

AIR CIRCUIT BREAKERS

DMX³

EFFICIENT
PROTECTION
UP TO 6300 A



MAY 2021



-> [CATALOGUE PAGES INSIDE](#)

THE GLOBAL SPECIALIST
IN ELECTRICAL AND DIGITAL BUILDING INFRASTRUCTURES

 **legrand**[®]

DMX³ ACBs UP TO 6 300 A

EFFICIENT
PROTECTION
AND CONTROL
FOR ALL TYPE
OF INSTALLATIONS



Electrical panel equipped with DIN rail and plate mounting MCBs and DPX³ MCCBs up to 1 600 A

Main electrical panel equipped with DPX³ MCCBs and DMX³ ACBs up to 6 300 A

Thanks to DPX³ range of MCCBs and to DX³ MCBs you can benefit of the advantages of a complete protection system at any level of the installation



DMX³ frame 2500

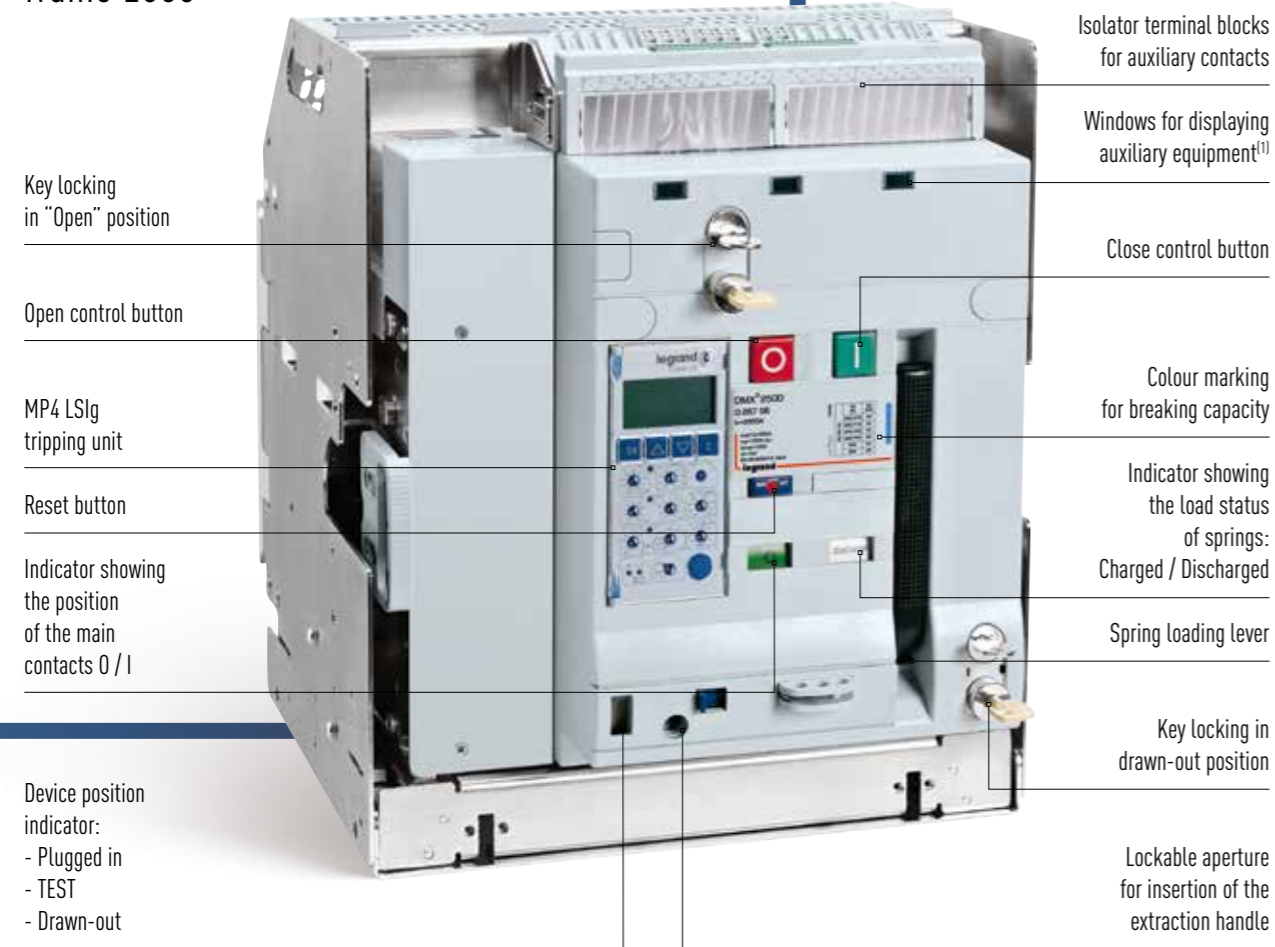


DMX³ frame 4000



DMX³ frame 6300

Draw-out DMX³ frame 2500



BREAKING CAPACITIES AND RATED CURRENTS

	630 A	800 A	1000 A	1250 A	1600 A	2000 A	2500 A	3200 A	4000 A	5000 A	6300 A
DMX³-N	50 kA FIXED/DRAW-OUT										-
DMX³-H	65 kA FIXED/DRAW-OUT										-
DMX³-L	100 kA FIXED/DRAW-OUT										100 kA F/D-O

OVERALL DIMENSIONS AND WEIGHT

Fixed version		Height	Depth	Width	Weight ⁽²⁾
FRAME 1600 50 kA	3P	321 mm	203 mm	254 mm	20 kg
	4P	321 mm	203 mm	324 mm	25 kg
FRAME 2500 50 / 65 kA	3P	419 mm	354 mm	273 mm	41 kg
	4P	419 mm	354 mm	358 mm	48 kg
FRAME 4000 50 / 65 / 100 kA	3P	419 mm	354 mm	408 mm	59 kg
	4P	419 mm	354 mm	538 mm	76 kg
FRAME 6300 100 kA	3P	419 mm	354 mm	797 mm	118 kg
	4P	419 mm	354 mm	1064 mm	152 kg

Draw-out version		Height	Depth	Width	Weight ⁽³⁾
FRAME 1600 50 kA	3P	352 mm	306 mm	282 mm	39 kg
	4P	352 mm	306 mm	352 mm	49 kg
FRAME 2500 50 / 65 kA	3P	465 mm	433 mm	327 mm	77 kg
	4P	465 mm	433 mm	412 mm	94 kg
FRAME 4000 50 / 65 / 100 kA	3P	465 mm	433 mm	425 mm	108 kg
	4P	465 mm	433 mm	555 mm	137 kg
FRAME 6300 100 kA	3P	465 mm	433 mm	804 mm	216 kg
	4P	465 mm	433 mm	1064 mm	274 kg

(2) For trip-free switches, please consult us

(3) Including base

Optimized performance up to 6300 A

DMX³ air circuit breakers and DMX³-I isolating switches are available in Three frame sizes. Three breaking capacities for circuit breakers: 50 kA, 65 kA and 100 kA.

The range covers 11 rated currents, between 630 A and 6300 A. All range of DMX³ air circuit breakers and DMX³-I isolating switches is available in fixed and draw-out version.

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

(1) Available only on DMX³ 2500, 4000 and 6300



LEGRAND ADVANTAGE

The overall dimensions of the breaker contribute considerably to an efficient use of the space inside the electrical panel. The constant depth for all the rated currents, for the frames 2500, 4000 and 6300 facilitates configuration of the enclosures and connection of the busbars.

OTHER ELECTRICAL FEATURES

Rated operational voltage Ue: 690 Vac 50/60 Hz
 Rated insulation voltage Ui: 1000 Vac 50/60 Hz
 Rated impulse withstand voltage Uimp: 12 kV
 Category of use: B
 Ambient temperature: - 25 °C to 70 °C
 Humidity: + 55 °C with relative humidity of 95%, conforms to IEC 68-2-30



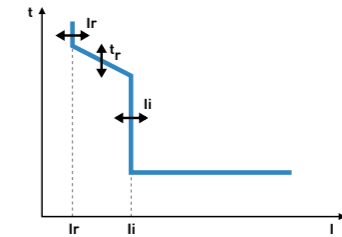
MP4 LI ELECTRONIC PROTECTION UNIT CAT. NOS. 0 281 64 AND 0 288 00



0 288 00

The following settings are adjusted using rotary selector switches:

- Long time delay protection against overloads: I_r
- Long delay protection operation time: t_r
- Instantaneous protection against very high short circuits: I_i
- Neutral protection: I_N



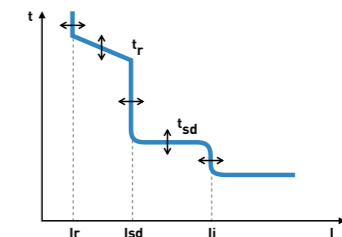
MP4 LSI ELECTRONIC PROTECTION UNIT CAT. NOS. 0 281 65 AND 0 288 01



0 288 01

The following settings are adjusted using rotary selector switches:

- Long time delay protection against overloads: I_r
- Long delay protection operation time: t_r
- Short time delay protection against short circuits: I_{sd}
- Short time delay protection operation time: t_{sd}
- Instantaneous protection against very high short circuits: I_i
- Neutral protection: I_N



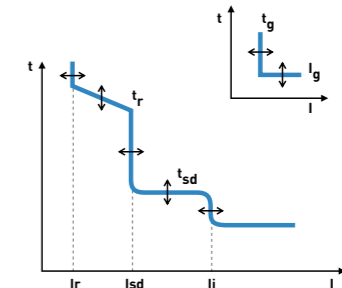
MP4 LSIg ELECTRONIC PROTECTION UNIT CAT. NOS. 0 281 66 AND 0 288 02



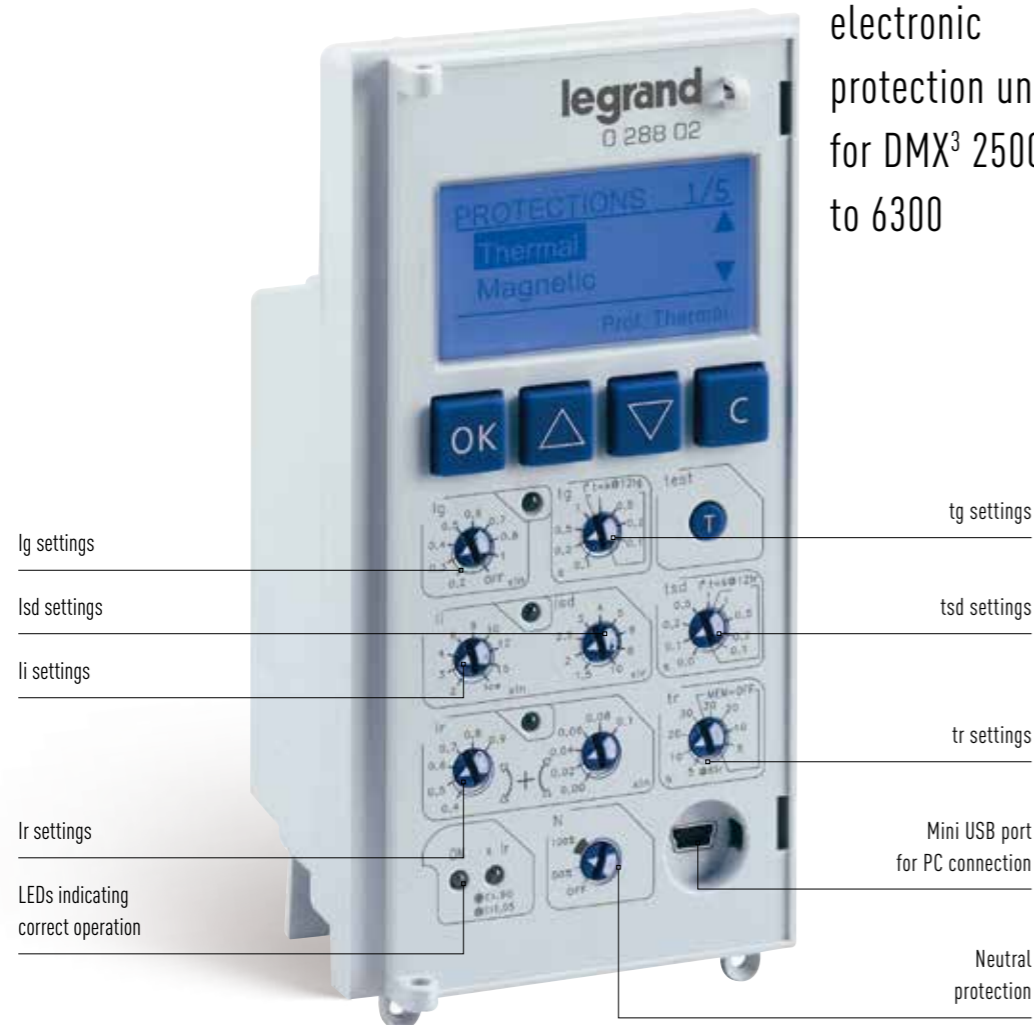
0 288 02

The following settings are adjusted using rotary selector switches:

- Long time delay protection against overloads: I_r
- Long delay protection operation time: t_r
- Short time delay protection against short circuits: I_{sd}
- Short time delay protection operation time: t_{sd}
- Instantaneous protection against very high short circuits: I_i
- Earth fault current: I_g
- Time delay on earth fault tripping: t_g
- Neutral protection: I_N



MP4 LSIg electronic protection unit for DMX³ 2500 to 6300



Precise & user friendly LCD tripping units

Besides their easy mounting and connection, strength and good continuity of operation, 3 types of electronic units allow precise adjustment of different limits for current values and time delay.

The result is an efficient protection against electrical faults while maintaining total discrimination with downstream breakers.

The LCD display lets you monitor the measured current values and informs you on fault adjustment and log (the cause of last trip and maintenance operations).



LEGRAND ADVANTAGE

All protection units of DMX³ 2500 to 6300 are equipped with batteries so you can monitor the parameters even when the breaker is not connected and all data remains stored in memory.

MORE INFORMATION

All DMX³ breakers are factory equipped with any MP4 protection unit LI, LSI or LSIg according to your requirements. You just need to select and indicate the 2 catalogue numbers when placing the order (1 for the breaker and 1 for the tripping unit).

MP6 LSI touch screen protection unit

Colour touch screen

LEDs indicating correct operation, pre-alarm and alarm for overload and temperature



Settings lock

Mini USB port for PC connection

ON button

Innovative & user friendly touch screen tripping units

MP6 electronic protection units are equipped with a colour touch screen, particularly user friendly, thanks to intuitive icon-based navigation system. The colour display provides a clear presentation of the parameters of the installation.

Touch screen protection units integrate all the functions of LCD tripping units and have an advanced measurement function which, in addition to monitoring currents, can also be used to display voltages, active and reactive powers, frequency, power factor, and also energy.

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

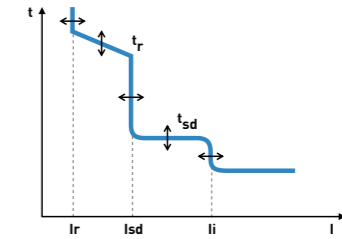
MP6 LSI TOUCH SCREEN PROTECTION UNIT CAT.NO. 0 288 03



Tripping curve preview

The following settings are adjusted using the touch screen:

- Long time delay protection against overloads: **I_r**
- Long delay protection operation time: **t_r**
- Short time delay protection against short circuits: **I_{sd}**
- Short time delay protection operation time: **t_{sd}**
- Instantaneous protection against very high short circuits: **I_i**
- Neutral protection: **I_N**



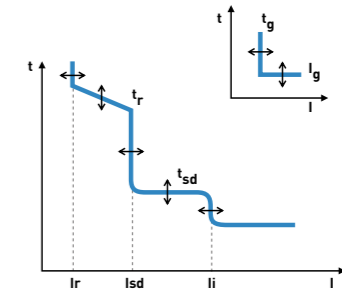
MP6 LSI TOUCH SCREEN PROTECTION UNIT CAT.NO. 0 288 04



Earth fault tripping curve preview

The following settings are adjusted using the touch screen:

- Long time delay protection against overloads: **I_r**
- Long delay protection operation time: **t_r**
- Short time delay protection against short circuits: **I_{sd}**
- Short time delay protection operation time: **t_{sd}**
- Instantaneous protection against very high short circuits: **I_i**
- Earth fault current: **I_g**
- Time delay on earth fault tripping: **t_g**
- Neutral protection: **I_N**



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LEGRAND ADVANTAGE

The icon-based interface of the management software and the innovative touch screen technology used for MP6 tripping units simplify setting and preparing operations of the DMX³ circuit breaker.

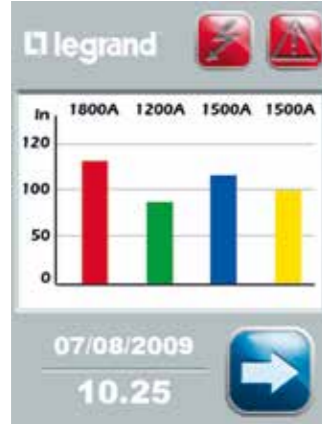


MORE INFORMATION

The MP4 and MP6 electronic protection units of the DMX³ ACBs equipped with communication option Cat.No 0 288 05 or 0 281 70 can communicate via an RS-485 port. This port is used for supervising

(remote monitoring and management) the devices in the installation, using the MODBUS protocol. It is therefore possible to control circuit breaker opening and closing, display the electrical parameters and detect all the alarms generated by each device, from a PC. Power Control Station is a software application for PCs allowing to exchange data with the protection unit of the DMX³ through the mini USB port. This software allows to monitor the status of the breaker, display information (firmware and device versions, alarms, measurements, parameters, fault history, settings), update the firmware of the protection unit, generate reports based on the data stored and read by the protection unit, run diagnostic tests.

STARTING MENU



This menu displays the values of I_1 , I_2 , I_3 and I_N as a diagram, the date and the hour, and the alarm icon. If the breaker opens following an electrical fault a specific icon will appear on the upper part of the screen. Pressing this icon will open a new window showing the cause of the last event.

Other possible actions:

- Right arrow icon: access the main menu
- Alarm icon: preview the cause of the alarm in course

MAIN MENU

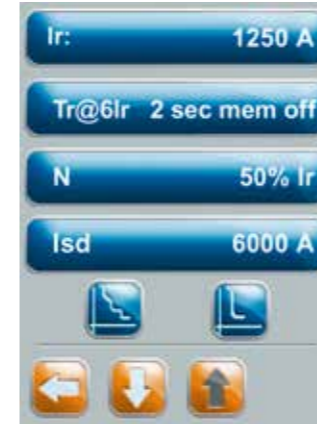


The main menu allows accessing different windows for setting different parameters of the breaker or previewing measured values, battery status, tripping history, etc.

The following accesses are possible:

- 1 Setting according to the tripping curves (current and time)
- 2 Access tripping unit settings (luminosity, contrast and sound volume)
- 3 Access to general information of the breaker
- 4 Back to the previous page
- 5 Access measured values menu
- 6 Access archives
- 7 Preview battery charging status

PROTECTIONS SETTING MENU



Vertical arrows allow scrolling between different electrical parameters:

I_i , I_{sd} , I_{tsd} , I_r , t_r , I_g , t_g , etc.

Pressing horizontal icons gives access to corresponding windows allowing value settings. Each value can be increased/decreased, validated or suppressed. The values need to be saved into memory at the end of the process, for each setting.

MEASURED VALUES MENU



This window allows previewing of measured values for:

- Currents
 - Voltages (Ph/N and Ph/Ph)
 - Active and reactive powers
 - Power factor (total and per phase)
 - Active and reactive energy
 - Harmonics (for currents and voltages)
- Pressing **I**, **m**, **M** and **avg** icons at the bottom of the window will display respectively: instantaneous, minimum, maximum and average value of electrical parameters.

Innovative & user friendly touch screen tripping units

CONTINUED

MP6 electronic protection units collect all the useful information in 5 sections, each one easily reachable via the main menu in order to allow an efficient control.

MP6 electronic protection units have an intuitive graphical interface. All useful information and selected settings are easy to understand and visible at a glance.

For example current values can be visualized on the starting page thanks to a histogram. Different other settings can be simultaneously displayed on the "settings" screen in order to have a global view.

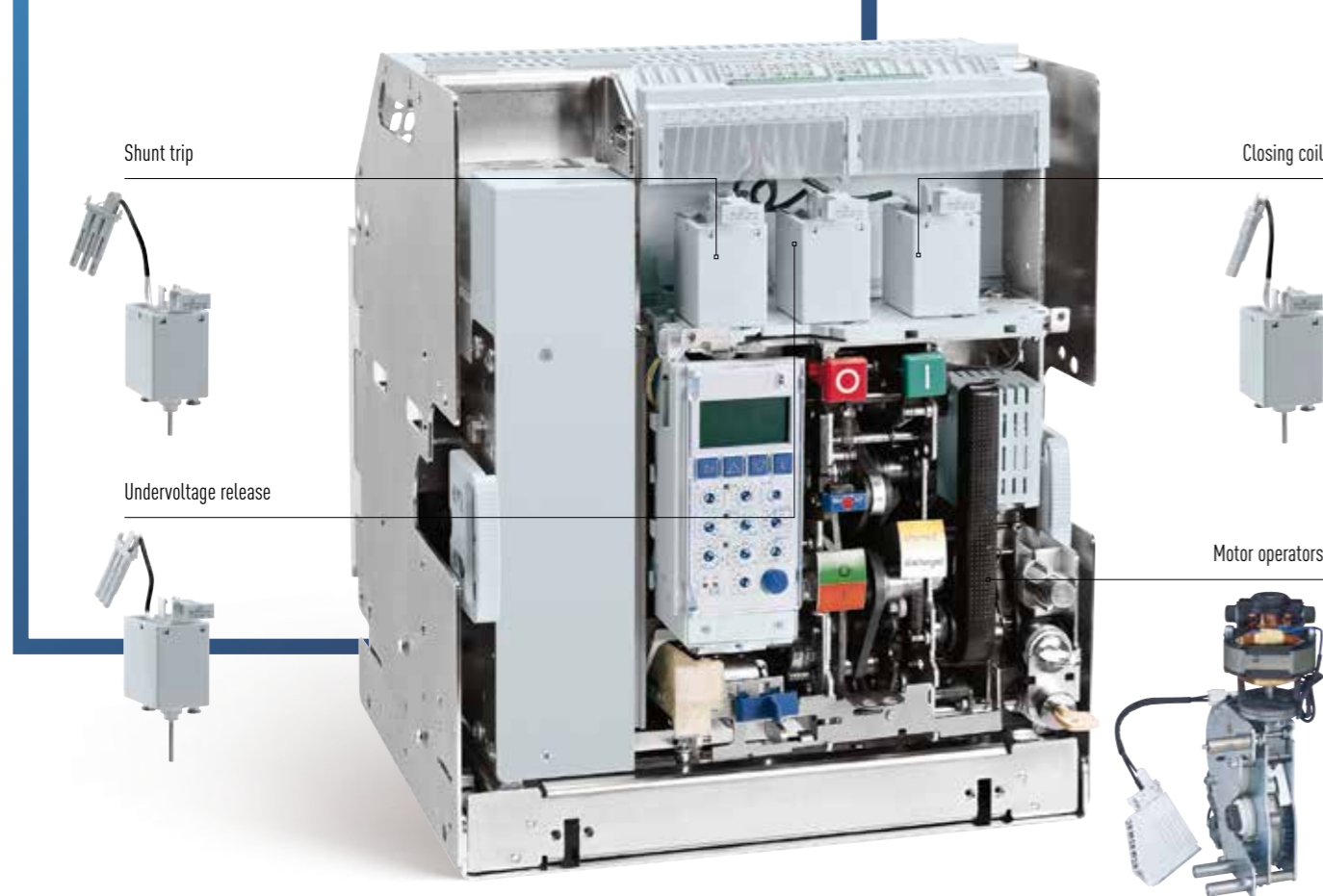


MORE INFORMATION

• The following events and values are registered into memory and can be accessed via specific menu: cause of the last event, event counter, events history with date and hour, alarms history with date and hour

- MP6 tripping units allow following application: logical selectivity, management of non priority loads, contact management (with Cat.No 0 288 12)
- MP6 tripping units allow following alarms: power reverse, current imbalance, maximum and minimum voltage values U_{1N} , U_{2N} , U_{3N} , maximum currents I_1 , I_2 , I_3 , voltage imbalance (phase-neutral), inversed phase rotation, maximum and minimum frequency values.

Draw-out DMX³ frame 2500



Fast clipping control accessories

You can remotely control the DMX³ thanks to its range of accessories: shunt trips, undervoltage releases, motor operators and closing coils.

All the control accessories are simply clipped on to the front panel of the circuit breaker, which is especially configured in order to facilitate the clipping.

Every type of accessory is compatible with its own location, in order to avoid any possible mistake.

All control accessories can be easily installed without any special tool and in a very short time. The installation is to be done on the front panel of the air circuit breaker. In that way, the separation between power and control circuits is guaranteed.

SHUNT TRIP

Shunt trips are devices used for the remote instantaneous opening of the air circuit breaker. They are generally controlled through an N/O type contact. The actual offer of shunt trips proposes different supply voltages from 24 V to 480 V compatibles with AC and DC currents. The shunt trips are already equipped with a special fast connector, to be directly inserted into auxiliary contacts block. An auxiliary contact is connected in series with the coil, cutting off its power supply when the main poles are open.



Shunt trip for DMX³ 2500 to 6300

	FOR DMX ³
Size	2500 to 6300
Rated operating voltage Vn	24 V ~/ 48 V ~/ 110 - 130 V ~/ 220 - 250 V ~/ 415 - 440 V ~
Voltage range (% Vn)	70 to 110
Pick-up consumption (W/VA)	500/500
Pick-up time (ms)	180
Hold consumption (W/VA)	5/5
Opening time (ms)	30
Insulation voltage (kV)	2.5

UNDERVOLTAGE RELEASE

Undervoltage releases are devices which are generally controlled by an N/C type contact. The trigger instantaneous opening of the circuit breaker if their supply voltage drops below a certain threshold and in particular if the control contact opens. These releases are equipped with a device for limiting their consumption after the circuit has been closed.



Undervoltage release for DMX³ 2500 to 6300

	FOR DMX ³
Size	2500 to 6300
Rated operating voltage Vn	24 V ~/ 48 V ~/ 110 - 130 V ~/ 220 - 250 V ~/ 415 - 440 V ~
Voltage range (% Vn)	85 to 110
Pick-up consumption (W/VA)	500/500
Pick-up time (ms)	180
Hold consumption (W/VA)	5/5
Opening time (ms)	60
Insulation voltage (kV)	2.5

CLOSING COILS

These coils are used for remotely controlling the closing of the power contacts of the circuit breaker. The springs of the circuit breaker are to be loaded prior to the action of the closing coils. They are controlled by an N/O type contact.



Closing coils for DMX³ 2500 to 6300

	FOR DMX ³
Size	2500 to 6300
Rated operating voltage Vn	24 V ~/ 48 V ~/ 110 - 130 V ~/ 220 - 250 V ~/ 415 - 440 V ~
Voltage range (% Vn)	85 to 110
Pick-up consumption (W/VA)	500/500
Pick-up time (ms)	180
Hold consumption (W/VA)	5/5
Opening time (ms)	50
Insulation voltage (kV)	2.5

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**LEGRAND
ADVANTAGE**

Electrical connection is made in no time thanks to the fast connector supplied on all above accessories.



**OTHER ELECTRICAL
FEATURES**

Number of control auxiliaries for DMX³ = 3
Shunt trip: 1
Undervoltage release: 1
Closing coils: 1



MOTOR OPERATORS

Motor operators, are used for remotely reloading the springs of the circuit breaker mechanism immediately after the device closes. The device can thus be re-closed almost immediately after an opening operation.

To motorise a DMX³ it is necessary to add a release coil (undervoltage release or shunt trip) and a closing coil.

If the supply voltage of the controls fails, it is still possible to reload the springs manually. Motor-driven controls have "limit switch" contacts which cut off the power supply of their motor after the springs have been reloaded. Motor operators are easy to mount, with only three screws.



Motor operator for DMX³ 2500 to 6300

Size	FOR DMX ³	
	2500 to 6300	
	50, 65 kA	100 kA
Rated operating voltage V _n	24 V ~/≐	
	48 V ~/≐	
	110 - 130 V ~/≐	
	220 - 250 V ~/≐	
	415 - 440 V ~ 480 V ~	
Voltage range (% V _n)	85 to 110	
Max. power consumption (W/VA)	180/180	240/240
Max. peak current for about 80 ms	2 to 3 x I _n	
Charging time (s)	5	7
Operating frequency (n°/min)	2	1

SAFETY AND PADLOCKING ACCESSORIES FOR AN INCREASED SECURITY

The DMX³ circuit breakers draw-out types are delivered as standard with safety padlocking shutters preventing access to live terminals. They have a number of other safety devices, such as:

- Key-operated locks:
 - Main contacts open
 - Circuit breaker in draw-out position
- Padlocks for:
 - Main contacts open
 - Contact shutters closed (for draw-out position)
- Door locking in order to prevent the opening of the electrical switchboard door when the contacts of the ACB are closed.



Fixed version equipped with padlocking system



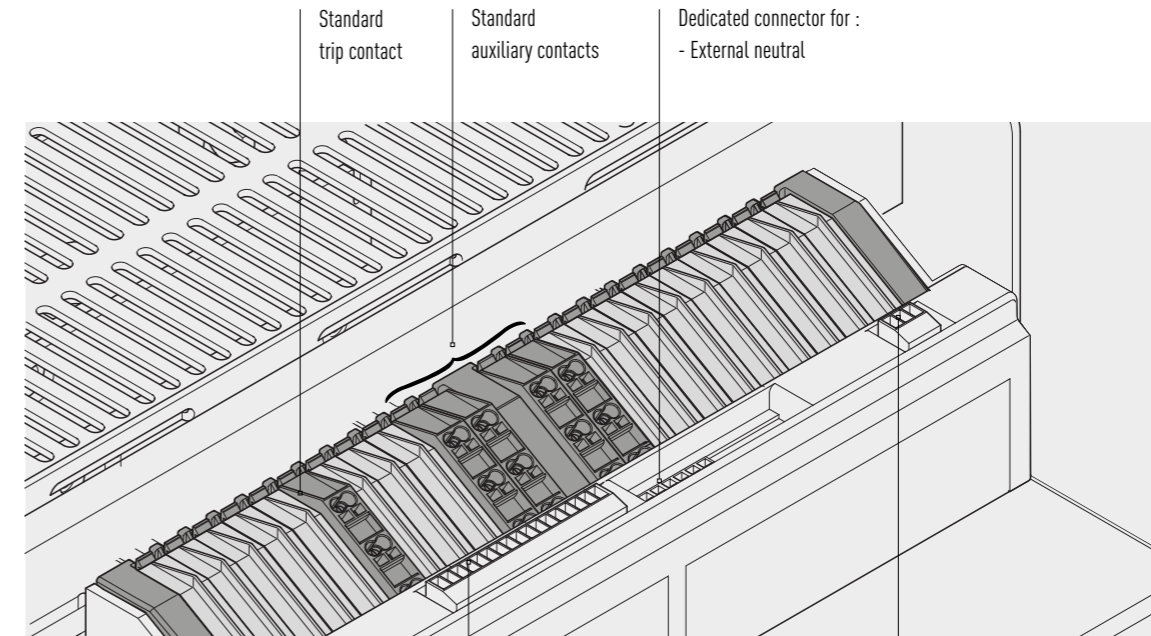
Draw-out version equipped with key-operated locks

Electrical auxiliaries are connected on the front panel on terminal blocks provided for this purpose. Accessories are identified on the front panel.

As the cover has window, it is easy to ascertain, which devices are fitted on the circuit breaker.

FRONT PANEL CONNECTION TERMINAL BLOCK

The terminal block of DMX³ ACBs offers the possibility to connect a trip contact, up to 10 auxiliary contacts (up to 6 contacts for DMX³ 1600) and different other control and signalling functions



Standard trip contact

Standard auxiliary contacts

Dedicated connector for :
- External neutral

Dedicated connector for :
- External auxiliary power supply
- Programmable contact module
- Supervision serial port (if the ACB is equipped with communication option)

Dedicated connector for:
- Local programmable relay (4 A V_{max} 230 V a.c.)

Easy identification of control accessories



MORE INFORMATION

	DMX ³ 2500	DMX ³ 4000	DMX ³ 6300
External auxiliary power supply		0 288 06	
Programmable contact module		0 288 12	
Communication option		0 288 05	
External neutral	0 288 11		0 288 10

FIXED VERSION-CHOOSE YOUR CONNECTION ACCESSORIES: 3 POSSIBILITIES

FIXED VERSION: EXAMPLES OF CONNECTIONS

The type of rear terminals can be easily changed according to your needs.

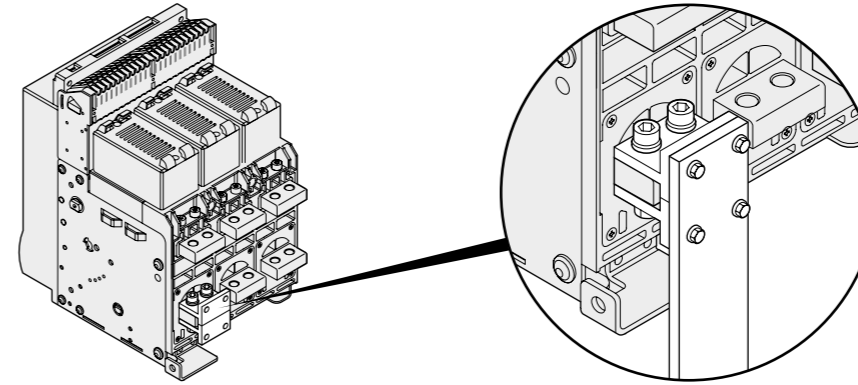
REAR TERMINALS FOR FLAT CONNECTION



Frame 2500:
3P: Cat. N° 0 288 84
4P: Cat. N° 0 288 85

Frame 4000:
3P: Cat. N° 0 288 92
4P: Cat. N° 0 288 93

Frame 6300:
3P: Cat. N° 0 288 92 x 2
4P: Cat. N° 0 288 93 x 2



REAR TERMINALS FOR VERTICAL CONNECTION

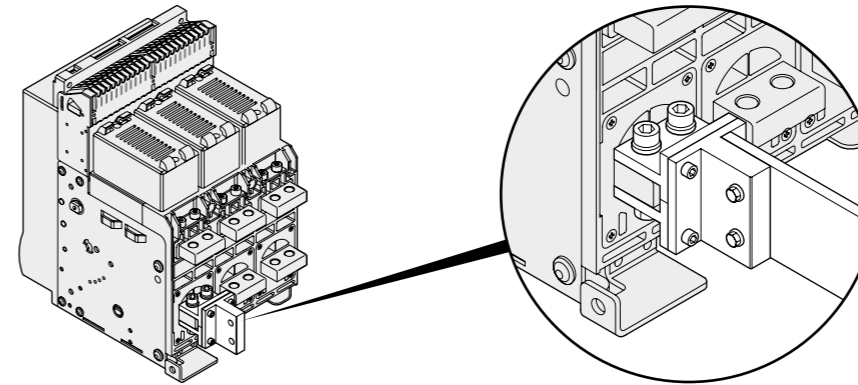
This type of connection uses 2 accessories: the previous rear terminals for flat connection, which must be equipped with the vertical ones.



Frame 1:
3P: Cat. N° 0 288 84 + 0 288 82
4P: Cat. N° 0 288 85 + 0 288 83

Frame 2 and 3⁽¹⁾:
3P: Cat. N° 0 288 92 + 0 288 94
4P: Cat. N° 0 288 93 + 0 288 95

(1) For frame 6300 the quantity is multiplied by 2



SPREADERS

For any situation requiring a bigger width for a safe connection (i.e. aluminium bus bars).

Frame 2500:
3 types of accessories



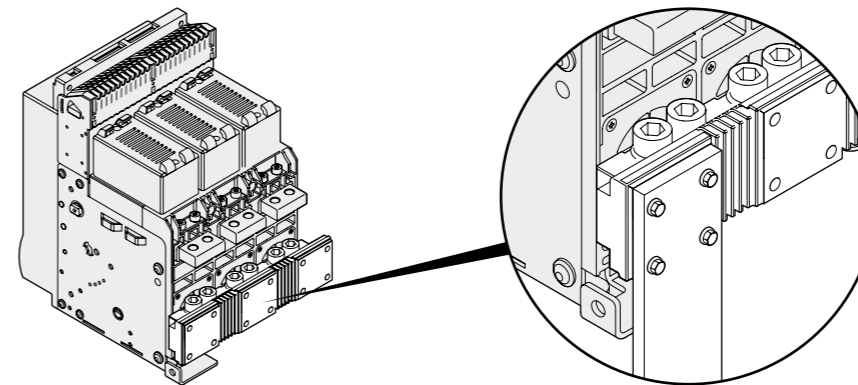
Flat connection
3P: Cat. N° 0 288 86
4P: Cat. N° 0 288 87



Vertical connection
3P: Cat. N° 0 288 88
4P: Cat. N° 0 288 89



Horizontal connection
3P: Cat. N° 0 288 90
4P: Cat. N° 0 288 91



The breaker is supplied with rear terminals for horizontal connection

Connection:
maximum
adaptability
DMX³ 2500
to 6300

The fixed version of DMX³ is equipped with rear terminals for horizontal connection with bars.

You can change connection type according to your needs.



DRAW-OUT VERSION-CHOOSE YOUR CONNECTION ACCESSORIES

Draw-out version of the DMX³ breakers is supplied with rear terminals for flat connection with bars. You can easily transform those terminals into vertical or horizontal type by using the unique reversible connector.



The breaker is supplied with rear terminals for flat connection

2 TYPES OF FIXING

Reversible connector for vertical or horizontal connection.



Frame 2500:
3P: Cat. N° 0 288 96
4P: Cat. N° 0 288 97

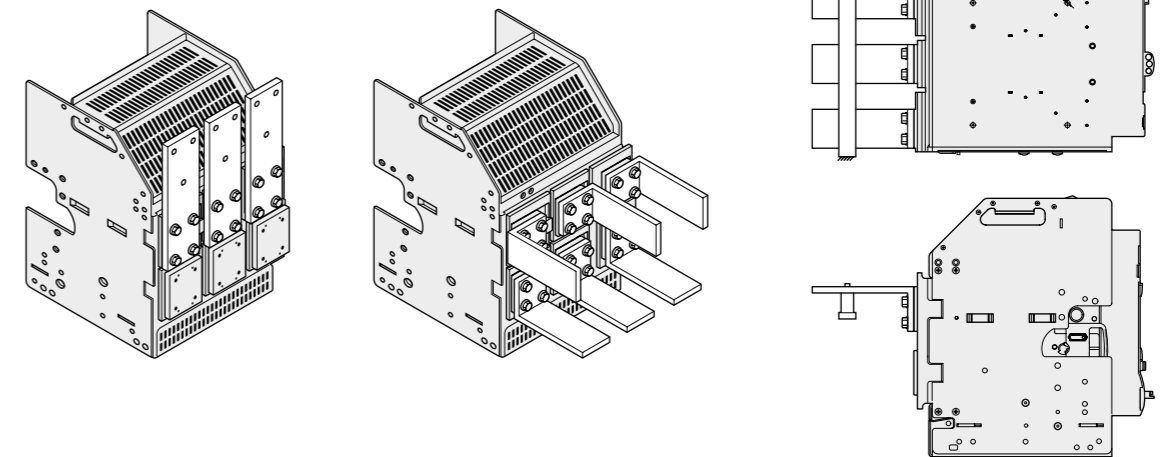
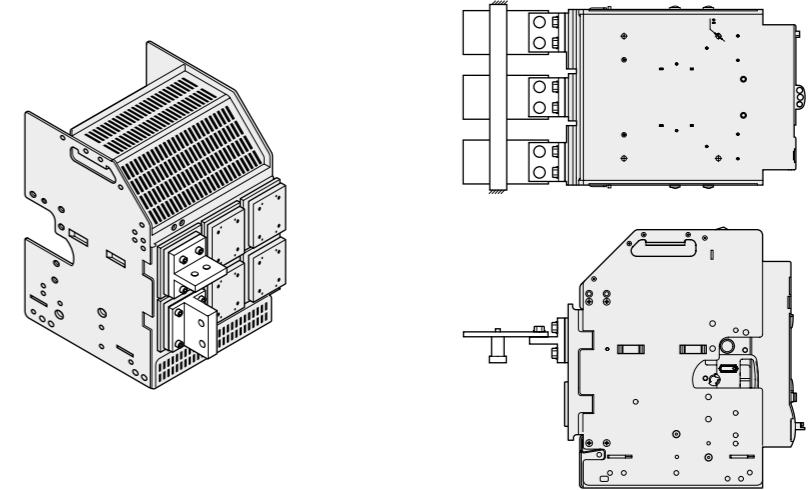
Frame 4000:
3P: Cat. N° 0 288 94
4P: Cat. N° 0 288 95

Frame 6300:
3P: Cat. N° 0 288 94 x 2
4P: Cat. N° 0 288 95 x 2

FLAT CONNECTION USING THE REAR TERMINALS OF THE BREAKER

DRAW-OUT VERSION: EXAMPLES OF CONNECTIONS

Draw-out version of the DMX³ breakers is supplied with rear terminals for flat connection with bars. You can easily transform the rear terminals into vertical or horizontal type by using the unique reversible connector.



Connection:
maximum
adaptability
DMX³ 2500
to 6300
CONTINUED

The draw-out version is equipped with rear terminals for flat connection with bars.



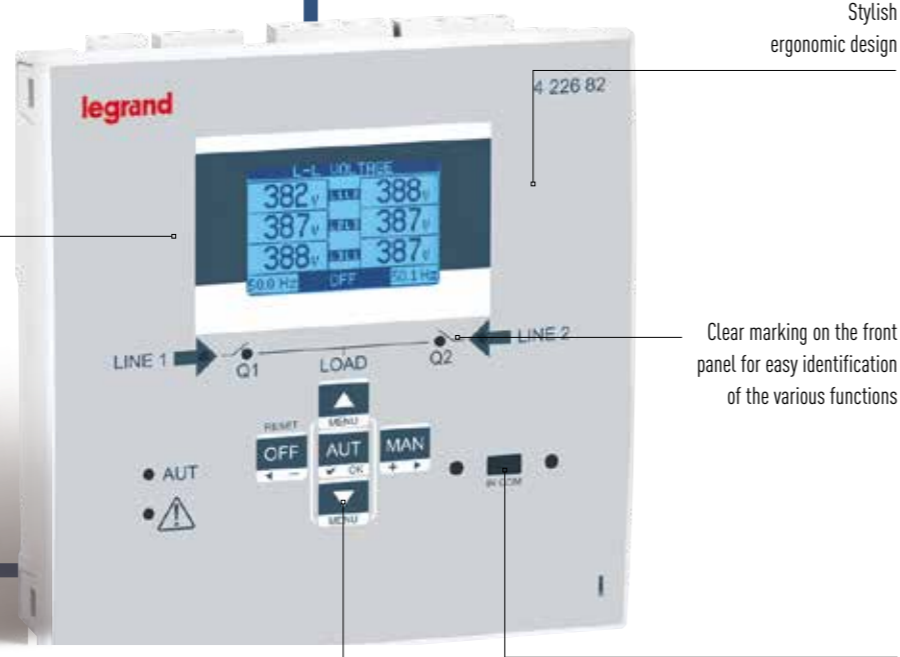
CONNECTIONS: A FEW RECOMMENDATIONS!

- Connections provide the electrical connection of equipment and are also responsible for a considerable proportion of their heat dissipation.
- Connections must never be under-sized.
- Plates or terminals must be used over a maximum area.
- Heat dissipation is encouraged by arranging the bars vertically. If an uneven number of bars is connected, place the higher number of bars on the upper part of the terminal.
- Avoid bars running side by side: this causes poor heat dissipation and vibrations.
- Place spacers between the bars to maintain a distance between them which is at least equivalent to their thickness.



Automatic transfer switches

Backlit screen, very easy to read, adjustable brightness and contrast. Menu available in 5 or 8 languages depending on unit model



Stylish ergonomic design

Clear marking on the front panel for easy identification of the various functions

Touch-sensitive buttons for programming the various operating parameters directly on the control unit

The optical communication port on the front can take a USB or a Wi-Fi connection module, which allows communication with a computer, smartphone or a tablet for programming, diagnostics and data downloading, without having to cut off the power to the electrical panel.

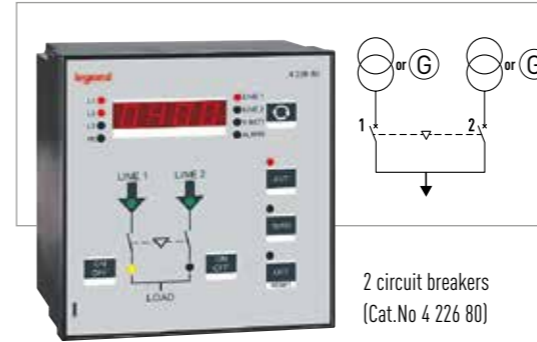
Continuity of service & increased safety

Automatic transfer switches answer the double need of continuity of service and greater safety (security). Traditionally used in hospitals, public buildings, industries with continuous manufacturing

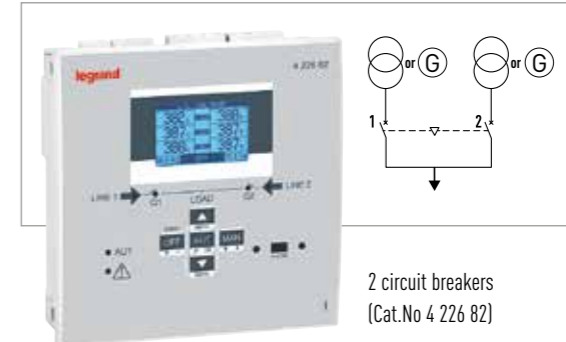
processes, airports and military applications, automatic transfer switches become increasingly required for new applications such as telecommunications and computing treatment or in the management of

energy sources, notably those say "renewable energies". Our range of control units includes 3 different types, depending on the desired service level.

STANDARD UNIT



CONFIGURABLE UNIT



Configurable models are fitted with an optical port designed to take communication modules. These modules can be used to configure the control units via a PC, tablet or smartphone, on which the software or Legrand app has already been installed.



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LEGRAND ADVANTAGE

Thanks to its digital displays and different LEDs is possible to watch permanently the state of the inverter, as well as the presence and the value of the voltage on each power supply.



Mechanical interlock device



Cable for mechanical interlock



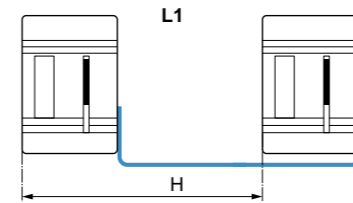
Transfer switching & interlocking

Mechanical interlock is set up using cables and a mechanical interlock device and can interlock 2 or 3 devices, which may be different type in a vertical or horizontal configuration.

The interlock device is mounted on the right-hand side of the air circuit breaker.

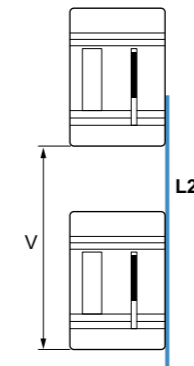
DMX³ 1600

Horizontal configuration



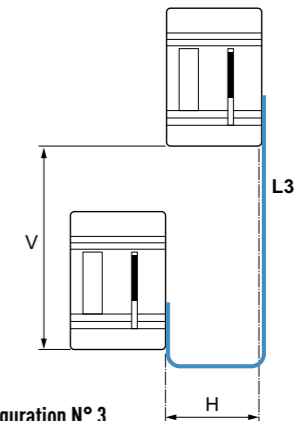
Configuration N° 1
Required cable length:
 $L = 620 + H$

Vertical configuration



Configuration N° 2
Required cable length:
 $L = 950 + V$

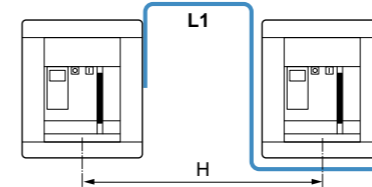
Vertical + Horizontal configuration



Configuration N° 3
Required cable length:
 $L = 620 + V + H$

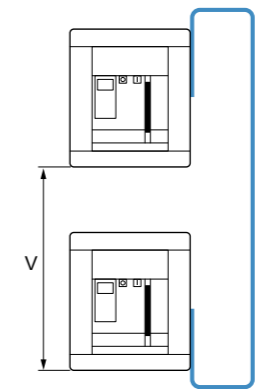
DMX³ 2500 / 4000 / 6300

Horizontal configuration



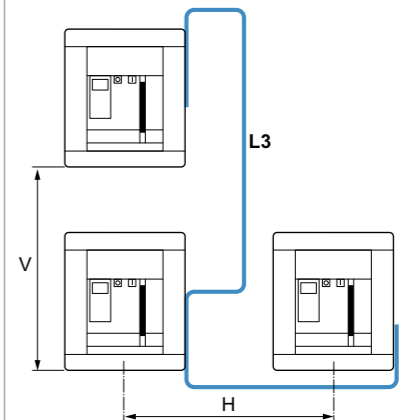
Configuration N° 1
Required cable length:
 $L = 1430 + H$

Vertical configuration



Configuration N° 2
Required cable length:
 $L = 1570 + V$

Vertical + Horizontal configuration



Configuration N° 3
Required cable length:
 $L = 1430 + V + H$

EXAMPLES OF CABLE INTERLOCK SELECTION FOR 2 OR 3 AIR CIRCUIT BREAKERS

		DMX³ 2500 / 4000 / 6300 (3 ACBs) Configuration N° 3: $L = 1430 + H + V$			
Distance between air circuit breakers		Horizontal (mm)			
		725	1 000	1 450	2 000
Vertical (mm)	800	0 289 21	0 289 22	0 289 23	0 289 24
	1 000	0 289 22	0 289 22	0 289 23	0 289 24
	1 600	0 289 23	0 289 24	0 289 24	0 289 25
	2 000	0 289 24	0 289 24	0 289 25	0 289 25

CABLE LENGTH

Cat.Nos	0 289 17	0 289 18	0 289 20	0 289 21	0 289 22	0 289 23	0 289 24	0 289 25
Length (mm)	1 000	1 500	2 600	3 000	3 600	4 000	4 600	5 600

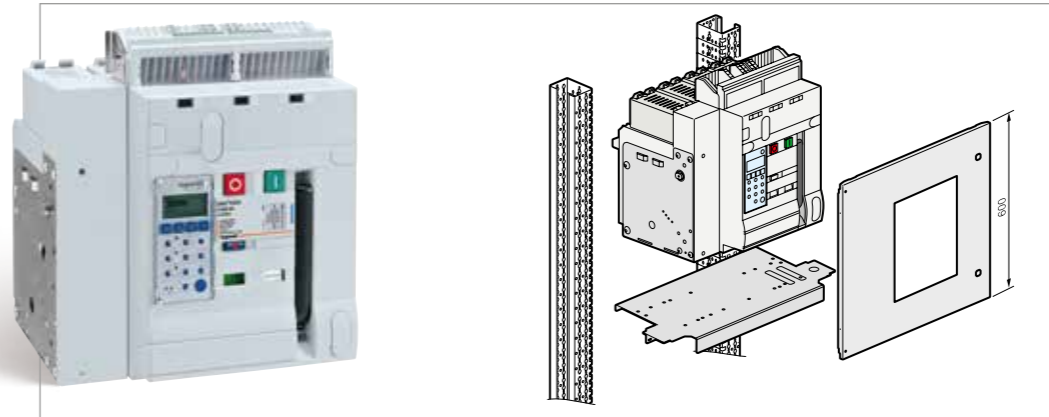


an XL³ S 4000 enclosure



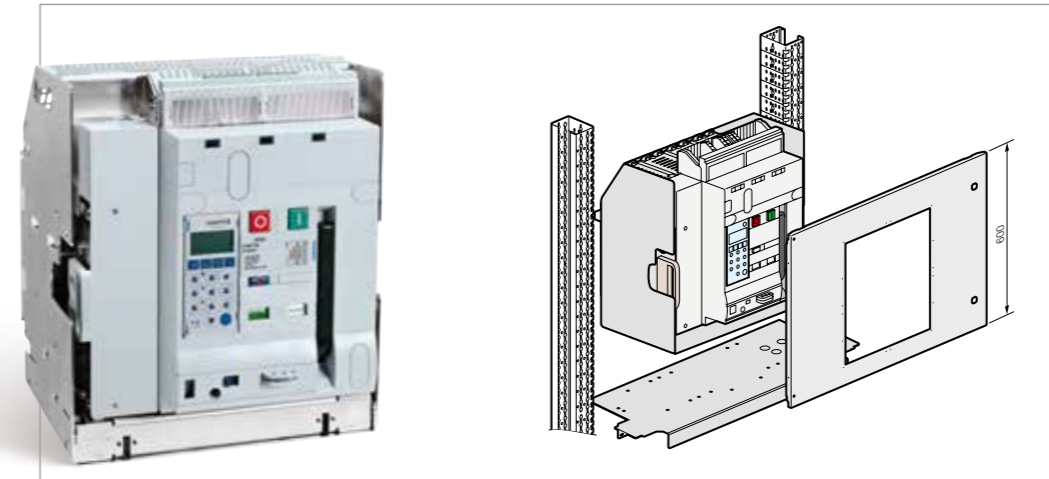
DMX³ 6300 inside
an XL³ 6300 enclosure

DMX³ FIXED VERSION



DMX³ size 2500

DMX³ DRAW-OUT VERSION



DMX³ size 2500

Be free to choose XL³ fully adaptable enclosure

It is very easy to create the configuration you want thanks to the different available sizes of XL³ S 4000 or XL³ 4000 and 6300 enclosures.

A full range of accessories, such as dedicated fixing plates and faceplates, facilitates the integration of DMX³ devices inside the enclosures.

XLPro³ software let you choose the optimum configuration between XL³ and XL³ S, according to the size and the requirements of your installation.



MOUNTING PRINCIPLE

In XL³ and XL³ S, the DMX³ devices and the associated busbars are arranged according to an identical principle for power ratings up to 4000 A, that is, the possibility of mounting two devices per enclosure.

The installation height of DMX³ units is always 600 mm whatever the type and size of the device. When 2 DMX³ devices are installed in the same cell, this leaves at least a useful 600 mm for running the busbars.



Air circuit breakers DMX³ 2500 and 4000

from 800 to 4000 A



0 286 56 + 0 288 02 (p. 161)



0 286 74 + 0 288 02 (p. 161)



0 287 56 + 0 288 02 (p. 161)

Dimensions p. 42-45
Electrical characteristics p. 47-49

Automatic air circuit breakers must be equipped with electronic protection unit (p. 161), imperatively ordered together for factory assembly
Please ask for DMX³ order form
Conform to IEC 60947-2

Pack	Cat.Nos	Fixed version
		Supplied with - 4 auxiliary contacts: NO/NC - rear terminals for horizontal connection with bars - door sealing
		DMX³ - N 2500 Breaking capacity I _{cu} 50 kA (415 V \sim)
		Frame 2500
		In(A)
		3P 4P
1	0 286 21	0 286 31 800
1	0 286 22	0 286 32 1000
1	0 286 23	0 286 33 1250
1	0 286 24	0 286 34 1600
1	0 286 25	0 286 35 2000
1	0 286 26	0 286 36 2500
		DMX³ - H 2500 Breaking capacity I _{cu} 65 kA (415 V \sim)
		Frame 2500
		In(A)
		3P 4P
1	0 286 41	0 286 51 800
1	0 286 42	0 286 52 1000
1	0 286 43	0 286 53 1250
1	0 286 44	0 286 54 1600
1	0 286 45	0 286 55 2000
1	0 286 46	0 286 56 2500
		DMX³ - L 2500 Breaking capacity I _{cu} 100 kA (415 V \sim)
		Frame 4000
		In(A)
		3P 4P
1	0 286 61	0 286 71 800
1	0 286 62	0 286 72 1000
1	0 286 63	0 286 73 1250
1	0 286 64	0 286 74 1600
1	0 286 65	0 286 75 2000
1	0 286 66	0 286 76 2500
		DMX³ - N 4000 Breaking capacity I _{cu} 50 kA (415 V \sim)
		Frame 4000
		In(A)
		3P 4P
1	0 286 27	0 286 37 3200
1	0 286 28	0 286 38 4000
		DMX³ - H 4000 Breaking capacity I _{cu} 65 kA (415 V \sim)
		Frame 4000
		In(A)
		3P 4P
1	0 286 47	0 286 57 3200
1	0 286 48	0 286 58 4000
		DMX³ - L 4000 Breaking capacity I _{cu} 100 kA (415 V \sim)
		Frame 4000
		In(A)
		3P 4P
1	0 286 67	0 286 77 3200
1	0 286 68	0 286 78 4000

Air circuit breakers DMX³ 6300

5000 and 6300 A



0 289 51 + 0 288 02

Dimensions p. 46
Electrical characteristics p. 47-49

Automatic air circuit breakers must be equipped with electronic protection unit, imperatively ordered together for factory assembly
Please ask for DMX³ order form
Conform to IEC 60947-2

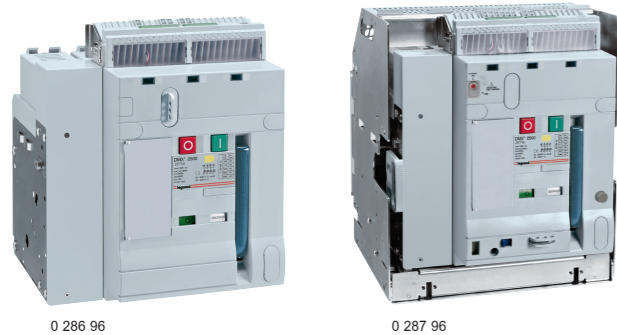
Pack	Cat.Nos	Fixed version
		Supplied with - 4 auxiliary contacts: NO/NC - rear terminals for horizontal connection with bars - door sealing
		DMX³ - L 6300 Breaking capacity I _{cu} 100 kA (415 V \sim)
		Frame 6300
		In(A)
		3P 4P
1	0 289 50	0 289 60 5000
1	0 289 51	0 289 61 6300
		Draw-out version Supplied with: - 4 auxiliary contacts: NO/NC - draw-out base and kit - flat rear terminals for connection with bars - door sealing
		DMX³ - L 6300 Breaking capacity I _{cu} 100 kA (415 V \sim)
		Frame 6300
		In(A)
		3P 4P
1	0 289 52	0 289 62 5000
1	0 289 53	0 289 63 6300

Pack	Cat.Nos	MP4 protection units with LCD screen
		Integrated LCD screen for displaying electrical values, settings and log Adjustment via selector switches
		LI protection unit Adjustment of: I _i , I _r , t _r
1	0 288 00	
		LSI protection unit Adjustment of: I _{sd} , t _{sd} , I _r , t _r and I _i
1	0 288 01	
		LSIg protection unit Adjustment of: I _{sd} , t _{sd} , I _r , t _r , I _i , I _g and t _g
1	0 288 02	
		MP6 touch screen protection units Measure and display instantaneous, maximum and average values of different electrical values and protection conditions Fault signalling and log
		LSI protection unit Adjustment of: I _{sd} , t _{sd} , I _r , t _r and I _i
1	0 288 03	
		LSIg protection unit Adjustment of: I _{sd} , t _{sd} , I _r , t _r , I _i , I _g and t _g
1	0 288 04	
		Accessories for electronic protection units
1	0 288 05 ¹	Communication option for DMX ³ electronic protection units
1	0 288 06	24 V DC external auxiliary power supply
1	0 288 10 ¹	External neutral for DMX ³ 6300
1	0 288 11 ¹	External neutral for DMX ³ 2500 and 4000
1	0 288 12 ¹	Module programmable output

¹: Optional accessories, to be ordered when ordering electronic protection unit and DMX³ air circuit breakers for factory assembly

Trip free switches DMX³-I

from 1250 to 6300 A



Dimensions p. 42-46

Conform to IEC 60947-3

Pack	Cat.Nos	Fixed version
1	0 286 83 0 286 93	DMX ³ -I 2500 In(A) 1250
1	0 286 84 0 286 94	DMX ³ -I 2500 In(A) 1600
1	0 286 85 0 286 95	DMX ³ -I 2500 In(A) 2000
1	0 286 86 0 286 96	DMX ³ -I 2500 In(A) 2500
1	0 286 87 0 286 97	DMX ³ -I 4000 In(A) 3200
1	0 286 88 0 286 98	DMX ³ -I 4000 In(A) 4000
1	0 289 70 0 289 71	DMX ³ -I 6300 In(A) 6300

Pack	Cat.Nos	Draw-out version
1	0 287 83 0 287 93	DMX ³ -I 2500 In(A) 1250
1	0 287 84 0 287 94	DMX ³ -I 2500 In(A) 1600
1	0 287 85 0 287 95	DMX ³ -I 2500 In(A) 2000
1	0 287 86 0 287 96	DMX ³ -I 2500 In(A) 2500
1	0 287 87 0 287 97	DMX ³ -I 4000 In(A) 3200
1	0 287 88 0 287 98	DMX ³ -I 4000 In(A) 4000
1	0 289 77 0 289 78	DMX ³ -I 6300 In(A) 6300

Trip free switches DMX³-I

from 1250 to 6300 A

Technical characteristics

Trip free switch DMX ³ -I	2500	4000	6300
Frame	2500	4000	6300
Rating In (A)	1250 1600 2000 2500	3200 4000	6300
Rated insulation voltage Ui (V)	1000	1000	1000
Rated impulse withstand voltage Uimp (kV)	12	12	12
Rated operational voltage (50/60Hz) Ue (V)	690	690	690
Isolation behaviour	Yes	Yes	Yes
Short-circuit making capacity Icm (kA)	230 V~	143	220
	415 V~	143	220
	500 V~	143	220
	600 V~	132	165
Short time withstand current Icw (kA) for t = 1 s	690 V~	121	143
	230 V~	65	85
	415 V~	65	85
	500 V~	65	85
Endurance (cycles) with Maintenance	600 V~	60	75
	690 V~	55	65
	mechanical	20000	20000
Endurance (cycles) without Maintenance	mechanical	10000	10000
	Electrical	10000	5000

Temperature derating

Fixed version

	Temperature									
	40°C		50°C		60°C		65°C		70°C	
	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n
DMX ³ -I 2500	1250	1	1250	1	1250	1	1250	1	1250	1
	1600	1	1600	1	1600	1	1600	1	1600	1
	2000	1	2000	1	1960	0.98	1920	0.96	1880	0.94
	2500	1	2500	1	2350	0.94	2250	0.9	2150	0.86
DMX ³ -I 4000	3200	1	3200	1	3200	1	3136	0.98	3008	0.94
	4000	1	4000	1	3680	0.92	3440	0.86	3120	0.78
DMX ³ -I 6300	6300	1	6300	1	6048	0.96	5796	0.92	5544	0.88

Draw-out version

	Temperature									
	40°C		50°C		60°C		65°C		70°C	
	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n	I _{max} (A)	I _r / I _n
DMX ³ -I 2500	1250	1	1250	1	1250	1	1250	1	1250	1
	1600	1	1600	1	1600	1	1600	1	1600	1
	2000	1	2000	1	1960	0.98	1920	0.96	1875	0.94
	2500	1	2400	0.96	2250	0.9	2100	0.84	1950	0.78
DMX ³ -I 4000	3200	1	3200	1	3200	1	3072	0.96	2880	0.9
	4000	1	3760	0.94	3440	0.86	3200	0.8	2960	0.74
DMX ³ -I 6300	6300	1	6174	0.98	5985	0.95	5796	0.92	5292	0.84

Auxiliaries and accessories for DMX³ 2500, 4000 and 6300



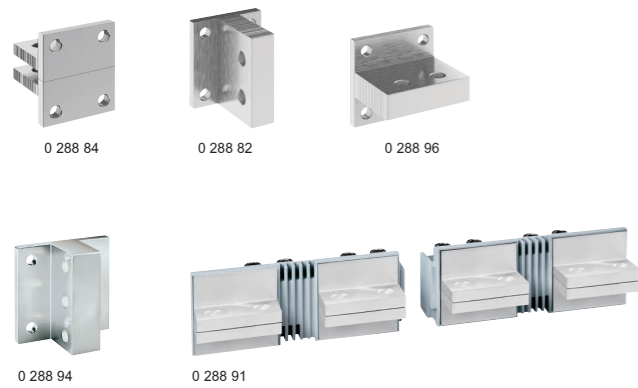
Control and signalling auxiliaries

Pack	Cat.Nos	Control and signalling auxiliaries
1	0 288 48	Shunt trip When energised the circuit breaker will be tripped 24 V~ / =
1	0 288 49	48 V~ / =
1	0 288 50	110 - 130 V~ / =
1	0 288 51	220 - 250 V~ / =
1	0 288 52	415 - 480 V~
1	0 288 55	Undervoltage releases When the coil is de-energised, the circuit breaker will be tripped 24 V~ / =
1	0 288 56	48 V~ / =
1	0 288 57	110 - 130 V~ / =
1	0 288 58	220 - 250 V~ / =
1	0 288 59	415 - 480 V~
1	0 288 62	Module for delayed tripping To be used with above undervoltage releases 110 V~ / =
1	0 288 63	230 V~ / =
1	0 288 34	Motor operators To motorize a DMX ³ , it is possible to attach, to the motor operators, a release coil (undervoltage or trip on energising) and a closing coil 24 V~ / =
1	0 288 35	48 V~ / =
1	0 288 36	110 - 130 V~ / =
1	0 288 37	220 - 250 V~ / =
1	0 288 38	415 - 440 V~
1	0 288 40	480 V~ / =
1	0 288 41	Closing coils Enables remote closing of the circuit breaker if the closing spring is charged 24 V~ / =
1	0 288 42	48 V~ / =
1	0 288 43	110 - 130 V~ / =
1	0 288 44	220 - 250 V~ / =
1	0 288 45	415 - 480 V~
1	0 288 16	Signalling contact for auxiliaries Signalling contact for shunt trips, undervoltage releases and closing coils
1	0 288 13	Signalling contact for draw-out version Inserted / test / draw-out signalling contact 3 changeover contacts per position

Locking

Pack	Cat.Nos	Locking
1	0 288 30	Key locking in "open" position Lock and star key N° HBA90GPS6149 - to be fitted on the frame Cat.No 0 288 28
1	0 288 31	Lock and flat key N° ABA90GEL6149 - to be fitted on the frame Cat.No 0 288 28
1	0 288 28	2 hole support frame for locks Cat.Nos 0 288 30/31
1	0 288 29	Set of 5 key barrels with flat key
1	0 288 32	Key locking in the draw-out position Mounting of the lock on the base Lock and star key N° HBA90GPS6149
1	0 288 33	Lock and flat key N° ABA90GEL6149
1	0 288 20	Door locking Prevents opening of the door with the circuit breaker closed Left-hand and right-hand side mounting
1	0 288 21	Padlocks in "open" position Padlocking system for ACB (padlock not supplied)
1	0 288 24	Padlock for buttons
1	0 288 26	Padlocking system for shutters (padlock not supplied)
1	0 289 02 0 289 03	Equipment for conversion of a fixed device into draw-out device Bases for draw-out device For DMX ³ /DMX ³ -I frame 2500
1	0 289 04 0 289 05	For DMX ³ /DMX ³ -I frame 4000
1	0 289 13 0 289 14	For DMX ³ /DMX ³ -I frame 6300
1	0 289 09 0 289 10	Transformation kit for draw-out version For DMX ³ /DMX ³ -I frame 2500
1	0 289 11 0 289 12	For DMX ³ /DMX ³ -I frame 4000
1	0 289 15 0 289 16	For DMX ³ /DMX ³ -I frame 6300
1	0 288 25	Accessories Rating mis-insertion device Prevents the insertion of a draw-out circuit breaker in an incompatible base
1	0 288 23	Operations counter Counts total number of operation cycles of the device
1	0 288 14	Contact "ready to close" with charged springs
1	0 288 15	Additional signalling contact
1	0 288 79	Lifting plate

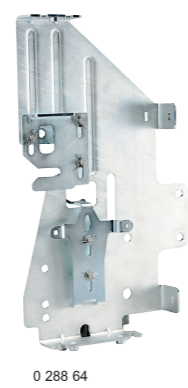
Rear terminals for DMX³ 2500, 4000 and 6300



Dimensions p. 42-46

Pack	Cat.Nos	Rear terminals
1	3P 0 288 84 4P 0 288 85	For DMX³ frame 2500 fixed version For flat connection with bars To be fixed onto horizontal rear terminals of the circuit breaker
1	0 288 82 0 288 83	For vertical connection with bars Those terminals are used in order to transform a flat connection into a vertical one To be fixed onto Cat.Nos 0 288 84/85 according to the number of poles
1	0 288 96 0 288 97	For DMX³ frame 2500 draw-out version For vertical or horizontal connection with bars To be fixed onto plate rear terminals of the circuit breaker
1	0 288 92 0 288 93	For DMX³ frame 4000 and 6300 fixed version For flat connection with bars To be fixed onto horizontal rear terminals of the circuit breaker 2 sets are required for frame 6300
1	0 288 94 0 288 95	For DMX³ frame 4000 and 6300 fixed or draw-out version On DMX ³ fixed version: - For vertical connection with bars - To be fixed onto Cat.Nos 0 288 92/93 according to the number of poles On DMX ³ draw-out version: - For vertical or horizontal connection with bars - To be fixed directly onto plate rear terminals of the circuit breaker 2 sets are required for frame 6300
1	3P 0 288 86 4P 0 288 87	Spreaders for DMX³ frame 2500 fixed version To be fixed onto horizontal rear terminals of the circuit breaker
1	0 288 88 0 288 89	For flat connection with bars
1	0 288 90 0 288 91	For vertical connection with bars For horizontal connection with bars
1	N 3P 0 288 98 4P 0 288 99	Insulation shields For fixed version Insulation shields for DMX ³ /DMX ³ -I frames 2500 / 4000 / 6300
1	0 288 18 0 288 19	For draw-out version Insulation shields for DMX ³ /DMX ³ -I frames 2500 / 4000 / 6300

Equipment for DMX³ 2500, 4000 and 6300 transfer switches



Technical characteristics p. 50

Pack	Cat.Nos	Equipment for transfer switches
1	0 288 64	Interlock for DMX ³ frame 2500
1	0 288 65	Interlock for DMX ³ frame 4000
1	0 288 66	Interlock for DMX ³ frame 6300
1	0 289 17	Cable interlock Length 1000 mm
1	0 289 18	1500 mm
1	0 289 20	2600 mm
1	0 289 21	3000 mm
1	0 289 22	3600 mm
1	0 289 23	4000 mm
1	0 289 24	4600 mm
1	0 289 25	5600 mm

Automatic transfer switch control units



Technical characteristics p. 50
Configuration software see e-catalogue

They can control transfer switching between two sources, manage generator start/stop, control single phase, two-phase and three-phase networks, control phase-phase and phase-neutral voltages
For DPX³ and DMX³ circuit breakers and CTX³ contactors

Pack	Cat.Nos	Automatic transfer switch control units
1	4 226 80	For standard management of 2 circuit breakers 6 programmable digital inputs and 6 programmable relay outputs Digital display Power supply: 12...48 V _{DC} IP54
1	4 226 82 ¹	For advanced management of 2 circuit breakers 6 programmable digital inputs and 7 programmable relay outputs Can be equipped with maximum 2 plug-in modules between: - extension modules Cat.No 4 226 90/91/92 - opto-isolated RS485 communication interface Cat.No 4 226 89 LCD display IR communication port on the front panel for connection of USB or WiFi modules Cat.No 4 226 87/88 Can be configured with the help of front panel touch keys or of the Legrand dedicated software Power supply: 12-24 V _{DC} ; 110-240 V _{AC} IP40
1	4 226 83 ¹	For advanced management of 3 circuit breakers 8 programmable digital inputs and 7 programmable relay outputs Can be equipped with maximum 3 plug-in extension modules between Cat.No 4 226 90/91/92 Integrated opto-isolated RS485 communication interface LCD display IR communication port on the front panel for connection of USB or WiFi modules Cat.No 4 226 87/88 Can be configured with the help of front panel touch keys or of the Legrand dedicated software Power supply: 12-24-48 V _{DC} ; 110-240 V _{AC} IP65

Pack	Cat.Nos	Dual power supply selector
1	4 226 86	Dual power supply selector measures and controls two supply voltages at its inputs (single phase, 230 V _{AC}) and selects the most adapted voltage for auxiliary circuits supply Equipped with 1 alarm contact, if no supply voltage can be selected within the limits
1	4 226 89	Plug-in modules Opto-isolated RS485 interface
1	4 226 90	4 opto-isolated static outputs
1	4 226 91	2 relay outputs, rated 5 A 250 V _{AC}
1	4 226 92	2 opto-isolated digital inputs and 2 relay outputs rated 5 A 250 V _{AC}
1	4 226 87 ¹	Communication accessories These communication devices can be used to connect Alptec 8 and Alptec 3.2/5.2/8.2 power factor controllers and automatic transfer switch controllers to a computer; smartphone or tablet For programming, downloading data, diagnostics and upgrading the firmware USB front connector Computer connection cable with USB connector The computer identifies the connection as a standard USB connection. There is no need to switch off the controller power supply

1: Configuration software available for download via E-catalogue



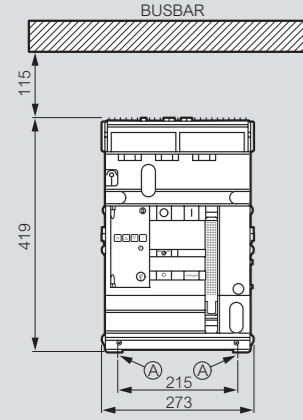
DMX³ 2500 and DMX³-I 2500 - frame 2500

dimensions

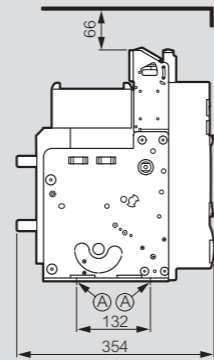
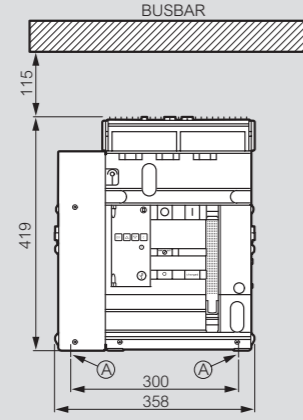
Fixed version - frame 2500

Overall dimensions

3P version

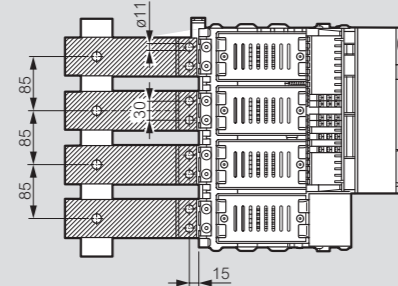
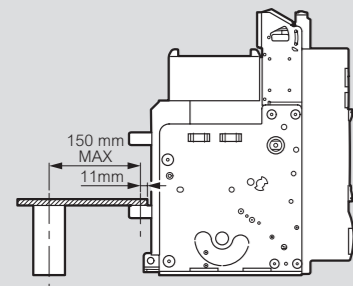


4P version



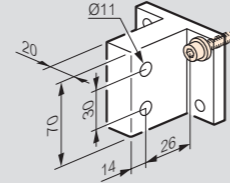
A = fixing point on plate of enclosure

Connection principle



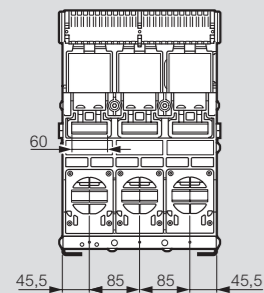
Rear terminals for vertical connection with bars

Cat.Nos 0 288 82/83

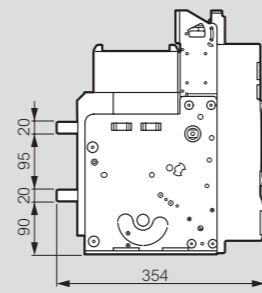
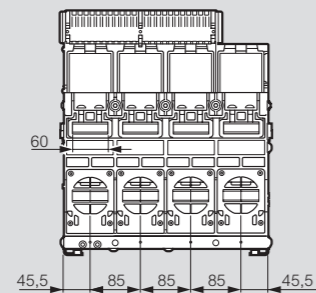


Rear terminals for horizontal connection with bars

3P version

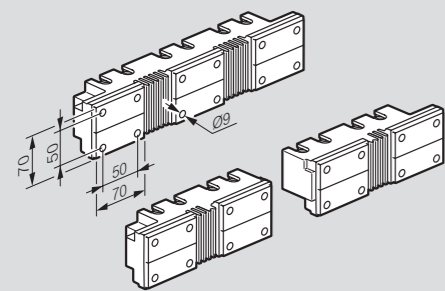


4P version



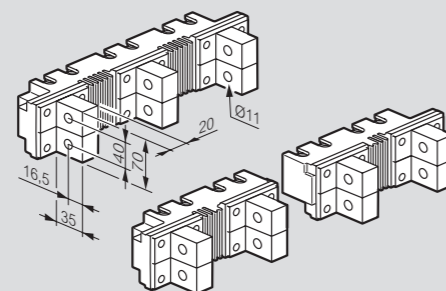
Spreaders for flat connection with bars

Cat.Nos 0 288 86/87



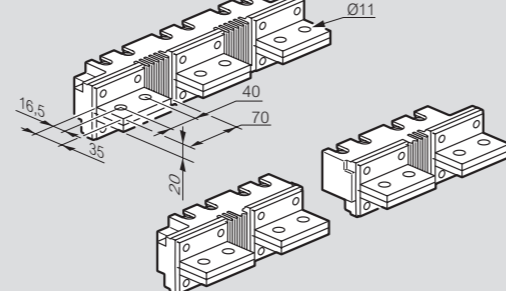
Spreaders for vertical connection with bars

Cat.Nos 0 288 88/89



Spreaders for horizontal connection with bars

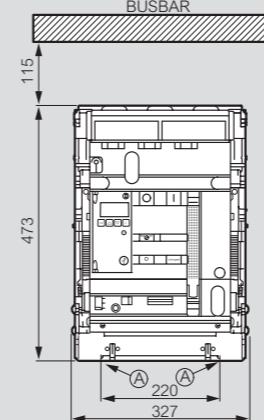
Cat.Nos 0 288 90/91



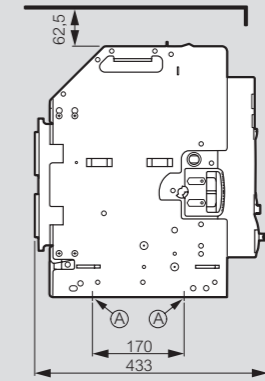
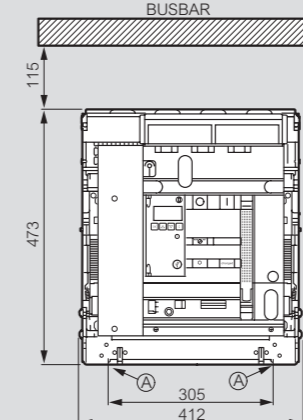
Draw-out version - frame 2500

Overall dimensions

3P version



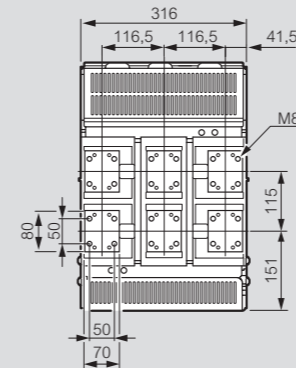
4P version



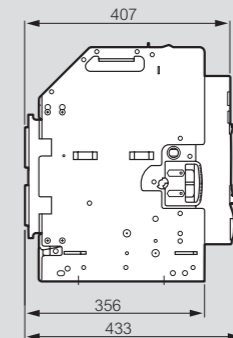
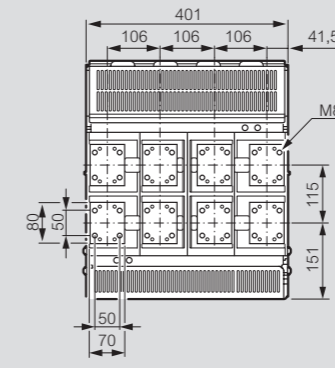
A = fixing point on plate of enclosure

Rear terminals for flat connection with bars

3P version

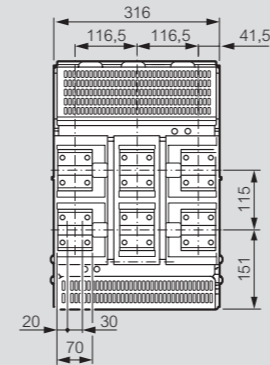


4P version

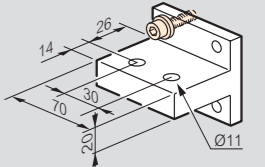
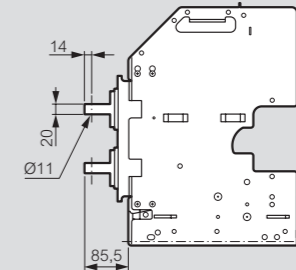
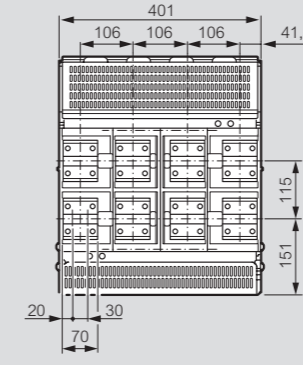


Rear terminals for horizontal connection with bars - Cat.Nos 0 288 96/97

3P version

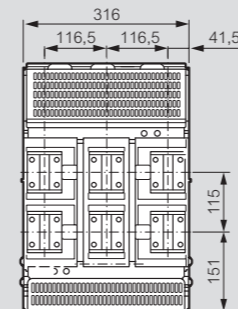


4P version

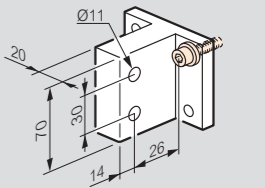
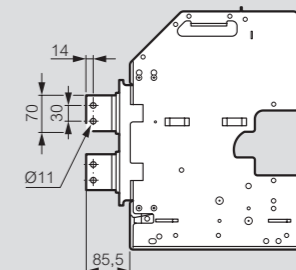
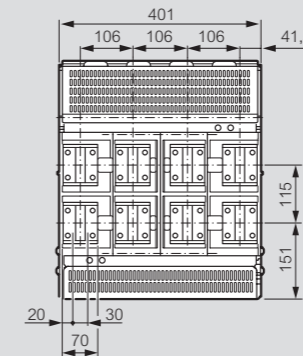


Rear terminals for vertical connection with bars - Cat.Nos 0 288 96/97

3P version



4P version



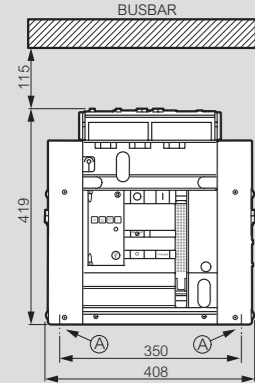
DMX³ 2500, DMX³-I 2500, DMX³ 4000 and DMX³-I 4000 - frame 4000

dimensions

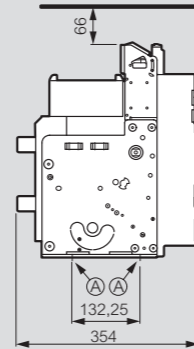
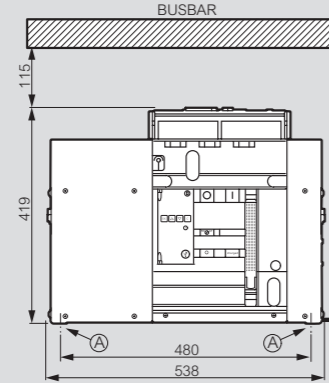
Fixed version - frame 4000

Overall dimensions

3P version

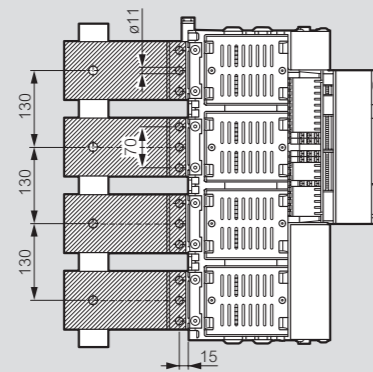
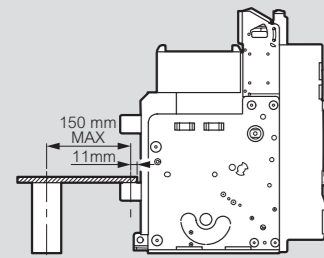


4P version



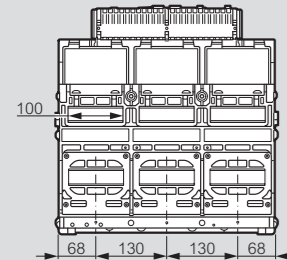
A = fixing point on plate of enclosure

Connection principle

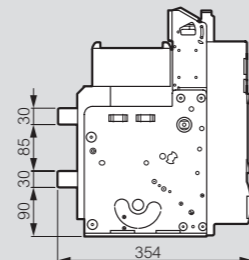
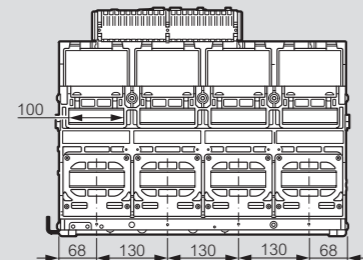


Rear terminals

3P version



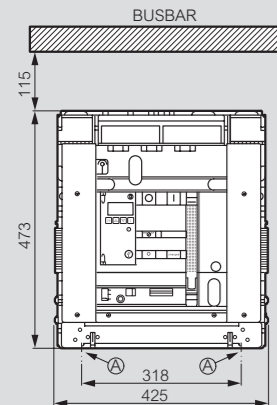
4P version



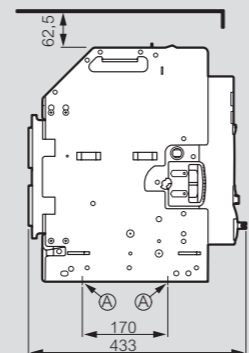
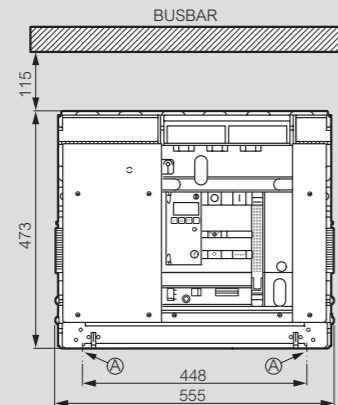
Draw-out version - frame 4000

Overall dimensions

3P version



4P version

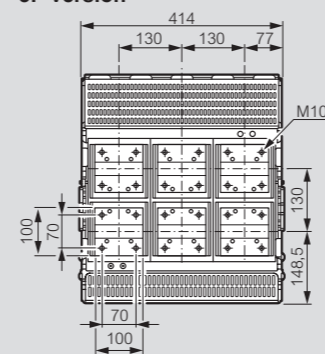


A = fixing point on plate of enclosure

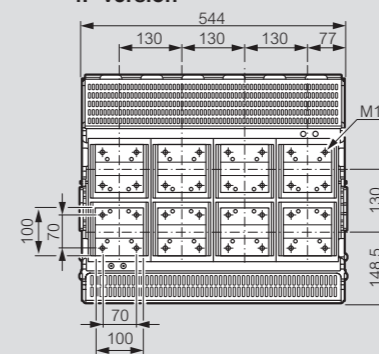
Draw-out version - frame 4000 (continued)

Rear terminals for flat connection with bars

3P version



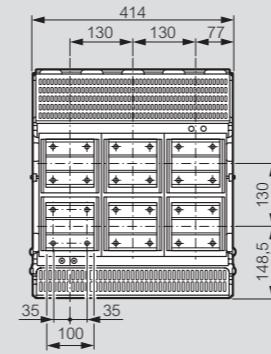
4P version



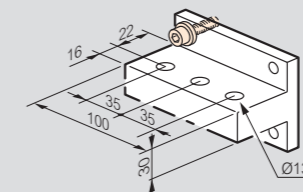
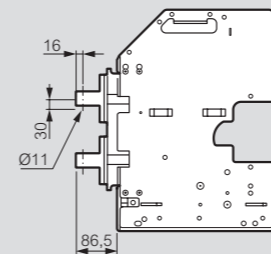
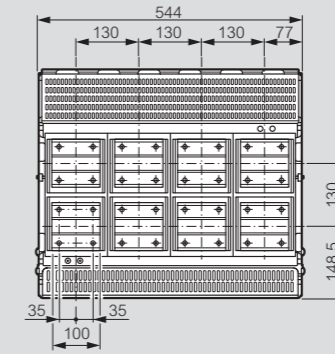
Rear terminals for horizontal connection with bars

Cat.Nos 0 288 92/93

3P version



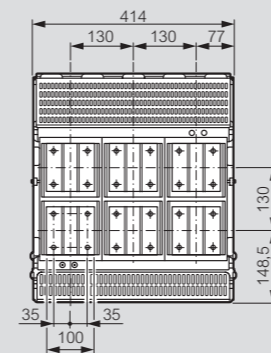
4P version



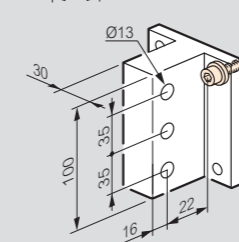
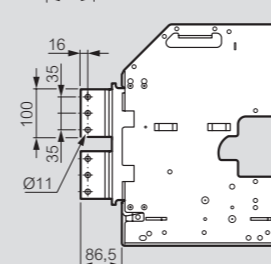
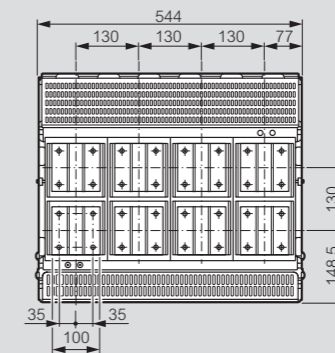
Rear terminals for vertical connection with bars

Cat.Nos 0 288 92/93

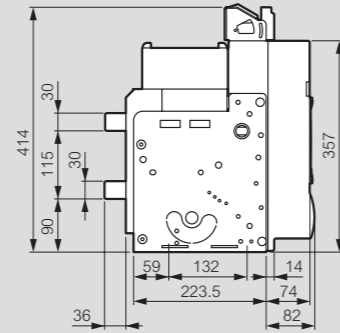
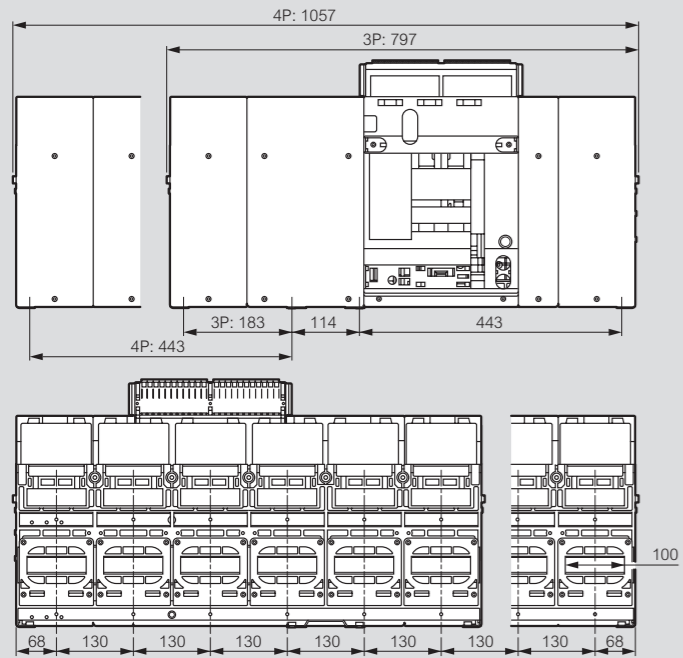
3P version



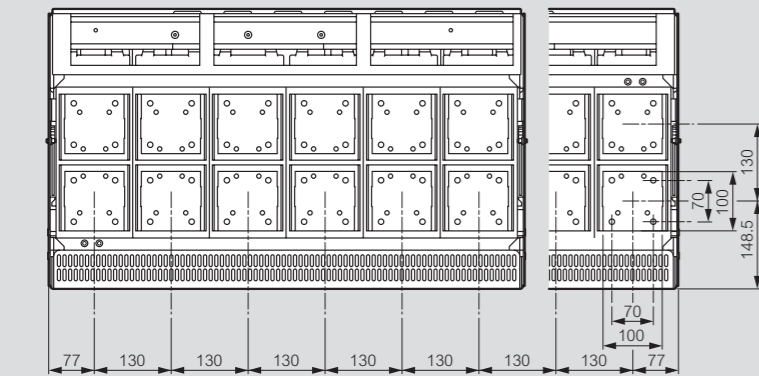
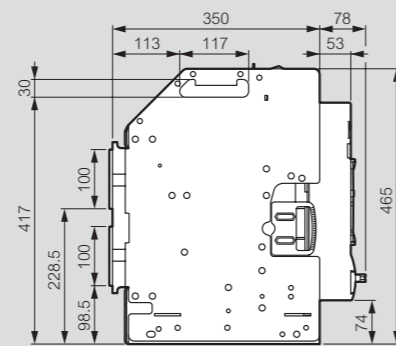
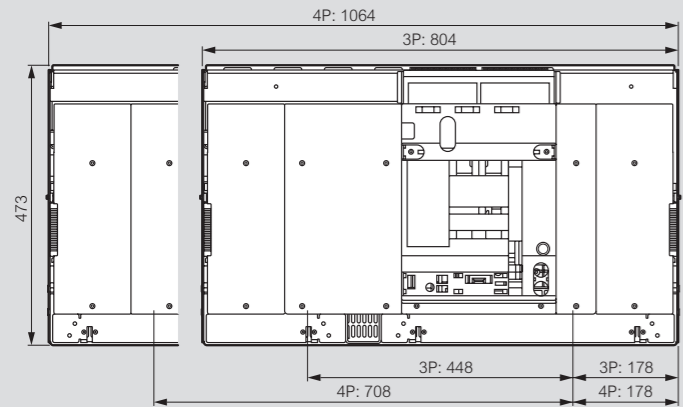
4P version



Fixed version - frame 6300



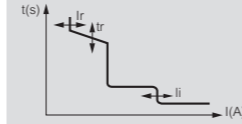
Draw-out version - frame 6300



Settings of the electronic protection units

MP4 LI

Ir, tr, li, adjustment on front panel



- Long time delay protection against overloads
Ir from 0.4 to 1 x In (6 + 6 steps) on two selectors (0.4 ∞ 0.9, by steps of 0.1 and 0.0 ∞ 0.1, by steps of 0.02)
- Long delay protection operation time
tr - at 6 x Ir (4 + 4 steps)
tr = 5-10-20-30 s (MEM ON) 30-20-10-5 s (MEM OFF)

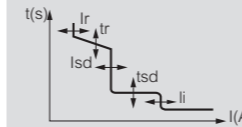
- Short delay protection against short-circuits
Fixed threshold:
I_{sd} = 10 x Ir
tsd = 1s

- Instantaneous protection against very high short circuits
li from 2 to 15 x In or I_{cn} (9 steps) li = 2-3-4-5-6-8-10-12-15 x In or I_{cn}

- Neutral protection: In = OFF - 50% - 100% - 100%

MP4 LSI

Ir, tr, I_{sd}, tsd, li adjustment on front panel



- Long time delay protection against overloads
Ir from 0.4 to 1 x In (6 + 6 steps) on two selectors (0.4 ∞ 0.9, by steps of 0.1 and 0.0 ∞ 0.1, by steps of 0.02)
- Long delay protection operation time
tr - at 6 x Ir (4 + 4 steps) tr = 5-10-20-30 s (MEM ON) 30-20-10-5 s (MEM OFF)

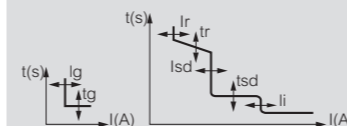
- Short time delay protection against short circuits
I_{sd} from 1.5 to 10 x Ir (9 steps) I_{sd} = 1.5-2-2.5-3-4-5-6-8-10 x Ir
- Short time delay protection operation time
tsd from 0 to 0.3 s (4 + 4 steps) tsd = 0-0.1-0.2-0.3 s (t=const), 0.3-0.2-0.1-0.01 s (I²t=const)

- Instantaneous protection against very high short circuits
li from 2 to 15 x In or I_{cn} (9 steps) li=off-2-3-4-6-8-10-12-15 x In or I_{cn}

- Neutral protection: In = OFF - 50% - 100% - 100%

MP4 LSIg

Ir, tr, li, I_g, tg, I_{sd}, tsd, adjustment on front panel



- Long time delay protection against overloads
Ir from 0.4 to 1 x In (6 + 6 steps) on two selectors (0.4 ∞ 0.9, by steps of 0.1 and 0.0 ∞ 0.1, by steps of 0.02)
- Long delay protection operation time
tr - at 6 x Ir (4 + 4 steps) tr = 5-10-20-30 s (MEM ON) 30-20-10-5 s (MEM OFF)

- Short time delay protection against short circuits
I_{sd} from 1.5 to 10 x Ir (9 steps) I_{sd} = 1.5-2-2.5-3-4-5-6-8-10 x Ir
- Short time delay protection operation time
tsd from 0 to 0.3 s (4 + 4 steps) tsd = 0-0.1-0.2-0.3 s (t=const), 0.3-0.2-0.1-0.001 s (I₂t=const)

- Instantaneous protection against very high short circuits
li from 2 to 15 x In or I_{cn} (9 steps) li = 2-3-4-6-8-10-12-15 x In or I_{cn}

- Earth fault current
I_g from 0.2 to 1 x In (9 steps) I_g = 0.2-0.3-0.5-0.6-0.7-0.8-1 x In : OFF
tg from 0.1 + 1 s (4 steps) tg = 0.1-0.2-0.5-1 s (both t = const and I₂t = const)

- Neutral protection: In = OFF - 50% - 100% - 100%

Selectivity in three-phase network 415 V \sim

DMX³/DPX³

Downstream	Upstream	DMX ³ 2500				DMX ³ 4000	DMX ³ 6300
		800 A	1000 A	1250 A	1600 A	2000 & 2500 A	3200 & 4000 A
DPX ³ 160 ⁽¹⁾		T	T	T	T	T	T
DPX ³ 250 ⁽¹⁾		T	T	T	T	T	T
DPX ³ 630 ⁽¹⁾ TM and elec.		T	T	T	T	T	T
DPX ³ 1600 ⁽¹⁾ thermal magnetic	630 A	T	T	T	T	T	T
	800 A		T	T	T	T	T
	1000 A			T	T	T	T
	1250 A				T	T	T
DPX ³ 1600 ⁽¹⁾ electronic	630 A			T	T	T	T
	800 A			T	T	T	T
	1000 A				T	T	T
	1250 A				T	T	T
1600 A					T	T	

1: All breaking capacities
T: total selectivity, up to downstream circuit breaker breaking capacity according to IEC 60947-2

DMX³/DMX³

Downstream	Upstream	DMX ³									
		800 A	1000 A	1250 A	1600 A	2000 A	2500 A	3200 A	4000 A	5000 A	6300 A
800 A			T	T	T	T	T	T	T	T	T
1000 A				T	T	T	T	T	T	T	T
1250 A					T	T	T	T	T	T	T
1600 A						T	T	T	T	T	T
2000 A							T	T	T	T	T
DMX ³ 2500 A								T	T	T	T
3200 A									T	T	T
4000 A										T	T
5000 A											T
6300 A											

T: total selectivity, up to downstream circuit breaker breaking capacity according to IEC 60947-2
I_{cu} of downstream circuit breaker \leq I_{cu} of upstream circuit breaker
Selectivity values are intended with protection unit properly adjusted

DMX³/DX³

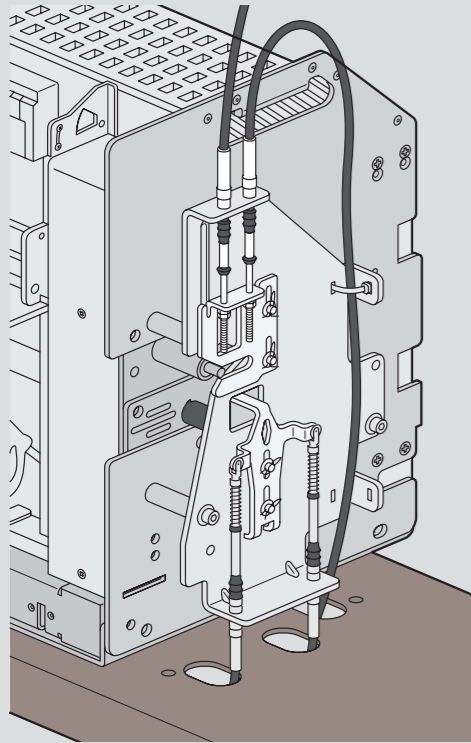
	Upstream	DMX ³ 2500				DMX ³ 4000	DMX ³ 6300				
		630 A	800 A	1000 A	1250 A	1600 A	2000 A	2500 A	3200 A	4000 A	5000 A
DX ³ [6000] - 10 kA		T	T	T	T	T	T	T	T	T	T
DX ³ [10000] - 16 kA		T	T	T	T	T	T	T	T	T	T
DX ³ 25 kA		T	T	T	T	T	T	T	T	T	T
DX ³ 36 kA		T	T	T	T	T	T	T	T	T	T
DX ³ 50 kA		T	T	T	T	T	T	T	T	T	T

T: total selectivity, up to downstream circuit breaker breaking capacity according to IEC 60947-2

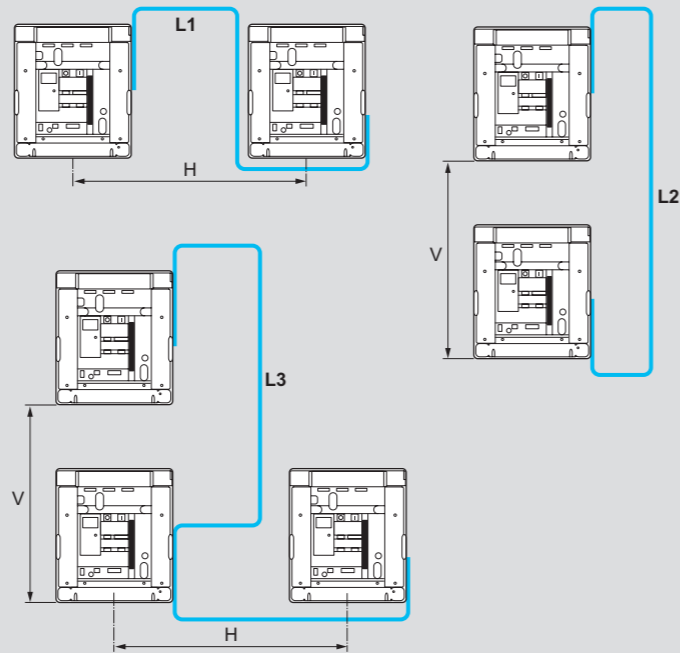
DMX³ tripping curves, see technical sheet

For the settings of MP6 protection units Please, consult us

■ Mounting of interlock unit



■ Choice of cable interlock



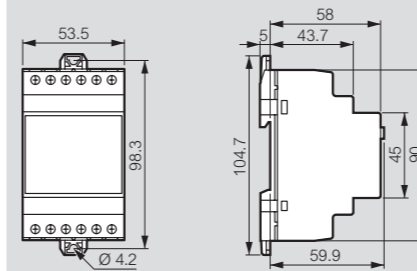
Calculation of cable length:
 L1 = 1430 + H
 L2 = 1570 + V
 L3 = 1430 + V + H

■ Technical characteristics

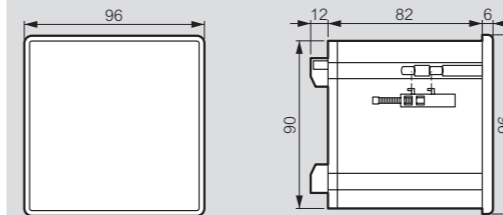
	Cat.Nos			
	4 226 80	4 226 82	4 226 83	
Voltage Inputs	Ue max rated voltage	480 V~ L-L (277 V~ L-N)	100-480 V~	600 V~ L-L (346 V~ L-N)
	Measuring range	50-576 V~ (L-L)	50-576 V~ L-L	50...720 V L-L
	Primary voltage VT max	-	50000 V	50000 V
	Frequency range	45...66 Hz	45...65 Hz - 360...440 Hz	45...65 Hz - 360...440 Hz
	Measurement type	True RMS value	True RMS value	True RMS value
	Connection modes	Single phase, two-phase or three-phase system	Single phase, two-phase or three-phase system with or without neutral	Single phase, two-phase or three-phase system with or without neutral
Ambient condition	Measuring error	± 0.25% f.s. ± 1 digit	± 0.25% f.s. ± 1 digit	± 0.25% f.s. ± 1 digit
	Operating temperature	-20...+60 °C	-30...+70 °C	-30...+70 °C
	Storage temperature	-30...+80 °C	-30...+80 °C	-30...+80 °C
	Relativity humidity	< 90 %	80 % (IEC/EN 60068-2-78)	80 % (IEC/EN 60068-2-78)
	Maximum pollution degree	3	2	2
	Overvoltage category	3	3	3
Measurement category	II	II	II	
Rated impulse withstand voltage	Uimp 4.0 kV	Uimp 7.3 kV	Uimp 7.3 kV	

■ Dimensions

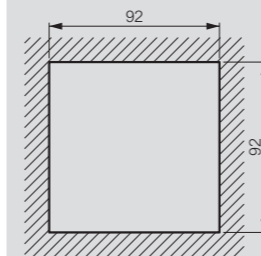
Cat.No 4 226 86



Cat.No 4 226 80

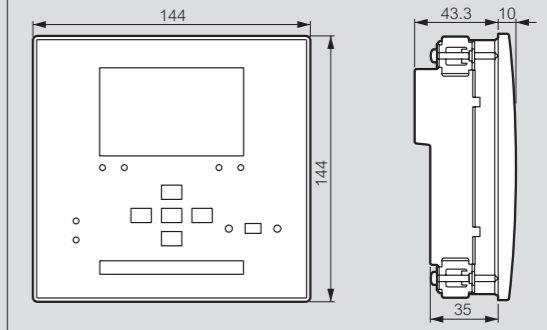


Door cut

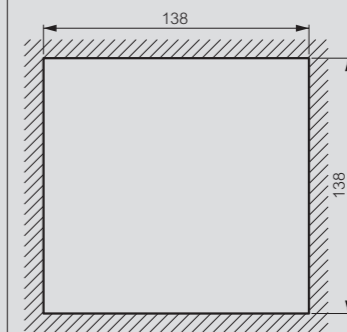


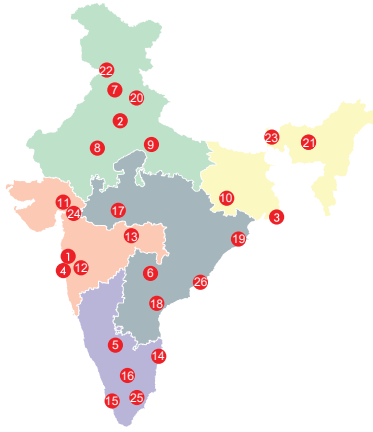
■ Dimensions (continued)

Cat.No 4 226 82



Door cut





Branch offices

7. Unit 203, 2nd Floor, Tower- B, Bestech Business Tower, Sector 66, Mohali, **CHANDIGARH**-160066.
Telefax : (0141) 2208665, 666 **INNOVAL**
8. 507-510, 5th Floor, Soni Paris Point, Jai Singh Highway, Banipark, **JAIPUR**- 302 016.
Tel / Fax : (0141) 220 8665 / 666
9. 209-A, 2nd Floor, Cyber Heights, Opp. Indira Gandhi Pratishthan, Vibhuti Khand, Gomti Nagar **LUCKNOW**- 226 010.
Tel : (0522) 431 9316 **INNOVAL**
10. 202 & 203, 2nd Floor, Sunrise, Forum 100, Burdwan Compound, Lalpur, **RANCHI** - 834 001.
Tel : (651) 660 5400
11. A 101-102, Mondeal Heights, Besides Novotel Hotel, Sarkhej Gandhinagar Highway [S G Highway], **AHMEDABAD** - 380 015.
Tel : (079) 6134 0555 **INNOVAL**
12. 402, Swastik Chambers, Near Ashwamegh Marriage Hall, Behind HP Petrol Pump, Off Karve Road, Erandwane, **PUNE** - 411 004.
Tel : (020) 6729 5601 / 602
Fax : (020) 6729 5604
13. Plot No.95, II Floor, Shreyash Heights, VIP Road, Ramdaspath, **NAGPUR** - 440 010.
Tel : (0712) 662 7857 / 858
Fax : (0712) 662 7859
14. 10 B, [10th Floor], Prestige Center Court Office Block Vijaya Forum Mall, #183, N.S.K. Salai, Vadapalani **CHENNAI** - 600 026.
Tel : (044) 6612 2800 / 2362 3125 / 35 / 45
Fax : (044) 2362 3165 **INNOVAL**
15. J. B. Manjooran Estate, Door No 50/1107A9, 3rd Floor, Bye Pass Junction, Edappally, **COCHIN** - 682 024.
Tel : (0484) 280 1921 / 2921, 658 0921
Fax : (0484) 280 1921 / 2921 **INNOVAL**
16. B-5, 1st Floor, Thirumalai Towers, 723, Avanashi Road, **COIMBATORE** - 641 018.
Tel : (0422) 222 3634 / 0283
Fax : (0422) 222 3164 **INNOVAL**
17. 204-205, Megapolis Square, 579, M G Road, **INDORE** - 452 001.
Tel : (0731) 4999 891 / 892
18. MF-2, Datta's Lords House, Jammi Chettu Street, Mogalrajapuram, **VIJAYAWADA** - 520 010.
Tel : (0866) 248 2393/6393/5393
19. Plot No. 359, Saheed Nagar, 2nd Floor, **BHUBANESWAR** - 751 007.
Tel : (0674) 254 0623
20. Unit - 1 & 2, Vijay Park, Main Chakrata Road, **DEHRADUN**- 248 001.
Tel : (0135) 661 6100 **INNOVAL**
21. House No. 97, Ground Floor, Rajgarh Main Road, Opp. City Heart Nursing Home, **GUWAHATI** - 781 007.
Tel : (0361) 245 8498

Area offices

22. Cabin No. 9, Second Floor, Madhok Trade Centre, Madhok Complex, Ferozpur Road, **LUDHIANA** - 141 001.
Tel : (0161) 277 0301 / 2 / 3 / 4
23. 94, Udham Singh Sarani, Ground Floor, Ashrampara, **SILIGURI** - 734 001.
Tel : (0353) 264 1067
24. A-207, Universal Business Center, Near Madhuvan circle, L. P. Savani Road, Adajan, **SURAT** - 395 009. **INNOVAL**
25. Aparna Towers, 1st Floor, 2/3, Bypass Road, **MADURAI** - 625 010.
Telefax : (0452) 230 8414
26. 43-9-205, Near srikanya theatre 3rd floor, Plot No 10, Subbalaskhmi Nagar, Allipuram Ward, Dondapar thy Area, **VISHAKAPATHANAM** - 530 016.
Tel : (0891) 663 5652 / 663 9363 **INNOVAL**

Head offices

1. 61 & 62, 6th Floor, Kalpataru Square, Kondivita Road, Off Andheri-Kurla Road, Andheri (E), **MUMBAI** - 400 059.
Tel : (022) 3041 6200
Fax : (022) 3041 6201
Website : www.legrand.co.in

Regional sales offices

2. A-25, Mohan Co-operative Industrial Estate, Mathura Road, **NEW DELHI** - 110 044.
Tel : (011) 3990 2200, 2699 0046, (011) 2699 0028 / 29 / 30 / 31
Fax : (011) 2699 0047
3. Bhakta Towers, 2nd & 3rd Floor, Plot No. KB 22, Sector-III, Saltlake, **KOLKATA** - 700 098.
Tel : (033) 4021 3535 / 36
Fax : (033) 4021 3537
4. C/203, Corporate Avenue, Atul Projects, Near Mirador Hotel, Chakala, Andheri Ghatkopar Link Road, Andheri - East, **MUMBAI** - 400 099.
Tel : (022) 3385 6200 / 62301000 **INNOVAL**
5. Ferozes Manor, Situated at 58 Hospital Road, Shivaji Nagar, **BANGALORE**- 560 001.
Tel : (080) 6822 0000 **INNOVAL**
6. 205-208, 2nd Floor, Block - II, White House, Kundan Bagh, Begumpet, **HYDER ABAD** - 500 016.
Tel : (040) 2341 4398 / 67, 4567 1717
Fax : (040) 4567 1730

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