

DRX

the universal MCCB



NEW PRODUCT FOR 2006

 **legrand**[®]

NEW PRODUCT FOR 2006

Combining forces to provide power and protection



With offers in more than 160 countries, Legrand has extensive geographical coverage which allows us to adapt to all your requirements and help you with both your local and international projects.

Whatever your needs may be

- general MCCBs
- secondary MCCBs
- MCBs
- enclosures
- or busbars

... Legrand provides solutions from one specialist to another specialist: you.

Legrand's DRX range integrates perfectly within standard electrical installations anywhere in the world.

With the DRX 100 A and 250 A, you have the choice of 2 sizes, 15 ratings from 15 A to 250 A and 3 breaking capacities up to 36 kA (415 V~).



DRX,
the universal MCCB





DRX 100 and 250

... the universal solution



Thermal-magnetic MCCBs
WITH or **WITHOUT** earth leakage protection
 integrated in both sizes

DRX 100: 1, 2, 3 and 4 poles
 DRX 250: 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 15 to 250 A
- Up to 36 kA breaking capacity (at 415 V~)
- No temperature derating at +50°C

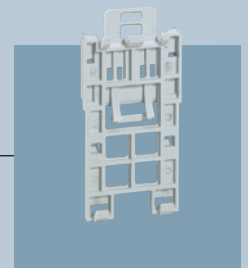
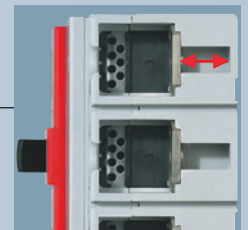
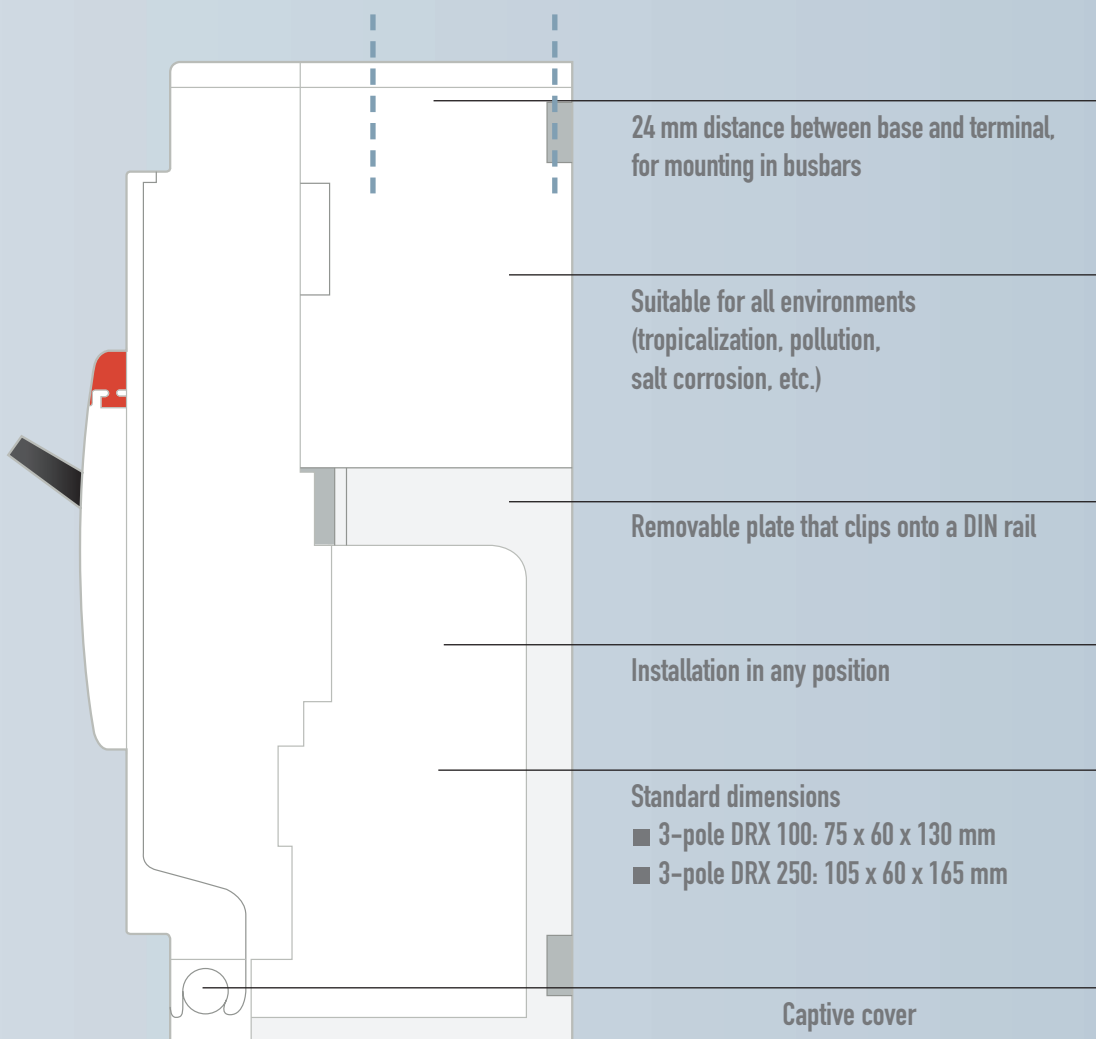
2 types of connection:
 standard and with cage terminals





ADVANTAGES

- Electrical accessories mounted by simply clipping on front panel
- Electrical accessories common to the whole range
- Up to 3 locks (padlock) in open (off) position
- Direct and vari-depth rotary handle
- Certified by: LOVAG (IEC 60947-1-2). In compliance with NEMA



DRX™ 100

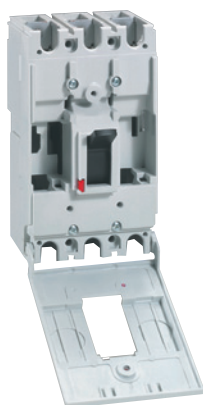
thermal-magnetic MCCBs from 15 to 100 A



270 10



270 68



270 68 (captive cover)



270 46



270 58

Technical characteristics and operating curves (p. 89)
Dimensions (p. 6-7)

For switching, control, isolation and protection of low-voltage electrical lines in conformity with standard IEC 60947-2

Fixed thermal and fixed magnetic

For auxiliaries (p. 5)

Supplied with:

- M5 terminal for $I_n \leq 50$ A and M8 range for $I_n > 50$ A
- Fixing screws
- Insulating shields (2 for 3P and 3 for 4P)

Pack	Cat. Nos.		
			DRX 100 B
			Icu breaking capacity 10 kA (415 V~)
	3P	4P	In
1	270 00	270 10	15 A
1	270 01	270 11	20 A
1	270 02	270 12	25 A
1	270 03	270 13	30 A
1	270 04	270 14	40 A
1	270 05	270 15	50 A
1	270 06	270 16	60 A
1	270 07	270 17	75 A
1	270 08	270 18	100 A
			DRX 100 N
			Icu breaking capacity 20 kA (415 V~)
			In
1	270 20	270 30	15 A
1	270 21	270 31	20 A
1	270 22	270 32	25 A
1	270 23	270 33	30 A
1	270 24	270 34	40 A
1	270 25	270 35	50 A
1	270 26	270 36	60 A
1	270 27	270 37	75 A
1	270 28	270 38	100 A

Pack	Cat. Nos.		
			DRX 100 H
			Icu breaking capacity 25 kA - 240 V~
			(for 1P)
			Icu breaking capacity 35 kA - 415 V~
			(for 2P, 3P and 4P)
	1P	2P	In
1	270 40	270 50	15 A
1	270 41	270 51	20 A
1	270 42	270 52	25 A
1	270 43	270 53	30 A
1	270 44	270 54	40 A
1	270 45	270 55	50 A
1	270 46	270 56	60 A
1	270 47	270 57	75 A
1	270 48	270 58	100 A
	3P	4P	In
1	270 60	270 70	15 A
1	270 61	270 71	20 A
1	270 62	270 72	25 A
1	270 63	270 73	30 A
1	270 64	270 74	40 A
1	270 65	270 75	50 A
1	270 66	270 76	60 A
1	270 67	270 77	75 A
1	270 68	270 78	100 A

DRX™ 100 accessories



271 76



271 83



271 70



271 50



271 42

Pack	Cat. Nos.	Plate for fixing on rail
1	271 87	For fixing the DRX 100 on a DIN rail

Rotary handles

1	271 76	Direct on DRX Standard (grey)
1	271 77	Vari-depth handle Comprises: the connecting rod, the bracket, the drilling template, the mounting accessories, the door locking mechanism Standard (grey)

1	271 80	Padlocking Padlock in open "off" position (up to 3 locks)
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Connection accessories

		Insulating shields Insulate connection between each pole
1	271 81	3P Set of 2 shields
1	271 82	4P Set of 3 shields
		Sealable terminal shields Set of 2 terminal shields
1	271 83	271 84
		Cage terminals Up to 50 A
1	271 70	271 72
1	271 71	271 73

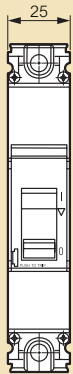
Pack	Cat. Nos.	Electrical accessories
Auxiliary contact blocks For left-hand side mounting only		
1	271 40	Block with 1 auxiliary (1 AUX)
1	271 41	Block with 1 alarm (1 AL)
1	271 42	Block with 1 auxiliary + 1 alarm (1 AUX + 1 AL)
Shunt trips For mounting on either the left or right-hand side of the MCB		
1	271 50	12 V~ and =
1	271 51	24 V~ and =
1	271 52	48 V~ and =
1	271 53	100/130 V~ and =
1	271 54	200/277 V~ and =
1	271 55	380/480 V~ and =
Undervoltage releases For mounting on either the left or right-hand side of the MCCBs		
1	271 60	12 V~ and =
1	271 61	24 V~ and =
1	271 62	48 V~ and =
1	271 63	110/130 V~
1	271 64	200/240 V~
1	271 65	380/415 V~

DRX™ 100

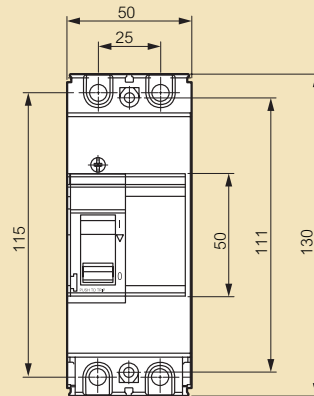
technical characteristics

■ Frontals dimensions

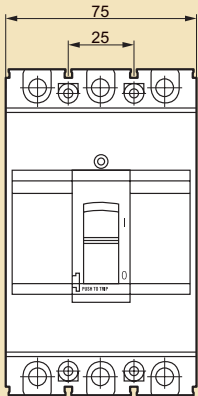
DRX 100 - 1P



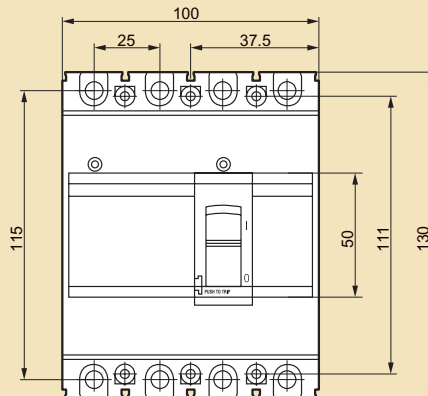
DRX 100 - 2P



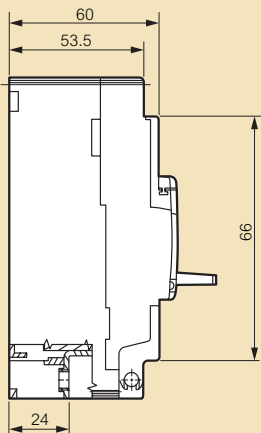
DRX 100 - 3P



DRX 100 - 4P



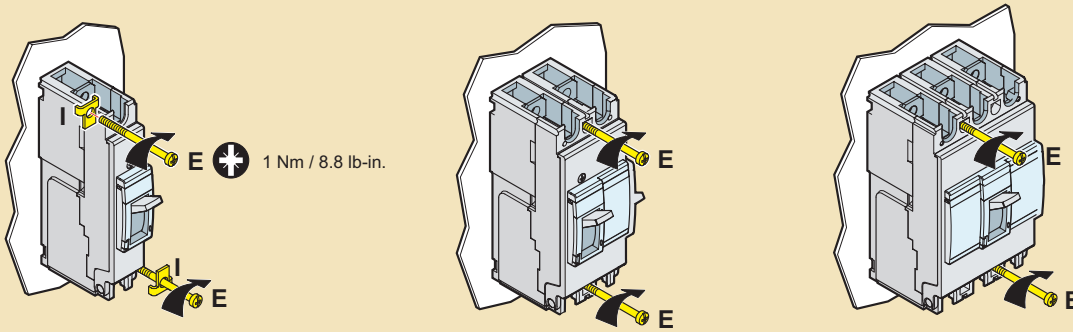
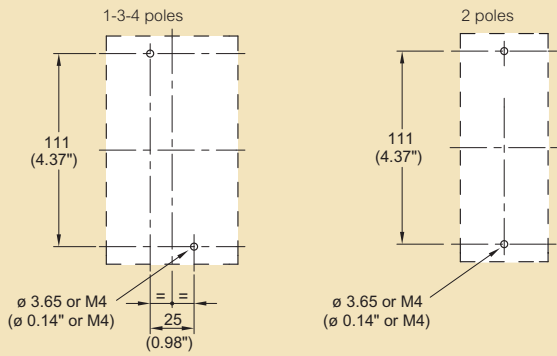
■ Laterals dimensions



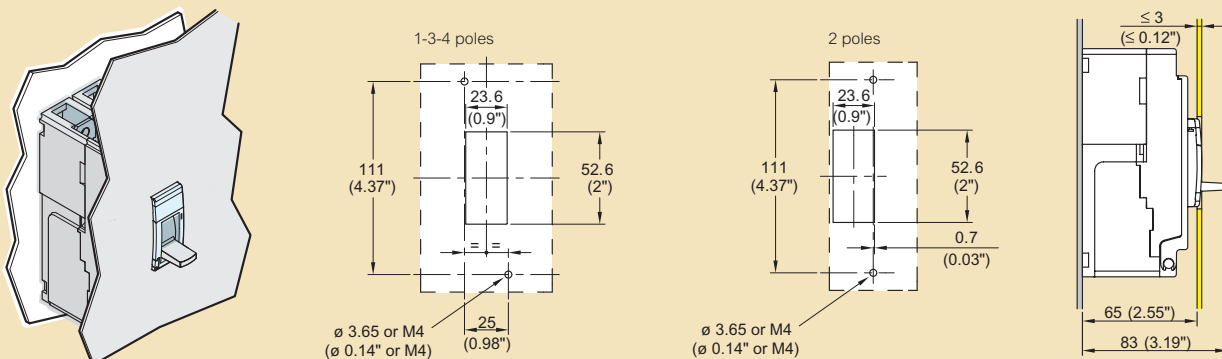
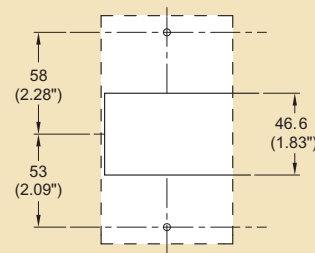
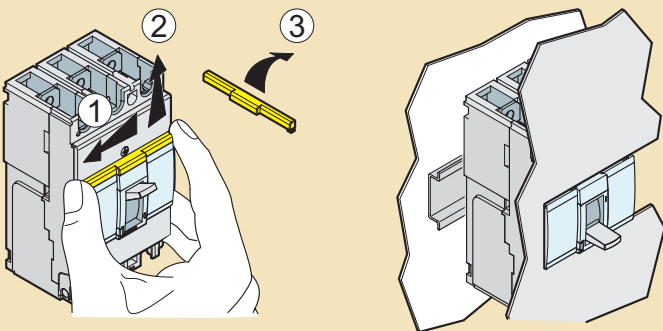
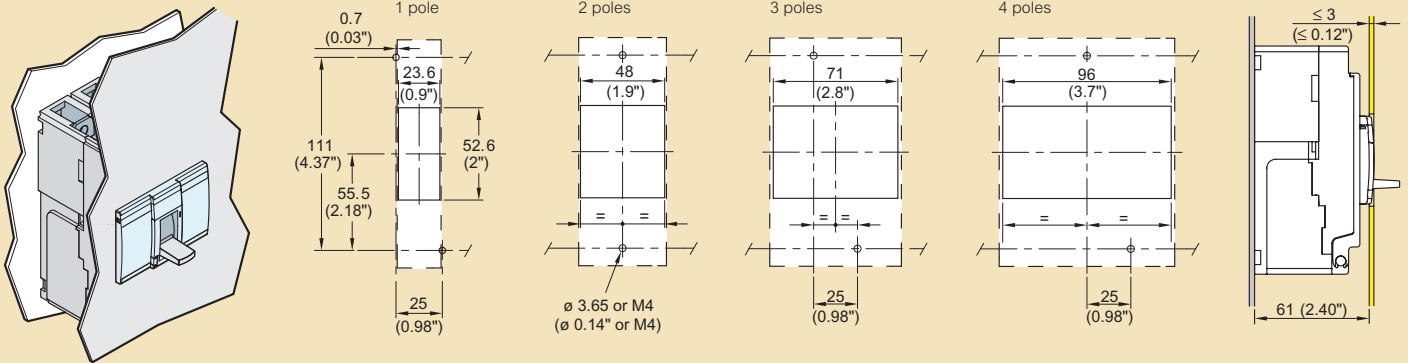
DRX™ 100

technical characteristics (continued)

■ Fixing on plate



■ Door cut-out

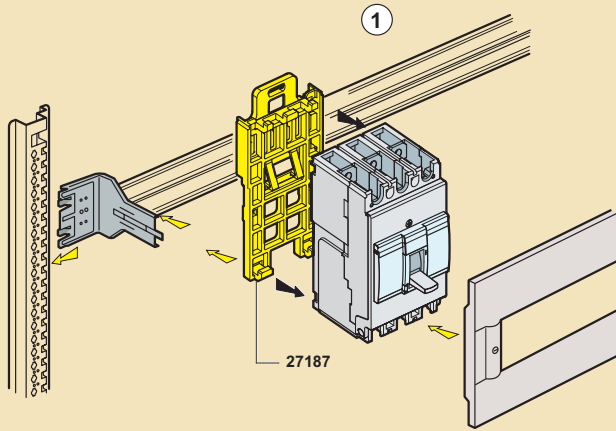


DRX™ 100

technical characteristics (continued)

■ Mounting

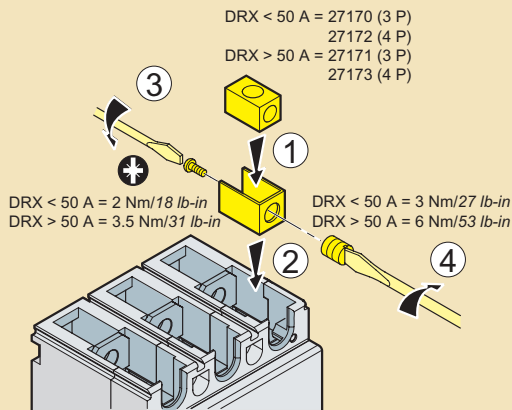
Mounting on a DIN rail with plate



■ Connection

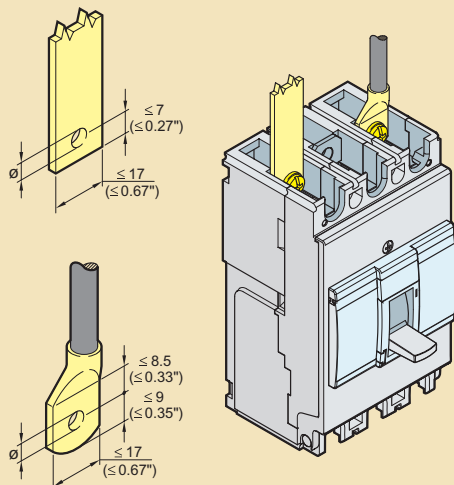
DRX front terminal

Cable connection



DRX ≤ 50 A	DRX > 50 A
Flexible 2,5 → 10 mm ² #14 → #8 AWG	Flexible 10 → 35 mm ² #8 → #2 AWG
or	
Solid 2,5 → 16 mm ² #14 → #6 AWG	Solid 10 → 50 mm ² #8 → #1/0 AWG
2,5 to 4 mm ² #14 to #10 AWG flexible cables connection via crimped end-barrels	

Busbar connection

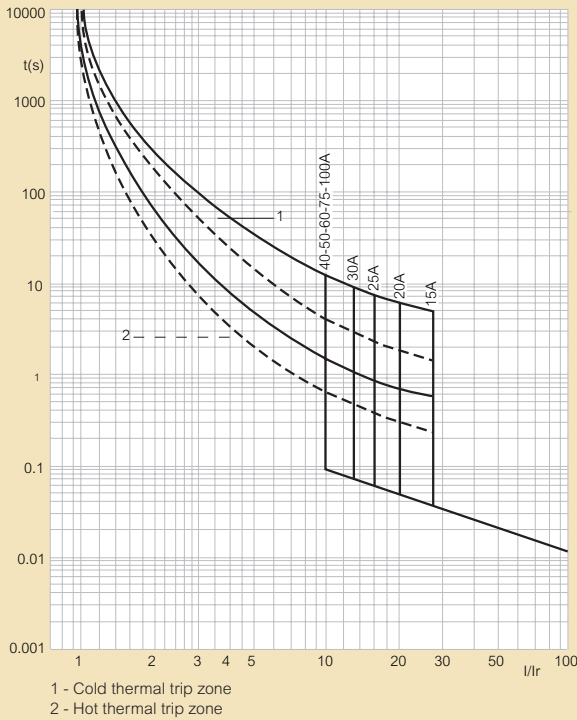


DRX™ 100

technical characteristics (continued)

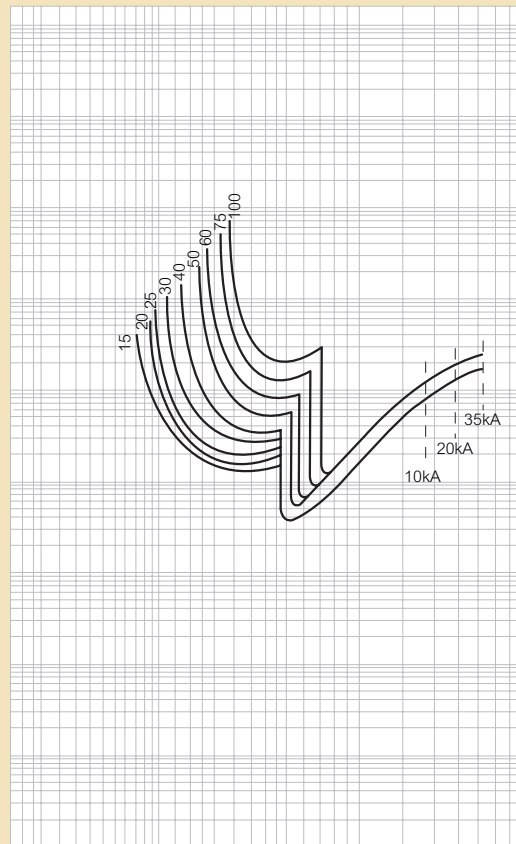
■ Curve

DRX 100 I_{max} = 100 A 1P - 2P - 3P - 4P



LET THROUGH SPECIFIC ENERGY CHARACTERISTIC

DRX 100 B-N-H Series I_n max = 100A 3p-4p-415 V a.c.



I_{cc} = estimated short circuit symmetrical current (RMS value)
I²t (A²s) = pass-through specific energy

Technical characteristics	DRX-B	DRX-N	DRX-H	DRX-H
Number of poles	3P - 4P	3P - 4P	2P - 3P - 4P	1P
Nominal current I _n (A)	15-100	15-100	15-100	15-100
Neutral protection for 4P version (%)	100	100	100	
Rated insulation voltage U _i (V)	690	690	690	
Rated impulse withstand current U _{imp} (kV)	6	6	6	
Rated operating voltage (50/60 Hz) U _e (V)	600	600	600	
Ultimate breaking capacity I _{cu} (kA) IEC 60947-2	220/240 V~	25	40	100
	380/415 V~	10	20	35
	440/460 V~	10	15	30
	480/550 V~	7.5	10	20
Ultimate breaking capacity I _{cu} (kA) NEMA AB-1	600 V~	5	5	10
	240 V~	25	40	100
	480 V~	7.5	10	20
	600 V~	5	5	10
Standard breaking capacity I _{cs} (% I _{cu})	50	50	50	50
Utilization category	A	A	A	A
Suitable for isolation	YES	YES	YES	YES
Endurance (cycles)	mechanical	25000	25000	25000
	electrical at I _n	8000	8000	8000
	electrical at 0.5 I _n	10000	10000	10000

DRX™ 250

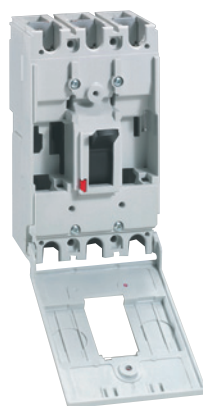
thermal-magnetic MCCBs from 125 to 250 A



271 05



271 04



271 10 (captive cover)

Technical characteristics and operating curves (p. 89)
Dimensions (p. 6-7)

For switching, control, isolation and protection of low-voltage electrical lines in conformity with standard IEC 60947-2

Fixed thermal and fixed magnetic

For accessories see page 11

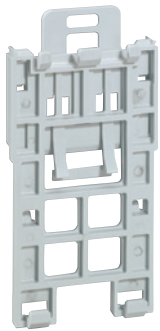
Supplied with:

- M8 terminals
- Fixing screws
- Insulating shields (2 for 3P and 3 for 4P)

Pack	Cat. Nos.		In
	3P	4P	
			DRX 250 B
			Icu breaking capacity 18 kA (415 V~)
1	271 00	271 06	125 A
1	271 01	271 07	150 A
1	271 02	271 08	175 A
1	271 03	271 09	200 A
1	271 04	271 10	225 A
1	271 05	271 11	250 A
			DRX 250 N
			Icu breaking capacity 25 kA (415 V~)
1	271 12	271 18	125 A
1	271 13	271 19	150 A
1	271 14	271 20	175 A
1	271 15	271 21	200 A
1	271 16	271 22	225 A
1	271 17	271 23	250 A

Pack	Cat. Nos.		In
	3P	4P	
			DRX 250 H
			Icu breaking capacity 36 kA (415 V~)
1	271 24	271 30	125 A
1	271 25	271 31	150 A
1	271 26	271 32	175 A
1	271 27	271 33	200 A
1	271 28	271 34	225 A
1	271 29	271 35	250 A

DRX™ 250 accessories



271 88



271 80



271 85



271 54

Pack	Cat. Nos.	Plate for fixing on rail
1	271 88	For fixing the DRX 250 on a DIN rail



Rotary handles

Direct on DRX
Standard (grey)



Vari-depth handle

Comprises: the connecting rod, the bracket, the drilling template, the mounting accessories, the door locking mechanism

Standard (grey)

1	271 78	
1	271 79	

Padlocking

Accessory for locking in "OFF" position



1	271 80	
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Connection accessories

Insulating shields

Insulate connection between each pole

Set of 2 shields

Set of 3 shields



	3P	4P
1	271 81	
1		271 82

Sealable terminal shields

Set of 2 terminal shields



1	271 85	271 86
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External cage terminals

Up to 250 A

1	271 74	271 75
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Pack	Cat. Nos.	Electrical accessories
Auxiliary contact blocks		
For left-hand side mounting only		
1	271 40	Block with 1 auxiliary (1 AUX)
1	271 41	Block with 1 alarm (1 AL)
1	271 42	Block with 1 auxiliary + 1 alarm (1 AUX + 1 AL)
Shunt trips		
For mounting on either the left or right-hand side of the MCCBs		
1	271 50	12 V~ and ∅
1	271 51	24 V~ and ∅
1	271 52	48 V~ and ∅
1	271 53	100/130 V~ and ∅
1	271 54	200/277 V~ and ∅
1	271 55	380/480 V~ and ∅
Undervoltage releases		
For mounting on either the left or right-hand side of the MCCBs		
1	271 60	12 V~ and ∅
1	271 61	24 V~ and ∅
1	271 62	48 V~ and ∅
1	271 63	110/130 V~
1	271 64	200/240 V~
1	271 65	380/415 V~

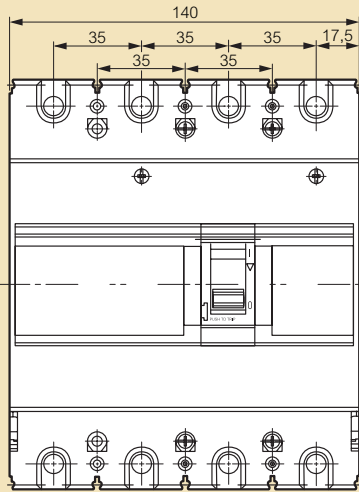


DRX™ 250

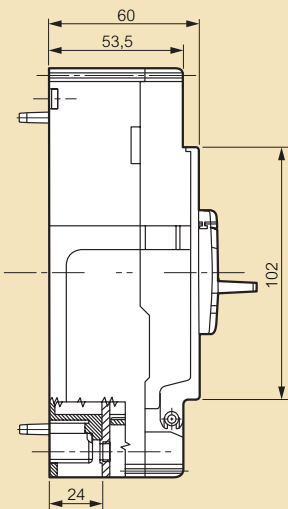
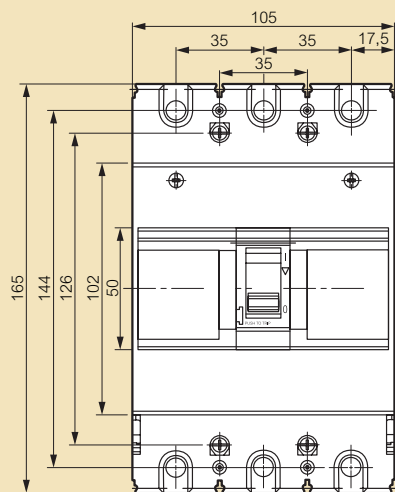
technical characteristics

■ Dimensions

DRX 250 - 4P



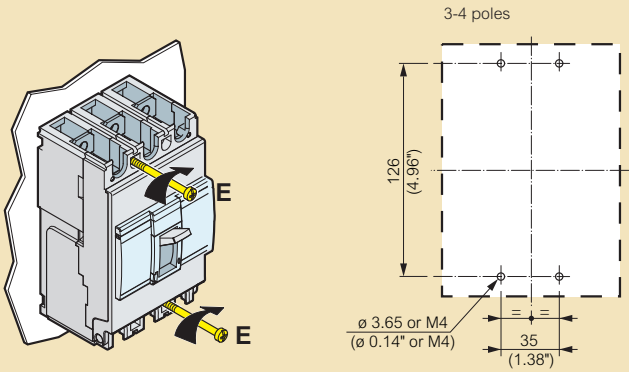
DRX 250 - 3P



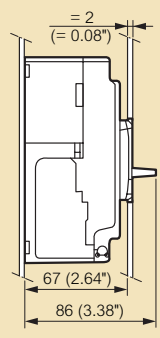
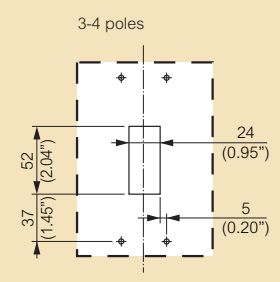
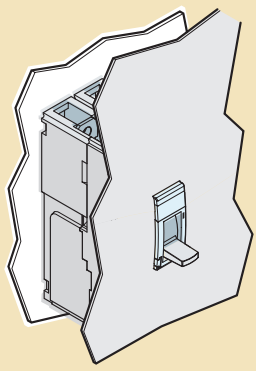
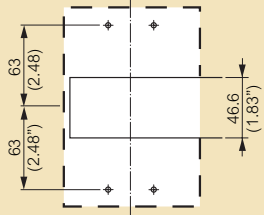
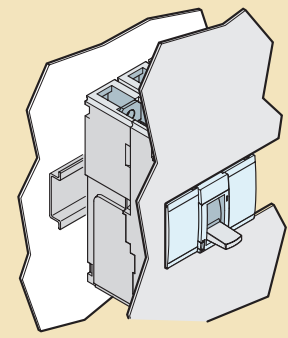
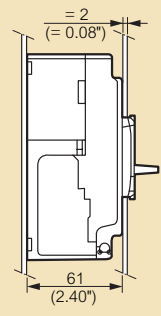
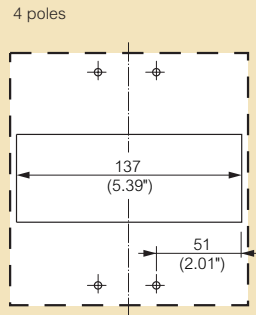
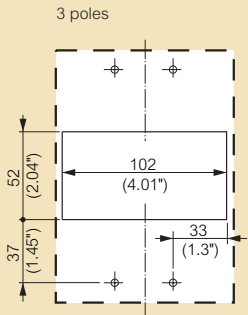
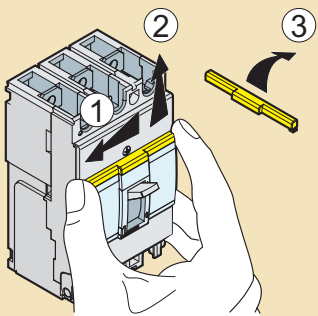
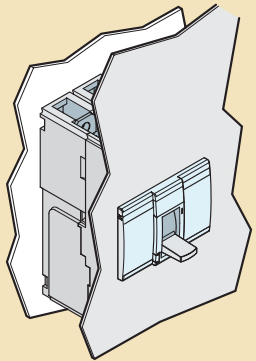
DRX™ 250

technical characteristics (continued)

■ Fixing on plate

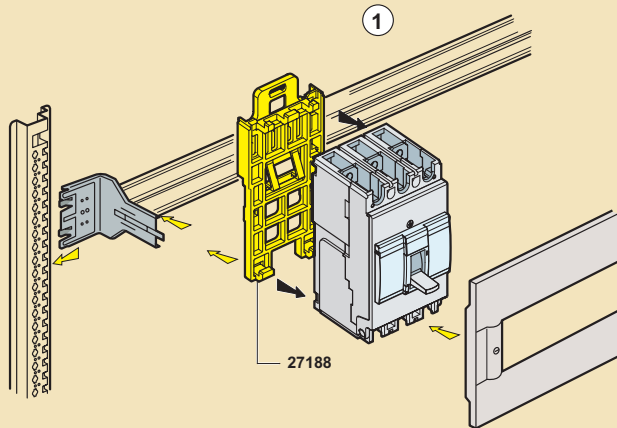


■ Door cut-out

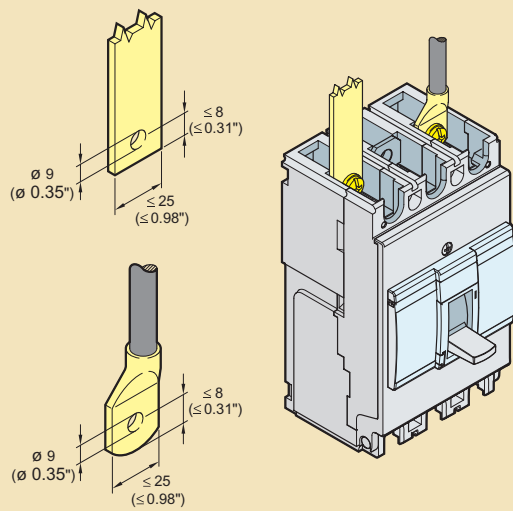


■ Mounting

Mounting on a DIN rail with plate

**■ Connection**

Busbar connection

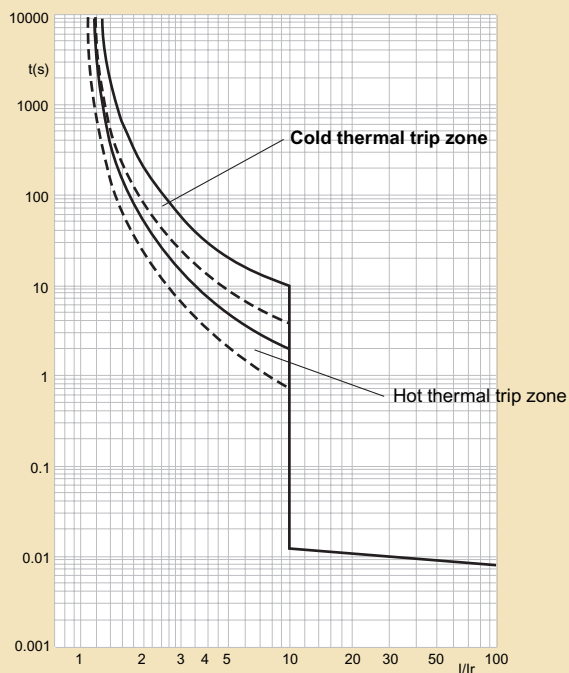


DRX™ 250

technical characteristics (continued)

■ Curve

DRX 250 $I_{max} = 250 \text{ A}$ 3P - 4P



Technical characteristics	DRX-B	DRX-N	DRX-H
Number of poles	3P - 4P	3P - 4P	3P - 4P
Nominal current I_n (A)	125-250	125-250	125-250
Neutral protection for 4 P version (%)	100	100	100
Rated insulation voltage U_i (V)	690	690	690
Rated impulse withstand current U_{imp} (kV)	6	6	6
Rated operating voltage (50/60 Hz) U_e (V)	600	600	600
Ultimate breaking capacity I_{cu} (kA) IEC 60947-2 380/415 V~	18	25	36
Standard breaking capacity I_{cs} (% I_{cu})	50	50	50
Utilization category	A	A	A
Suitable for isolation	YES	YES	YES
Endurance (cycles)	mechanical	25 000	25 000
	electrical at I_n	8 000	8 000
	electrical at $0.5 I_n$	10 000	10 000

