3	Corner Piece
4	125A FP DPX MCCB
5	Spreader Link

All dimensions are in mm
1 inch = 25.4mm
Accuracy of dimensions = ± 2mm

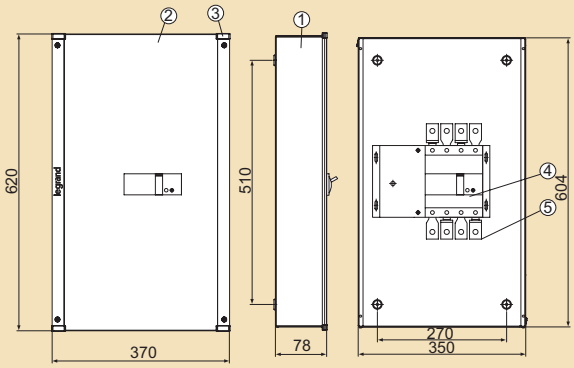
Metal one way enclosures
for DPX MCCBs

DPX 125A TP



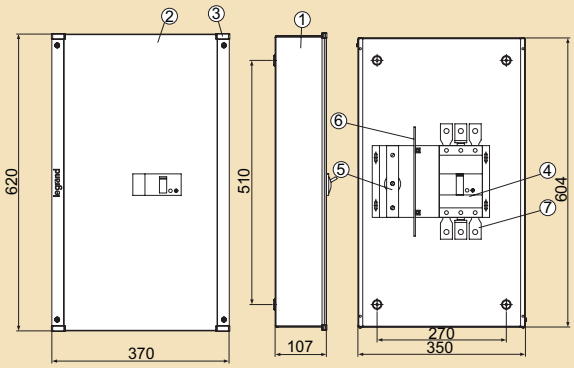
No.	Description
1	Box
2	Shield
3	Corner Piece
4	125A TP DPX MCCB
5	Neutral Link
6	Bakelite Phase Barrier
7	Spreader Link

DPX 160A FP



No.	Description
1	Box
2	Shield
3	Corner Piece
4	160A FP DPX MCCB
5	Spreader Link

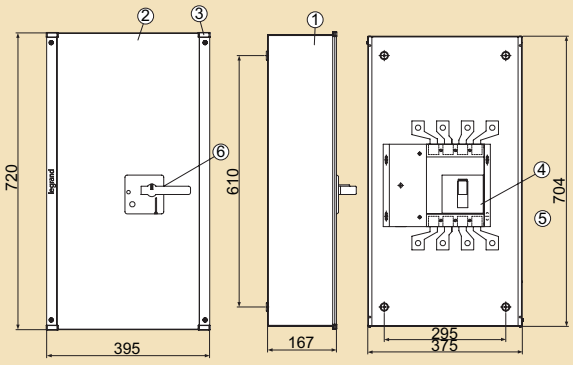
DPX 160A TP



No.	Description
1	Box
2	Shield
3	Corner Piece
4	160A TP DPX MCCB
5	Neutral Link
6	Bakelite Phase Barrier
7	Spreader Link

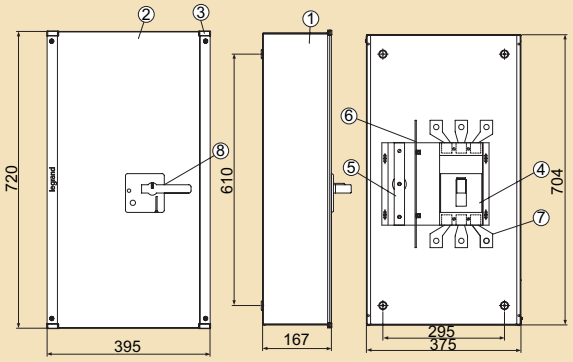
Metal one way enclosures
for DPX MCCBs

DPX 250A FP



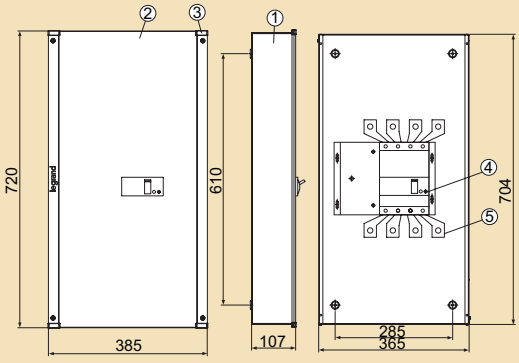
No.	Description
1	Box
2	Shield
3	Corner Piece
4	250A FP DPX MCCB
5	Spreader Link
6	Rotary Handle

DPX 250A TP



No.	Description
1	Box
2	Shield
3	Corner Piece
4	250A TP DPX MCCB
5	Neutral Link
6	Bakelite Phase Barrier
7	Spreader Link
8	Rotary Handle

DPX 250ER FP

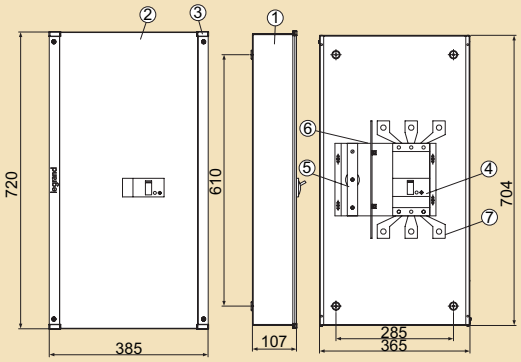


No.	Description
1	Box
2	Shield
3	Corner Piece
4	125A FP DPX MCCB
7	Spreader Link

All dimensions are in mm
1 inch = 25.4mm
Accuracy of dimensions = ± 2mm

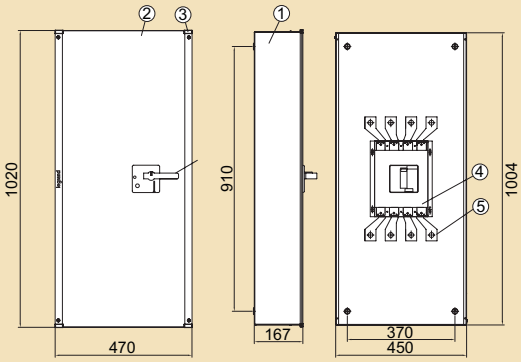
Metal one way enclosures
for DRX / DPX MCCBs

DPX 250ER TP



No.	Description
1	Box
2	Shield
3	Corner Piece
4	250ER TP DPX MCCB
5	Neutral Link
6	Bakelite Phase Barrier
7	Spreader Link

DRX 630A FP

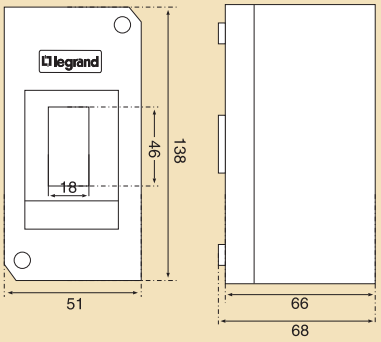


No.	Description
1	Box
2	Shield
3	Corner Piece
4	630A FP DPX MCCB
5	Spreader Link
6	Rotary Handle

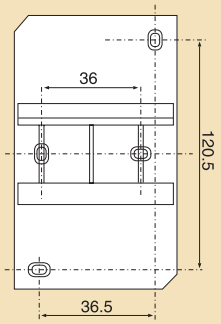
Plastic one way enclosure
common for Lexic / Loadkontakt / Loadstop

■ Dimensions for plastic enclosure

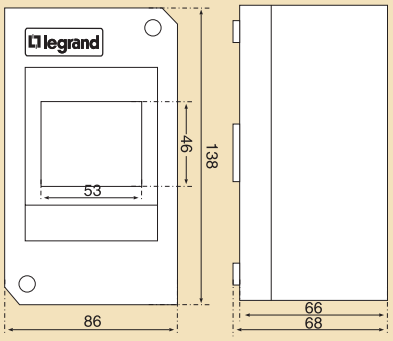
Overall dimensions 0013 56



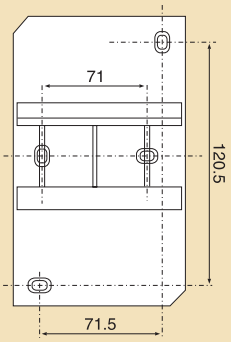
Mounting dimensions 0013 56



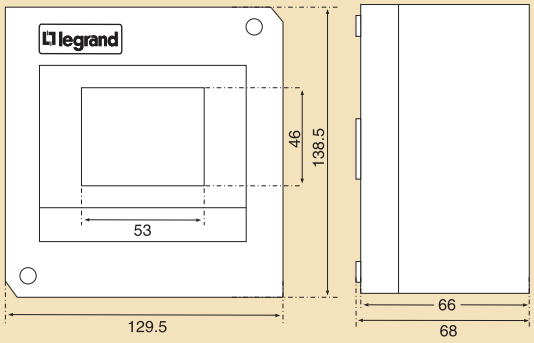
Overall dimensions 0013 57



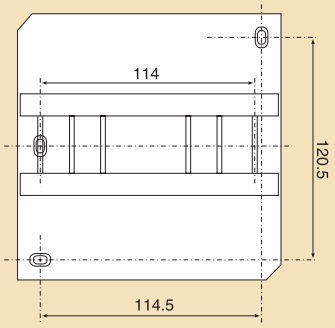
Mounting dimensions 0013 57



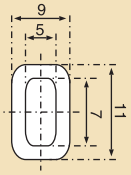
Overall dimensions 0013 58



Mounting dimensions 0013 58



Slot details 0013 58

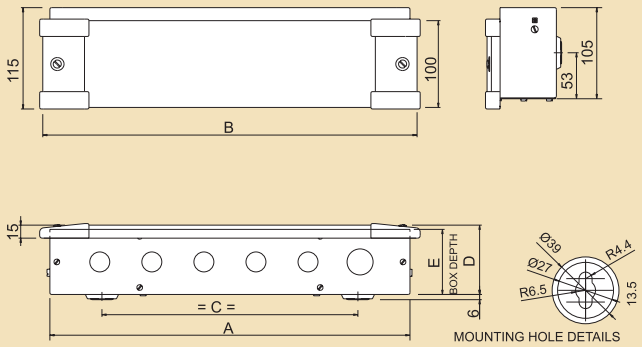


All dimensions are in mm
1 inch = 25.4mm
Accuracy of dimensions = ± 2mm

Cable End Box

■ Dimensions

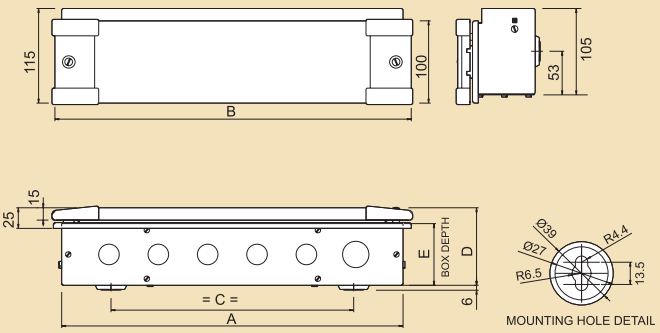
IP 20



Cable End box IP20

Cat. no.	No. of ways	A	B	C	D	Box Clear Depth (Excluding MTG Hole Embossing E	Bottom Ø 32 Knock out	Bottom Ø 25 Knock out
6077 43	SPN 4	218	238	118	80	75	1 no.	2 nos
6077 53	SPN 8	290	310	190	80	75	1 no.	3 nos
6077 63	SPN 12 VTPN 4/8/12 MCB 13M2R/13M3R/13M4R	380	400	165	80	75	1 no.	5 nos
6077 73	SPN16/ETPN 6	450	470	235	80	75	1 no.	6 nos
6077 83	ETPN 4	415	435	295	80	75	1 no.	5 nos
6077 93	ETPN8	595	615	380	80	75	1 no.	8 nos
6078 03	ETPN 12/16	740	760	525	80	75	1 no.	10 nos
607813	VTPN 4/812 125A/250ER MCCB	450	470	235	101	96	-	-

IP 43



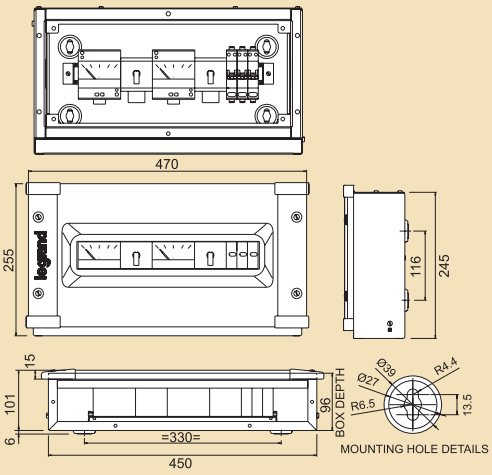
Cable End box IP43

Cat. no.	No. of ways	A	B	C	D	Box Clear Depth (Excluding MTG Hole Embossing E	Bottom Ø 32 Knock out	Bottom Ø 25 Knock out
6077 44	SPN 4	218	238	118	95	75	1 no.	2 nos
6077 54	SPN 8	290	310	190	95	75	1 no.	3 nos
6077 64	SPN 12 VTPN 4/812 MCB 13M2R/13M3R/13M4R	380	400	165	95	75	1 no.	5 nos
6077 74	SPN 16/ETPN 6	450	470	235	95	75	1 no.	6 nos
6077 84	ETPN 4	415	435	295	95	75	1 no.	5 nos
6077 94	ETPN 8	595	615	380	95	75	1 no.	8 nos
6078 04	ETPN 12/16	740	760	525	95	75	1 no.	10 nos
6078 14	VTPN 4/812 125A/250ER MCCB	450	470	235	116	96	-	-

Meter Box

■ Dimensions

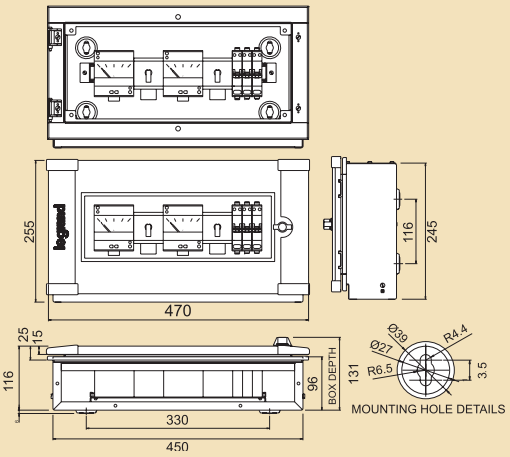
IP 20



Box clear depth = 96mm (Excluding MTG Hole Embossing)
Metra Box VTPN 125A/250ER MCCB IP20 DB

Cat. no	No. of ways
6077 75	17

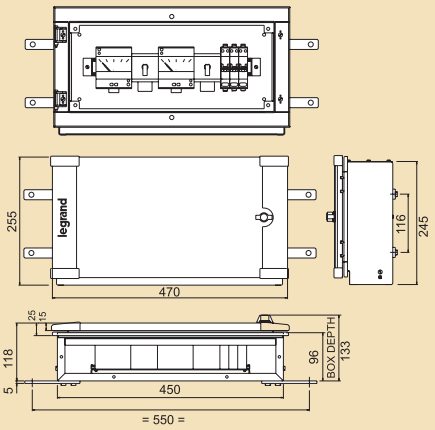
IP 43



Box clear depth = 96mm (Excluding MTG Hole Embossing)
Metra Box VTPN 125A/250ER MCCB IP43 DB

Cat. no	No. of ways
6077 76	17

IP 54



Box clear depth = 96mm (Excluding MTG Hole Embossing)
Metra Box VTPN 125A/250ER MCCB IP54 DB

Cat. no	No. of ways
6077 77	17

All dimensions are in mm
1 inch = 25.4mm
Accuracy of dimensions = ± 2mm