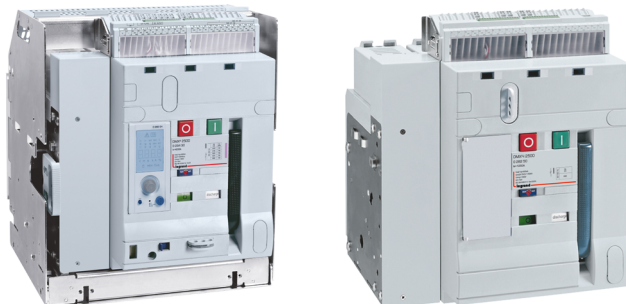


DMX³ 2500 circuit breakers (PU MP2.10 and MP4.10) DMX³-I 2500 trip-free switches

Cat.Nos:

0 283 60 to 0 283 66 - 0 283 70 to 0 283 76 - 0 283 80 to 0 283 86
0 283 90 to 0 283 96 - 0 284 00 to 0 284 06 - 0 284 10 to 0 284 16
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0 284 50 to 0 284 56 - 0 284 60 to 0 284 66 - 0 284 70 to 0 284 76
0 282 40/41/42/43/50/51/52/53/80/81/82/83/90/91/92/93



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1. USE

DMX³ air circuit breakers offer optimal solutions to answer protection requirements on the origin of the low voltage electrical installation (IEC/EN 60364-1) up to 6300 A. Their electric and mechanical robustness, in addition to breaking capacity and chances of accessorising, are perfectly suited for these requirements.

DMX³ offers a series of trip-free switches (I series) also, with high performances of insulation, robustness, closing and withstand capability.

Both series are furthermore developed for increase continuity service looking at the plant energy efficiency and in respect of "green aspects" (see part 10. Conformity).

2. RANGE

■ 2.1 DMX³ 2500 fixed version with PU MP2.10/MP4.10

In (A)	50 kA		65 kA		100 kA	
	3P	4P	3P	4P	3P	4P
630	0 283 60	0 283 70	0 283 80	0 283 90	0 284 00	0 284 10
800	0 283 61	0 283 71	0 283 81	0 283 91	0 284 01	0 284 11
1000	0 283 62	0 283 72	0 283 82	0 283 92	0 284 02	0 284 12
1250	0 283 63	0 283 73	0 283 83	0 283 93	0 284 03	0 284 13
1600	0 283 64	0 283 74	0 283 84	0 283 94	0 284 04	0 284 14
2000	0 283 65	0 283 75	0 283 85	0 283 95	0 284 05	0 284 15
2500	0 283 66	0 283 76	0 283 86	0 283 96	0 284 06	0 284 16

■ 2.2 DMX³ 2500 draw-out version with PU MP2.10/MP4.10

In (A)	50 kA		65 kA		100 kA	
	3P	4P	3P	4P	3P	4P
630	0 284 20	0 284 30	0 284 40	0 284 50	0 284 60	0 284 70
800	0 284 21	0 284 31	0 284 41	0 284 51	0 284 61	0 284 71
1000	0 284 22	0 284 32	0 284 42	0 284 52	0 284 62	0 284 72
1250	0 284 23	0 284 33	0 284 43	0 284 53	0 284 63	0 284 73
1600	0 284 24	0 284 34	0 284 44	0 284 54	0 284 64	0 284 74
2000	0 284 25	0 284 35	0 284 45	0 284 55	0 284 65	0 284 75
2500	0 284 26	0 284 36	0 284 46	0 284 56	0 284 66	0 284 76

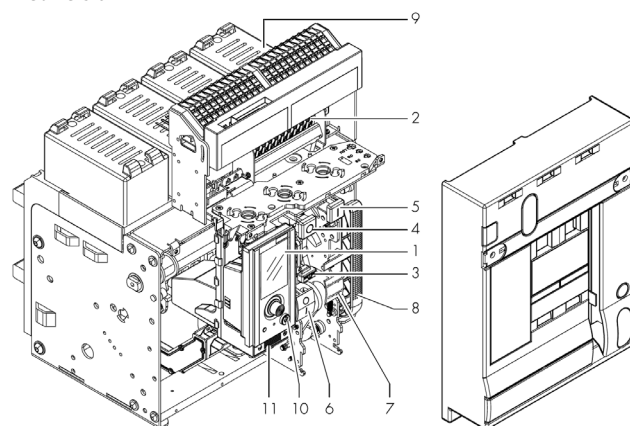
■ 2.3 DMX³-I 2500 trip-free switches fixed/draw-out version with PU MP2.10/MP4.10

In (A)	DMX ³ -I 2500			
	Fixed version		Draw-out version	
	3P	4P	3P	4P
1250	0 282 40	0 282 50	0 282 80	0 282 90
1600	0 282 41	0 282 51	0 282 81	0 282 91
2000	0 282 42	0 282 52	0 282 82	0 282 92
2500	0 282 43	0 282 53	0 282 83	0 282 93

■ 2.4 Composition

Main parts constituting the circuit breaker

Fixed version



1. Protection Unit
2. Auxiliary contacts
3. Reset button
4. OFF button
5. ON button
6. ON-OFF Indication
7. Spring status indication
8. Charging handle
9. Dejon cell
10. Mini USB cover
11. Battery cover

DMX³ 2500 circuit breakers (PU MP2.10 and MP4.10) DMX³-I 2500 trip-free switches

Cat.Nos:

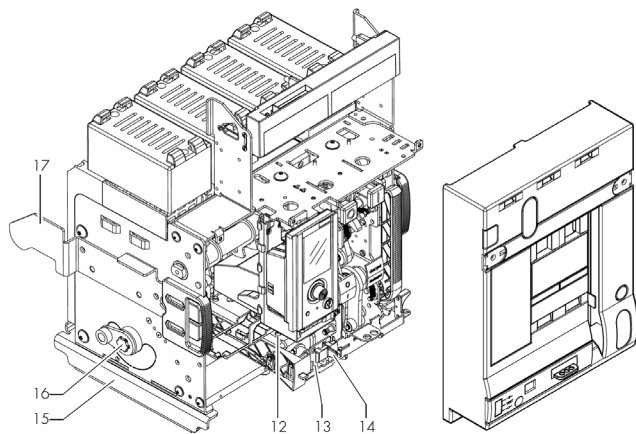
0 283 60 to 0 283 66 - 0 283 70 to 0 283 76 - 0 283 80 to 0 283 86
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0 282 40/41/42/43/50/51/52/53/80/81/82/83/90/91/92/93

2. RANGE (continued)

■ 2.4 Composition (continued)

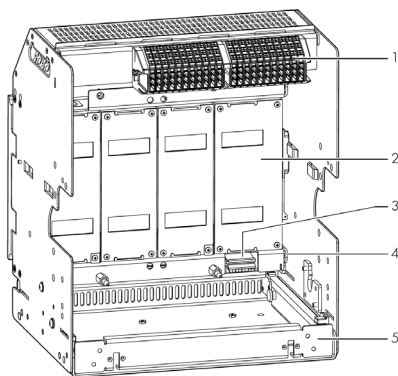
Main parts constituting the circuit breaker (continued)

Draw-out version



- 12. Draw-out mechanism
- 13. Draw-out bar insertion
- 14. Racking shutter
- 15. Support to place the breaker in draw-out cassette
- 16. Draw-out main shaft
- 17. Insertion guide

Draw-out base



- 1. Auxiliary terminal block
- 2. Safety shutter
- 3. Earth connection
- 4. Earth terminal
- 5. Removable cassette

DMX³ are equipped with auxiliary contacts (2 NO/NC, expandable up to 10) and doorframe, besides:

- Fixed version: equipped with rear terminals for horizontal connections with bars.
- Draw-out version: equipped with flat rear terminals for connections with bars and delivered with base equipped with extraction crank and isolating components.
- Door sealing.

3. TECHNICAL CHARACTERISTICS

■ 3.1 Electrical characteristics

- Circuit breaker

		DMX ³ 2500		
		50 kA	65 kA	100 kA
Frame current		2500 A		
Rated current In		630 A/800 A/1000 A/1250 A 1600 A/ 2000 A/2500 A		
Poles		3P - 4P		
Rated insulation voltage Ui		1000 V		
Rated impulse withstand voltage Uimp		12 kV		
Rated operational voltage (50/60Hz) Ue		690 V		
Rated ultimate short-circuit breaking capacity Icu (kA)	220/240 V~	50	65	100
	380/415 V~	50	65	100
	440/460 V~	50	65	100
	480/500 V~	50	65	100
	480/550 V~	50	65	75
	600 V~	50	65	75
	690 V~	50	55	65
Rated service short-circuit breaking capacity Ics (% Icu)		100%		
Rated short-circuit making capacity Icm (kA)	220/240 V~	105	143	220
	380/415 V~	105	143	220
	440/460 V~	105	143	220
	480/500 V~	105	143	220
	480/550 V~	105	132	165
	600 V~	105	132	165
	690 V~	105	121	143
Rated short time withstand current Icw (kA) for t = 1s	220/240 V~	50	65	85
	380/415 V~	50	65	85
	440/460 V~	50	65	85
	480/500 V~	50	65	85
	600 V~	50	60	75
Rated short time withstand current Icw (kA) for t = 3s	220/240 V~	45	45	65
	380/415 V~	45	45	65
	440/460 V~	45	45	65
	480/500 V~	45	45	65
	600 V~	45	40	65
Rated short time withstand current Icw (kA) for t = 3s	220/240 V~	45	45	65
	380/415 V~	45	45	65
	440/460 V~	45	45	65
	480/500 V~	45	45	65
	600 V~	45	40	65

DMX³ 2500 circuit breakers (PU MP2.10 and MP4.10) DMX³-I 2500 trip-free switches

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3. TECHNICAL CHARACTERISTICS (continued)

■ 3.1 Electrical characteristics (continued)

- Circuit breaker (continued)

		DMX ³ 2500		
		50 kA	65 kA	100 kA
Individual pole short-circuit current I_{IT} (kA)	220/240 V~	1.2 times the maximum setting of the defined time delay release tripping current (I _{sd}) ⁽¹⁾		
	380/415 V~			
	440/460 V~			
	480/500 V~			
	600 V~			
	690 V~			
Suitable for insulation		Yes		
Neutral protection (% I _{th})		0 - 50 - 100		
Operation temperature		-25 °C to +70 °C		
Storage temperature		-25 °C to +85 °C		

⁽¹⁾ For more details, please consult Legrand

- Trip-free switches

		DMX ³ -I 2500
Frame current		2500 A
Rated current I _n		1250 A/1600 A/2000 A/2500 A
Poles		3P - 4P
Rated insulation voltage U _i		1000 V
Rated impulse withstand voltage U _{imp}		12 kV
Rated operational voltage (50/60Hz) U _e		690 V
Category of use		AC23A
Rated short circuit making capacity I _{cm} (kA)	220/240 V~	143
	380/415 V~	143
	440/460 V~	143
	480/500 V~	143
	600 V~	132
	690 V~	121
Rated short time withstand current I _{cw} (kA) for t = 1s	220/240 V~	65
	380/415 V~	65
	440/460 V~	65
	480/500 V~	65
	600 V~	60
	690 V~	55
Rated short time withstand current I _{cw} (kA) for t = 3s	220/240 V~	45
	380/415 V~	45
	440/460 V~	45
	480/550 V~	45
	600 V~	45
	690 V~	45

	DMX ³ -I 2500
Suitable for insulation	Yes
Operation temperature	-25 °C to +70 °C
Storage temperature	-25 °C to +85 °C

The maximum temperature allowed on power terminals is 135 °C (absolute). For details, see IEC 60947-1 and 60947-2.

■ 3.2 Phases limit trip current

I _n (A)	Thermal		Magnetic	
	I _r		I _{sd}	
	0.2 x I _n	1 x I _n	1.5 x I _r min	10 x I _r max
630	126	630	378	6300
800	160	800	480	8000
1000	200	1000	600	10000
1250	250	1250	750	12500
1600	320	1600	960	16000
2000	400	2000	1200	20000
2500	500	2500	1500	25000

Note: for neutral adjustment, please consider the values ratios 0%, 50% and 100% on set currents.

■ 3.3 Mechanical characteristics

- Endurances:

		DMX ³ 2500/DMX ³ -I 2500
Endurance (cycles)	Mechanical	10000 (w/o maintenance); 20000 (with maintenance)
	Electrical	10000 (w/o maintenance)
Category of use		B

Note:

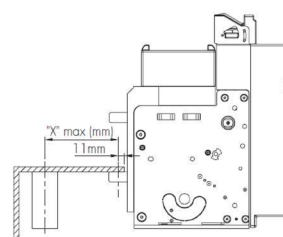
- With auxiliary contacts: same as breaker (10000 cycles w/o maintenance);
- With motor operator: 10000 cycles;
- With releases: 10000 cycles.

- Electrodynamic forces:

The table below shows an indication of suggested distances to keep between the breaker and the first fixing point of the conductor and bars in order to reduce the effects of the electrodynamic stresses that may be created during a short circuit.

In the realization of anchorage system it is recommend the use of isolators suitable for the type of conductor used and the operating voltage.

I _{cc} (kA) max	50	65	100
"X" max. (mm)	300	250	150



DMX³ 2500 circuit breakers (PU MP2.10 and MP4.10) DMX³-I 2500 trip-free switches

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3. TECHNICAL CHARACTERISTICS (continued)

■ 3.3 Mechanical characteristics (continued)

According to conductor type and bar system (except Legrand bar kits), the choice of the distance to keep is to be calibrated by the installer. Also, the installer must take into account the weight of the conductors so that it does not affect the electrical junction between the conductor itself and the connection point.

■ 3.4 Power losses per pole at In/Ie

		Circuit breaker			
		Fixed	Draw-out	Fixed	Draw-out
Rated Icu (kA)		Up to 65 kA		100 kA	
Rated current In (A)	630	5.7	9.9	3.2	6.4
	800	9.2	16.0	5.2	10.2
	1000	14.4	25.0	8.1	16.0
	1250	22.4	39.1	12.7	25.0
	1600	36.7	64.0	20.8	41.0
	2000	57.4	100.0	32.5	64.0
	2500	89.7	156.3	50.8	100.0

Note: power loss in the table above are referred and measured as described in the standard IEC 60947-2 (Annex G) for circuit-breakers. Values in the table are referred to a single phase.

		Trip-free switches	
Rated current Ie (A)		Fixed	Draw-out
1250		32.8	54.7
1600		53.8	89.6
2000		57.4	100.0
2500		89.7	156.3

Note: power loss in the table above are referred and measured as described in the standard IEC 60947-1 for switches. Values in the table are referred to a single phase.

■ 3.5 Electronic protection unit

All DMX³ 2500 can be equipped by an MP2.10 or MP4.10 electronic protection unit whose main characteristics are:

- Integrated LED matrix screen to show electrical values and settings (MP2.10) or Integrated LCD screen for displaying electrical values, settings and logs (MP4.10);
 - Adjustment via rotating encoder;
 - Adjustment of Ir, tr, Isd, tsd, Ii, Ig and tg;
 - Possibility to enable/disable protections;
 - Measure and display instantaneous, maximum and average values of different electrical values and protection conditions, fault signaling and log (for versions with measure);
 - Equipped with batteries for powering in case of mains fault or when the breaker is open or not connected (MP4.10).
- All protection units have onboard a mini type "B" USB socket for maintenance purposes or PCS software connection to PC.

Protection unit types

Protection unit are available in MP2.10 and MP4.10 type as follows.

	Features		Power consumption	Cat.Nos
	Display	With measure		
MP2.10	LED matrix	NO	55 mA	0 283 04
		YES	69 mA	0 283 05*
MP4.10	LCD screen	NO	62.5 mA	0 283 06
		YES	80 mA	0 283 07*

* For the correct working of metering function, it is necessary to connect a CX³ EMS power supply module Cat.No 4 149 45.

Protective functions

Ir: Long time delay protection against overloads

From 0.2 to 1 x In with steps of 1 A

Protection: ON/OFF

tr: Long delay protection operation time

From 40 ms to 30 s (@6Ir) with steps of 40 ms

Thermal memory: ON/OFF

Isd: Short time delay protection against short-circuits

From 1.5 to 10 x Ir with steps of 1 A

Protection: ON/OFF

tsd: Short time delay protection operation time

From 40 ms to 1 s with steps of 40 ms

(both t = k, independent time delay, and I²t=k, inverse short time delay)

Ii: Instantaneous protection against very high short-circuits

From 2 to 15 x In or Icu with steps of 1 A

Protection: ON/OFF

Ig: Earth fault current

From 0.2 to 1 x In with steps of 1A

Protection: ON/OFF

tg: Time delay on earth fault tripping

From 80 ms to 1s with steps of 40 ms

(both t = k, independent time delay, and I²t=k, inverse short time delay)

N: Neutral protection OFF-50%-100%-200%

Configuration

Protection units MP2.10 and MP4.10 are fully configurable and can be configured in complete freedom.

They can be used to adapt settings as closely as possible to the requirements of the specific installation, either by enabling/disabling the different protection devices (currents and tripping times), or by altering the different trip thresholds.

The tripping curve is thus fully customised to suit the real-life conditions of each project.

Protection units with integrated measurement function can also be used to display voltages, active and reactive powers, frequency, power factor, and also energy, in addition to monitoring currents.

Alarms can be programmed on a number of these parameters: max. voltage, min. voltage, voltage unbalance, max. and min. frequency, etc.

General remarks on protection unit

The protection units MP2.10/MP4.10 are normally supplied by the internal current transformers (CTs).

When the current flowing through the circuit breaker is greater than 50 A (single for phase load), the internal current supply ensures all operation of the protection unit (included LED status).

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3. TECHNICAL CHARACTERISTICS *(continued)*

■ 3.5 Electronic protection unit *(continued)*

General remarks on protection unit *(continued)*

Display backlight is guaranteed starting from 220 A (for single phase load) and integrated measure (if available) are instead guaranteed starting from 300 A (for single phase load) in absence of any other supply. In any case the external power supply is strongly recommended for the correct working of measurement, as well as RS485 communication.

To ensure the same performance when the load is less than 50 A (for single phase load) to grant complete functions, one of the following optional power supplies can be used:

- EMS power supply module (Cat.No 4 149 45)
- Power supply temporarily connected to frontal USB socket, connected to a 5 V_{DC} power bank, Dongle BLE or PC.

Common accessories for protection units

Bluetooth communication key

Cat.No 0 283 10

USB key for Bluetooth communication with DMX³ protection unit, needed to monitor and manage (test and report) the DMX³ protection units through EnerUp + Project App. USB connection port on the front of protection unit.

Power supply module

Cat.No 4 149 45

500 mA 12 V stabilized power supply module for CX³ energy management system – 1 DIN module. For correct use, choose protection units with measure function (Cat.Nos. 0 283 01 or 0 283 03)

Communication interface

Cat.No. 4 149 40

RS485/CX³ energy management system conversion
Consumption: 0.344 W - 28.7 mA (12 V_{DC}) – 1 DIN module

External neutral

Cat.No. 0 281 98

Optional accessories, to be ordered when ordering electronic protection unit and DMX³ air circuit breakers for factory assembly.

4. INSTALLATION RULES

Temperature derating

Rated current and his adjustment has to be considered relating to a rise or fall of ambient temperature and to a different version or installation conditions. The table below indicates the maximum long-time (LT) protection setting depending on the ambient temperature.

Temperature deratings for DMX³ 2500 fixed version-horizontal terminals:

Fixed version										
Temperature	up to 40 °C		50 °C		60 °C		65 °C		70 °C	
	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n
DMX ³ 2500 I _{cu} up to 65 kA	630	1	630	1	630	1	630	1	630	1
	800	1	800	1	800	1	800	1	800	1
	1000	1	1000	1	1000	1	1000	1	1000	1
	1250	1	1250	1	1250	1	1250	1	1250	1
	1600	1	1600	1	1600	1	1600	1	1600	1
	2000	1	2000	1	1960	0.98	1920	0.96	1880	0.94
	2500	1	2450	0.98	2350	0.94	2250	0.9	2150	0.86
DMX ³ 2500 I _{cu} = 100 kA	630	1	630	1	630	1	630	1	630	1
	800	1	800	1	800	1	800	1	800	1
	1000	1	1000	1	1000	1	1000	1	1000	1
	1250	1	1250	1	1250	1	1250	1	1250	1
	1600	1	1600	1	1600	1	1600	1	1600	1
	2000	1	2000	1	2000	1	2000	1	2000	1
	2500	1	2500	1	2500	1	2500	1	2500	1

**DMX³ 2500 circuit breakers
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DMX³-I 2500 trip-free switches**

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4. INSTALLATION RULES *(continued)*

Temperature derating *(continued)*

Temperature deratings for DMX³-I 2500 fixed version-horizontal terminals:

Fixed version										
Temperature	up to 40 °C		50 °C		60 °C		65 °C		70 °C	
	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n
DMX ³ -I 2500	1250	1	1250	1	1250	1	1250	1	1250	1
	1600	1	1600	1	1600	1	1600	1	1600	1
	2000	1	2000	1	1960	0.98	1920	0.96	1880	0.94
	2500	1	2450	0.98	2350	0.94	2250	0.9	2150	0.86

Temperature deratings for DMX³ 2500 draw-out version-horizontal terminals:

Draw-out version										
Temperature	up to 40 °C		50 °C		60 °C		65 °C		70 °C	
	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n
DMX ³ 2500 I _{cu} up to 65 kA	630	1	630	1	630	1	630	1	630	1
	800	1	800	1	800	1	800	1	800	1
	1000	1	1000	1	1000	1	1000	1	1000	1
	1250	1	1250	1	1250	1	1250	1	1250	1
	1600	1	1600	1	1600	1	1600	1	1600	1
	2000	1	2000	1	1960	0.98	1920	0.96	1880	0.94
	2500	1	2400	0.96	2250	0.9	2100	0.84	1950	0.78

Draw-out version										
Temperature	up to 40 °C		50 °C		60 °C		65 °C		70 °C	
	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n
DMX ³ 2500 I _{cu} = 100 kA	630	1	630	1	630	1	630	1	630	1
	800	1	800	1	800	1	800	1	800	1
	1000	1	1000	1	1000	1	1000	1	1000	1
	1250	1	1250	1	1250	1	1250	1	1250	1
	1600	1	1600	1	1600	1	1600	1	1600	1
	2000	1	2000	1	2000	1	2000	1	2000	1
	2500	1	2500	1	2500	1	2500	1	2500	1

Temperature deratings for DMX³-I 2500 draw-out version-horizontal terminals:

Draw-out version										
Temperature	up to 40 °C		50 °C		60 °C		65 °C		70 °C	
	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n	I _{max} (A)	I _r /I _n
DMX ³ -I 2500	1250	1	1250	1	1250	1	1250	1	1250	1
	1600	1	1600	1	1600	1	1600	1	1600	1
	2000	1	2000	1	1960	0.98	1920	0.96	1880	0.94
	2500	1	2400	0.96	2250	0.9	2100	0.84	1950	0.78

NOTE: For further technical information, please contact Legrand technical support.

**DMX³ 2500 circuit breakers
(PU MP2.10 and MP4.10)
DMX³-I 2500 trip-free switches**

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4. INSTALLATION RULES *(continued)*

Temperature derating *(continued)*

Climatic conditions: according to IEC/EN 60947-1 Annex Q, Cat. F subject to temperature, humidity, vibration, shock and salt mist.

Pollution degree: for DMX³ 2500 circuit breakers, degree 3, according to IEC/EN 60947-2.

Electromagnetic disturbances (EMC): for DMX³ 2500, according to IEC/EN 60947-2 - Annex F.

Altitude derating for DMX³ and DMX³-I

Altitude (m)	2000	3000	4000	5000
Rated current (at 40°C/50°C) I _n (A)	I _n	0.98 x I _n	0.94 x I _n	0.9 x I _n
Rated voltage U _e (V)	690	600	500	440
Rated insulation voltage U _i (V)	1000	900	750	600
Dielectric withstand (V)	3500	3200	2500	2000

5. DIMENSIONS AND WEIGHTS

■ 5.1 Dimensions

		DMX ³ 2500			DMX ³ -I 2500
		50 kA	65 kA	100 kA	-
Height (mm)	3P-fixed	419			419
	3P-Draw-out	465			465
	4P-Fixed	419			419
	4P-Draw-out	465			465
Depth (mm)	3P-fixed	354			354
	3P-Draw-out	433			433
	4P-Fixed	354			354
	4P-Draw-out	433			433
Width (mm)	3P-fixed	273		408	273
	3P-Draw-out	327		425	327
	4P-Fixed	358		538	358
	4P-Draw-out	412		555	412

■ 5.2 Weights

		DMX ³ 2500			DMX ³ -I 2500
		50 kA	65 kA	100 kA	-
Weight (kg)	3P-fixed	36		55	35
	3P-Draw-out ⁽¹⁾	81		106	80
	4P-Fixed	43		68	42
	4P-Draw-out ⁽¹⁾	86		134	85

⁽¹⁾Weights for draw-out releases are to be intended with base.

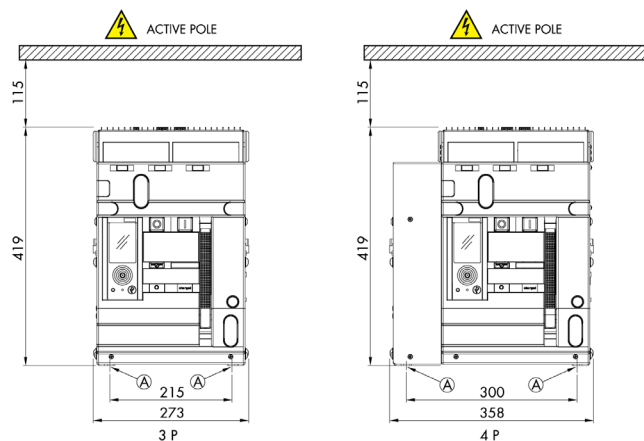
DMX³ 2500 circuit breakers (PU MP2.10 and MP4.10) DMX³-I 2500 trip-free switches

Cat.Nos:

0 283 60 to 0 283 66 - 0 283 70 to 0 283 76 - 0 283 80 to 0 283 86
0 283 90 to 0 283 96 - 0 284 00 to 0 284 06 - 0 284 10 to 0 284 16
0 284 20 to 0 284 26 - 0 284 30 to 0 284 36 - 0 284 40 to 0 284 46
0 284 50 to 0 284 56 - 0 284 60 to 0 284 66 - 0 284 70 to 0 284 76
0 282 40/41/42/43/50/51/52/53/80/81/82/83/90/91/92/93

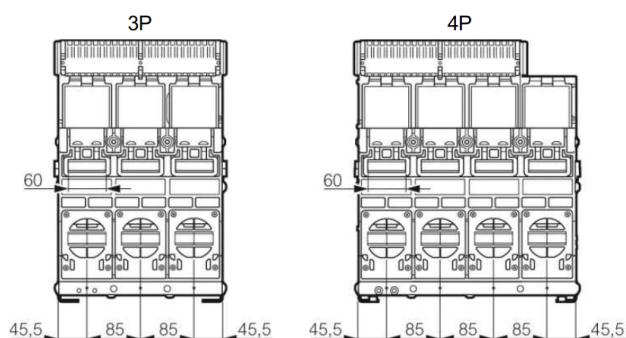
5. DIMENSIONS AND WEIGHT (continued)

■ 5.3 Fixed version (DMX³ with Icu = 50 kA, Icu = 65 kA and DMX³-I) Frontal view

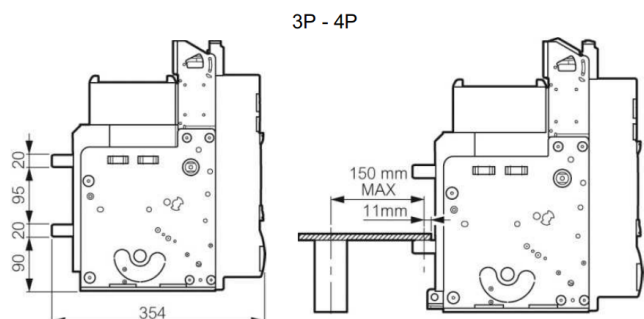


A = fixing point on plate of enclosure

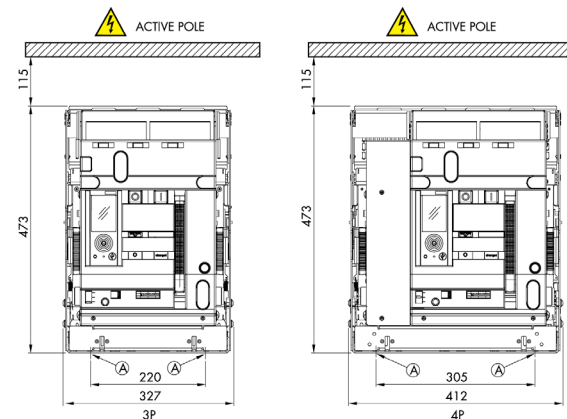
Rear view



Lateral view

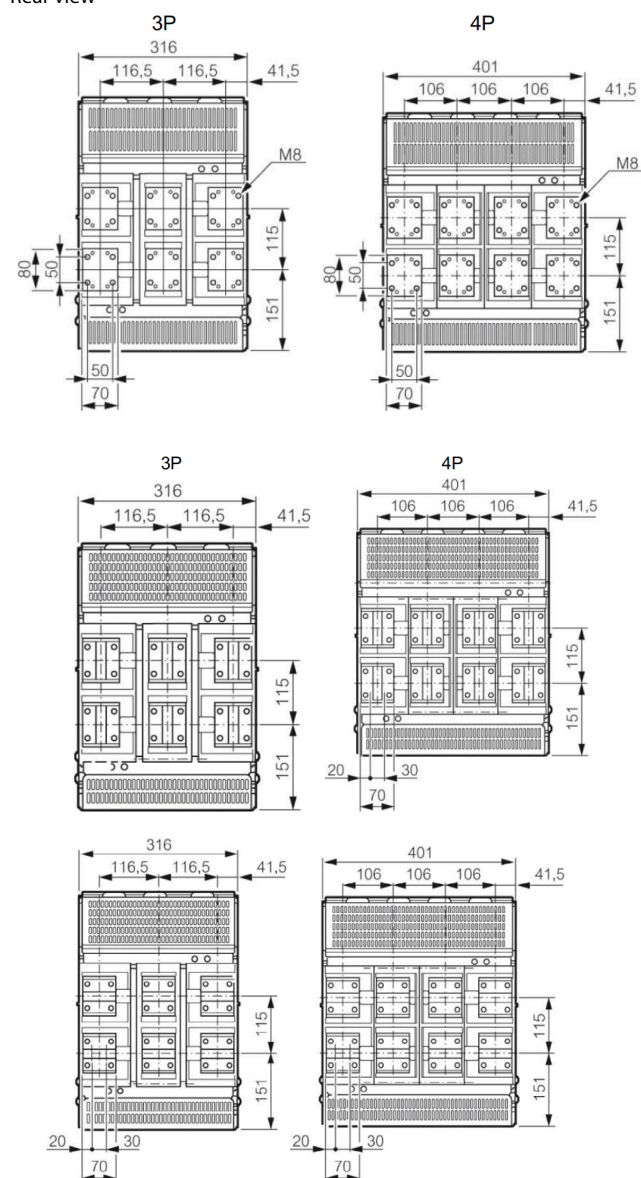


■ 5.4 Draw-out version (DMX³ with Icu = 50 kA, Icu = 65 kA and DMX³-I) Frontal view



A = fixing point on plate of enclosure

Rear view



DMX³ 2500 circuit breakers (PU MP2.10 and MP4.10) DMX³-I 2500 trip-free switches

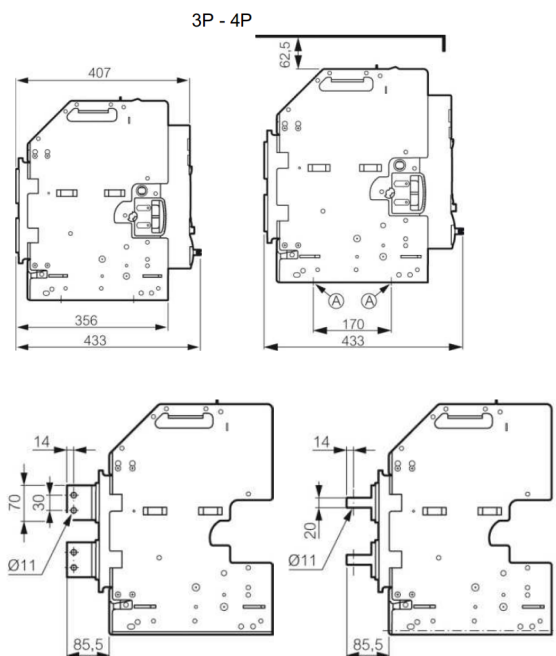
Cat.Nos:

0 283 60 to 0 283 66 - 0 283 70 to 0 283 76 - 0 283 80 to 0 283 86
0 283 90 to 0 283 96 - 0 284 00 to 0 284 06 - 0 284 10 to 0 284 16
0 284 20 to 0 284 26 - 0 284 30 to 0 284 36 - 0 284 40 to 0 284 46
0 284 50 to 0 284 56 - 0 284 60 to 0 284 66 - 0 284 70 to 0 284 76
0 282 40/41/42/43/50/51/52/53/80/81/82/83/90/91/92/93

5. DIMENSIONS AND WEIGHT (continued)

■ **5.4 Draw-out version (DMX³ with Icu = 50 kA, Icu = 65 kA and DMX³-I) (continued)**

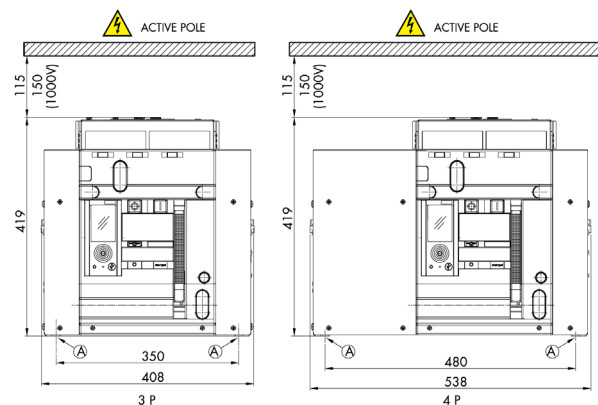
Lateral view



A = fixing point on plate of enclosure

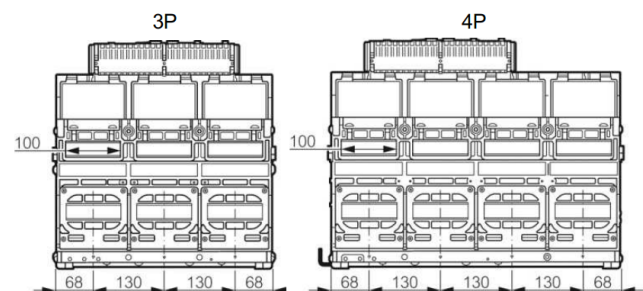
■ **5.5 Fixed version (DMX³ with Icu = 100 kA)**

Frontal view



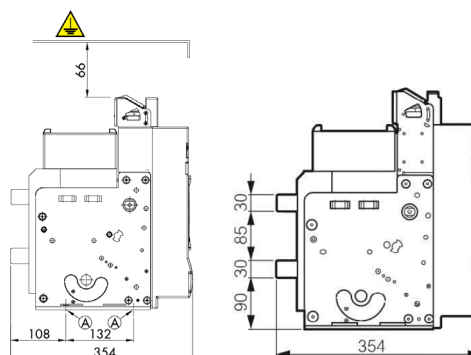
A = fixing point on plate of enclosure

Rear view

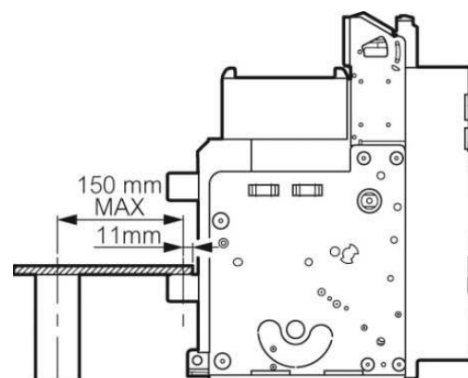


Lateral view

3P - 4P

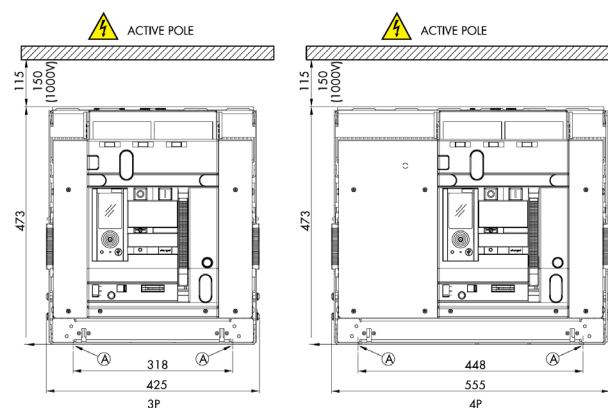


A = fixing point on plate of enclosure



■ **5.6 Draw-out version (DMX³ with Icu = 100 kA)**

Frontal view



A = fixing point on plate of enclosure

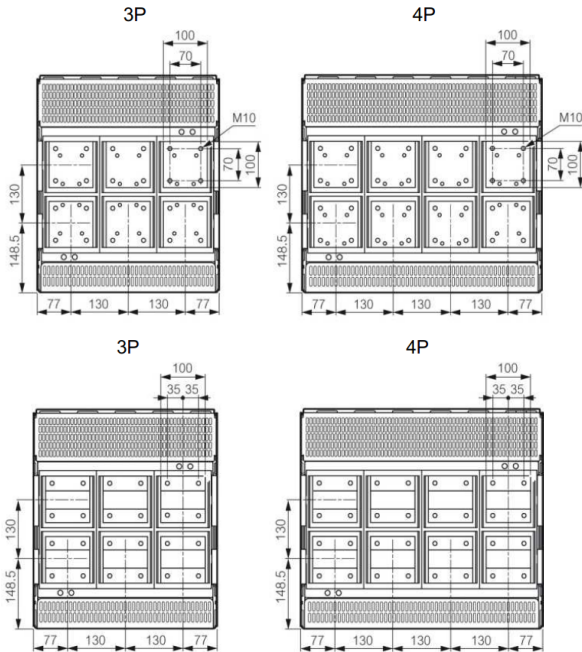
DMX³ 2500 circuit breakers
(PU MP2.10 and MP4.10)
DMX³-I 2500 trip-free switches

Cat.Nos:

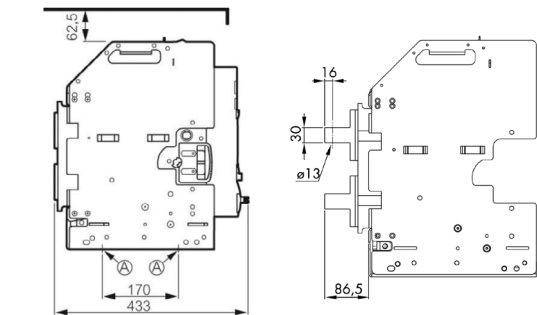
0 283 60 to 0 283 66 - 0 283 70 to 0 283 76 - 0 283 80 to 0 283 86
0 283 90 to 0 283 96 - 0 284 00 to 0 284 06 - 0 284 10 to 0 284 16
0 284 20 to 0 284 26 - 0 284 30 to 0 284 36 - 0 284 40 to 0 284 46
0 284 50 to 0 284 56 - 0 284 60 to 0 284 66 - 0 284 70 to 0 284 76
0 282 40/41/42/43/50/51/52/53/80/81/82/83/90/91/92/93

5. DIMENSIONS AND WEIGHT (continued)

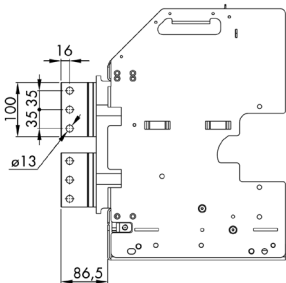
■ 5.6 Draw-out version (DMX³ with Icu = 100 kA) (continued)
Rear view



Lateral view



A = fixing point on plate of enclosure



6. ELECTRICAL CONNECTIONS

Use only as a general guideline to select products. Due to extensive variety of switchgear installation shapes and conditions of use, the solution used must always be verified. If inter-poles air distance is less than 20 mm, it is recommended to use of phase insulators or insulated bars.

Minimum cross section of Copper busbars per pole:

- Fixed version (DMX³ with Icu = 50 kA, Icu = 65 kA and DMX³-I)

Rated current (A)	Vertical bars (mm)	Horizontal bars (mm)
630	2 bars 40 x 5	2 bars 40 x 5
800	2 bars 50 x 5	2 bars 50 x 5
1000	1 bar 60 x 10 2 bars 60 x 5	1 bar 60 x 10 2 bars 60 x 5
1250	1 bar 80 x 10 2 bars 80 x 5	1 bar 80 x 10 2 bars 80 x 5
1600	2 bars 50 x 10	2 bars 50 x 10
2000	3 bars 50 x 10	3 bars 50 x 10 4 bars 50 x 10
2500	3 bars 80 x 10	4 bars 80 x 10 5 bars 60 x 10

- Fixed version (DMX³ with Icu = 100 kA)

Rated current (A)	Vertical bars (mm)	Horizontal bars (mm)
630	1 bar 40 x 10 2 bars 40 x 5	2 bars 40 x 5
800	1 bar 50 x 10 2 bars 50 x 5	2 bars 50 x 5
1000	1 bar 50 x 10 2 bars 50 x 5	2 bars 60 x 5
1250	2 bars 60 x 5	2 bars 80 x 5
1600	2 bars 80 x 5	2 bars 50 x 10
2000	2 bars 50 x 10	2 bars 60 x 10
2500	3 bars 50 x 10	3 bars 60 x 10

- Draw-out version (DMX³ with Icu = 50 kA, Icu = 65 kA and DMX³-I)

Rated current (A)	Vertical bars (mm)	Horizontal bars (mm)
630	2 bars 40 x 5	2 bars 40 x 5
800	2 bars 50 x 5	2 bars 50 x 5
1000	2 bars 60 x 5	2 bars 60 x 5
1250	2 bars 80 x 5	2 bars 80 x 5
1600	2 bars 50 x 10	2 bars 50 x 10
2000	3 bars 50 x 10	3 bars 50 x 10
2500	3 bars 80 x 10	4 bars 80 x 10

DMX³ 2500 circuit breakers (PU MP2.10 and MP4.10) DMX³-I 2500 trip-free switches

Cat.Nos:

0 283 60 to 0 283 66 - 0 283 70 to 0 283 76 - 0 283 80 to 0 283 86
0 283 90 to 0 283 96 - 0 284 00 to 0 284 06 - 0 284 10 to 0 284 16
0 284 20 to 0 284 26 - 0 284 30 to 0 284 36 - 0 284 40 to 0 284 46
0 284 50 to 0 284 56 - 0 284 60 to 0 284 66 - 0 284 70 to 0 284 76
0 282 40/41/42/43/50/51/52/53/80/81/82/83/90/91/92/93

6. ELECTRICAL CONNECTIONS (continued)

- Draw-out version (DMX³ with Icu = 100 kA)

Rated current (A)	Vertical bars (mm)	Horizontal bars (mm)
630	1 bar 40 x 10 2 bars 40 x 5	2 bars 40 x 5
800	1 bar 50 x 10 2 bars 50 x 5	2 bars 50 x 5
1000	1 bar 50 x 10 2 bars 50 x 5	2 bars 60 x 5
1250	2 bars 60 x 5	2 bars 80 x 5
1600	2 bars 80 x 5	2 bars 50 x 10
2000	2 bars 50 x 10	2 bars 60 x 10
2500	3 bars 50 x 10	3 bars 60 x 10

Minimum cross section of Aluminium busbars per pole:

- Fixed version (DMX³ with Icu = 50 kA, Icu = 65 kA and DMX³-I)

Rated current (A)	Vertical bars (mm)	Horizontal bars (mm)
630	2 bars 50 x 8	2 bars 50 x 10
800	2 bars 50 x 10	2 bars 50 x 10
1000	2 bars 60 x 10	2 bars 60 x 10
1250	2 bars 60 x 10	4 bars 50 x 10
1600	4 bars 50 x 10	4 bars 60 x 10
2000	4 bars 60 x 10	4 bars 80 x 10
2500	4 bars 100 x 10	5 bars 100 x 10

- Fixed version (DMX³ with Icu = 100 kA)

Rated current (A)	Vertical bars (mm)	Horizontal bars (mm)
630	2 bars 40 x 8	2 bars 40 x 8
800	2 bars 50 x 8	2 bars 50 x 8
1000	2 bars 50 x 8	2 bars 50 x 10
1250	2 bars 50 x 10	2 bars 60 x 10
1600	2 bars 60 x 10	4 bars 50 x 8
2000	4 bars 50 x 8	4 bars 50 x 10
2500	4 bars 60 x 10	4 bars 80 x 10

- Draw-out version (DMX³ with Icu = 50 kA, Icu = 65 kA and DMX³-I)

Rated current (A)	Vertical bars (mm)	Horizontal bars (mm)
630	2 bars 50 x 8	2 bars 50 x 10
800	2 bars 50 x 10	2 bars 50 x 10
1000	2 bars 60 x 10	2 bars 60 x 10
1250	2 bars 60 x 10	4 bars 50 x 10
1600	4 bars 50 x 10	4 bars 60 x 10
2000	4 bars 60 x 10	4 bars 80 x 10
2500	4 bars 100 x 10	5 bars 100 x 10

- Draw-out version (DMX³ with Icu = 100 kA)

Rated current (A)	Vertical bars (mm)	Horizontal bars (mm)
630	2 bars 40 x 8	2 bars 40 x 8
800	2 bars 50 x 8	2 bars 50 x 8
1000	2 bars 50 x 8	2 bars 50 x 10
1250	2 bars 50 x 10	2 bars 60 x 10
1600	2 bars 60 x 10	4 bars 50 x 8
2000	4 bars 50 x 8	4 bars 50 x 10
2500	4 bars 60 x 10	4 bars 80 x 10

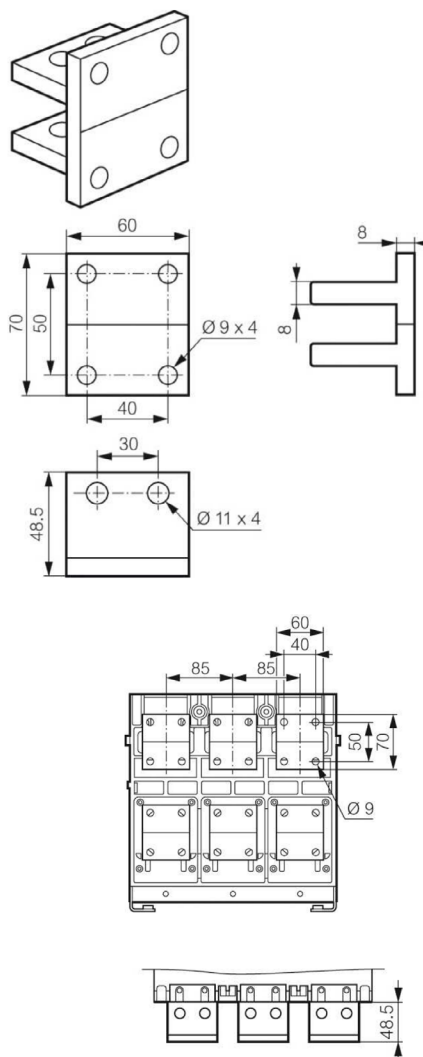
7. EQUIPMENTS AND ACCESSORIES

■ 7.1 Terminals and spreaders

- Rear terminals for fixed version (up to 65 kA) – Flat connection pitch 85 mm

They must be fixed onto horizontal rear terminals of the circuit breaker.

Cat.Nos	
3P	4P
0 288 84	0 288 85



DMX³ 2500 circuit breakers (PU MP2.10 and MP4.10) DMX³-I 2500 trip-free switches

Cat.Nos:

0 283 60 to 0 283 66 - 0 283 70 to 0 283 76 - 0 283 80 to 0 283 86
0 283 90 to 0 283 96 - 0 284 00 to 0 284 06 - 0 284 10 to 0 284 16
0 284 20 to 0 284 26 - 0 284 30 to 0 284 36 - 0 284 40 to 0 284 46
0 284 50 to 0 284 56 - 0 284 60 to 0 284 66 - 0 284 70 to 0 284 76
0 282 40/41/42/43/50/51/52/53/80/81/82/83/90/91/92/93

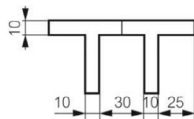
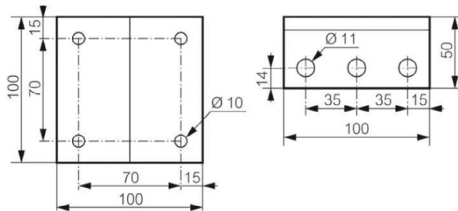
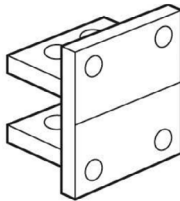
7. EQUIPMENTS AND ACCESSORIES (continued)

■ **7.1 Terminals and spreaders (continued)**

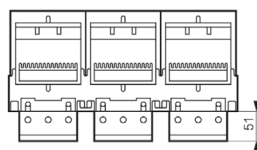
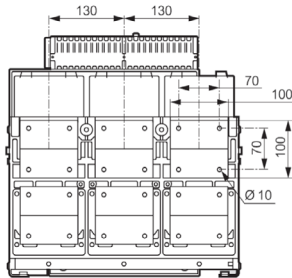
- Rear terminals for fixed version (100 kA) – Flat connection pitch 130 mm

They must be fixed onto horizontal rear terminals of the circuit breaker.

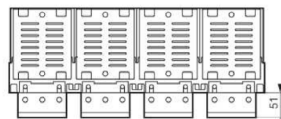
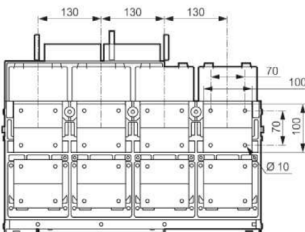
Cat.Nos	
3P	4P
0 288 92	0 288 93



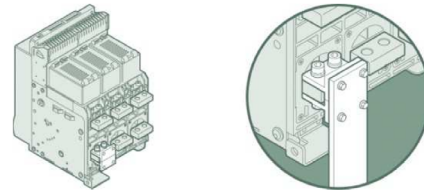
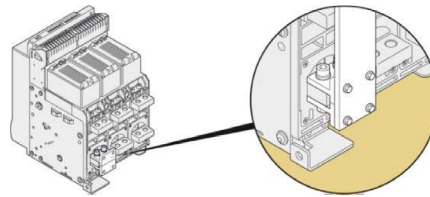
3P



4P



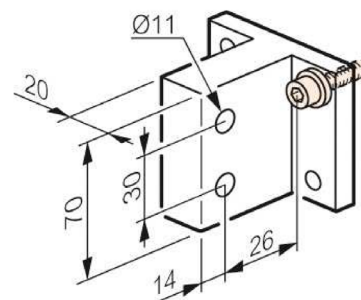
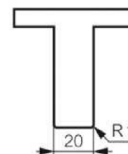
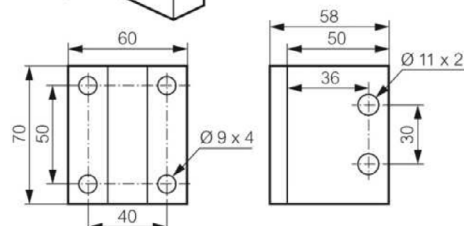
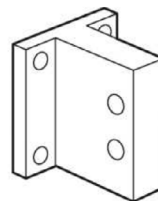
- Mounting examples:



- Rear terminals for fixed version (up to 65 kA) – Vertical connection pitch 85 mm

They are used to transform a flat connection into a vertical one. To be fixed onto Cat.Nos 0 288 84/85 according to the number of poles.

Cat.Nos	
3P	4P
0 288 82	0 288 83



DMX³ 2500 circuit breakers (PU MP2.10 and MP4.10) DMX³-I 2500 trip-free switches

Cat.Nos:

0 283 60 to 0 283 66 - 0 283 70 to 0 283 76 - 0 283 80 to 0 283 86
0 283 90 to 0 283 96 - 0 284 00 to 0 284 06 - 0 284 10 to 0 284 16
0 284 20 to 0 284 26 - 0 284 30 to 0 284 36 - 0 284 40 to 0 284 46
0 284 50 to 0 284 56 - 0 284 60 to 0 284 66 - 0 284 70 to 0 284 76
0 282 40/41/42/43/50/51/52/53/80/81/82/83/90/91/92/93

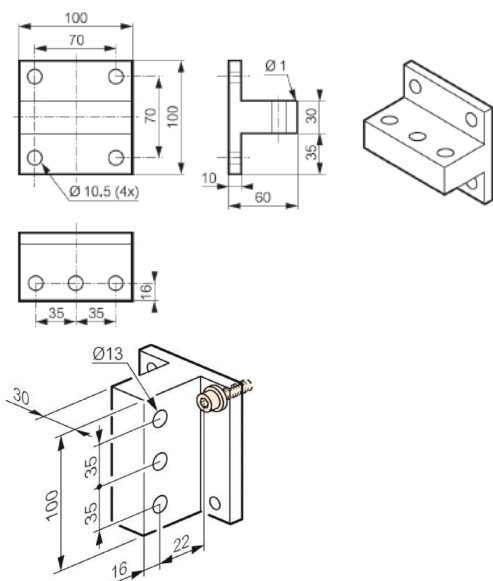
7. EQUIPMENTS AND ACCESSORIES (continued)

■ 7.1 Terminals and spreaders (continued)

- **Rear terminals (100 kA) for fixed (vertical connection) and draw-out flat/vertical connection version pitch 130 mm**

They are used to transform a flat connection into a vertical one. To be fixed onto Cat.Nos 0 288 92/93 according to the number of poles.

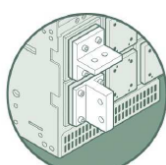
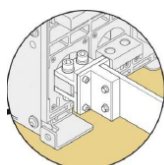
Cat.Nos	
3P	4P
0 288 94	0 288 95



- Mounting example:

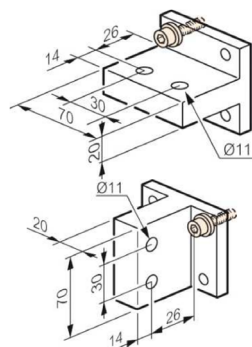
Fixed

Draw-out



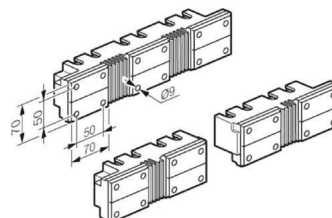
- **Rear terminals for draw-out version (up to 65 kA) – Flat/vertical connection pitch 85 mm**

Cat.Nos	
3P	4P
0 288 96	0 288 97



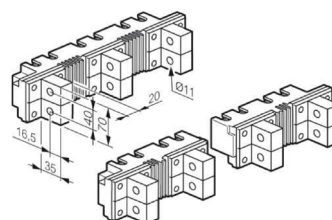
- **Spreaders for fixed version – Flat connection**

Cat.Nos	
3P	4P
0 288 86	0 288 87



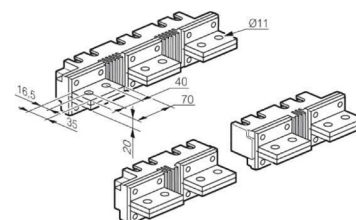
- **Spreaders for fixed version – Vertical connection**

Cat.Nos	
3P	4P
0 288 88	0 288 89



- **Spreaders for fixed version – Horizontal connection**

Cat.Nos	
3P	4P
0 288 90	0 288 91



- **Aluminium rear terminals**

Cat.Nos	
3P	4P
6 696 18	6 696 19

The maximum rating is 1600 A.
On fixed version, they must be fixed onto Cat.Nos 0 288 86/87.
On draw-out version they must be fixed directly onto flat rear terminal of the circuit breaker.

DMX³ 2500 circuit breakers (PU MP2.10 and MP4.10) DMX³-I 2500 trip-free switches

Cat.Nos:

0 283 60 to 0 283 66 - 0 283 70 to 0 283 76 - 0 283 80 to 0 283 86
0 283 90 to 0 283 96 - 0 284 00 to 0 284 06 - 0 284 10 to 0 284 16
0 284 20 to 0 284 26 - 0 284 30 to 0 284 36 - 0 284 40 to 0 284 46
0 284 50 to 0 284 56 - 0 284 60 to 0 284 66 - 0 284 70 to 0 284 76
0 282 40/41/42/43/50/51/52/53/80/81/82/83/90/91/92/93

7. EQUIPMENTS AND ACCESSORIES (continued)

■ 7.2 Control auxiliaries

- **Shunt trip: when energised the circuit breaker will be tripped.**

24 V ~/=	Cat.No 0 288 48
48 V ~/=	Cat.No 0 288 49
110 to 130 V ~/=	Cat.No 0 288 50
220 to 250 V ~/=	Cat.No 0 288 51
415 to 480 V ~	Cat.No 0 288 52

Rated operating voltage (Uc) (V)	~: 24 - 48 - 110 to 130 - 220 to 250 - 415 - 440 - 480 =: 24 - 48 - 110 to 130 - 220 to 250
Voltage range (% Uc)	70 to 110
Pick-up consumption (W / VA)	500/500
Pick-up time (ms)	180
Hold consumption (W / VA)	5/5
Minimum opening time (ms)	30
Insulation voltage (kV)	2.5

- **Undervoltage releases: device trips when coil is de-energised.**

24 V ~/=	Cat.No 0 288 55
48 V ~/=	Cat.No 0 288 56
110 to 130 V ~/=	Cat.No 0 288 57
220 to 250 V ~/=	Cat.No 0 288 58
415 to 440 V ~	Cat.No 0 288 59

Rated operating voltage (Uc) (V)	~: 24 - 48 - 110 to 130 - 220 to 250 - 415 - 440 - 480 =: 24 - 48 - 110 to 130 - 220 to 250
Voltage range (% Uc)	85 to 110
Pick-up consumption (W / VA)	500/500
Pick-up time (ms)	180
Hold consumption (W / VA)	5/5
Minimum opening time (ms)	60
Insulation voltage (kV)	2.5

- **Modules for delayed tripping, to be used with undervoltage releases.**

110 V ~/=	Cat.No 0 288 62
230 V ~/=	Cat.No 0 288 63

Rated operating voltage (Uc) (V)	~: 110 or 230 =: 110 or 230
Voltage range (% Uc)	85 to 110
Pick-up consumption (W / VA)	16.5 (@110 V)/34.5 (@230 V)
Time delay (s)	1 ⁽¹⁾
Hold consumption (W / VA)	5 (@110 V)/10 (@230 V)
Opening threshold	0.3 to 0.75 x Un
Closing threshold	0.85 x Un
Operating temperature (°C)	-10 to +55

⁽¹⁾ It is possible to connect up to 3 modules - 1s of delay for each module installed.

- **Closing coils: to enable remote closing of the circuit breaker if the closing spring is charged.**

24 V ~/=	Cat.No 0 288 41
48 V ~/=	Cat.No 0 288 42
110 to 130 V ~/=	Cat.No 0 288 43
220 to 250 V ~/=	Cat.No 0 288 44
415 to 480 V ~	Cat.No 0 288 45

Rated operating voltage (Uc) (V)	~: 24 - 48 - 110 to 130 - 220 to 250 - 415 - 440 - 480 =: 24 - 48 - 110 to 130 - 220 to 250
Voltage range (% Uc)	85 to 110
Pick-up consumption (W / VA)	500/500
Pick-up time (ms)	180
Hold consumption (W / VA)	5/5
Maximum closing time (ms)	30
Insulation voltage (kV)	2.5

- **Motor operators connect to a release coil (UVR or trip on energising) and a closing coil.**

24 V ~/=	Cat.No 0 288 34
48 V ~/=	Cat.No 0 288 35
110 to 130 V ~/=	Cat.No 0 288 36
220 to 250 V ~/=	Cat.No 0 288 37
415 to 440 V ~	Cat.No 0 288 38
480 V ~/=	Cat.No 0 288 40

DMX³ 2500 circuit breakers (PU MP2.10 and MP4.10) DMX³-I 2500 trip-free switches

Cat.Nos:

0 283 60 to 0 283 66 - 0 283 70 to 0 283 76 - 0 283 80 to 0 283 86
0 283 90 to 0 283 96 - 0 284 00 to 0 284 06 - 0 284 10 to 0 284 16
0 284 20 to 0 284 26 - 0 284 30 to 0 284 36 - 0 284 40 to 0 284 46
0 284 50 to 0 284 56 - 0 284 60 to 0 284 66 - 0 284 70 to 0 284 76
0 282 40/41/42/43/50/51/52/53/80/81/82/83/90/91/92/93

7. EQUIPMENTS AND ACCESSORIES (continued)

■ 7.2 Control auxiliaries (continued)

- Motor operators connect to a release coil (UVR or trip on energising) and a closing coil (continued).

Rated operating voltage (Uc) (V)	~: 24 - 48 - 110 to 130 - 220 to 250 - 415 to 440 - 480 =: 24 - 48 - 110 to 130 - 220 to 250
Voltage range (% Uc)	85 to 110
Maximum power consumption (W / VA)	180/180 (up to 65 kA); 240/240 (100 kA)
Maximum peak current for 80 ms	2 to 3 x In
Charging time (s)	5 (up to 65 kA); 7 (100 kA)
Operating frequency (n°/min.)	2 (up to 65 kA); 1 (100 kA)

■ 7.3 Signalling auxiliaries

- Signalling contact for draw-out version inserted/test/drawn-out signalling contact 3 changeover contacts per position.

Cat.No 0 288 13

Rated operating voltage (Uc)	=	250 V - 0.3 A
		125 V - 0.6 A
	~	250 V - 16 A
		125 V - 16 A

- Contact "ready to close" with charged springs.

Cat.No 0 288 14

Rated operating voltage (Uc)	=	250 V - 0.3 A
		125 V - 0.6 A
	~	250 V - 16 A
		125 V - 16 A

- Additional signalling contact.

Cat.No 0 288 15

Rated operating voltage (Uc)	=	250 V - 0.3 A
		125 V - 0.6 A
	~	250 V - 16 A
		125 V - 16 A

- Signalling contact for auxiliaries (ST, CC and UVR).

Cat.No 0 288 16

Rated operating voltage (Uc)	=	250 V - 0.3 A
		125 V - 0.6 A
	~	250 V - 16 A
		125 V - 16 A

■ 7.4 Locking

- **Universal key locks:** to be used in combination with key locking support Cat.No 0 288 28 or 0 281 94.

Key barrel and flat key with random mapping	Cat.No 4 238 80
Key barrel and flat key with fixed mapping EL43525	Cat.No 4 238 81
Key barrel and flat key with fixed mapping EL 43363	Cat.No 4 238 82
Key barrel and star key with random mapping	Cat.No 4 238 83

- Keylocks supports:

Key locking support in "open" position (to be equipped with universal keylocks Cat.Nos 4 238 80/81/82/83)	Cat.No 0 288 28
Key locking support in "draw-out" position (to be equipped with universal keylocks Cat.Nos 4 238 80/81/82/83)	Cat.No 0 281 94

- **Door locking:** prevents opening of the door with the circuit breaker closed.

Left-hand and right-hand side mounting	Cat.No 0 288 20
--	-----------------

- Padlocks in "open" position:

Padlocking system for ACB (padlock not supplied)	Cat.No 0 288 21
Padlock for buttons	Cat.No 0 288 24
Padlocking system for shutters (padlock not supplied)	Cat.No 0 288 26

■ 7.5 Mechanical operations counter

to count total number of operation cycles of device	Cat.No 0 288 23
---	-----------------

■ 7.6 Rating mis-insertion device

to prevent the insertion of a draw-out circuit breaker into an incompatible base
Cat.No 0 288 25

■ 7.7 Lifting plate

Cat.No 0 288 79

■ 7.8 Fixing devices for DMX³ and DMX³-I 2500

Specific instruction sheets are provide to integrate DMX³ / DMX³-I 2500 into XL³ enclosures ranges (fixing plates, metal faceplates for circuit breakers and cable sleeves, etc.).

■ 7.9 Equipment for conversion of a fixed device into draw-out device

- Bases for draw-out device

For DMX ³ /DMX ³ -I 2500 (up to 65 kA) 3P	Cat.No 0 289 02
For DMX ³ /DMX ³ -I 2500 (up to 65 kA) 4P	Cat.No 0 289 03
For DMX ³ /DMX ³ -I 2500 (100 kA) 3P	Cat.No 0 289 04
For DMX ³ /DMX ³ -I 2500 (100 kA) 4P	Cat.No 0 289 05

- Transformation kit for draw-out version

For DMX ³ /DMX ³ -I 2500 (up to 65 kA) 3P	Cat.No 0 289 09
For DMX ³ /DMX ³ -I 2500 (up to 65 kA) 4P	Cat.No 0 289 10
For DMX ³ /DMX ³ -I 2500 (100 kA) 3P	Cat.No 0 289 11
For DMX ³ /DMX ³ -I 2500 (100 kA) 4P	Cat.No 0 289 12

■ 7.10 Equipment for interlocking

The mechanical interlock is set up using cables and can interlock 2 or 3 devices, which may be different type in a vertical or horizontal configuration. The interlock unit is mounted on the right-hand side of the device. Interlock cables to be ordered separately.

Interlock for DMX ³ 2500 (up to 65 kA)	Cat.No 0 288 64
Interlock for DMX ³ 2500 (100 kA)	Cat.No 0 288 65

DMX³ 2500 circuit breakers (PU MP2.10 and MP4.10) DMX³-I 2500 trip-free switches

Cat.Nos:

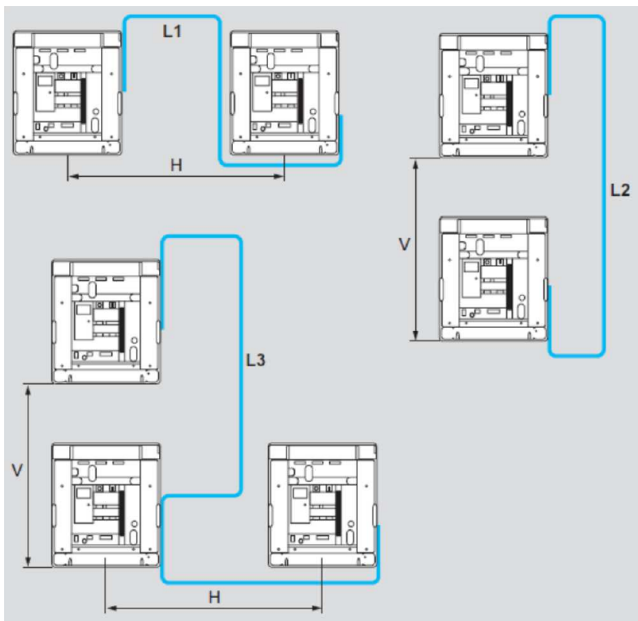
0 283 60 to 0 283 66 - 0 283 70 to 0 283 76 - 0 283 80 to 0 283 86
0 283 90 to 0 283 96 - 0 284 00 to 0 284 06 - 0 284 10 to 0 284 16
0 284 20 to 0 284 26 - 0 284 30 to 0 284 36 - 0 284 40 to 0 284 46
0 284 50 to 0 284 56 - 0 284 60 to 0 284 66 - 0 284 70 to 0 284 76
0 282 40/41/42/43/50/51/52/53/80/81/82/83/90/91/92/93

7. EQUIPMENTS AND ACCESSORIES (continued)

■ 7.11 Interlock cables

Length: 1000 mm	Cat.No 0 289 17
Length: 1500 mm	Cat.No 0 289 18
Length: 2600 mm	Cat.No 0 289 20
Length: 3000 mm	Cat.No 0 289 21
Length: 3600 mm	Cat.No 0 289 22
Length: 4000 mm	Cat.No 0 289 23
Length: 4600 mm	Cat.No 0 289 24
Length: 5600 mm	Cat.No 0 289 25

Choice of interlock cable:



Calculation of cable length:

$$\begin{aligned} L1 &= 1430 + H \\ L2 &= 1570 + V \\ L3 &= 1430 + V + H \end{aligned}$$

■ 7.12 Insulating shields

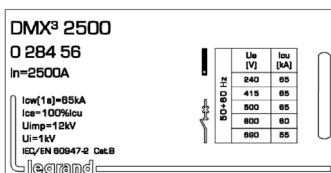
Fixed version 3P	Cat.No 0 288 98
Fixed version 4P	Cat.No 0 288 99
Draw-out version 3P	Cat.No 0 288 18
Draw-out version 4P	Cat.No 0 288 19

8. MARKING

Product is provided with labelling in full conformity to the referred standard and directives requirements by laser or sticker labels as:

Product laser label on front:

- Manufacturer responsible;
- Denomination, type product, code;
- Standard conformity;
- Standard characteristics declared;
- Coloured identification of Icu at 415 V.



Product laser label on side:

- Manufacturer responsible;
- Denomination and type product;
- Standard conformity;
- Mark/Licence (if any);
- Directive requirements;
- Bar code identification product;
- Manufacturing country.

0 284 56

In 2500A
Icu 65kA
Draw-out
Frame 1 4P
Z0425AAB
CIRCUIT BREAKER
Made in Italy
23W30 0 80

3414972326620824466

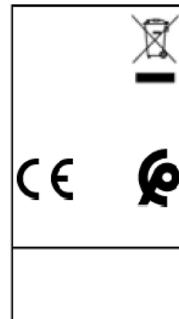


LEGRAUD - BP 30076
87002 LIMOGES CEDEX FRANCE

Mark sticker label on side:

- Product code;
- Mark/Licence (if any);
- Country deviation (if any).

0 284 56



Packaging sticker label:

- Manufacturer responsible;
- Denomination and type product;
- Standard conformity;
- Mark/Licence (if any);
- Directive requirements.

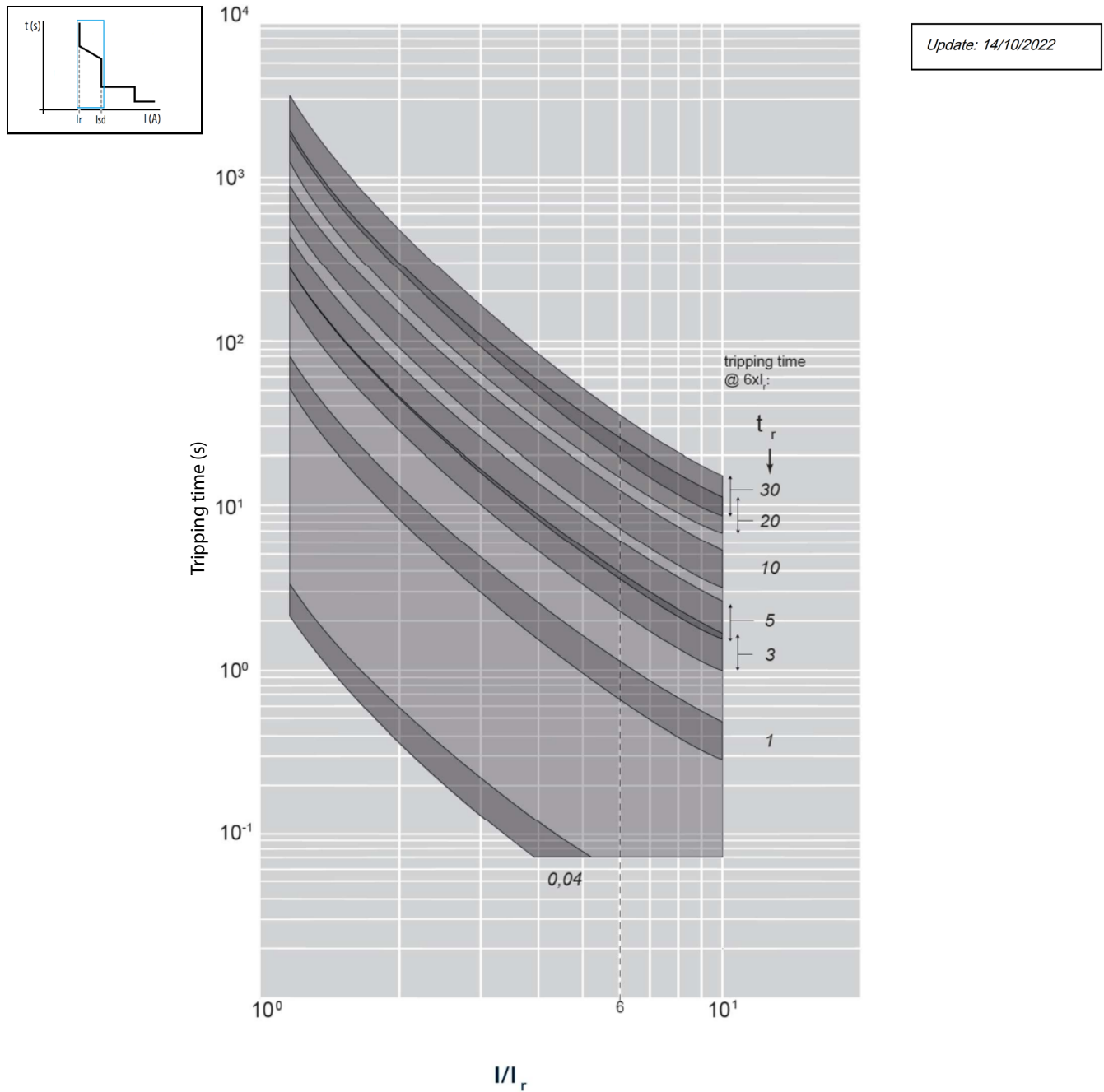


DMX³ 2500 circuit breakers
(PU MP2.10 and MP4.10)
DMX³-I 2500 trip-free switches

Cat.Nos:
 0 283 60 to 0 283 66 - 0 283 70 to 0 283 76 - 0 283 80 to 0 283 86
 0 283 90 to 0 283 96 - 0 284 00 to 0 284 06 - 0 284 10 to 0 284 16
 0 284 20 to 0 284 26 - 0 284 30 to 0 284 36 - 0 284 40 to 0 284 46
 0 284 50 to 0 284 56 - 0 284 60 to 0 284 66 - 0 284 70 to 0 284 76
 0 282 40/41/42/43/50/51/52/53/80/81/82/83/90/91/92/93

9. CURVES

■ 9.1 Tripping curve for DMX³ 2500 MPx.10 protection units: L – T protection detail.



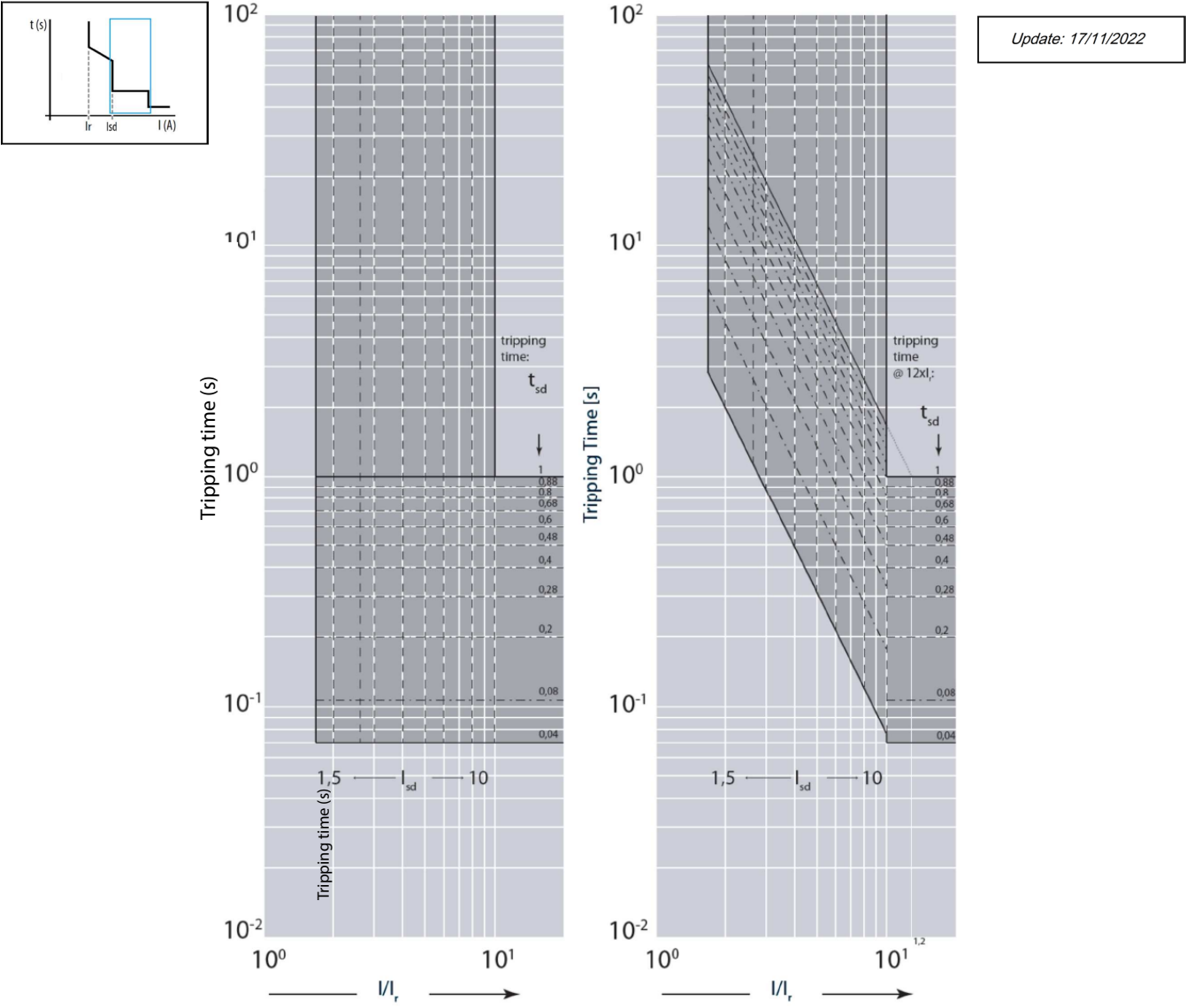
Value	Description
I	Current
Ir	Long time setting current
tr	Long time delay

DMX³ 2500 circuit breakers
(PU MP2.10 and MP4.10)
DMX³-I 2500 trip-free switches

Cat.Nos:
0 283 60 to 0 283 66 - 0 283 70 to 0 283 76 - 0 283 80 to 0 283 86
0 283 90 to 0 283 96 - 0 284 00 to 0 284 06 - 0 284 10 to 0 284 16
0 284 20 to 0 284 26 - 0 284 30 to 0 284 36 - 0 284 40 to 0 284 46
0 284 50 to 0 284 56 - 0 284 60 to 0 284 66 - 0 284 70 to 0 284 76
0 282 40/41/42/43/50/51/52/53/80/81/82/83/90/91/92/93

9. CURVES (continued)

9.2 Tripping curve for DMX³ 2500 MPx.10 protection units: short time trip protection detail.



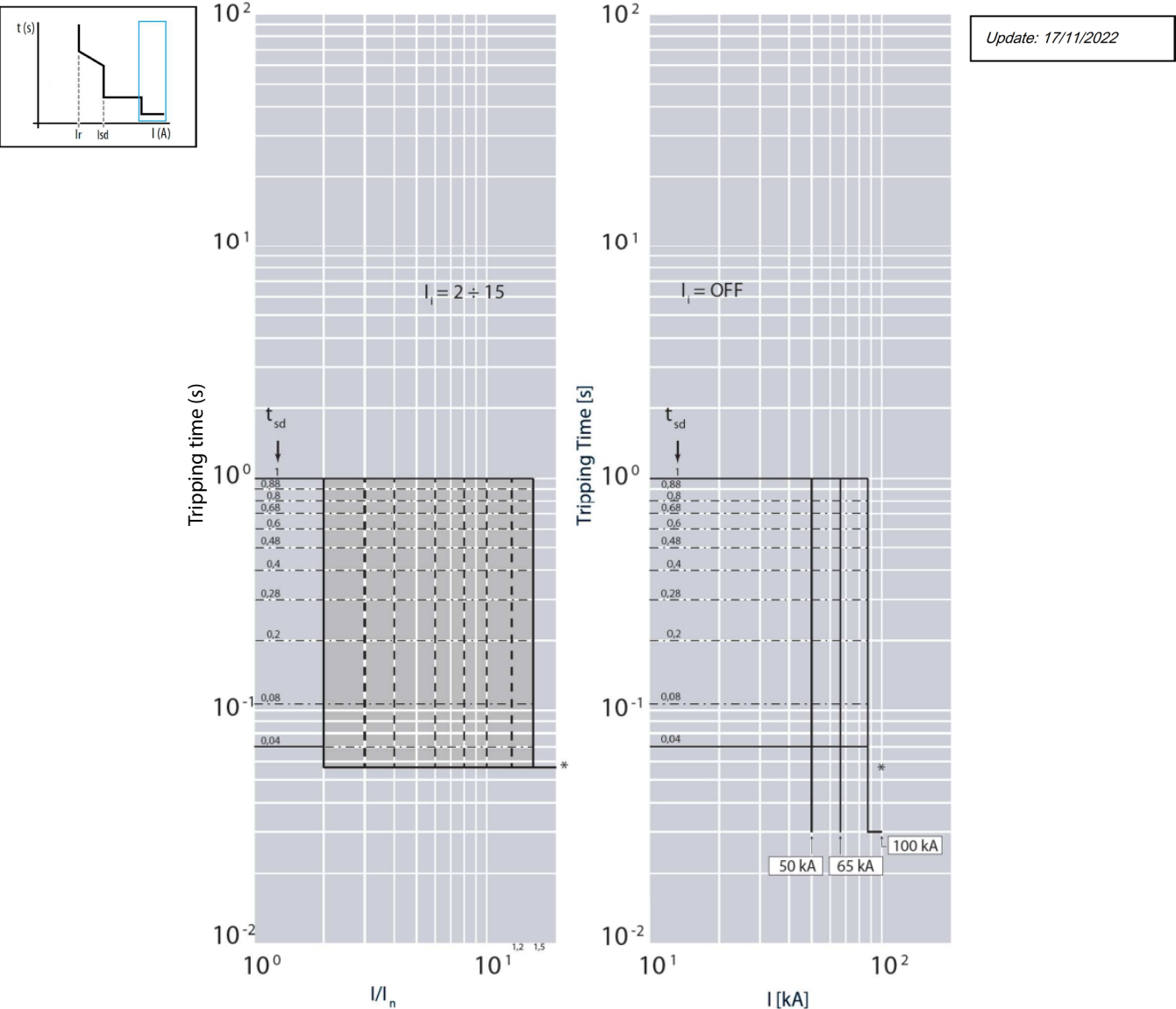
Value	Description
I	Current
Isd	Short time setting current
tsd	Short time delay

DMX³ 2500 circuit breakers
(PU MP2.10 and MP4.10)
DMX³-I 2500 trip-free switches

Cat.Nos:
0 283 60 to 0 283 66 - 0 283 70 to 0 283 76 - 0 283 80 to 0 283 86
0 283 90 to 0 283 96 - 0 284 00 to 0 284 06 - 0 284 10 to 0 284 16
0 284 20 to 0 284 26 - 0 284 30 to 0 284 36 - 0 284 40 to 0 284 46
0 284 50 to 0 284 56 - 0 284 60 to 0 284 66 - 0 284 70 to 0 284 76
0 282 40/41/42/43/50/51/52/53/80/81/82/83/90/91/92/93

9. CURVES (continued)

9.3 Tripping curve for DMX³ 2500 MPx.10 protection units: instantaneous trip protection detail.



* Fixed instantaneous override - Isf

Icu	Values for Isf
50 kA	50 kA
65 kA	65 kA
100 kA	85 kA

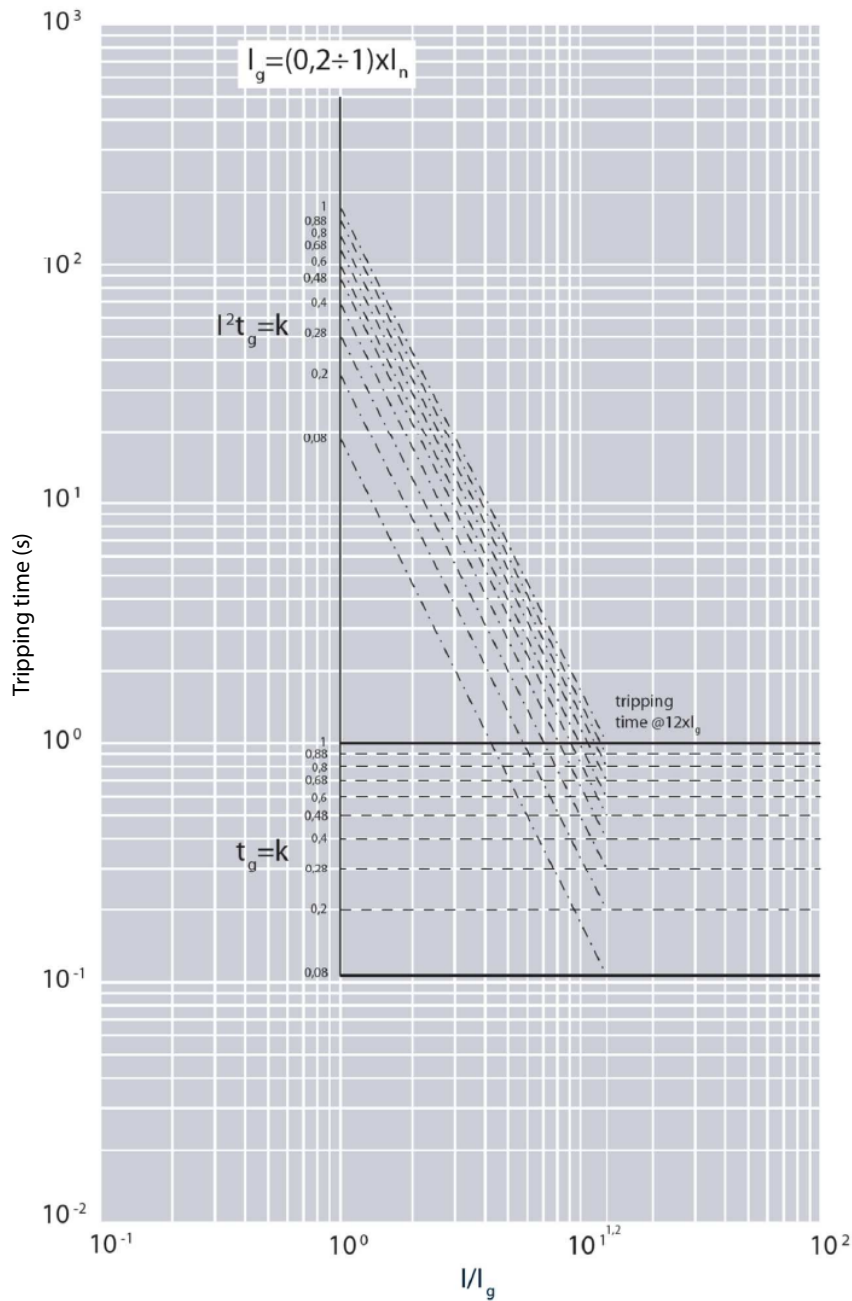
Value	Description
I	Current
In	Rated current
tsd	Short time delay
Ii	Instantaneous release
Icw	Rated short time withstand current

DMX³ 2500 circuit breakers
(PU MP2.10 and MP4.10)
DMX³-I 2500 trip-free switches

Cat.Nos:
0 283 60 to 0 283 66 - 0 283 70 to 0 283 76 - 0 283 80 to 0 283 86
0 283 90 to 0 283 96 - 0 284 00 to 0 284 06 - 0 284 10 to 0 284 16
0 284 20 to 0 284 26 - 0 284 30 to 0 284 36 - 0 284 40 to 0 284 46
0 284 50 to 0 284 56 - 0 284 60 to 0 284 66 - 0 284 70 to 0 284 76
0 282 40/41/42/43/50/51/52/53/80/81/82/83/90/91/92/93

9. CURVES (continued)

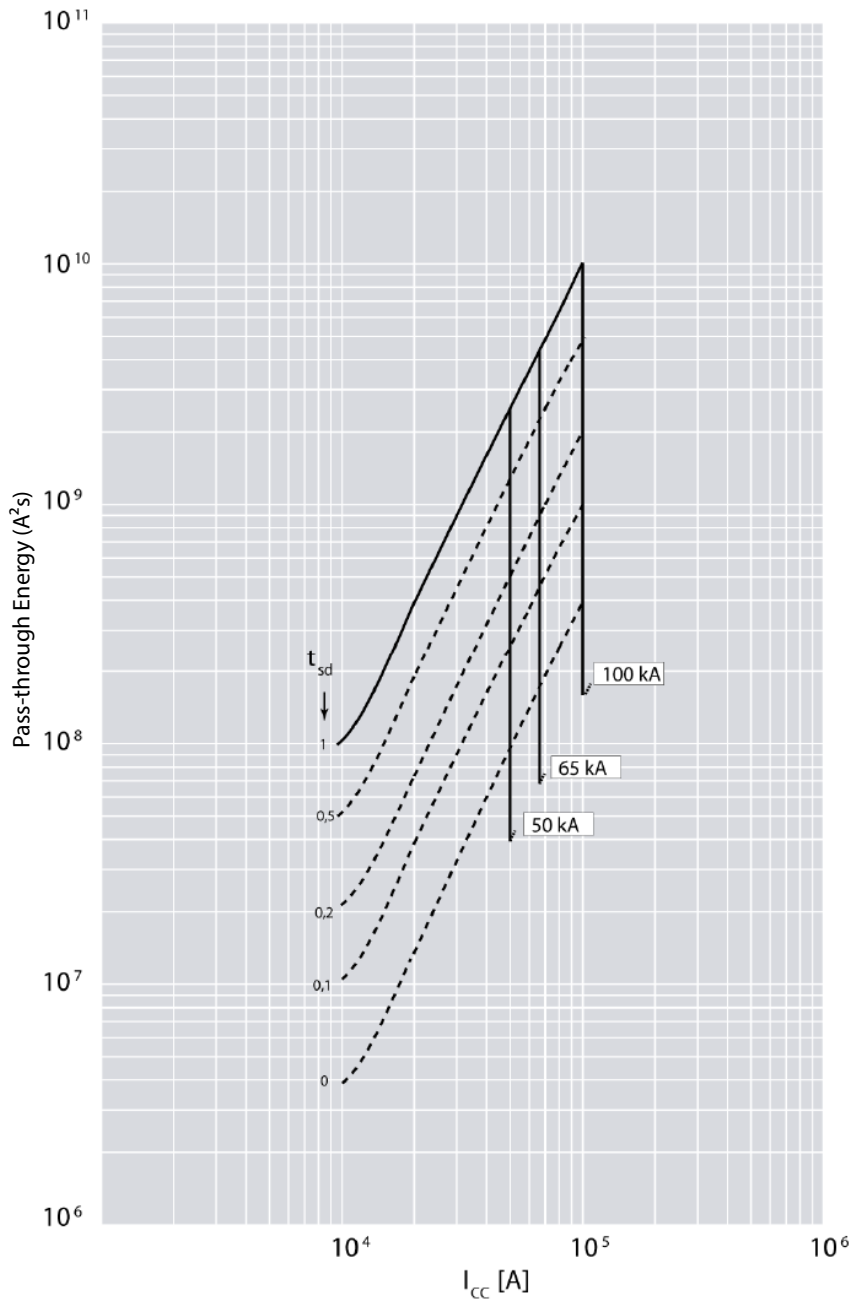
■ 9.4 Ground fault curve for DMX³ 2500 MPx.10 protection units.



Value	Description
I	Current
I _n	Rated current
I _g	Ground fault current
tsd	Short time delay
tsd = k	Constant tripping time setting
I ² tsd = k	Constant pass-through energy setting

9. CURVES (continued)

■ 9.5 Pass-through specific energy curve (at 415 V).



Update: 14/07/2021

Value	Description
I	Current
I _n	Rated current
I _g	Ground fault current
t _{sd}	Short time delay
t _{sd} = k	Constant tripping time setting
I ² t _{sd} = k	Constant pass-through energy setting

DMX³ 2500 circuit breakers (PU MP2.10 and MP4.10) DMX³-I 2500 trip-free switches

Cat.Nos:

0 283 60 to 0 283 66 - 0 283 70 to 0 283 76 - 0 283 80 to 0 283 86
0 283 90 to 0 283 96 - 0 284 00 to 0 284 06 - 0 284 10 to 0 284 16
0 284 20 to 0 284 26 - 0 284 30 to 0 284 36 - 0 284 40 to 0 284 46
0 284 50 to 0 284 56 - 0 284 60 to 0 284 66 - 0 284 70 to 0 284 76
0 282 40/41/42/43/50/51/52/53/80/81/82/83/90/91/92/93

10. CONFORMITY

DMX³ range of product concerning circuit-breakers and switch-disconnectors exceed compliance with the IEC/EN standard 60947-2 and 60947-3 respectively. Certification available by IECEE CB-scheme or LOVAG Compliance scheme.

Marks as CCC (China), EAC (Eurasian Federation) or different local certification are available.

DMX³ are in conformity with the Lloyds Shipping Register, RINA and Bureau Veritas Marine.

RoHS: Compliance with the 2011/65/EU Directive (RoHS), as modified by the 2015/863/EU Delegated Directive, on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

REACH: The substances identified as SVHC (Substances of Very High Concern) according to the REACH Regulation (1907/2006), if present in the products at a concentration above 0.1% weight by weight, are declared inside the European SCIP database. At the date of publication of this document none of the substance listed in the annex XIV is found in this product.

WEEE: WEEE Directive (2012/19/EU): the sale of this product includes a contribution to the appointed environmental bodies of each European country in charge of handling, at the end of their life, the products falling within the scope of the EU Directive on Electrical and Electronic Equipment Waste.

PACKAGING: Design and manufacture of packaging compliant with European Directive 94/62/CE.

BATTERIES (for product containing batteries and/or accumulators):

The batteries and/or accumulators included in this product comply with the requirements set out in European Regulation 2023/1542, according to the application timing indicated therein.

11. OTHER INFORMATION

XLPro Calcul: Calculation notes creation software, addressed to installers, design office and maintenance operators.

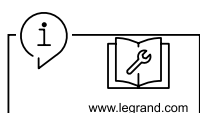
Definition of the electrical characteristics of a low voltage installation in compliance with the applicable standards.

XLPro³ Tool Selectivity and backup/Legrand Selectivity and Backup:

Software dedicated to installers, panelbuilders and design offices. Definition of the selectivity and backup values of an association of electrical devices and obtention of the tripping curves of the selected products.

XLPro Panels: Distribution panel design software, addressed to panelbuilders and electrical panel designers.

Design of the electrical distribution of the panel, production of electrical diagrams, establishment of products and overall costing of the project.



Workshop book: mounting informations, equipments, accessories and spare parts available on e-catalog.

Instruction sheet: all mounting information, available on e-catalog.

PEP: available on e-catalog.

For further technical information, please contact Legrand technical support.

Unless otherwise indicated, data reported in this document refers exclusively to test conditions according to product standards.

For different conditions of use of the product, inside electrical equipment or in any different installation context, refer to the regulatory requirements of the equipment, local regulations and design specifications of the system.