WORKSHOP SPECIFICATIONS

DMX³ and DMX³-I

AIR CIRCUIT BREAKERS AND TRIP-FREE SWITCHES

THE GLOBAL SPECIALIST IN ELECTRICAL AND DIGITAL BUILDING INFRASTRUCTURES

legrand®

A key component of the main distribution board, DMX^3 air circuit breakers, available from 630 to 6300 A, provide protection and control at the supply end of low voltage installations.

Their efficiency not only ensures the safety of people and property, as well as continuity of service, it also promotes
energy management through their advanced protection units.

These devices offer numerous accessory options, protection units, high performance levels and a rugged construction,
all of which make them ideally suited to meet the needs
of safety and energy management in installations.

LEGAL INFORMATION

Presentation pictures do not always include Personal Protective Equipment (PPE), but this is a legal and regulatory obligation that must be scrupulously respected.

In accordance with its continuous improvement policy, Legrand reserves the right to change the specifications and illustrations without notice. All illustrations, descriptions and technical information included in this document are provided as indications and cannot be held against Legrand.

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SAFETY INSTRUCTIONS

General information

- Use only the products and accessories recommended by the Legrand Group in the catalogue, instructions, technical Instructionss and all other documents provided by Legrand (hereinafter referred to as «the Documentation») in compliance with the installation rules.
- Improper installation and/or use may result in the risk of arcing in the enclosure, overheating or fire. The enclosures must be used under normal conditions, they must not be subjected to Voltage / Current / Temperature values other than those specified in the Documentation.
- Legrand declines all responsibility for any modification or repair of the equipment making up the enclosure that is not authorized by the Legrand Group, as well as any failure to comply with the rules and recommendations specified by Legrand in the Documentation. In addition, in the cases mentioned above, the warranty granted by Legrand will not be applicable.
- It is necessary to check that the characteristics of the products are appropriate for their environment and use during maintenance operations, and to refer to the Documentation. If you have any questions or require clarification, please contact Legrand Group.
- The installation, use and maintenance of the enclosures and their components must be carried out by qualified, trained and authorized personnel, in accordance with the regulations in force in each country.

RISK OF ELECTRIC SHOCK, BURNS AND EXPLOSION.

- People working on the installation must have the appropriate electrical authorizations for the work to be carried out.
- Wear the PPE (Personal Protective Equipment) necessary to work on live products.
- Respect the safety rules related to electrical work.
- Improper electrical and mechanical use of equipment can be dangerous and may result in personal injury or damage to property.
- Depending on the maintenance operations to be carried out, partial or total power cuts of the enclosure concerned should be planned before any work.
- When performing operations that involve access to the inside of the enclosure, be aware of the risk of burns before touching any products or metal parts.
- Before turning the power back on, make sure that there are no foreign bodies and that all physical protections have been put back in place (e.g.: screens, covers, shields).

Any failure to strictly apply the procedures and to respect these recommendations, could lead to serious risk of accident, endangering people and property (in particular, without limitation, risk of burns, electric shocks, etc.).

The rules and recommendations in this document are based on our knowledge of the typical conditions of use of our products in the fields of application usually encountered. However, it is always the customer's responsibility to verify and validate that Legrand products are suitable for its installation and use.

The customer must ensure proper installation, maintenance and operation of the equipment to avoid any risk of injury to personnel or damage to property in the event of product failure, especially for applications that require a very high level of safety (e.g., those in which the failure of a component may endanger human life or health).

The rules for storage, handling, installation and maintenance and the appropriate precautions and warnings must be strictly observed and applied.

ORDERING AND DELIVERY STATUS OF THE DMX^3

A DMX^3 air circuit breaker cannot be ordered without a protection unit since the protection unit has to be programmed according to the circuit breaker and the desired options.
Using XLPro^3 software, it is possible to generate a purchase order in Word® format. For further details concerning a DMX^3 order, please contact your local Legrand sales office.
All electrical and mechanical accessories can be ordered and installed after delivery of the product.
For factory-fitted accessories and options, please see the table on the next page.

Order ACB DMX³

Rate for : 2023-11

Order n° :

Customer code :

Please send this form to your usual commercial/sales contact

Construction site informations :

Price offer n° :
Site:
Panel : Nouveau tableau 1
Sales representative:

Date :
Building name :
Buiding type :
Buiding address :

Manager :

Name :
Phone number/Email :

Address :

Wholesaler

Name :

Address :

Delivery (if different address)

Company name :
Name :
Address :

Tel. n° / Email :

900185 : ACB DMX³ factory assembled

Manufacturer	Description	Reference	Quantity
Legrand	MCCB DMX³ 2500 50kA 4P 2500A Draw-out	028436	1
Legrand	DMX³ protection unit MP2 10	028304	1
Legrand	Motor operator 230V ac/dc	028837	1
Legrand	Closing coil 220-240V ac/dc	028844	1
Legrand	Shunt trip 220-240V A.C./D.C.	028851	1
Legrand	Undervoltage release 220-240V A.C./D.C.	028858	1
Legrand	Signal contact for auxiliaries	028816	1

Select 1 language package for the protection unit:

English / Italian / Français | English / French | English / Russian | English / Spanish / Portuguese | English / Chinese

Quantity of ACB DMX³ identical : 1

Total value :

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Depending on the accessories ordered, the table below indicates whether they will be supplied assembled or not.
Depending on the assembly centre and/or the contracts, the factory configuration of the DMX^3 may vary.

Check the configuration of the DMX^3 carefully to ensure you order all the accessories required for correct operation.

ACCESSORIES		ASSEMBLY STATE	
CAT. NOS.	DESCRIPTION	FACTORY ASSEMBLED	DETAILS
0 283 04 0 283 05 0 283 06 0 283 07	Protection unit	YES(1)	Protection units are factory installed and configured with factory settings (see the guides for the relevant protection unit). The batteries and sealing kit are supplied but not pre-installed (they are delivered in a separate box).
4 149 40	EMS CX^3/MODBUS RS 485 gateway	NO(1)	This accessory is not integrated on or in the air circuit breaker. It is fixed on a modular rail.
4 149 45	Stabilized external power supply	NO(1)	This accessory is not integrated on or in the air circuit breaker. It is fixed on a modular rail.
0 288 09	Neutral on right-hand side (L1-L2-L3-N)	YES	The air circuit breaker must be configured at the factory in order to have the Neutral positioned on the right. With this option, a special marking is added to the front panel, and the adhesive label "N" is placed in front of the corresponding pole, on the right.
0 288 10 0 288 11	External Neutral	PARTIALLY(1)	The air circuit breaker must be factory configured in order to protect an external Neutral. A Rogowski coil is supplied with the circuit breaker and must be connected to the protection unit terminal block.
0 288 13	Plugged in/test/drawn out position signalling contact	NO	After ordering, this accessory comes (unmounted) with the DMX^3.
0 288 14	Spring charged signalling contact and ready to close signalling contact	YES	This accessory attaches to the inside of the DMX^3 and is connected to the SC and RC terminal block.
0 288 15	Additional auxiliary contact	YES	This accessory attaches to the inside of the DMX^3 and is connected to the OC3/4/5/6/7/8/9/10 terminal block.
0 288 16	Signalling contact for auxiliaries status	YES	This accessory attaches to the inside of the DMX^3, on the corresponding coils and is connected to the C UVR/C ST/C CC terminal block.
0 288 17	Locking button for Inserted/Test/ Draw-out position	YES	This accessory has to be fixed on draw-out mechanism
0 288 20	Door lock	NO	After ordering, this accessory comes (unmounted) with the DMX^3.
0 288 21	Padlocking in "open" position	YES	This accessory attaches to the inside of the DMX^3.
0 288 23	Operation counter	YES	This accessory attaches to the inside of the DMX^3.

(1) except trip-free-switches

ORDERING AND DELIVERY STATUS OF THE DMX³

ACCESSORIES			ASSEMBLY STATE	
CAT. NOS.		DESCRIPTION	FACTORY ASSEMBLED	DETAILS
0 288 24		Button padlock	YES	This accessory attaches to the outside of the DMX³.
0 288 25		Rating locating pin	YES	This accessory attaches under the DMX³ and in the base.
0 288 26		Padlock for safety shutters	NO	After ordering, this accessory comes (unmounted) with the DMX³.
0 288 28 +	4 238 80 or 4 238 81 or 4 238 82 or 4 238 83	Key lock for locking in open position	YES	These accessories attach to the inside of the DMX³.
0 281 94 +	4 238 80 or 4 238 83	Key lock for locking in "plugged in/test/drawn out" position	PARTIALLY	These accessories are mounted on the handle support. This set is supplied unassembled on the DMX³.
0 288 34 to 0 288 40		Motor operator	YES	This accessory attaches to the inside of the DMX³ and is connected to the MOT terminal block.
0 288 41 to 0 288 45		Closing coils	YES	This accessory attaches to the inside of the DMX³ and is connected to the UVR/ST/CC terminal block.
0 288 48 to 0 288 52		Current shunt trip	YES	This accessory attaches to the inside of the DMX³ and is connected to the UVR/ST/CC terminal block.
0 288 55 to 0 288 59		Undervoltage releases	YES	This accessory attaches to the inside of the DMX³ and is connected to the UVR/ST/CC terminal block.
0 288 62 0 288 63		Module for delayed tripping	NO	This accessory is not integrated on or in the air circuit breaker. It is fixed on a modular rail.
0 288 64 0 288 65 0 288 66		Interlocking mechanism	PARTIALLY	All accessories are attached to the DMX³. Only one part, used to determine the type of inverter (A/B/C/D) is supplied unassembled.
0 288 79		Lifting handle	NO	After ordering, this accessory comes with the DMX³.

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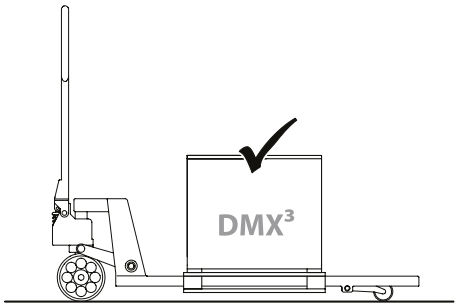
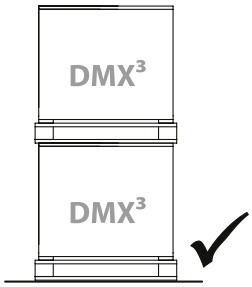
ACCESSORIES		ASSEMBLY STATE	
CAT. NOS.	DESCRIPTION	FACTORY ASSEMBLED	DETAILS
0 288 82/83 0 288 84/85 0 288 92/93 0 288 94/95 0 288 96/97 6 696 18/19	Rear terminals	NO	After ordering, the accessories come (unmounted) with the DMX^3.
0 288 86 to 0 288 91	Spreaders	NO	After ordering, the accessories come (unmounted) with the DMX^3.
0 288 18 0 288 19 0 288 98 0 288 99	Insulated shield	PARTIALLY	Divider supports are supplied fixed on the DMX^3. These dividers are supplied with the DMX^3.
0 289 09 0 289 10 0 289 11 0 289 12 0 289 15 0 289 16	Conversion kits (fixed version to draw-out version)	Moving parts: YES Fixed parts: NO	The DMX^3 is completely transformed into a draw-out version (moving part), but is supplied without the base. Accessories required to fit the fixed base are supplied with the DMX^3.
0 289 18 0 289 20 to 0 289 25	Interlocking cables	NO	After ordering, the accessories come (unmounted) with the DMX^3.

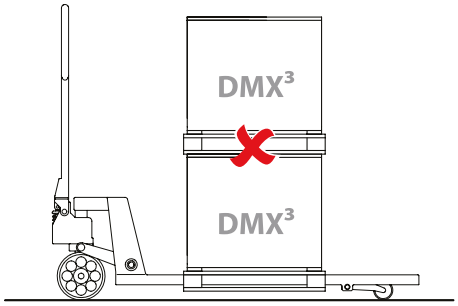
ORDERING AND DELIVERY STATUS OF THE DMX^3

STORAGE AND EXPEDITION

- Store the breaker in a cool, dry place, away from dusty/corrosive environment.
- Do not handle 2 DMX^3 one above the other and do not stack more than 2 breakers one above the other on floor
- Place pallets on a stable spot







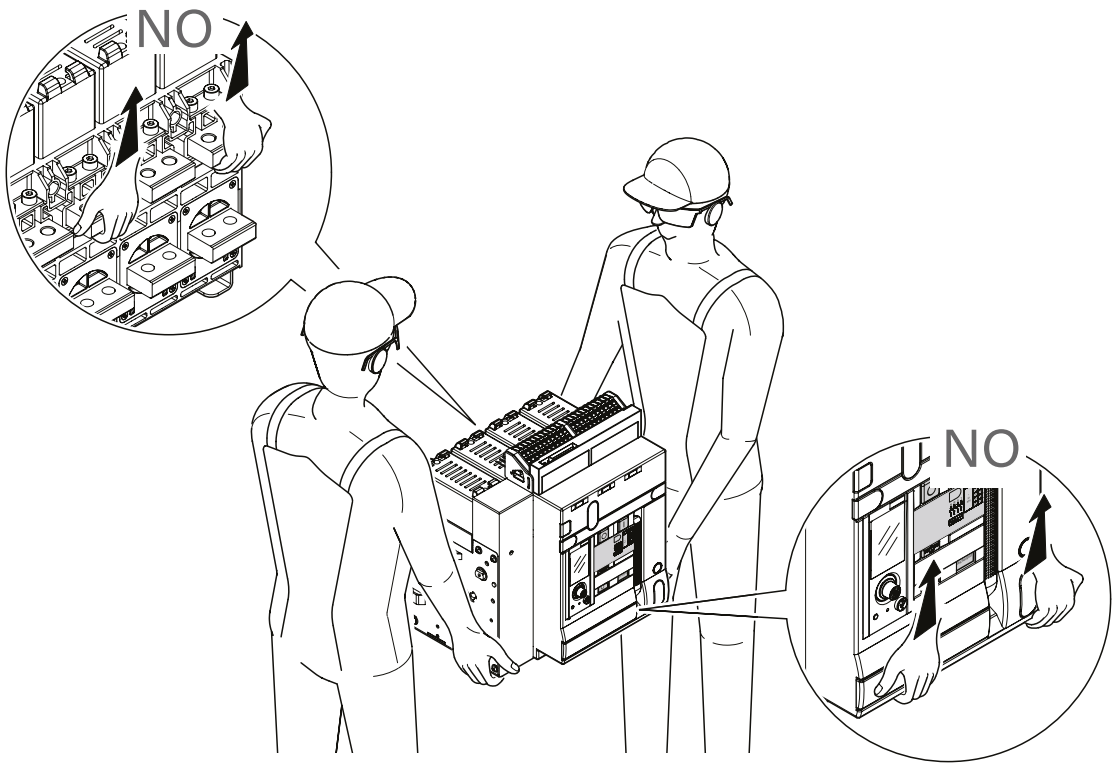
All DMX^3 devices are delivered in wooden crates

The devices are mounted on a pallet with 4 screws M8 (6 for DMX^3 6300)

HANDLING

To facilitate handling, an optional special lifting handle is available Cat. No 288 79 (see page 34).
DMX³ 2500-4000 breakers (fixed and draw-out version) can also be transported by 2 persons.

Do not lift the breaker using front face or terminals



Heavy equipment.
Exercise proper care to avoid personal injury and equipment damage.

THE DMX³ RANGE

DMX³ air circuit breakers

DMX³ air circuit breakers are available in 3 breaking capacities from 630 to 6300 A in just three sizes, in fixed and draw-out versions.

DMX³ 4-pole
Size 4000
Fixed version

DMX³ 3-pole
Size 2500
Draw-out version

DMX³ 4-pole
Size 6300
Fixed version

CHOICE OF AIR CIRCUIT BREAKERS

Icu (415 V~)		50 kA				65 kA				100 kA			
		FIXED		DRAW-OUT		FIXED		DRAW-OUT		FIXED		DRAW-OUT	
	In (A)	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P
DMX³ 2500	630	0 283 60	0 283 70	0 284 20	0 284 30	0 283 80	0 283 90	0 284 40	0 284 50	0 284 00	0 284 10	0 284 60	0 284 70
	800	0 283 61	0 283 71	0 284 21	0 284 31	0 283 81	0 283 91	0 284 41	0 284 51	0 284 01	0 284 11	0 284 61	0 284 71
	1000	0 283 62	0 283 72	0 284 22	0 284 32	0 283 82	0 283 92	0 284 42	0 284 52	0 284 02	0 284 12	0 284 62	0 284 72
	1250	0 283 63	0 283 73	0 284 23	0 284 33	0 283 83	0 283 93	0 284 43	0 284 53	0 284 03	0 284 13	0 284 63	0 284 73
	1600	0 283 64	0 283 74	0 284 24	0 284 34	0 283 84	0 283 94	0 284 44	0 284 54	0 284 04	0 284 14	0 284 64	0 284 74
	2000	0 283 65	0 283 75	0 284 25	0 284 35	0 283 85	0 283 95	0 284 45	0 284 55	0 284 05	0 284 05	0 284 65	0 284 75
	2500	0 283 66	0 283 76	0 284 26	0 284 36	0 283 86	0 283 96	0 284 46	0 284 56	0 284 06	0 284 16	0 284 66	0 284 76
DMX³ 4000	3200	0 283 67	0 283 77	0 284 27	0 284 37	0 283 87	0 283 97	0 284 47	0 284 57	0 284 07	0 284 17	0 284 67	0 284 77
	4000	0 283 68	0 283 78	0 284 28	0 284 38	0 283 88	0 283 98	0 284 48	0 284 58	0 284 08	0 284 18	0 284 68	0 284 78
DMX³ 6300	5000	-	-	-	-	-	-	-	-	0 284 80	0 284 82	0 284 85	0 284 87
	6300	-	-	-	-	-	-	-	-	0 284 81	0 284 83	0 284 86	0 284 88

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Units: Size 2500 Size 4000 Size 6300

DMX³-I trip-free switches

DMX³-I trip-free switches are available in ixed and draw-out versions from 1250 to 6300 A.
Unlike DMX³ circuit breakers, where the spring charging handle is black, DMX³-I switches have a grey handle.

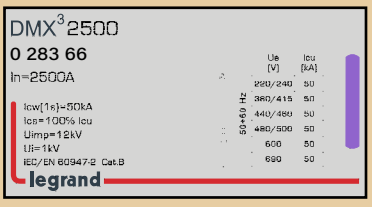
Most of the electrical and mechanical accessories are common to the air-circuit breaker version

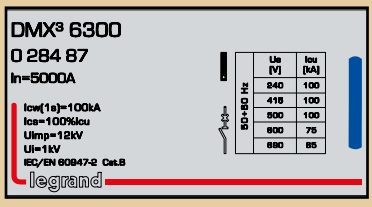
DMX³-I 3-pole
Size 2500
Fixed version

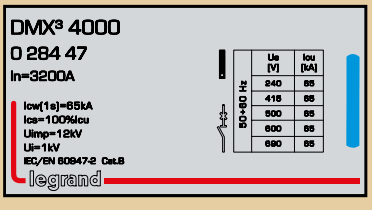
CHOICE OF TRIP-FREE SWITCHES

	In (A)	FIXED		DRAW-OUT		UNIT
		3P	4P	3P	4P	
DMX³-I 2500	1250	0 282 40	0 282 50	0 282 80	0 282 90	Size 2500
	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	
DMX³-I 4000	3200	0 282 44	0 282 54	0 282 84	0 282 94	Size 4000
	4000	0 282 45	0 282 55	0 282 85	0 282 95	
DMX³-I 6300	6300	0 282 88	0 282 89	0 282 98	0 282 99	Size 6300

COLOUR CODE ON THE FRONT PANEL OF THE UNITS





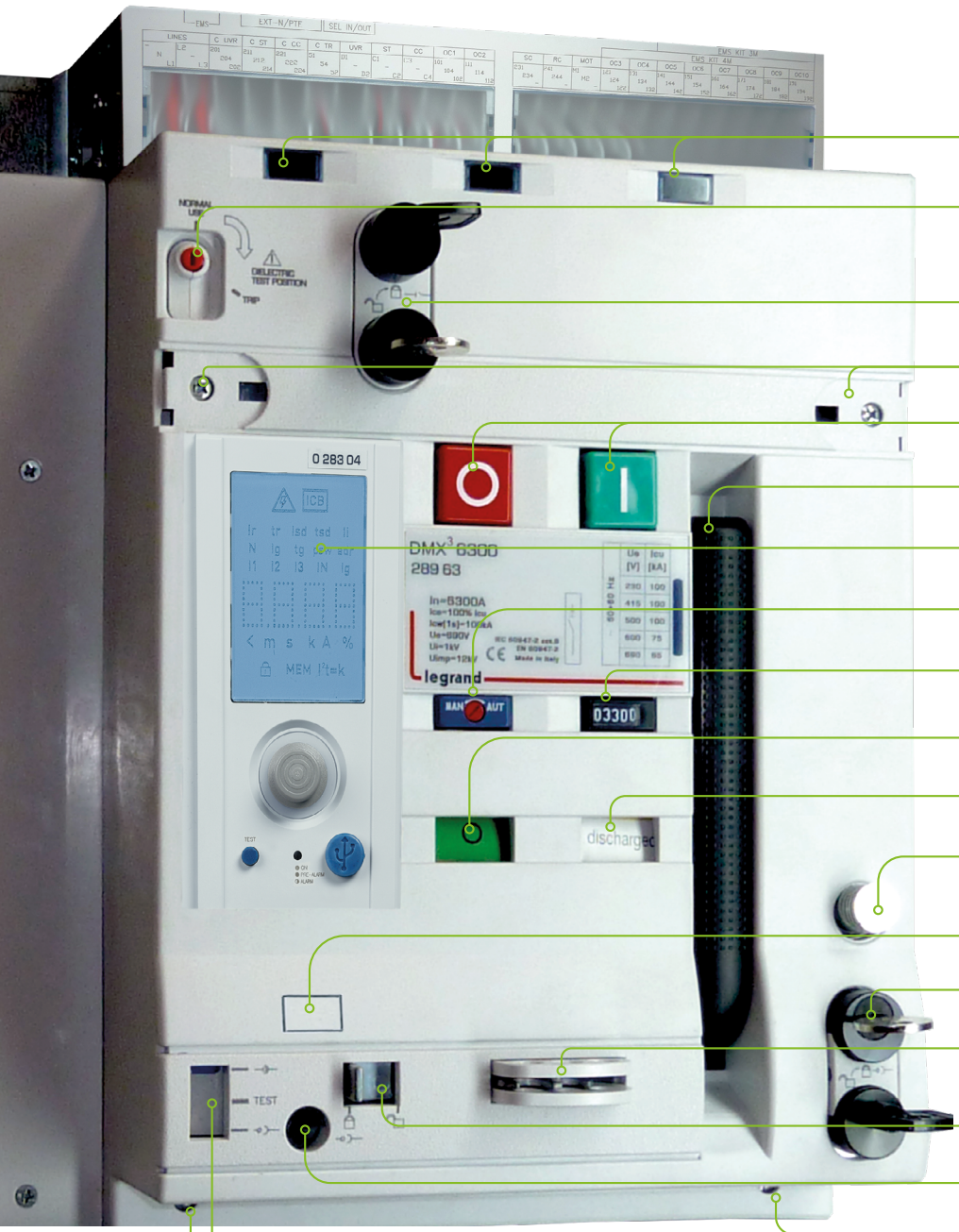


DMX³ 50 kA
DMX³ 65 kA
DMX³ 100 kA
DMX³-I

Front panel of the DMX³

To remove the front panel of the DMX³, remove both posidrive screws behind the front panel covers, as well as both screws at the bottom, recessed from the front panel.
The main information about the air circuit breaker and accessories status can be found on the front panel or on the cover markings. The various accessories can be accessed by removing it.
Note the presence of mechanical or electrical grease on moving (mechanical) or active (electrical) parts.

Safety instructions p. 2



- Coil windows
- Selector switch for dielectric test
- Locking in open position
- Front panel fixing screw (2/4)
- DMX³ on/off buttons
- Spring charging handle
- Protection unit
- Reset button
- Operation counter
- Contacts position
- Spring charge state
- Location of the extraction handle (for draw-out version)
- Inserted/Test/Draw-out lock button location
- Locking in the drawn out position (for draw-out version)
- Padlocking in the drawn out position (for draw-out version)
- Lever to open the panel (for draw-out version)
- Access panel to the handle (for draw-out version)
- Front panel fixing screw (3/4)
- DMX³ draw-out status indicator (for draw-out version)
- Front panel fixing screw (4/4)

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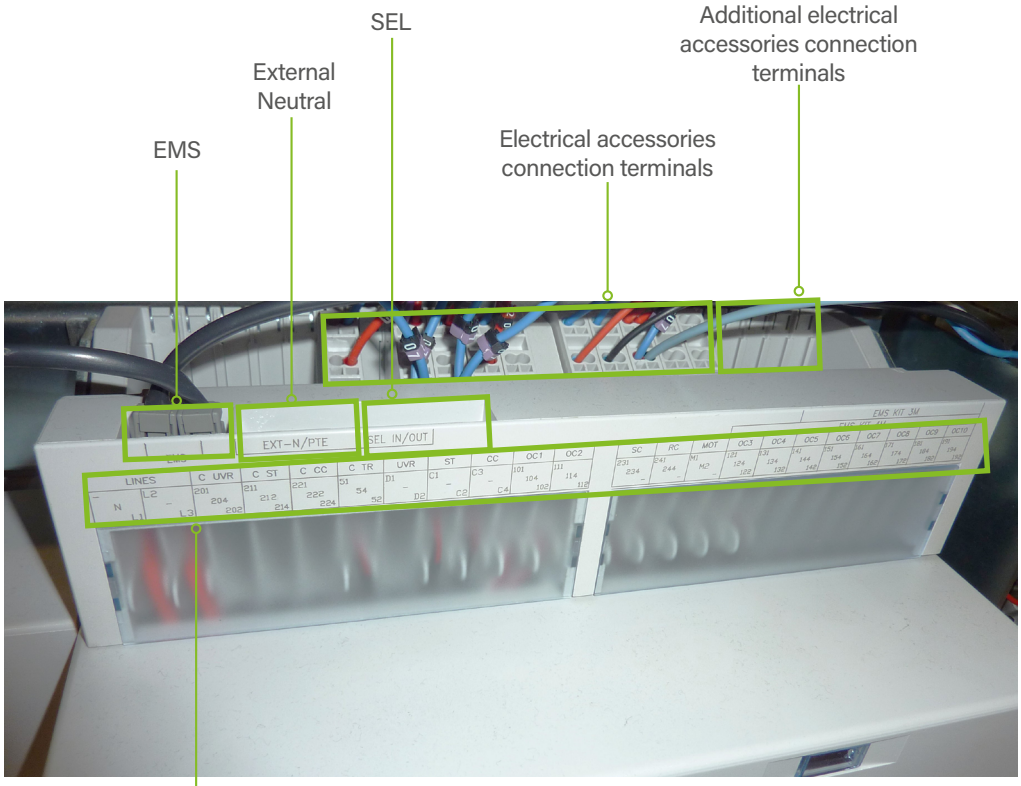


On DMX³ draw-out air circuit breakers, the protection unit terminals must be connected so that you can draw out the DMX³ without applying mechanical stress on it. Leave enough cable to allow the draw out operation.

ELECTRICAL ACCESSORIES

Electrical accessories allow devices to be monitored remotely and communication of a device's status. These accessories are accessible from the front panel of the product and can be installed quickly and easily without the need for any special tools. All electrical accessories are common to the entire DMX^3 range. To avoid any errors, each accessory has a dedicated slot.

Safety instructions p. 2

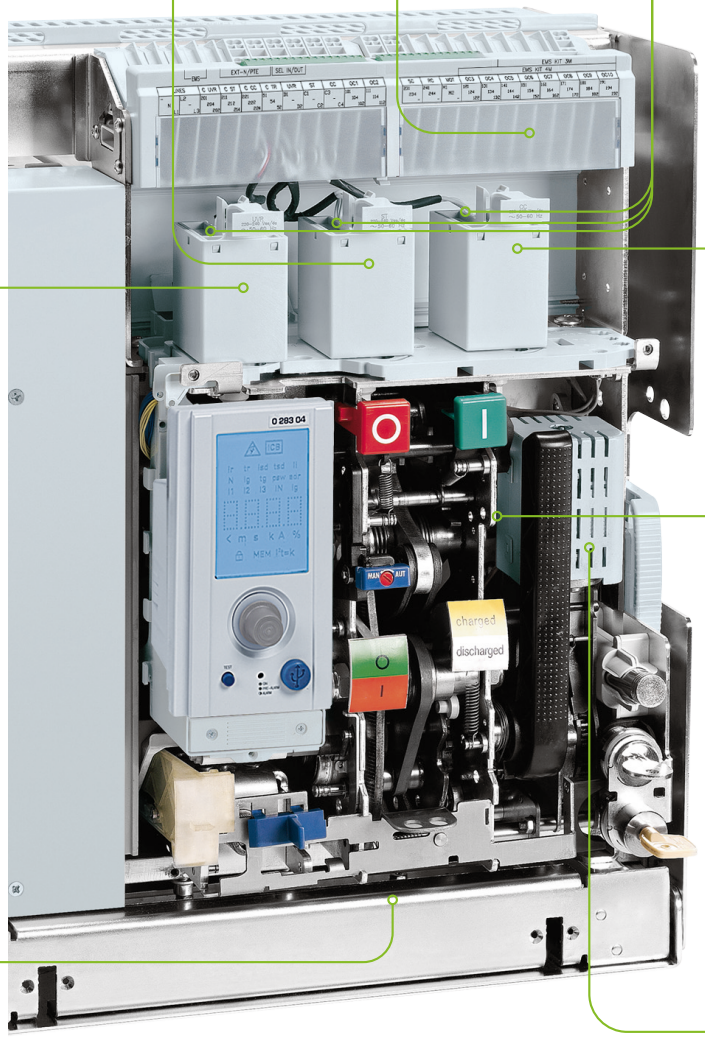
Undervoltage release
or
2nd shunt trip

Shunt trip

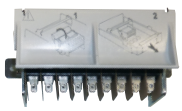
Auxiliary contacts

Signalling contact
for auxiliaries

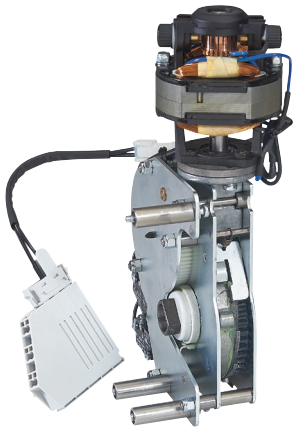
Closing coil



"Ready to close" and
"spring charged" contacts



Signalling contact for
draw-out version
(plugged in/test/drawn
out)



Motor operator

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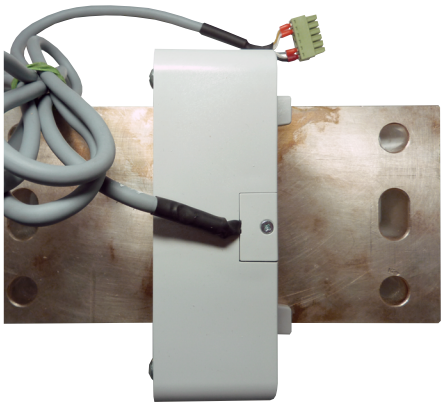
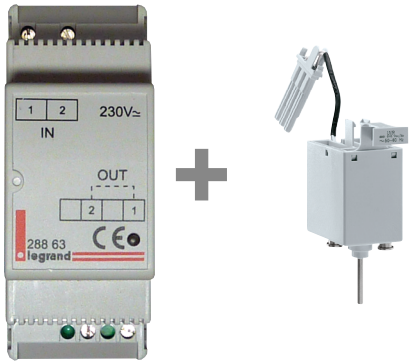
DMX³ SEPARATE MOUNT ACCESSORIES

External Neutral (only for 3P version with electronic protection unit)



Delay module for undervoltage release (can be associated to undervoltage release
Cat. Nos 0 288 62 and 0 288 63)



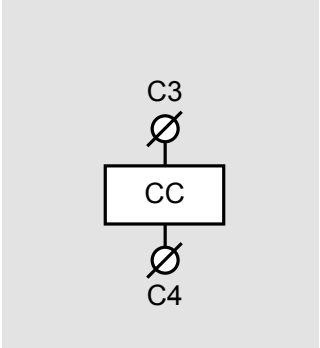
CHOICE OF ELECTRICAL ACCESSORIES AND AUXILIARIES

	24 Vac/dc	48 Vac/dc	110-130 Vac/dc	220-250 Vac/dc	415-480 Vac
Closing coil ▶ p. 16	0 288 41	0 288 42	0 288 43	0 288 44	0 288 45
Current shunt trip ▶ p. 17	0 288 48	0 288 49	0 288 50	0 288 51	0 288 52
Undervoltage release ▶ p. 18	0 288 55	0 288 56	0 288 57	0 288 58	0 288 59
Motor operator ▶ p. 19	0 288 34	0 288 35	0 288 36	0 288 37	0 288 38
Signalling contact for auxiliaries status ▶ p. 20	0 288 16				
Additional auxiliary contact ▶ p. 21	0 288 15				
Plugged in/test/drawn out position signalling contact ▶ p. 23	0 288 13				
Ready to close contact and spring charged contact ▶ p. 24	0 288 14				
Delay module ▶ p. 25	-	-	0 288 62	0 288 63	-
CX³ EMS power supply module ▶ p. 26	4 149 45				
External Neutral ▶ p.30	Size 2500 and 4000: 0 281 98 Size 6300: 0 281 97				

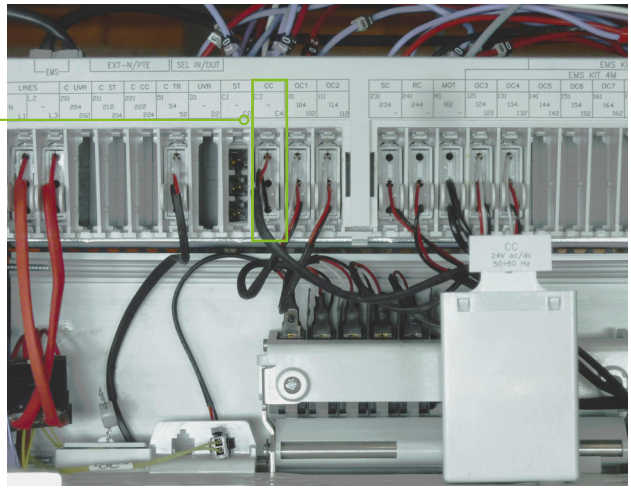
Closing coil

If the spring is charged and the protection unit is not indicating a fault, this accessory allows to close the contacts of the DMX^3 by energising the coil.

The rising edge of this electrical command is given by a NO external contact (for example a PLC output) and not by the protection unit.
The closing coil comes with a connector (male + female) to be inserted into slots C3 and C4 on the DMX^3 terminal block.
Only one closing coil can be installed per device.



This is located in the 3rd slot marked "CC". It can be inserted by rotating it to the left and removed by rotating it to the right.
The closing coil can support being energised permanently.



TECHNICAL CHARACTERISTICS

- Nominal voltage Vn:
  - 24/48/110-130/220-250/415-480 Vac
  - 24/48/110-130/220-250 Vdc
- Operating range: 85 to 110% Vn
- Inrush power: 500 W/VA
- Inrush duration: 180 ms
- Holding power: 5 W/VA
- Maximum closing time: 50 ms
- Insulation voltage: 2.5 kV

After an opening command, it is necessary to allow a period of 50 ms before issuing a closing command.

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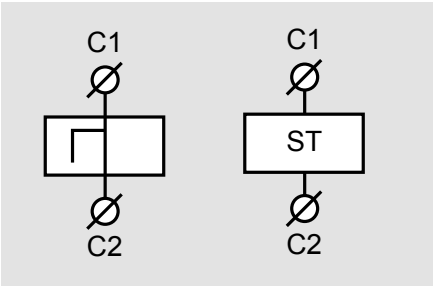
Current shunt trip

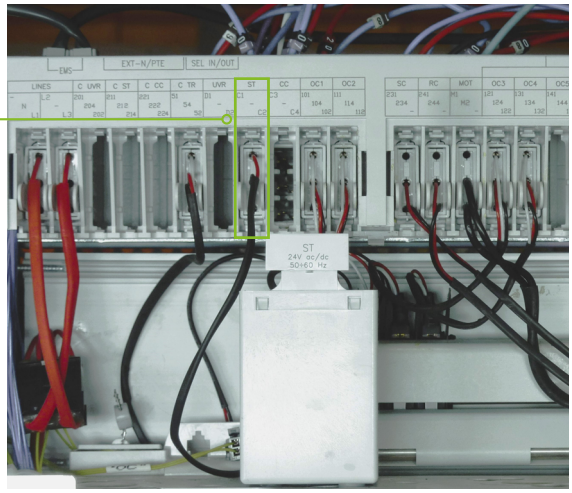
The current shunt trip allows instantaneous opening of the DMX³ by energising the coil (negative safety).

The rising edge of this electrical command is given by a NO external contact (for example an emergency stop) and not by the protection unit.



Two different symbols are used to illustrate shunt trips

The current shunt trip comes with a connector (male + female) to be inserted into slots C1 and C2 on the DMX³ terminal block.



It is possible to equip the DMX³ with two shunt trips: the first is placed in the slot marked "ST" and the second is placed in the slot for the undervoltage release marked "UVR". In this case, the second shunt trip will be connected to terminals D1 and D2.
It can be inserted by rotating it to the left and removed by rotating it to the right.
The current shunt trip can support being energised permanently.

TECHNICAL CHARACTERISTICS

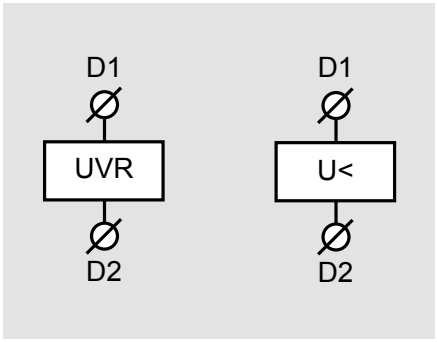
- Nominal voltage Vn:
  - 24/48/110-130/220-250/415 Vac
  - 24/48/110-130/220-250 Vdc
- Operating range: 70 to 110% Vn
- Inrush power: 500 W/VA
- Inrush duration: 180 ms
- Holding power: 5 W/VA
- Maximum closing time: 30 ms
- Insulation voltage: 2.5 kV

After a closing command, it is necessary to allow a period of 50 ms before issuing an opening command.

Undervoltage release

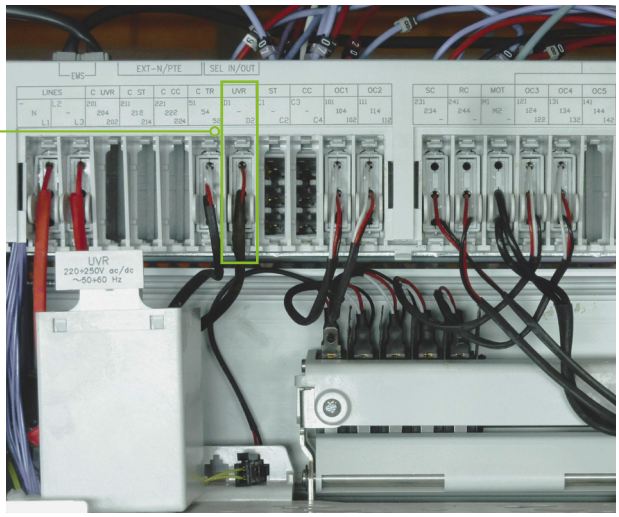
The undervoltage release allows instantaneous opening of the DMX^3 by de-energising the coil (positive safety).

The descending edge of this electrical command is given by a NC external contact (for example an emergency stop) and not by the protection unit.



Two different symbols are used to illustrate undervoltage releases

The undervoltage release comes with a connector (male + female) to be inserted into slots D1 and D2 on the DMX^3 terminal block. The DMX^3 can only take one undervoltage release.



TECHNICAL CHARACTERISTICS

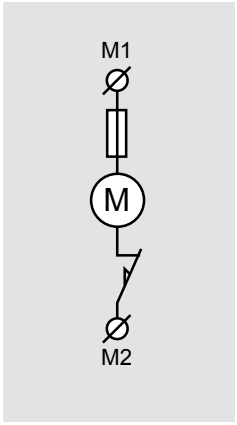
- Nominal voltage Vn:
  - 24/48/110-130/220-250/415 Vac
  - 24/48/110-130/220-250 Vdc
- Operating range: 85 to 110% Vn
- Inrush power: 500 W/VA
- Inrush duration: 180 ms
- Holding power: 5 W/VA
- Maximum closing time: 60 ms
- Insulation voltage: 2.5 kV

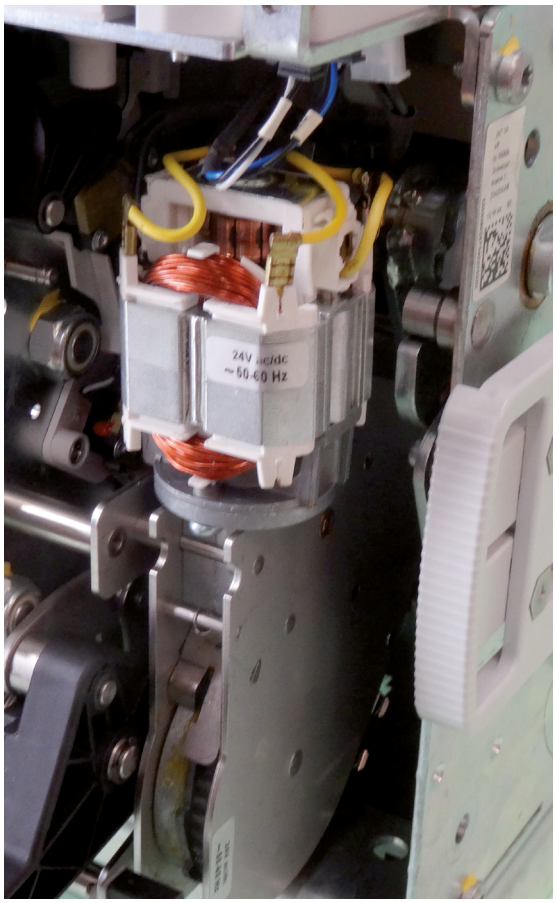
TABLE OF CONTENTS

Motor operator

The motor operator is used to reset the closing spring automatically. Its starting and stopping are automatic if voltage is present at its terminals.

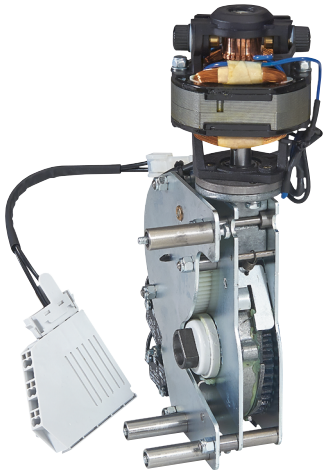
It is preferable to have a constant voltage at the terminals so that the DMX^3 can operate quickly.
The motor operator is protected by a 5 x 20 - 250 Vac - 10 A internal time-delay fuse. For safety reasons, fuse replacements must be performed with the power off.
The motor operator comes with a connector (male + female) to be inserted into slots M1 and M2 slots on the DMX^3 terminal block.





TECHNICAL CHARACTERISTICS

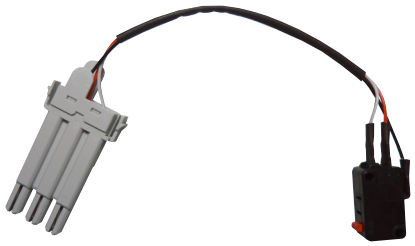
- Nominal voltage Vn:
  - 24/48/110-130/220-250/415 Vac
  - 24/48/110-130/220-250 Vdc
- Operating range: 85 to 110% Vn
- Maximum power consumption: 180 W/VA (Size 2500) 240 W/VA (Size 4000 and 6300)
- Inrush current: 2 to 3 x In
- Charging time:
  - Size 2500: 5 s
  - Size 4000 and 6300: 7 s
- Maximum operation frequency:
  - Size 2500: 2/minute
  - Size 4000 and 6300: 1/minute

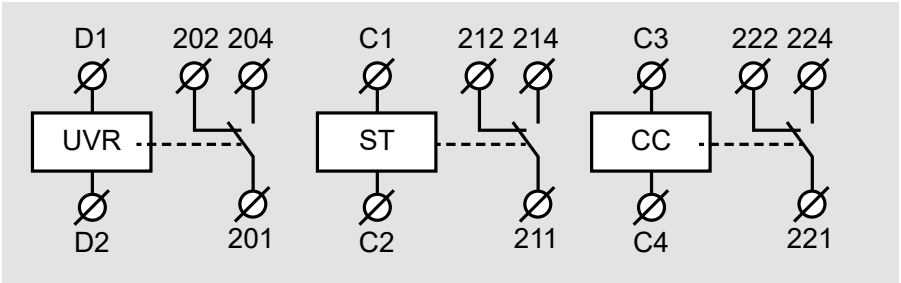


Signalling contact for auxiliaires

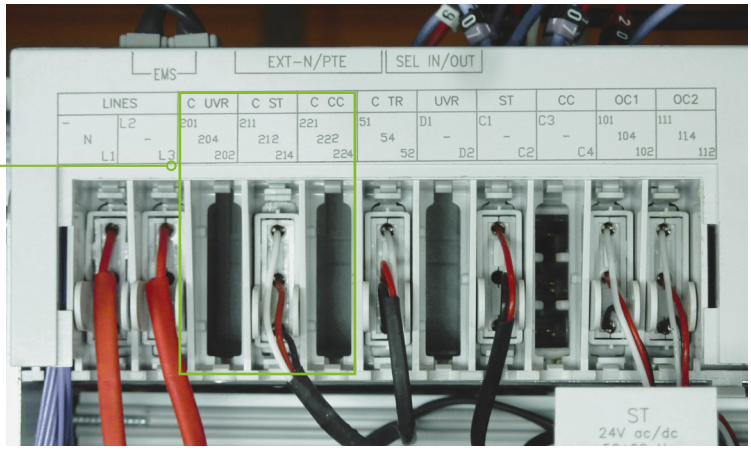
This contact is used to indicate the remote status of the various shunt trips, undervoltage releases and closing coils present in the DMX³.

This contact is a volt-free changeover (NO/NC) contact.
Only one contact can be installed per trip unit, release or coil.
This contact comes with a connector (male + female).





Slot for the connector on the DMX³ terminal block:
- C UVR: 201/202/204 for the undervoltage release.
- C ST: 211/212/214 for the current shunt trip.
- C CC: 221/222/224 for the closing coil.



Example of signalling contact mouting for shunt trip

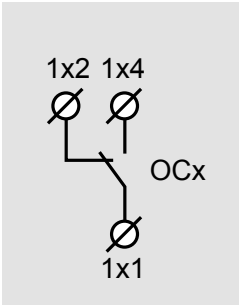
TECHNICAL CHARACTERISTICS

- Maximum voltage: 250 Vac/dc
- Nominal rating:
  - 16 A from 125 Vac to 250 Vac
  - 0.6 A at 125 Vdc
  - 0.3 A at 250 Vdc

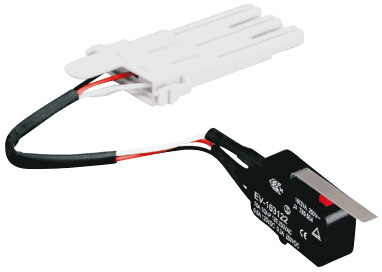
Auxiliary contacts

Auxiliary contacts are used to indicate the position of the main contacts of the DMX^3 remotely.

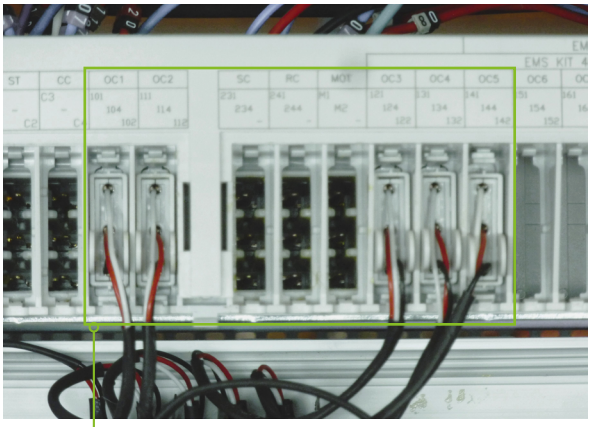
These contacts are volt-free changeover (NO/NC) contacts.
When the DMX^3 poles are open, the contact is closed between terminals 1x1 and 1x2.
All DMX^3 and DMX^3-I come with 4 pre-installed auxiliary contacts.
It is possible to add 6 optional contacts for a total of up to 10 auxiliary contacts.
These contacts come with a connector (male + female) and a side shield for better insulation.



"OC" = "Open Close"



CONTACTS		SLOT ON THE DMX^3 TERMINAL BLOCK	TERMINALS
Pre-installed	1	OC1	101/102/104
	2	OC2	111/112/114
Optional	3	OC3	121/122/124
	4	OC4	131/132/134
	5	OC5	141/142/144
	6	OC6	151/152/154
	7	OC7	161/162/164
	8	OC8	171/172/174
	9	OC9	181/182/184
	10	OC10	191/192/194



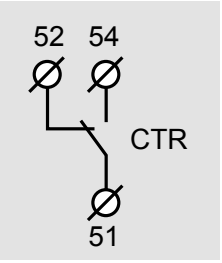
Example of 2 pre-installed auxiliary contacts (OC1 and OC2) and 3 optional auxiliary contacts

TECHNICAL CHARACTERISTICS

- Maximum voltage: 250 Vac/dc
- Nominal rating:
  - 16 A from 125 Vac to 250 Vac
  - 0.6 A at 125 Vdc
  - 0.3 A at 250 Vdc

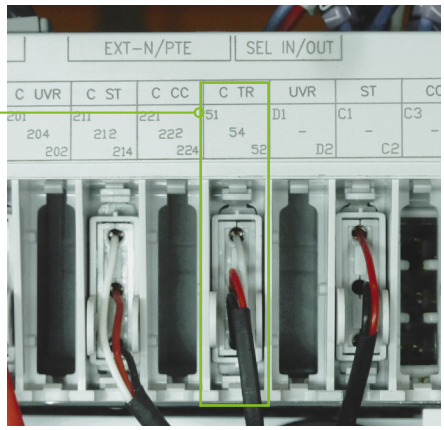
Fault contact

The fault contact provides remote feedback on circuit breaker operation after a command issued by the protection unit (fault or test).
All DMX³ circuit breakers are equipped as standard with a fault contact. It is not physically accessible.

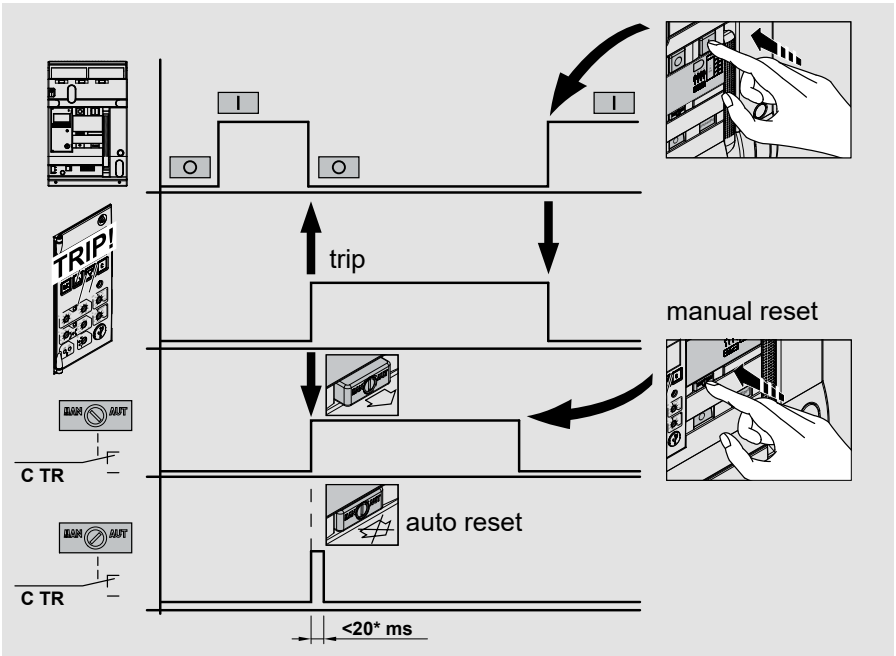


"CTR" = "Contact TRip"

On the terminal block, this contact is connected to the slot marked "C TR" at terminals 51/52/54.



There is only one fault contact per DMX³ circuit breaker.
The fault contact can be rendered non-maintained if the reset button is set to AUTO. If this is the case, the fault contact will switch for a period between 15 and 20 ms.
This contact is a volt-free changeover (NO/NC) contact.
In a normal state, not tripped, terminals 51 and 52 are closed.



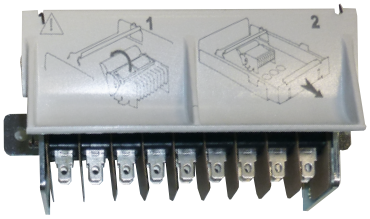
TECHNICAL CHARACTERISTICS

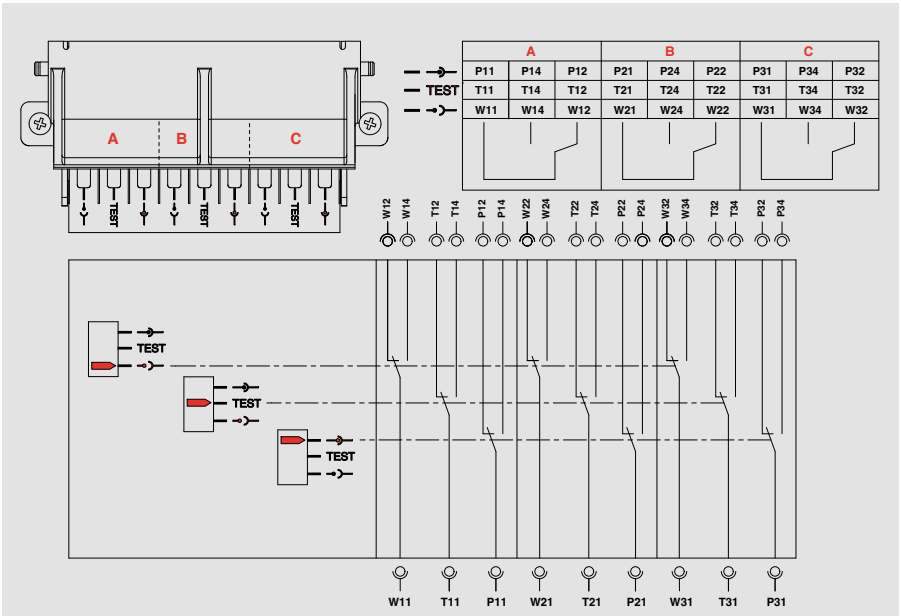
- Maximum voltage: 250 Vac/dc
- Nominal rating:
  - 6 A from 125 Vac to 250 Vac
  - 0.6 A at 125 Vdc
  - 0.3 A at 250 Vdc

DMX³-I trip-free switches cannot be equipped with a CTR fault contact.

"Plugged IN/TEST/DRAWN OUT" Contact block

These contacts provide remote feedback regarding the position of a draw-out DMX^3 in its base: "plugged in", "test" or "drawn out".
Each contact has a specific function that cannot be changed.
The block has nine contacts: three for the presence of the DMX^3 in the base, three for the test position and three for the plugged-in position.
These contacts are volt-free changeover (NO/NC) contacts.
Only one contact block can be installed per draw-out DMX^3.
The electrical connection is via isolated 6.3 mm Faston lugs (contact block comes with 27 insulated lugs).

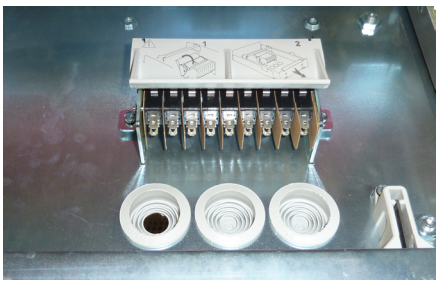




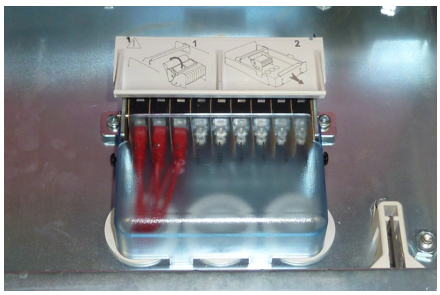
	A			B			C		
TEST	P11	P14	P12	P21	P24	P22	P31	P34	P32
	T11	T14	T12	T21	T24	T22	T31	T34	T32
	W11	W14	W12	W21	W24	W22	W31	W34	W32

TECHNICAL CHARACTERISTICS

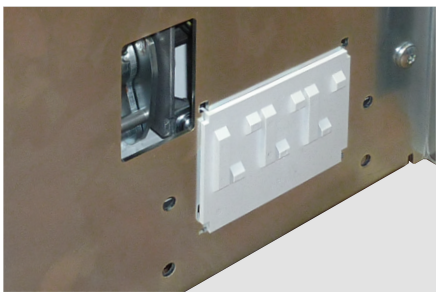
- Maximum voltage: 250 Vac/dc
- Nominal rating:
  - 16 A from 125 Vac to 250 Vac
  - 0.6 A at 125 Vdc
  - 0.3 A at 250 Vdc



The contact block is mounted inside the base



The insulating cover protects the terminals



The plate mounted under the DMX^3 actuates the contacts during the plug-in and draw-out operations

If handling the chassis unit without the DMX^3, it is necessary to tilt the contact block cover before removing the empty chassis unit.

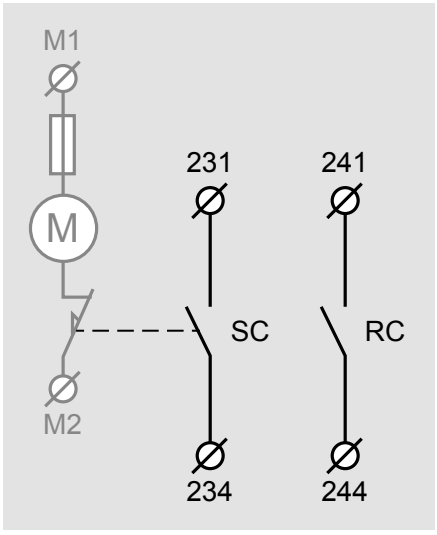
When replacing a draw-out product, do not forget to retrieve the plastic plate beneath the DMX^3.

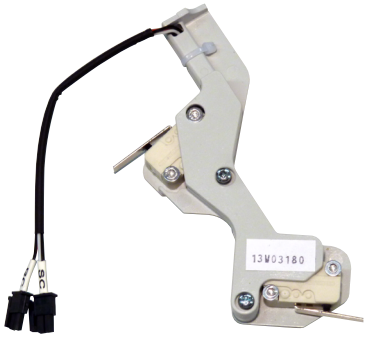
"Ready to close" contact and "spring charged" contact

This contact block provides remote feedback of two distinct types of information:

– Device ready to close (RC): the contact is closed when the spring is charged, as long as there is no fault detected on the circuit breaker and all safety systems allowing closure are inactive.
– Spring charged: (SC): the contact is closed when the spring is fully charged (electrically or manually).

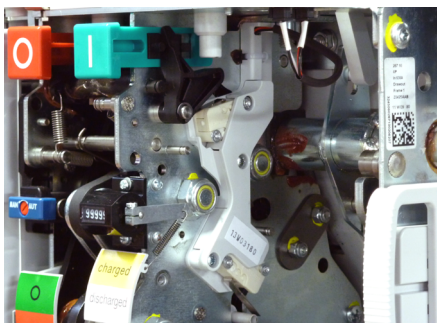
When installing this contact block, check properly that the two pins are in the right place.
These contacts are volt-free changeover (NO) contacts.
On the DMX^3 terminal block, the "ready to close" contact connects to the "RC" slot at terminals 241/244 and the "spring charged" contact connects to the "SC" slot at terminals 231/234.



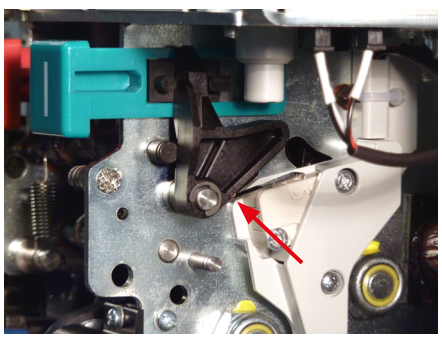


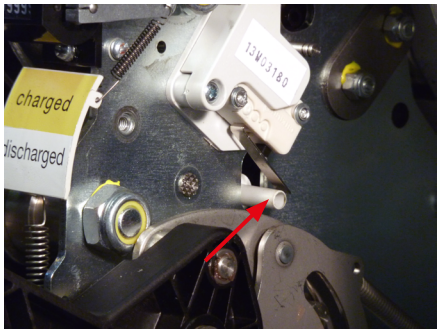
TECHNICAL CHARACTERISTICS

- Maximum voltage: 250 Vac/dc
- Nominal rating:
  – 16 A from 125 Vac to 250 Vac
  – 0.6 A at 125 Vdc
  – 0.3 A at 250 Vdc



Contact block mounted inside the DMX^3


RC contact pin



SC contact pin

Delay modules

These modules are used to delay the intervention of an undervoltage release installed in a DMX^3 by up to three seconds during a micro-break.

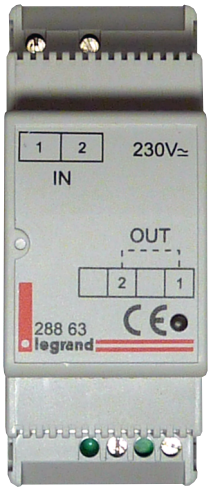
These delay modules combine with standard undervoltage releases Cat.No 0 288 57 (110 V) and Cat.No 0 288 58 (230 V).

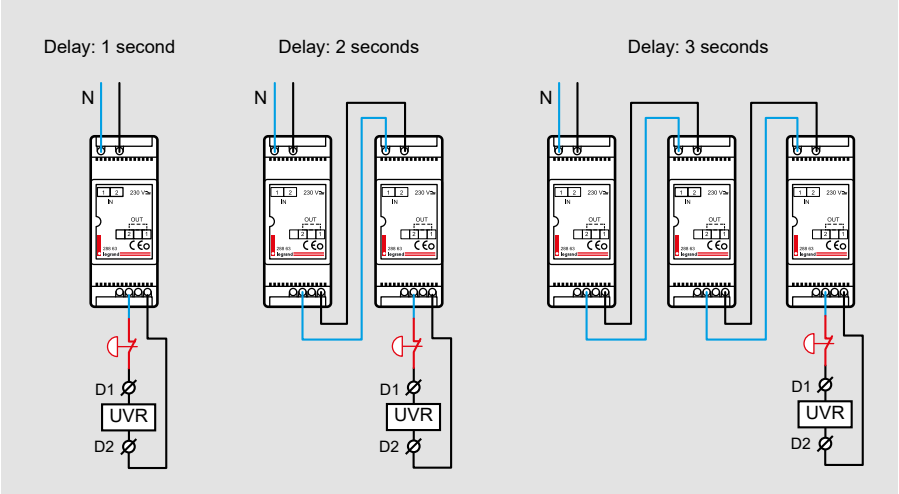
A single module is used to obtain a delay of one second. Connecting three modules in series obtains a maximum delay of three seconds.

When using an emergency stop, it must be of type NC, and should be placed between the output of the last delay module and the undervoltage release.

Before turning on the delay module, you must ensure that the undervoltage release is connected. Power the module for at least one second to obtain its full operating capacity. Multiply this time by the number of modules installed. Before working on the wiring downstream of the delay module, wait a minute after switching off the power supply to avoid any electric shocks.

Protection for this delay module must be placed upstream of the DMX^3 where the undervoltage release is to be installed.





TECHNICAL CHARACTERISTICS

- Input voltage:
  - Cat.No 0 288 62:
    110 Vdc ±10%
    110 Vac ±10% 50/60 Hz
  - Cat.No 0 288 63:
    230 Vdc ±10%
    230 Vac ±10% 50/60 Hz

CX³ EMS power supply module

The power supply module Cat.No 4 149 45 is part of the part of the CX³ EMS modular system for monitoring energy in electrical panels. Only this power supply dedicated to the CX³ EMS system can be used.

This module supplies power by means of the communication rail and/or cables

TECHNICAL CHARACTERISTICS

- **Display:** none
- **Supply voltage:**
  - primary 95 to 250 V~
  - secondary 12 VDC 500mA
- **Settings parameters:** none
- **Addressing:** none
- **Connection:**
  - power supply via screw terminals
  - power supply distribution via cables or dedicated rail.
- **Fixing:** on DIN rail
- **Dimensions :** 1 module
- **Supplied:** with a white cable for galvanic isolation.

For more information, please consult the technical data sheet

The number of power supplies Cat.No 4 149 45 in an CX³ EMS system depends on how much power is needed for the modules to work correctly.

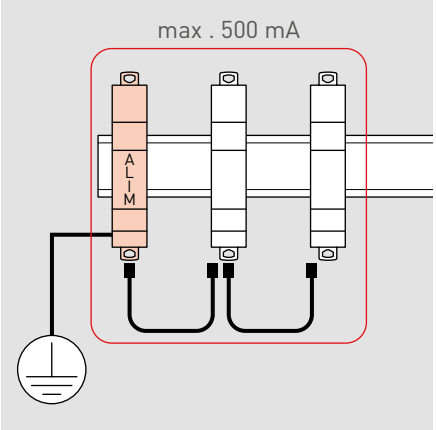
One power supply module can provide **up to 500 mA**. If the installation needs a higher power rating, an additional power supply module must be installed. A single CX³ EMS BUS must not exceed 1.5 A: i.e. 3 **power supply modules maximum**.

The total number of modules permitted with one power supply depends on their total consumption

The maximum total length allowed for CX³ EMS system must not exceed 3m.

TABLE OF CONTENTS

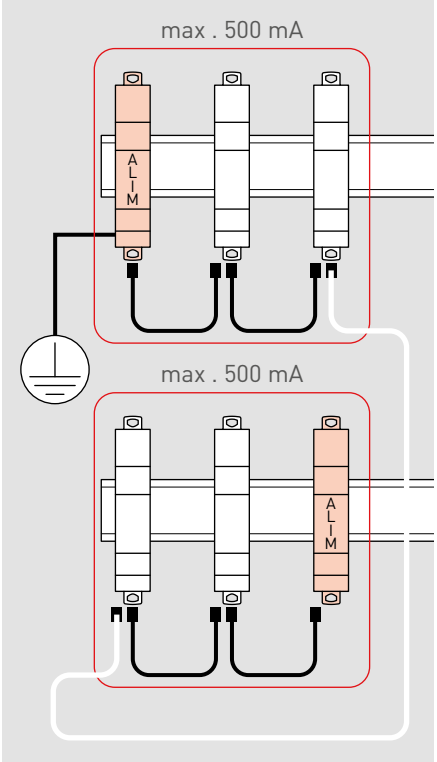
1 CX³ EMS system
1 power supply module



If there are 1 or 2 power supplies, they should be installed at each end of the CX³ EMS system.
If there are 3 power supplies, 2 should be installed at each end of the CX³ EMS system, and the 3rd in the middle.
CAUTION: each set must be connected with a white cable

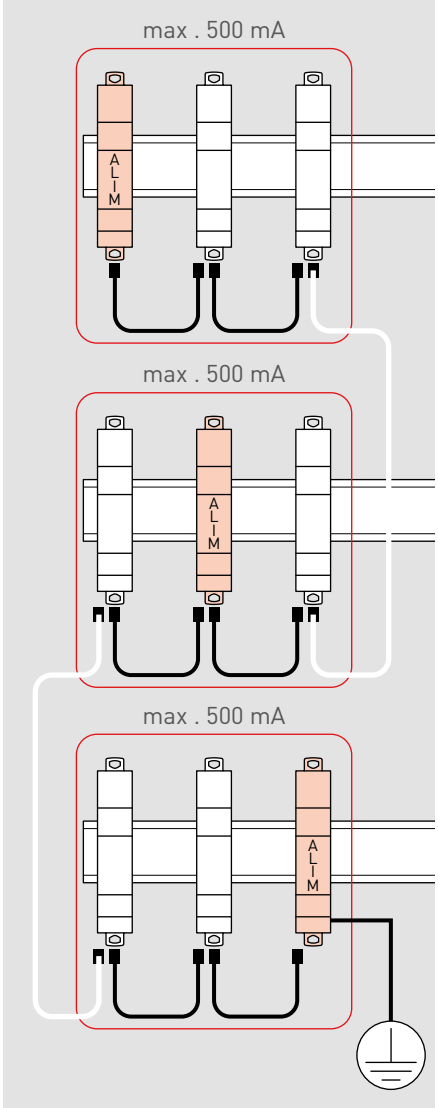
2 power supplies cannot be installed on the same communication rail.

1 CX³ EMS system
2 power supply modules



Each set consisting of "one power supply module and its CX³ EMS modules" should be separated with a special link which must include a white cable (supplied with every power supply module).

1 CX³ EMS system
3 power supply modules



When there are several power supplies in a system, just one of them must be Earthed

CX³ EMS power supply module (continued)

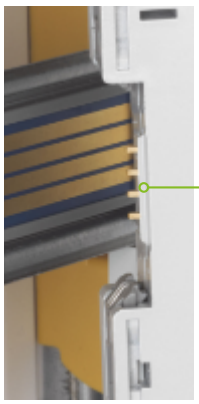
CONNECTION

- **Power supply module:**

Screw connection on the lower side of the module

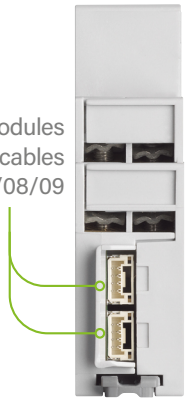
- **BUS CX³ EMS:**

There are 2 possible solutions for connection to the BUS



At the back of the modules
via communication rail
Cat. Nos 4 149 01/02/03

At the bottom of the modules
via communication cables
Cat. Nos 4 149 07/08/09



To protect the power supply module, refer to the information in the product technical data sheet

Once the module is positioned on the DIN communication rail, it is not possible to slide it

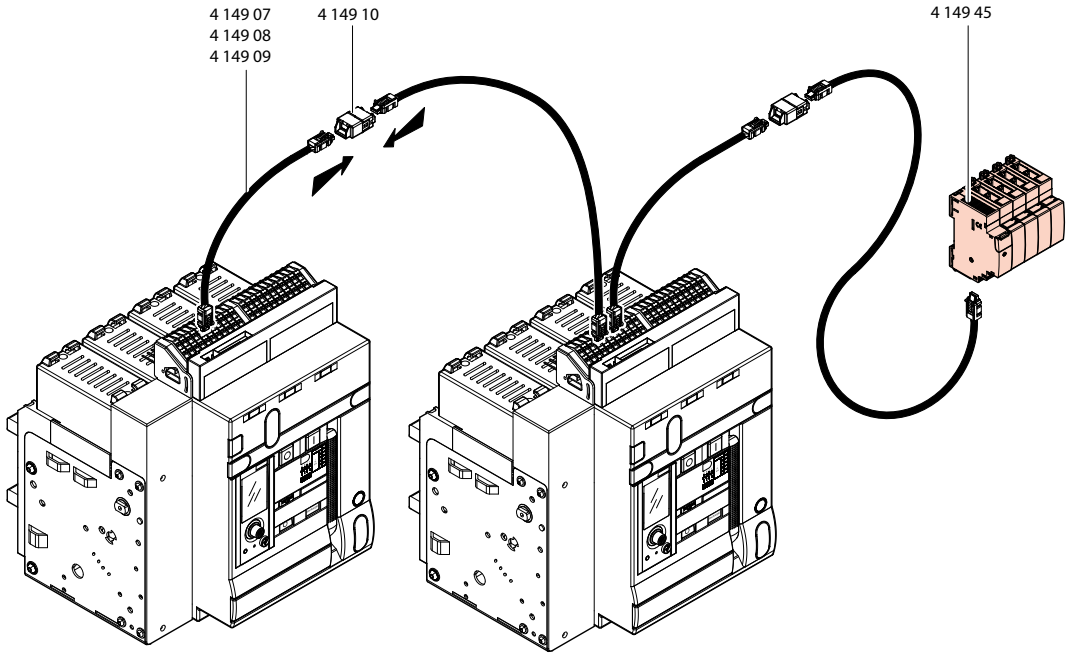
The CX³ EMS BUS connection specifications are common to all CX³ EMS products and are detailed in the product Instructionss

For more information about CX³ EMS power consumption, please consult the technical data sheet

Protection units can be connected to CX³ EMS system via connection cable Cat.Nos 4 149 07/08/09 and connector Cat.No 4 149 10.

- 4 149 07 : connection cable EMS length 250 mm
- 4 149 08 : connection cable EMS length 500 mm
- 4 149 09 : connection cable EMS length 1000 mm

The maximum total length allowed for CX³ EMS system must not exceed 3m.

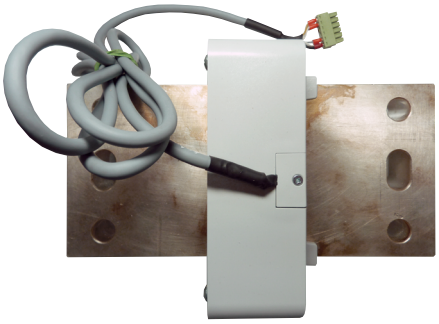


1 power supply module can provide up to 500 mA, so consumption must be calculated in order for the installation to work correctly

POWER CONSUMPTION

CAT.NOS	DESCRIPTION	MAXIMUM CONSUMPTION
0 283 04	MP2.10 protection unit without measure	55 mA
0 283 05	MP2.10 unité de protection with measure	69 mA
0 283 06	MP4.10 protection unit without measure	62,5 mA
0 283 07	MP4.10 protection unit with measure	80 mA

External Neutral and Earth protection

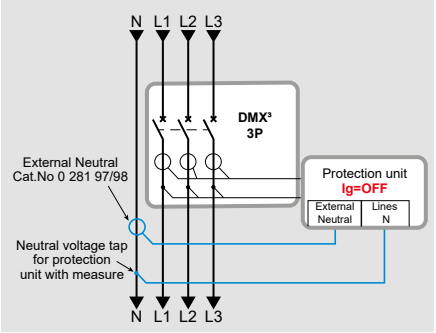


The use of the Rogowski coil requires a special adaptation of the circuit breaker. It must be ordered with this factory-fitted option, because it cannot be added later.
- 0 281 97 : External Neutral up to 6300 A
- 0 281 98 : External Neutral 2500 A or 4000 A

This coil is used for the following functions:
- Protection against overload of the Neutral when it is not broken by the DMX^3
- Earth protection with protection units with Ig activated

EXTERNAL NEUTRAL PROTECTION

This option is only available for 3-pole devices The coil is connected to the Neutral, at the same level as the DMX^3
For a protection unit with measure, a Neutral voltage tap should be applied (between the Neutral bar and the DMX^3 terminal block).

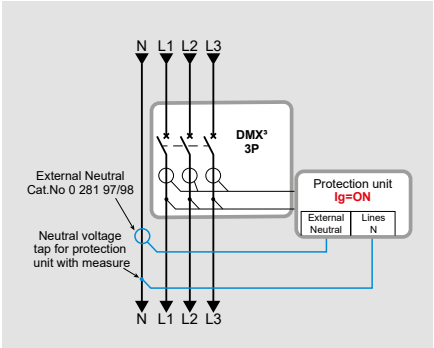


The direction of current flow in the Rogowski coil must be respected (see product instructions).
The terminal block supplied with the coil should be connected to the terminal block of the electronic board of the protection unit. Whenever possible, the coil wire should be kept as far as possible from electromagnetic interference sources (transformers, etc.) and from power conductors.

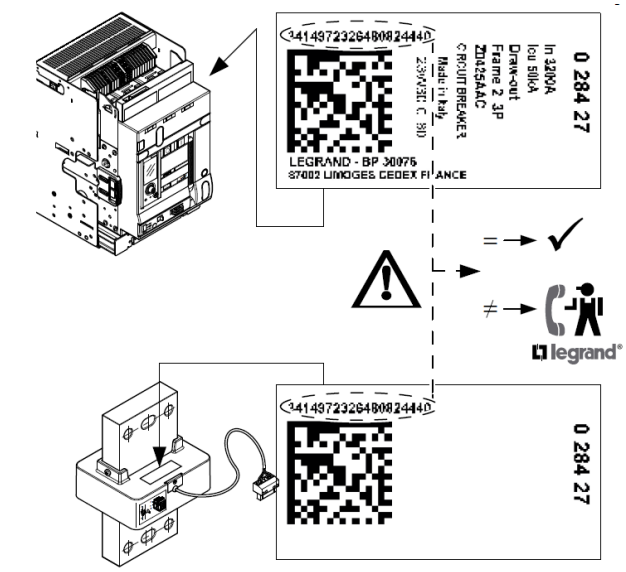
Check the correct setting of the protection unit.

EARTH PROTECTION

The "Earth protection" function is different from a "residual current protection" function.
As a reminder, the minimum setting of the Earth protection is Ig = 0.2 x In.
The protection principle is of the RS (Residual Sensing) type. The Earth fault current is calculated using the vector sum of the currents of the three phases. The SGR (Source Ground Return) and ZS (Zero Sequence) type protections are not usable.
This option is available for 3-pole DMX^3 air circuit breakers with unbroken Neutral, equipped with protection units, with mesaure.
The Rogowski coil is connected to the Neutral, at the same level as the DMX^3.
For the protection unit with measure, a Neutral voltage tap should be applied to the DMX^3 terminal block.



External Neutral protection against overloads is enabled at the factory, but can be disabled afterwards.
The direction of current flow in the Rogowski coil must be respected (see product instructions).
The terminal block supplied with the coil should be connected to the terminal block of the electronic board of the protection unit. Whenever possible, the coil wire should be kept as far as possible from electromagnetic interference sources (transformers, etc.) and from power conductors.
Check the correct setting of the protection unit.



The identification number of the external Neutral must be the same as the serial number of the circuit breaker.
If this is not the case, please consult us

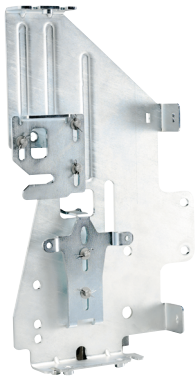
MECHANICAL ACCESSORIES

Mechanical accessories help provide safety functions. A large majority of mechanical accessories are common to the entire DMX^3 range.

Safety instructions p. 2

Locking in open position

Padlocking in open position



Interlocking mechanism

Operation counter

Padlocking for buttons

Inserted/Test/Draw-out lock button location

Door or faceplate lock

Locking in plugged in/ test/drawn out position

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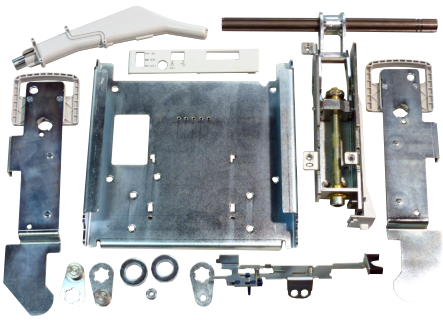
Lifting handles

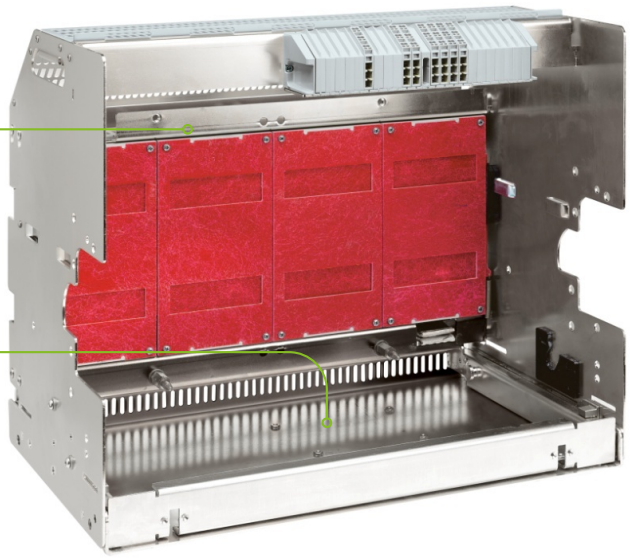


Fixed/draw-out conversion kit

Padlocking of safety shutters

Rating locating pin

BASE FOR DMX³ DRAW-OUT VERSION



CHOICE OF MECHANICAL ACCESSORIES

DESCRIPTION				SIZE 2500	SIZE 4000	SIZE 6300
DRAW-OUT VERSION	Empty bases ▶ p. 41	3-pole		0 289 02	0 289 04	0 289 13
		4-pole		0 289 03	0 289 05	0 289 14
	Fixed to draw-out conversion kits ▶ p. 41	3-pole		0 289 09	0 289 11	0 289 15
		4-pole		0 289 10	0 289 12	0 289 16
SUPPLY INVERTERS	Interlocking mechanism ▶ p. 35			0 288 64	0 288 65	0 289 66
	Interlocking cables ▶ p. 35	1 m		0 289 17		
		1.6 m		0 289 18		
		2.6 m		0 289 20		
		3 m		0 289 21		
		3.6 m		0 289 22		
		4 m		0 289 23		
		4.6 m		0 289 24		
		5.6 m		0 289 25		
LOCKING AND SECURITY – ALL VERSIONS	Locking in "Open" position (Lock + cylinder) ▶ p. 36	flat key		0 288 28 + 4 238 80 (random mapping)		
		flat key		0 288 28 + 4 238 81 (fixed mapping EL43525)		
		flat key		0 288 28 + 4 238 82 (fixed mapping EL43363)		
		star key		0 288 28 + 4 238 83 (random mapping)		
	Set of 5 cylinders and keys for a combination of locking in "Open" position ▶ p. 30			0 288 27		
	Padlocking in "Open" position ▶ p. 39			0 288 21		
	Door lock ▶ p. 38			0 288 20		
	Padlocking of O/I buttons ▶ p. 40			0 288 24		
LOCKING AND SECURITY – DRAW-OUT VERSION	Locking in "Plugged in/test/drawn out" position ▶ p. 37	flat key		0 281 94 + 4 238 80 (random mapping)		
		star key		0 281 94 + 4 238 83 (random mapping)		
	Padlocking in "Drawn out" position ▶ p. 39			0 288 26		
	Locking in inserted/test/drawn-out position ▶ p. 40			0 288 17		
	Rating locating pin ▶ p. 38			0 288 25		
VARIOUS	Lifting handles ▶ p. 34			0 288 79		
	Operation counter ▶ p. 38			0 288 23		

Lifting handles

Handles are sold in pairs.

They are used to lift the device to extract a draw-out DMX³ from its base or to install a fixed DMX³ in an enclosure.

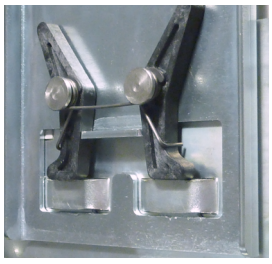
For safe operation, it is necessary to ensure correct insertion of the two handles, and be sure to use proper lifting equipment.

These handles are used exclusively for handling and the installation of the DMX³ 2500/4000/6300

Placement of a draw-out DMX³ in its base

INSTALLING LIFTING HANDLES

INCORRECT

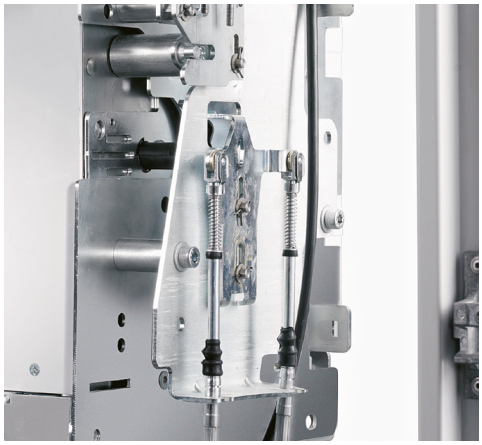


CORRECT

Placement of a fixed DMX³

Interlocking mechanism

The interlocking mechanism can mechanically lock multiple DMX^3 devices together. It is used to create a supply inverter with :
- 2 devices: A type
- 3 devices: B, C or D type (see page 54-55).
There is one Cat.No for each DMX^3 size, thus three Cat.Nos in total.



Only Legrand interlocking cables, referenced for the DMX^3 (see below) must be mounted on the interlocking mechanisms.

Interlocking cables

Interlocking cables are used to mechanically connect the DMX^3 via the interlocking mechanisms (see above).
They are available in seven standard lengths: 1 - 1.6 - 2.6 - 3 - 3.6 - 4 - 4.6 - 5.6 m.
The length should be chosen based on the location of the DMX^3 in the enclosure.
It is important to respect the minimum bend radius of 65 mm, and to ensure that throughout its length, it is fixed to the enclosure structure after mechanical adjustment of the system.

For specific lengths, please consult us

Key locking in "Open" position

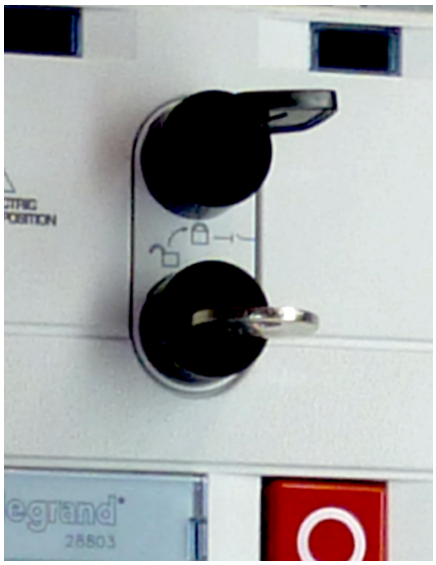
Locking in the "open" position prohibits the closure of the DMX³. This lock can be installed on fixed or draw-out devices (air circuit breaker or trip-free switch), size 2500, 4000 or 6300.

There are 2 types of lock:
- with a flat key (RONIS type) or
- with a star key (PROFALUX type)

To lock the DMX³, simply press the OFF button and turn the key a 1/4 turn clockwise. To unlock the DMX³, simply turn the key a 1/4 turn anti-clockwise; the OFF button will revert to its original position.
The key can be removed when the lock is in the "locked" position. This then renders the device inoperative.
The locking accessory includes 2 slots. It is possible to install either a single cylinder (with flat or star key) in either 1 of the 2 housings, in other words slots, or 2 cylinders (either 2 of the same type or 1 of each).
In the latter case, only 1 of the keys is required to lock the DMX³.

It is possible to order specific cylinders or extra keys by specifying the cylinder number:
- flat key: ABA90GEL6149
- star key: HBA90GPS6149

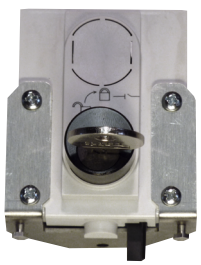
However, it is necessary to order a lock kit in order to have different mounting accessories.



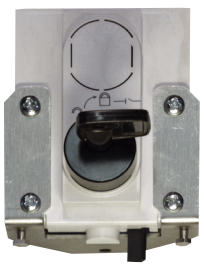
Locking accessory equipped with 2 cylinders of different types

The 2 available slots on the key locks provide the same locking.

There is a kit for key locking in the "open" position, consisting of 5 identical cylinders with 5 corresponding flat keys and accessories (mounting rings and drive cams), and a kit consisting of 5 different cylinders and 3 different keys for creating several different combinations (see list on page 6).

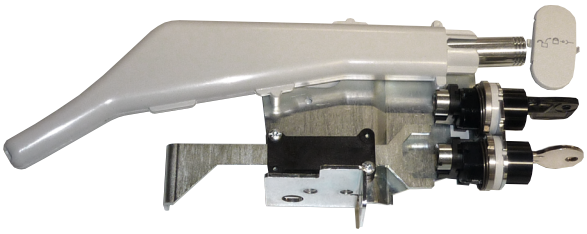


Locking accessory Cat.No 0 288 28, equipped with a cylinder with a flat key Cat.No 4 238 80



Locking accessory Cat.No 0 288 28, equipped with a cylinder with a star key Cat.No 4 238 83

Key locking in "Plugged IN/TEST/ Drawn OUT" position



Locking accessory Cat.No 0 281 94 equipped with 2 cylinders of different types Cat.No 4 238 80 (flat key) and Cat.No 4 238 83 (star key)

This accessory permits locking in the plugged in, test or drawn out positions.
A part supplied with the kit is used to prevent locking in a plugged in position.
It is always preferable to install this part, thus preventing locking in a "plugged in" position, and remove it later if necessary.

To lock the draw-out DMX^3 in a "test" position and/or in a "drawn out" position, turn the key a 1/4 turn clockwise after making sure that the handle is removed from the plug-in system, and that its slot is closed.
In a "locked" position, the key is free. It is then possible to put the unit out of use by removing it.
To unlock the DMX^3, to be able to plug it in, simply turn the key a 1/4 turn anti-clockwise, thus releasing the blanking system for the handle.

There are 2 types of lock:
- with a flat key (RONIS type)
- with a star key (PROFALUX type)

It is possible to order specific cylinders or extra keys by specifying the cylinder number:
- flat key: ABA90GEL6149
- star key: HBA90GPS6149

However, it is necessary to order a lock kit in order to have different mounting accessories.

The 2 available slots on the key locks provide the same locking.

Door lock

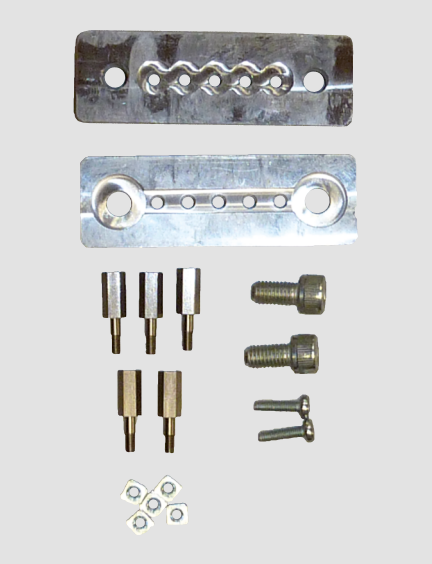
This lock is used to prevent the opening of the faceplate or door when the draw-out DMX³ is in a "plugged in" position. The faceplate can be opened in the "drawn out" position.

The faceplate can be closed in 3 positions with the DMX³ closed or open.
The lock can be installed on the left or right respectively, for a faceplate with left or right hinges.

The Cat.No includes all the accessories for mounting the fixed part on to the DMX³, and the movable part on the door or on the faceplate.

The faceplates for DMX³ used in XL³ 4000/6300 enclosures are already equipped with the locking system.

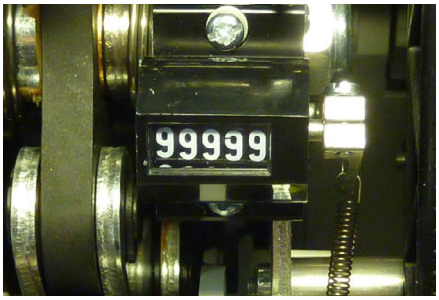
Rating locating pin



When several draw-out DMX³ are present in the same panel, the rating locating pin ensures that the incorrect DMX³ cannot be installed in a base.

If the size and number of poles can be identical, the settings, wear, marking and accessories can be different.
There are 9 possible coding combinations.

Operation counter



The operation counter is used to display the number of "opening/closing/spring charging" cycles performed by the product on the front of the DMX³.

This counter can be installed on all air circuit breakers and trip-free switches in the DMX³ range.

It comes with the display "**99995**".
It cannot be reset manually.

Padlocking in "open" position

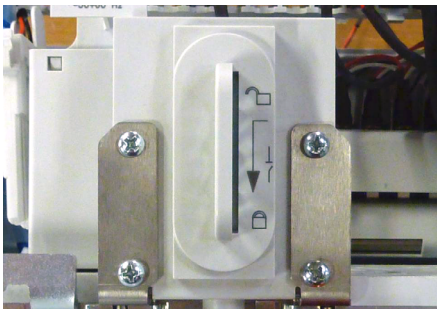
This accessory for locking in "open" position prevents the closure of the DMX^3 localy and remotely.

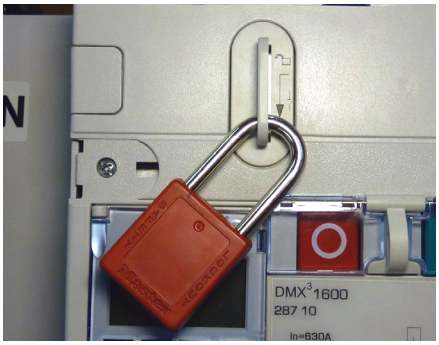
It can be installed on fixed or draw-out devices (air circuit breaker or trip-free switch), size 2500, 4000 or 6300.
This accessory is mounted instead of the key lock for locking in the open position (see p. 36), it is therefore impossible to have a key lock and a padlock for locking in the open position on the same device.

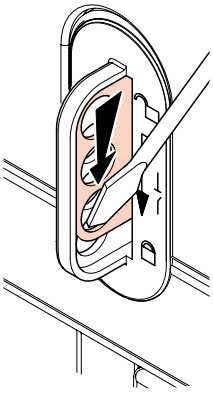
It can take up to 3 padlocks with a diameter between 5 and 8 mm. One single padlock installed ensures locking.

To padlock the DMX^3, it is first necessary to press and hold the OFF button and push down on the metal part.

2 safety padlocks are available in Legrand's offer :
- Cat. No 4 063 11 (Ø5 mm)
- Cat. No 0 227 97 (Ø6 mm)





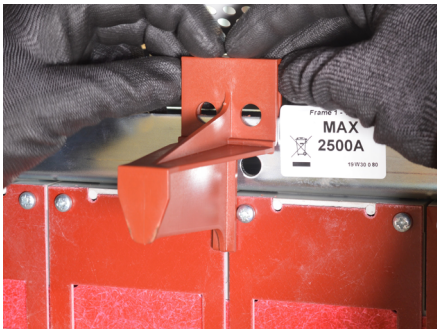


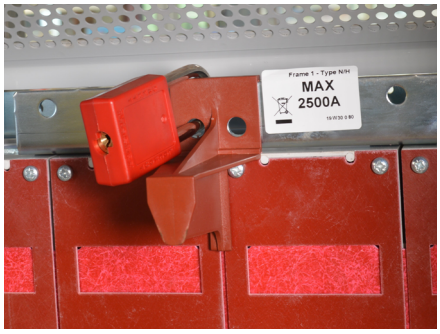
Padlocking in "Drawn out" position

This safety accessory can take 2 padlocks with a diameter between 5 and 8 mm.

When at least one padlock is installed, it prevents the safety shutters from being opened and, when inserting a device, locks the device in the "drawn out" postion by a physical end stop.

Once in place in the base, the DMX^3 cannot be set to the "test" position.





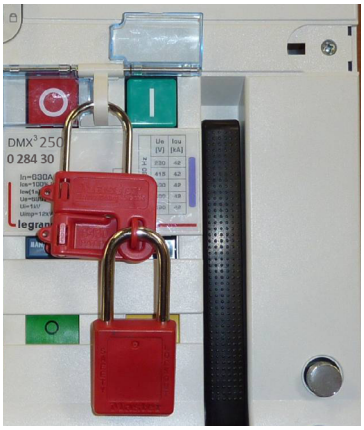
Padlocking the ON/OFF buttons

This device is used to lock out physical access to the ON/OFF buttons. It is possible to lock both buttons at the same time, or only one of them. This device can only take one padlock with a diameter of 4 mm. In case of fault detected by the protection unit, only remote control is possible to see the locked functions and any openings for triggering the protection.

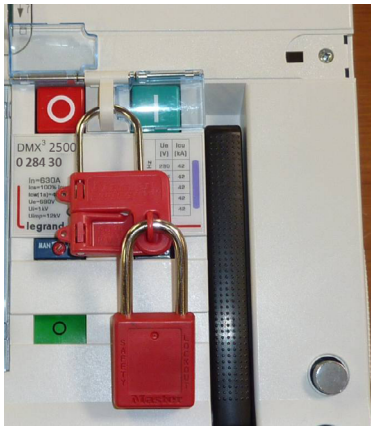
Master lock S430

Padlock Cat.No 0 227 97

Padlocking the ON button only



Padlocking the OFF button only



Padlocking the ON and OFF buttons

Padlock button Inserted/Test/Drawn-out

This accessory allows you to mechanically lock the desired position of the DMX³
A press of the button unlocks the assembly and allows you to reach another position with the crank.

This accessory increases safety thanks to the safety of the position (terminal block contact, test position, etc...).

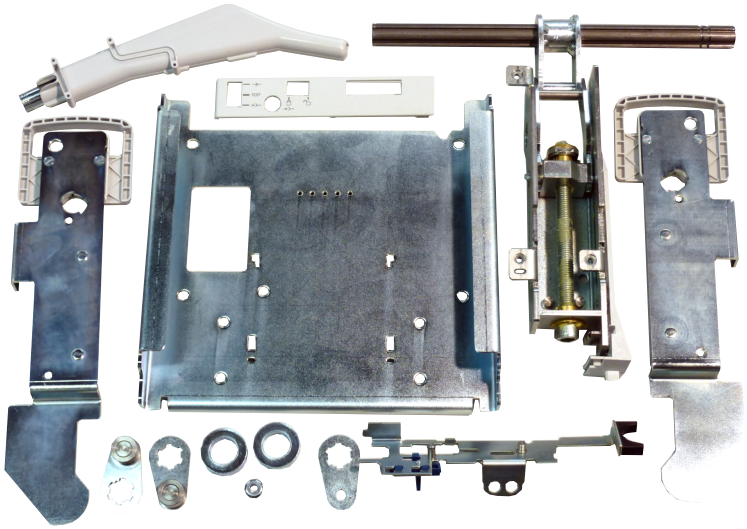
Empty base

Empty bases are used to convert a fixed DMX³ to draw-out device by equipping it with the appropriate conversion kit (see below).

Empty bases are supplied without accessories and without the auxiliary terminal block (see spare parts list).

Empty base for DMX³ - Size 6300 - 4-pole - Cat.No 0 289 14 and terminal block Cat. No. 0 290 12

Fixed to draw-out conversion kits



Associated with an empty base, these kits are used to convert a fixed device to a draw-out device.

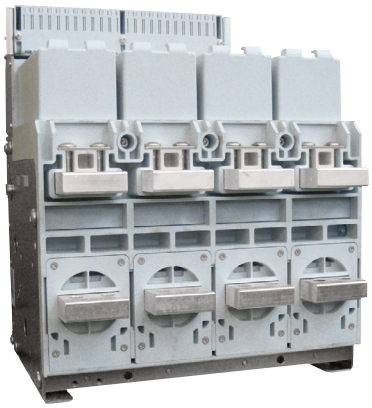
It is possible to order a DMX³ device factory fitted with a conversion kit without the base.

They include all the accessories required for conversion, such as the plug-in mechanism, handles, actuator, etc.

CONNECTION ACCESSORIES

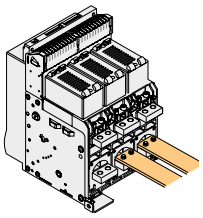
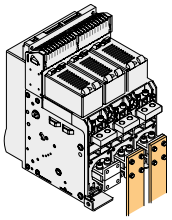
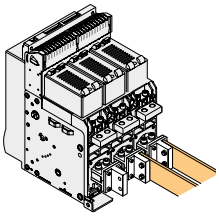
The different types of rear terminals can be mounted on the upstream and downstream DMX³ terminals allowing many connection configurations depending on the distribution system inside the enclosure. The material used for the plates and fitting accessories (silver coated copper) enables connections in copper as well as aluminium.

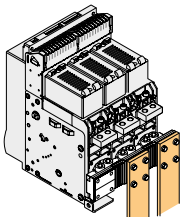
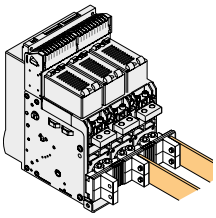
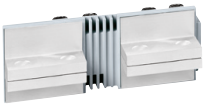
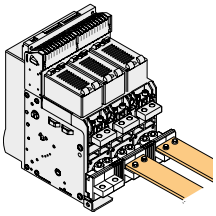
DMX³ FIXED VERSION



DMX³ fixed version:
horizontal connection plates

Example of insulated shields
mounted on the fixed DMX³ 3P

CONNECTION	ACCESSORIES	
Horizontal	-	
Flat	 Flat rear terminals	
Vertical	 Flat rear terminals + vertical rear terminals	

CONNECTION	ACCESSORIES	
Flat	 Flat spreader	
Vertical	 Vertical spreader	
Horizontal	 Horizontal spreader	

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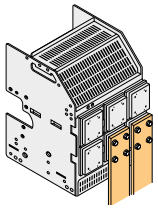
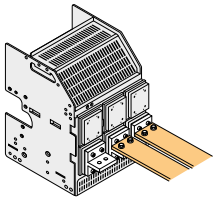
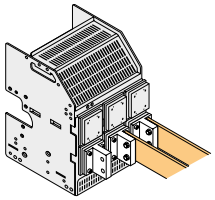
DMX³ DRAW-OUT VERSION

DMX³ draw-out version:
"flat" connection plates

CONNECTION	ACCESSORIES	
Flat	-	
Horizontal	 Horizontal rear terminals	
Vertical	 Vertical rear terminals	

CHOICE OF CONNECTION ACCESSORIES

DESIGNATION			SIZE 2500	SIZE 4000	SIZE 6300
FIXED VERSION	Flat rear terminals	3-pole	0 288 84	0 288 92	2 x 0 288 92
		4-pole	0 288 85	0 288 93	2 x 0 288 93
	Alu flat rear terminals	3-pole	0 288 86 + 6 696 18 (up to 1600 A)		
		4-pole	0 288 87 + 6 696 19 (up to 1600 A)		
	Vertical rear terminals	3-pole	0 288 84 + 0 288 82	0 288 92 + 0 288 94	2 x 0 288 92 + 2 x 0 288 94
		4-pole	0 288 85 + 0 288 83	0 288 93 + 0 288 95	2 x 0 288 93 + 2 x 0 288 95
	Flat spreader	3-pole	0 288 86		
		4-pole	0 288 87		
	Vertical spreader	3-pole	0 288 88		
		4-pole	0 288 89		
	Horizontal spreader	3-pole	0 288 90		
		4-pole	0 288 91		
	Insulated shields	3-pole	0 288 98		
		4-pole	0 288 99		
DRAW-OUT VERSION	Vertical rear terminals	3-pole	0 288 96	0 288 94	2 x 0 288 94
		4-pole	0 288 97	0 288 95	2 x 0 288 95
	Alu vertical rear terminals	3-pole	6 696 18 (jusqu'à 1600 A)		
		4-pole	6 696 19 (jusqu'à 1600 A)		
	Horizontal rear terminals	3-pole	0 288 96	0 288 94	2 x 0 288 94
		4-pole	0 288 97	0 288 95	2 x 0 288 95
	Alu horizontal rear terminals	3-pole	6 696 18 (jusqu'à 1600 A)		
		4-pole	6 696 19 (jusqu'à 1600 A)		
	Insulated shields	3-pole	0 288 18		
		4-pole	0 288 19		

Catalogue numbers marked as "3-pole"are composed of 3 parts.
Catalogue numbers marked as "4-pole"are composed of 4 parts.
For Size 6300 devices, the quantities are doubled.

Technical characteristics

The various connection accessories available for the entire DMX³ range offer a wide choice of options, which can be easily adjusted according to the desired configurations.
The screws needed for assembly of the different accessories are supplied with each set. Tightening torques to be applied are shown in the instructions supplied with the products.
The screws used for fixing busbars to the accessories are not supplied; these remain the responsibility of the panel builder.
Tightening torques for busbar fixing screws depend on the diameter and the quality thereof. It is therefore necessary to consult the manufacturer of the screws used.

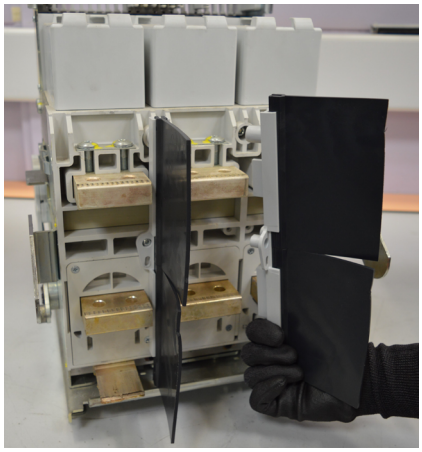
DMX³ FIXED VERSION

- Size 2500: 6 possible configurations for rear terminals - horizontal, vertical, flat, horizontal spreaders, vertical spreaders and flat spreaders.
- Size 4000 and 6300: 3 possible configurations for rear terminals - horizontal, vertical and flat.

The insulated shields Cat.No 0 288 98/99 are for sizes 2500, 4000 and 6300.
They cannot be mounted when the DMX³ is equipped with spreaders.

■ Horizontal connection

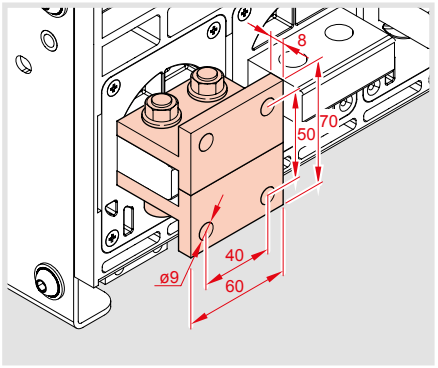
Fixed DMX³ are devices equipped as standard with rear terminals with horizontal connection plates (see next page). Copper or aluminium busbars can be connected directly to them.
It is possible to install insulated shields between the poles.



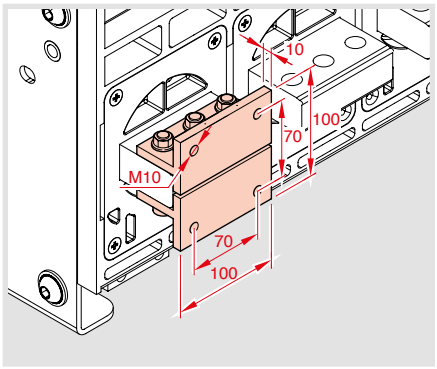
The insulated shields are high enough to isolate both the upstream and downstream terminals.

■ Flat connection

Flat connection accessories attach directly to horizontal connection plates integrated in the fixed version DMX³.
Copper or aluminium busbars bolt directly to the flat connection plates, such as the ends of the upstream vertical busbars, for example.
The flat connection kit is required for use with DMX³/SCP incomer connection kits (see page 52).
It is possible to install insulated shields between the poles. The dividers are high enough to isolate both the upstream and downstream terminals equipped with flat connection accessories.
Size 6300 DMX³ with their doubled poles, the kits for flat connections must be ordered in pairs.

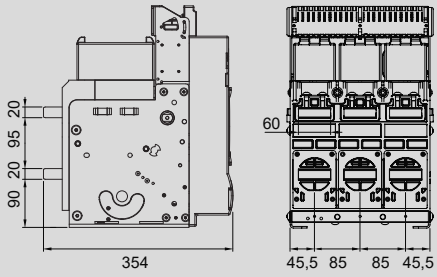
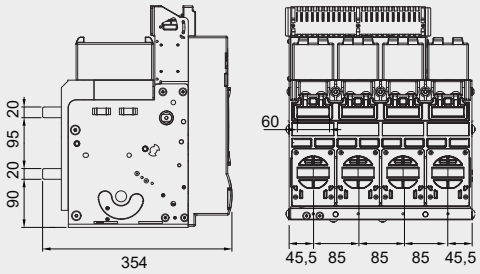
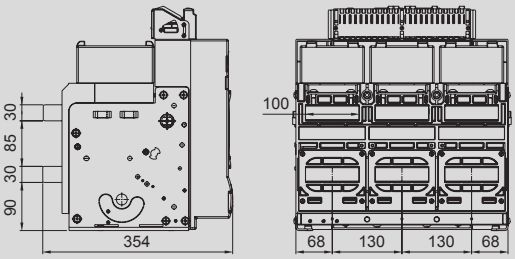
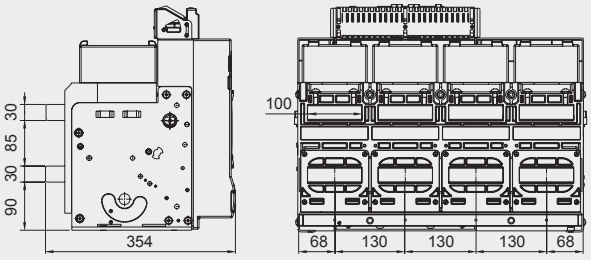
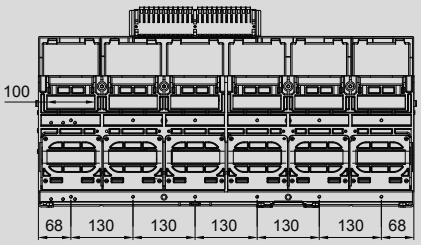
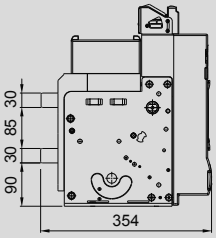
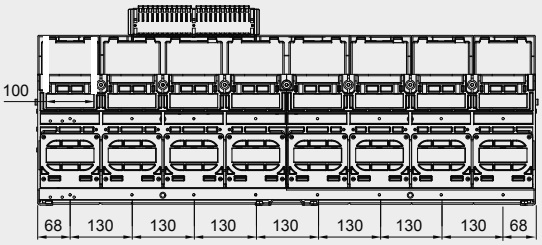
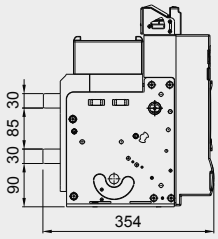


Flat connection accessory for the DMX³ size 2500



Flat connection accessory for DMX³ size 4000 and 6300

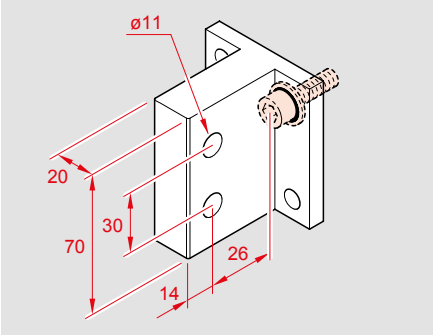
The choice of connection accessories must be made according to the size and number of bars used by the poles.

FIXED DMX³	3-POLE	4-POLE
Size 2500		
Size 4000		
Size 6300	 	 

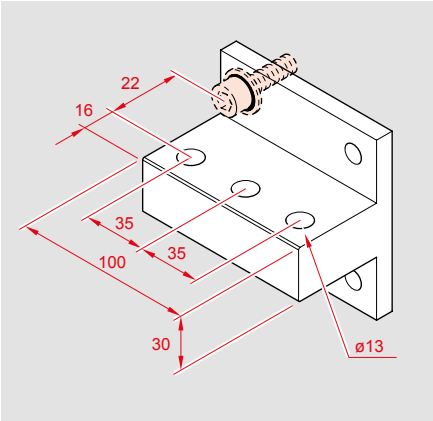
Rear terminals for horizontal connections integrated on the fixed DMX³

Vertical connection

For DMX³ sizes 2500, 4000 and 6300, the vertical connection kit is fixed. It is mounted on the flat connection kit. Copper or aluminium busbars bolt directly to the vertical plates, such as the connections to transfer busbars for example.
It is possible to install insulated shields between the poles. The insulated shields are high enough to isolate both the upstream and downstream terminals equipped with vertical connection kits.
Size 6300 DMX³ have double poles, hence the vertical connection kits must be ordered in pairs.



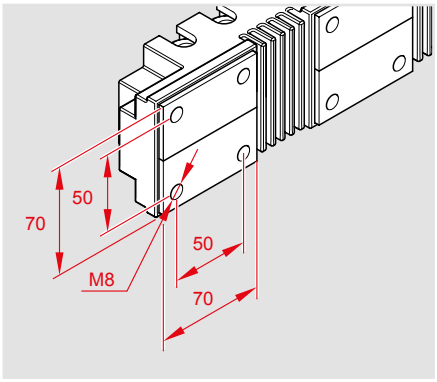
Vertical connection accessory for fixed DMX³ size 2500

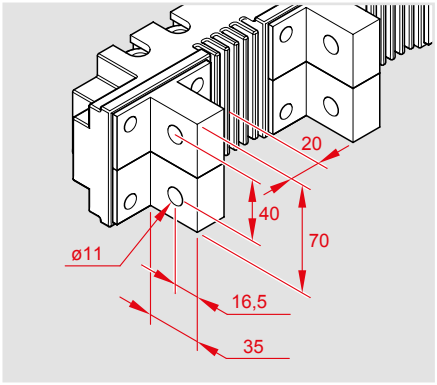


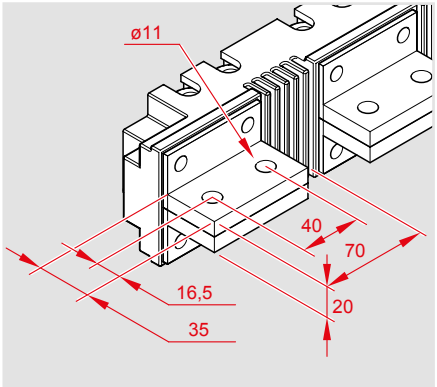
Orientable connection accessory for DMX³ size 4000 and 6300

Connections with flat, vertical and horizontal spreaders

Only size 2500 fixed DMX³ devices can be equipped with spreaders. The new fixing centre obtained thus increases from 85 mm to 116.5 mm (3P) or 106 mm (4P).
It is not possible to install separation dividers when the DMX³ is equipped with spreaders.
Copper or aluminium busbars are connected directly to the spreaders.







Spreaders for fixed DMX³ size 2500

DMX³ DRAW-OUT VERSION

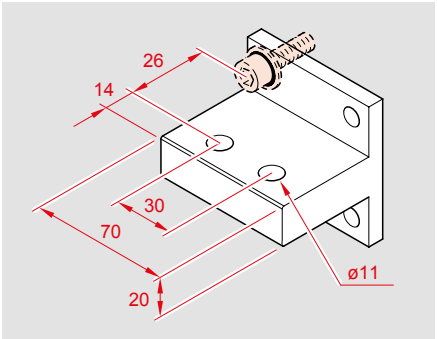
The rear terminals and connection accessories of the draw-out DMX³ allow 3 connection configurations: flat, horizontal and vertical.
Insulated shield (Cat.No 0 288 18/19) can be installed between each pole on all draw-out devices. The dividers are high enough to isolate both the upstream and downstream terminals.

Flat connection

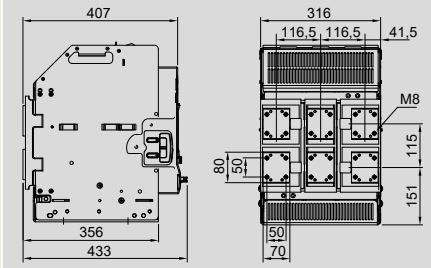
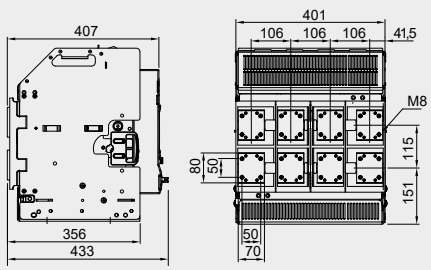
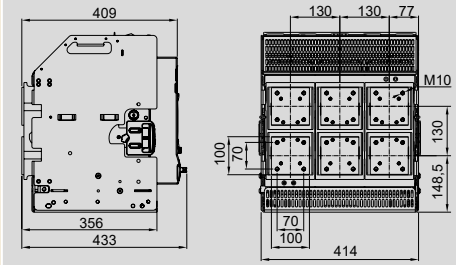
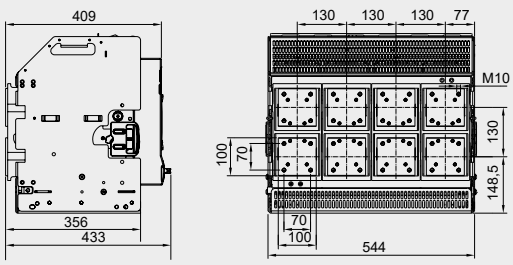
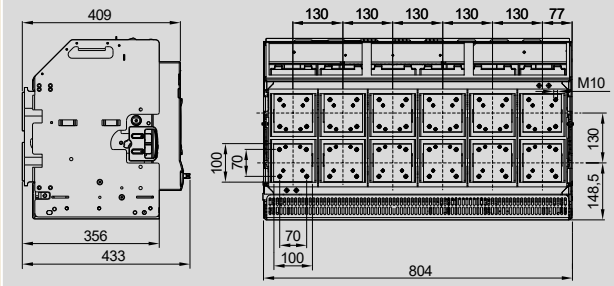
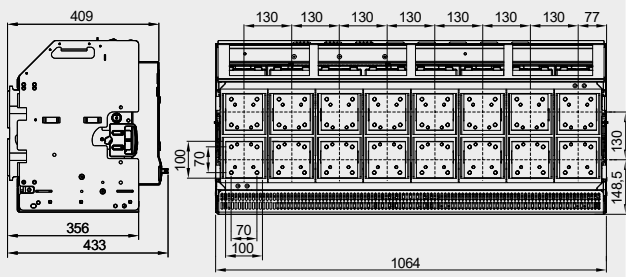
The draw-out DMX³ is equipped as standard (without any other accessories) with flat connection plates (see next page).
Copper or aluminium busbars can be connected directly to them.

Horizontal connection

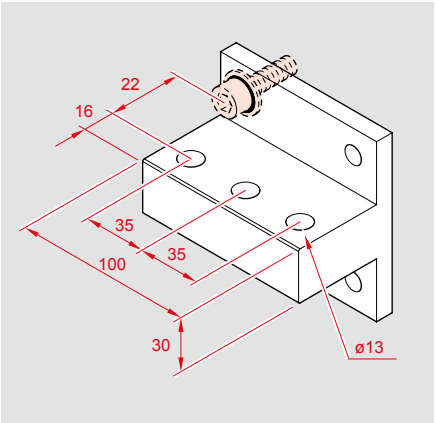
For DMX³ sizes 2500, 4000 and 6300, the rear terminals can be oriented horizontally or vertically.
Copper or aluminium busbars can be fixed directly to these accessories, such as the connections to transfer busbars for example.
Size 6300 DMX³ have double poles, hence the connection kits must be ordered in pairs.



Orientable connection accessory for draw-out DMX³ size 2500.

DRAW-OUT DMX³	3-POLE	4-POLE
Size 2500		
Size 4000		
Size 6300		

Rear terminals for flat connections integrated on the draw-out DMX³



Orientable connection accessory for draw-out DMX³ size 4000 and 6300

■ Vertical connection

For DMX³ size 2500, 4000 and 6300, the same orientable rear terminals are used as for the horizontal connection.
Copper or aluminium busbars can be fixed directly to these accessories, such as the connections to transfer busbars for example.
Size 6300 DMX³ have double poles, hence the connection kits must be ordered in pairs.

DMX³ INSTALLATION IN ENCLOSURES

MOUNTING IN XL³ ENCLOSURES

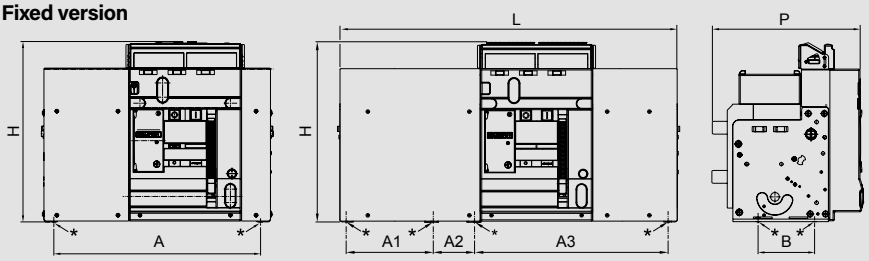
XL³ 4000 and 6300 enclosures have equipment specifically dedicated to mounting DMX³ devices (see table below). The possible installation configurations are numerous. Installation is facilitated by the use of XL Pro³ software.
It is also possible to install DMX³ in "OEM" or locally built enclosures.
In this case, it is the panel builder's responsibility to adapt accessories for the correct implementation of the DMX³, taking into account the significant weight of these products.

In order to fix DMX³ devices correctly on their plate, they have M8 inserts (four for DMX³ fixed and draw-out versions sizes 2500 and 400 and draw-out versions size 6300, eight for DMX³ fixed versions size 6300).

The metal structure of the DMX³ must be connected to the enclosure ground.
The fixing points cannot be considered as connection points.

DIMENSIONS FOR MOUNTING IN ENCLOSURES OTHER THAN XL³

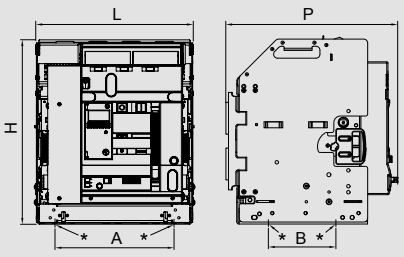
Fixed version



∗ M8 fixing points

Dimensions (mm)		Size 2500 3P	Size 2500 4P	Size 4000 3P	Size 4000 4P	Size 6300 3P	Size 6300 4P
Overall	H	419	419	419	419	419	419
	W	273	358	408	538	797	1057
	D[1]	354	354	354	354	354	354
Fixing centres	A	215	300	350	480	A1: 183 A2: 114 A3: 443	A1: 443 A2: 114 A3: 443
	B	132	132	132	132	132	132
Weight (kg)	Circuit breaker	41	48	59	76	118	152
	Switch		45	57		114	146

Draw-out version



∗ M8 fixing points

Dimensions (mm)		Size 2500 3P	Size 2500 4P	Size 4000 3P	Size 4000 4P	Size 6300 3P	Size 6300 4P
Overall	H	473	473	473	473	473	473
	W	327	412	425	555	804	1064
	D[1]	433	433	433	433	433	433
Fixing centres	A	220	305	318	448	448	708
	B	170	170	170	170	170	170
Weight (kg)	Circuit breaker	77	94	108	137	225	274
	Switch	75	91	106	134	212	268

1: Without accessories and in "plugged in" position for draw-out versions

XL³ EQUIPMENT FOR THE DMX³		SIZE 2500 3P/4P FIXED	SIZE 2500 3P/4P DRAW-OUT	SIZE 4000 3P FIXED	SIZE 4000 3P DRAW-OUT	SIZE 4000 4P FIXED	SIZE 4000 4P DRAW-OUT	SIZE 6300 3P/4P FIXED	SIZE 6300 3P/4P DRAW-OUT
XL³ 4000 24 modules	Plate	0 207 51	0 207 53	0 207 51	0 207 53	0 207 51	0 207 53	-	-
	Faceplate	0 209 38				0 209 39		-	
XL³ 4000 36 modules	Plate	0 207 52	0 207 54	0 207 52	0 207 54	0 207 52	0 207 54	-	-
	Faceplate	0 209 48						-	
XL³ 6300	Plate	-						0 211 38	0 211 40
	Faceplate	-						0 211 39	

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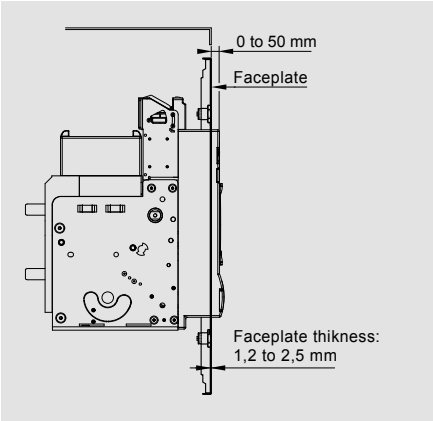
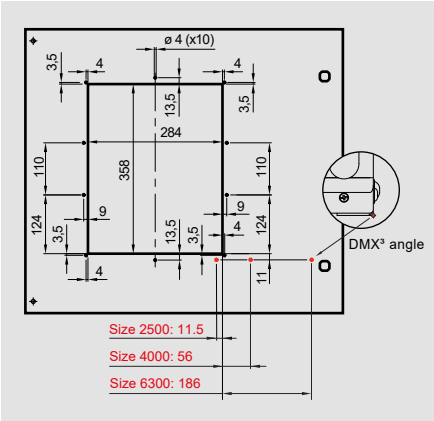
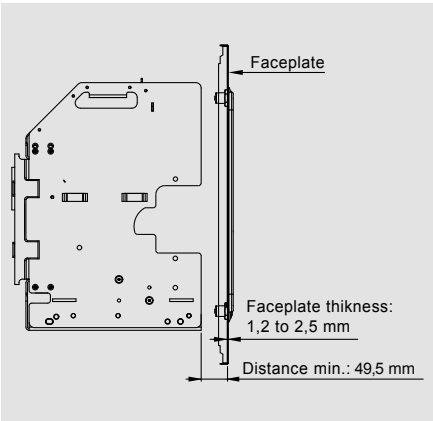
For enclosures different from XL^3, it is necessary to respect the installation position of the DMX^3 in terms of depth relative to its faceplate. Ensure that the space between the DMX^3 and the faceplate is enough, and that the front panel of the DMX^3 protrudes slightly to be able to install the IP40 frame.
Faceplates for XL^3 4000 and XL^3 6300 enclosures are pre-drilled to attach the IP40 frames.
For other enclosures, follow the drilling plan below according to the type of device.
When installing a DMX^3 in an enclosure, it is imperative that a safety gap is provided down the sides of the arc chambers. In fact, during an arc blast, it is possible for the air to ionize and cause a short circuit between nearby bare conductors.



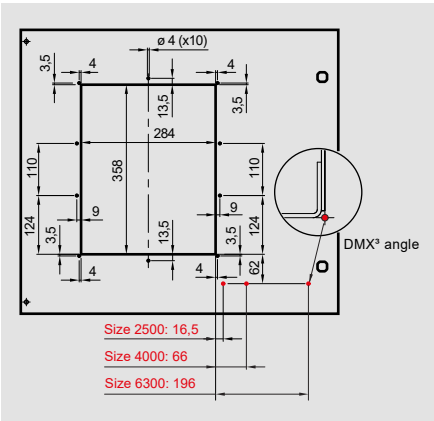
Position of a fixed DMX^3 in relation to its faceplate



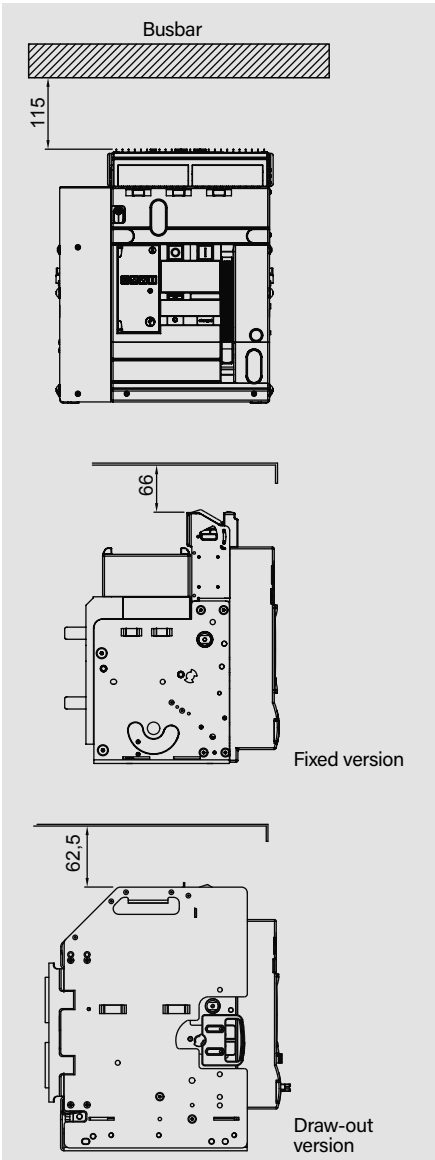
Drill hole drawing of the faceplate for a fixed DMX^3



Position of a draw-out DMX^3 in relation to its faceplate



Drill hole drawing of the faceplate for a draw-out DMX^3



It is recommended to leave a space of 115 mm between the top of the DMX^3 and the busbar and to leave a space of 66 mm for fixed versions, or 62.5 mm for draw-out versions, between the top of the DMX^3 and any metal element (divider, structure, etc.)

All devices come with an IP 40 frame which is installed on the faceplate to prevent access to live parts on the front panel

▪ MOUNTING IN XL³ S 4000 ENCLOSURES

The catalogue numbers regarding plates are the same for a withdrawable or fixed mounting DMX³ (3P or 4P). The catalogue numbers are different in relation to the enclosure's width and the DMX³ type (2500 or 4000).

Mounting possibilities and catalogue numbers of the required devices :

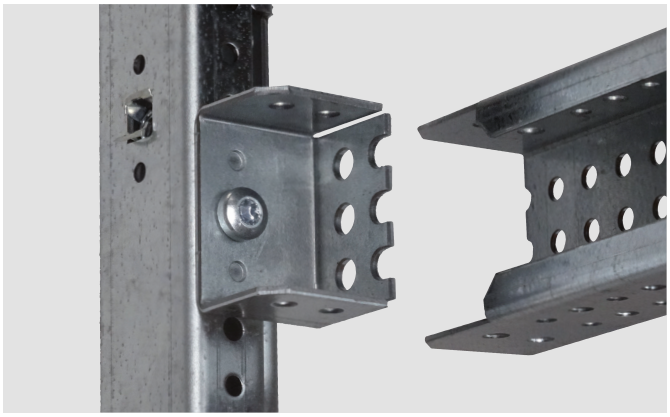
	DMX³ 2500	DMX³ 4000	DMX³ 6300
Plate for a 16 modules enclosure + crosspieces	✗	✗	✗
Plate for a 24 modules enclosure + crosspieces	3 391 43 + 3 397 34 (depth 400 mm) 3 397 35 (depth 600 mm) 3 397 36 (depth 800 mm)	✗	✗
Plate for a 36 modules enclosure + crosspieces	3 391 45 + 3 397 34 (depth 400 mm) 3 397 35 (depth 600 mm) 3 397 36 (depth 800 mm)	3 391 85 + 3 397 34 (depth 400 mm) 3 397 35 (depth 600 mm) 3 397 36 (depth 800 mm)	✗

DMX³ 6300 cannot be mounted in XL³ S 4000 enclosures

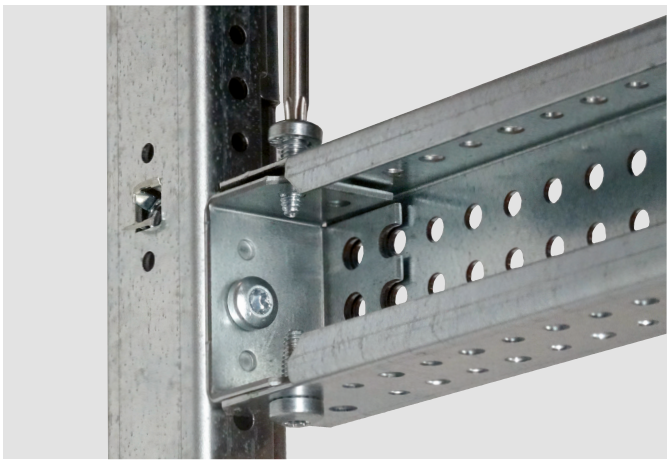
▪ Assembly steps

- Use crosspieces corresponding to the enclosure's depth (the Cat.no includes 2 crosspieces, 2 fixing lugs and 12 self-tapping screws).

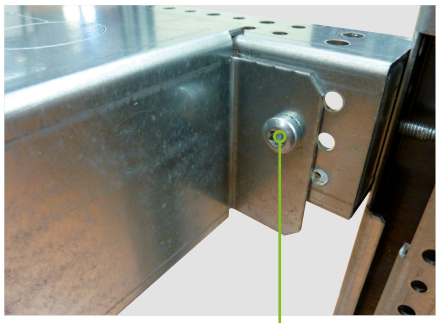
- Fix the fixing lugs respecting the mini distance regarding the top of the enclosure (fixing screws at least 800 mm from the top of the enclosure: see instruction use) → Torx S.30 end-piece, tightening torque 5 N.m.



- Fix the crosspieces on the fixing brackets (2 screws/bracket): Torx S30 end-piece, tightening torque 5 N.m.

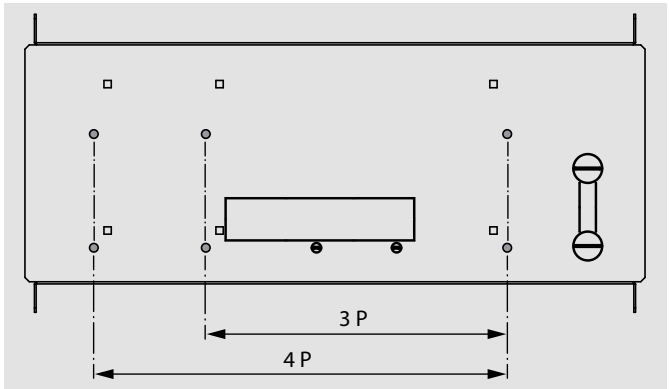


- Then, fix the plate on the crosspieces (2 screws/crosspiece): Torx S30 end-piece, tightening torque 5 N.m.
Use the 2nd hole of the crosspiece, starting from the edge (front of the enclosure).

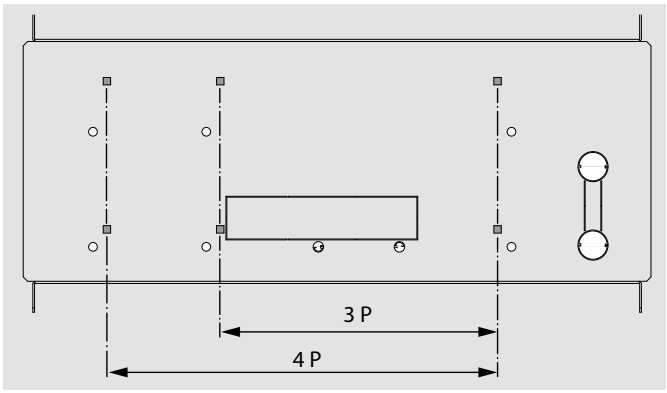


- Fixing the DMX³ on the plate :
Use the screws and washers that were on the pallet and fix the DMX³ (tightening torque 10 N.m.) respecting the holes explained on the diagram

DMX³ 2500/4000 fixed version : round holes



DMX³ 2500/4000 draw-out version: square holes

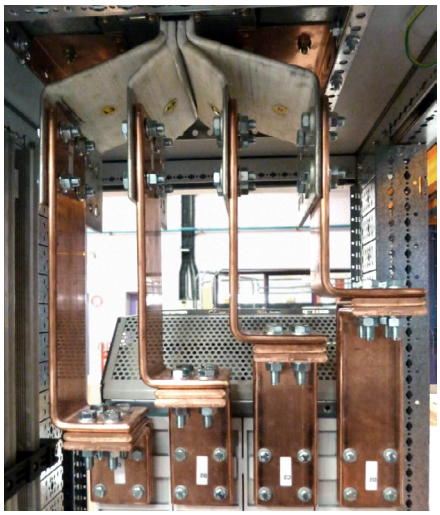


CONNECTION

Dedicated kits facilitate connection of the DMX³ upstream terminals to an incomer for Legrand SCP prefabricated trunking. These kits are mounted on DMX³ size 2500 devices from 1600 to 2500 A, fixed or draw-out versions, 3-pole or 4 pole. They require the use of flat connection accessories (see page 43).

SCP LINK CONNECTION KITS

DMX³	FIXED	DRAW-OUT
1600 A	4 043 00	4 043 03
2000 A	4 043 01	4 043 04
2500 A	4 043 02	-



Kit for connection between a draw-out DMX³ size 2500 and an incoming SCP

KITS FOR CONNECTION TO TRANSFER BUSBARS

CONFIGURATION	DMX³			
	SIZE 2500			SIZE 4000 UP TO 3200 A
	≤ 1600 A	≤ 2000 A	≤ 2500 A	
1 fixed DMX³	4 043 68	-	-	-
	-	4 043 64	-	4 043 60
2 fixed DMX³ as supply inverters	4 043 69	-	-	-
	-	4 043 65	-	4 043 61
1 draw out DMX³	4 043 70	-	-	-
	-	-	4 043 66	4 043 62
2 draw-out DMX³ as supply inverters	4 043 71	-		-
	-	-	4 043 67	4 043 63

Prefabricated connection kits are also provided for the DMX³ downstream connection to aluminium transfer busbars (with 75 mm fixing centres) positioned above or below the DMX³. These pre-formed and pre-drilled copper kits are available for size 2500 devices up to 2000 A and size 4000 for up to 3200 A, fixed and draw-out versions, and for supply inverters.

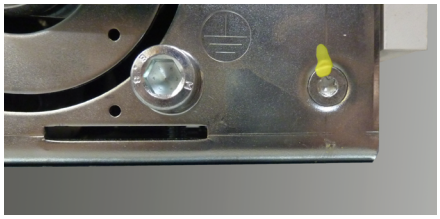
Caution: the bars should be aligned with the DMX³ connection plates and respect the insulation distance

Kit for connection between a draw-out DMX³ size 2500 inverter and aluminium transfer busbars

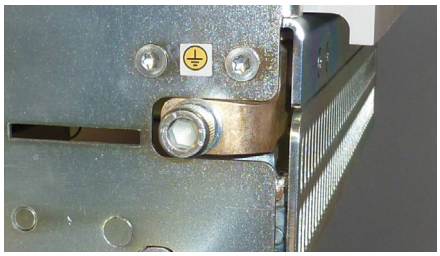
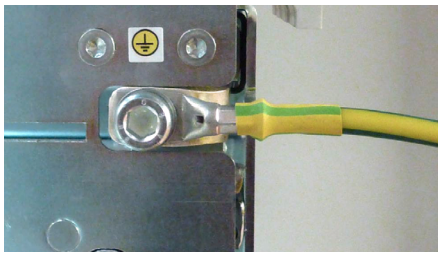
Kit for connection between a fixed DMX³ size 2500 aluminium transfer busbars

The DMX³ structure must be connected to the enclosure ground. The fixing points of the DMX³ cannot be considered as connection points.

- **Connection point on the fixed DMX³**

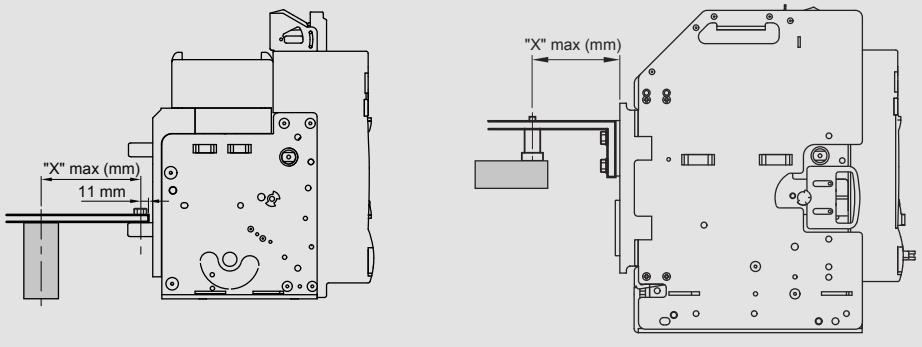



Connection point on the draw-out base

The cross-section of the earth conductor will be determined by a precise study specific to each installation according to its ICC, the sizing of the earth circuit as well as the adjustment of the earth protection.

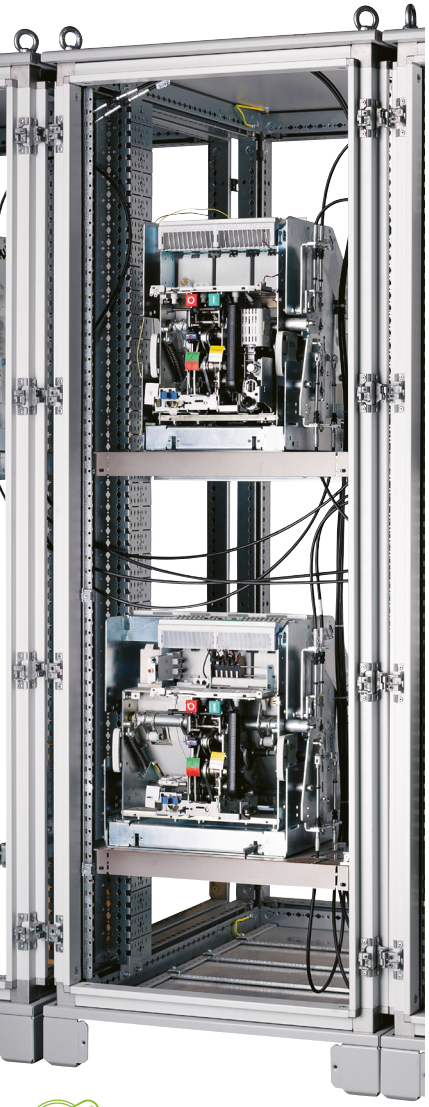
Busbar supports must be installed at a certain distance from the DMX³ connection plates.
Supports must keep the busbars in position in relation to each other during an electrodynamic force caused by a short circuit.
This distance depends on the Isc at the point at which the DMX³ is installed.
DMX³ connection plates cannot withstand the mechanical stresses associated with the busbars or the weight of the cables.



Icc (kA)	≤ 50	≤ 65	≤ 100
Maximum distance X (mm)	300	250	150

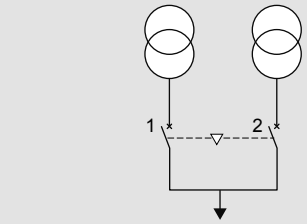
For more information on the use of Legrand electric distribution enclosures, refer to the XL³ 4000/6300 workshop specifications.

SUPPLY
INVERTERS

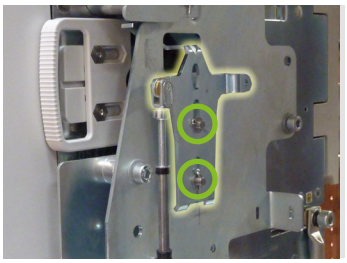


All DMX³ devices can be equipped with an interlocking kit that ensures "mechanical safety" when used as supply inverters. Connections between the DMX³ devices are provided by a system of cables and mechanisms attached to each device. This system can be adapted for use across the entire DMX³ range (air circuit breakers and trip-free switches, 3 and 4-pole, sizes 2500, 4000 and 6300, fixed or draw-out versions from 50 kA to 100 kA) and offers the potential to combine different products from the range. The interlocking mechanism is used to create supply inverters up to a maximum of three devices.
There are four possible types of interlocking.

■ **Type A**
Ability to close one of the two devices only.
Using 2 interlocking cables.



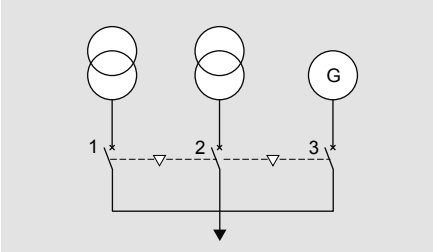
DMX³ NO. 1	DMX³ NO. 2
0	0
0	1
1	0



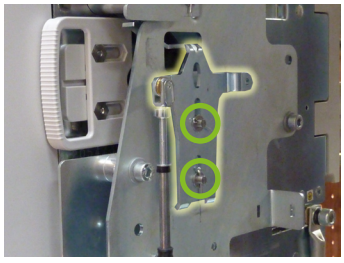
The “Z” parts of both devices should be installed for **translational motion** (as in the photo).

Type B

Ability to close device only out of the three available.
Using 6 interlocking cables.



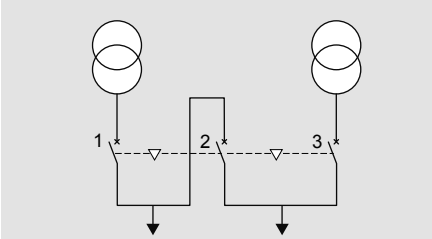
DMX³ NO. 1	DMX³ NO. 2	DMX³ NO. 3
0	0	0
1	0	0
0	1	0
0	0	1



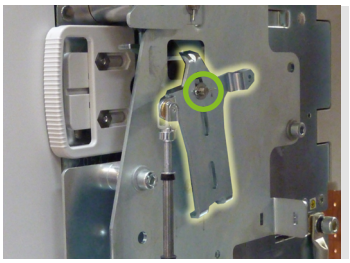
The “Z” parts of all three devices should be installed for **translational motion** (as in the photo).

Type C

Ability to close one device only out of the three available.
Ability to close two of the three devices available, without being able to close the third device.
Using 6 interlocking cables.



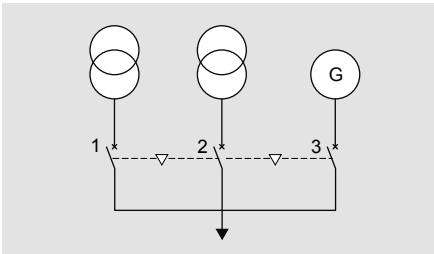
DMX³ NO. 1	DMX³ NO. 2	DMX³ NO. 3
0	0	0
1	0	0
0	1	0
0	0	1
0	1	1
1	0	1
1	1	0



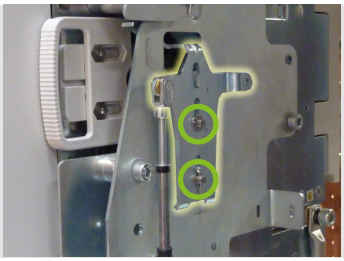
The “Z” parts of all three devices should be installed for **rotation** (as in the photo).

Type D

Ability to close one device only out of the three available.
Ability to close 2 predetermined devices (e.g. No. 1 and No. 2) without being able to close the third (e.g. No. 3).
Ability to close one specific device only (e.g. No. 3) without being able to close the other two (e.g. No. 1 and No. 2).
Using 4 interlocking cables.



DMX³ NO. 1	DMX³ NO. 2	DMX³ NO. 3
0	0	0
1	0	0
0	1	0
0	0	1
1	1	0



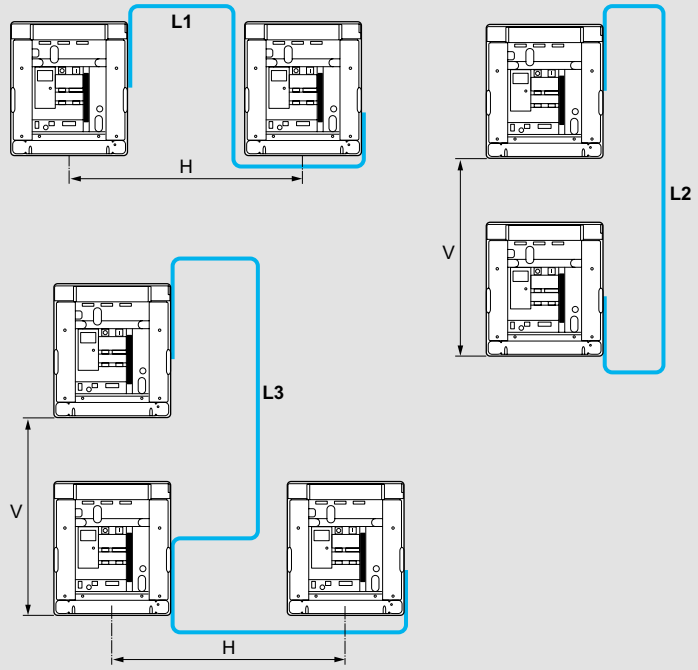
The “Z” parts of all three devices should be installed for **translational motion** (as in the photo).

INSTALLATION OF SUPPLY INVERTERS

Due to the presence of flexible connections ensuring mechanical interlocking, a supply inverter created using DMX^3 devices must be installed in the same enclosure, or in a set of side-by-side enclosures.
It is possible to use up to 2 DMX^3 (size 2500 and 4000) vertically in the same XL^3 4000 enclosure, and a single DMX^3 size 6300 in an XL^3 6300 enclosure.
On the same horizontal plane, two DMX^3 devices, equipped with supply inverters may be located within a maximum of 4 meters.

SUPPLY INVERTER WITH DMX^3 TYPE A AND C

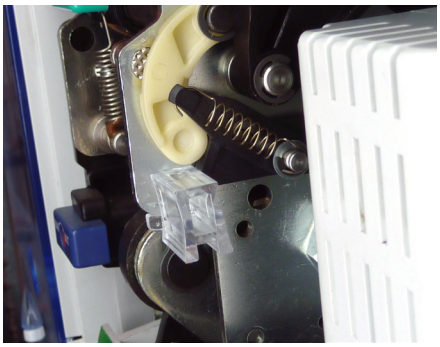
An inverter with two sources can be controlled using the ATS Cat.Nos 4 226 81/82/83/84, provided that both devices are equipped with at least one opening coil, a closing coil and motor operator. The wiring diagrams are available in E-catalog.



Calculating the length of the cables:
L1 = 1430 + H
L2 = 1570 + V
L3 = 1430 + V + H

INVERTER WITH THREE DMX^3 (TYPES B, C AND D)

It is necessary to equip the devices with at least one opening coil, a closing coil and a motor operator.



Accessory for correct adjustment of the supply inverter connecting rod

After adjusting and tightening the different elements of the mechanical interlock, you should fix the interlocking cables along their entire length to the structure of the enclosure.

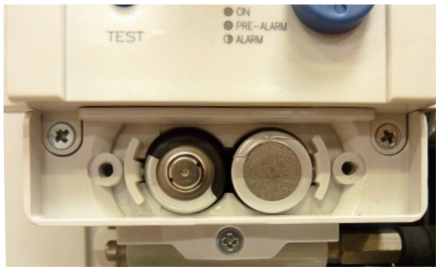
Up to 3 sources (5 devices) can be managed using the ATS automation case Cat. No 4 226 84.
For more information, please consult us.

PROTECTION UNITS

Protection units cannot be removed from the circuit breakers. It is not possible to order a circuit breaker alone, without its protection unit, and vice versa.
They are factory assembled according to the circuit breaker on which they are installed.
It is therefore prohibited to substitute protection unit.

Protection units	WITHOUT MEASURE	WITH MEASURE
MP2.10	 Cat.No 0 283 04	 Cat.No 0 283 05
MP4.10	 Cat.No 0 283 06	 Cat.No 0 283 07

Protection units have built-in current transformers, allowing self-power, adjustment and data consultation of the circuit breaker out of load.
A battery kit (4 batteries CR2 lithium 3V) is integrated to MP4.10 protection unit



The battery compartment, located underneath the electronic protection unit, is accessible from the front panel

Protection units can also be powered by:
- power supply module CX³ EMS Cat. No 4 149 45 (mendatory for the protection unit with measure).
- USB port input (PC, Power Bank, BLE Dongle Cat.No 0 283 10).

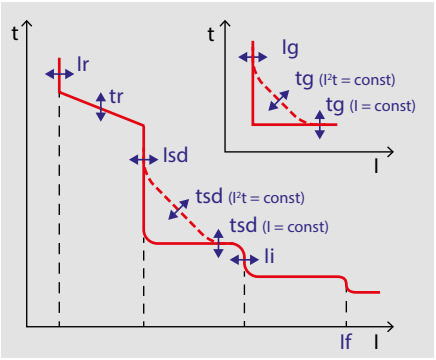
PROTECTION LED STATUS	PROTECTION STATUS
LED off	**Inactive**
Green LED continuously on	**Active: all parameters are under protection pre-alarm levels**
Red LED continuously on	**Active: overload warning, load is within 90% and 105% of the Ir value set for long delay**
Red flashing LED on	**Active: overload alarm, load exceeds 105% of the Ir value set for long time protection.**
Green and Red LED alternate flashing	**Active with overtemperature alarm threshold (T > 90 °C)**
Any other operation of these LEDs indicates a protection unit malfunction; in this case, please consult us	

Above 95 °C, the protection unit trips (the temperature measured is that of the protection unit and not that of the power contacts).

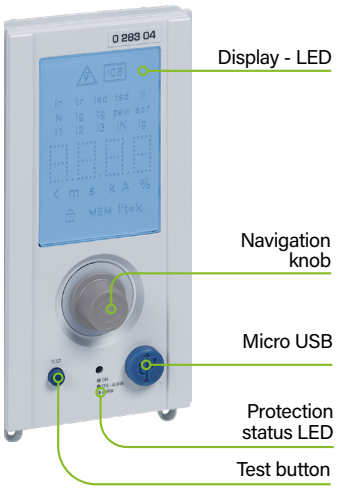
For more information concerning the EMS LED use, please consult the Instructions available on the e-catalogue.

ADJUSTMENT STEPS

VALUES	SETTINGS	INFORMA-TIONS
Ir	0,2 to 1 x In steps 1 A	Protection : ON/OFF
tr	40 ms to 30 s (@6Ir) steps 40ms	Thermal memory : ON/OFF
Isd	1,5 to 10 x Ir steps 1 A	Protection : ON/OFF
tsd	40 ms à 1 s steps 40ms (t=k and I^2t=k)	
Ig	0,2 to 1 x In steps 1 A	Protection : ON/OFF
tg	80 ms to 1 s steps 40 ms (t=k and I^2t=k)	
Ii	2 to 15 x In or Icw steps 1 A	Protection : ON/OFF
Neutre	Off-50%-100%-200%	
If	fixed (non adjustable)	



MP2.10 PROTECTION UNIT WITH LED SCREEN

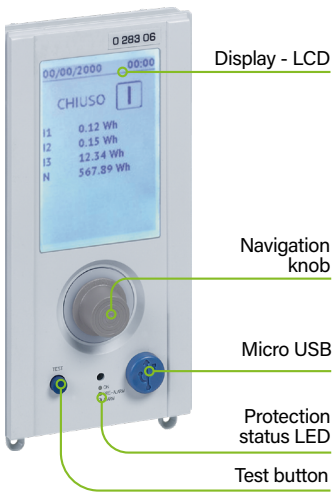


MP2.10 protection unit front face is the same for both Cat. Nos.
Once the protection unit is active, the LED display will be visible.
Consultation and parameters modification are possible by pushing the navigation knob.
To modify the parameters present in the secondary pages it is necessary to press the knob and increase or decrease the values by turning it. Press again to confirm, if the "lock" symbol appears it is necessary to insert the password with 5 digits (by default "99999", only 4 digits visible).

For more information, please consult the Instructions available on the e-catalogue

MP2.10 protection unit is particulary suitable for operation in extreme conditions: temperatures between -50°C and +70°C, tropical climates and saline environments.

MP4.10 PROTECTION UNIT WITH LCD SCREEN



MP4.10 protection unit front face is the same for both Cat. Nos.
In the presence supply by battery only, it is necessary to press the button to switch on the device.
In all other cases the protection unit switch on automatically
Access to the main menu and the related sub-menus, by pushing on the knob
To change the parameters in the sub-menus, press the knob and increase or decrease the values by turning it.
Press again to confirm.

For more information, please consult the Instructions available on the e-catalogue

MP4.10 protection unit has intuitive use thanks to the LCD display.
Fitted with batteries so that it can display parameters and back up data if there is a power cut or the circuit breaker is open/not connected.

PCS SOFTWARE AND APP

Protection units can be managed:
- directly on the protection units (using the rotary selector switch),
a PC pre-equipped with the Power Control Station software or on a tablet or smartphone via the EnerUp+ Project app. with the Bluetooth dongle Cat. No 0 283 10.

Power Control Station software for PCs or EnerUp+ Project app for smartphone/tablet can be used to exchange data with the protection unit of the DMX^3.
The software or the app can be used to:
- monitor the status of the breaker
- display information (firmware and device versions, alarms, measurements, parameters, fault history, settings)
- configure the different protections (1)
- update the firmware of the protection unit (2)
- generate reports based on the data stored and read by the protection unit (1)
- run diagnostic tests
- upload to the Cloud the data linked to your profile nd installation (only with EnerUp + Project app)

CONFIGURATION ON A PC (with the Power Control Station software) :

Example of Start menu
This menu displays the values of I1, I2, I3, IN and Ig, the type and status of the circuit breaker, the breaking capacity, the number of poles, the neutral position, the temperature and overtemperature intervention threshold.

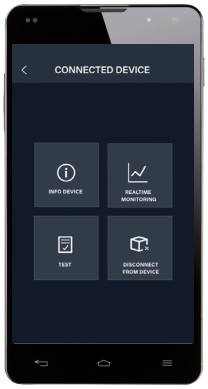
Example of Configuration menu
This menu can be used to set the different breaker parameters according to the tripping curves (time/current and ground fault curves).

(1) Only with Power Control Station software 5.0 or later
(2) Only for Legrand technical assistance via Power Control Station software

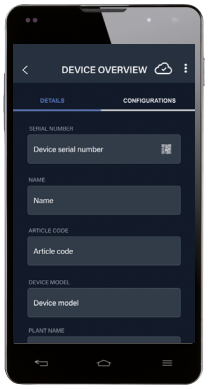
MANAGEMENT ON A SMARTPHONE/TABLET (ENERUP + PROJECT APP AVAILABLE FROM THE APPLE STORE AND GOOGLE PLAY) :

Any model in the MP2.10/MP4.10 range

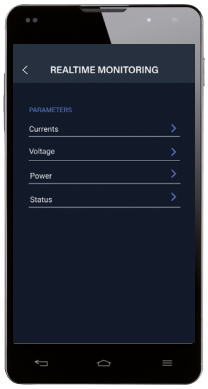
BLE Dongle S10 Cat.No 0 283 10 for MP2.10/MP4.10



Start menu
This menu gives access to different options like: overview of connected devices, real-time monitoring, device test, etc...



Device overview menu
This menu displays the essential information linked to the circuit breaker like: the name, serial number, location, status and the circuit breaker parameters.



Real-time monitoring menu
This menu displays the values of the current, voltage, power and the status of the circuit breaker.

FIRST COMMISSIONING

Before proceeding with the first mechanical tests and powering up the DMX^3 for the first time, for the safety of people and equipment you must first ensure that the rules for best practice and the recommended installation conditions are met, and that only trained and authorised persons work on the equipment.

The default password is "99999"

DE-ENERGISED CHECKS

- **Check the physical integrity of the device**

If a part is missing, or it is damaged, replace it.
For a draw-out device, check that you can draw out and plug in the product without difficulty, paying particular attention to the plug-in terminals of the electrical auxiliaries.

- **Check the compatibility of the electrical accessories**

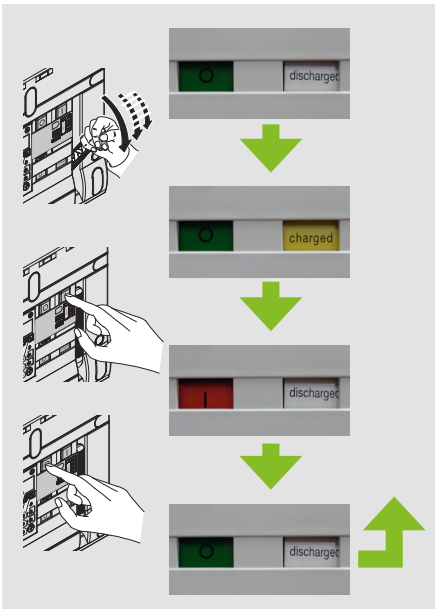
coils, motors and protection unit) installed in relation to the overall scheme and the instructions for the installed products.

- **For the air circuit breakers, check the operation of the protection unit.**

It is necessary to install the batteries in their slot (for the MP4.10), and then perform the various settings on the protection unit.
Check the battery charge status (for the MP4.10).
Set the reset button to the "MAN" position, power off, close the circuit breaker.
Press the test button of the protection unit for one second minium.
Confirm by pressing on the navigation knob for the MP2.10 or directly on the next screen for the MP4.10.
The circuit breaker must open, the LED "ON" lights in orange and the others light in red.
The reset button has actuated (stands proud of its slot).

- **Perform 2 DMX³ open/close cycles**

Always with the power off, checking specifically the indications on the front of the DMX³



- **When using DMX³ as supply inverters,**

It is necessary to ensure that the truth table is respected.

- **If there are locking accessories installed on the DMX³**

Make sure that the function of each is ensure.

MAINTENANCE

Before working on a DMX³ or DMX³-I device, it must be de-energised at the upstream and downstream terminals. Only authorised personnel may work on the equipment by ensuring it is inoperative and the area is cordoned off if necessary.

For a fixed device, it is preferable to cut the power supply upstream and downstream, or otherwise to ensure that the live parts are inaccessible to the maintenance engineer. For a draw-out device, it must be locked in the "drawn out" position.

PREVENTIVE MAINTENANCE

DMX³ devices are supplied for a number of cycles(1). This service life can be increased if the DMX³ is subject to regular preventive maintenance.
It is important to perform maintenance in order to:
- Ensure electrical and mechanical performance of the product
- Identify worn or damaged parts or accessories
- Prevent breakdowns

(1) : For more details regarding the frequency and content of maintenance procedures, refer to the maintenance guide available in the e-catalogue.

Periodical maintenance and inspections are recommended on the following parts:
- Mechanism
- Mechanical interlock
- Locks
- Spring
- Arc chambers and spark gaps
- Main power contacts
- Draw-out base
- The connector block of the electrical auxiliaries
- Electric auxiliaries
- Mechanical accessories
- Electrical accessories
- Protection unit

For any requests, you will be asked for the serial numbers or dates of manufacture of the DMX³ and its components.
The date of manufacture is coded as "Year W Week" (for example 23W10 is the 10th week of 2023).

On the right side of the DMX³, the end of the serial number is engraved on the metal structure and is shown in full, with the date of manufacture on a sticker.

For all accessories, the date of manufacture is marked on a small sticker, as well as on the packaging label.

For more information on DMX³ maintenance and retrofitting, please consult us

RETROFITTING

Retrofitting accessories allow the replacement of older DMX devices with the latest generation DMX^3 products. This avoids the need for major maintenance operations upstream and downstream of the busbars, and on the mounting plate. Only the remote control cables must be modified to be consistent with the DMX^3 terminal block.
All DMX versions can be replaced by a DMX^3 with the same characteristics, namely: air circuit breaker or trip-free switch, fixed or draw-out version, 3 or 4-pole.
Retrofitting kits must be ordered along with the DMX^3 in order to be configured at the factory. The connection plates require special machining to fit perfectly with existing connections.

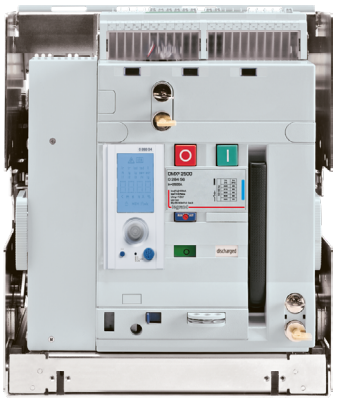
Draw-out DMX^3 Size 2500, 3-pole, equipped with retrofitting kit, with reuse of DMX orientable connectors.

These retrofitting kits can be used to replace a single device and for replacing a device in a supply inverter system with 2 DMXs.
In the case of a DMX installed in a triple inverter, please consult us.

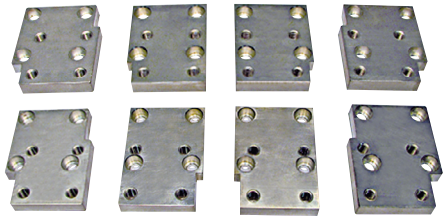
For more information on retrofitting, please consult us.

TO REPLACE AN DMX TO AN DMX³, YOU NEED:

New DMX³ (or DMX³ -i)



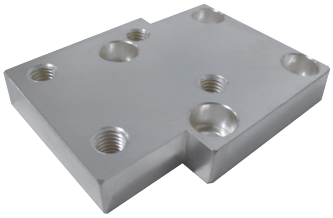
Retrofit kit



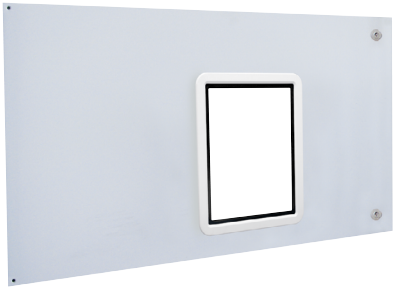
Optional: kit for integration into XL³ enclosures (plate and faceplate)

The breaker and the retrofit kit are configurated when ordering and factory assembled

0 290 90



0 290 91



0 209 33

Cat.Nos	Retrofit kits
	For DMX³ - Frame 2500, fixed version Rated current from 800 A to 2500 A
0 290 90	For 3P DMX³
0 290 92	For 4P DMX³
	For DMX³ - Frame 2500, draw-out version Rated current from 800 A to 2500 A
0 290 91	For 3P DMX³
0 290 93	For 4P DMX³
	For DMX³ - Frame 4000, fixed version Rated current from 800 A to 4000 A
0 290 94	For 3P DMX³
0 290 96	For 4P DMX³
	For DMX³ - Frame 4000, draw-out version Rated current from 800 A to 4000 A
0 290 95	For 3P DMX³
0 290 97	For 4P DMX³

Cat.Nos	Additional kit for integration into XL³ 4000 enclosures
	For DMX³ fixed version
0 209 33	For XL³ 4000 usable width 600 mm
0 209 83	For XL³ 4000 usable width 850 mm
	For DMX³ draw-out version
0 209 37	For XL³ 4000 usable width 600 mm
0 209 85	For XL³ 4000 usable width 850 mm

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FIXED VERSION DMX³ ACBS

DMX (old range)	DMX³ (new range)	Retrofit kit	Kit for XL³ 4000 Usable width	
			600 mm	850 mm
0 267 00	0 283 61	0 290 90	0 209 33	0 209 83
0 267 01	0 283 62	0 290 90	0 209 33	0 209 83
0 267 02	0 283 63	0 290 90	0 209 33	0 209 83
0 267 03	0 283 64	0 290 90	0 209 33	0 209 83
0 267 04	0 283 65	0 290 90	0 209 33	0 209 83
0 267 05	0 283 66	0 290 90	0 209 33	0 209 83
0 267 06	0 283 67	0 290 94	0 209 33	0 209 83
0 267 07	0 283 68	0 290 94	0 209 33	0 209 83
0 267 10	0 283 71	0 290 92	0 209 33	0 209 83
0 267 11	0 283 72	0 290 92	0 209 33	0 209 83
0 267 12	0 283 73	0 290 92	0 209 33	0 209 83
0 267 13	0 283 74	0 290 92	0 209 33	0 209 83
0 267 14	0 283 75	0 290 92	0 209 33	0 209 83
0 267 15	0 283 76	0 290 92	0 209 33	0 209 83
0 267 16	0 283 77	0 290 96	0 209 33	0 209 83
0 267 17	0 283 78	0 290 96	0 209 33	0 209 83
0 267 20	0 283 81	0 290 90	0 209 33	0 209 83
0 267 21	0 283 82	0 290 90	0 209 33	0 209 83
0 267 22	0 283 83	0 290 90	0 209 33	0 209 83
0 267 23	0 283 84	0 290 90	0 209 33	0 209 83
0 267 24	0 283 85	0 290 90	0 209 33	0 209 83
0 267 25	0 283 86	0 290 90	0 209 33	0 209 83
0 267 26	0 283 87	0 290 94	0 209 33	0 209 83
0 267 27	0 283 88	0 290 94	0 209 33	0 209 83
0 267 30	0 283 91	0 290 92	0 209 33	0 209 83
0 267 31	0 283 92	0 290 92	0 209 33	0 209 83
0 267 32	0 283 93	0 290 92	0 209 33	0 209 83
0 267 33	0 283 94	0 290 92	0 209 33	0 209 83
0 267 34	0 283 95	0 290 92	0 209 33	0 209 83
0 267 35	0 283 96	0 290 92	0 209 33	0 209 83
0 267 36	0 283 97	0 290 96	0 209 33	0 209 83
0 267 37	0 283 98	0 290 96	0 209 33	0 209 83
0 267 50	0 284 01	0 290 94	0 209 33	0 209 83
0 267 51	0 284 02	0 290 94	0 209 33	0 209 83
0 267 52	0 284 03	0 290 94	0 209 33	0 209 83
0 267 53	0 284 04	0 290 94	0 209 33	0 209 83
0 267 54	0 284 05	0 290 94	0 209 33	0 209 83
0 267 55	0 284 06	0 290 94	0 209 33	0 209 83
0 267 56	0 284 07	0 290 94	0 209 33	0 209 83
0 267 57	0 284 08	0 290 94	0 209 33	0 209 83
0 267 60	0 284 11	0 290 96	0 209 33	0 209 83
0 267 61	0 284 12	0 290 96	0 209 33	0 209 83
0 267 62	0 284 13	0 290 96	0 209 33	0 209 83
0 267 63	0 284 14	0 290 96	0 209 33	0 209 83
0 267 64	0 284 15	0 290 96	0 209 33	0 209 83
0 267 65	0 284 16	0 290 96	0 209 33	0 209 83
0 267 66	0 284 17	0 290 96	0 209 33	0 209 83
0 267 67	0 284 18	0 290 96	0 209 33	0 209 83

FOR DRAW-OUT VERSION DMX³ ACBS

DMX (old range)	DMX³ (new range)	Retrofit kit	Kit for XL³ 4000 Usable width	
			600 mm	850 mm
0 268 00	0 284 21	0 290 91	0 209 37	0 209 85
0 268 01	0 284 22	0 290 91	0 209 37	0 209 85
0 268 02	0 284 23	0 290 91	0 209 37	0 209 85
0 268 03	0 284 24	0 290 91	0 209 37	0 209 85
0 268 04	0 284 25	0 290 91	0 209 37	0 209 85
0 268 05	0 284 26	0 290 91	0 209 37	0 209 85
0 268 06	0 284 27	0 290 95	0 209 37	0 209 85
0 268 07	0 284 28	0 290 95	0 209 37	0 209 85
0 268 10	0 284 31	0 290 93	0 209 37	0 209 85
0 268 11	0 284 32	0 290 93	0 209 37	0 209 85
0 268 12	0 284 33	0 290 93	0 209 37	0 209 85
0 268 13	0 284 34	0 290 93	0 209 37	0 209 85
0 268 14	0 284 35	0 290 93	0 209 37	0 209 85
0 268 15	0 284 36	0 290 93	0 209 37	0 209 85
0 268 16	0 284 37	0 290 97	0 209 37	0 209 85
0 268 17	0 284 38	0 290 97	0 209 37	0 209 85
0 268 20	0 284 41	0 290 91	0 209 37	0 209 85
0 268 21	0 284 42	0 290 91	0 209 37	0 209 85
0 268 22	0 284 43	0 290 91	0 209 37	0 209 85
0 268 23	0 284 44	0 290 91	0 209 37	0 209 85
0 268 24	0 284 45	0 290 91	0 209 37	0 209 85
0 268 25	0 284 46	0 290 91	0 209 37	0 209 85
0 268 26	0 284 47	0 290 95	0 209 37	0 209 85
0 268 27	0 284 48	0 290 95	0 209 37	0 209 85
0 268 30	0 284 51	0 290 93	0 209 37	0 209 85
0 268 31	0 284 52	0 290 93	0 209 37	0 209 85
0 268 32	0 284 53	0 290 93	0 209 37	0 209 85
0 268 33	0 284 54	0 290 93	0 209 37	0 209 85
0 268 34	0 284 55	0 290 93	0 209 37	0 209 85
0 268 35	0 284 56	0 290 93	0 209 37	0 209 85
0 268 36	0 284 57	0 290 97	0 209 37	0 209 85
0 268 37	0 284 58	0 290 97	0 209 37	0 209 85
0 268 50	0 284 61	0 290 95	0 209 37	0 209 85
0 268 51	0 284 62	0 290 95	0 209 37	0 209 85
0 268 52	0 284 63	0 290 95	0 209 37	0 209 85
0 268 53	0 284 64	0 290 95	0 209 37	0 209 85
0 268 54	0 284 65	0 290 95	0 209 37	0 209 85
0 268 55	0 284 66	0 290 95	0 209 37	0 209 85
0 268 56	0 284 67	0 290 95	0 209 37	0 209 85
0 268 57	0 284 68	0 290 95	0 209 37	0 209 85
0 268 60	0 284 71	0 290 97	0 209 37	0 209 85
0 268 61	0 284 72	0 290 97	0 209 37	0 209 85
0 268 62	0 284 73	0 290 97	0 209 37	0 209 85
0 268 63	0 284 74	0 290 97	0 209 37	0 209 85
0 268 64	0 284 75	0 290 97	0 209 37	0 209 85
0 268 65	0 284 76	0 290 97	0 209 37	0 209 85
0 268 66	0 284 77	0 290 97	0 209 37	0 209 85
0 268 67	0 284 78	0 290 97	0 209 37	0 209 85

FIXED VERSION DMX³-I TRIP FREE SWITCHES

DMX (old range)	DMX³ (new range)	Retrofit kit	Kit for XL³ 4000 Usable width	
			600 mm	850 mm
0 267 72	0 282 40	0 290 90	0 209 33	0 209 83
0 267 73	0 282 41	0 290 90	0 209 33	0 209 83
0 267 74	0 282 42	0 290 90	0 209 33	0 209 83
0 267 75	0 282 43	0 290 90	0 209 33	0 209 83
0 267 76	0 282 44	0 290 94	0 209 33	0 209 83
0 267 77	0 282 45	0 290 94	0 209 33	0 209 83
0 267 82	0 282 50	0 290 92	0 209 33	0 209 83
0 267 83	0 282 51	0 290 92	0 209 33	0 209 83
0 267 84	0 282 52	0 290 92	0 209 33	0 209 83
0 267 85	0 282 53	0 290 92	0 209 33	0 209 83
0 267 86	0 282 54	0 290 96	0 209 33	0 209 83
0 267 87	0 282 55	0 290 96	0 209 33	0 209 83

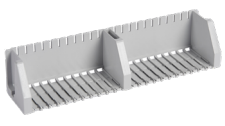
FOR DRAW-OUT VERSION DMX³ -I TRIP FREE SWITCHES

DMX (old range)	DMX³ (new range)	Retrofit kit	Kit for XL³ 4000 Usable width	
			600 mm	850 mm
0 268 72	0 282 80	0 290 91	0 209 37	0 209 85
0 268 73	0 282 81	0 290 91	0 209 37	0 209 85
0 268 74	0 282 82	0 290 91	0 209 37	0 209 85
0 268 75	0 282 83	0 290 91	0 209 37	0 209 85
0 268 76	0 282 84	0 290 95	0 209 37	0 209 85
0 268 77	0 282 85	0 290 95	0 209 37	0 209 85
0 268 82	0 282 90	0 290 93	0 209 37	0 209 85
0 268 83	0 282 91	0 290 93	0 209 37	0 209 85
0 268 84	0 282 92	0 290 93	0 209 37	0 209 85
0 268 85	0 282 93	0 290 93	0 209 37	0 209 85
0 268 86	0 282 94	0 290 97	0 209 37	0 209 85
0 268 87	0 282 95	0 290 97	0 209 37	0 209 85

SPARE PARTS

Spare parts for DMX³ are to be used and installed by authorised persons. All parts are supplied with instructions for the disassembly and reassembly of the part in question.

SPARE PARTS FOR DMX³

CAT. NOS	DESCRIPTION	CONTENTS		INFORMATION	DEVICE	
					SIZE	NUMBER OF POLES
0 290 21	Battery kit for the DMX³	- Extractor x 1 - Cover x 1 - Screws x 2 - Batteries x 4 - Instructions		Kit for 1 protection unit	All	3P and 4P
0 288 22	Door frame	- Seal x 1 - Frame x 1 - Screws x 10 - Instructions		Kit for 1 fixed or draw-out air circuit breaker or trip-free switch	All	3P and 4P
0 290 00	Arc chamber	- Arc chamber: sizes 2500/4000: x 1 size 6300: x 2 - Screws: sizes 2500/4000: x 2 size 6300: x 4 - Instructions		Kit required for 1 pole	2500	3P and 4P
0 290 46					4000 and 6300	3P and 4P
4 210 95	Sealing kit	- Sealing - Sealing wire - Base + caps (only for DPX/DPX-IS) - Base + capuchon (only for DPX³) - Sealing accessory for terminal shields (only for DPX³)		x 4	All	3P and 4P
0 290 12	Support for auxiliary terminal block	- Support for auxiliary terminal block x 1 - Screw fixing kit x 1 - Instructions		Kit required for 1 DMX³	All	3P and 4P

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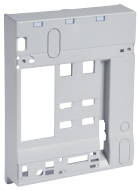
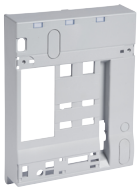
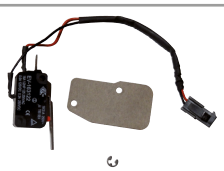
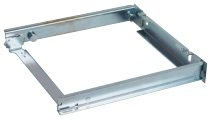
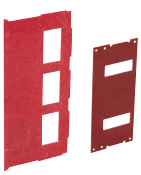
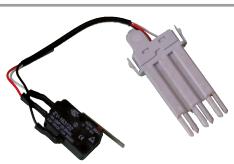
CAT. NOS	DESCRIPTION	CONTENTS		INFORMATION	DEVICE	
					SIZE	NUMBER OF POLES
0 290 14	Front panel for air circuit breaker	- Front panel - Covers for fixed and draw-out versions - Screws x 4 - Caps for screws x 2 - Instructions		Kit required for 1 fixed or draw-out air circuit breaker	All	3P and 4P
0 290 15	Front panel for trip-free switch	- Front panel - Covers for fixed and draw-out versions - Screws x 4 - Caps for screws x 2 - Instructions		Kit required for 1 fixed or draw-out trip-free switch	All	3P and 4P
0 290 68	Caps for front panel fixing screws	- Caps for screws x 10 - Instructions		Kit required for 5 DMX^3	All	3P and 4P
0 290 16	Secondary front panels	- Covers for secondary front panels: size 2500 - 4P: x1 size 4000: x 2 size 6300 - 3P: x 4 size 6300 - 4P: x 6 - Screws: size 2500 - 4P: x 2 size 4000 - 3P: x 4 size 4000 - 4P: x 6 size 6300 - 3P: x 10 size 6300 - 4P: x 14 - Instructions		Kit required for 1 DMX^3	2500	4P
0 290 17					4000	3P
0 290 55						4P
0 290 61					6300	3P
0 290 62						4P
0 290 52	Fixed terminal block for connection	- Fixed terminal block for connection x 10 - Instructions		Kit required for 10 electrical auxiliaries	All	3P and 4P
0 290 50	Dummy fixed terminal block	- Dummy fixed terminal block x 10 - Instructions		Kit required for 10 empty slots (not used by fixed terminal block for electric auxiliaries - aesthetic use)	All	3P and 4P
0 290 09	Auxiliary contact for protection unit	- Auxiliary contact for protection unit - Insulation plate - Benzing ring - Instructions		Kit required for 1 DMX^3	All	3P and 4P

SPARE PARTS

CAT. NO.	DESCRIPTION	CONTENTS		INFORMATION	DEVICE	
					SIZE	NUMBER OF POLES
0 290 08	Spring charging lever	- Lever for air circuit breaker (black) - Lever for trip-free switch (grey) - Spring charging mechanism - Benzing ring - Seiger ring - Springs - Instructions		Kit required for 1 device (air circuit breaker or trip-free switch)	All	3P and 4P
0 290 32	Earth connection kit for draw-out device	- Earth connection - Fixing screws - Connection blade - Connection clamp - Screws - Instructions		Kit required for 1 draw-out device	All	3P and 4P
0 290 27	Extraction crank	- Crank x 1 - Instructions		Kit required for 1 draw-out device	All	3P and 4P
0 290 57	Extraction crank kit	- Crank - Handle case - Screws - Support - Instructions		Kit required for 1 draw-out device	All	3P and 4P
0 290 56	Removable drawers	- Removable drawer - Instructions		Kit required for 1 draw-out device	2500	3P
0 290 24						4P
0 290 25					4000	3P
0 290 26						4P
0 290 63					6300	3P
0 290 64						4P
0 290 29	Connection clamps	- Connection clamp x 1 - Screws and washers - Instructions		Kit required for 1 pole (the kit for size 3 contains only one clamp)	2500	3P and 4P
0 290 30					4000	3P and 4P
0 290 59					2500 (Icu=42kA)	3P and 4P
0 290 67					6300	3P and 4P
0 290 33	Safety shutters	- Mobile shutter - Fixed shutter - Springs - Screws		Kit required for 1 draw-out device	2500	3P
0 290 34						4P
0 290 35					4000	3P
0 290 36						4P
0 290 44					2500 (Icu=42kA)	3P
0 290 45						4P
0 290 65					6300	3P
0 290 66						4P
0 290 69	Contact and connector replacement kit	- Repair kit for electrical auxiliaries - Instructions		2 auxiliary contacts with connector 1 motor connector 3 replacement connectors	All	3P and 4P

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TOOLS AND SUPPLIES FOR DMX³ MAINTENANCE

CAT. NO.	DESCRIPTION	CONTENTS		INFORMATION	DEVICE	
					SIZE	NUMBER OF POLES
0 290 40	Tool for inspecting connection clamps	- Left tool - Right tool - Instructions		Tool required to open safety shutters manually	All	3P and 4P
Contact Legrand	Grease	- Mechanical grease		Mechanical greasing kit (0,5Kg). Components enough for: - 10 devices size 2500/4000 or - 7 devices size 6300	All	3P and 4P

Notes

Notes

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