Industrial Motors

Commercial & Appliance Motors

Automation

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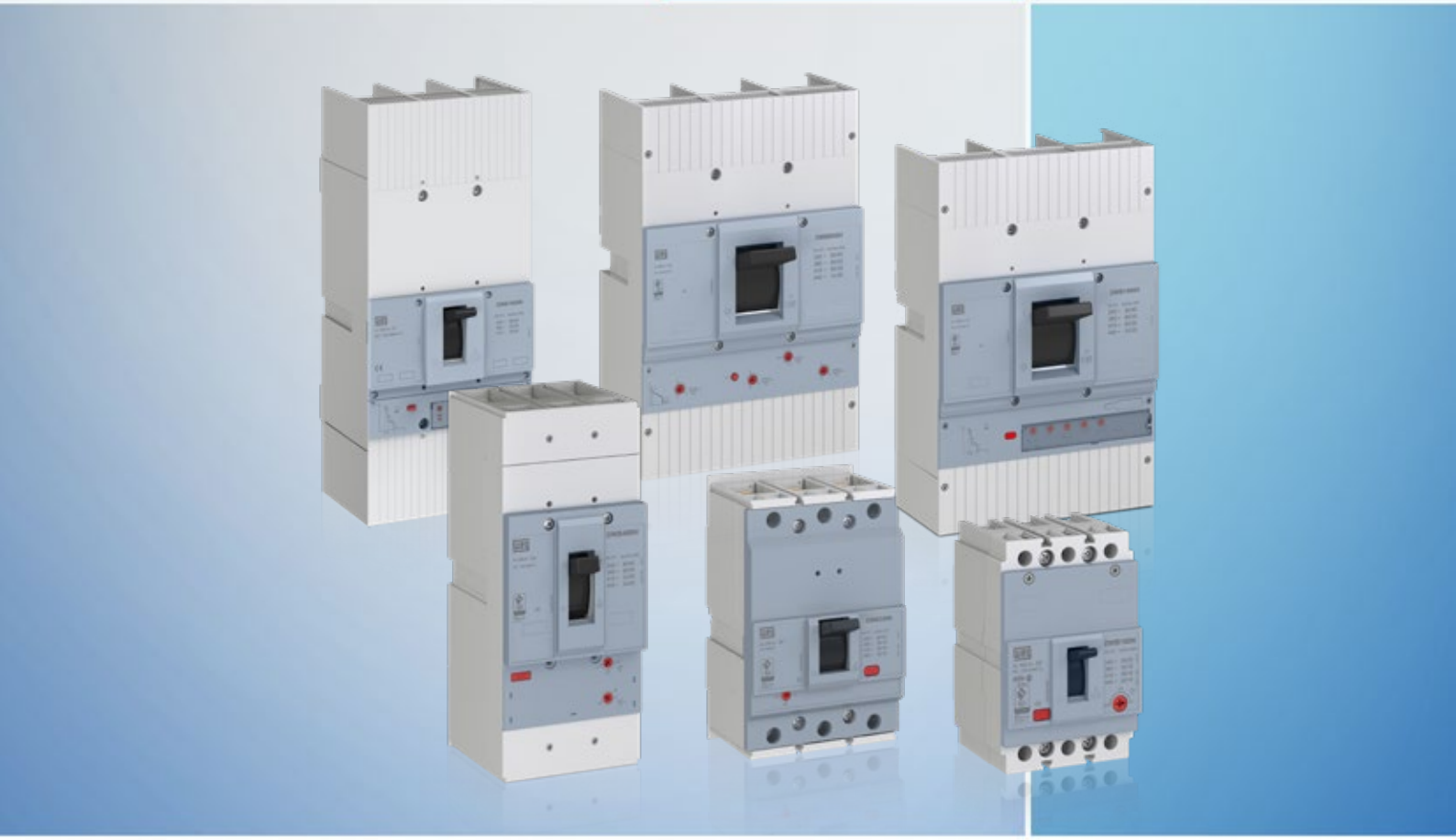
Energy

Transmission & Distribution

Coatings

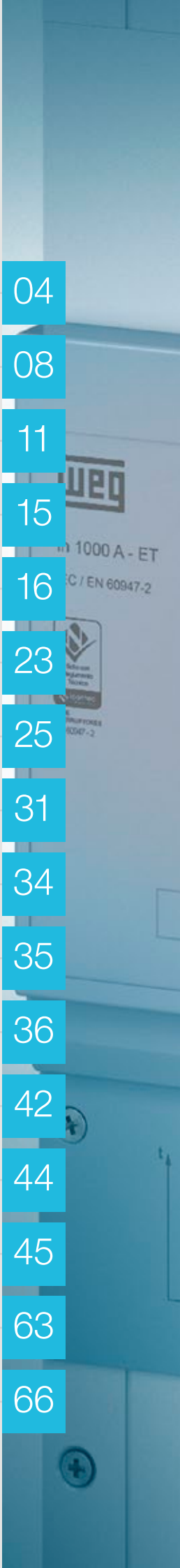
DWB Molded Case Circuit Breakers

The **right** molded case circuit breaker for your application



Driving efficiency and sustainability

SUMMARY




DWB1000H
Ue (V) Icu/Ics (kA)
240 ~ 80/40
380 ~ 65/35
415 ~ 65/35
440 ~ 50/35
On
Off
TEST

The right molded case circuit breaker for your application

Suitable for industrial, commercial and building applications, the ***new version of the DWB line of WEG molded case circuit breakers*** was ***designed and manufactured according to IEC 60947-1 and IEC 60947-2***, meeting the operation and protection needs of distribution circuits up to 1,600 A.

FLEXIBILITY

DWB circuit breakers allow flexibility in the use of internal accessories. Interchangeability of accessories among circuit breakers from 160 A to 1,000 A.

DOUBLE PROTECTION

In order to provide greater safety for the operator, DW circuit breakers have double insulation between live parts (except for the terminals) and the front parts of the equipment. The internal accessories are completely separate from the power circuit, avoiding any risks of contact with the live parts.

HIGH PERFORMANCE

DWB molded case circuit breakers can be used in a wide range of applications with great performance under severe overload and short-circuit conditions. When installed in motor circuits combined with WEG contactors (CWB and CWM) and WEG smart relays (SRW), they comply with coordination 2 requirements as per IEC 60947-4-1.

The right circuit breaker for your application

The models are available with three types of protection - ***thermomagnetic, magnetic and with electronic protection type LSI*** specific for each type of load.
For ***distribution circuits in general up to 800 A***, the circuit breakers with thermomagnetic element provide enough overload and short-circuit protection for both AC and DC applications, allowing the economic and safe assembly of distribution systems.
For ***distribution circuits from 500 A to 1,600 A***, circuit breakers with electronic LSI protection provide optimization of the protection circuits and higher operation accuracy by means of the following protections:

- Protection against overload (“L” = Long time delay trip)
- Short-time delay trip for protection against short-circuit (“S” = short-time delay), allowing selective action in case of short-circuit currents
- Instantaneous short-circuit protection (“I” = Instantaneous)
- Embedded communication in circuit breakers with ET-C or ETA-C electronic trip units

In applications where it is necessary ***to switch and protect motor circuits***, DWB circuit breakers up to 1,000 A have magnetic protection relays especially adjusted for this type of load, ensuring their correct operation in case of short-circuit currents. Circuit breakers with magnetic protection for motor circuits must be combined with other switching and protection elements, such as contactors and overload relays (thermal or electronic). For ***switching and protecting generators***, the models are also manufactured with protective relays specially adjusted for this type of load.

Certifications

CE UKCA

Protecting and disconnecting in 5 frames

Available in 5 sizes from 16 A to 1,600 A, according to the maximum rated current of each size (frame):

- DWB160 - maximum rated current of 160 A
- DWB250 - maximum rated current of 250 A
- DWB400 - maximum rated current of 400 A
- DWB800 and DWB1000[1)] - maximum rated current of 800 A and 1,000 A respectively
- DWB1600[1)] - maximum rated current of 1,600 A

Manufactured with quality raw materials, the molded-case circuit breakers of the DWB line ensure high performance for different applications.

- Frame made of SMC (Sheet Molding Compound): in addition to high mechanical performance, it also presents high dielectric strength and withstands high temperatures
- Fixed and moving contacts made with special metal alloys to ensure safe operation and long service life
- Electrolytic copper terminals with surface treatment (silver-coated terminals) ensuring protection against corrosion and excessive heating of the connections
- Front cover made of polycarbonate (DWB circuit breakers) providing greater safety for the applications

The special laser engraving system used on DWB circuit breakers ensures indelibility of the product information and characteristic along its useful life.

Note: 1) With LSI electronic protection.

General characteristics

Frame				DWB160			DWB250		
Standard				IEC 60947-2			IEC 60947-2		
Number of poles				2[1], 3, 4			2[1], 3, 4		
Rated operational voltage[16]		U_e	VAC	690[7]			690[7]		
			VDC	500			500		
Insulation voltage[16]		U_i	V	800			800		
Rated impulse withstand voltage[16]		U_{imp}	kV	8			8		
Utilization category		-	-	A			A		
Reference temperature		T	°C	45			45		
Pollution degree[16]		-	-	3			3		
Breaking capacity level									
Rated ultimate short-circuit breaking capacity - I_{cu}		I_{cu}	kA	B	N	L[2]	B	N	L[2]
			240 V~	25	50	120	40	80	120
			380 V~	18	30[3]	80	18	36	80
			415 V~	16	30[3]	80	16	36	80
			440 V~	10	20[4]	80	15	30	80
			500 V~	5	8	65	5	8	65
			550 V~	4	6	25	4	7	25
			690 V~	3	4	10	3	6	15
	1 pole		125 VDC	35	65	-	35	65	-
	2 poles in series		250 VDC	35	65	-	35	65	-
	3 poles in series		500 VDC	25	50	-	25	50	-
Rated service short-circuit breaking capacity - I_{cs}		I_{cs}	kA	B	N	L[2]	B	N	L[2]
			240 V~	25	25	80	40	40	80
			380 / 400 V~	16	16	60	16	17	60
			415 V~	16	16	60	16	17	60
			440 V~	10	10	60	15	15	60
			500 V~	5	5	50	5	5	50
			550 V~	4	4	20	4	4	20
			690 V~	3	3	8	3	3	8
Type of protection and application[8][12]									
Thermomagnetic for distribution	Fixed thermal and fixed magnetic	I_n	A	16, 20, 25, 32, 40, 50, 63, 70, 80, 90, 100, 110, 125, 150, 160		16, 20, 25, 32, 40, 50, 63, 70, 80, 90, 100, 110, 125	Not applicable		
	Adjustable thermal and fixed magnetic	I_n	A	40, 50, 63, 80, 100, 125, 160		-	100, 125, 160, 200, 250		100, 125, 160, 200
	Adjustable thermal and adjustable magnetic	I_n	A	Not applicable			Not applicable		
Thermomagnetic for generator	Fixed thermal and fixed magnetic	I_n	A	Not applicable			Not applicable		
	Adjustable thermal and fixed magnetic	I_n	A	55, 75, 85, 105, 125, 140, 160	Not applicable		105, 125, 160, 200, 250	Not applicable	
	Adjustable thermal and adjustable magnetic	I_n	A	Not applicable			Not applicable		
Magnetic for motor	Fixed magnetic	I_n	A	Not applicable	25, 32, 40, 50, 65, 80, 95		Not applicable	80, 105, 150, 185, 200	
	Adjustable magnetic	I_n	A	Not applicable			Not applicable		
Electronic (LSI) for distribution and generator[15]			A	Not applicable			Not applicable		
Mechanical lifespan - C-O cycle			Number of operations/ operations per hour	8,000 / 120			8,000 / 120		
Electrical lifespan - C-O cycle (I_n @ 690 V)			Number of operations/ operations per hour	1,000 / 120			1,000 / 120		
Degree of protection			Terminals	IP10			IP10		
			Accessory cover	IP20			IP20		
Maximum air relative humidity				95%			95%		
Connection with cable[11][13]		Recommended	mm²	See the installation section			See the installation section		
		Tightening torque	Nm	6			25[5]		
Connection with bar		Recommended cross section (width x thickness)	mm x mm	See the installation section			See the installation section		
		Tightening torque	Nm	6			8		
Resistance to vibration (IEC 60068-2-6)				2 to 13.2 Hz: amplitude ±1 mm 13.2 to 100 Hz: constant of acceleration 0.7 g			2 to 13.2 Hz: amplitude ±1 mm 13.2 to 100 Hz: constant of acceleration 0.7 g		
Resistance to mechanical shocks (IEC 60068-2-27 - 1/2 sine)				12 g for 11ms			12 g for 11ms		
Dimensions (Width x Depth x Height)			mm x mm x mm	2 poles: 78 x 71 x 122 3 poles: 78 x 71 x 122 4 poles: 102.5 x 71 x 122		3 poles: 78 x 136 x 143	2 poles: 105 x 78 x 162 3 poles: 105 x 78 x 162 4 poles: 141 x 75 x 162		3 poles: 105 x 137 x 191
Net weight			kg	2 poles: 0.79 / 3 poles: 0.9 / 4 poles: 1.24		3 poles: 1.84	2 poles: 1,42 / 3 poles: 1.85 / 4 poles: 2.5		3 poles: 3.75

Notes: 1) 2 poles on the 3-pole frame. Available only for DWB160B with fixed trigger, DWB250B, DWB250N, DWB400N and DWB400H.

2) Only available on 3-pole frame; not available with protection for generator.

3) For $I_n \leq 32$ A: I_{cu} = 20 kA @ 380 V / 415 V.

4) For $I_n \leq 32$ A: I_{cu} = 15 kA @ 440 V.

5) Recommended torque for the terminal lugs accessory - PC (sold separately). If lug terminal is used directly on the circuit breaker terminal, consider the recommended torque for connection with bar.

6) Product height without terminal cover.

7) For applications above 2,000 m of altitude, consider the derating indicated in the table of page 32.

8) I_n = rated current (fixed thermal release) or maximum setting value (adjustable thermal release).

9) Information on thermal dissipation of the circuit breakers available on page 35.

General characteristics




DWB400		DWB800			DWB1000		DWB1600
IEC 60947-2		IEC 60947-2			IEC 60947-2		IEC 60947-2
2[1], 3, 4[14]		3, 4[14]			3, 4		3, 4
690[7]		690[7]			690[7]		500[7]
500		500			-		-
800		800			800		690
8		8			8		8
A		A			A		A
45		45			45		45
3		3			3		3
N	**H**	**N**	**S**	**H**	**S**	**H**	**N**
40	80	40	65	80	65	80	80
35	65	35	50	65	50	65	35
35	50	35	50	65	50	65	35
35	50	35	42	50	42	50	25
20	25	20	22	25	22	25	20
10	15	10	12	15	12	15	-
8	10	8	8	10	8	10	-
35	65	35	50	65	-	-	-
35	65	35	50	65	-	-	-
25	50	25	35	50	-	-	-
N	**H**	**N**	**S**	**H**	**S**	**H**	**N**
40	40	40	40	40	40	40	40
35	35	35	35	35	35	35	25
35	35	35	35	35	35	35	25
25	25	35	35	35	35	35	25
12	12	20	20	20	20	20	20
10	10	10	10	10	10	10	-
8	8	8	8	8	8	8	-
Not applicable		Not applicable			Not applicable		Not applicable
Not applicable		Not applicable			Not applicable		Not applicable
200, 250, 320, 400		Not applicable	320, 400, 500, 630, 800		Not applicable		Not applicable
Not applicable		Not applicable			Not applicable		Not applicable
Not applicable		Not applicable			Not applicable		Not applicable
200, 250, 320, 400	Not applicable	630, 800	Not applicable		Not applicable		Not applicable
Not applicable		Not applicable			Not applicable		Not applicable
Not applicable	150, 185, 250, 320	Not applicable		420, 500	Not applicable		1,000
Not applicable		Not applicable			500, 630, 800, 1,000		1,250, 1,600
5,000 / 120		3,000 / 60			3,000 / 60		3,000 / 60
1,000 / 120		I_n≤630 A: 1,000 / 120 I_n=800 A: 500 / 60			I_n=1,000 A: 500 / 60		500 / 60
IP10		IP10			IP10		IP10
IP20		IP20			IP20		IP20
95%		95%			95%		95%
See the installation section		See the installation section			See the installation section		See the installation section
30[5]		50[5]			55[5]		55[5]
See the installation section		See the installation section			See the installation section		See the installation section
20		20			20		30 (M10) / 50 (M12)
2 to 13.2 Hz: amplitude ±1 mm 13.2 to 100 Hz: constant of acceleration 0.7 g		2 to 13.2 Hz: amplitude ±1 mm 13.2 to 100 Hz: constant of acceleration 0.7 g			2 to 13.2 Hz: amplitude ±1 mm 13.2 to 100 Hz: constant of acceleration 0.7 g		2 to 13.2 Hz: amplitude ±1 mm 13.2 to 100 Hz: constant of acceleration 0.7 g
12 g for 11ms		12 g for 11ms			12 g for 11ms		12 g for 11ms
3 poles: 107 x 99 x 256 4 poles: 141 x 99 x 256		3 poles: 210 x 99 x 256[6] 4 poles: 280 x 99 x 256[6]			3 poles: 210 x 99 x 256[6] 4 poles: 280 x 99 x 256[6]		3 poles: 210 x 146 x 345[6] 4 poles: 280 x 146 x 345[6]
3 poles: 3.56 / 4 poles: 4.6			3 poles: 7.4 / 4 poles: 9.2		3 poles: 7.4 / 4 poles: 9.2		3 poles: 16.4 / 4 poles: 19.9

10) Thermal and magnetic operation range available on the Time x Current characteristic curves.

11) See the Installation section. "Connection of cables and bars to terminals", "Direct connection of cables by means of round terminal lugs" and "Direct connection of bar to circuit breaker" tables.

12) For ambient temperature different from 45 °C, consider the deratings of the "Temperature Derating" Table.

13) It is recommended to use terminal lugs accessories - PC (optional accessory for the circuit breakers, except for DWB160, which is supplied with terminal lugs) or BE straight extension bar.

14) DWB160 and DWB250 circuit breakers are available in the four-pole versions with protection on the four poles and 3P+N version with protection on three poles and disconnection on the fourth pole. DWB400 and DWB800 circuit breakers are available in the four-pole versions with protections on three poles and disconnection on the fourth pole.

15) For definite-time trips (I^2t OFF), the opening times of the trip mechanisms must be added to the trip times, where, respectively, for the DWB1600 circuit-breaker equal to 70 ±20ms and for the DWB1000 circuit-breaker equal to 50 ±20ms.

16) The items of the IWB line comply with the IEC 60947-2 – Annex L standard, classified as CBI-Y (circuit breakers without overcurrent trip units), and share the same characteristics as the DWB line table above, marked by the note.

General characteristics

Coding

DWB 160 B 125 - 3 DF - C

Family
DWB

Size
160
250
400
800
1,000
1,600

Breaking capacity Icu	
B = 18 kA@380 VAC	For DWB160[1]; DWB250
N = 36 kA@380 VAC	
L = 80 kA@380 VAC	
N = 36 kA@380 VAC	For DWB400
H = 65 kA@380 VAC	
N = 36 kA@380 VAC	For DWB800
S = 50kA@380 VAC	
H = 65 kA@380 VAC	
S = 50 kA@380 VAC	For DWB1000
H = 65 kA@380 VAC	
N =35 kA@380 VAC	DWB1600

Rated current	
16, 20, 25, 32, 40, 50, 63, 70, 80, 90, 100, 110, 125,150, 160	For DWB160(B or N)-_DX
16, 20, 25, 32, 40, 50, 63, 70, 80, 90, 100, 110, 125	For DWB160L-_DX
40, 50, 63, 80, 100, 125, 160	For DWB160__-_DF
55, 75, 85, 105, 125, 140, 160	For DWB160__-_GX
25, 32, 40, 50, 65, 80, 95	For DWB160(N or L)-_MF
100, 125, 160, 200, 250	For DWB250B or N-_DF
100, 125, 160, 200	For DWB250L-_DF
100, 125, 160, 200, 250	For DWB250B-_GF
80, 105, 150, 185, 200	For DWB250B-_MF
200, 250, 320, 400	For DWB400__-DA
200, 250, 320, 400	For DWB400N-GA
150, 185, 250, 320	For DWB400H-MA
320, 400, 500, 630, 800	For DWB800__-DA
320, 400, 500, 630, 800	For DWB800N-GA
420, 500	For DWB800H-MA
500, 630, 800, 1,000	DWB1000__-_ET_
1,250, 1,600	DWB1600__-_ET_
1,000	DWB1600N_-MA

Note: 1) DWB160 "N" breaking capacity Icu = 30 kA@380 VAC.

Number of poles	
2	DWB160B-_DX
	DWB250(B or N)-_DF
	DWB400(N or H)
3	DWB160(B or N or L)-_(DX or DF)
	DWB160B-_GX
	DWB160(N or L)-_MF
	DWB250
	DWB400
	DWB800
	DWB1000
	DWB1600
4	DWB160(B or N)-_(DX or DF) DWB160B-_GF
	DWB250 (B or N)-_DF DWB250B_GA
	DWB400(N or H)
	DWB400N-_GA
	DWB800
	DWB1000
	DWB1600

Communication		
C	Communication RS485 and NFC	For DWB1000 and DWB1600

Protection type		
DX	Distribution - Fixed Thermal / Fixed Magnetic	For DWB160B or N
DF	Distribution - Adjustable Thermal / Fixed Magnetic	For DWB160 and DWB250
DA	Distribution - Adjustable Thermal / Adjustable Magnetic	For DWB400; DWB800
GX	Generator - Fixed Thermal / Fixed Magnetic	For DWB160B
GF	Generator - Adjustable Thermal / Fixed Magnetic	For DWB250B
GA	Generator - Adjustable Thermal / Adjustable Magnetic	For DWB400N and DWB800N
MF	Motor - Fixed Magnetic	For DWB160N or L; DWB250N or L
MA	Motor - Adjustable Magnetic	DWB400H; DWB800H; DWB1600N
ET	Electronics - LSI (3 PH or 3PH + N) Neutral without protection	DWB1000 and DWB1600
ETA	Electronics - LSI (3 Phases + N) Neutral with protection	

Protections and settings

Protections

In order to meet the different requirements of the different types of load of an electrical circuit, DWB has special versions for each type of load, as shown below.

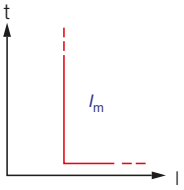
- **Circuit breakers for distribution:** thermal and magnetic protection for electric circuits in general; setting of the short-circuit protection from 5 to 10 times the circuit breaker rated current, with tripping curve according to the criteria of IEC 60947-2 standard.
- **Circuit breakers for motors:** magnetic protection only. The short-circuit tripping curve is set from 7.5 to 15 times the circuit breaker rated current. Such setting allows starting the motor without premature trip of the protection system. It is necessary to add an overcurrent relay for protection against motor overload.
- **Circuit breakers for generators:** the protection against short-circuit is set to trip up to five times the circuit breaker rated current, protecting the generator against current surges that may damage its electronics and compromise its regulation.

Setting for circuit breakers (motors)

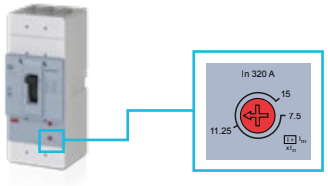
DWB160 and DWB250

Fixed magnetic protection

- The circuit breaker tripping curve is fixed

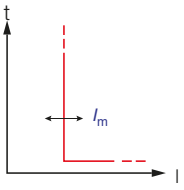


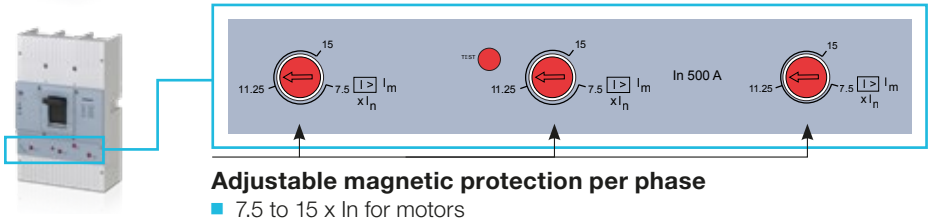
DWB400 and DWB800



Adjustable magnetic protection

- 7.5 to 15 x In for motors

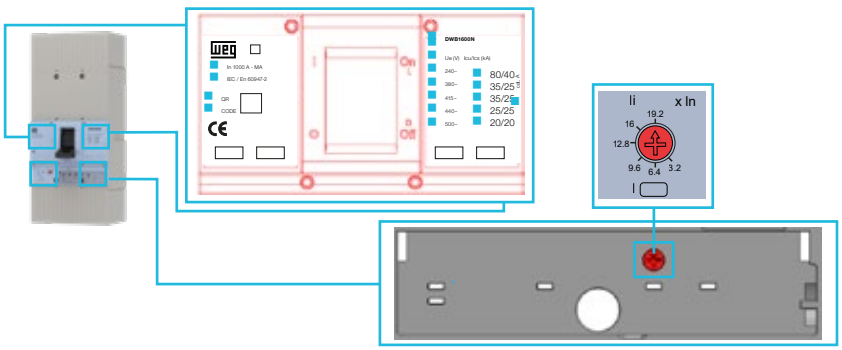


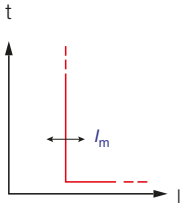


Adjustable magnetic protection per phase

- 7.5 to 15 x In for motors

DWB1600





Adjustable magnetic protection

- 3.2 to 19.2 x In for motors

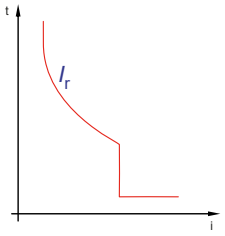
Protections and settings

Settings for circuit breakers (distribution and generators)

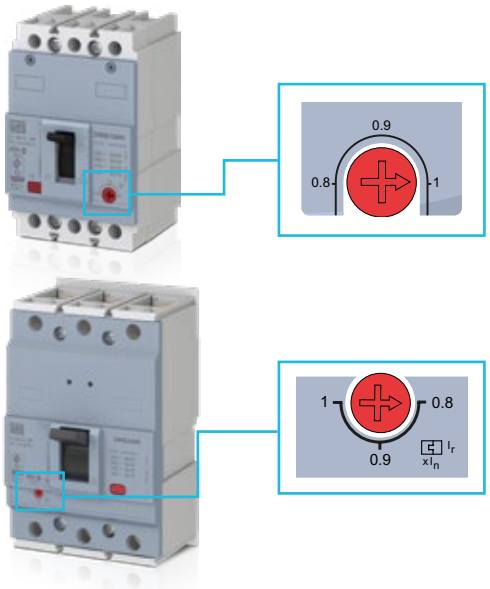
DWB160

Fixed thermal and fixed magnetic

- The circuit breaker tripping curve is fixed

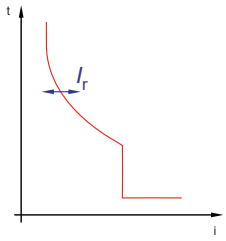


DWB160 and DWB250

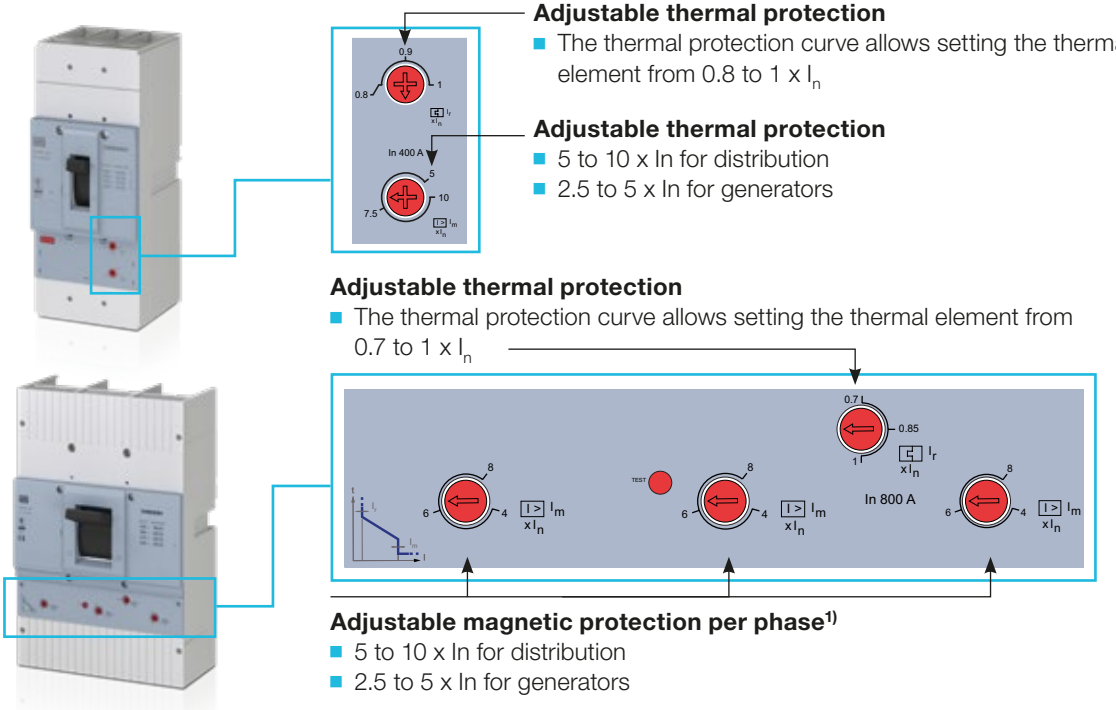


Adjustable thermal and fixed magnetic

- The thermal protection curve allows setting the thermal element from 0.8 to 1 x I_n



DWB400 and DWB800



Adjustable thermal protection

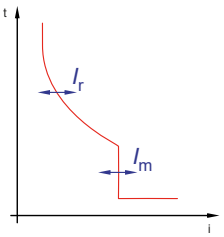
- The thermal protection curve allows setting the thermal element from 0.7 to 1 x I_n

Adjustable thermal protection

- 5 to 10 x In for distribution
- 2.5 to 5 x In for generators

Adjustable magnetic protection per phase[1)]

- 5 to 10 x In for distribution
- 2.5 to 5 x In for generators



Note: 1) Valid range up to nominal current 630 A. For nominal current 800 A: 4 to 8 x In for distribution.

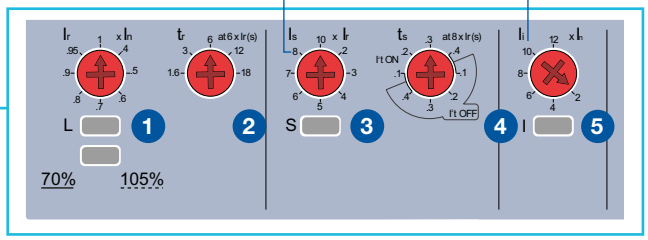
Protections and settings

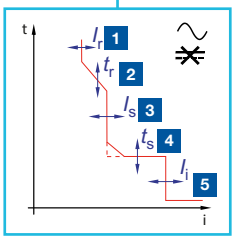
Settings for circuit breakers (distribution and generators)

DWB1000-ET

- For DWB1000-1000 A
- Is max. = 8
- Ii max. = 10

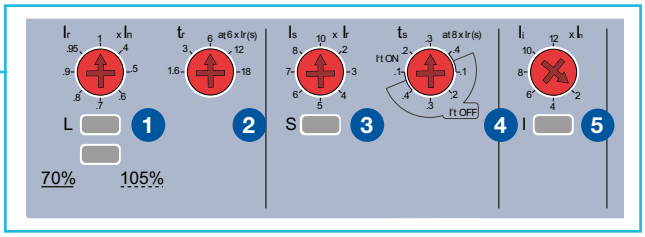
Electronic LSI protection

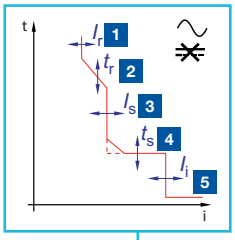




DWB1600-ET

Electronic LSI protection





1 2

Long protection (L)

Setting of the rated current and time delay of the overload protection

3 4

Short protection (S)

Setting of the current and time delay of the short-circuit protection

5

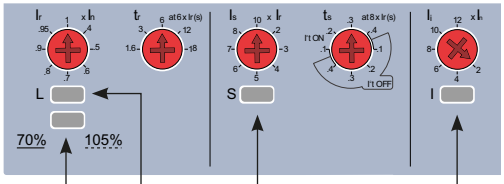
Instantaneous protection (I)

Setting of the instantaneous tripping current

Protections

- **L (Long):** overload protection with reverse time-current curve and adjustable time delay
- **S (Short):** short-circuit protection with time delay, having settings of tripping current and response time, and possibility to choose between reverse time-current curve (I^2t ON) or defined time (I^2t OFF)
- **I (Instantaneous):** short-circuit protection with setting of the tripping current, without setting of the response time

Indication LEDs



70% / 105%:

- LED ON when 70% of I_n is reached
- LED flashing when 105% of I_n is reached

- When closing the circuit breaker after a trip, one of the LEDs of L, S and I indicates which of the settings commanded the las trip, flashing ten times. After such indication, the LEDs remain OFF

- The electronic protection of the circuit breaker is self-supplied. Thus, the relay will be functional for currents equivalent to 0.2 x In for three-phase circuit or 0.35 x In for one phase supplied.
  Under these conditions, the LEDs 70% / 105%, L, S, I (and N - when applicable), light solidly for approximately 1 second, indicating that the electronic protection unit has been self-powered. However, if the current oscillates above and below the self-powered value, the LEDs will stay on and off while the current does not stabilize above the minimum value that guarantees self-feeding.

Note: if the self-feeding current falls below the value, leaving the protection unit de-energised, if there is a short-circuit in the feeder, the circuit breaker will act and turn off this feeder. This action is independent of the protection unit.

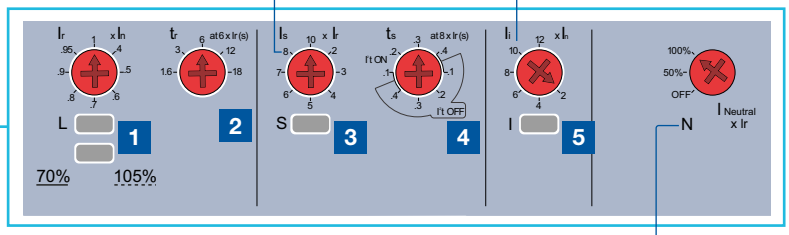
Protections and settings

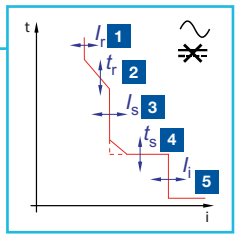
Settings for circuit breakers (distribution and generators)

DWB1000-ETA

- For DWB1000-1000 A
- Is max. = 8
- Ii max. = 10

Electronic LSI protection

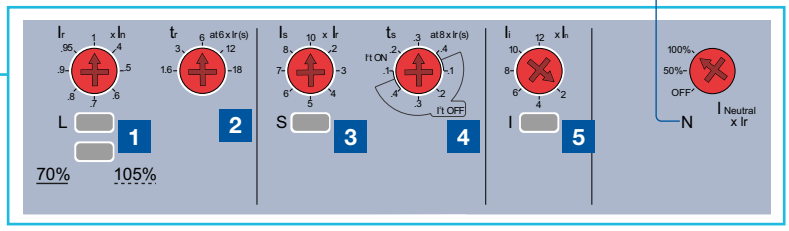


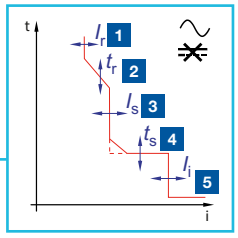


Protection resulting at the neutral pole			
I Neutral	L	S	I
100%	Ir neutral = Ir	Is neutral = Is	Ii neutral = Ii
50%	Ir neutral = 0.5 x Ir	Is neutral = 0.5 x Is	Ii neutral = Ii
OFF	OFF	OFF	Ii neutral = Ii

DWB1600-ETA

Electronic LSI protection





- For LSI protection configuration, see previous page
- For four-pole circuit breakers with adjustable neutral protection, neutral protection can be selected by the 3-position switch, considering the values:
  - **100%:** neutral fully protected to Ir
  - **50%:** neutral protected with half the phase value. That is: 0.5 x Ir for overload protection Ir (L - long-time) and short-time (S-short) protection. The instantaneous protection configuration Ii (I - instantaneous) for the neutral is equal to the set value
  - **OFF:** disables the Ir overload protection (L - long-time) and Is (shot-time) short-circuit protection. The instantaneous protection configuration Ii (I - instantaneous) for the neutral is equal to the setting value

Communication and adjustments

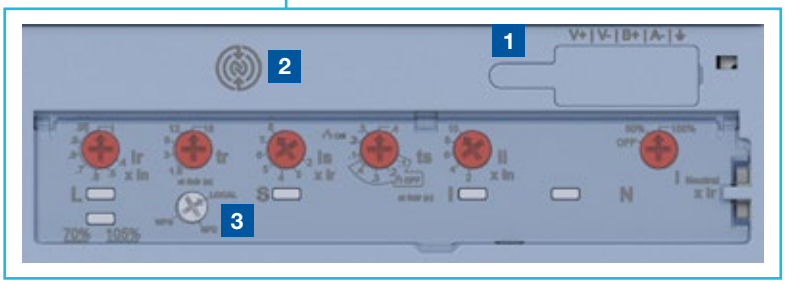
DWB1000 and DWB1600

Embedded communication RS485 Modbus-RTU and NFC

Available in all circuit breakers with second-generation protection electronics DWB1000 and DWB1600, with the product reference ending in "ET-C" or "ETA-C".

In Modbus, it is possible to access: The reading of instantaneous currents and real-time timings. The last 5 reasons for the circuit breaker trip. The last current readings and timing values before the trip.
Through NFC, it is possible to: Parameterize all protections. Access communication parameters. Check the reason for the last trip. These features are also available via Modbus.

Refer to the molded case circuit breaker DW manuals for more details:
- RS485 serial communication manual
- NFC communication manual
- Programming manual

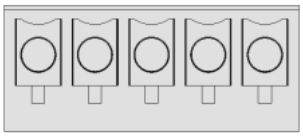


1. RS485 serial communication port. Protocol: Modbus-RTU.
2. NFC proximity region. Enables the sending and collection of data via a mobile device.
3. Adjustment selection dial:
   - Local: Direct adjustment on the circuit breaker
   - WPS: Through the WEG WPS desktop software via RS485
   - NFC: Through the WEG WPS Mobile app via proximity (the circuit breaker must be turned off)

Circuit breaker RS485 connector

The RS485 interface is provided via a 5-way plug-in connector with the following pinout:

Pin	Name	Function
1	V+	Power supply 12 to 24 Vdc
2	V-	GND
3	B+	RxD/Txd positive
4	B-	RxD/Txd negative
5	Shield	Ground connection



Removable female connector for cable connections up to 1 mm²

For replacement, the female connector can also be provided:

Female connector	WEG item
CONECTOR DW-CN-CS5V DWA/DWB C03	18506911

Power supply

The DW circuit breaker is self-powered, meaning that the electronic circuit is energized through the current passing through its busbars, without the need for an external power source. This occurs under the minimum conditions of 0.2 x In for three-phase circuits and 0.35 x In for single-phase circuits.
In the version with communication, it is also possible to power the product and establish Modbus communication through an external power supply connected to terminals 1 and 2, as indicated above.

Softwares

- WEG WPS (mobile app)

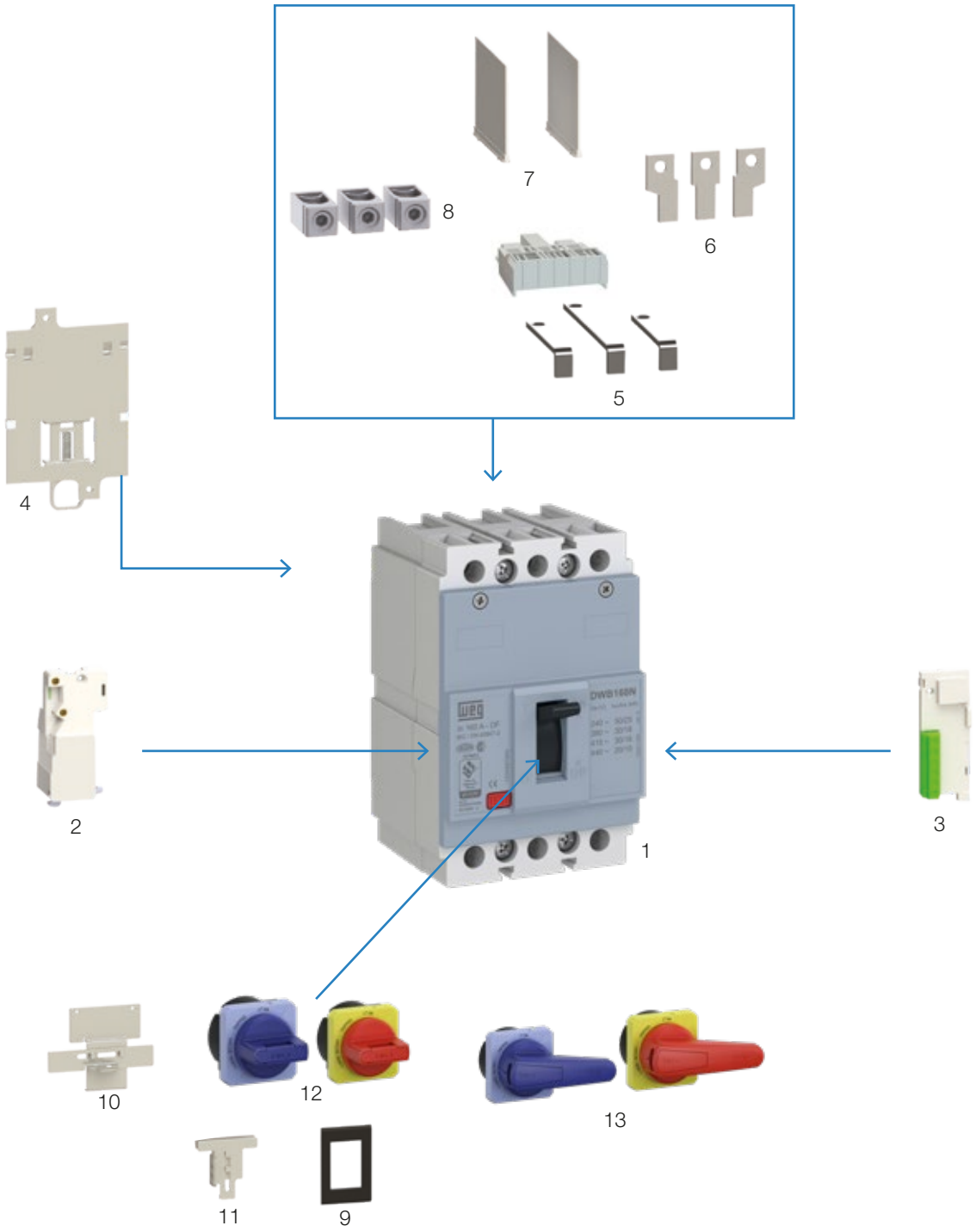
Download on the App Store

GET IT ON Google Play

- WPS (desktop installer)

Accessories

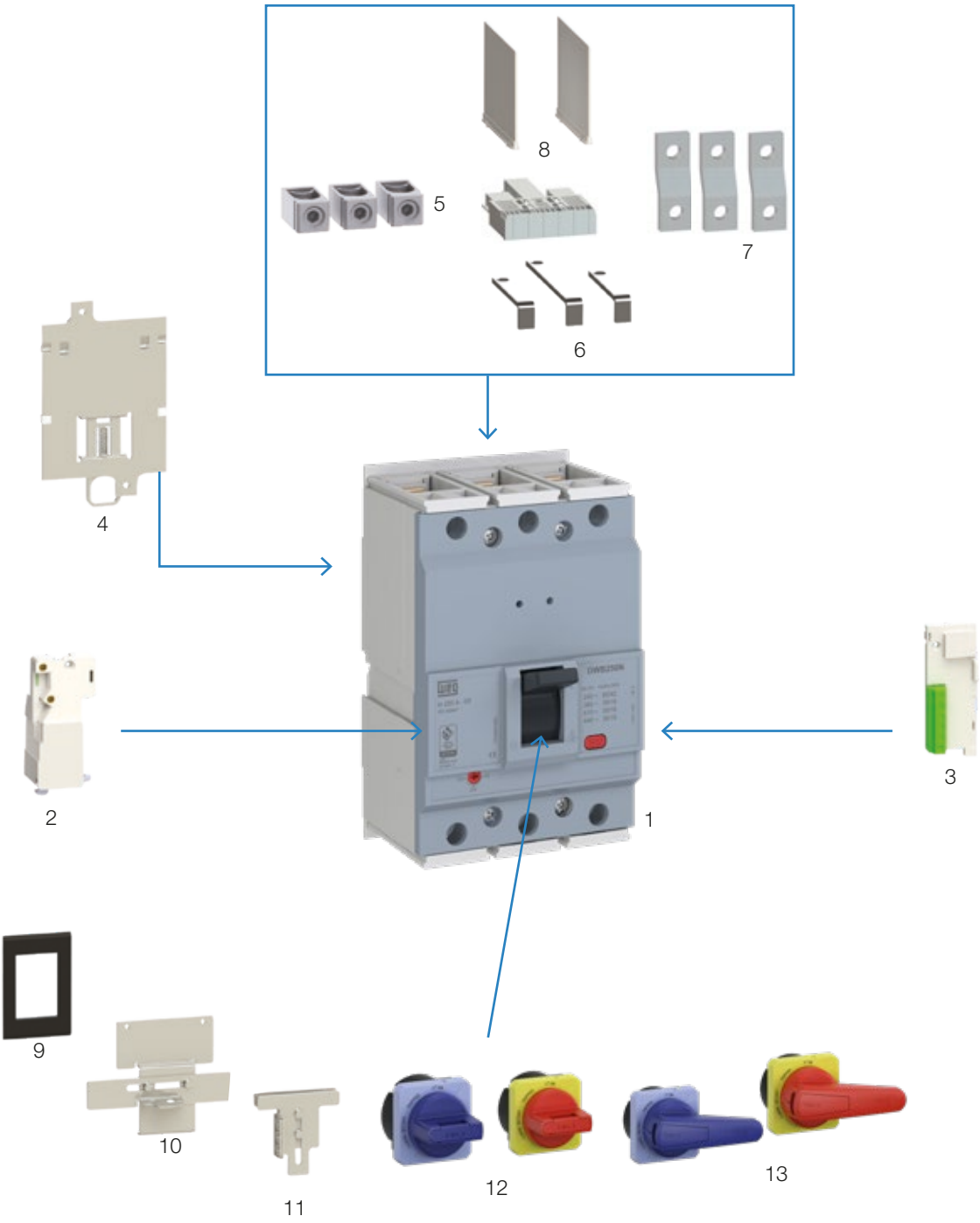
Overview - DWB160



1 - DWB160 circuit breaker
2 - BS or BD - undervoltage release or shunt release
3 - BC - auxiliary contact block
4 - BFR - DIN rail base
5 - CT - 90° connection extension bars (CP 90° connection extension bars protection cover included) (except DWB160L)
6 - BE - straight extension bar
7 - PB - phase barrier
8 - PC - terminal lugs (included in the circuit breaker)
9 - MP - escutcheon
10 - BLIM - mechanical interlock
11 - PL - padlocking device
12 - MRXS - panel door rotary operating handle
13 - MRXL - panel door rotary operating handle (lenght of handle 105 mm)

Accessories

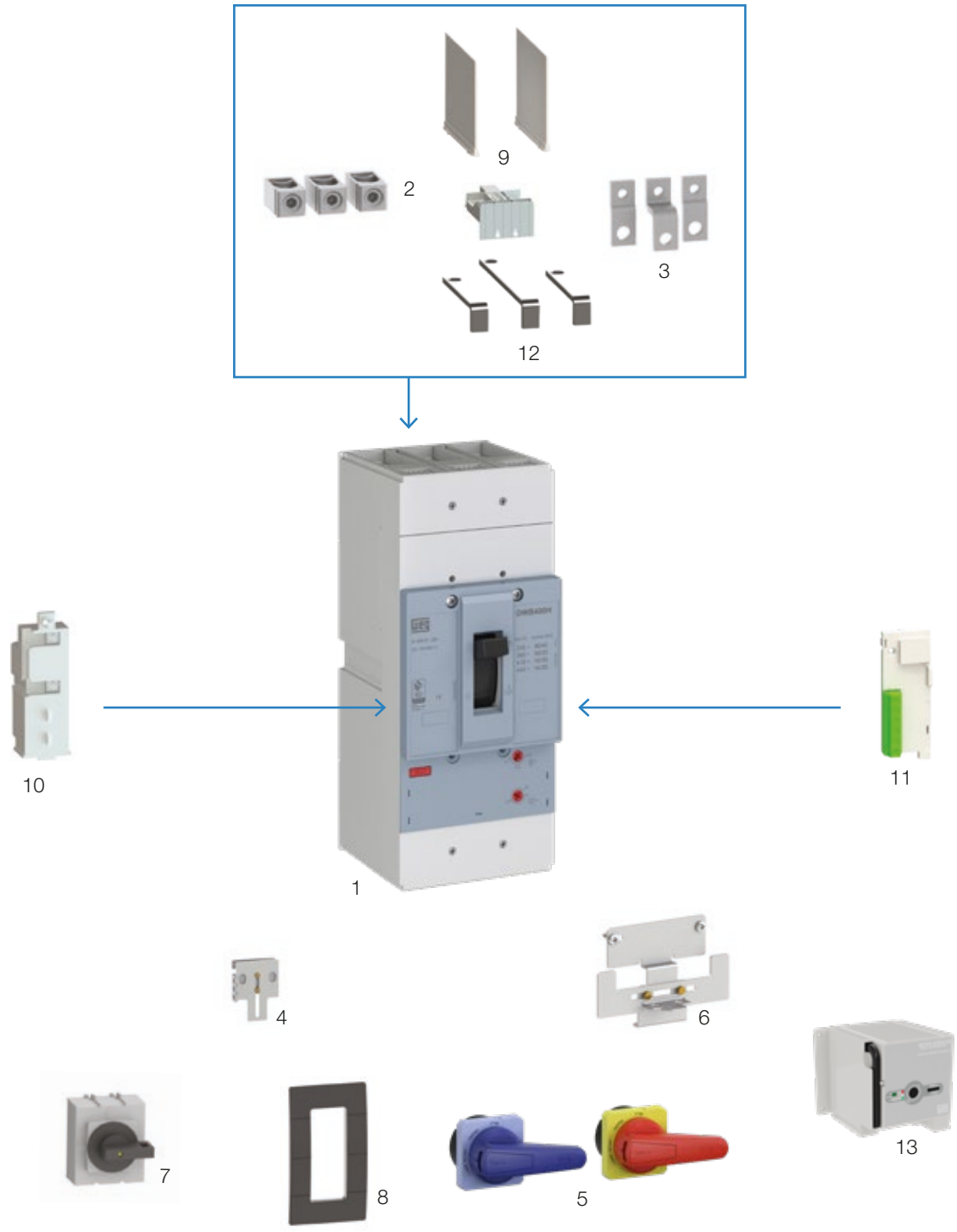
Overview - DWB250



1 - DWB250 circuit breaker
2 - BS or BD - undervoltage release or shunt release
3 - BC - auxiliary contact block
4 - BFR - DIN rail base
5 - PC - terminal lugs
6 - CT - 90° connection extension bars (CP 90° connection extension bars protection cover included) (except DWB250L)
7 - BE - straight extension bar
8 - PB - phase barrier
9 - MP - escutcheon
10 - BLIM - mechanical interlock
11 - PL - padlocking device
12 - MRXS - panel door rotary operating handle
13 - MRXL - panel door rotary operating handle (lenght of handle 105 mm)

Accessories

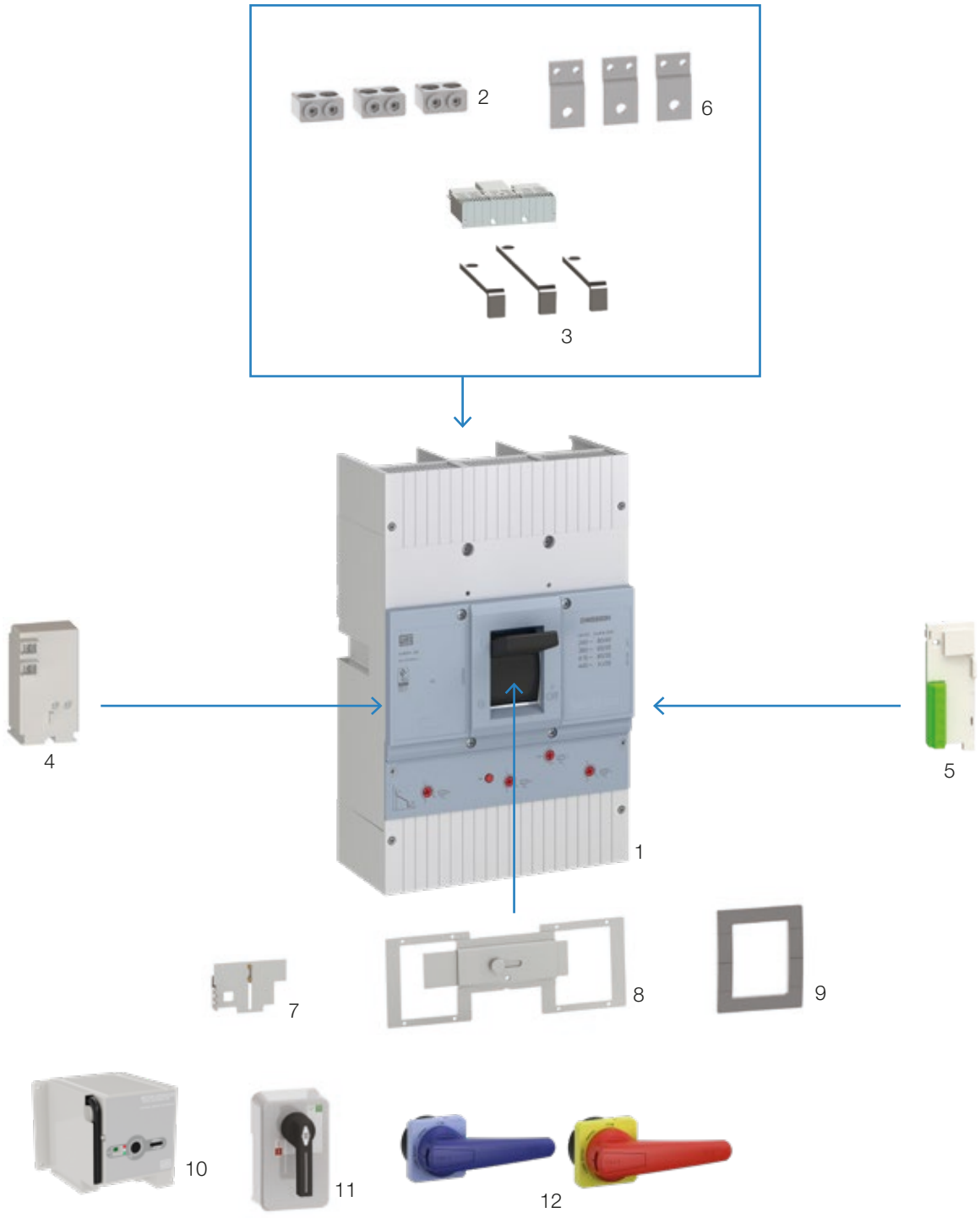
Overview - DWB400



1 - DWB400 circuit breaker
2 - PC - terminal lugs
3 - BE - straight extension bar
4 - PL - padlocking device
5 - MRXL - panel door rotary operating handle (lenght of handle 105 mm)
6 - BLIM - mechanical interlock
7 - MRI - internal rotary operating handle
8 - MP - escutcheon
9 - PB - phase barrier
10 - BS or BD - undervoltage release or shunt release
11 - BC - auxiliary contact block
12 - CT - 90° connection extension bars (CP 90° connection extension bars protection cover included)
13 - AM - Motor operator

Accessories

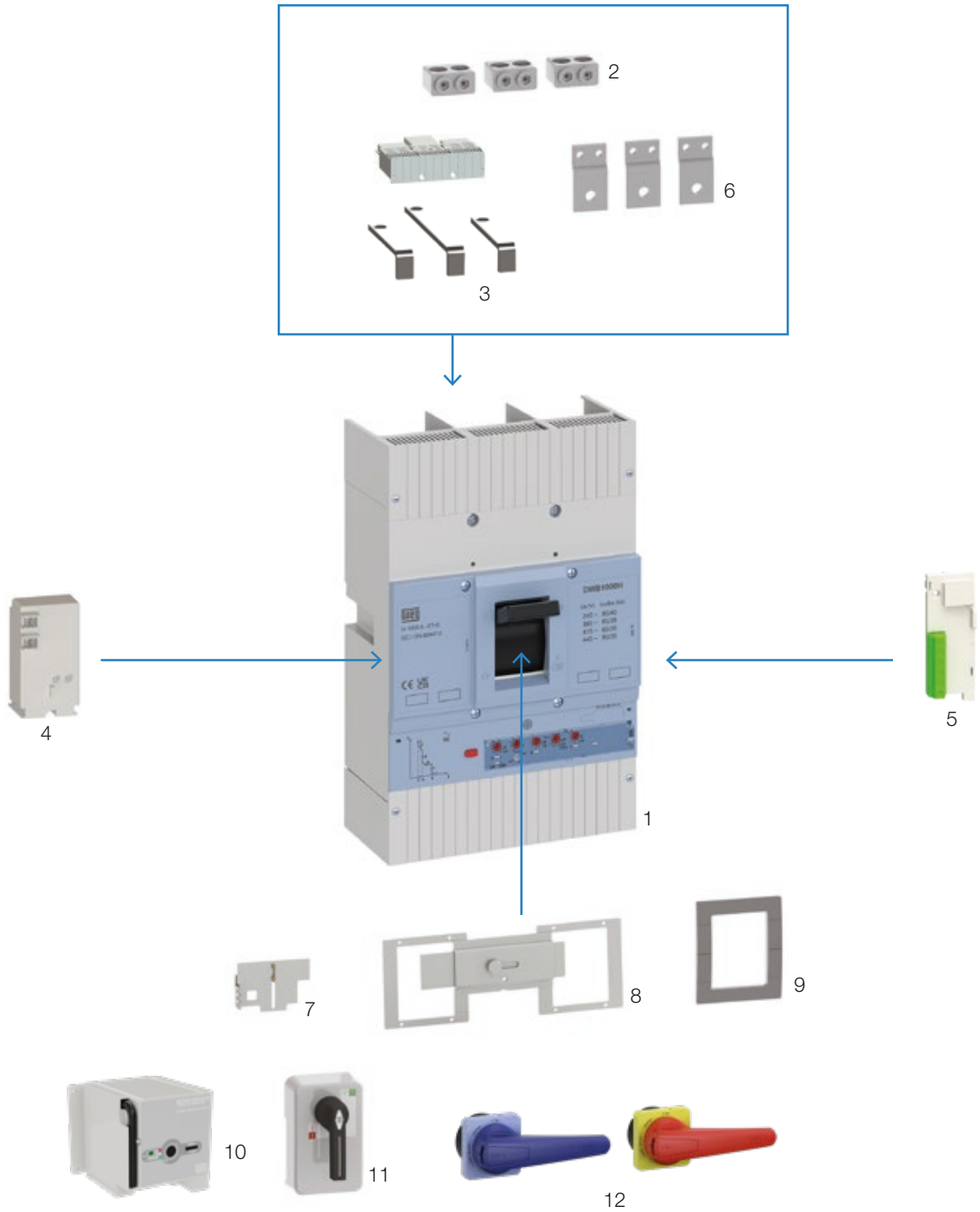
Overview - DWB800



1 - DWB800 circuit breaker
2 - PC - terminal lugs
3 - CT - 90° connection extension bars (CP 90° connection extension bars protection cover included)
4 - BS or BD - undervoltage release or shunt release
5 - BC/AL - alarm/contact block
6 - BE - straight extension bar
7 - PL - padlocking device
8 - BLIM - mechanical interlock
9 - MP - escutcheon
10 - AM - motor operator
11 - MRI - internal rotary operating handle
12 - MRXL - panel door rotary operating handle (lenght of handle 158 mm)

Accessories

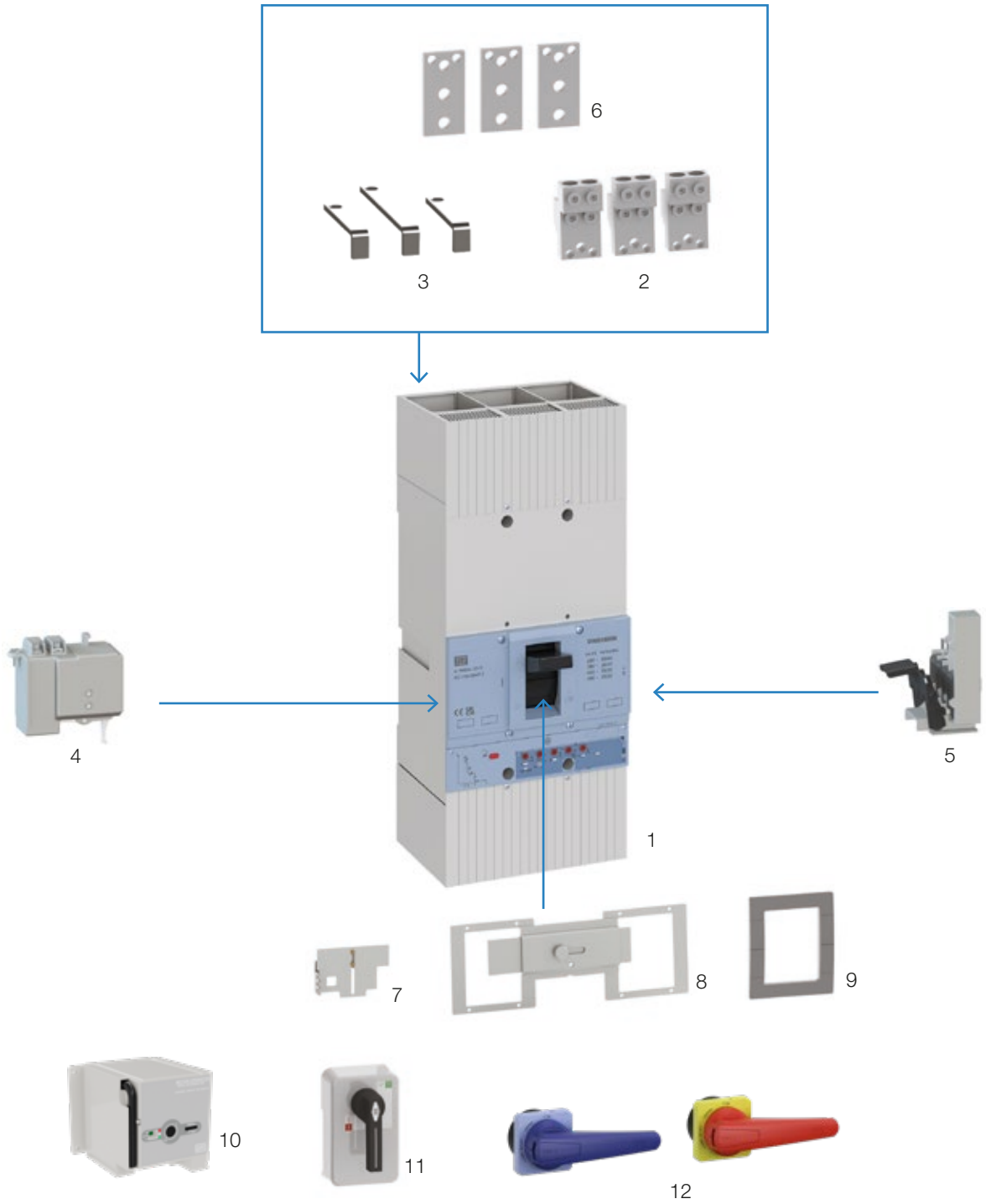
Overview - DWB1000



1 - DWB1000 circuit breaker
2 - PC - terminal lugs
3 - CT - 90° connection extension bars (CP 90° connection extension bars protection cover included)
4 - BS or BD - undervoltage release or shunt release
5 - BC/AL - alarm/contact block
6 - BE - straight extension bar
7 - PL - padlocking device
8 - BLIM - mechanical interlock
9 - MP - escutcheon
10 - AM - motor operator
11 - MRI - internal rotary operating handle
12 - MRXL - panel door rotary operating handle (lenght of handle 158 mm)

Accessories

Overview - DWB1600



1 - DWB1600 circuit breaker
2 - PC - terminal lugs
3 - CT - 90° connection extension bars
4 - BS or BD - undervoltage release or shunt release
5 - BC/AL - alarm/contact block
6 - BE - straight extension bar
7 - PL - padlocking device
8 - BLIM - mechanical interlock
9 - MP - escutcheon
10 - AM - motor operator
11 - MRI - internal rotary operating handle
12 - MRXL - panel door rotary operating handle (lenght of handle 158 mm)

Note: the DWB1600 circuit breaker does not have the CP 90° connection extension bars protection cover.

Accessories

Overview

Description	Reference	DWB160	DWB250	DWB400	DWB800	DWB1000	DWB1600
Auxiliary/alarm contact[1)2)]	BC1-NOC	√	√	√	√	√	√
	BC2-NOC	√	√	√	√	√	√
	BC3-NOC	-	-	-	-	-	√
	AL1-NOC	√	√	√	√	√	√
	BC/AL2-NOC	√	√	√	√	√	√
	BC/AL3-NOC	-	-	-	-	-	√
Undervoltage release BS[2)]	110/127 VAC	-	-	√	√	√	√
	220/240 VAC	-	-	√	√	√	√
	380-415 VAC	-	-	√	√	√	√
	440-480 VAC	-	-	√	√	√	√
	24 VDC	-	-	√	√	√	√
	48 VDC	-	-	√	√	√	√
	24 VAC / VDC	√	√	-	-	-	-
	48 VAC / VDC	√	√	-	-	-	-
	60 VAC / VDC	√	√	-	-	-	-
	110/130 VAC / VDC	√	√	-	-	-	-
	220/250 VAC / VDC	√	√	-	-	-	-
Shunt trip BD[2)]	24 VAC / VDC	√	√	√	√	√	√
	48 VAC / VDC	√	√	√	√	√	√
	60 VAC / VDC	√	√	-	-	-	-
	110/130 VAC / VDC	√	√	√	√	√	√
	220/250 VAC / VDC	√	√	√	√	√	√
Panel door rotary operating handle	MR / MRX	√	√	√	√	√	√
	MRXS	√	√	-	-	-	-
	MRXL	√	√	√	√	√	√
Internal rotary handle	MRI	-	-	√	√	√	√
Din rail base	BFR	√	√	-	-	-	-
Front mechanical interlock	BLIM	√	√	√	√	√	√
Padlocking device	PL	√	√	√	√	√	√
90° connection extension bars	CT	√[5)]	√[5)]	√	√	√	√
Straight extension bars	BE	√	√	√	√	√	√
Terminal lugs	PC	√[3)]	√	√	√	√	√
Escutcheon	MP	√	√	√	√	√	√
Motor operator	AM	-	-	√	√	√	√
Phase barrier	PB	√	√	√	-	-	-
90° connection extension bars protection cover	CP	√	√	√	√	√	-

Notes: 1) For combination of BC + AL, always consider the BC/AL block. It is not possible to assemble individual blocks on the circuit breaker.
For example: BC1 + AL1. Replace this combination by the BC/AL2 block.
2) DWB circuit breakers are supplied without accessories. The accessories must be purchased separately and assembled at the customer's.
3) Included in the product.
4) All accessories indicated can also be used on IWB switch disconnectors.
5) Only for DWB160B and N and DWB250B and N circuit breakers. Not applicable for circuit-breakers DWB160L and DWB250L.

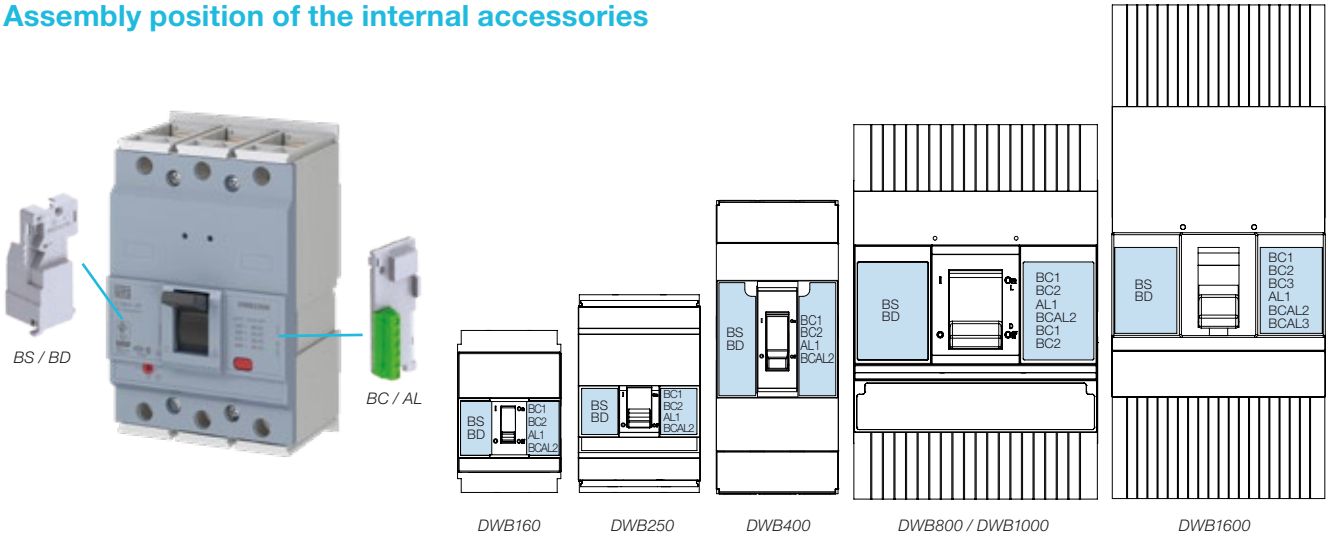
Internal accessories

Maximum combinations of internal accessories

Model	DWB160[1]								DWB250[1]								DWB400[1]								DWB800 / DWB1000[1]								DWB1600[1]							
	2P / 3P				4P				2P / 3P				4P				2P / 3P				4P				2P / 3P				4P				3P				4P			
Auxiliary contacts BC[2]	2	1	2	1	2	1	2	1	2	1	2	1	4	3	4	3	2	1	2	1	4	3	4	3	4	3	4	3	8	7	8	7	3	2	3	2	6	4	6	4
Alarm contact AL[2]	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
Shunt trip BD	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0
Undervoltage release BS	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1

Notes: 1) Sold separately only. It is not sold assembled on the circuit breaker.
2) For combination of BC + AL, always consider the BC/AL block. It is not possible to assemble individual blocks on the circuit breaker. BC1 + AL1, replace this combination by the BC/AL2 block.

Assembly position of the internal accessories



Auxiliary and alarm contact blocks

BC - auxiliary contact: signals the open and closed position of the main contacts. Reversing type (1 NOC).

AL - alarm contact: signals the thermal or magnetic release of the circuit breaker. Reversing type (1 NOC).

BC/AL - auxiliary + alarm contact set: performs the 2 functions above in different contacts in a single set.

		DWB160 Ref. WEG[3]	DWB250 Ref. WEG[3]	DWB400 Ref. WEG[3]	DWB800 Ref. WEG[3]	DWB1000 Ref. WEG[3]	DWB1600 Ref. WEG[3]	Quantity of contacts	
								Auxiliary	Alarm
Configuration of the contact/ alarm block[1][4]	BC1	10848664					10046832	1 NOC	-
	BC2	11026395					10046833	2 NOC	-
	BC3	-					10046834	3 NOC	-
	AL1	11026397					10186511	-	1 NOC
	BC/AL2	11026396					11648561	1 NOC	1 NOC
	BC/AL3	-					11648787	2 NOC	1 NOC

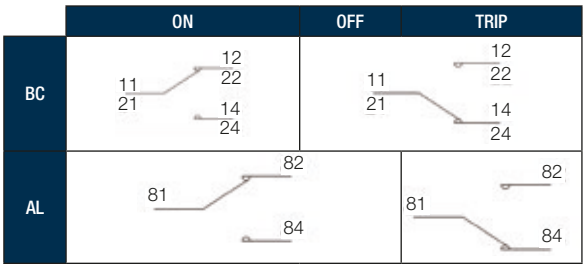
		Conduction capacity of the contact blocks	
Voltage	Load type	DWB160 / DWB250 / DWB400 / DWB800 / DWB1000	DWB1600
250 VAC	Resistive	6 A	15 A
	Inductive[2]	3 A	12 A
125 VAC	Resistive	6 A	15 A
	Inductive[2]	3 A	12 A
250 VDC	Resistive	0.3 A	0.3 A
	Inductive[2]	0.2 A	0.3 A
125 VDC	Resistive	0.4 A	0.6 A
	Inductive[2]	0.2 A	0.6 A

Notes: 1) For combinations of BC and AL (2 or 3 BCs and BC + AL) always consider the assembled set (BC2, BC3, BC/AL2 or BC/AL3). It is not possible to assemble individual blocks of BC and AL on the circuit breaker.
2) It must not be used to drive motors.
3) Sold separately only. It is not sold assembled on the circuit breaker.
4) For cable connection, consider maximum cross section of 1.5 mm² and torque of 0.8 Nm.

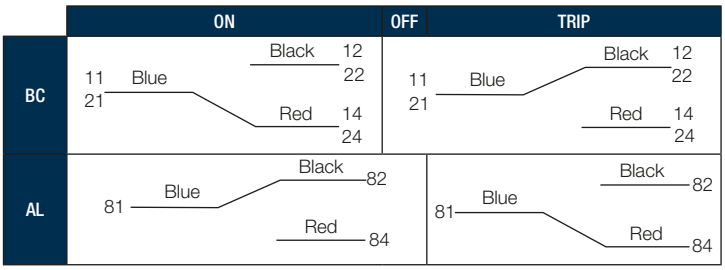
Internal accessories

Auxiliary and alarm contact blocks

Wiring diagrams of the DWB circuit breaker

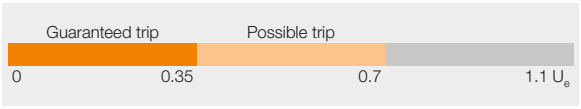


Wiring diagrams of the DWB1600 circuit breaker

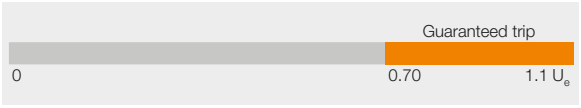


Undervoltage release and shunt trip

BS - undervoltage release: it trips the circuit breaker when its operating voltage is below 35% of its rated value. That is, when the undervoltage release power supply is $U_e \leq 0.35 \times U_e$, the opening of the circuit breaker is ensured. When the voltage is within the range $0.35 < U_e < 0.7$, trip may occur, and above $0.7 \times U_e$ trip will not occur.



BD - shunt trip: when the shunt trip is energized by a voltage pulse, the circuit breaker trips. The trip is endured when the shunt trip command voltage is $U_e > 0.70$. That is, when its operating range is $0.70 < U_e < 1.10$ of the rated voltage, the circuit breaker will trip.



Note: to close the circuit breaker, BS must be energized.

BS - undervoltage release and BD - shunt trip

	Rated voltage (U_e)	Voltage code	DWB160 DWB250 Ref. WEG[2]	Consumption	DWB400 Ref. WEG[2]	Consumption	DWB800 DWB1000 Ref. WEG[2]	Consumption	DWB1600 Ref. WEG[2]	Consumption
Undervoltage release BS	110-127 Vac	D60	-	-	12687427	2,5 VA	13421493	5 VA	10046787	5 VA
	220-240 Vac	D66	-	-	12687479	5 VA	13421489	5 VA	10046727	5 VA
	380-415 Vac	D70	-	-	12687480	8 VA	13421495	5 VA	10046726	5 VA
	440-480 Vac	D74	-	-	12687481	9 VA	13421496	5 VA	10046762	5 VA
	24 Vdc	C03	-	-	12687425	1 W	13421490	5 W	10046785	5 W
	48 Vdc	C07	-	-	12687426	1 W	13421491	5 W	10046786	5 W
	24 Vac / Vdc	E26	11338330	2.5 VA	-	-	-	-	-	-
	48 Vac / Vdc	E27	11338318	2.0 VA	-	-	-	-	-	-
	60 Vac / Vdc	E28	11442836	2.5 VA	-	-	-	-	-	-
	110-130 Vac / Vdc	E10	11338324	1.5 VA	-	-	-	-	-	-
	220-250 Vac / Vdc	E15	10853866	2.5 VA	-	-	-	-	-	-
Shunt trip BD[1]	24 Vac / Vdc	E26	11338271	0.5 VA	12687485	130 VA	13421393	90 VA	10046782	90 VA
	48 Vac / Vdc	E27	11338248	0.5 VA	12687486	50 VA	13421394	90 VA	10046783	90 VA
	60 Vac / Vdc	E28	11442871	0,5 VA	-	-	-	-	-	-
	110-130 Vac / Vdc	E10	11338254	0.5 VA	12687482	65 VA	13421391	90 VA	10046725	90 VA
	220-250 Vac / Vdc	E15	10850989	0.5 VA	12687483	65 VA	13421392	90 VA	10046724	90 VA
Min./max cable			0.5-1.5 mm² 20-16 AWG		0.5-1.5 mm² 20-16 AWG		0.5-1.5 mm² 20-16 AWG		0.5-1.5 mm² 20-16 AWG	
Length to strip the wire min./max.			4-6 mm		5-7 mm		5-7 mm		5-7 mm	
Tightening torque of the terminal (N.m)			0.8		0.8		0.8		0.8	
Fixing tightening torque (N.m)			0.3		0.8		Snap fit		0.8	

Notes: 1) It has a device to keep the coil de-energized after the trip pulse.
2) Sold separately only. It is not sold assembled on the circuit breaker.

Wiring diagrams

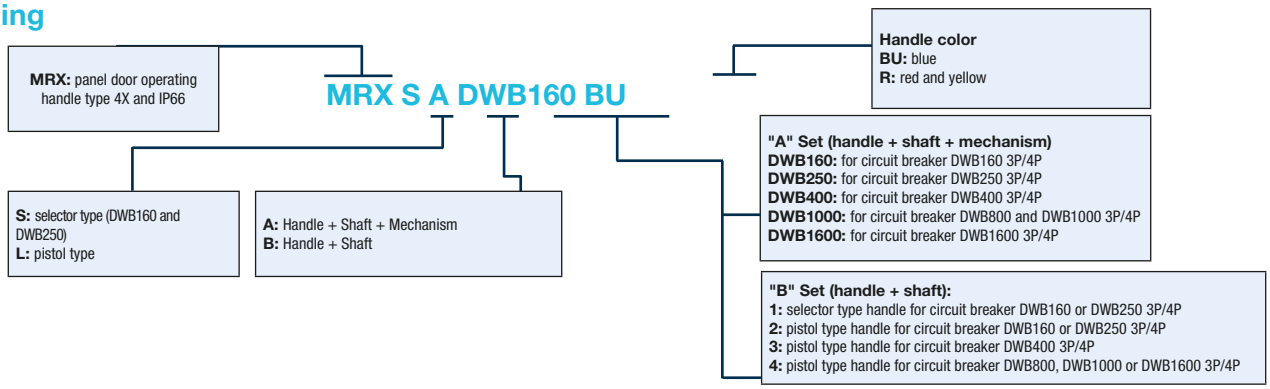
External accessories

Panel door operating handles

Handle (IP66)

- When in ON position, panel door cannot be opened, unless a tool is used to bypass the panel door locking system, allowing thermometry of the panel.
- Circuit breaker and panel door padlocking in OFF position using 1 to 3 padlocks.

Coding



Panel door operating handles (IP66)

"A" set: handle + shaft + mechanism

Ref. WEG	Description	Circuit breaker	Shaft (mm)	Length of handle (mm)	Handle color
13624516	MRXS-A-DWB160-R	DWB160 2P/3P/4P	460	-	Red and yellow
13624549	MRXS-A-DWB250-R	DWB250 2P/3P/4P	460	-	Red and yellow
13624551	MRXL-A-DWB160-R	DWB160 2P/3P/4P	460	105	Red and yellow
13624610	MRXL-A-DWB250-R	DWB250 2P/3P/4P	460	105	Red and yellow
13624612	MRXL-A-DWB400-R	DWB400 2P/3P/4P	460	105	Red and yellow
13624616	MRXL-A-DWB1000-R	DWB800 / DWB1000 3P/4P	460	158	Red and yellow
13624628	MRXL-A-DWB1600-R	DWB1600 2P/3P/4P	460	158	Red and yellow
13624517	MRXS-A-DWB160-BU	DWB160 2P/3P/4P	460	-	Blue
13624550	MRXS-A-DWB250-BU	DWB250 2P/3P/4P	460	-	Blue
13624553	MRXL-A-DWB160-BU	DWB160 2P/3P/4P	460	105	Blue
13624611	MRXL-A-DWB250-BU	DWB250 2P/3P/4P	460	105	Blue
13624613	MRXL-A-DWB400-BU	DWB400 2P/3P/4P	460	105	Blue
13624617	MRXL-A-DWB1000-BU	DWB800 / DWB1000 3P/4P	460	158	Blue
13624629	MRXL-A-DWB1600-BU	DWB1600 3P/4P	460	158	Blue

Notes: 1) Padlocks 4 up to 8 mm may be fit to the handles.
2) Sold separately only. It is not sold assembled on the circuit breaker.

"B" set: handle + shaft

Ref. WEG	Description	Circuit breaker	Shaft (mm)	Length of handle (mm)	Handle color
13624630	MRXS-B-1-R	DWB160 / DWB250 2P/3P/4P	460	-	Red and yellow
13624633	MRXL-B-2-R	DWB160 / DWB250 2P/3P/4P	460	105	Red and yellow
13624635	MRXL-B-3-R	DWB400 2P/3P/4P	460	105	Red and yellow
13624660	MRXL-B-4-R	DWB800 / DWB1000 / DWB1600 3P/4P	460	158	Red and yellow
13624632	MRXS-B-1-BU	DWB160 / DWB250 2P/3P/4P	460	-	Blue
13624634	MRXL-B-2-BU	DWB160 / DWB250 2P/3P/4P	460	105	Blue
13624636	MRXL-B-3-BU	DWB400 2P/3P/4P	460	105	Blue
13624661	MRXL-B-4-BU	DWB800 / DWB1000 / DWB1600 3P/4P	460	158	Blue

Notes: 1) Padlocks 4 up to 8 mm may be fit to the handles.
2) Sold separately only. It is not sold assembled on the circuit breaker.

Only mechanism

Ref. WEG	Description	Circuit breaker
13624244	MRH DWB160	DWB160 2P/3P/4P
13624246	MRH DWB250	DWB250 2P/3P/4P
13624247	MRH DWB400	DWB400 2P/3P/4P
13624278	MRH DWB1000E	DWB800 / DWB1000 3P/4P
13624279	MRH DWB1600E	DWB1600 3P/4P

Note: 1) Sold separately only. It is not sold assembled on the circuit breaker.

External accessories

Shaft support

- Recommended when the shaft length is more than indicated in next table.

Ref. WEG	Description	Circuit breaker	Shaft length to use of support
13878675	MR DWB400	DWB400	> 380 mm
13878676	MR DWB800-1600	DWB800/DWB1000/ DWB1600	> 320 mm

Note: sold separately only. It is not sold assembled on the circuit breaker. Accessory may be used on frames 3P and 4P.

MRI - rotary operating handle for direct operation of the circuit breaker

- It allows rotary operation of the circuit breaker
- Padlocking in the OFF position with up to three padlocks

	Circuit	Ref. WEG
MRI DWB400	DWB400	12729396
MRI DWB800-1000	DWB800 DWB1000	13471816
MRI DWB1600	DWB1600	10046795

Note: MRI accessory may be used on frames 3P and 4P.

Mounting

BFR - DIN rail base

- It allows fast assembly of the circuit breaker on DIN rail 35 mm

	Circuit	Ref. WEG
BFR DWB160	DWB160	12730039
BFR DW B250	DWB250	12139063

Note: BFR accessory may be used on frames 3P and 4P.

Lock

BLIM - front mechanical interlock

- Mechanical lock between two circuit breakers, preventing simultaneous closing (ON)
- It allows the use of 1 to 3 padlocks of 4...8 mm

	Circuit	Ref. WEG
BLIM DWB160 3P	DWB160	11639815
BLIM DWB160 4P	DWB160	12729994
BLIM DWB250 3P	DWB250	11639817
BLIM DWB250 4P	DWB250	12729995
BLIM DWB400 3P	DWB400	12729996
BLIM DWB400 4P	DWB400	12729997
BLIM DWB800-1600 3P	DWB800 / DWB1000 / DWB1600	13471814
BLIM DWB800-1600 4P	DWB800 / DWB1000 / DWB1600	13471815

PLW - padlocking device

- It allows padlocking the circuit breaker in the OFF position.
- It allows the use of 1 to 3 padlocks of 4...8 mm

	Circuit	Ref. WEG
PL DWB160 3P	DWB160 2P/3P	11217445
PL DWB160 4P	DWB160 4P	12729993
PL DWB250	DWB250 2P/3P/4P	11640142
PL DWB400	DWB400 2P/3P/4P	11217482
PL DWB800-1600	DWB800 / DWB1000 / DWB1600 (three poles and four poles)	13471813

External accessories

Connection

CT - 90° connection extension bars

- It allows direct connection of bars or cables from the back side of the circuit breaker

	Circuit	Cable / bar	Ref. WEG
CT DWB160 3P[1)]	DWB160 B/N	Use the same cable cross section and dimensions as those of bars recommended in the technical characteristics	12730075
CT DWB250 3P[1)]	DWB250 B/N		12288234
CT DWB400 3P[1)]	DWB400		12730076
CT DWB800-1000 3P[1)]	DWB800 DWB1000		13471874
CT DWB1600 3P	DWB1600		10046808

Note: 1) CP 90° connection extension bars protection cover included.

CP - 90° connection extension bars protection cover

- Accessory only used with 90° connection extension bars to protect terminals and bars
- It protects the operators and everyone involved in the process against inadvertent contact

	Circuit	Ref. WEG
CP protection cover DWB160 3P	DWB160 B/N	13544950
CP protection cover DWB250 3P	DWB250 B/N	13544949
CP protection cover DWB400 3P	DWB400	12731654
CP protection cover DWB800-1000 3P	DWB800 / DWB1000	13544948

Note: the codes of this table refer to the supply of the CP 90° connection extension bars protection cover only. 1 unit refers to the covering of the 3 phases. No protection cover for 4 poles is available. Accessory available for DWB circuit breakers only. The DWB1600 circuit breaker, for example, does not have the 90° connection extension bars protection cover.

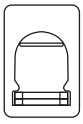
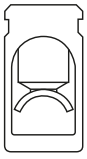
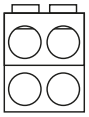
BE - straight extension bars

- It extends the terminal length and allows connecting busbars and mounting cables with terminals
- 3-piece set

	Circuit	Cable / bar	Ref. WEG
BE DWB160 3P	DWB160	Use the same cable cross section and dimensions as those of bars recommended in the technical characteristics (installation topic)	11279346
BE DWB160 4P	DWB160		11780009
BE DWB250 3P	DWB250		11279347
BE DWB250 4P	DWB250		12714046
BE DWB400 3P	DWB400		12730070
BE DWB400 4P	DWB400		11780016
BE DWB800-1000 3P	DWB800 / DWB1000		13471872
BE DWB800-1000 4P	DWB800 / DWB1000		13471873
BE DWB1600 3P	DWB1600		10046553
BE DWB1600 4P	DWB1600		11780050

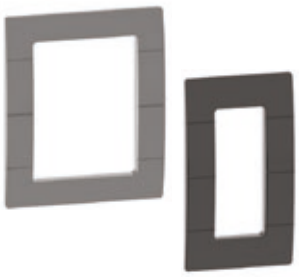
PC - cable connection terminal

- It allows direct connection of cables to the circuit breaker
- 3-piece set

	DWB160[2)]	DWB250	DWB400	DWB800 DWB1000	DWB1600
Round terminal lugs schematic drawing					
Description		PC DWB250 3P	PC DWB400 3P	PC DWB800-1000 3P	PC DWB1600 3P
Number of cables	Round terminal lugs for one cable	Round terminal lugs for one cable (accessory)	Round terminal lugs for one cable (accessory)	Round terminal lugs for two cables (accessory)	Round terminal lugs for four cables (accessory)
Maximum cable cross section (mm²)[1)]	70 / 50[3)]	120	240	240	240
Minimum cable cross section (mm²)[1)]	4	25	35	95	185
Tightening torque (mm)	6	25	30	55	55
Cable length to be stripped to use terminal lugs (mm)	16	25	25	28	38
Reference WEG	Supplied with the circuit breaker	11277469	12730045	13471871	10046555

Notes: 1) Recommended cross sections for cables with stranding class 2, insulation of PVC -70 °C.
2) On DWB160 circuit breakers, the cable connection terminal is included in the factory supply. Not sold as accessory.
3) Maximum section with the use of cord end terminal.

External accessories



Finishing[1)]

MP - escutcheon for circuit breaker operation on panel door

- It provides perfect finishing between the circuit breaker and panel door

	Circuit	Ref. WEG
MP DWB160	DWB160	11338525
MP DWB250	DWB250	11338526
MP DWB400	DWB400	12730041
MP DWB800-1600	DWB800 DWB1000 DWB1600	13471876
MP DWB1600	DWB1600	10186520

Note: 1) MP accessory can be used on frames 3P and 4P.

PB - phase barrier

- The circuit breakers are supplied with two phase barriers (3 PH) and three phase barrier (4 PH). Those barriers must be installed on the line input side. For voltages above 500 Volts, phase barriers must also be installed on the circuit breaker outputs. For such application, the phase barriers must be purchased. They are not supplied with the circuit breaker.

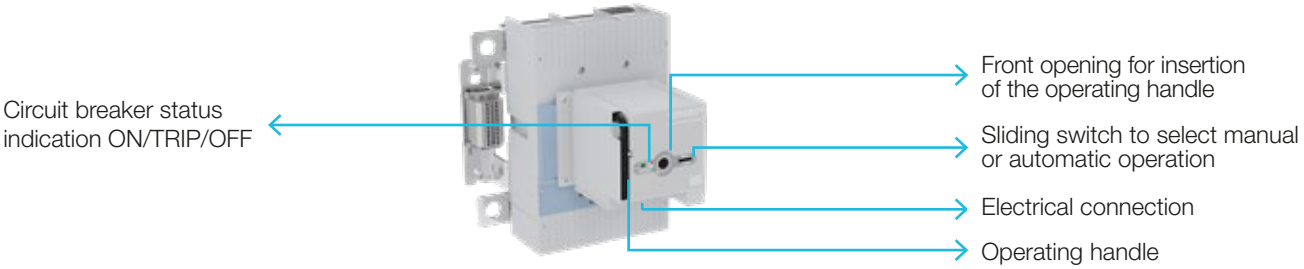
See table with directions for use of the phase separator in the section "Use of Phase Barrier and Terminal Cover".

	Circuit breaker	Ref. WEG
PB DWB160-250 3P	DWB160 / DWB250 three-pole	12403111
PB DWB160-250 4P	DWB160 / DWB250 four-pole	12403112
PB DWB400 3P	DWB400 three-pole	12731651
PB DWB400 4P	DWB400 four-pole	12731653

External accessories

Motor operator

- The motor operator is a mechanical and electrical device whose main characteristics are:
- Remote or local operation of the circuit breaker
- Control voltage (motor power supply):
  - 24 VDC
  - 125 VDC
  - 110 VAC; 50/60 Hz; 110 VDC
  - 230 VAC 50/60 Hz; 220 VDC
- Use on DWB400, DWB800, DWB1000 and DWB1600 circuit breakers



For MANUAL operation, it is necessary:

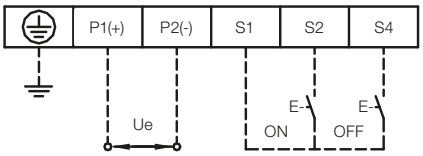
1 - Set the sliding switch to MANUAL;
2 - Insert the operating handle (located on the side bracket) into the front slot and rotate it 180° clockwise.
Rotate only 180° to ensure the operation of the internal micro switch;
3 - Put the handle back on the side bracket.

For AUTOMATIC operation, it is necessary:

1 - Set the sliding switch to AUTO. In this position it is possible to operate the circuit breaker remotely by sending ON/OFF signals;
2 - Please, do not send ON/OFF signals at the same time during automatic operation;
3 - For circuit breakers equipped with undervoltage release, energize the release before operating the motor operator.

If the circuit breaker trips (overload or short-circuit tripping), for manual or automatic operation it is necessary to turn it “OFF” before turning it “ON”.

Wiring diagrams



Cable connections	
Minimum/maximum cable	1.5 to 2.5 mm²
Tightening torque (N.m)	1.2 Nm

Technical data of the motor operator[1)]

Reference	Applicable circuit breaker	Power supply	Response time (ms)		Consumption (W)	Operations per hour	Code
			Opening	Closing			
AM DWB400 E29	DWB400	110 VAC - 50 and 60 Hz / 110 VDC	700	420	35	20	15505489
AM DWB400 E46		230 VAC - 50 and 60 Hz / 220 VDC	700	420	35	20	15506644
AM DWB400 C03		24 VDC	700	420	35	20	15506646
AM DWB400 C13		125 VDC	700	420	35	20	15505490
AM DWB800-1600 E29	DWB800 / DWB1000 / DWB1600	110 VAC - 50 and 60 Hz / 110 VDC	700	420	35	20	14861645
AM DWB800-1600 E46		230 VAC - 50 and 60 Hz / 220 VDC	700	420	35	20	14861647
AM DW800-1600 C03		24 VDC	700	420	35	20	14861644
AM DW800-1600 C13		125 VDC	700	420	35	20	14937250

Note: 1) The motor operator is sold separately from the circuit breaker.

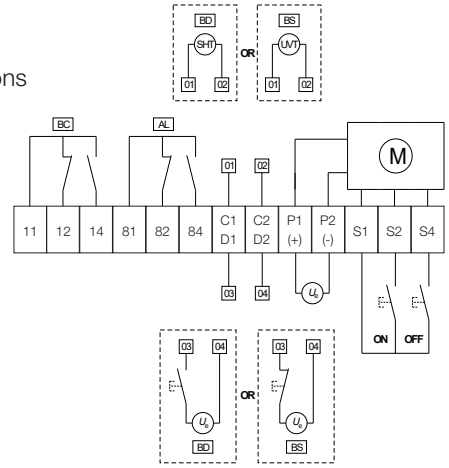
External accessories

CTM - mechanical changeover

The CTM is a set of 2 DW circuit breakers or switches, with or without motorization and internal accessories installed on a BTIM base with mechanical interlock between them. The mechanical interlock prevents turning on the two coupled circuit breakers or switches simultaneously.

CTM advantages

- Quick installation: supplied assembled, with terminal strips for electrical connections
- Safety: all sets are factory tested after the assembly
- Space saving: compact set and easy to install



Mechanical interlocking back base (BTIM)[1)]

Reference	Applicable circuit breaker	Code
BTIM400 3P	DWB400 - 3 poles	13473234
BTIM400 4P	DWB400 - 4 poles	13473233
BTIM1000 3P	DWB800 / DWB1000 - 3 poles	13404161
BTIM1000 4P	DWB800 / DWB1000 - 4 poles	13404164
BTIM1600 3P	DWB1600 - 3 poles	13404163
BTIM1600 4P	DWB1600 - 4 poles	13404162

Note: 1) BTIM is not sold individually; only in CTM, according to the coding below.

Coding

BTIM CODE + **DWB CODE** + **DWB CIRCUIT BREAKER ACCESSORY CODE** + **AM CODE**

3 and 4-pole mechanical interlock rear base | *DWB 3 and 4-pole circuit breaker* | *Motor operator*

E.g.: **CTM 1600-S 1600 E S 1250 E 3P-10 E26 0 C03**

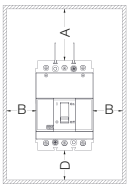
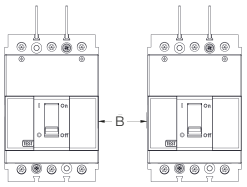
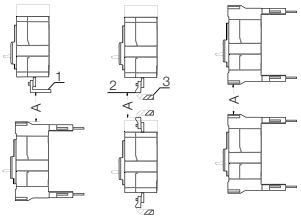
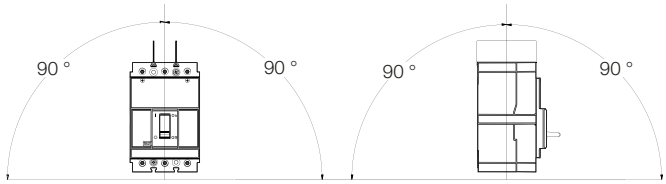
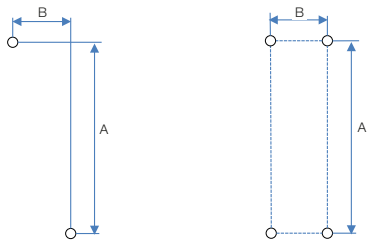
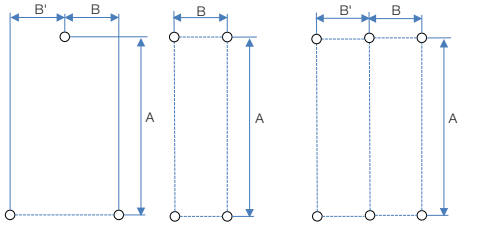
CTM Coding | Accessory coding

Coding of the circuit breakers											Coding of the circuit breaker accessories				
CTM	1600	-	S	1600	E	S	1250	E	3P	-	1	0	E26	0	C03
BTIM base definition[1)]	Circuit breaker frame		Circuit breaker definition[1)]			Circuit breaker definition[2)]			Number of poles - 3 or 4 poles[4)]		Contacts[5)]		Shunt trip - setting of the coil voltage[6)]	Undervoltage release - setting of the coil voltage[6)]	Motor operator-MO voltage[7)]
	400 = DWB400		Breaking capacity	Circuit breaker rated current[2)]	Protection type[3)]	Breaking capacity	Circuit breaker rated current[2)]	Protection type[3)]			Auxiliary contact	Alarm contact			
	1,000 = DWB800														
	1,000 = DWB1000														
	1,600 = DWB1600														

Notes: 1) It is not possible to use circuit breakers with different frames and number of poles on the BTIM.
2) Circuit breakers may have different rated currents, as long as they have the same frame.
3) Circuit breakers may have different protection types.
4) Definition of the number of poles for the BTIM and circuit breakers. It is not possible to have different poles between the circuit breakers and BTIM.
5) Regardless of the circuit-breaker model, the maximum number of contacts in the CTM must be dimensioned considering 3P circuit-breakers and according to the quantities indicated in the "Maximum combinations of Internal Accessories" table. IMPORTANT: It is not possible to set different quantities of contacts between the circuit-breakers in the CTM.
6) When defining a shunt trip or undervoltage release, they are considered one for each circuit breaker. It is not possible to have both simultaneously on the same circuit breaker.
7) When defining the motor operator, one MO is considered for each circuit breaker. It is not possible to have one circuit breaker with MO and one without.

Installation

Installation of the circuit breakers

IEC 60947-2 standard	Un.	DWB160	DWB250	DWB400	DWB800	DWB1000	DWB1600
Recommended mounting distances (mm) 	mm	A: 50 C: 20 D: 20	A: 50 C: 20 D: 20	A: 70 C: 30 D: 30	A: 100 C: 30 D: 30	A: 100 C: 30 D: 30	A: 100 C: 30 D: 30
Recommended distances between circuit breakers for side by side mounting 	mm	B:10	B:10	0	0	0	0
Recommended distances between circuit breakers for vertical mount 1) Non-insulated connection; 2) Insulated cable; 3) Terminal lugs. 	mm	90	150	180	200	200	200
Assembly positions	-						
Dimensional drawing and mounting 2P and 3P  DWB160 / DWB250 DWB400 / DWB800 / DWB1000 / DWB1600	mm	A: 100 A: 121 (L version) B: 25	A: 124 A: 149 (L version) B: 35	A: 199 B: 35	A: 230 B: 70	A: 230 B: 70	A: 265 B: 70
Dimensional drawing and mounting 4P  DWB160 / DWB250 DWB400 DWB800 / DWB1000 / DWB1600	mm	A: 100 B=B': 25	A: 124 B=B': 35	A: 200 B: 70	A: 230 B=B': 70	A: 230 B=B': 70	A: 265 B: 70 B'=74
Fixing screw to plate 2P 3P	-	B/N: M4 x 76 x 2 parts L: M4x76 x 1 part + M4x144 x 1 part	B/N: M4 x 76 x 2 parts L: M4x76 x 1 part + M4x144 x 1 part	M5 x 100 x 4 parts	M5 x 60 x 4 parts	M5 x 60 x 4 parts	M8 x 140 x 4 parts
Fixing screw to plate 4P	-	B/N: M4 x 76 x 3 parts	B/N: M4 x 76 x 3 parts	M5 x 100 x 4 parts	M5 x 60 x 6 parts	M5 x 60 x 6 parts	M8 x 140 x 6 parts
Parts surpass of the fixing screw in relation to the circuit breaker	mm	10	8	15	15	15	18
Tightening torque - mounting (Nm)	Nm	1.5	1.5	2	5	5	5

Installation

DWB circuit breakers were designed to simplify installation on panels, as they can be fed from the top or bottom, without compromising the technical characteristics of the components.

Cable and bar connection to terminals

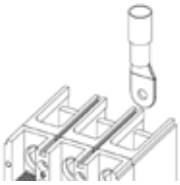
The connections to circuit breaker terminals must observe the following recommended limit:

			DWB160	DWB250		DWB400		DWB800	DWB1000	DWB1600
Connection with cable	1 cable	Bare wire cord End terminal	Direct to round terminal lugs	Through round terminal lugs		Through round terminal lugs		Through round terminal lugs	Through round terminal lugs - up to 800 A only	Through round terminal lugs
		Lug terminal	Through straight extension bar	Direct to the circuit breaker terminal[2]	Through straight extension bar	Direct to the circuit breaker terminal[2]	Through straight extension bar	Through straight extension bar	Through straight extension bar	Through straight extension bar
	2 cables	Bare wire cord End terminal	Not recommended	Not recommended		Not recommended		Through round terminal lugs	Through round terminal lugs - up to 800 A only	Through round terminal lugs
		Lug terminal	Through straight extension bar	Through straight extension bar		Through straight extension bar		Through straight extension bar	Through straight extension bar	Through straight extension bar
	3 and 4 cables	Bare wire cord End terminal	Not recommended	Not recommended		Not recommended		Not recommended	Not recommended	Through round terminal lugs
		Lug terminal	Through straight extension bar	Through straight extension bar		Through straight extension bar		Through straight extension bar	Through straight extension bar	Through straight extension bar
	More than 4 cables	Bare wire cord End terminal	Not recommended	Not recommended		Not recommended		Not recommended	Not recommended	Not recommended
		Lug terminal	Through straight extension bar	Through straight extension bar		Through straight extension bar		Through straight extension bar	Through straight extension bar	Through straight extension bar
Connection with bar			Direct to the circuit breaker terminal	Direct to the circuit breaker terminal		Direct to the circuit breaker terminal		Direct to the circuit breaker terminal	Direct to the circuit breaker terminal	Direct to the circuit breaker terminal
Circuit breaker terminal screw			M6x17	M8x20		M8x25		M8x30	M8x30	M10x35 / M12x35
Tightening tool			Allen#4	Allen#4		Allen#6		Allen#6	Allen#6	Allen#8 / Allen#10

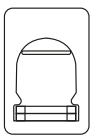
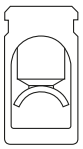
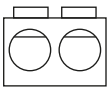
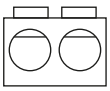
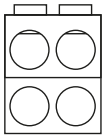
Notes: 1) The cross section of cables and bars must be observed, as well as the tightening torque informed in the product catalog.
2) Pay attention to the lug terminal size, comparing its dimension to the circuit breaker dimension. Some lug terminal models are bigger than the opening and depth of the circuit breaker terminal, and it is not possible to connect them directly to the circuit breaker terminal.

Examples of use

Direct connection of the lug terminal to the circuit breaker - 1 cable per terminal:



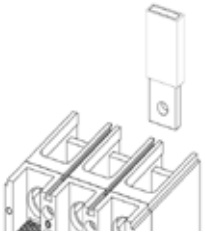
Direct cable connection by round terminal lugs

	DWB160	DWB250	DWB400	DWB800	DWB1000	DWB1600
Round terminal lugs schematic drawing						
Number of cables	Round terminal lugs for one cable	Round terminal lugs for one cable (accessory)	Round terminal lugs for one cable (accessory)	Round terminal lugs for two cables (accessory)	Round terminal lugs for two cables (accessory)	Round terminal lugs for four cables (accessory)
Maximum cable cross section (mm²)[3]	70 / 50[4]	120	240	240	240	240
Minimum cable cross section (mm²)[3]	4	25	35	95	150	185
Cable length to be stripped to use terminal lugs (mm)	16	25	25	28	28	38
Tightening torque (N.m)	6	25	30	55	55	55

Notes: 3) Recommended cross sections for cables with stranding class 2, insulation of PVC - 70 °C, according to the NM NBR 280 standard (IEC 60228).
4) Maximum cross section with cord end terminal.

Direct connection to the circuit breaker bar

Quantity	DWB160	DWB250	DWB400	DWB800	DWB1000	DWB1600[5]
Maximum width (mm)	10	20	20	50	50	50
Maximum thickness (mm)	7	6	12	13	13	20
Minimum thickness (mm)[6]	-	2	6	7	7	7
Tightening torque (N.m)	6	8	20	20	20	30 (M10) / 50 (M12)

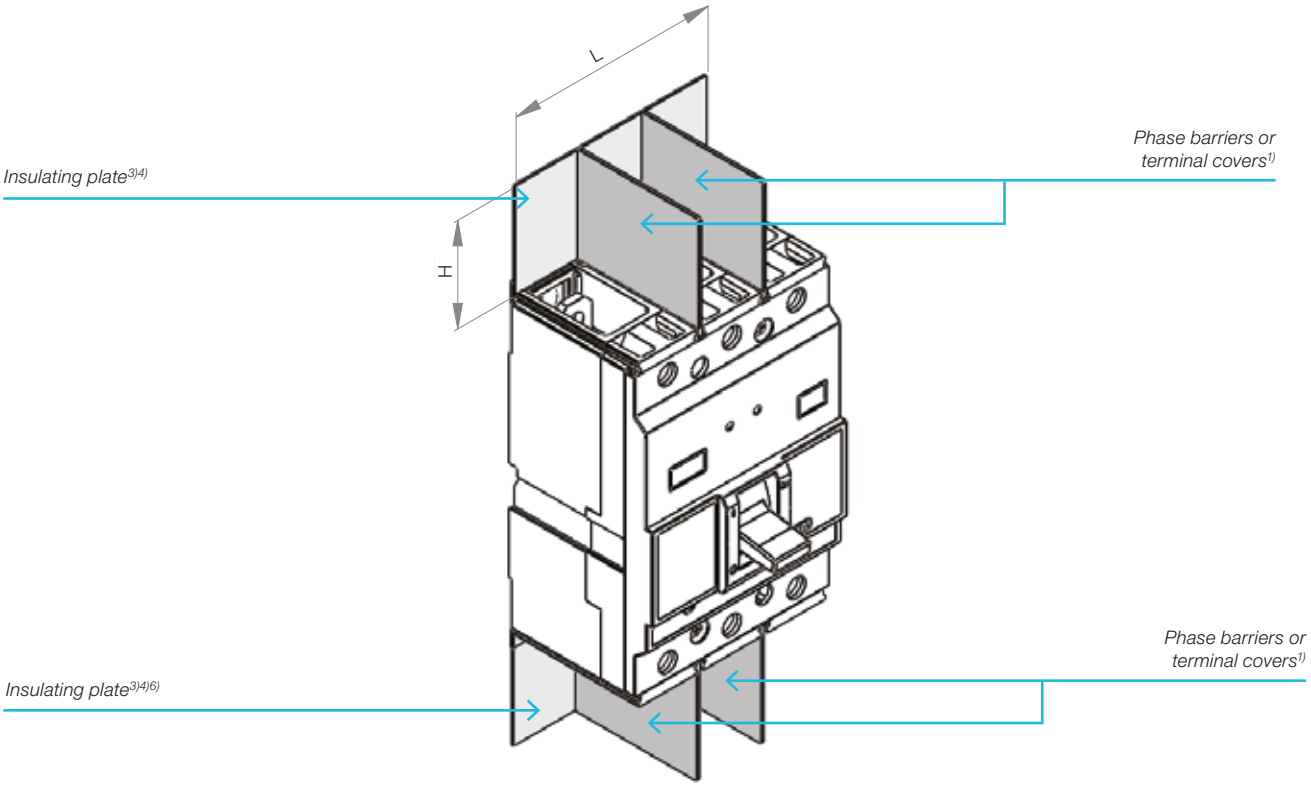


Notes: 5) M10 screw for DWB1600 1,250 A circuit breakers.
6) The busbar must be sized to support the circuit current; the indicated thickness is only for the dimensional evaluation of the circuit breaker terminals.

Installation

Use of phase barrier and terminal cover

The connections to the circuit breaker terminals must observe the following recommended limit:



L ≥ circuit breaker width
H ≥ length of the terminal cover or phase barrier

		Ue <500 V		Ue ≥500 V	
		Input	Output	Input	Output
Connection with cable	Bare wire/cord end terminal	Mandatory use of phase barrier[1] or terminal cover	Optional use of phase barrier[1] or terminal cover	Mandatory use of phase barrier[1] or terminal cover	Mandatory use of phase barrier[1] or terminal cover
	Lug terminal	Mandatory use of phase barrier[1] or terminal cover	Optional use of phase barrier[1] or terminal cover	Mandatory use of phase barrier[1] or terminal cover	Mandatory use of phase barrier[1] or terminal cover
Connection with insulated bar		Mandatory use of phase barrier[1] or terminal cover	Optional use of phase barrier[1] or terminal cover	Mandatory use of phase barrier[1] or terminal cover	Mandatory use of phase barrier[1] or terminal cover
Connection with 90° connection extension bars[2]		Mandatory use of protection cover	Mandatory use of protection cover	Mandatory use of protection cover	Mandatory use of protection cover
Insulating plate[3)4)5)]		Optional	Optional	Mandatory	Mandatory

Notes: 1) 2 phase barriers are supplied on DWB160, DWB250 and DWB400 circuit breakers. When two more barriers are necessary, those parts are sold as accessory.
2) Protection cover supplied with the 90° connection extension bars DWB circuit breaker. For DWB1600, use the terminal cover included in the product.
3) Not supplied with the molded case circuit breakers. It must be produced by the user.
4) Minimum characteristics requirements of the material to be used as insulating plate: Dielectric strength ≥12 kV/mm.
Material not propagating flame.
Recommended material: phenolite, polycarbonate.
5) Installation according to the figure above.
6) Insulating plate already included in circuito breaker DWB1600.

Deratings

Altitude derating

Application of circuit breakers in altitude		
Altitude (m)	Derating for the rated current I_n	Maximum rated operating voltage U_e (V)
2000	1	1
3000	0.98	0.88
4000	0.93	0.78
5000	0.90	0.68

Temperature derating

	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C	45 °C	50 °C	55 °C	60 °C
DWB160	1.20	1.16	1.13	1.10	1.06	1.05	1.03	1.00	0.98	0.94	0.91
DWB250	1.18	1.16	1.13	1.10	1.08	1.05	1.02	1.00	0.98	0.94	0.90
DWB400	1.18	1.16	1.13	1.10	1.08	1.05	1.02	1.00	0.98	0.94	0.90
DWB800	1.19	1.17	1.14	1.12	1.09	1.06	1.03	1.00	0.97	0.94	0.91
DWB1000	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.90	0.80
DWB1600	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.90	0.80

Notes: The recommended temperature refers to the place where the circuit breaker is installed.
Apply the recommended derating to the rated current of the relevant circuit breaker.

Thermal dissipation

Circuit protection

DWB160	I_n (A)	16	20	25	32	40	50	63	70	80	90	100	110	125	150	160
	Thermal dissipation (W/pole)	1	1	2	4	4	5	8	4	5	6	7	7	10	11	12
DWB160L	I_n (A)	16	20	25	32	40	50	63	70	80	90	100	110	125		
	Thermal dissipation (W/pole)	1	1	2	4	4	6	10	5	7	9	11	12	15		
DWB250	I_n (A)	100	125	160	200	250										
	Thermal dissipation (W/pole)	14	19	17	14	20										
DWB250L	I_n (A)	100	125	160	200											
	Thermal dissipation (W/pole)	17	24	25	26											
DWB400	I_n (A)	200	250	320	400											
	Thermal dissipation (W/pole)	14	20	19	30											
DWB800	I_n (A)	320	400	500	630	800										
	Thermal dissipation (W/pole)	19	30	38	47	47										
DWB1000	I_n (A)	500	630	800	1000											
	Thermal dissipation (W/pole)	16	25	40	63											
DWB1600	I_n (A)	1250	1600													
	Thermal dissipation (W/pole)	51	96													

Motor protection

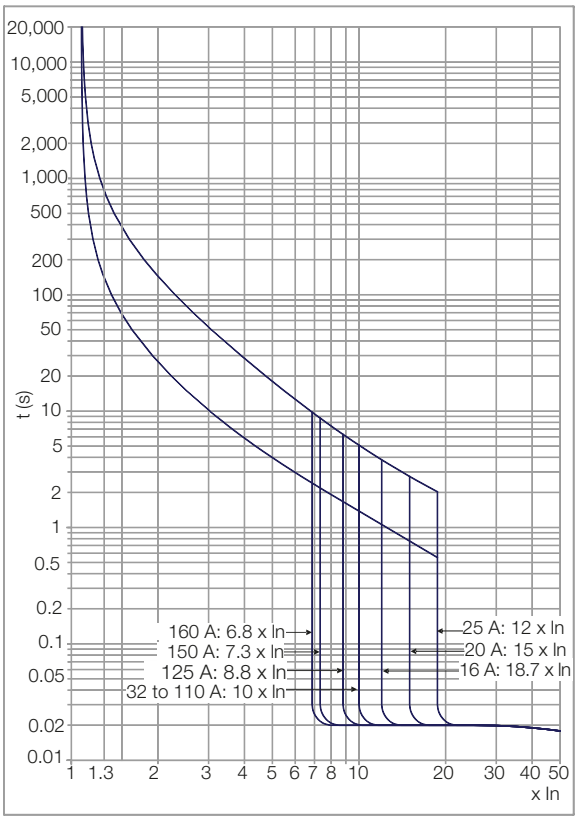
DWB160	I_n (A)	25	32	40	50	65	80	95
	Thermal dissipation (W/pole)	2	4	4	5	6	7	7
DWB160L	I_n (A)	25	32	40	50	65	80	95
	Thermal dissipation (W/pole)	2	4	4	6	8	9	9
DWB250	I_n (A)	80	95	105	125	150	185	200
	Thermal dissipation (W/pole)	2	3	3.5	5	7	10.5	12
DWB250L	I_n (A)	80	95	105	125	150	185	200
	Thermal dissipation (W/pole)	4	5.5	7	9.5	13.5	21	24
DWB400	I_n (A)	150	185	250	320			
	Thermal dissipation (W/pole)	14	14	20	19			
DWB800	I_n (A)	420	500					
	Thermal dissipation (W/pole)	32	38					
DWB1600	I_n (A)	1,000						
	Thermal dissipation (W/pole)	33						

Generator protection

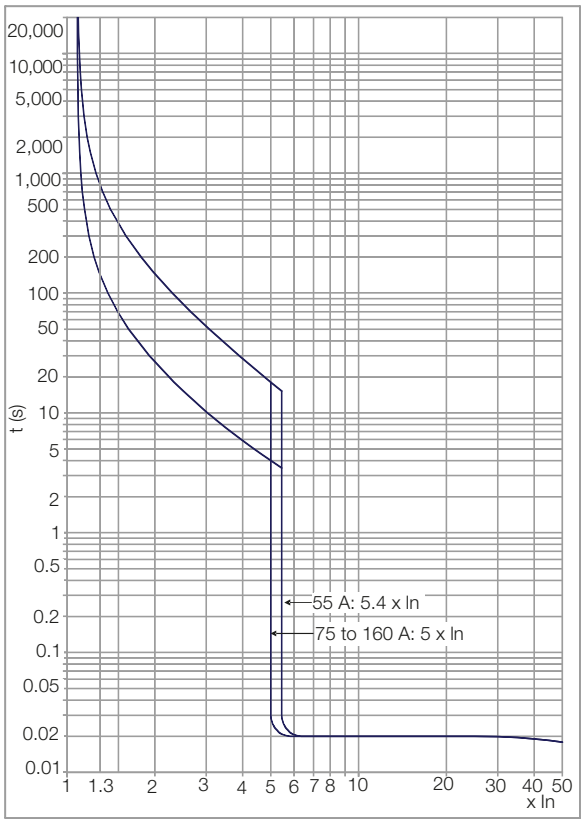
DWB160	I_n (A)	55	75	85	105	125	140	160
	Thermal dissipation (W/pole)	7	5	6	7	10	11	12
DWB250	I_n (A)	105	125	160	200	250		
	Thermal dissipation (W/pole)	14	19	17	14	20		
DWB400	I_n (A)	200	250	320	400			
	Thermal dissipation (W/pole)	14	20	19	30			
DWB800	I_n (A)	320	400	500	630	800		
	Thermal dissipation (W/pole)	19	30	38	47	47		
DWB1600	I_n (A)	1,250	1,600					
	Thermal dissipation (W/pole)	51	96					

Characteristic curves - I x t

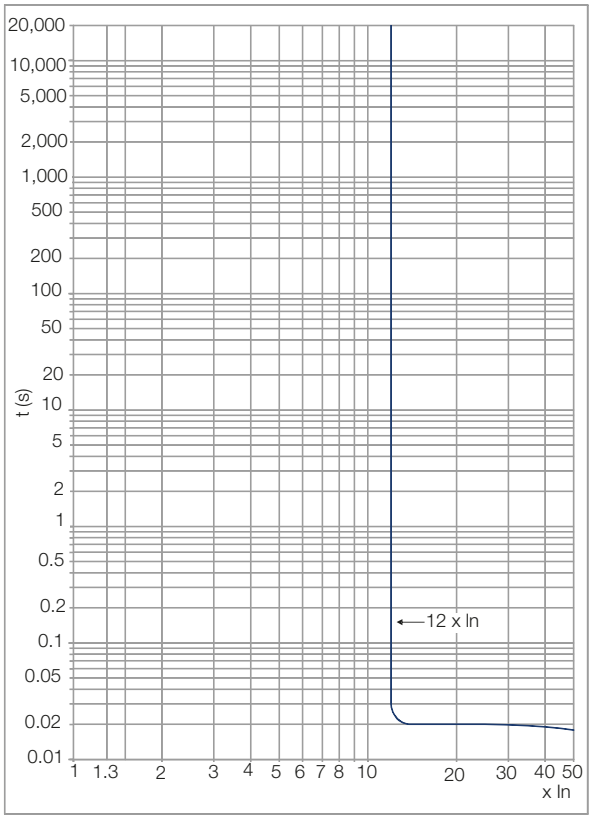
DWB160_D (distribution)



DWB160_G (generator)

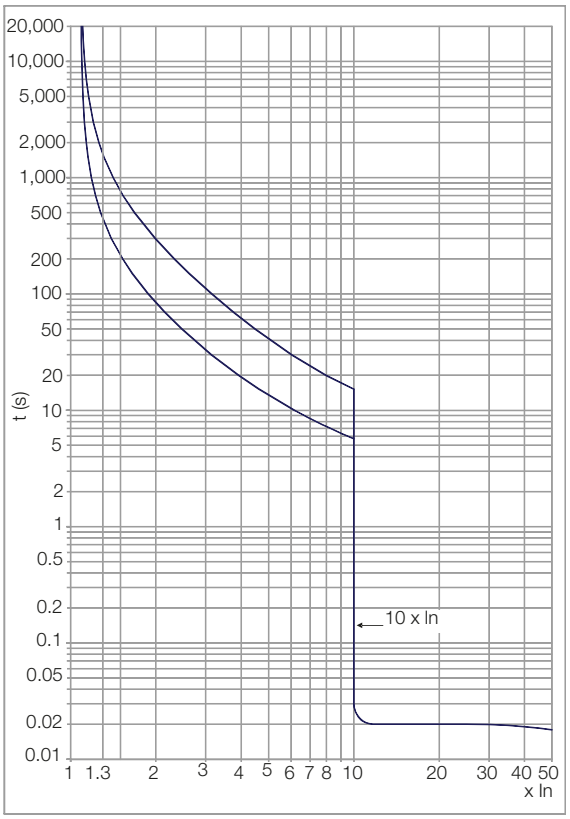


DWB160_M (motor)

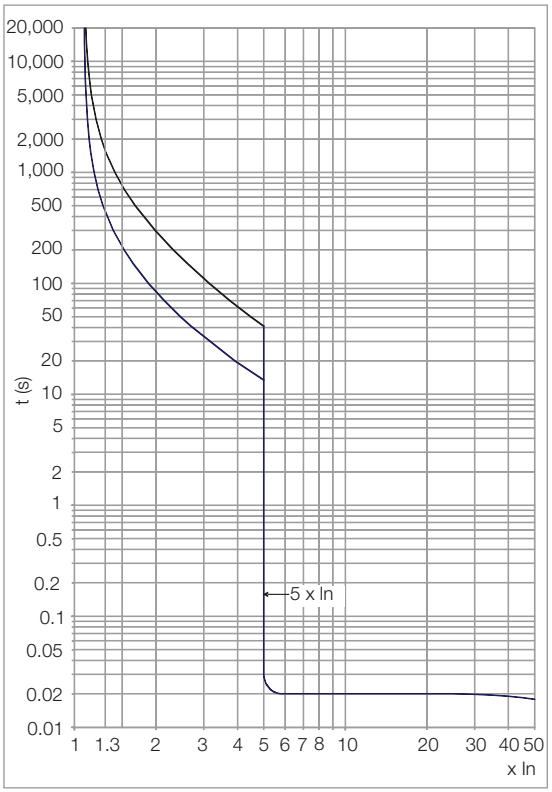


Characteristic curves - I x t

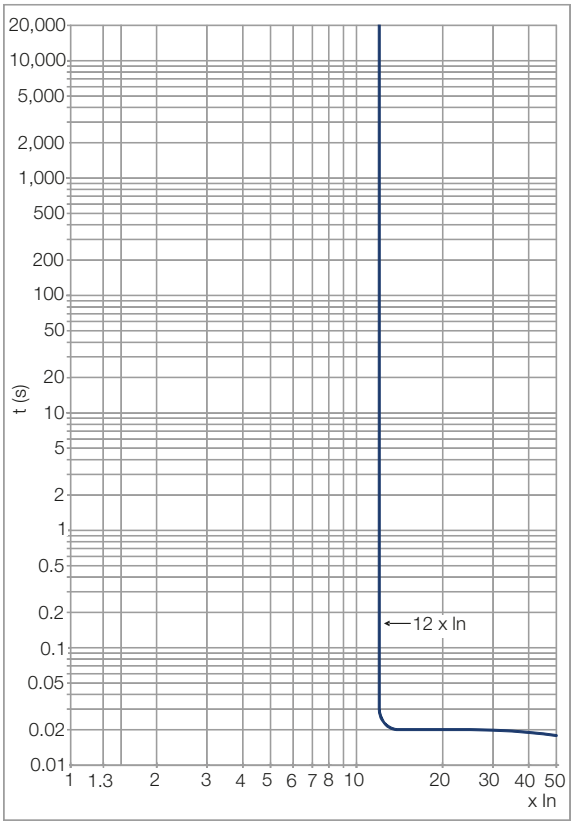
DWB250_D (distribution)



DWB250_G (generator)

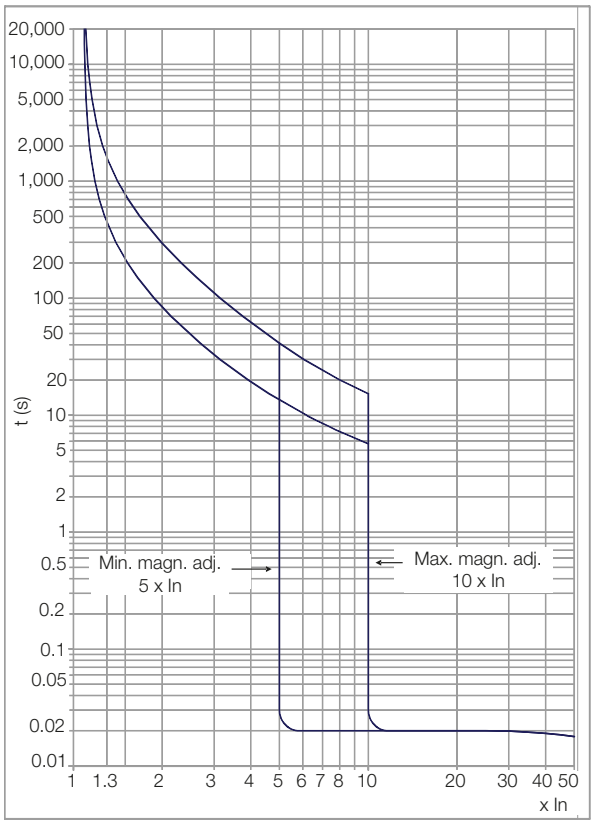


DWB250_M (motor)

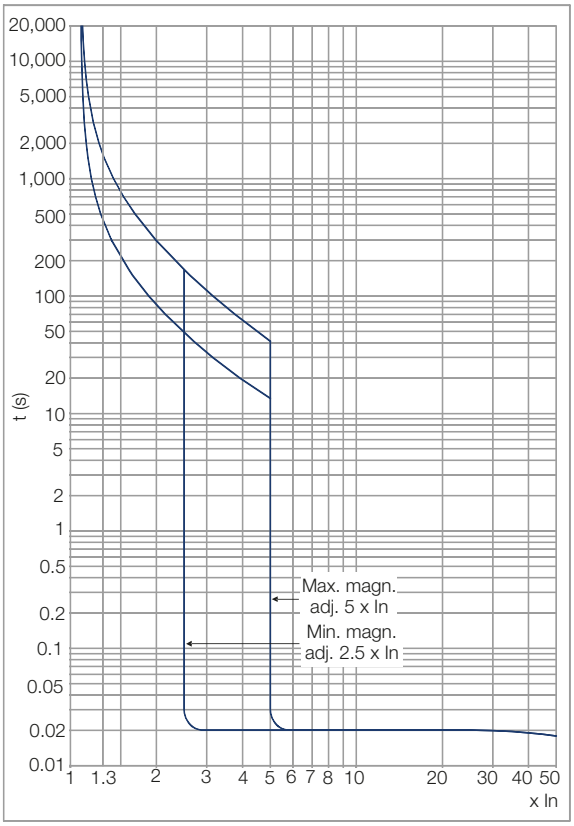


Characteristic curves - I x t

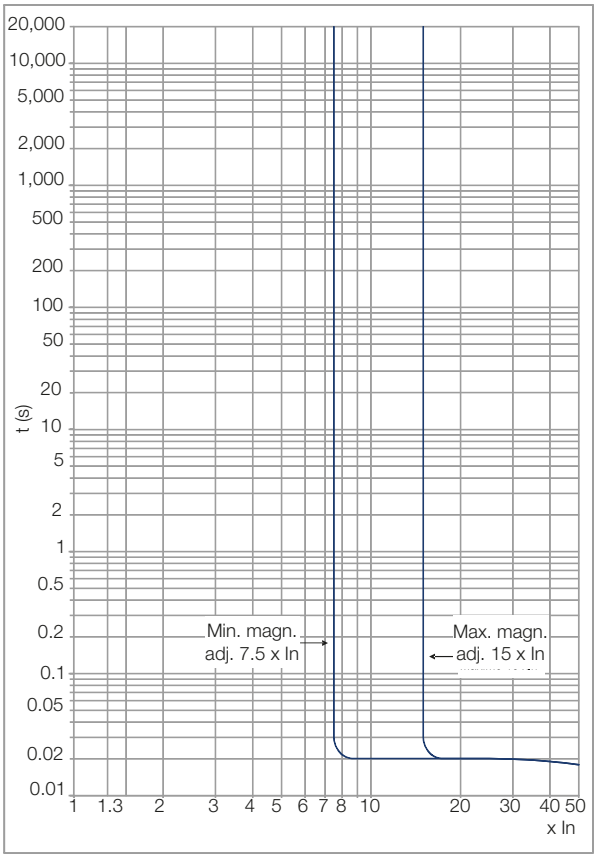
DWB400_D (distribution)



DWB400_G (generator)

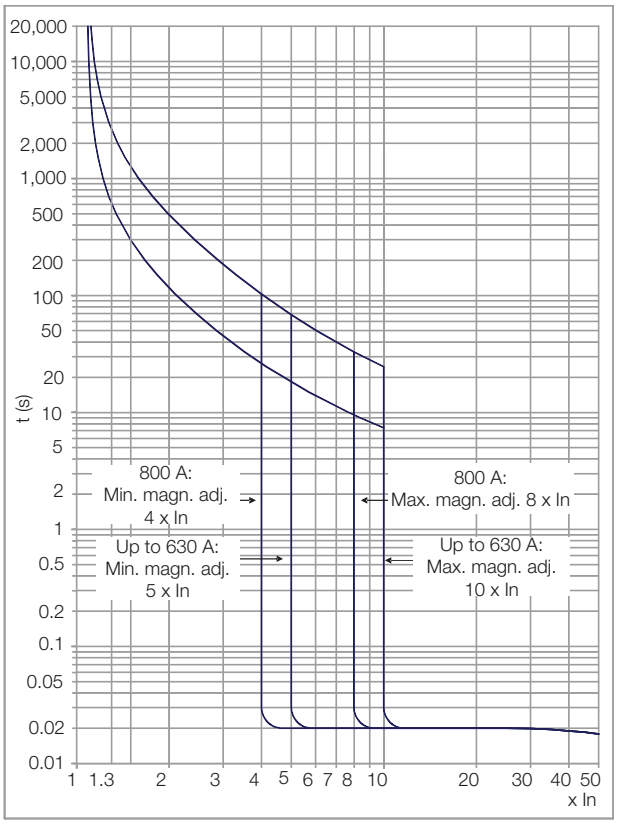


DWB400_M (motor)

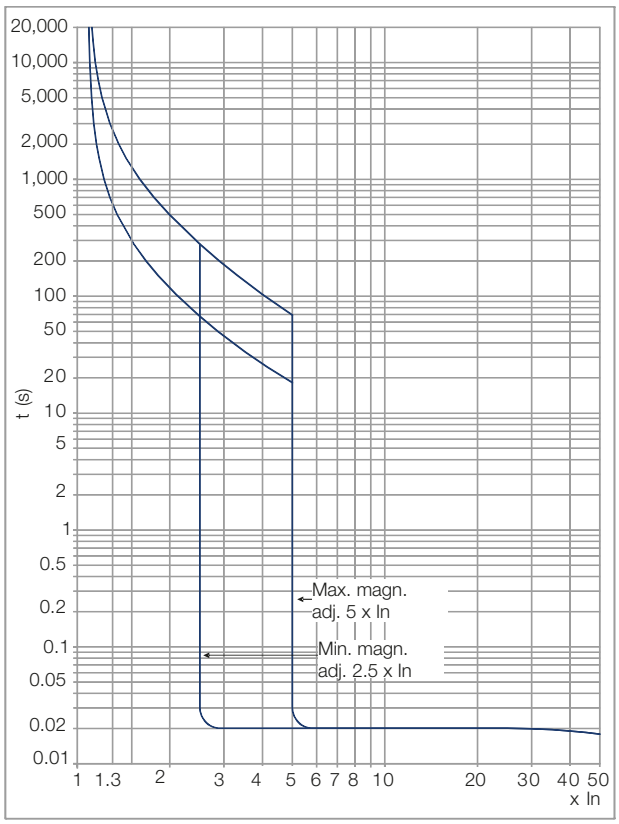


Characteristic curves - I x t

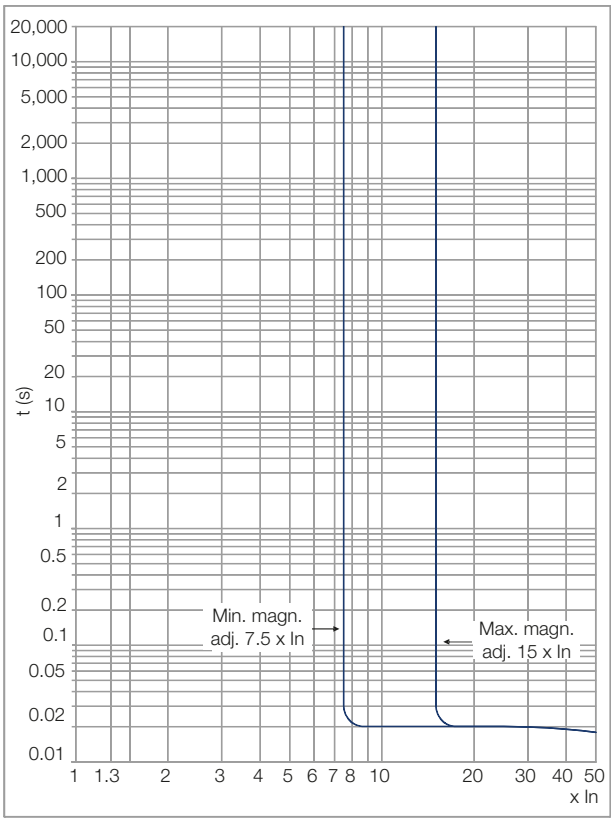
DWB800 (distribution)



DWB800 (generator)

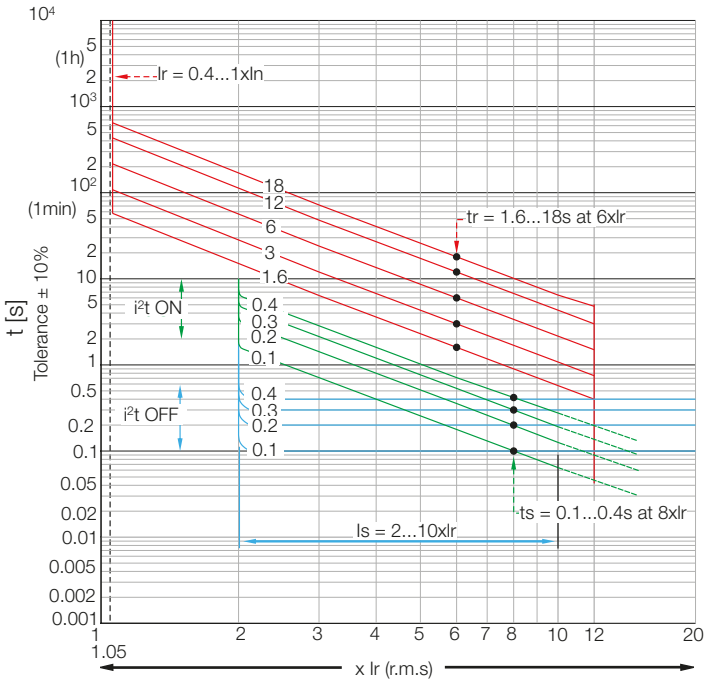


DWB800 (motor)

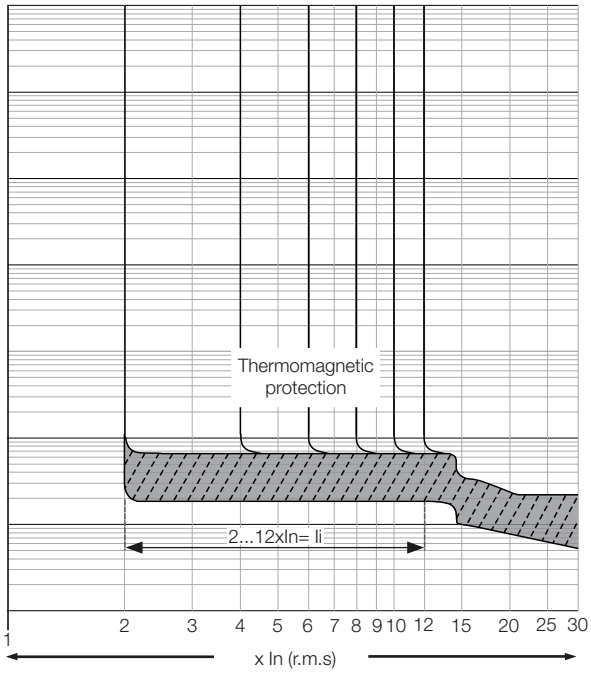


Characteristic curves - I x t

DWB1000 (distribution and generator) - overload protection (L and S)



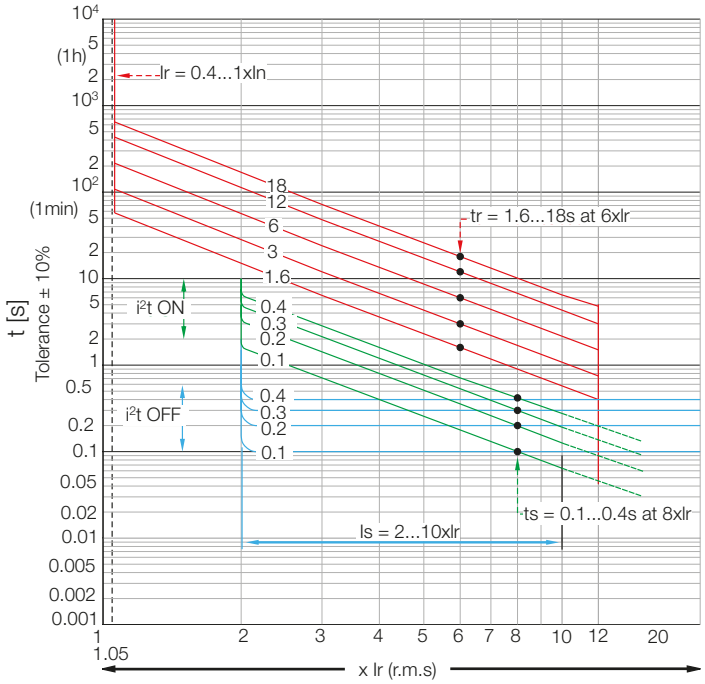
DWB1000 (distribution and generator) - Short-circuit protection (I - instantaneous)



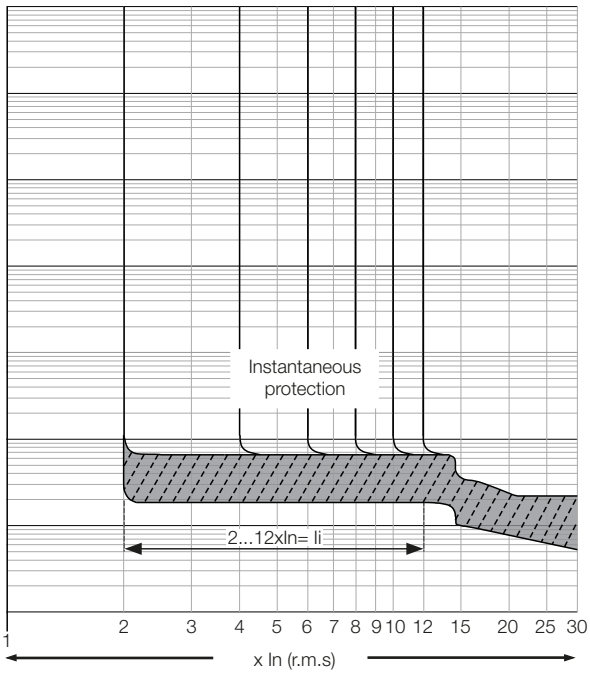
Note: the DWB1000 can be used for the protection of both electric circuits and generators.

Characteristic curves - I x t

DWB1600 (distribution and generator) - overload protection (L and S)

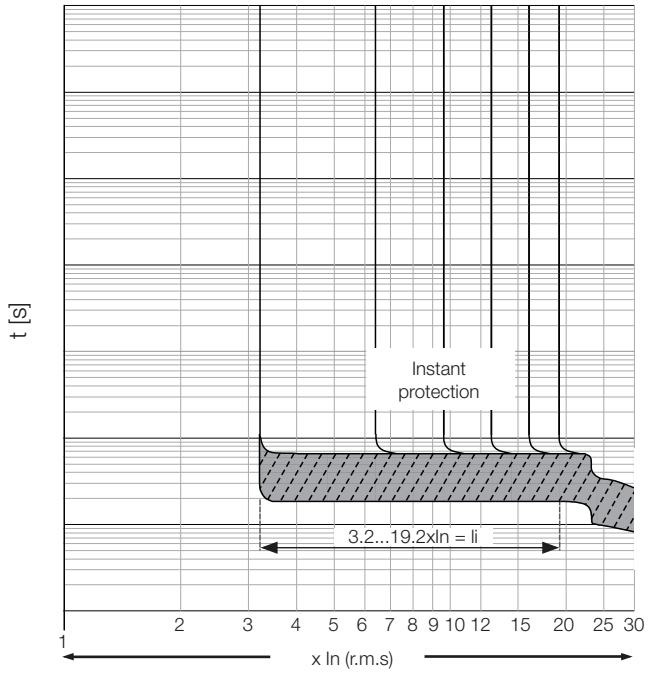


DWB1600 (distribution and generator) - Short-circuit protection (I - instantaneous)



DWB1600 (motor)

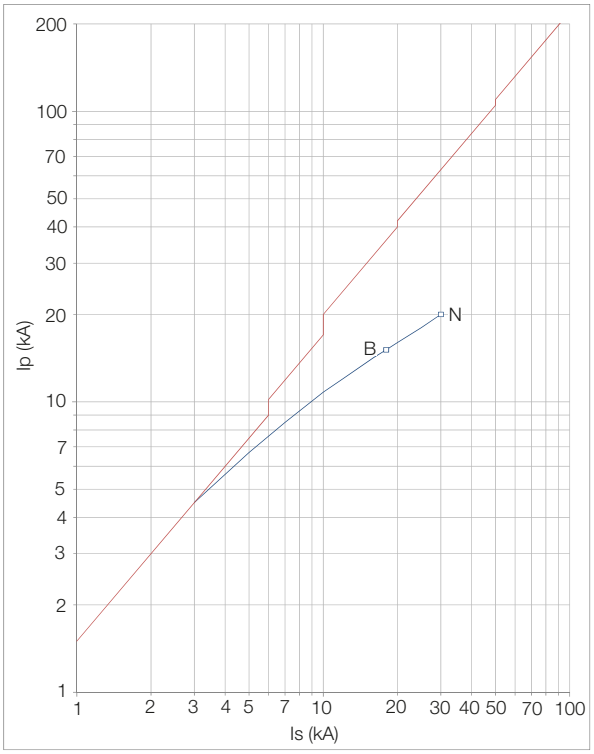
DWB1600 - short-circuit protection (I - instantaneous)



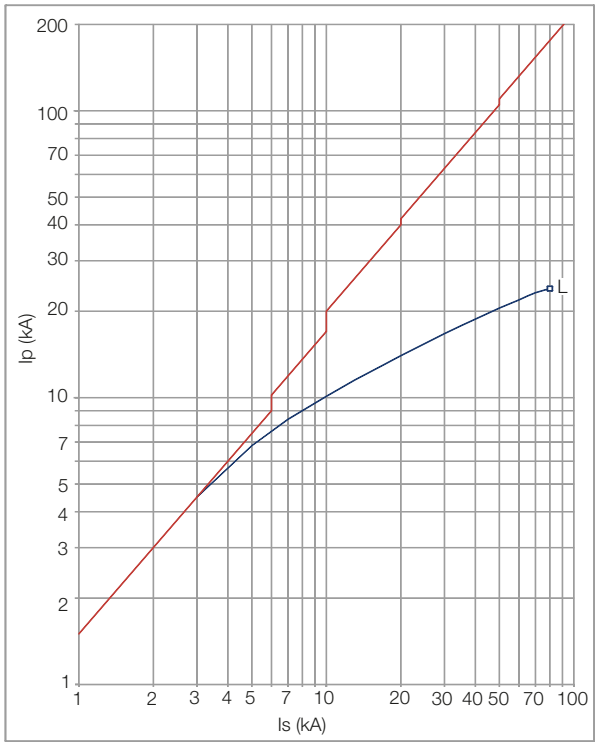
Short-circuit limiting characteristic curve

380/415 VAC

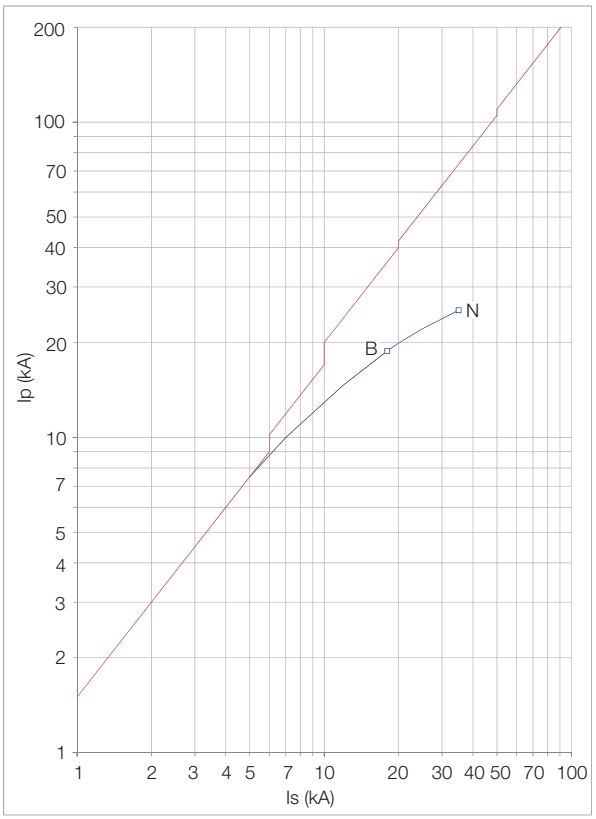
DWB160 B/N



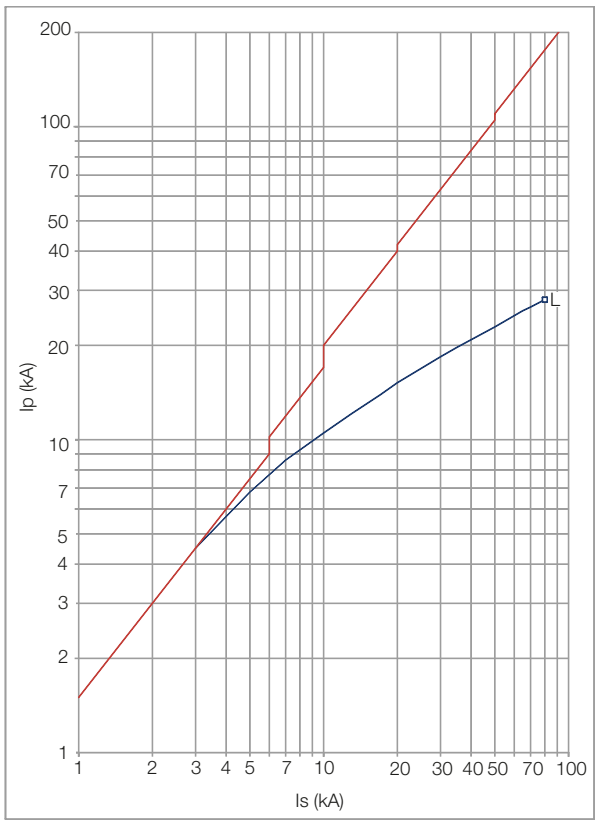
DWB160 L



DWB250 B/N



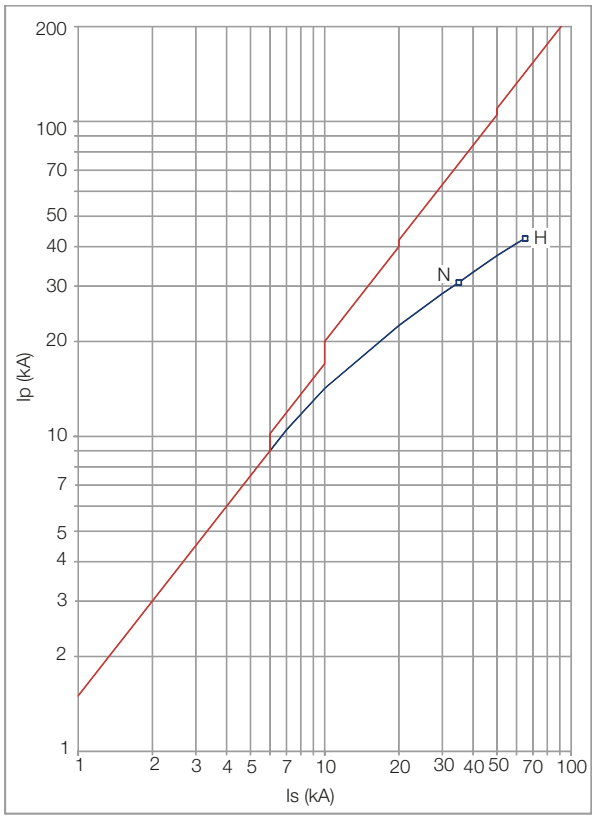
DWB250 L



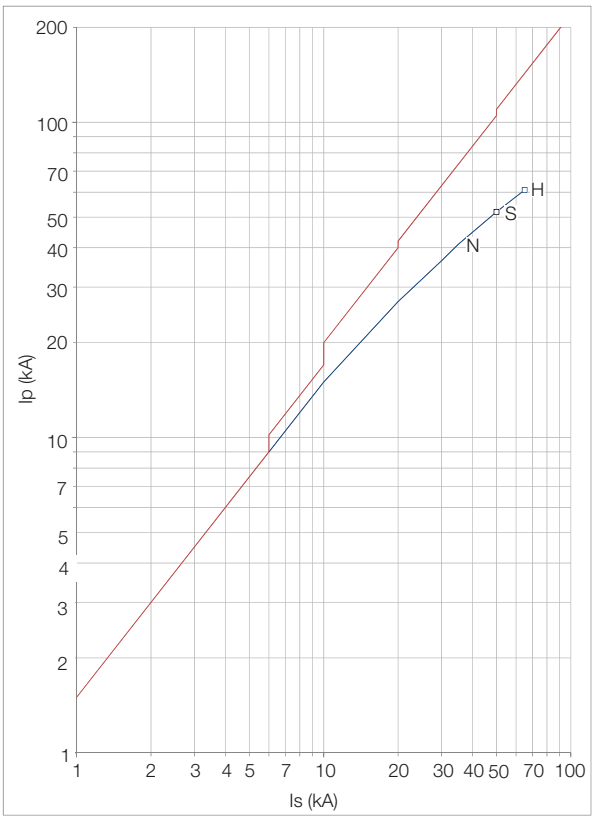
Short-circuit limiting characteristic curve

380/415 VAC

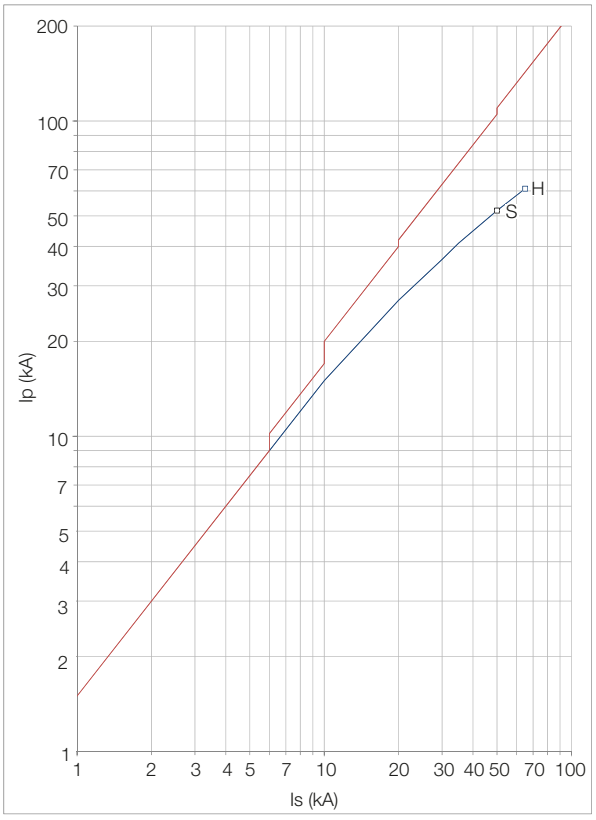
DWB400



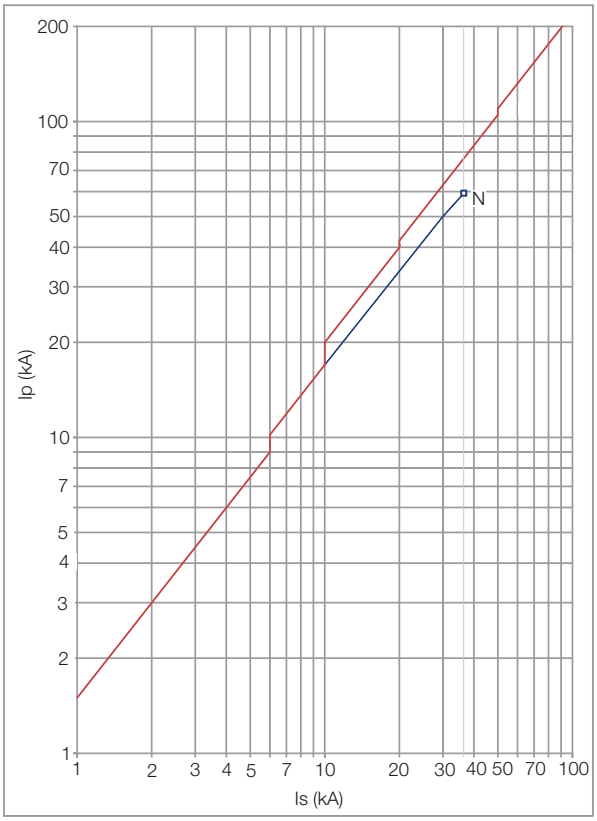
DWB800



DWB1000



DWB1600



Coordination 2, cascading and selectivity guide

Association of protection with motor starting components and association of different protection devices.

Electric Circuit and Motor Switching and Protection Guide – Coordination, Cascading y Selectivity. Check it out at:

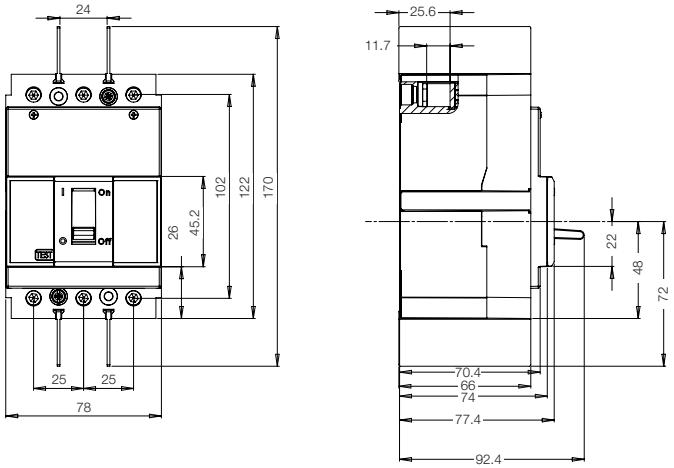
WEG website

Direct link to file

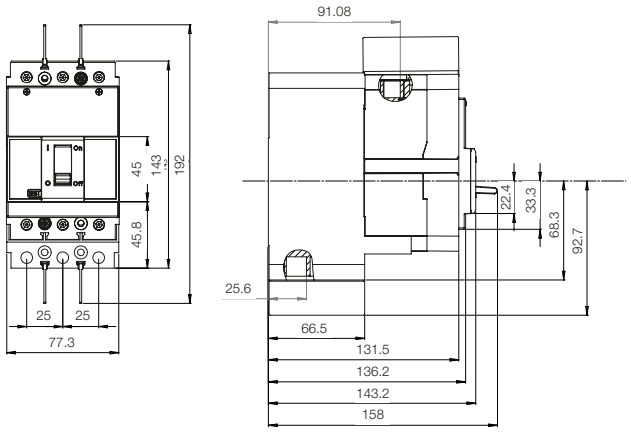
Dimensions

Circuit breakers

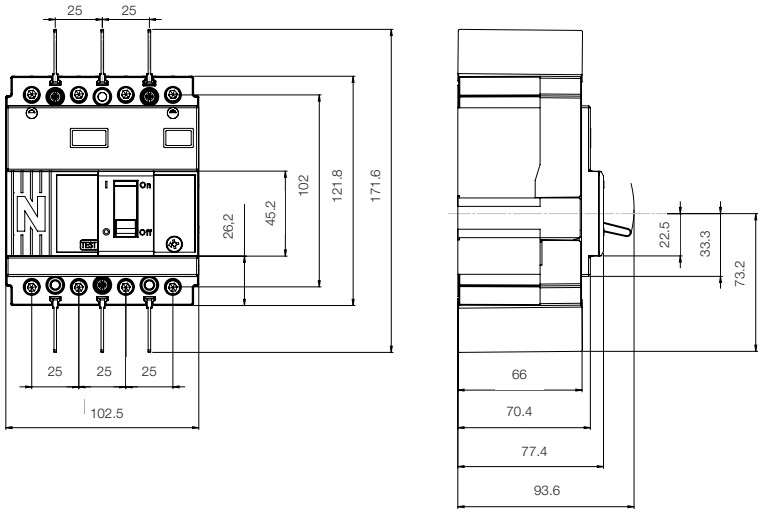
DWB160 B/N – 3P



DWB160 L



DWB160 B – 4P

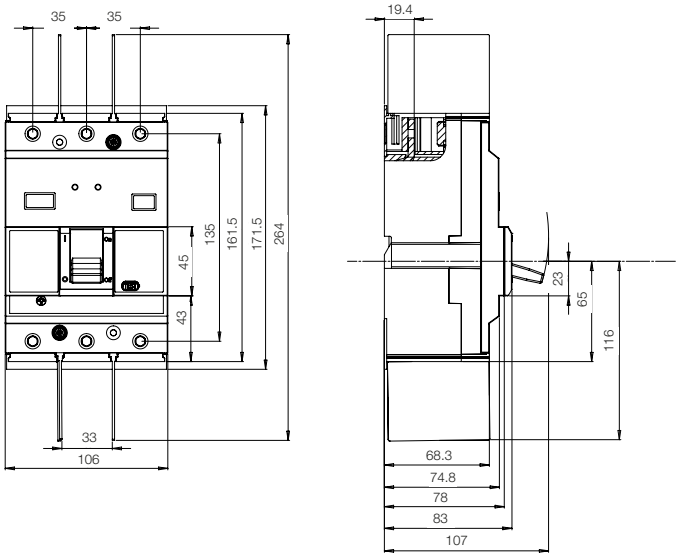


Notes: For connection dimensions with busbars see the "Direct Busbar Connection to Breaker" table.
Dimensions in millimeters.

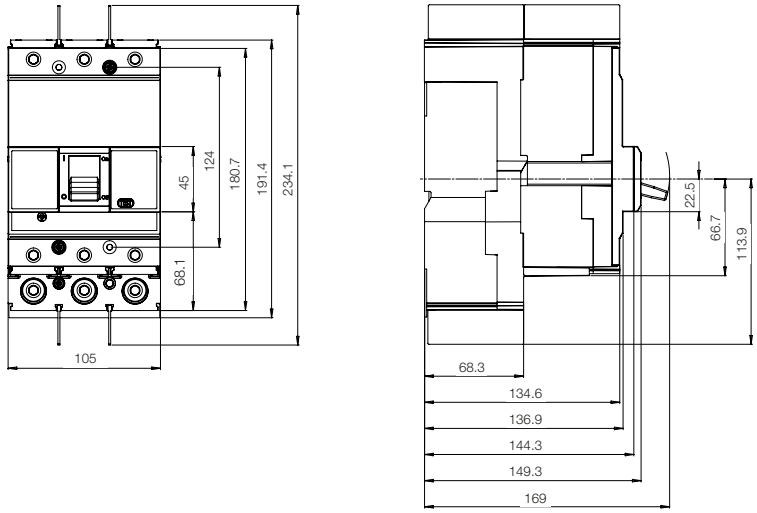
Dimensions

Circuit breakers

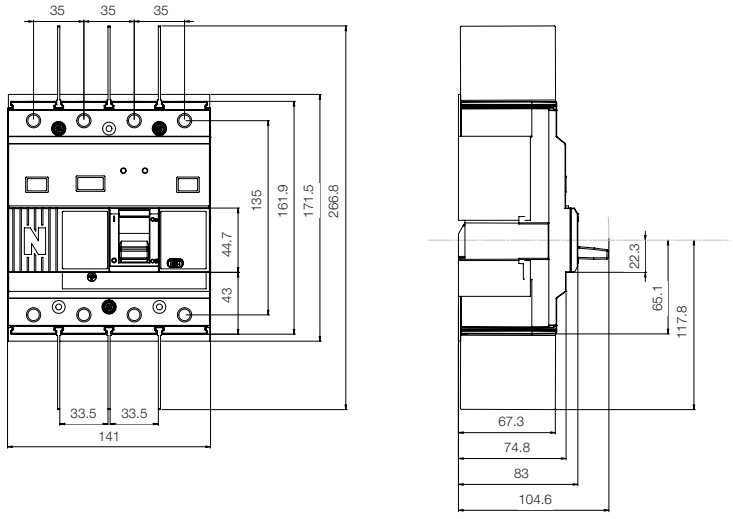
DWB250 N/B – 3P



DWB250 L



DWB250- B - 4P

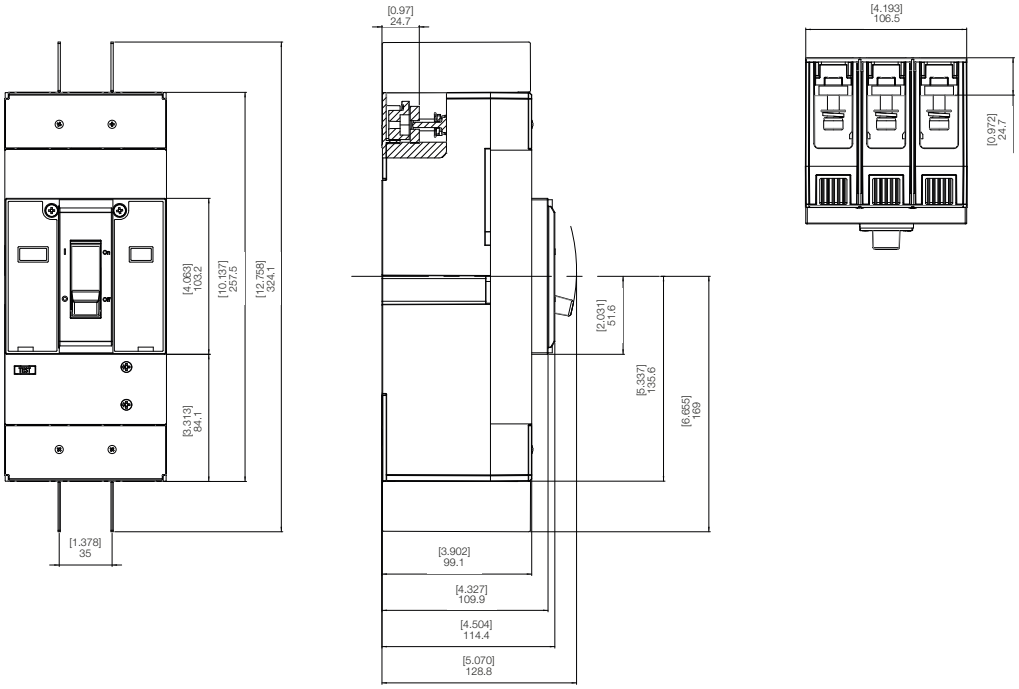


Notes: For connection dimensions with busbars see the "Direct Busbar Connection to Breaker" table.
Dimensions in millimeters.

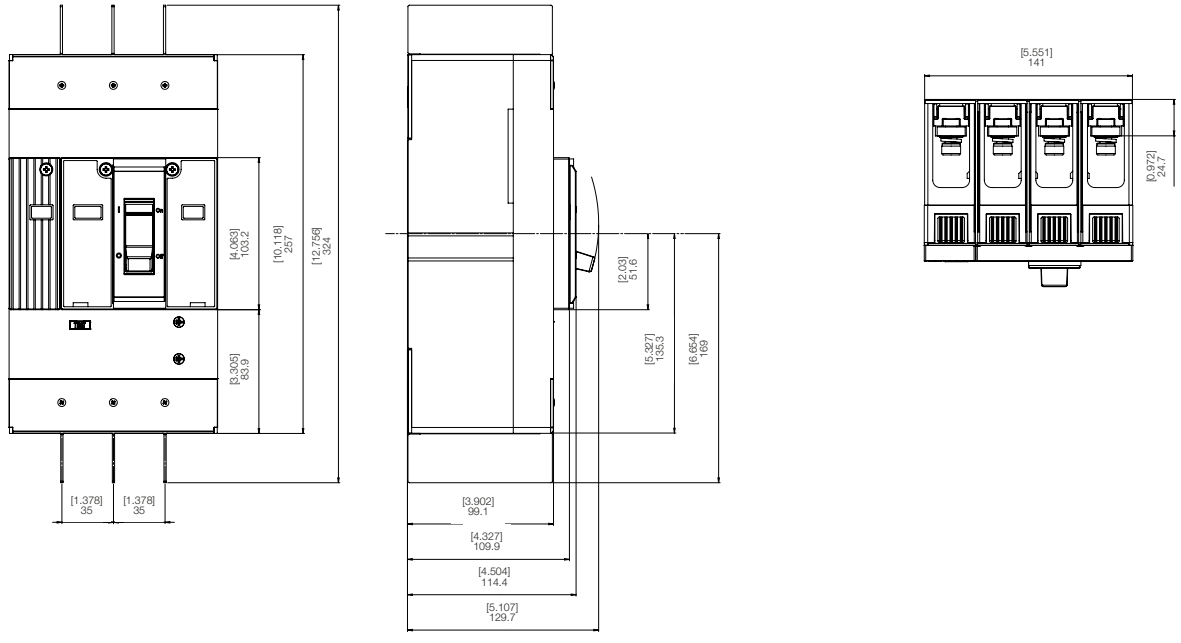
Dimensions

Circuit breakers

DWB400 / IWB400 - 3P



DWB400 – 4P

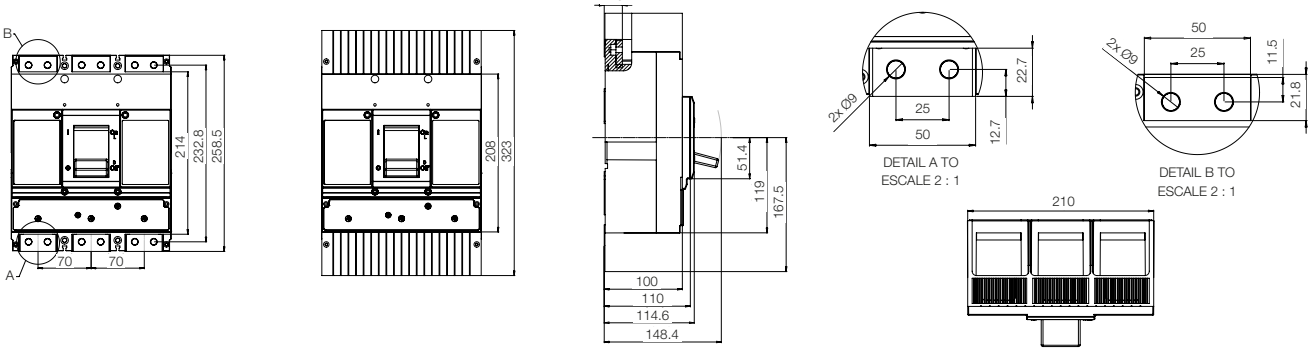


Note: dimensions in millimeters.

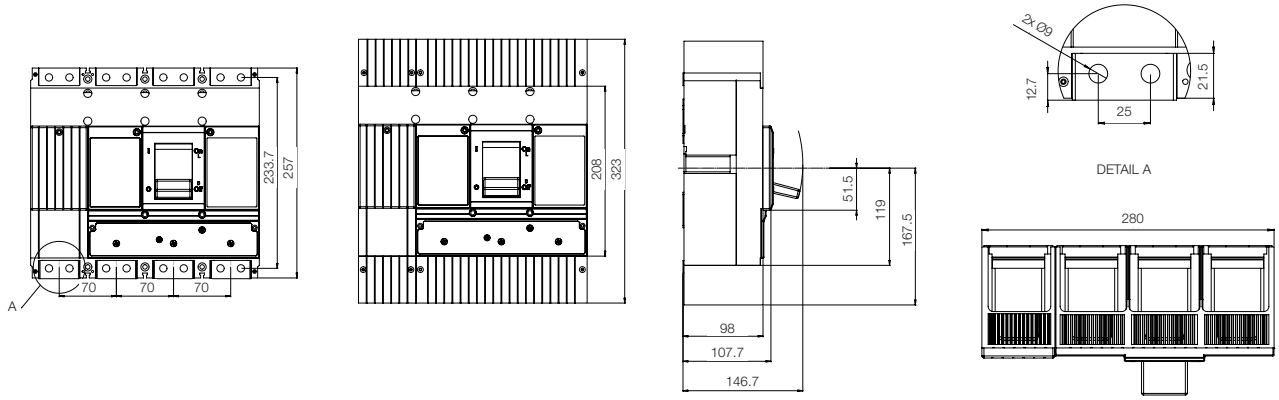
Dimensions

Circuit breakers

DWB800 – 3P



DWB800 – 4P

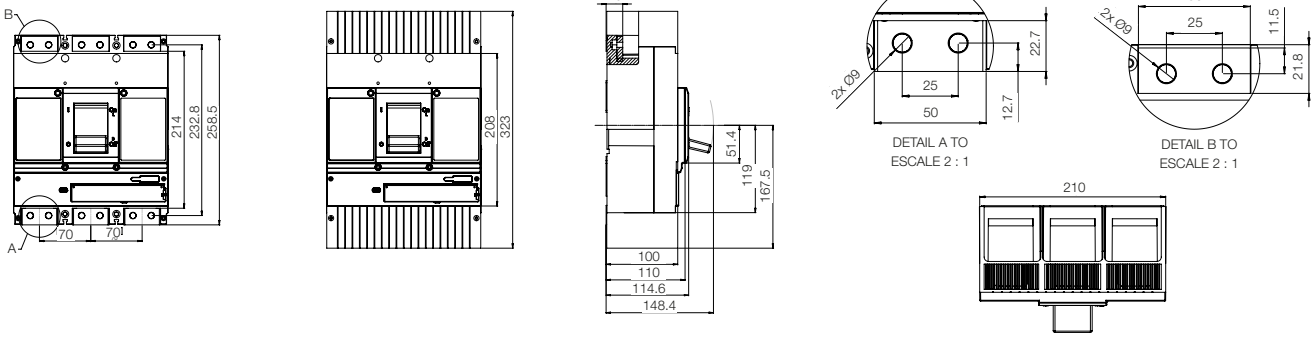


Note: dimensions in millimeters.

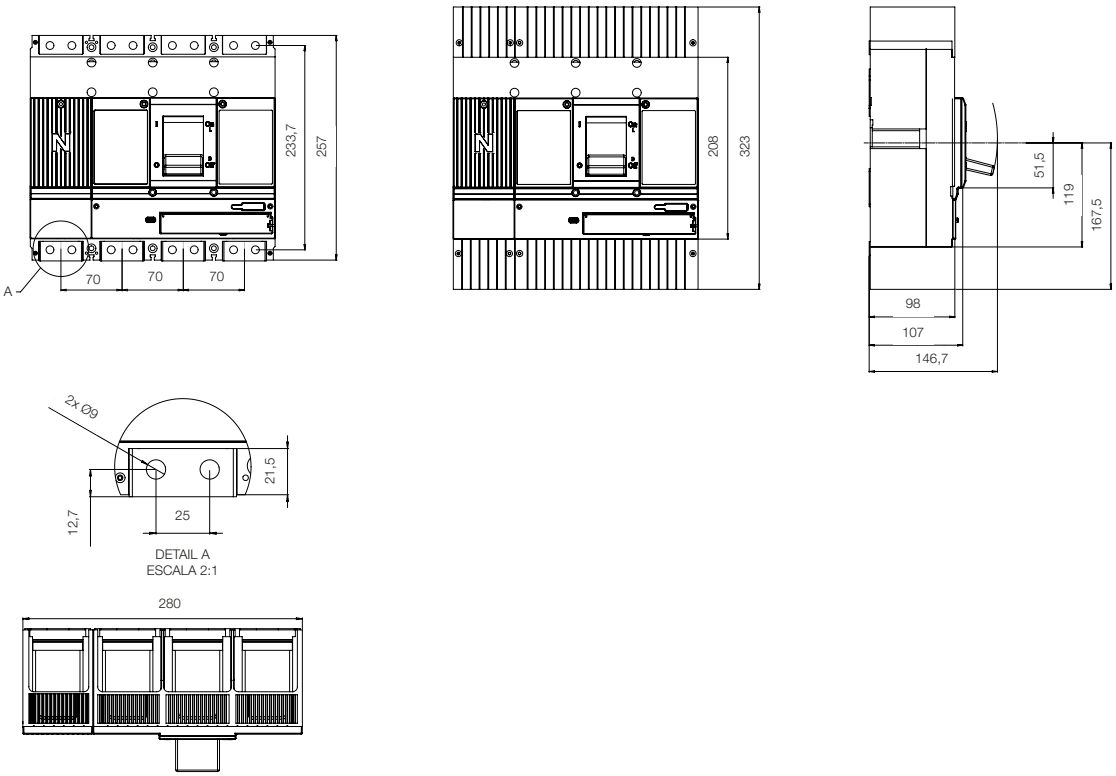
Dimensions

Circuit breakers

DWB1000 – 3P



DWB1000 – 4P

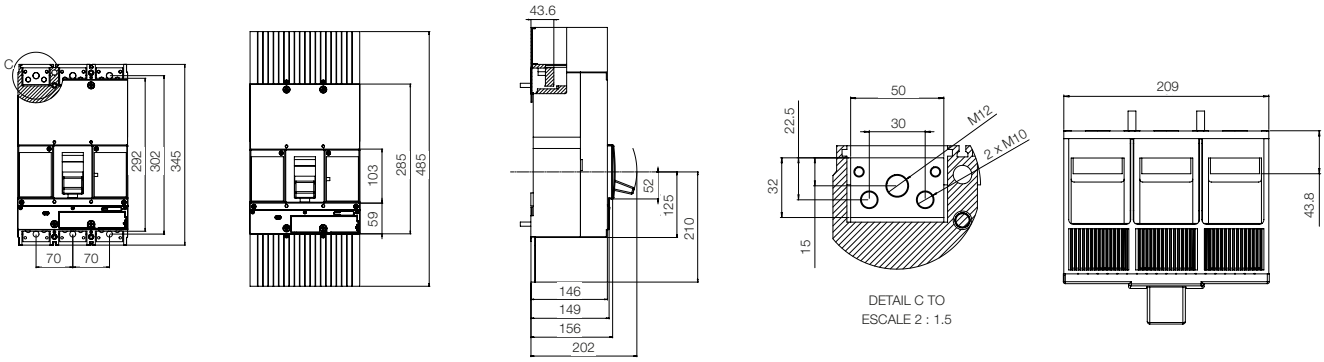


Note: dimensions in millimeters.

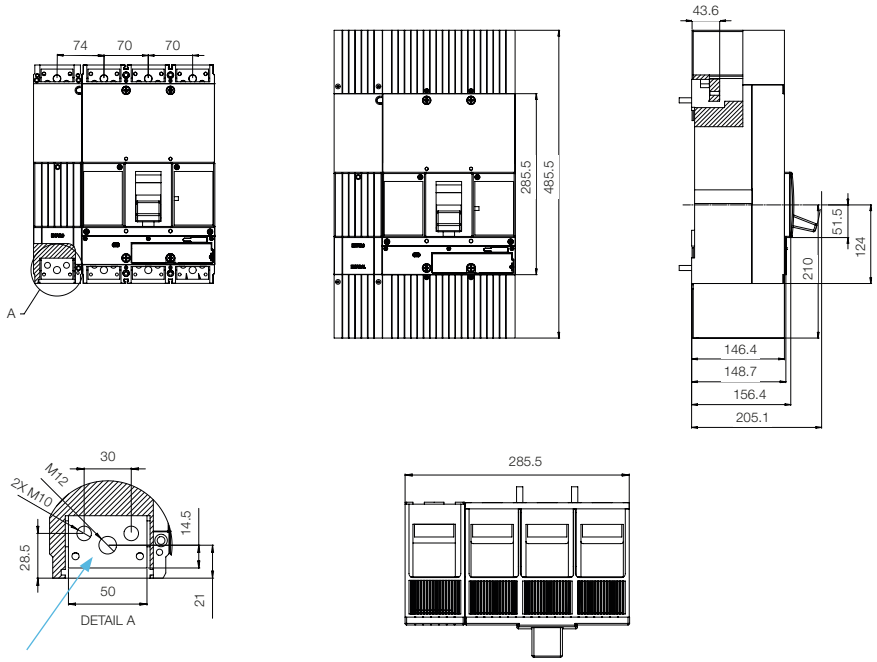
Dimensions

Circuit breakers

DWB1600 / DWM1600 – 3P



DWB1600 – 4P



Bar thickness:

- In de 1,250 A = 12 mm
- In de 1,600 A = 16 mm

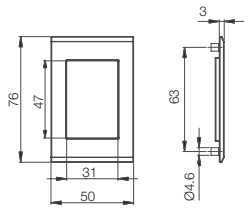
Note: dimensions in millimeters.

Dimensions

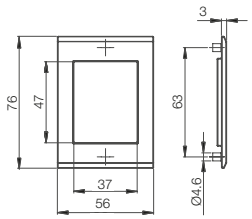
Accessories

MP - escutcheons

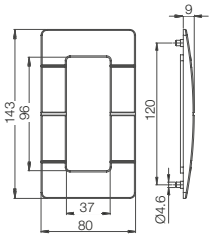
MP DWB160



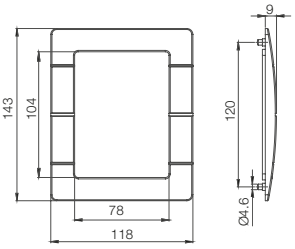
MP DWB250



MP DWB400

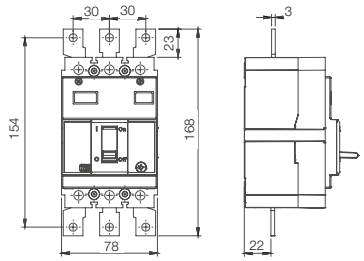


MP DWB800 / DWB1000 / DWB1600

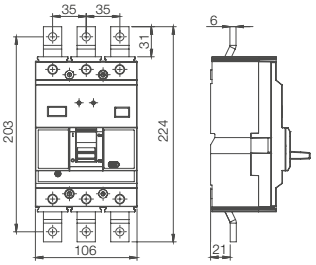


BE - straight extension bars

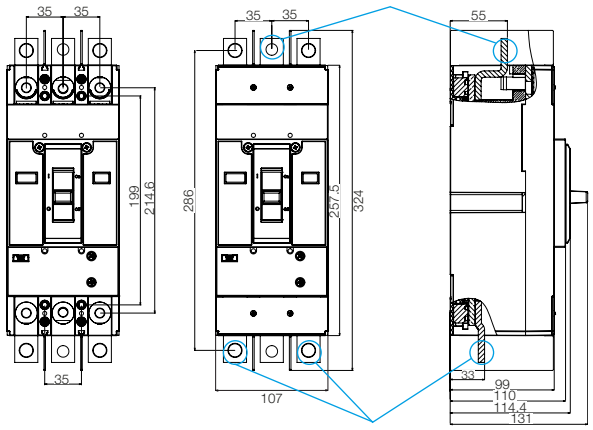
Frame 160 3P +
BE DWB160 3P



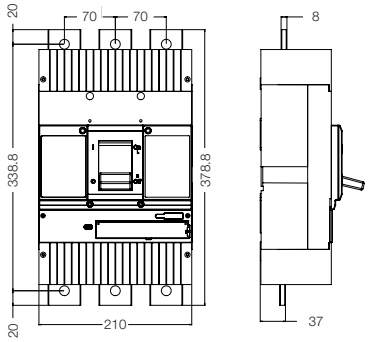
Frame 250 3P +
BE DWB250 3P



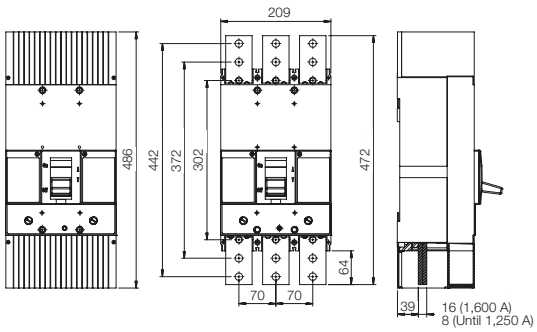
Frame 400 3P +
BE DWB400 3P



Frame DWB800-1000 3P +
BE DWB800-1000



Frame 1600 3P +
BE DWB1600

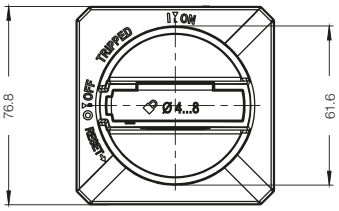


Note: dimensions in millimeters.

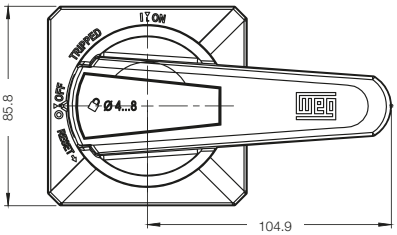
Dimensions

Panel door operating handle

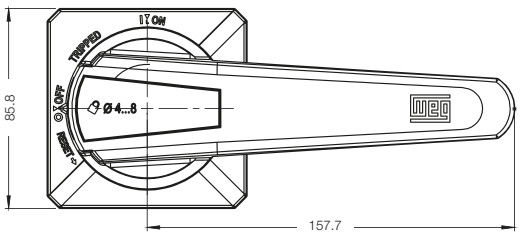
MRXS
DWB160 - DWB250



MRXL
DWB160 - DWB250 - DWB400



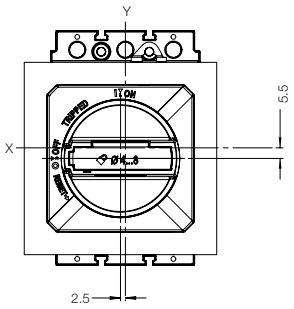
MRXL
DWB800 - DWB1000 - DWB1600

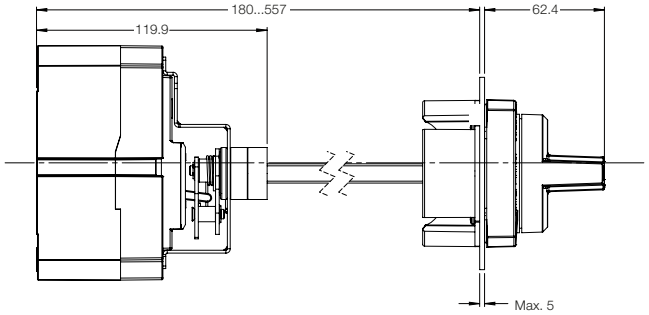


Accessories

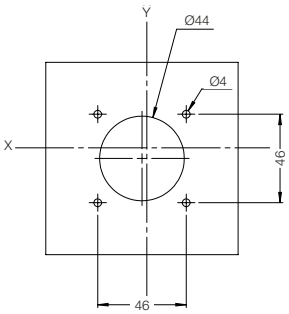
MRXS - panel door operating handle

Frame 160 3P/4P + MRXS DWB160 (B and N versions)

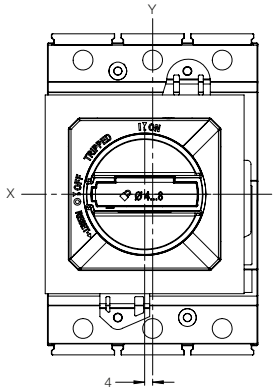


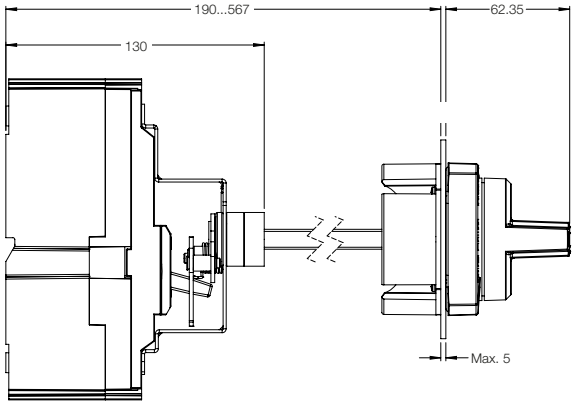


Panel door cutout

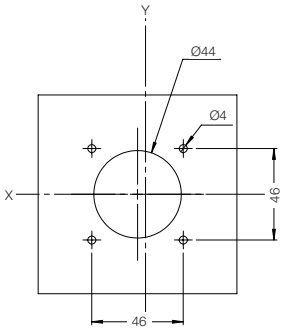


Frame 250 3P/4P + MRXS DWB250 (B and N versions)





Panel door cutout



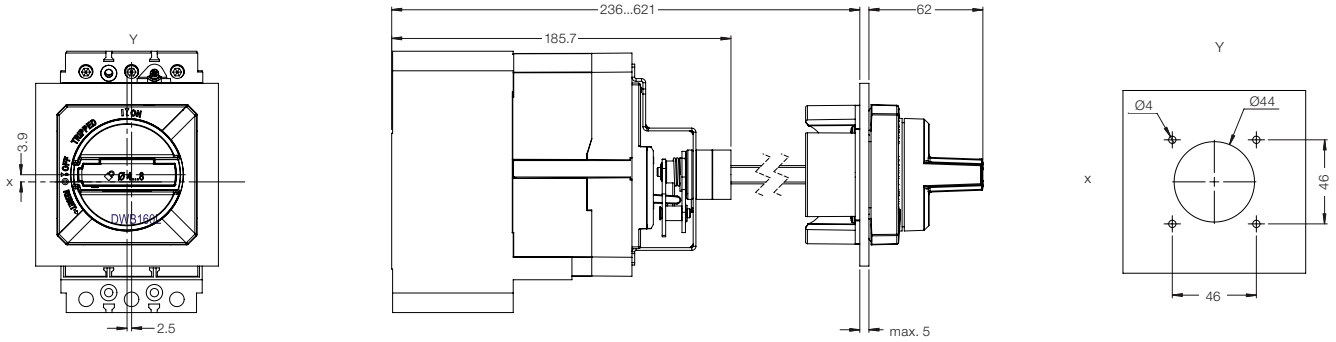
Note: dimensions in millimeters.

Dimensions

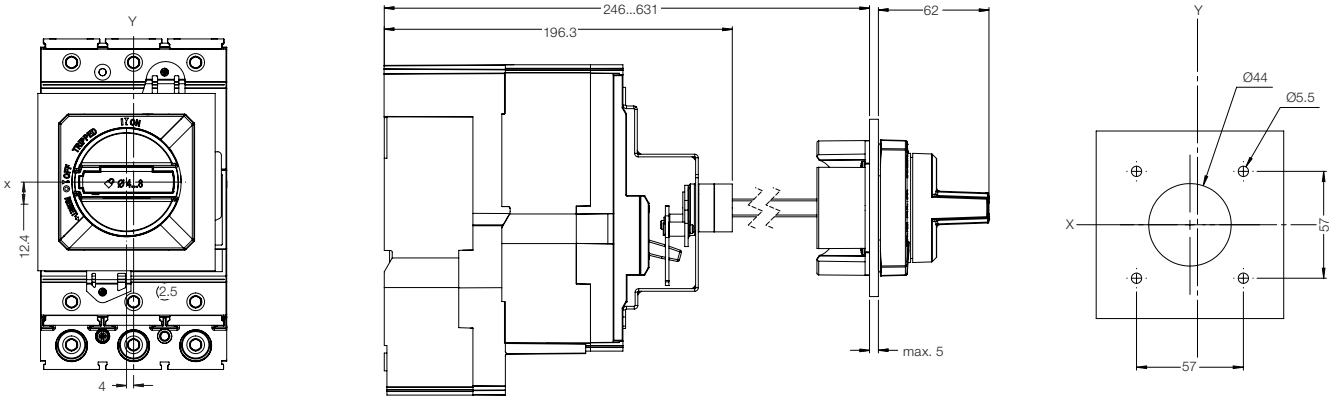
Accessories

MRXS - panel door operating handle

Frame 160 3P/4P + MRXS DWB160 (L version)



Frame 250 3P/4P + MRXS DWB250 (L version)



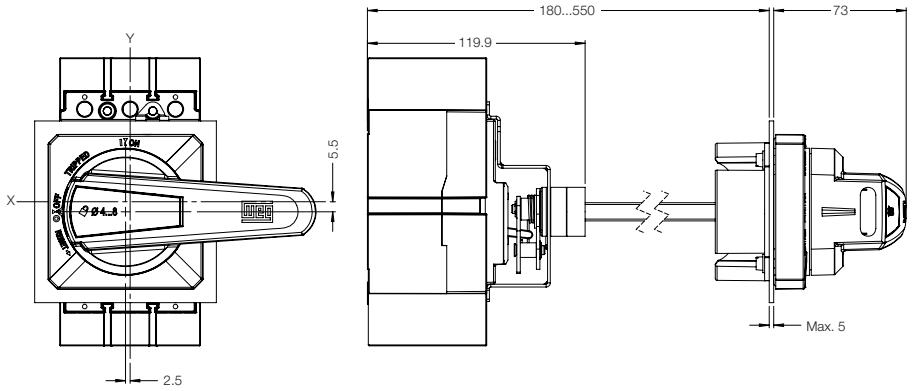
Note: dimensions in millimeters.

Dimensions

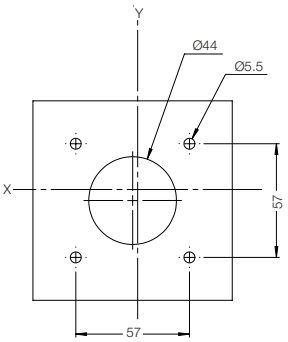
Accessories

MRXL - panel door operating handle

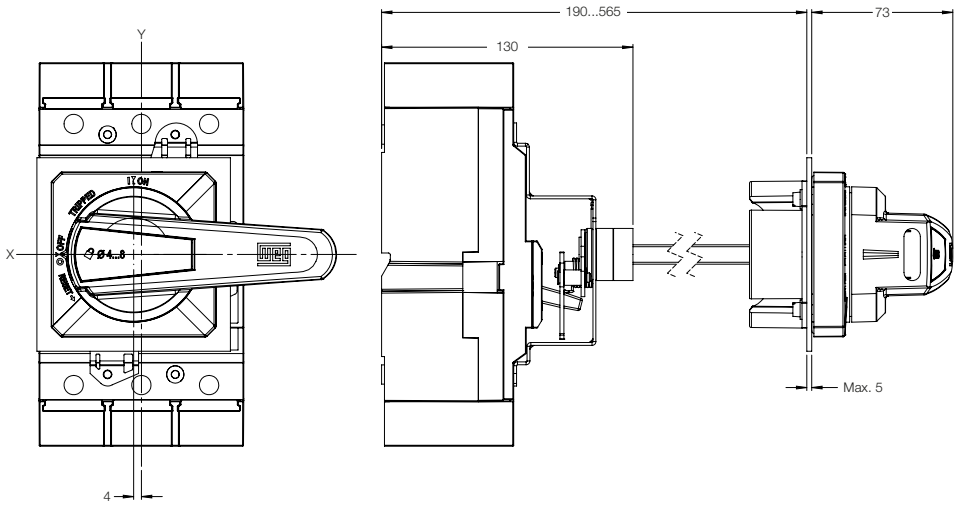
Frame 160 3P/4P + MRXL DWB160 (B and N versions)



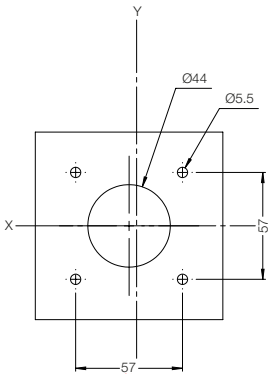
Panel door cutout



Frame 250 3P/4P + MRXL DWB250 (B and N versions)



Panel door cutout



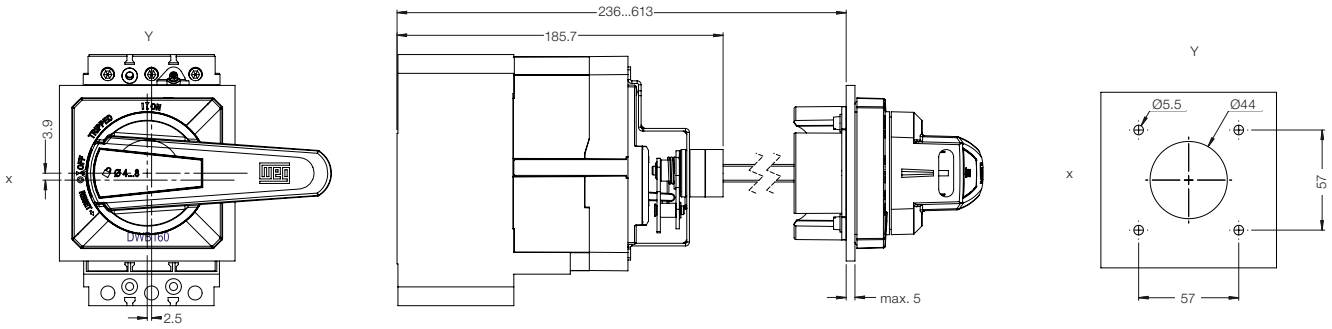
Note: dimensions in millimeters.

Dimensions

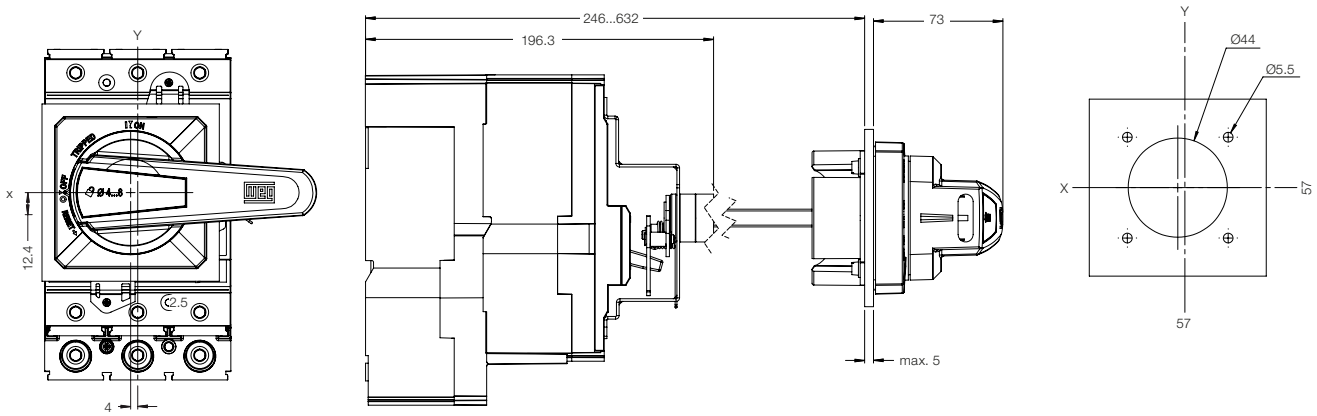
Accessories

MRXL - panel door operating handle

Frame 160 3P/4P + MRXL DWB160 (L version)



Frame 250 3P/4P + MRXL DWB250 (L version)



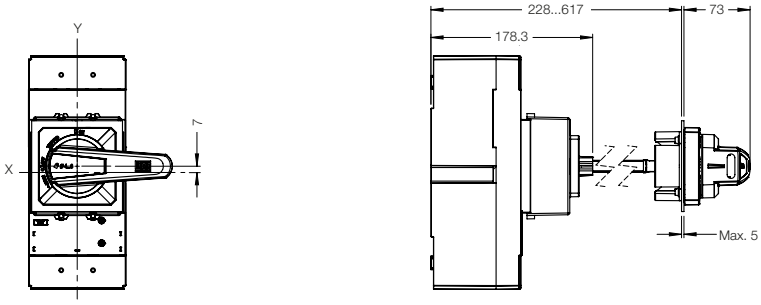
Note: dimensions in millimeters.

Dimensions

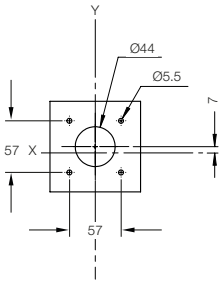
Accessories

MRXL - panel door operating handle

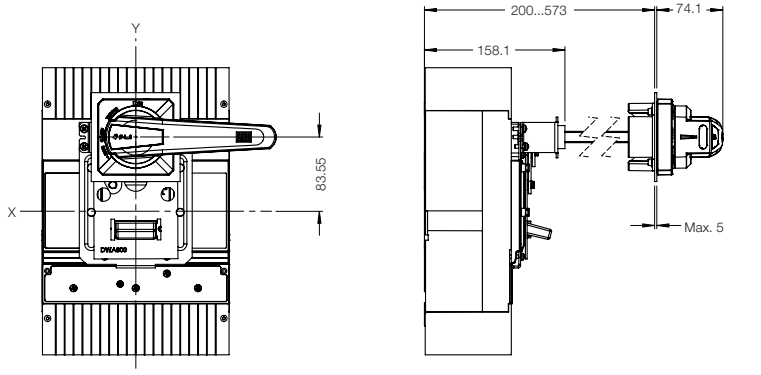
Frame 400 3P/4P + MRXL DWB400



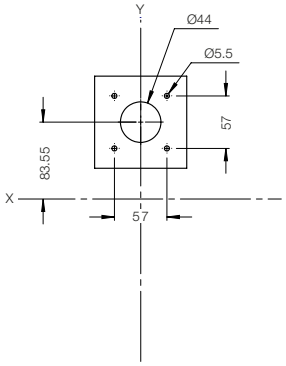
Panel door cutout



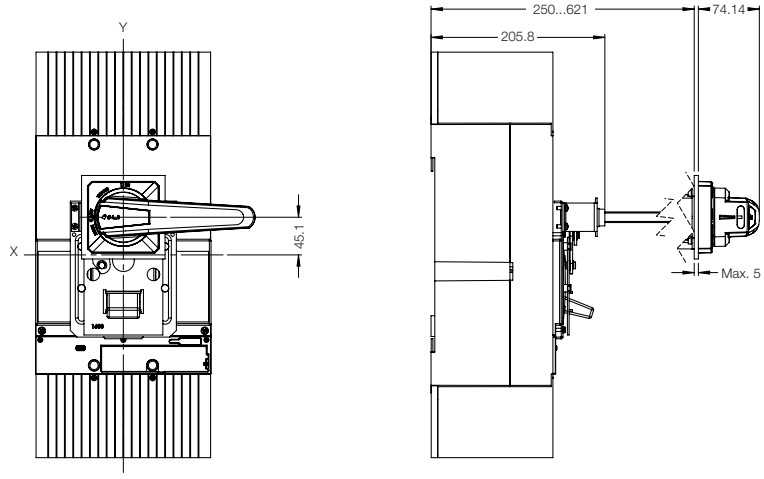
Frame DWB800-1000 + MRXL DWB800-1000



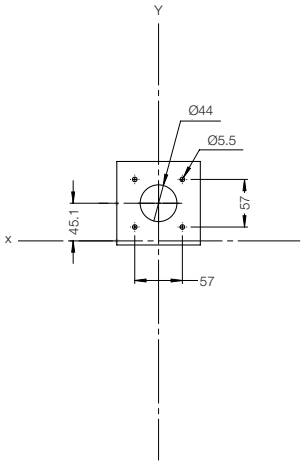
Panel door cutout



Frame 1600 3P/4P + MRXL DWB1600



Panel door cutout



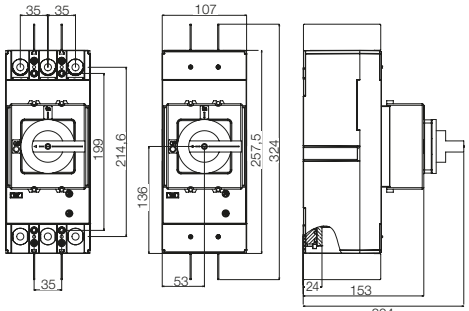
Note: dimensions in millimeters.

Dimensions

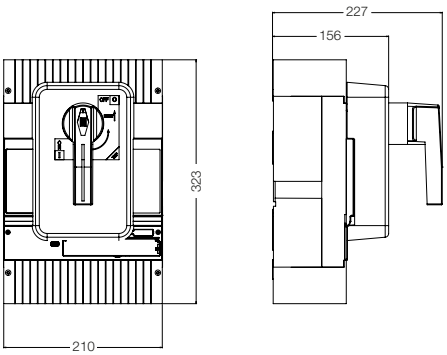
Accessories

MRI - internal rotary handle

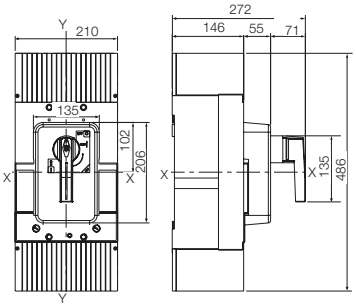
Frame 400 3P + MRI DWB400



Frame 800-1000 3P + MRI DWB800-1000

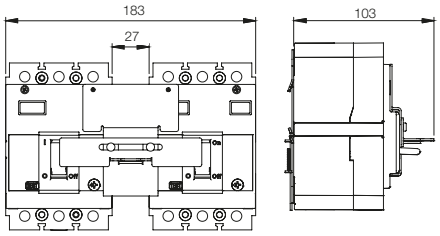


Frame 1600 3P + MRI DWB1600

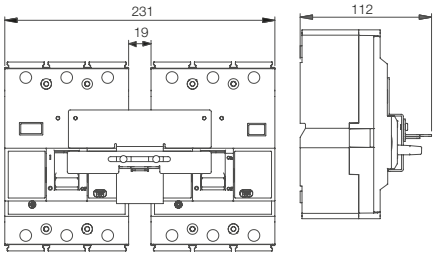


BLIM - mechanical interlock

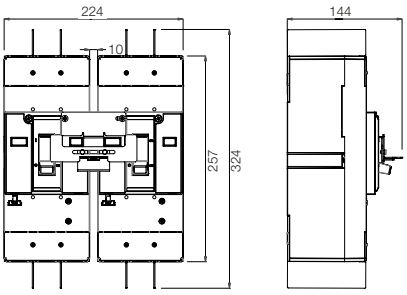
Frame 160 3P + BLIM DWB160 3P



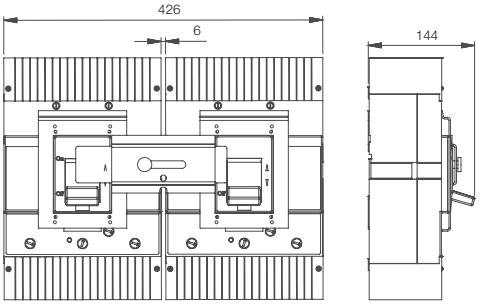
Frame 250 3P + BLIM DWB250 3P



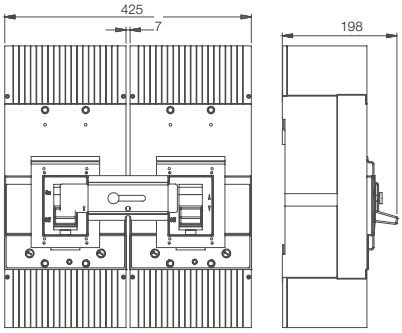
Frame 400 3P + BLIM DWB400 3P



Frame 800 3P + BLIM DWB800 / DWB1000



Frame 1600 3P + BLIM DWB1600



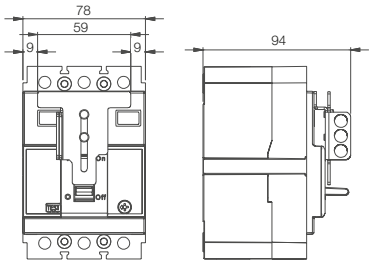
Note: dimensions in millimeters.

Dimensions

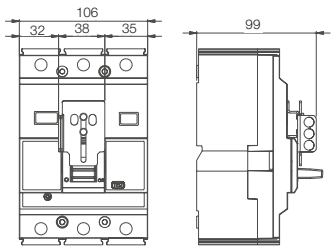
Accessories

PL - padlocking device

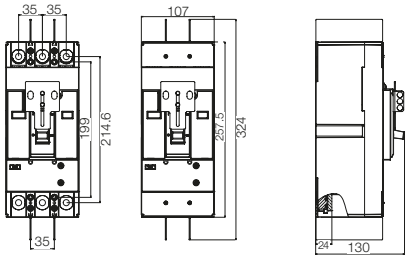
Frame 160 3P + PL DWB160 3P



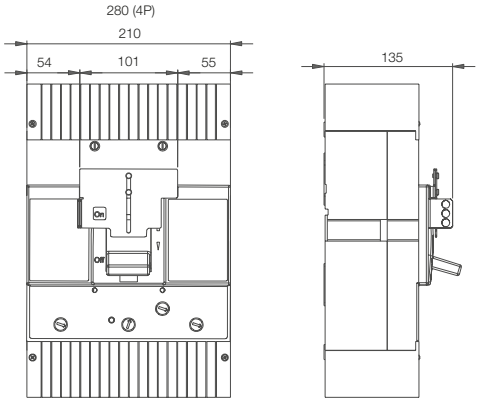
Frame 250 3P + PL DWB250



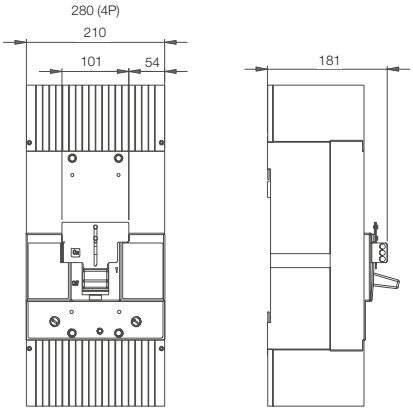
Frame 400 3P + PL DWB400



Frame 800-1000 + PL800-1000

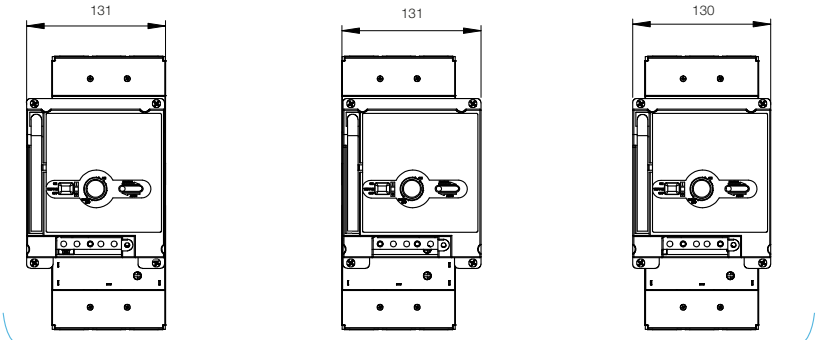


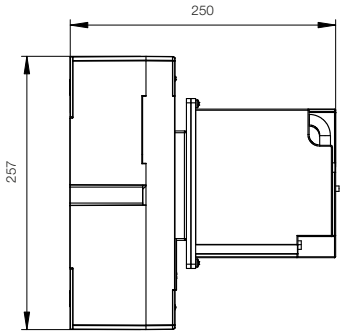
Frame 1600 + PL1600



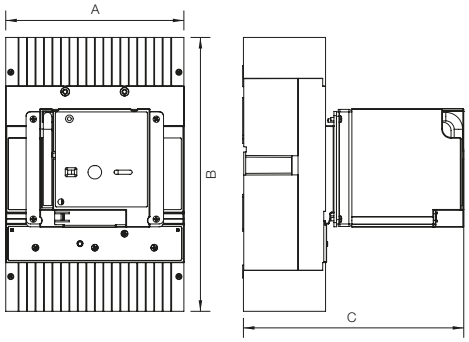
AM - motor operator

DWB400 3P + AM DWB400





	Width
DWB400 4P	141



	A	B	C
DWB800 / DWB1000 3P	210	323	260 10.23
DWB800 / DWB1000 4P	280		
DWB1600 3P	210	486	309 12.16
DWB1600 4P	280		

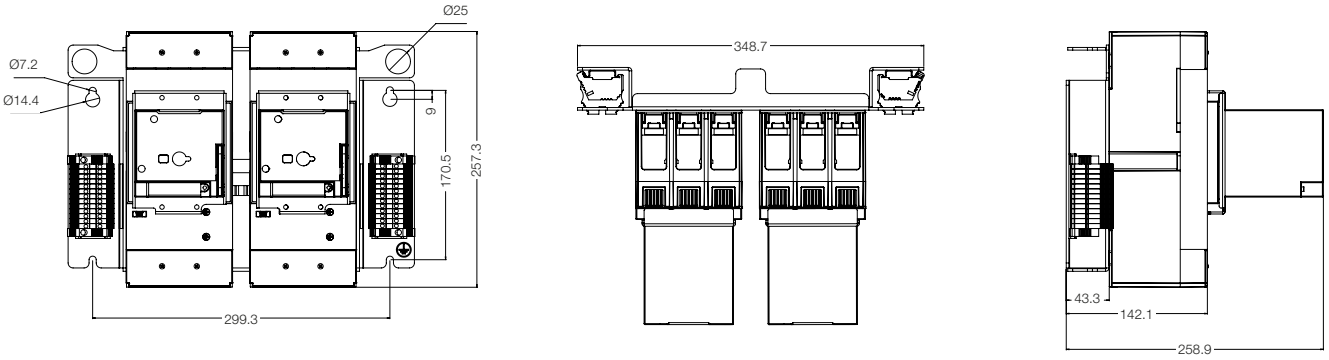
Note: dimensions in millimeters.

Dimensions

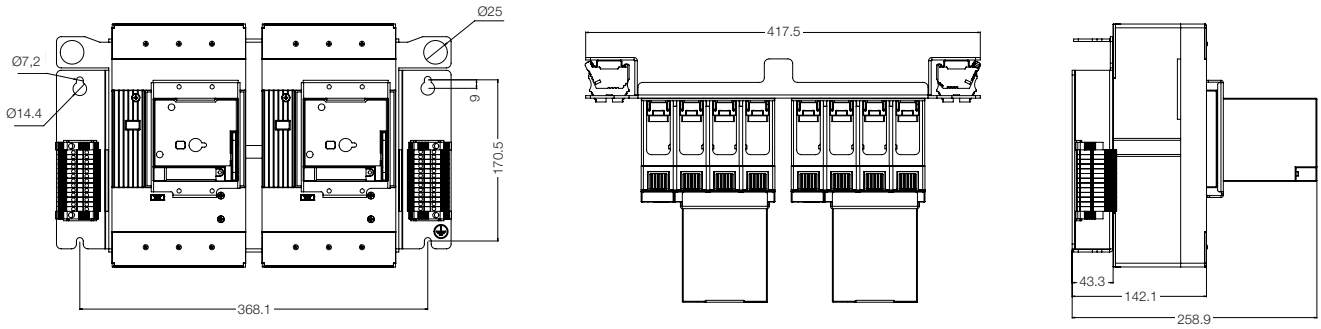
Accessories

CTM – mechanical changeover

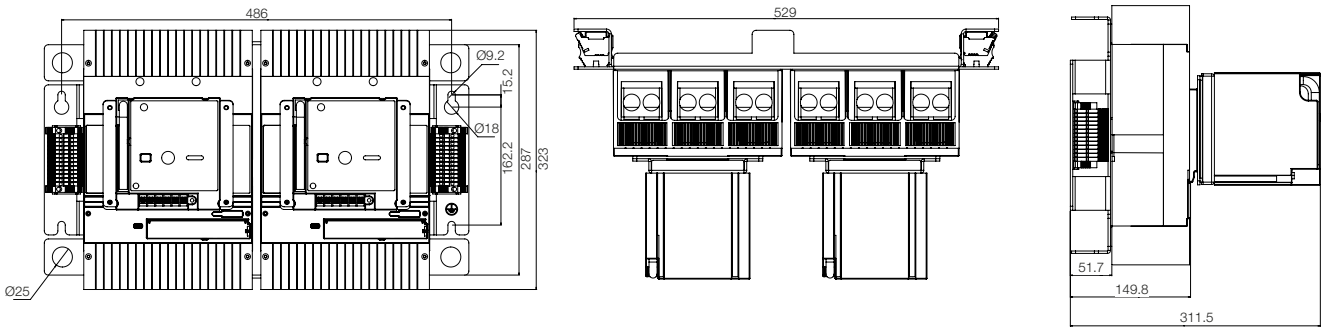
CTM – DWB400 – 3P



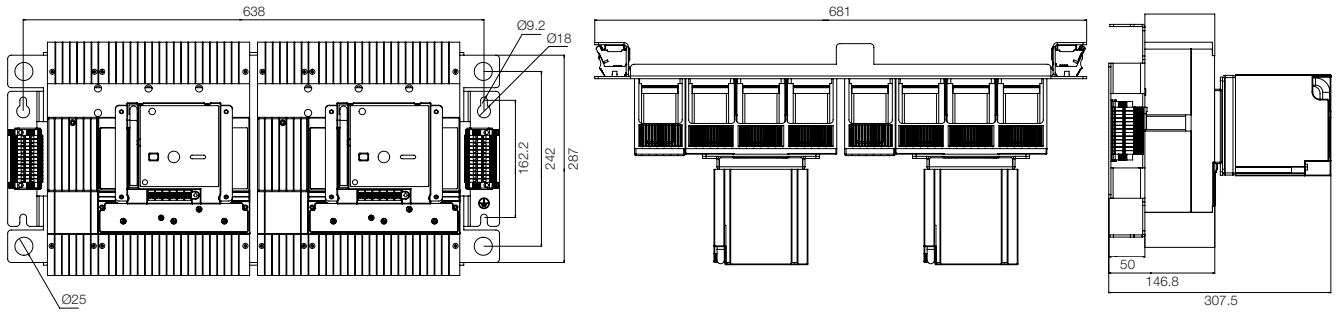
CTM – DWB400 – 4P



CTM – 1000 - 3P (for DWB800 and DWB1000)



CTM – 1000-4P (for DWB800 and DWB1000)



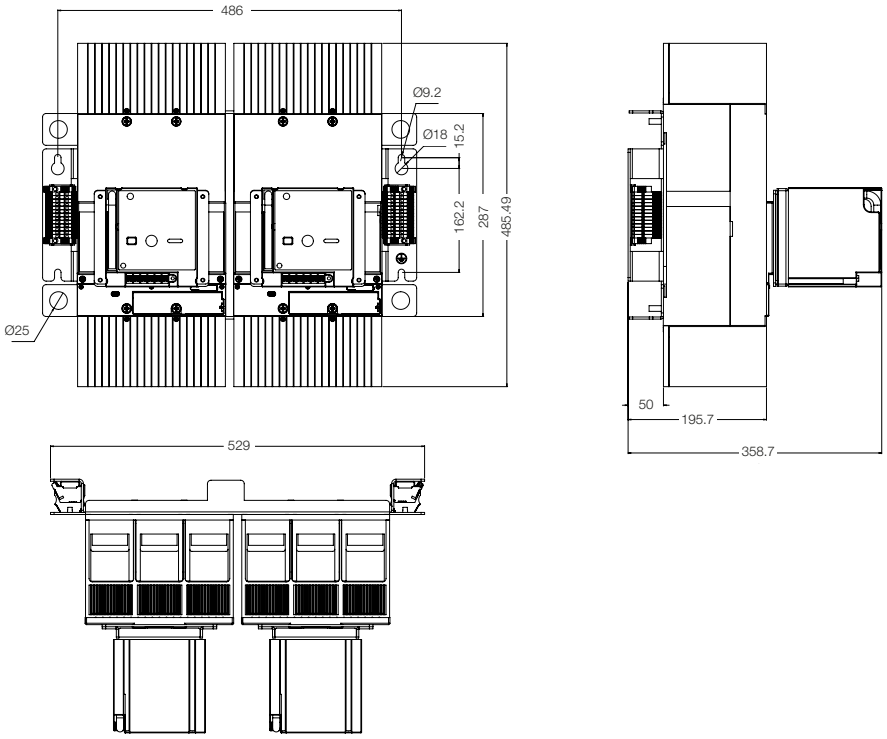
Note: dimensions in millimeters.

Dimensions

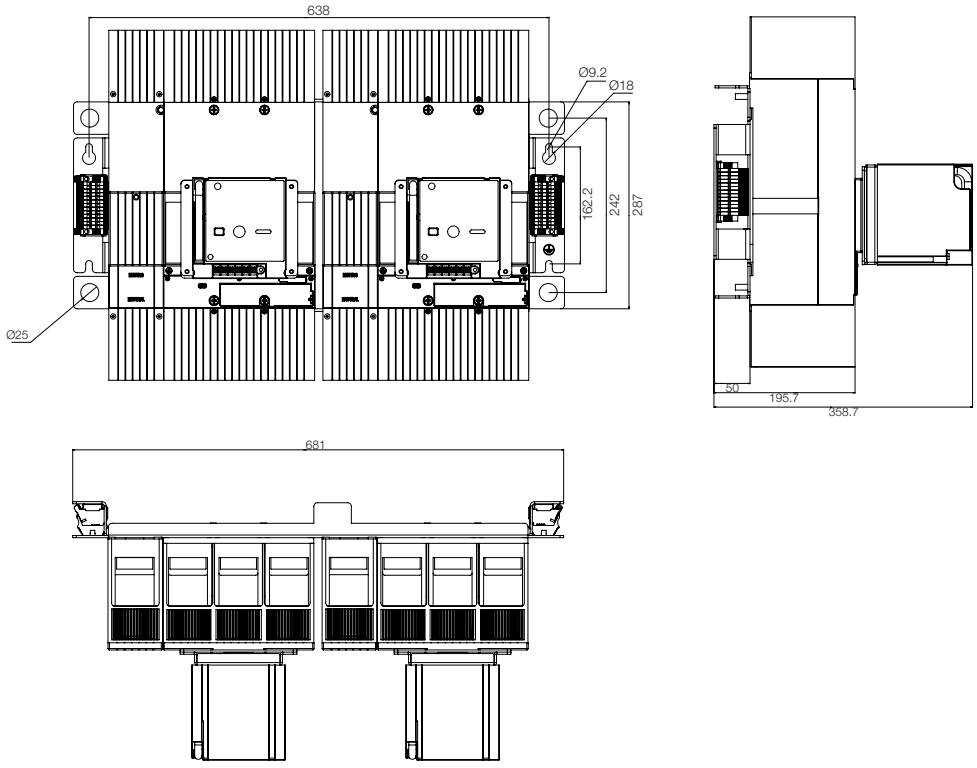
Accessories

CTM – mechanical changeover

CTM – 1600-3P (for DWB1600)



CTM – 1600-4P (for DWB1600)

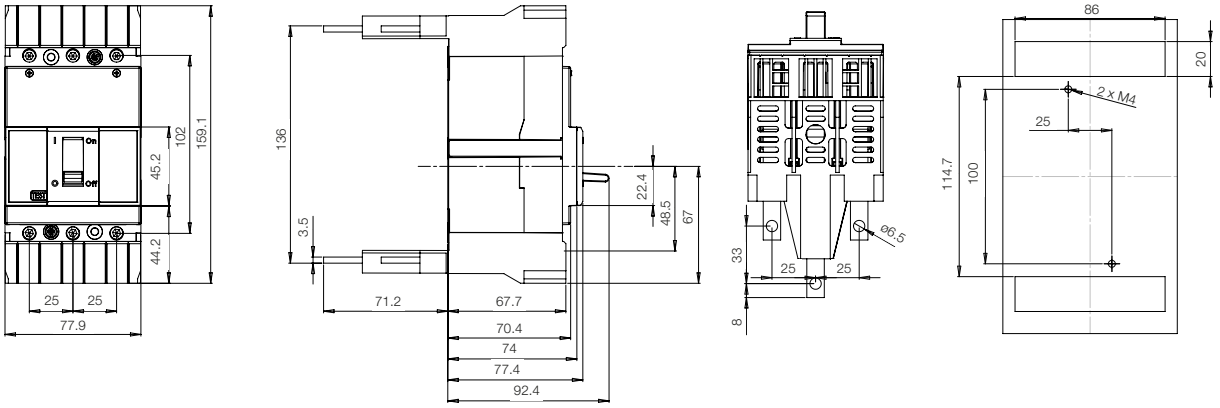


Note: dimensions in millimeters.

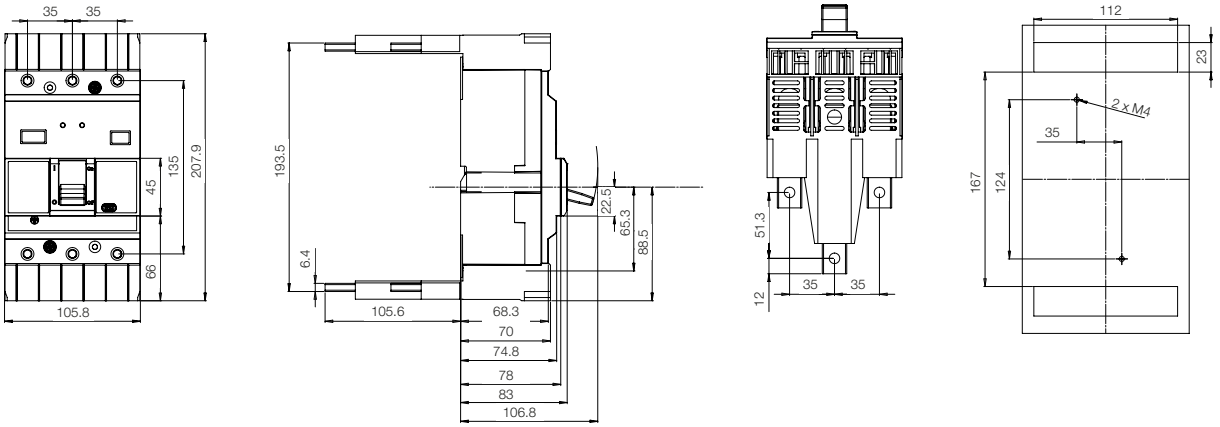
Dimensions

Accessories

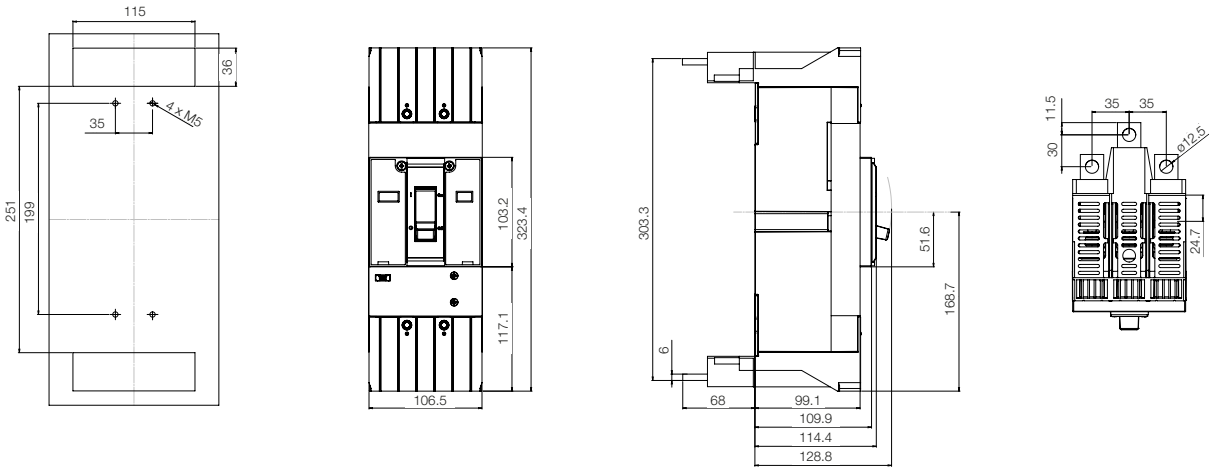
Protection cover + DWB160 + CT DWB160



Protection cover + DWB250 + CT DWB250



Protection cover + DWB400 + CT DWB400

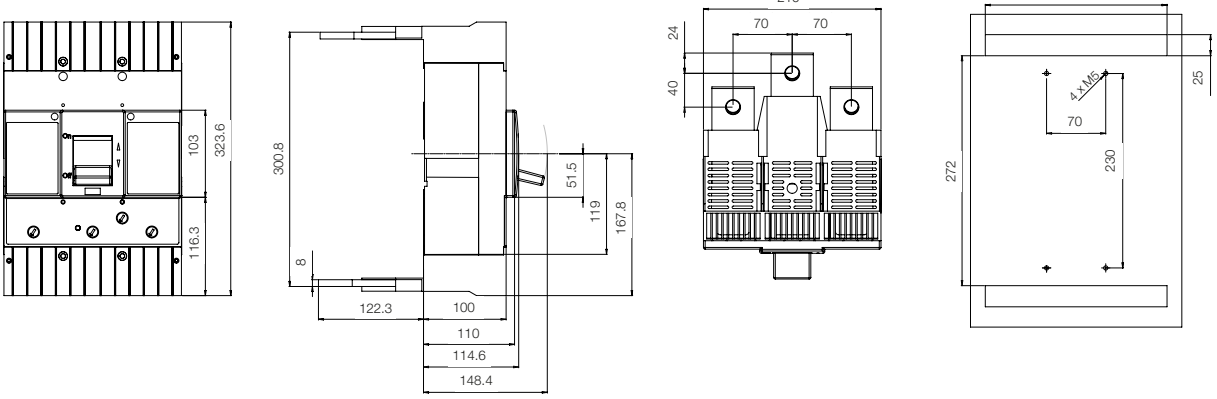


Note: dimensions in millimeters.

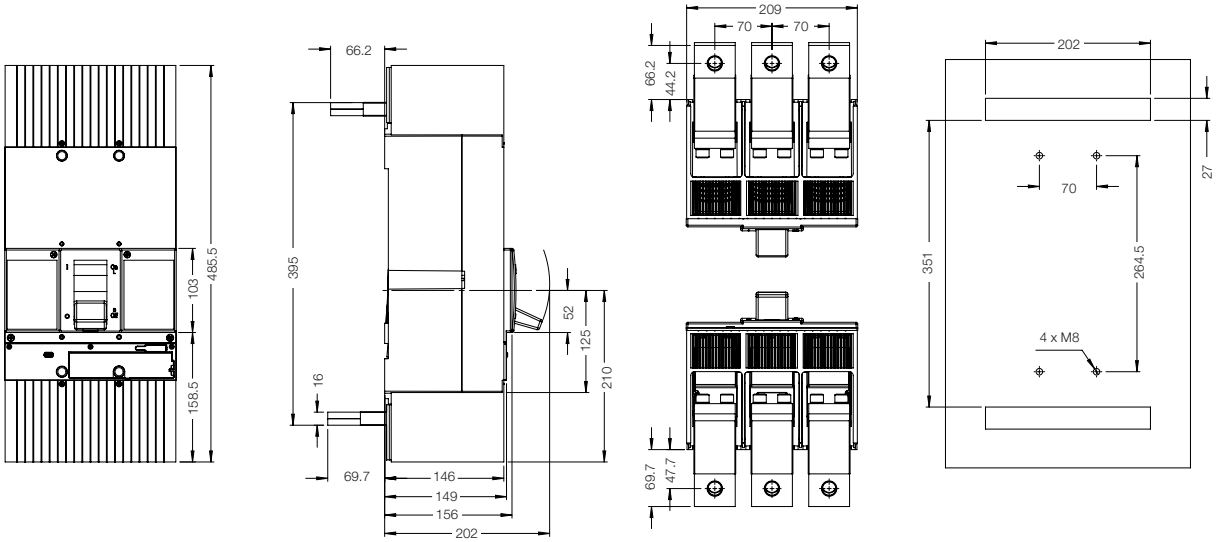
Dimensions

Accessories

Protection cover + DWB800 / DWB1000 + CT DWB800 / DWB1000



Protection cover + DWB1600 + CT DWB1600



Note: dimensions in millimeters.

Circuit breaker list - reference and code

Distribution

Fixed thermal and fixed magnetic release

Reference[1]		I_n[2]	I_m[3]	B (18 kA @ 380 V)				N (30 kA @ 380 V)[6]			L (80 kA @ 380 V)
				2 poles	3 poles	4 poles (N without protection)	4 poles (N protected)[4]	3 poles	4 poles (N without protection)	4 poles (N protected)[4]	3 poles
DWB160	DWB160_16-_DX	16	300	11987784	11339625	12318372	12318469	11339663	12318568	12318659	11339721
	DWB160_20-_DX	20	300	11987786	11339626	12318373	12318470	11339664	12318569	12318660	11339722
	DWB160_25-_DX	25	300	11987787	11339627	12318374	12318472	11339665	12318570	12318661	11339723
	DWB160_32-_DX	32	320	11987858	11339638	12318375	12318473	11339667	12318571	12318663	11339724
	DWB160_40-_DX	40	400	11987860	11339640	12318376	12318474	11339698	12318572	12318664	11339725
	DWB160_50-_DX	50	500	11987861	11339641	12318377	12318475	11339699	12318573	12318665	11339726
	DWB160_63-_DX	63	630	11987862	11339642	12318458	12318476	11339700	12318574	12318666	11339727
	DWB160_70-_DX	70	700	11987863	11339643	12318459	12318488	11339701	12318575	12318667	11339748
	DWB160_80-_DX	80	800	11987864	11339644	12318460	12318489	11339702	12318577	12318698	11339749
	DWB160_90-_DX	90	900	11987865	11339645	12318461	12318490	11339703	12318631	12318699	11339750
	DWB160_100-_DX	100	1,000	11987866	11322258	12318462	12318491	11339704	12318632	12318701	11339751
	DWB160_110-_DX	110	1,100	11987867	11339646	12318463	12318492	11339705	12318633	12318702	11339753
	DWB160_125-_DX	125	1,100	11987878	11339647	12318464	12318493	11339706	12318634	12318703	11339754
	DWB160_150-_DX	150	1,100	11987879	11339658	12318465	12318494	11339707	12318635	12318704	-
	DWB160_160-_DX	160	1,100	11987881	11339659	12318466	12318495	11339718	12318636	12318705	-

Adjustable thermal and fixed magnetic release

Reference[1]		I_n[2]	I_m[3]	B (18 kA @ 380 V)				N (30 kA @ 380 V)		
				2 poles	3 poles	4 poles (N without protection)	4 poles (N protected)[4]	3 poles	4 poles (N without protection)	4 poles (N protected)[4]
DWB160	DWB160_40-_DF	32...40	400	-	11631355	12318002	12318132	11631362	12318160	12318227
	DWB160_50-_DF	40...50	500	-	11631358	12318003	12318135	11631363	12318161	12318238
	DWB160_63-_DF	50...63	630	-	11631361	12318005	12318136	11631365	12318162	12318240
	DWB160_80-_DF	64...80	800	-	11631364	12318007	12318138	11631366	12318163	12318242
	DWB160_100-_DF	80...100	1,000	-	11631367	12318008	12318142	11631378	12318164	12318243
	DWB160_125-_DF	100...125	1,100	-	11631380	12318009	12318143	11631379	12318221	12318246
	DWB160_160-_DF	128...160	1,100	-	11631383	12318010	12318144	11631381	12318222	12318247

Reference[1]		I_n[2]	I_m[3]	B (18 kA @ 380 V)				N (36 kA @ 380 V)				L (80 kA)
				2 poles	3 poles	4 poles (N without protection)	4 poles (N protected)[4]	2 poles	3 poles	4 poles (N without protection)	4 poles (N protected)[4]	3 poles
DWB250	DWB250_100-_DF	80...100	1,000	11988406	11339768	12318906	12318954	11988521	11339775	12319489	12319508	11339801
	DWB250_125-_DF	100...125	1,250	11988407	11339769	12318907	12318955	11988522	11339776	12319490	12319509	11339802
	DWB250_160-_DF	125...160	1,600	11988518	11339770	12318948	12318956	11988524	11339777	12319491	12319510	11339803
	DWB250_200-_DF	160...200	2,000	11988519	11339772	12318949	12318957	11988525	11339798	12319492	12319511	11339804
	DWB250_250-_DF	200...250	2,500	11988520	11339773	12318950	12318958	11985249	11339799	12319493	12319512	-

Adjustable thermal and adjustable magnetic release

Reference[1]		I_n[2]	I_m[3]	N (35 kA @ 380 V)			H (65 kA @ 380 V)		
				2 poles	3 poles	4 poles (N without protection)	2 poles	3 poles	4 poles (N without protection)
DWB400	DWB400_200-_DA	160...200	2,000	12534086	12534150	12534010	12534102	12534122	12534068
	DWB400_250-_DA	200...250	2,500	12534085	12534149	12534011	12534101	12534121	12534069
	DWB400_320-_DA	250...320	3,200	12534084	12534148	12534012	12534100	12534120	12534070
	DWB400_400-_DA	320...400	4,000	12534083	12534127	12534013	12534099	12534106	12534071

Reference[1]		I_n[2]	I_m[3]	S (50 kA @ 380 V)			H (65 kA @ 380 V)		
				2 poles	3 poles	4 poles (N without protection)	2 poles	3 poles	4 poles (N without protection)
DWB800	DWB800_320-_DA	225-320	3,200	-	13467830	13467882	--	13467899	13467960
	DWB800_400-_DA	280-400	4,000	-	13467831	13467883	--	13467902	13467961
	DWB800_500-_DA	350-500	5,000	-	13467833	13467885		13467904	13467962
	DWB800_630-_DA	440-630	6,300	-	13467879	13467886	--	13467905	13467963
	DWB800_800-_DA	560-800	8,000	-	13467880	13467887	--	13467906	13467964

Electronic release - LSI

Reference[1]		I_n[2]	I_m[3]	S (50 kA @ 415 V)				H (65 kA @ 415 V)		
				2 poles	3 poles	4 poles (N without protection)	4 poles (N protected)[4]	3 poles	4 poles (N without protection)	4 poles (N protected)[4]
DWB1000	DWB1000_500-3ET_-C	200-500	6,000	-	16607848	16608084	16608085	16608078	16608086	16608087
	DWB1000_630-3ET_-C	250-630	7,560	-	16608079	16608118	16608119	16608080	16608120	16608122
	DWB1000_800-3ET_-C	320-800	9,600	-	16608081	16608123	16608124	16608082	16608125	16608126
	DWB1000_1000-3ET_-C	400-1,000	12,000	-	16141948	16608127	16608148	16608083	16608149	16608151
				N (35 kA @ 415 V)						
DWB1600	DWB1600N-1250-3ET_-C	500-1,250	15,000	-	16608156	16608186	16608178			
	DWB1600N-1600-3ET_-C	640-1,600	19,200	-	16141949	16608179	16608180			

Notes: 1) Fill in the first space (_) with the letter equivalent to the breaking capacity and the second space with the number of poles of the circuit-breaker according to the table.
2) I_n = nominal current.
3) I_m = magnetic trigger current (maximum value).
4) For total neutral protection (N) adjustable add the letter "A" at the end of the encoding of the circuit-breaker.

Circuit breaker list - reference and code

Generator

Fixed thermal and fixed magnetic release

Reference[1]		I_n[2]	I_m[3]	B (18 kA @ 380 V)
				3 poles
DWB160	DWB160B55-3GX	55	300	11340061
	DWB160B75-3GX	75	375	11340062
	DWB160B85-3GX	85	425	11340063
	DWB160B105-3GX	105	525	11340064
	DWB160B125-3GX	125	625	11340066
	DWB160B140-3GX	140	700	11340067
	DWB160B160-3GX	160	800	11340068

Adjustable thermal and fixed magnetic release

reference[1]		In[2]	Im[3]	3 poles	B (18kA@380V)
					4 poles (N without protection)
DWB160	DWB160B55-4GF	44...55	275	-	15354990
	DWB160B75-4GF	60...75	375	-	15354991
	DWB160B85-4GF	68...85	425	-	15354992
	DWB160B105-4GF	84...105	525	-	15354993
	DWB160B125-4GF	100...125	625	-	15354994
	DWB160B140-4GF	112...140	700	-	15354995
	DWB160B160-4GF	128...160	800	-	14146408

Adjustable thermal and fixed magnetic release

Reference[1]		I_n[2]	I_m[3]	B (18 kA @ 380 V)	
				3 poles	4 poles
DWB250	DWB250_105-_GF	80...105	525	11340071	15354996
	DWB250_125-_GF	100...125	625	11340072	15354997
	DWB250_160-_GF	125...160	800	11340073	15355018
	DWB250_200-_GF	160...200	1,000	11340074	15355019
	DWB250_250-_GF	200...250	1,250	11340075	14146410

Adjustable thermal and adjustable magnetic release

Reference[1]		I_n[2]	I_m[3]	N (35 kA @ 380 V)	
				3 poles	4 poles (N without protection)
DWB400	DWB400N200-_GA	160...200	1,000	12534082	12531407
	DWB400N250-_GA	200...250	1,250	12534079	12530983
	DWB400N320-_GA	250...320	1,600	12534078	12533771
	DWB400N400-_GA	320...400	2,000	12534077	12533775
DWB800	DWB800N320-_GA	225-320	1,600	13467967	-
	DWB800N400-_GA	280-400	2,000	13467988	-
	DWB800N500-_GA	350-500	2,500	13467989	-
	DWB800N630-_GA	440-630	3,150	13467991	14146411
	DWB800N800-_GA	560-800	4,000	13467992	14146416

Electronic release - LSI

Reference[1]		I_n[2]	I_m[3]	S (50 kA @ 415 V)			
				2 poles	3 poles	4 poles (N without protection)	4 poles (N adjustable)[4]
DWB1000	DWB1000S500-_ET_-C	200-500	1,000-6,000	-	16607848	16608084	16608085
	DWB1000S630-_ET_-C	250-630	1,250-7,500	-	16608079	16608118	16608119
	DWB1000S800-_ET_-C	320-800	1,600-9,600	-	16608081	16608123	16608124
	DWB1000S1000-_ET_-C	400-1,000	2,000-12,000	-	16141948	16608127	16608148
				N (35 kA @ 415 V)			
DWB1600	DWB1600N-1250-3ET_-C	500-1,250	15,000	-	16608156	16608186	16608178
	DWB1600N-1600-3ET_-C	640-1,600	19,200	-	16141949	16608179	16608180

Notes: 1) Fill in the spaces (_) with the letter equivalent to the breaking capacity and the number of poles of the circuit-breaker according to the table.
2) I_n = nominal current.
3) I_m = magnetic trigger current (maximum value).
4) For total neutral protection (N) adjustable add the letter "A" at the end of the encoding of the circuit-breaker.

Circuit breaker list - reference and code

Motor

Fixed magnetic release

Reference[1]		I_n[2]	I_m[3]	N (30 kA @ 380 V)[4]	L (80 kA @ 380V)
				3 poles	3 poles
DWB160	DWB160_25-3MF	25	300	11339864	11339936
	DWB160_32-3MF	32	384	11339865	11339937
	DWB160_40-3MF	40	480	11339866	11339948
	DWB160_50-3MF	50	600	11339867	11339950
	DWB160_65-3MF	65	780	11339928	11339951
	DWB160_80-3MF	80	960	11339929	11339952
	DWB160_95-3MF	95	1,140	11339930	11339953

Reference[1]		I_n	I_m	N (35 kA @ 380 V)	L (80 kA @ 380V)
				3 poles	3 poles
DWB250	DWB250_80-3MF	80	960	11340029	11340035
	DWB250_105-3MF	105	1,260	11340031	11340037
	DWB250_150-3MF	150	1,800	11340032	11340058
	DWB250_185-3MF	185	2,220	11340033	11340059
	DWB250_200-3MF	200	2,400	11631304	11631305

Adjustable magnetic release

Reference[1]		I_n[2]	I_m[3]	I_{cu} (415 V)
				H (65 kA)
				3 poles
DWB400	DWB400H150-3MA	150	1,125...2,250	12534076
	DWB400H185-3MA	185	1,400...2,775	12534075
	DWB400H250-3MA	250	1,900...3,750	12534074
	DWB400H320-3MA	320	2,400...4,800	12534073
DWB800	DWB800H420-3MA	420	3,150-6,300	13467997
	DWB800H500-3MA	500	3,750-7,500	13468019
DWB1600	DWB1600N1000-3MA-C	1,000	3.200-19.200	16608155

Notes: 1) Fill in the spaces (_) with the letter equivalent to the breaking capacity and the number of poles of the circuit-breaker according to the table.
2) I_n = nominal current.
3) I_m = magnetic trigger current (maximum value).

Full circuit breaker solutions

	Dimensions *(frames)*	Currents *(A)*	Thermomagnetic protection	Electronic protection	Breaking capacity I_{cu} @ 380 VAC
MDW, MDWP miniature circuit breaker[1]					
	Frame 1 Frame 2	2 to 63 70 to 125	Fixed	-	3
MDWS miniature circuit breaker					
	Frame 1	2 to 63	Fixed	-	6
MDWH miniature circuit breaker[2]					
	Frame 1 Frame 2	6 to 63 70 to 125	Fixed	-	10[1]
CBW3 molded case circuit breaker					
	125 250 650	16 to 125 125 to 250 300 to 650	Fixed and ajustable	-	18 to 36 18 to 36 36 to 65
DW molded case circuit breaker					
	160 250 400 800/1000 1600	16 to 160 100 to 250 200 to 400 320 to 1,000 1250 to 1,600	Fixed and ajustable - -	- Ajustable Ajustable	18 - 80 18 - 80 35 - 65 35 - 65 35
ACW high-capacity molded case circuit breaker					
	100/160 101/161/250 400/630 800	20 to 160 16 to 250 160 to 400 630 to 800	Fixed and ajustable	- Ajustable	85 -150 85 -150 85 -150 100
ABW open circuit breaker					
	800/1600 2000/2500/3200 4000/5000 6300	320 to 1,600 800 to 3,200 1600 to 5,000 2520 to 6,300	-	Ajustable	65 85 100 120

Notes: 1) Up to rated current 63 A .
2) MDWH at 220 VAC I_{cu} = 20 kA.

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