

# DRX 125 HP DRX 250 HP & DRX 630



THE MCCBs  
THAT EASILY FIT  
YOUR INSTALLATION



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THE GLOBAL SPECIALIST  
IN ELECTRICAL AND DIGITAL BUILDING INFRASTRUCTURES





# AN ENHANCED OFFER

With the arrival of the new DRX 125 and 250 HP, Legrand has enhanced its offer of thermal magnetic MCCBs to meet your requirements even more effectively. Designed to extend the existing DRX range, the HP releases and the DRX 630 combine simplicity and robustness with safety and reliability.

## DRX 125 & 250



- Designed for residential and commercial applications
- For installations up to 250 A (breaking capacity  $\leq 25$  kA) with no specific constraints

Whatever your application, the level of protection required, or your specific budget, Legrand has a reliable solution for you!

**DRX 125 HP, 250 HP & 630  
FIXED & ADJUSTABLE**

**NEW**



**DPX<sup>3</sup>**



- Designed for residential, commercial or industrial applications
- For installations up to 630 A (breaking capacity  $\leq 50$  kA) requiring a greater degree of flexibility in the choice of trip thresholds to provide more adaptable protection

- For installations up to 1600 A (breaking capacity  $\leq 100$  kA) requiring high-precision protection, excellent continuity of service, measurement of different electrical values and multiple configurations
- Ensuring scalability and ease of maintenance

# THE NEW DRX 125 HP DRX 250 HP & DRX 630 OFFER

## A COMPREHENSIVE RANGE UP TO 630 A

The DRX 125 HP, DRX 250 HP and DRX 630 ranges of fixed and adjustable thermal magnetic circuit breakers have been designed to meet your requirements when it comes to protecting an electrical installation up to 630 A.

The robust design of the DRX range, the adjustable protection, the different accessories for connection and remote tripping have made it the ideal choice in terms of efficiency and affordability.



## THE RIGHT ANSWER IN TERMS OF:

### CHOICE



- Three different sizes
- Ratings ranging from 16 to 630 A
- Three breaking capacities: 25, 36 and 50 kA

### RELIABILITY

- SEMKO - LOVAG certification
- Compliant with standard IEC 60947-2
- Mechanical endurance up to 20,000 operations

### ADAPTABILITY

- Fixing on plate
- Dedicated accessories for integration into XL<sup>3</sup> S 630 and 4000 enclosures
- Wiring via cables or busbars

THE RANGE	DRX 125 HP fixed version 	DRX 125 HP adjustable version 
Mounting	ON PLATE	ON PLATE
<b>Rated current (In)</b>	<b>From 16 to 125 A</b>	<b>From 16 to 125 A</b>
Breaking capacity (Icu) at 415 V~	25 kA, 36 kA, 50 kA	25 kA, 36 kA, 50 kA
Rated service short-circuit breaking capacity Ics (% Icu)	100	100
Protection	Thermal (Ir)	Fixed at 1.0 x In
	Magnetic (Ii)	Fixed: 400 A, for In up to 40 A 10 x In, for 50 A ≤ In ≤ 125 A
Number of poles	3P and 4P	3P and 4P





(1) : See page 10 for more detailed information





A solution adapted to numerous different sites, whether residential, commercial or even in the industrial sector.

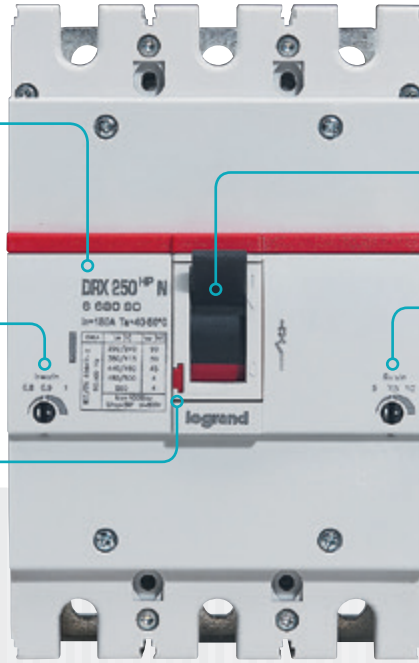


 <b>DRX 250 HP fixed version</b>	 <b>DRX 250 HP adjustable version</b>	 <b>DRX 630 fixed version</b>	 <b>DRX 630 adjustable version</b>
ON PLATE	ON PLATE	ON PLATE	ON PLATE
<b>From 16 to 250 A</b>	<b>From 16 to 250 A</b>	<b>From 320 to 630 A</b>	<b>From 320 to 630 A</b>
25 kA, 36 kA, 50 kA	25 kA, 36 kA, 50 kA	36 kA, 50 kA	36 kA, 50 kA
100	100	50	100
Fixed at 1.0 x I <sub>n</sub>	Adjustable <sup>(1)</sup> : 0.8 - 0.9 - 1.0 x I <sub>n</sub>	Fixed at 1.0 x I <sub>n</sub>	Adjustable: 0.8 - 0.9 - 1.0 x I <sub>n</sub>
Fixed at 10 x I <sub>n</sub>	Adjustable <sup>(1)</sup> : 5 - 7.5 - 10 x I <sub>n</sub>	Fixed at 10 x I <sub>n</sub>	Adjustable: 5 - 10 x I <sub>n</sub>
3P and 4P	3P and 4P	3P and 4P	3P and 4P

Clear, simple, indelible marking on the front of the MCCB stating:  
- the thermal magnetic protection,  
- the rated current,  
- the breaking capacity.

Thermal adjustment:  
 $I_r$  from 0.8 to 1 x  $I_n$   
on the adjustable version

Test button



Clear identification of the state of the circuit breaker:  
1 = On  
0 = Off

Magnetic adjustment:  
 $I_i$  from 5 to 10 x  $I_n$   
on the adjustable version<sup>(1)</sup>



DRX 250 HP ADJUSTABLE VERSION

DRX 250 HP FIXED VERSION

# FLEXIBLE SOLUTIONS TO

## AN ADJUSTED PROTECTION

3 circuit breakers sizes covering all needs when it comes to providing protection against overloads and short-circuits, for sites up to 630 A.

The adjustable version gives the possibility to adjust thermal (protection against overloads) and magnetic<sup>(1)</sup> (protection against short-circuits) tripping levels.



(1) : Except DRX 125 HP adjustable

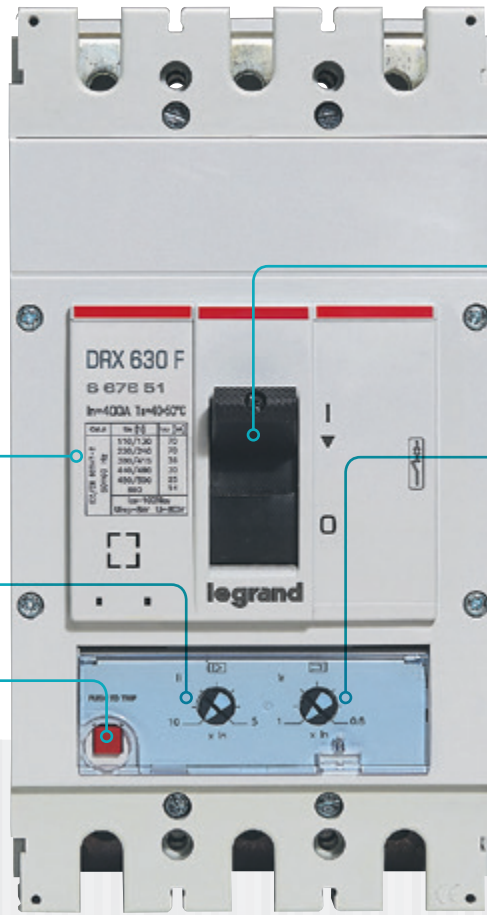
Clear, simple, indelible marking on the front of the MCCB stating:  
 - the thermal magnetic protection,  
 - the rated current,  
 - the breaking capacity.

Magnetic adjustment:  
 $I_i$  from 5 to 10 x  $I_n$   
 (on the adjustable version)

Test button

Clear identification of the state of the circuit breaker:  
 $I = On$   
 $0 = Off$

Thermal adjustment:  $I_r$  from 0.8 to 1 x  $I_n$   
 (on the adjustable version)



DRX 630 ADJUSTABLE VERSION



DRX 630 FIXED VERSION

# ANSWER ALL NEEDS

## SOLUTIONS FOR ALL TYPES OF SITES

The comprehensive DRX range provides solutions suiting:

- any installation merely requiring a certain flexibility when it comes to protecting the electric circuits,
- all residential, commercial or industrial sites requiring protection and remote tripping functions.



# ROBUST DESIGN RELIABILITY SAFETY

With the DRX HP range, you can guarantee long-term protection for your customers' installations.

Its rugged construction ensures continuity of operation even in excessive temperatures.



#### TEST OF ENDURANCE

The DRX has proven mechanical endurance up to 20,000 operations.

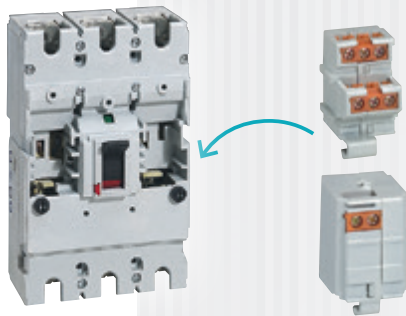


#### QUALITY LEVEL

Guaranteed by SEMKO and LOVAG certifications.  
Compliant with standard IEC 60947-2.



### REMOTE TRIPPING FOR SAFETY



→  
The control and signalling auxiliaries simply clip on.



### RISK-FREE INTERVENTION

The padlock can be used to lock the handle in "Open" position during maintenance operations and thus avoid any risk of accidents due to mishandling.



### FACEPLATE PROTECTION

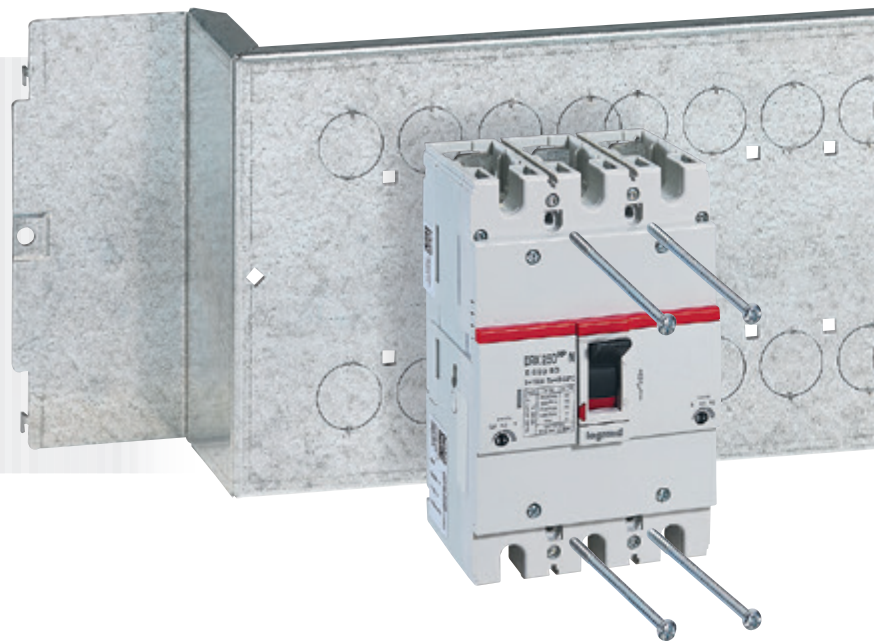
No live parts are accessible once installed under a faceplate.

# EASE OF INSTALLATION AND WIRING

The DRX 125 HP, DRX 250 HP and DRX 630 ranges include numerous accessories which make wiring and installation easier and allow remote tripping, saving time during installation.

## EASE OF INSTALLATION AND FLEXIBILITY

MCCB easily positioned and removed from the fixing plate. Wide choice of fixing accessories for integration into XL<sup>3</sup> S 630 and 4000 enclosures (horizontal or vertical position and 16, 24 and 36 modules wide enclosures)



## A VARIETY OF WIRING SYSTEM OPTIONS



Numerous wiring accessories are available to assist installation.



The size of the terminals is optimized for connection via busbars.



Cable spreaders, cage terminals, rear terminals, terminal shields, etc; our wiring accessories cover all your requirements.



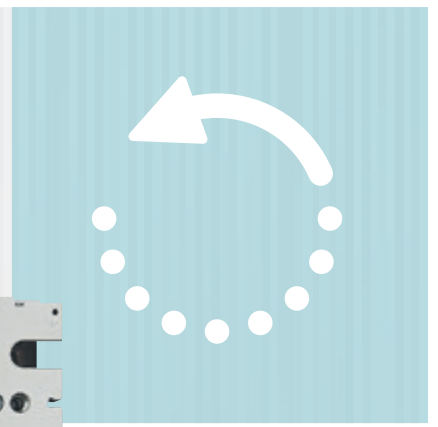
### ROTARY HANDLE

The rotary handle, is available in direct or external version in order to accommodate different users' habits or the specific constraints affecting each type of site. It is simple and quick to fit.



### HORIZONTAL OPERATION

If required DRX 125 HP, DRX 250 HP and DRX 630 can be also installed horizontally, according to the size and type of enclosure.



## DRX™ 125 HP

thermal magnetic MCCBs from 16 to 125 A



6 693 89



6 693 99

Technical characteristics and curves p. 12-13  
Dimensions and installation principle p. 14-15

For switching, control, isolation and protection of low-voltage electrical lines. Can be fitted with auxiliaries. Supplied with: screw terminals, fixing screws, insulating shields (2 for 3P and 3 for 4P).  
Fixed thermal and magnetic  
Conform to IEC 60947-2

Pack	Cat.Nos		DRX 125 HP
	3P	4P	
			<b>Breaking capacity Icu 25 kA (415 V~)</b>
			In
1	6 693 40	6 693 50	16 A
1	6 693 41	6 693 51	20 A
1	6 693 42	6 693 52	25 A
1	6 693 43	6 693 53	32 A
1	6 693 44	6 693 54	40 A
1	6 693 45	6 693 55	50 A
1	6 693 46	6 693 56	63 A
1	6 693 47	6 693 57	80 A
1	6 693 48	6 693 58	100 A
1	6 693 49	6 693 59	125 A
			<b>Breaking capacity Icu 36 kA (415 V~)</b>
			In
1	6 693 60	6 693 70	16 A
1	6 693 61	6 693 71	20 A
1	6 693 62	6 693 72	25 A
1	6 693 63	6 693 73	32 A
1	6 693 64	6 693 74	40 A
1	6 693 65	6 693 75	50 A
1	6 693 66	6 693 76	63 A
1	6 693 67	6 693 77	80 A
1	6 693 68	6 693 78	100 A
1	6 693 69	6 693 79	125 A
			<b>Breaking capacity Icu 50 kA (415 V~)</b>
			In
1	6 693 80	6 693 90	16 A
1	6 693 81	6 693 91	20 A
1	6 693 82	6 693 92	25 A
1	6 693 83	6 693 93	32 A
1	6 693 84	6 693 94	40 A
1	6 693 85	6 693 95	50 A
1	6 693 86	6 693 96	63 A
1	6 693 87	6 693 97	80 A
1	6 693 88	6 693 98	100 A
1	6 693 89	6 693 99	125 A

## DRX™ 125 HP adjustable

thermal magnetic MCCBs from 16 to 125 A



6 697 49



6 697 59

Technical characteristics and curves p. 12-13  
Dimensions and installation principle p. 14-15

For switching, control, isolation and protection of low-voltage electrical lines. Can be fitted with auxiliaries. Supplied with: screw terminals, fixing screws, insulating shields (2 for 3P and 3 for 4P).  
Adjustable thermal  
Fixed magnetic  
Conform to IEC 60947-2

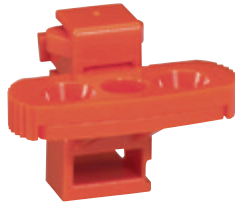
Pack	Cat.Nos		DRX 125 HP
	3P	4P	
			Thermal adjustable from 0.8 to 1 x In
			<b>Breaking capacity Icu 25 kA (415 V~)</b>
			In
1	6 697 00	6 697 10	16 A
1	6 697 01	6 697 11	20 A
1	6 697 02	6 697 12	25 A
1	6 697 03	6 697 13	32 A
1	6 697 04	6 697 14	40 A
1	6 697 05	6 697 15	50 A
1	6 697 06	6 697 16	63 A
1	6 697 07	6 697 17	80 A
1	6 697 08	6 697 18	100 A
1	6 697 09	6 697 19	125 A
			<b>Breaking capacity Icu 36 kA (415 V~)</b>
			In
1	6 697 20	6 697 30	16 A
1	6 697 21	6 697 31	20 A
1	6 697 22	6 697 32	25 A
1	6 697 23	6 697 33	32 A
1	6 697 24	6 697 34	40 A
1	6 697 25	6 697 35	50 A
1	6 697 26	6 697 36	63 A
1	6 697 27	6 697 37	80 A
1	6 697 28	6 697 38	100 A
1	6 697 29	6 697 39	125 A
			<b>Breaking capacity Icu 50 kA (415 V~)</b>
			In
1	6 697 40	6 697 50	16 A
1	6 697 41	6 697 51	20 A
1	6 697 42	6 697 52	25 A
1	6 697 43	6 697 53	32 A
1	6 697 44	6 697 54	40 A
1	6 697 45	6 697 55	50 A
1	6 697 46	6 697 56	63 A
1	6 697 47	6 697 57	80 A
1	6 697 48	6 697 58	100 A
1	6 697 49	6 697 59	125 A



# DRX™ 125 HP accessories



0 271 76



0 271 80



0 271 40

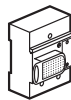


0 271 51



0 271 65

Pack	Cat.Nos	Rotary handles
1	0 271 76	<b>Direct</b> Standard (grey)
1	0 271 77	<b>Vari-depth handle</b> Comprising: connecting rod, bracket, drilling template, mounting accessories, door locking mechanism Standard (grey)
		<b>Connection accessories</b>
1	6 693 00	<b>Insulating shields</b> Used to isolate the connection between each pole For DRX 125 HP and DRX 250 HP Set of 2
1	6 693 01	Set of 3
1	6 693 08   6 693 09	<b>Sealable terminal shields</b> Set of 2
1	6 693 02   6 693 03	<b>Cage terminals</b> Up to 125 A
1	6 693 18	<b>High capacity cage terminals</b> Up to 125 A Set of 3
1	6 693 19	Set of 4
1	6 693 16   6 693 17	<b>Spreaders</b> Set of incoming or outgoing spreaders
1	6 693 06	<b>Rear terminals</b> Used to convert a fixed version with front terminals into a fixed version with rear terminals Set of 3 rear terminals
1	6 693 07	Set of 4 rear terminals
1	0 271 80	<b>Padlock for DRX 125, 250, DRX 125 HP and DRX 250 HP</b> For locking on "OFF" position (up to 3 locks)



Pack	Cat.Nos	Control and signalling auxiliaries for DRX 125, 250, DRX 125 HP and DRX 250 HP
		<b>Auxiliary contact blocks</b> For left-hand side mounting Up to 250 V~ and =
1	0 271 40	Block with 1 auxiliary
1	0 271 41	Block with 1 alarm
1	0 271 42	Block with 1 auxiliary + 1 alarm
		<b>Shunt trips</b>
1	0 271 50	12 V~ and =
1	0 271 51	24 V~ and =
1	0 271 52	48 V~ and =
1	0 271 53	100/130 V~
1	0 271 54	200/277 V~
1	0 271 55	380/480 V~
		<b>Undervoltage releases</b>
1	0 271 60	12 V~ and =
1	0 271 61	24 V~ and =
1	0 271 62	48 V~ and =
1	0 271 68	110 V=
1	0 271 63	110/130 V~
1	0 271 64	200/240 V~
1	0 271 67	277 V~
1	0 271 65	380/415 V~
1	0 271 66	440/480 V~



## DRX™ 125 HP

### technical characteristics

## DRX™ 125 HP adjustable

### technical characteristics

#### Electrical and mechanical characteristics

	DRX 125 HP 25 kA	DRX 125 HP 36 kA	DRX 125HP 50 kA	
Number of poles	3P - 4P	3P - 4P	3P - 4P	
Release type	thermal-magnetic			
Rated current In (A)	16, 20, 25, 32, 40, 50, 63, 80, 100, 125			
Rated insulation voltage Ui (V)	800	800	800	
Rated operating voltage (50/60 Hz) Ue (V)	550	550	550	
Rated impulse withstand Voltage Uimp (kV)	8	8	8	
Rated frequency (Hz)	50 - 60	50 - 60	50 - 60	
Reference ambient temperature Tamb (°C)	40 - 50	40 - 50	40 - 50	
Operating temperature (°C)	-25 to 70	-25 to 70	-25 to 70	
Rated ultimate short-circuit breaking capacity Icu (kA) IEC 60947-2	220/240 V~	40	70	90
	380/415 V~	25	36	50
	440/460 V~	20	30	45
	480/500 V~	4	4	4
	550 V~	4	4	4
Rated service short-circuit breaking capacity Ics (% Icu)	100	100	100	
Rated short-circuit making capacity Icm (kA) at 415 V~	52.5	75.6	105	
Neutral protection for 4P version (% Ith)	100	100	100	
Rated ultimate short-circuit breaking capacity Icu (kA) NEMA AB-1	220/240 V~	40	70	90
	480/500 V~	4	4	4
	550 V~	4	4	4
Category of use	A	A	A	
Suitable for isolation	Yes	Yes	Yes	
Thermal adjustment Ir (A)	Fixed at 1.0 x In			
Magnetic adjustment Ii (A)	Fixed : 400 A, for In up to 40 A 10 x In, for 50 A ≤ In ≤ 125 A			
Endurance (cycles)	mechanical	20000	20000	20000
	electrical at In	8000	8000	8000
	electrical at 0.5 In	8000	8000	8000
Neutral protection for 4P version (%)	100	100	100	
Dimensions W x H x D (mm)	3P	75 x 130 x 86		
	4P	100 x 130 x 86		
Weight (kg)	3P	0.95		
	4P	1.15		

#### Electrical and mechanical characteristics

	DRX 125 HP 25 kA	DRX 125 HP 36 kA	DRX 125HP 50 kA	
Number of poles	3P - 4P	3P - 4P	3P - 4P	
Release type	thermal-magnetic			
Rated current In (A)	16, 20, 25, 32, 40, 50, 63, 80, 100, 125			
Rated insulation voltage Ui (V)	800	800	800	
Rated operating voltage (50/60 Hz) Ue (V)	550	550	550	
Rated impulse withstand Voltage Uimp (kV)	8	8	8	
Rated frequency (Hz)	50 - 60	50 - 60	50 - 60	
Reference ambient temperature Tamb (°C)	40 - 50	40 - 50	40 - 50	
Operating temperature (°C)	-25 to 70	-25 to 70	-25 to 70	
Rated ultimate short-circuit breaking capacity Icu (kA) IEC 60947-2	220/240 V~	40	70	90
	380/415 V~	25	36	50
	440/460 V~	20	30	45
	480/500 V~	4	4	4
	550 V~	4	4	4
Rated service short-circuit breaking capacity Ics (% Icu)	100	100	100	
Rated short-circuit making capacity Icm (kA) at 415 V~	52.5	75.6	105	
Neutral protection for 4P version (% Ith)	100	100	100	
Rated ultimate short-circuit breaking capacity Icu (kA) NEMA AB-1	220/240 V~	40	70	90
	480/500 V~	4	4	4
	550 V~	4	4	4
Category of use	A	A	A	
Suitable for isolation	Yes	Yes	Yes	
Thermal adjustment Ir (A)	0.8 - 0.9 - 1.0 x In			
Magnetic adjustment Ii (A)	Fixed : 400 A, for In up to 40 A 10 x In, for 50 A ≤ In ≤ 125 A			
Endurance (cycles)	mechanical	20000	20000	20000
	electrical at In	8000	8000	8000
	electrical at 0.5 In	8000	8000	8000
Neutral protection for 4P version (%)	100	100	100	
Dimensions W x H x D (mm)	3P	75 x 130 x 86		
	4P	100 x 130 x 86		
Weight (kg)	3P	0.95		
	4P	1.15		

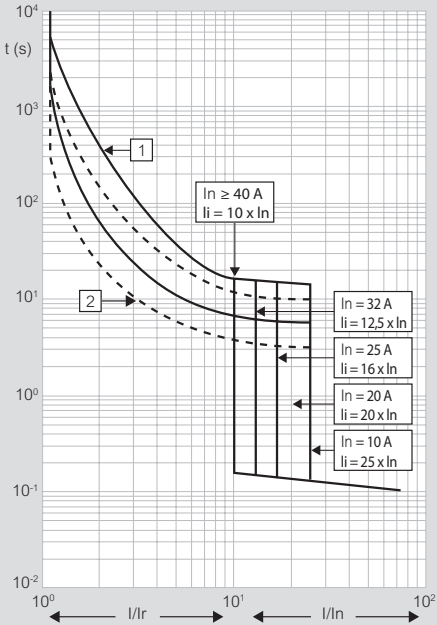
# DRX™ 125 HP

## tripping curves

### Curves

#### Thermal magnetic tripping curve ( $I_n = 16\text{ A} - 80\text{ A}$ )

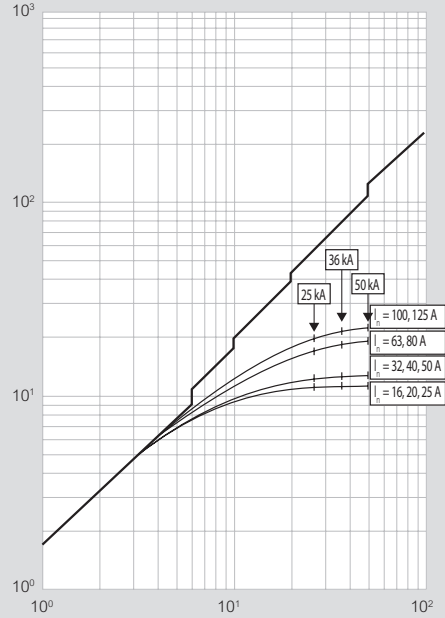
$I_{cu} = 25 / 36 / 50\text{ kA}$   $I_{max} = 80\text{ A}$  3P - 4P  $U_e = 415\text{ V}\sim$



$t$  = time  
 $I$  = current  
 $I_n$  = rated current  
 $I_l$  = long time setting current  
 curve 1 = characteristic with cold start  
 curve 2 = characteristic with hot start

#### Cut-off peak current characteristic curve (kA)

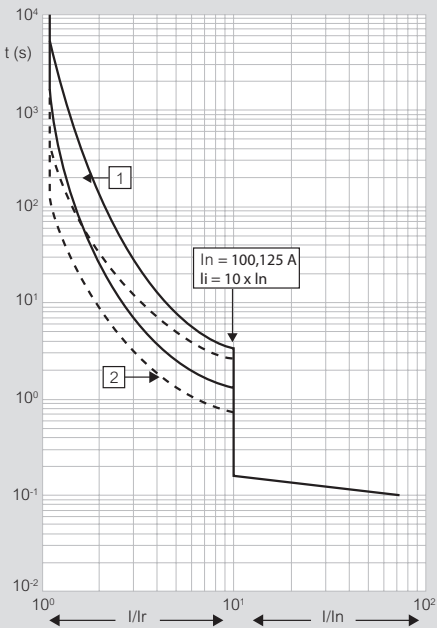
$I_{cu} = 25 / 36 / 50\text{ kA}$   $I_{max} = 125\text{ A}$  3P - 4P  $U_e = 415\text{ V}\sim$



$I_{cc}$  = estimated short circuit symmetrical current (RMS value)  
 $I_p$  = maximum short circuit peak current  
 — = maximum prospective short circuit peak current corresponding at the power factor  
 - - - = maximum real peak short circuit current

#### Thermal magnetic tripping curve ( $I_n = 100\text{ A} - 125\text{ A}$ )

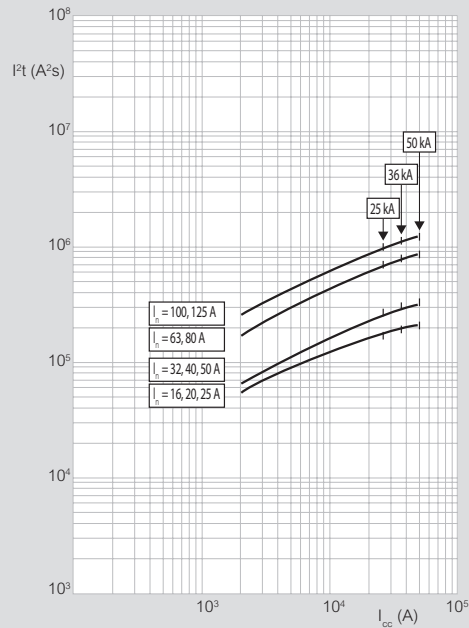
$I_{cu} = 25 / 36 / 50\text{ kA}$   $I_{max} = 125\text{ A}$  3P - 4P  $U_e = 415\text{ V}\sim$



$t$  = time  
 $I$  = current  
 $I_n$  = rated current  
 $I_l$  = long time setting current  
 curve 1 = characteristic with cold start  
 curve 2 = characteristic with hot start

#### Pass-through specific energy characteristic curve

$I_{cu} = 25 / 36 / 50\text{ kA}$   $I_{max} = 125\text{ A}$  3P - 4P  $U_e = 415\text{ V}\sim$



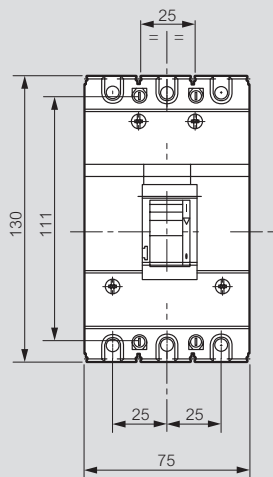
$I_{cc}$  = short circuit current  
 $I^2t$  (A<sup>2</sup>s) = pass-through specific energy

# DRX™ 125 HP

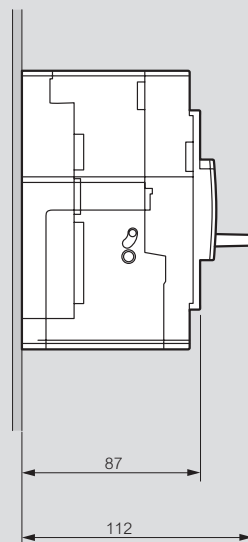
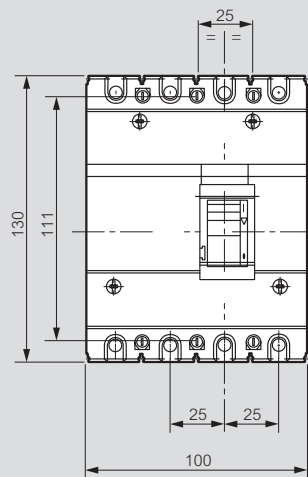
## dimensions and mounting principle

### Dimensions

3P



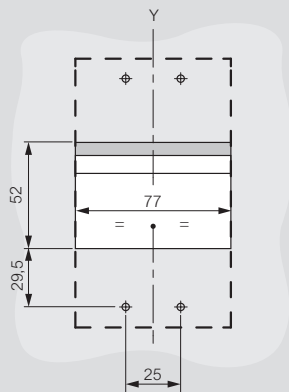
4P



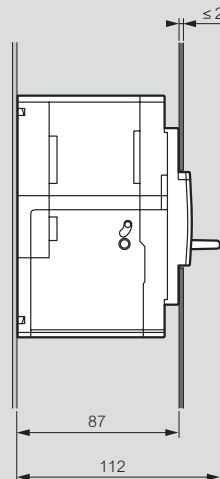
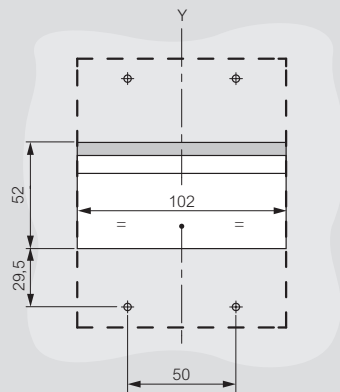
### Mounting principale

#### Door cut-out

3P

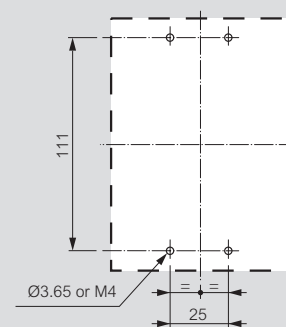


4P

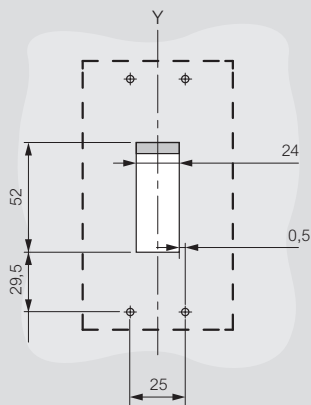


#### Fixing on plate

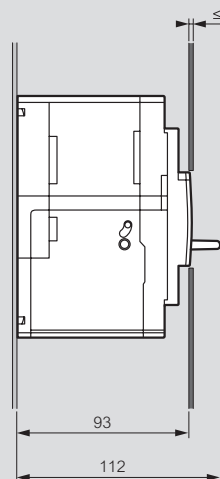
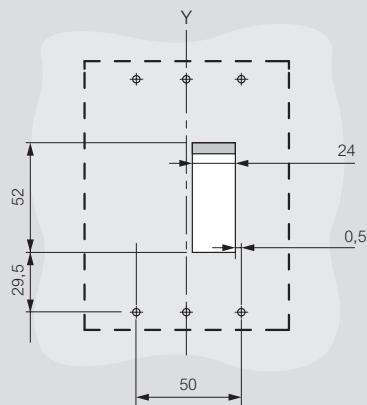
3P



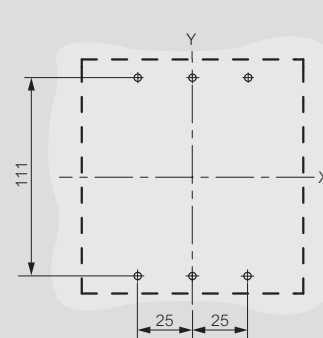
3P



4P



4P



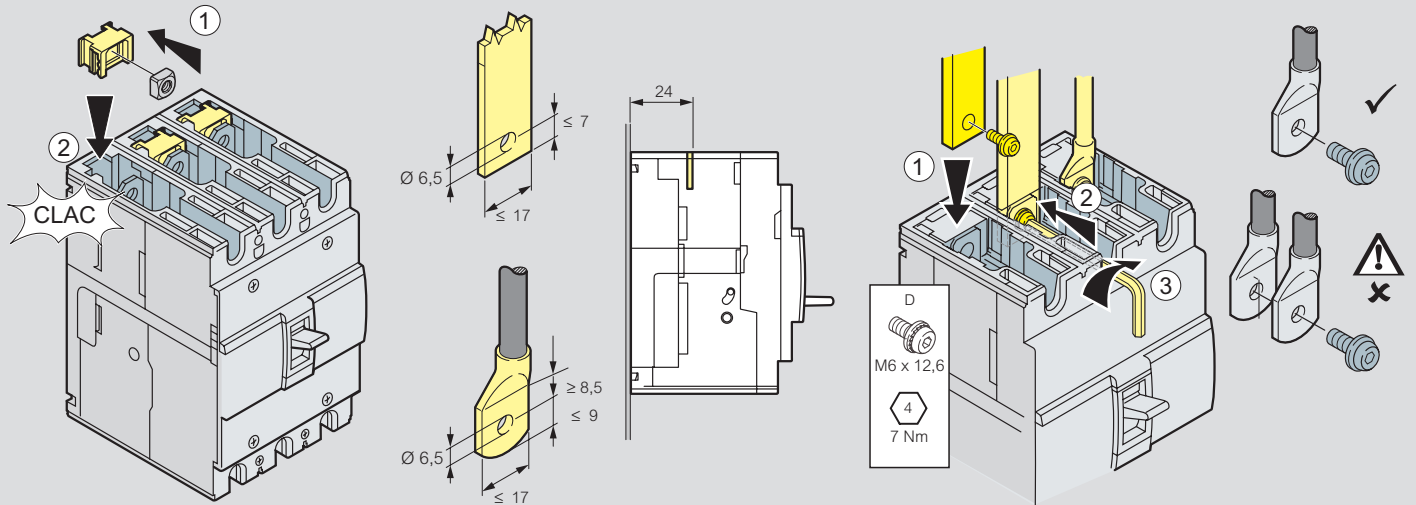


# DRX™ 125 HP

## dimensions (continued) and connection

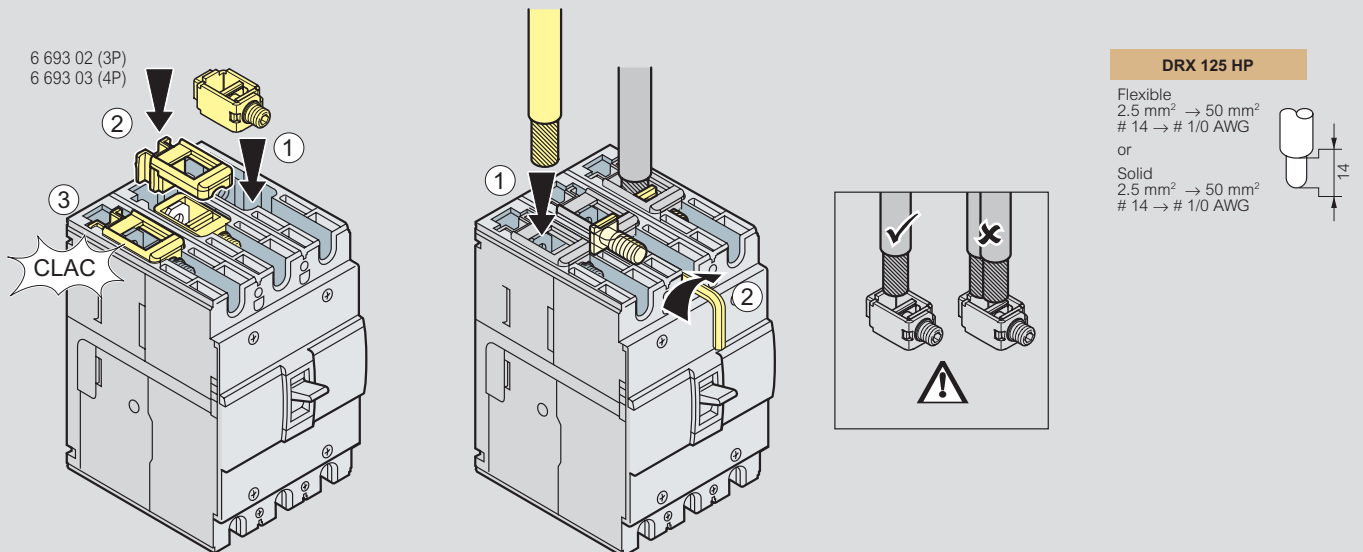
### Connection

#### Connection via busbar



#### Connection via cable

With cage terminals Cat.No 6 693 02 (3P) or 6 693 03 (4P)



## DRX™ 250 HP

thermal magnetic MCCBs from 16 to 250 A



6 674 19

6 674 34

Technical characteristics and curves **p. 18-19**  
 Dimensions and installation principle **p. 20-21**

For switching, control, isolation and protection of low-voltage electrical lines. Can be fitted with auxiliaries. Supplied with: screw terminals, fixing screws, insulating shields (2 for 3P and 3 for 4P).  
 Fixed thermal and magnetic  
 Conform to IEC 60947-2

Pack	Cat.Nos		DRX 250 HP
			<b>Breaking capacity Icu 25 kA (415 V<sub>~</sub>)</b>
			In
	3P	4P	
1	6 694 10	6 694 25	16 A
1	6 694 11	6 694 26	20 A
1	6 694 12	6 694 27	25 A
1	6 694 13	6 694 28	32 A
1	6 694 14	6 694 29	40 A
1	6 694 15	6 694 30	50 A
1	6 694 16	6 694 31	63 A
1	6 694 17	6 694 32	80 A
1	6 694 18	6 694 33	100 A
1	6 694 19	6 694 34	125 A
1	6 694 20	6 694 35	160 A
1	6 694 21	6 694 36	180 A
1	6 694 22	6 694 37	200 A
1	6 694 23	6 694 38	225 A
1	6 694 24	6 694 39	250 A
			<b>Breaking capacity Icu 36 kA (415 V<sub>~</sub>)</b>
			In
1	6 694 40	6 694 55	16 A
1	6 694 41	6 694 56	20 A
1	6 694 42	6 694 57	25 A
1	6 694 43	6 694 58	32 A
1	6 694 44	6 694 59	40 A
1	6 694 45	6 694 60	50 A
1	6 694 46	6 694 61	63 A
1	6 694 47	6 694 62	80 A
1	6 694 48	6 694 63	100 A
1	6 694 49	6 694 64	125 A
1	6 694 50	6 694 65	160 A
1	6 694 51	6 694 66	180 A
1	6 694 52	6 694 67	200 A
1	6 694 53	6 694 68	225 A
1	6 694 54	6 694 69	250 A
			<b>Breaking capacity Icu 50 kA (415 V<sub>~</sub>)</b>
			In
1	6 674 10	6 674 25	16 A
1	6 674 11	6 674 26	20 A
1	6 674 12	6 674 27	25 A
1	6 674 13	6 674 28	32 A
1	6 674 14	6 674 29	40 A
1	6 674 15	6 674 30	50 A
1	6 674 16	6 674 31	63 A
1	6 674 17	6 674 32	80 A
1	6 674 18	6 674 33	100 A
1	6 674 19	6 674 34	125 A
1	6 674 20	6 674 35	160 A
1	6 674 21	6 674 36	180 A
1	6 674 22	6 674 37	200 A
1	6 674 23	6 674 38	225 A
1	6 674 24	6 674 39	250 A

## DRX™ 250 HP adjustable

thermal magnetic MCCBs from 16 to 250 A



6 690 90

6 691 10

Technical characteristics and curves **p. 18-19**  
 Dimensions and installation principle **p. 20-21**

For switching, control, isolation and protection of low-voltage electrical lines. Can be fitted with auxiliaries. Supplied with: screw terminals, fixing screws, insulating shields (2 for 3P and 3 for 4P).  
 Adjustable thermal and magnetic  
 Conform to IEC 60947-2

Pack	Cat.Nos		DRX 250 HP
			Thermal adjustable from 0.8 to 1 x In Magnetic adjustable from 5 to 10 x In
			<b>Breaking capacity Icu 25 kA (415 V<sub>~</sub>)</b>
			In
	3P	4P	
1	6 690 00	6 690 20	16 A
1	6 690 01	6 690 21	20 A
1	6 690 02	6 690 22	25 A
1	6 690 03	6 690 23	32 A
1	6 690 04	6 690 24	40 A
1	6 690 05	6 690 25	50 A
1	6 690 06	6 690 26	63 A
1	6 690 07	6 690 27	80 A
1	6 690 08	6 690 28	100 A
1	6 690 09	6 690 29	125 A
1	6 690 10	6 690 30	160 A
1	6 690 11	6 690 31	200 A
1	6 690 12	6 690 32	250 A
			<b>Breaking capacity Icu 36 kA (415 V<sub>~</sub>)</b>
			In
1	6 690 40	6 690 60	16 A
1	6 690 41	6 690 61	20 A
1	6 690 42	6 690 62	25 A
1	6 690 43	6 690 63	32 A
1	6 690 44	6 690 64	40 A
1	6 690 45	6 690 65	50 A
1	6 690 46	6 690 66	63 A
1	6 690 47	6 690 67	80 A
1	6 690 48	6 690 68	100 A
1	6 690 49	6 690 69	125 A
1	6 690 50	6 690 70	160 A
1	6 690 51	6 690 71	200 A
1	6 690 52	6 690 72	250 A
			<b>Breaking capacity Icu 50 kA (415 V<sub>~</sub>)</b>
			In
1	6 690 80	6 691 00	16 A
1	6 690 81	6 691 01	20 A
1	6 690 82	6 691 02	25 A
1	6 690 83	6 691 03	32 A
1	6 690 84	6 691 04	40 A
1	6 690 85	6 691 05	50 A
1	6 690 86	6 691 06	63 A
1	6 690 87	6 691 07	80 A
1	6 690 88	6 691 08	100 A
1	6 690 89	6 691 09	125 A
1	6 690 90	6 691 10	160 A
1	6 690 91	6 691 11	200 A
1	6 690 92	6 691 12	250 A

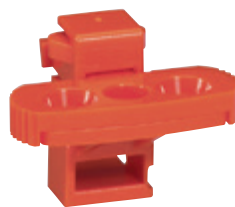
# DRX™ 250 HP accessories



0 271 78



6 693 04



0 271 80



0 271 40



0 271 51

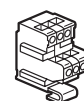


0 271 65

Pack	Cat.Nos	Rotary handles
1	0 271 78	<b>Direct</b> Standard (grey)
1	0 271 79	<b>Vari-depth handle</b> Comprising: connecting rod, bracket, drilling template, mounting accessories, door locking mechanism Standard (grey)
		<b>Connection accessories</b>
		<b>Insulating shields</b> Used to isolate the connection between each pole For DRX 125 HP and DRX 250 HP
1	3P   4P 6 693 00   6 693 01	Set of 2
1	6 693 12   6 693 13	Set of 3
		<b>Sealable terminal shields</b> Set of 2
1	6 693 04   6 693 05	<b>Cage terminals</b> Up to 250 A
1	6 693 14   6 693 15	<b>Spreaders</b> Set of incoming or outgoing spreaders
		<b>Rear terminals</b> Used to convert a fixed version with front terminals into a fixed version with rear terminals
1	6 693 10	Set of 3 rear terminals
1	6 693 11	Set of 4 rear terminals
1	0 271 80	<b>Padlock for DRX 125, 250, DRX 125 HP and DRX 250 HP</b> For locking on "OFF" position (up to 3 locks)



Pack	Cat.Nos	Control and signalling auxiliaries for DRX 125, 250, DRX 125 HP and DRX 250 HP
		<b>Auxiliary contact blocks</b> For left-hand side mounting Up to 250 V~ and =
1	0 271 40	Block with 1 auxiliary
1	0 271 41	Block with 1 alarm
1	0 271 42	Block with 1 auxiliary + 1 alarm
		<b>Shunt trips</b>
1	0 271 50	12 V~ and =
1	0 271 51	24 V~ and =
1	0 271 52	48 V~ and =
1	0 271 53	100/130 V~
1	0 271 54	200/277 V~
1	0 271 55	380/480 V~
		<b>Undervoltage releases</b>
1	0 271 60	12 V~ and =
1	0 271 61	24 V~ and =
1	0 271 62	48 V~ and =
1	0 271 68	110 V=
1	0 271 63	110/130 V~
1	0 271 64	200/240 V~
1	0 271 67	277 V~
1	0 271 65	380/415 V~
1	0 271 66	440/480 V~



## DRX™ 250 HP

### technical characteristics

## DRX™ 250 HP adjustable

### technical characteristics

#### Electrical and mechanical characteristics

	DRX 250 HP 25 kA	DRX 250 HP 36 kA	DRX 250 HP 50 kA	
Number of poles	3P - 4P	3P - 4P	3P - 4P	
Release type	thermal-magnetic			
Rated current $I_n$ (A)	16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 180, 200, 225, 250			
Rated insulation voltage $U_i$ (V)	800	800	800	
Rated operating voltage (50/60 Hz) $U_e$ (V)	550	550	550	
Rated impulse withstand Voltage $U_{imp}$ (kV)	8	8	8	
Rated frequency (Hz)	50 - 60	50 - 60	50 - 60	
Reference ambient temperature $T_{amb}$ (°C)	40 - 50	40 - 50	40 - 50	
Operating temperature (°C)	-25 to 70	-25 to 70	-25 to 70	
Rated ultimate short-circuit breaking capacity $I_{cu}$ (kA) IEC 60947-2	220/240 V~	40	70	90
	380/415 V~	25	36	50
	440/460 V~	20	30	45
	480/500 V~	4	4	4
	550 V~	4	4	4
Rated service short-circuit breaking capacity $I_{cs}$ (% $I_{cu}$ )	100	100	100	
Rated short-circuit making capacity $I_{cm}$ (kA) at 415 V~	52.5	75.6	105	
Neutral protection for 4P version (% $I_{th}$ )	100	100	100	
Rated ultimate short-circuit breaking capacity $I_{cu}$ (kA) NEMA AB-1	220/240 V~	40	70	90
	480/500 V~	4	4	4
	550 V~	4	4	4
Category of use	A	A	A	
Suitable for isolation	Yes	Yes	Yes	
Thermal adjustment $I_r$ (A)	Fixed at 1.0 x $I_n$			
Magnetic adjustment $I_i$ (A)	Fixed : 400 A, for $I_n$ up to 40 A 630 A, for $I_n = 50 / 63$ A 10 x $I_n$ , for $80 A \leq I_n \leq 250 A$			
Endurance (cycles)	mechanical	12000	12000	12000
	electrical at $I_n$	6000	6000	6000
	electrical at 0.5 $I_n$	6000	6000	6000
Neutral protection for 4P version (%)	100	100	100	
Dimensions W x H x D (mm)	3P	105 x 165 x 86		
	4P	140 x 165 x 86		
Weight (kg)	3P	1.6		
	4P	2.05		

#### Electrical and mechanical characteristics

	DRX 250 HP 25 kA	DRX 250 HP 36 kA	DRX 250 HP 50 kA	
Number of poles	3P - 4P	3P - 4P	3P - 4P	
Release type	thermal-magnetic			
Rated current $I_n$ (A)	16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250			
Rated insulation voltage $U_i$ (V)	800	800	800	
Rated operating voltage (50/60 Hz) $U_e$ (V)	550	550	550	
Rated impulse withstand Voltage $U_{imp}$ (kV)	8	8	8	
Rated frequency (Hz)	50 - 60	50 - 60	50 - 60	
Reference ambient temperature $T_{amb}$ (°C)	40 - 50	40 - 50	40 - 50	
Operating temperature (°C)	-25 to 70	-25 to 70	-25 to 70	
Rated ultimate short-circuit breaking capacity $I_{cu}$ (kA) IEC 60947-2	220/240 V~	40	70	90
	380/415 V~	25	36	50
	440/460 V~	20	30	45
	480/500 V~	4	4	4
	550 V~	4	4	4
Rated service short-circuit breaking capacity $I_{cs}$ (% $I_{cu}$ )	100	100	100	
Rated short-circuit making capacity $I_{cm}$ (kA) at 415 V~	52.5	75.6	105	
Neutral protection for 4P version (% $I_{th}$ )	100	100	100	
Rated ultimate short-circuit breaking capacity $I_{cu}$ (kA) NEMA AB-1	220/240 V~	40	70	90
	480/500 V~	4	4	4
	550 V~	4	4	4
Category of use	A	A	A	
Suitable for isolation	Yes	Yes	Yes	
Thermal adjustment $I_r$ (A)	0.8 - 0.9 - 1.0 x $I_n$			
Magnetic adjustment $I_i$ (A)	Adjustable : 400 A, for $I_n$ up to 40 A 6.5 - 10 - 13 x $I_n$ , for $I_n = 50 A$ 5 - 7.5 - 10 x $I_n$ , for $63 A \leq I_n \leq 250 A$			
Endurance (cycles)	mechanical	12000	12000	12000
	electrical at $I_n$	6000	6000	6000
	electrical at 0.5 $I_n$	6000	6000	6000
Neutral protection for 4P version (%)	100	100	100	
Dimensions W x H x D (mm)	3P	105 x 165 x 86		
	4P	140 x 165 x 86		
Weight (kg)	3P	1.6		
	4P	2.05		



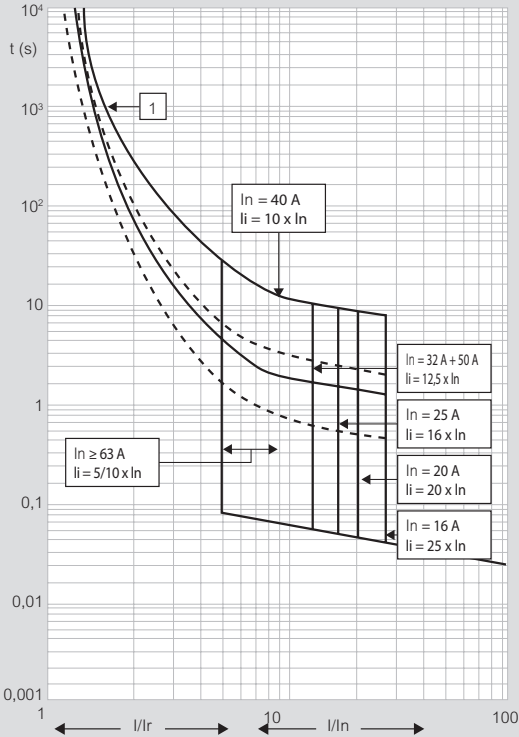
# DRX™ 250 HP

## tripping curves

### Curves

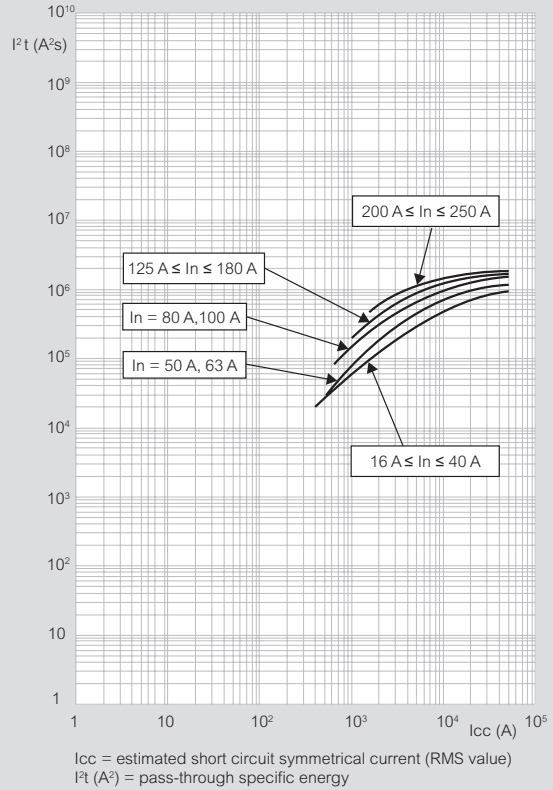
#### Thermal magnetic tripping curve

$I_{cu} = 25/36/50 \text{ kA}$   $I_{max} = 250 \text{ A}$  3P - 4P  $U_e = 415 \text{ V} \sim$

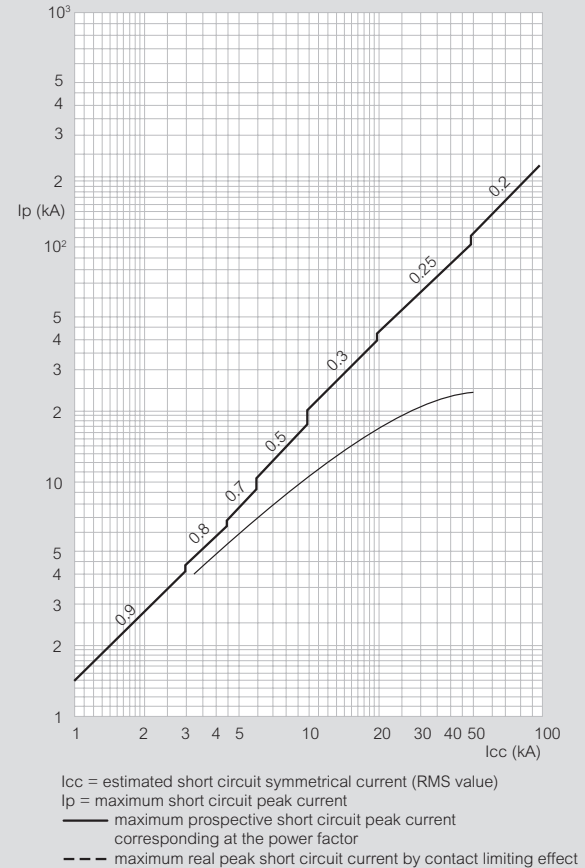


$t$  = time  
 $I$  = rated current  
 $I_n$  = rated current  
 $I_r$  = long time setting current  
 curve 1 = characteristic with cold start  
 curve 2 = characteristic with hot start

#### Pass-through specific energy characteristic curve



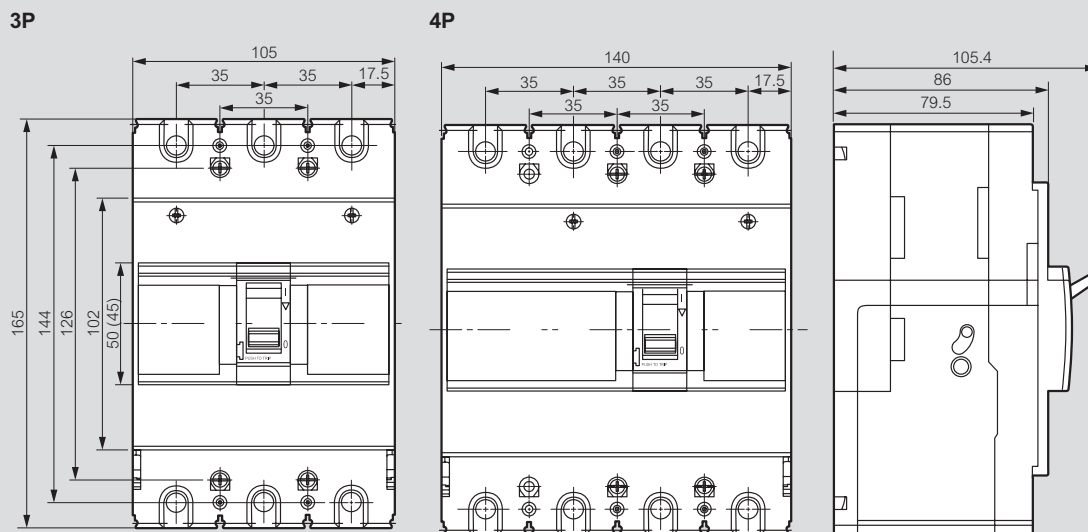
#### Cut-off peak current characteristic curve (kA)



# DRX™ 250 HP

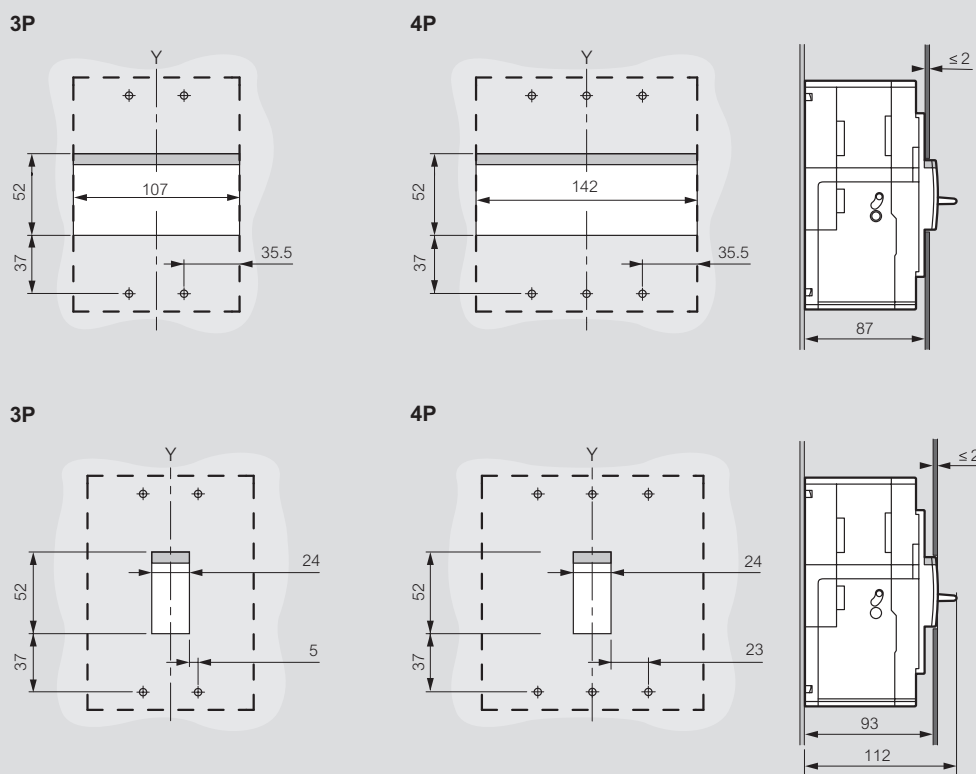
## dimensions and mounting principle

### Dimensions

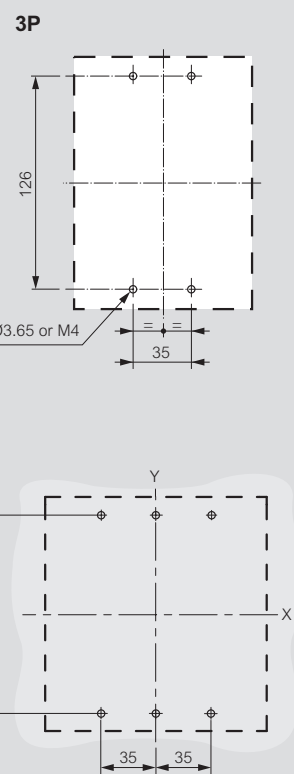


### Mounting principle

#### Door cut-out



#### Fixing on plate

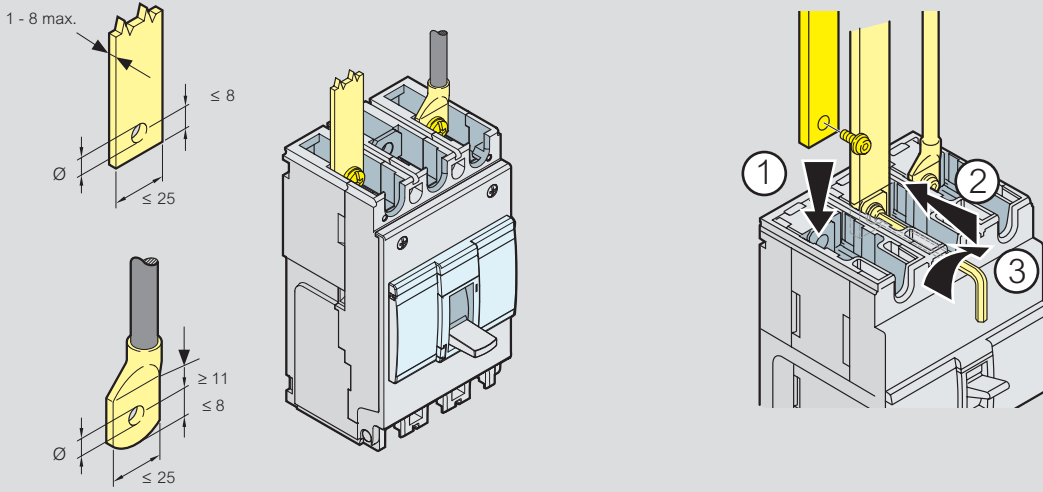


# DRX™ 250 HP

## dimensions (continued) and connection

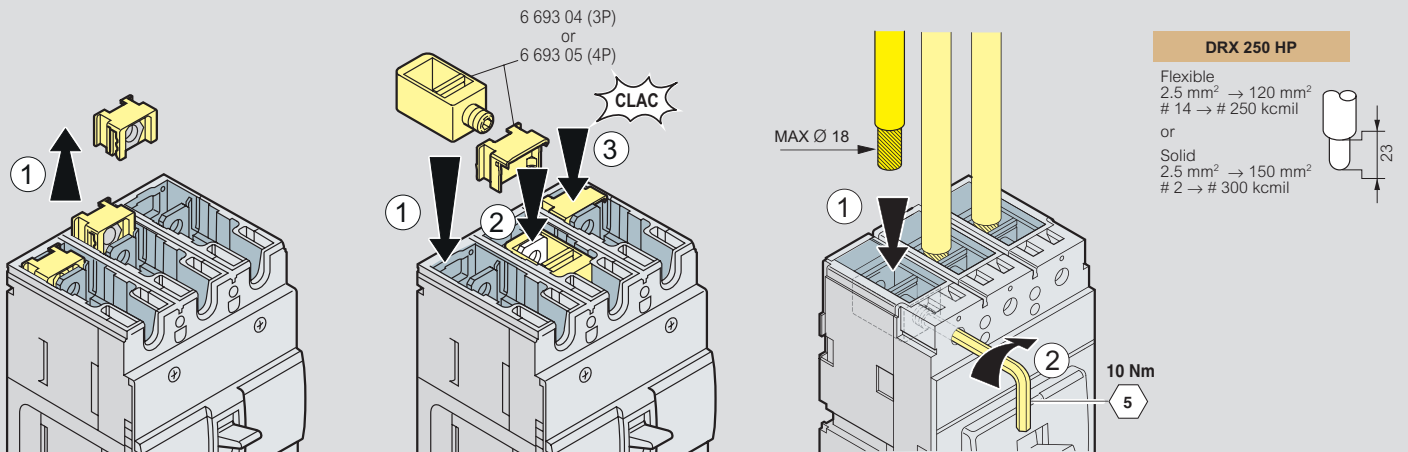
### Connection

#### Connection via busbar



#### Connection via cable

With cage terminals Cat.No 6 693 04 (3P) or 6 693 05 (4P)



## DRX™ 630

thermal magnetic MCCBs from 320 to 630 A

## DRX™ 630 adjustable

thermal magnetic MCCBs from 320 to 630 A



0 272 45



0 272 49



6 676 51

Technical characteristics and curves p. 24-25

For switching, control, isolation and protection of low-voltage electrical lines  
Can be fitted with auxiliaries  
Supplied with:  
- Screw terminals  
- Fixing screws  
- Insulating shields (2 for 3P and 3 for 4P)  
Fixed thermal and magnetic  
Conform to IEC 60947-2

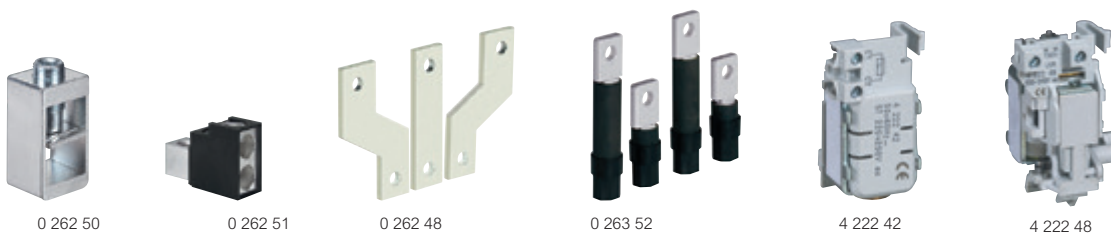
Pack	Cat.Nos		DRX 630
	3P	4P	
			<b>Breaking capacity Icu 36 kA (415 V~)</b> In
1	0 272 34	0 272 38	320 A
1	0 272 35	0 272 39	400 A
1	0 272 36	0 272 40	500 A
1	0 272 37	0 272 41	630 A
			<b>Breaking capacity Icu 50 kA (415 V~)</b> In
1	0 272 42	0 272 46	320 A
1	0 272 43	0 272 47	400 A
1	0 272 44	0 272 48	500 A
1	0 272 45	0 272 49	630 A

Technical characteristics and curves p. 24-25

For switching, control, isolation and protection of low-voltage electrical lines  
Can be fitted with auxiliaries  
Supplied with:  
- Screw terminals  
- Fixing screws  
- Insulating shields (2 for 3P and 3 for 4P)  
Adjustable thermal and magnetic  
Conform to IEC 60947-2

Pack	Cat.Nos		DRX 630
	3P	4P	
			Thermal adjustable from 0.8 to 1 x In Magnetic adjustable from 5 to 10 x In
			<b>Breaking capacity Icu 36 kA (415 V~)</b> In
1	6 676 50	6 676 54	320 A
1	6 676 51	6 676 55	400 A
1	6 676 52	6 676 56	500 A
1	6 676 53	6 676 57	630 A
			<b>Breaking capacity Icu 50 kA (415 V~)</b> In
1	6 676 58	6 676 62	320 A
1	6 676 59	6 676 63	400 A
1	6 676 60	6 676 64	500 A
1	6 676 61	6 676 65	630 A

# DRX™ 630 accessories



Pack	Cat.Nos	Rotary handles
1	0 272 50	<b>Direct</b> Standard (grey)
1	0 272 51	<b>Vari-depth handle</b> Comprising: connecting rod, bracket, drilling template, mounting accessories, door locking mechanism Standard (grey)
<b>Connection accessories</b>		
	0 262 30	<b>Insulating shields</b> Used to isolate the connection between each pole Set of 2 pieces
1	0 262 44   0 262 45	<b>Sealable terminal shields</b> Set of 2
1	4 222 34   4 222 35	<b>IP 20 terminal cover</b> Set of two terminal covers
1	0 262 50	<b>Cage terminals</b> Set of 4 cage terminals for cables
1	0 262 51	Set of 4 high capacity cage terminals for cables
1	0 262 47	<b>Extended front terminals</b> Set of 4 extended front terminals
1	0 262 48   0 262 49	<b>Spreaders</b> Set of incoming or outgoing spreaders
1	0 263 50   0 263 51	<b>Swivel terminals</b> Set of incoming or outgoing swivel terminals
1	0 263 52   0 263 53	<b>Flat terminals</b> Set of incoming or outgoing flat terminals



Pack	Cat.Nos	Padlock for DRX 630
1	0 262 40	For locking on "OFF" position (up to 3 locks)
<b>Control and signalling auxiliaries for DRX 630</b>		
For DPX <sup>3</sup> , DPX <sup>3</sup> -I and DRX		
1	4 210 11	<b>Auxiliary contact or fault signal</b> For signalling the state of the contacts or opening of the MCCB on a fault Changeover switch 3 A - 240 V~
<b>Shunt releases</b>		
Shunt inrush power 300 V~		
Coil voltage		
1	4 222 39	24 V~ and =
1	4 222 40	48 V~ and =
1	4 222 41	110 V~ and =
1	4 222 42	230 V~ and =
1	4 222 43	400 V~ and =
<b>Undervoltage releases</b>		
Undervoltage power consumption 5 V~		
Coil voltage		
1	4 222 44	24 =
1	4 222 45	24 V~
1	4 222 46	48 V=
1	4 222 47	110-125 V~
1	4 222 48	220-240 V~
1	4 222 49	380-415 V~

## DRX™ 630

### technical characteristics

#### Technical characteristics

	DRX 630 - 36 kA	DRX 630 - 50 kA	
Number of poles	3P - 4P	3P - 4P	
Release type	thermal-magnetic		
Rated current In (A)	320, 400, 500, 630		
Rated insulation voltage Ui (V)	800	800	
Rated operating voltage (50/60 Hz) Ue (V)	550	550	
Rated impulse withstand Voltage Uimp (kV)	8	8	
Rated frequency (Hz)	50 - 60	50 - 60	
Reference ambient temperature Tamb (°C)	40 - 50	40 - 50	
Operating temperature (°C)	-25 to 70	-25 to 70	
Rated ultimate short-circuit breaking capacity Icu (kA) IEC 60947-2	110/130 V~	70	100
	220/240 V~	70	100
	380/415 V~	36	50
	440/460 V~	30	40
	480/550 V~	25	30
	690 V~	14	18
Rated service short-circuit breaking capacity Ics (% Icu)	50	50	
Rated short-circuit making capacity Icm (kA) at 415 V~	75.6	105	
Neutral protection for 4P version (% Ith)	100	100	
Rated short-circuit breaking capacity on IT system Isu.lit (kA) IEC 60947-2 (Annexes C - H)	110/130 V~	18	25
	220/240 V~	18	25
	380/415 V~	9	13
	440/460 V~	8	10
	480/550 V~	5	6
	690 V~	4	5
Rated ultimate short-circuit breaking capacity Icu (kA) NEMA AB-1	220/240 V~	40	70
	480/550 V~	4	4
	690 V~	4	5
Category of use	A	A	
Suitable for isolation	Yes	Yes	
Thermal adjustment Ir (A)	Fixed		
Magnetic adjustment Ii (A)	Fixed: 10 x In		
Endurance (cycles)	mechanical	6000	6000
	electrical at In	2000	2000
	electrical at 0.5 In	4000	4000
Neutral protection for 4P version (%)	100	100	
Dimensions W x H x D (mm)	3P	140 x 260 x 105	
	4P	183 x 260 x 105	
Weight (kg)	3P	5.20	
	4P	6.85	

## DRX™ 630 adjustable

### technical characteristics

#### Technical characteristics

	DRX 630 - 36 kA	DRX 630 - 50 kA	
Number of poles	3P - 4P	3P - 4P	
Release type	thermal-magnetic		
Rated current In (A)	320, 400, 500, 630		
Rated insulation voltage (50/60Hz) Ui (V)	800	800	
Rated operational voltage (50/60 Hz) Ue (V)	690	690	
Rated impulse withstand voltage Uimp (kV)	8	8	
Rated frequency (Hz)	50 - 60	50 - 60	
Reference ambient temperature Tamb (°C)	40 - 50	40 - 50	
Operating temperature (°C)	-25 to 70	-25 to 70	
Rated ultimate short-circuit breaking capacity Icu (kA) IEC 60947-2	110/130 V~	70	100
	220/240 V~	70	100
	380/415 V~	36	50
	440/460 V~	30	40
	480/550 V~	25	30
	690 V~	14	18
Rated service short-circuit breaking capacity Ics (%Icu)	100	100	
Rated short-circuit making capacity Icm (at 415 V~)	75.6	105	
Neutral protection for 4P version (%Ith)	100	100	
Rated short-circuit breaking capacity on IT system Isu.lit (kA) IEC 60947-2 (Annexes C - H)	110/130 V~	18	25
	220/240 V~	18	25
	380/415 V~	9	13
	440/460 V~	8	10
	480/550 V~	5	6
	690 V~	4	5
Rated ultimate short-circuit breaking capacity Icu (kA) NEMA AB-1	220/240 V~	70	100
	480/500 V~	25	30
	690 V~	14	18
Category of use	A	A	
Suitable for isolation	Yes	Yes	
Thermal adjustment Ir (A)	0.8 ÷ 0.9 ÷ 1 x In		
Magnetic adjustment Ii (A)	5 ÷ 10 x In		
Endurance (cycles)	mechanical	6000	6000
	electrical at In	2000	2000
	electrical at 0.5 In	4000	4000
Dimensions W x H x D (mm)	3P	140 x 260 x 105	
	4P	184 x 260 x 105	
Weight (kg)	3P	5.20	
	4P	6.85	



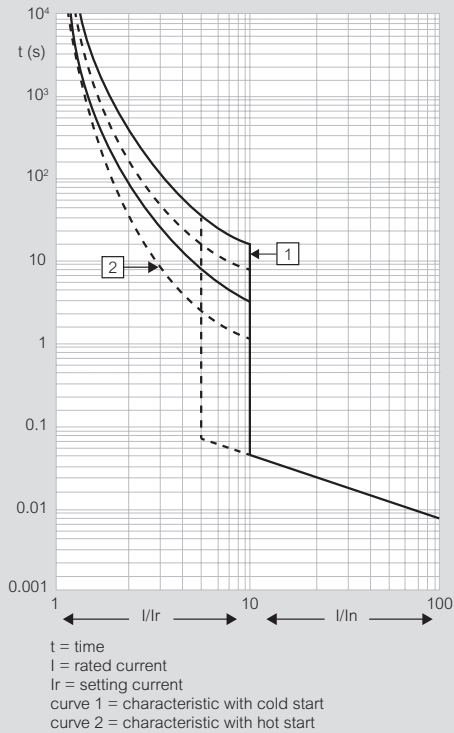
# DRX™ 630 and DRX™ 630 adjustable

## tripping curves

### Curves

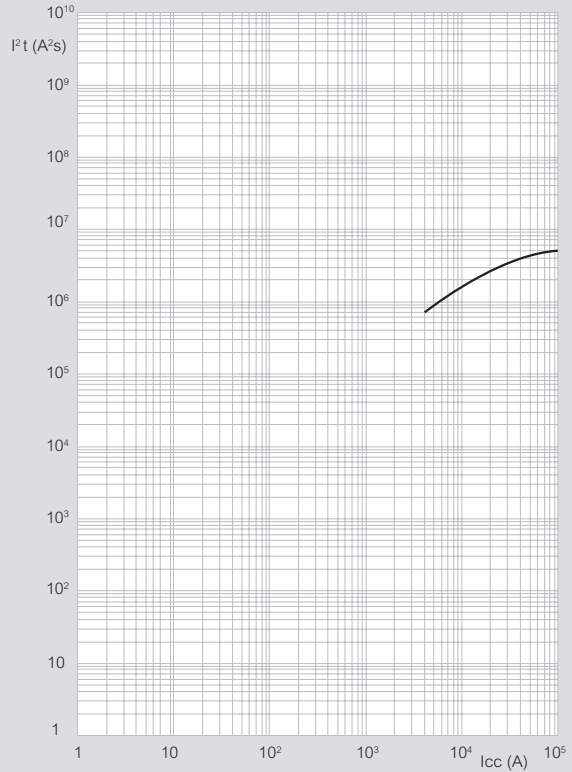
#### DRX 630

$I_{max} = 630 \text{ A}$  from 36 kA to 50 kA 3P - 4P



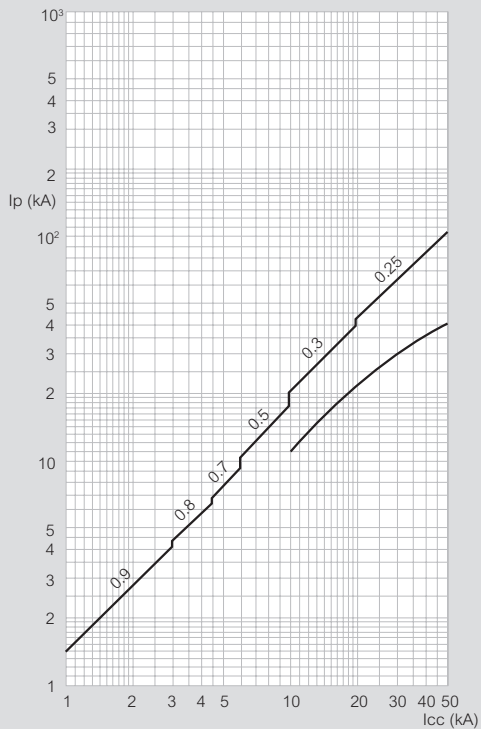
### Pass-through specific energy characteristic curve

DRX 630  $I_{max} = 630 \text{ A}$  from 36 kA to 50 kA 3P - 4P at 415 V~



### Cut-off peak current characteristic curve (kA)

DRX 630  $I_{max} = 630 \text{ A}$  from 36kA to 50 kA 3P - 4P



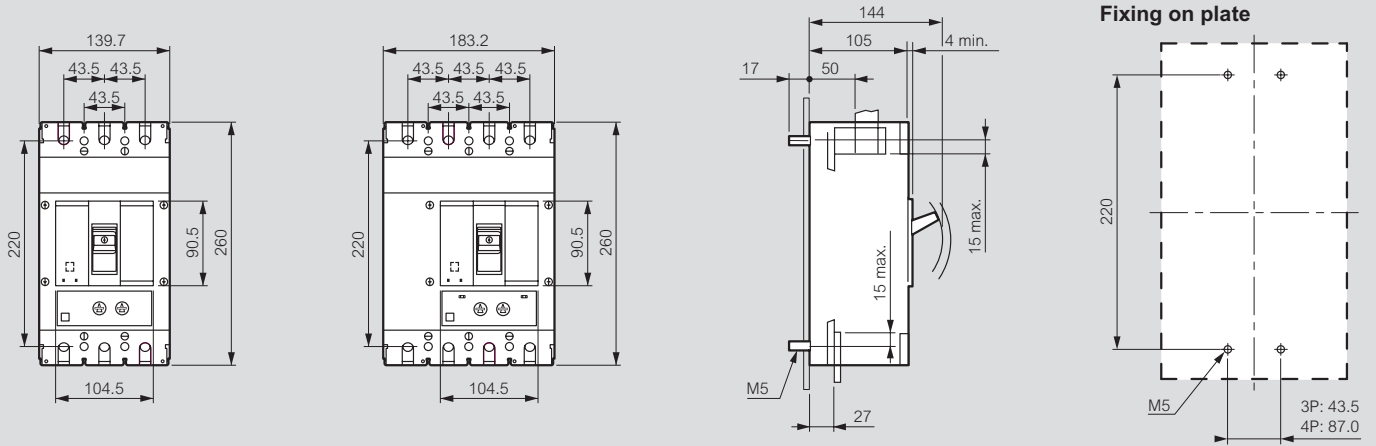
— maximum prospective short circuit peak current corresponding at the power factor  
 - - - maximum real peak short circuit current by contact limiting effect

# DRX™ 630 and DRX™ 630 adjustable

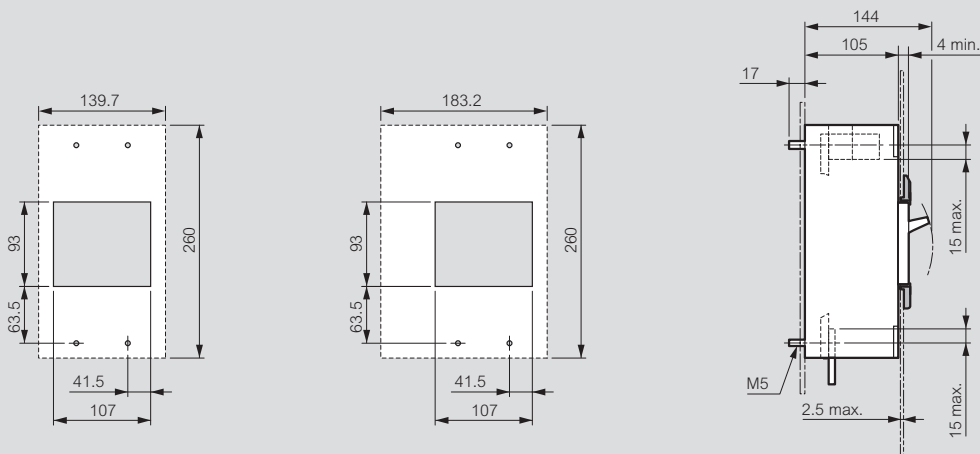
## dimensions and mounting principle

### Dimensions

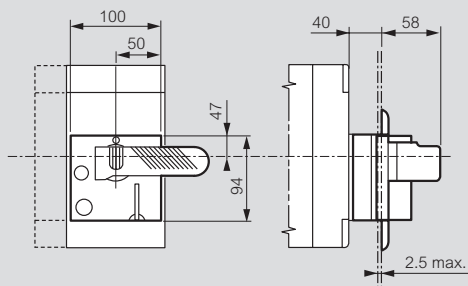
#### DRX 630 and DRX 630 adjustable



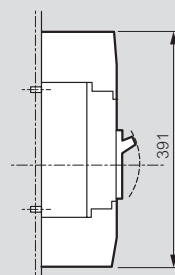
### Door cut



### Rotary handle-direct on DRX

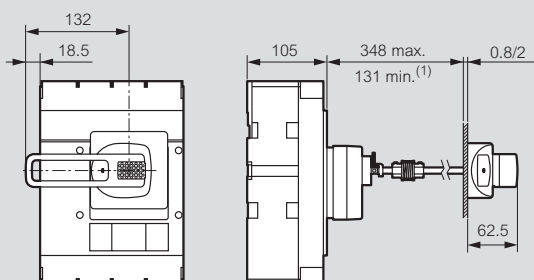


### Terminal shields



### Rotary handle-vari-depth handle on door

Mounting with flexible seal



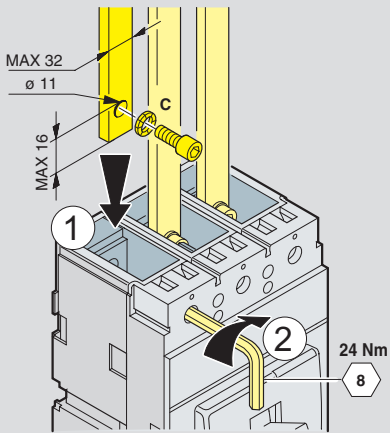
1: 75 mm without mechanical system

# DRX™ 630 and DRX™ 630 adjustable

## connection

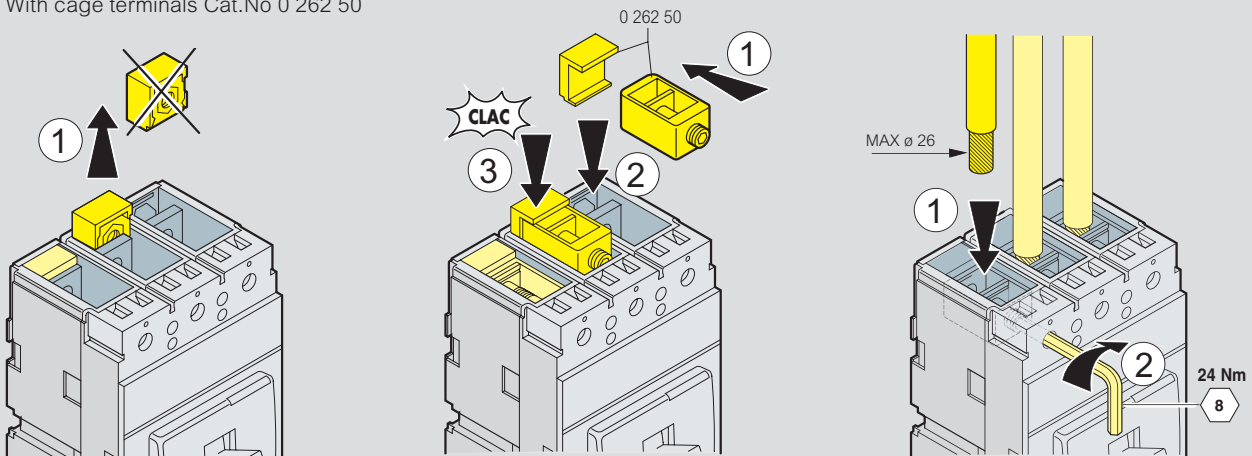
### Connection

#### Connection via busbar

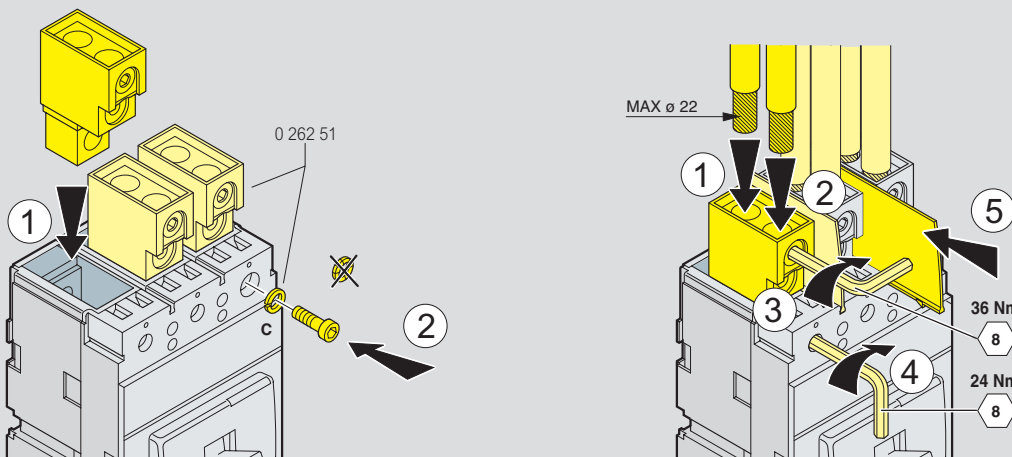


#### Connection via cable

With cage terminals Cat.No 0 262 50



With high capacity cage terminals Cat.No 0 262 51





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