



DMX³ & DPX³

800 V $\sim$ AND 1000 V $\sim$

Reliable protection for your
wind turbine, photovoltaic
and railway installations



**MCCBs
AND ACBs
UP TO 4000 A
1000 V $\sim$**



DMX³ AND DPX³ 800 V $\sim$ AND 1000 V $\sim$

These air circuit breakers and moulded case circuit breakers, specially designed to suit your performance requirements, effectively protect your wind turbine, photovoltaic or railway installations up to 4000 A and breaking capacities up to 65 kA. High performance, reliability and strength are the main advantages these ranges. The SPX³-V fuse carriers complete the range.

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DMX³ 2500 - 800 V $\sim$ ACBs

3 AND 4-POLE FIXED
AND DRAW-OUT VERSIONS





DMX³ 4000 - 1000 V~ ACBs
3 AND 4-POLE FIXED
AND DRAW-OUT VERSIONS



DPX³ 250 AND DPX³ 400 - 1000 V~
3 AND 4-POLE FIXED VERSION



SPX³-V
VERTICAL FUSE CARRIERS

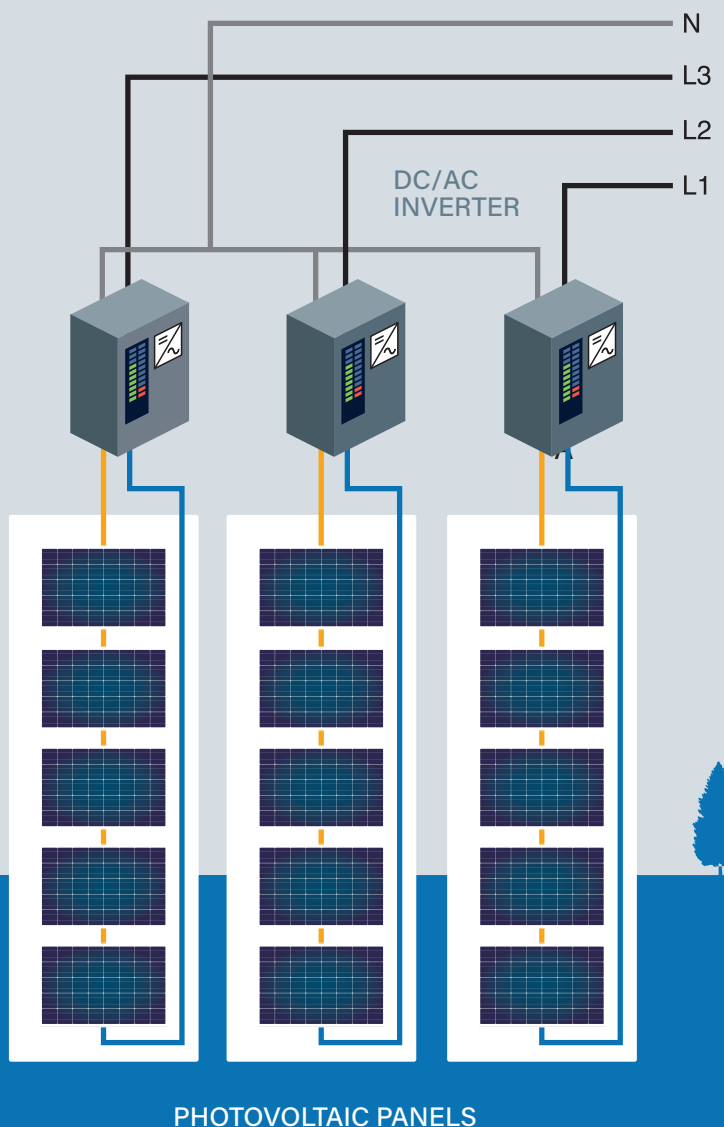
Dedicated, optimised solutions

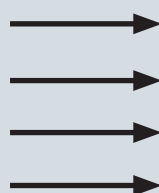
OPERATE AT VOLTAGES OF UP TO 1000 V $\sim$

ABCs and MCCBs are used for incoming protection and control in specific wind, photovoltaic and railway sectors that need to operate at voltages of up to 1000 V $\sim$.

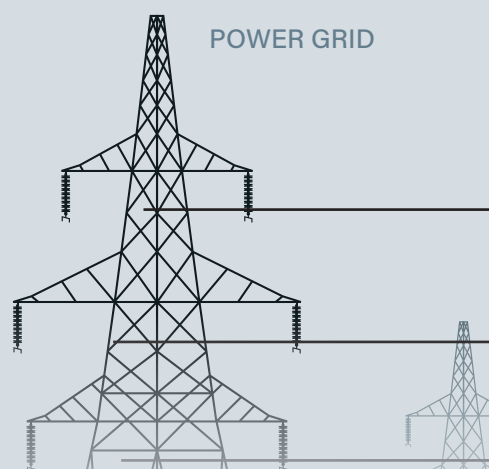
DMX³ 2500 - 800 V $\sim$
and DMX³ 4000 - 1000 V $\sim$,
air circuit breakers, DPX³ 250
and DPX³ 400 - 1000 V $\sim$ MCCBs⁽¹⁾
and SPX³-V vertical fuse carriers
integrate seamlessly into XL³ 4000
and XL³ HP 6300 enclosures to create
different configurations according
to the needs of the installation.

(1) : Possible with XL³ HP range





POWER GRID



EXAMPLE OF ENCLOSURE
EQUIPPED WITH DMX³ 4000 - 1000 V ~ AIR
CIRCUIT BREAKER AND SPX³-V
FUSE CARRIERS OR DPX³ 250 - 1000 V ~ ⁽¹⁾



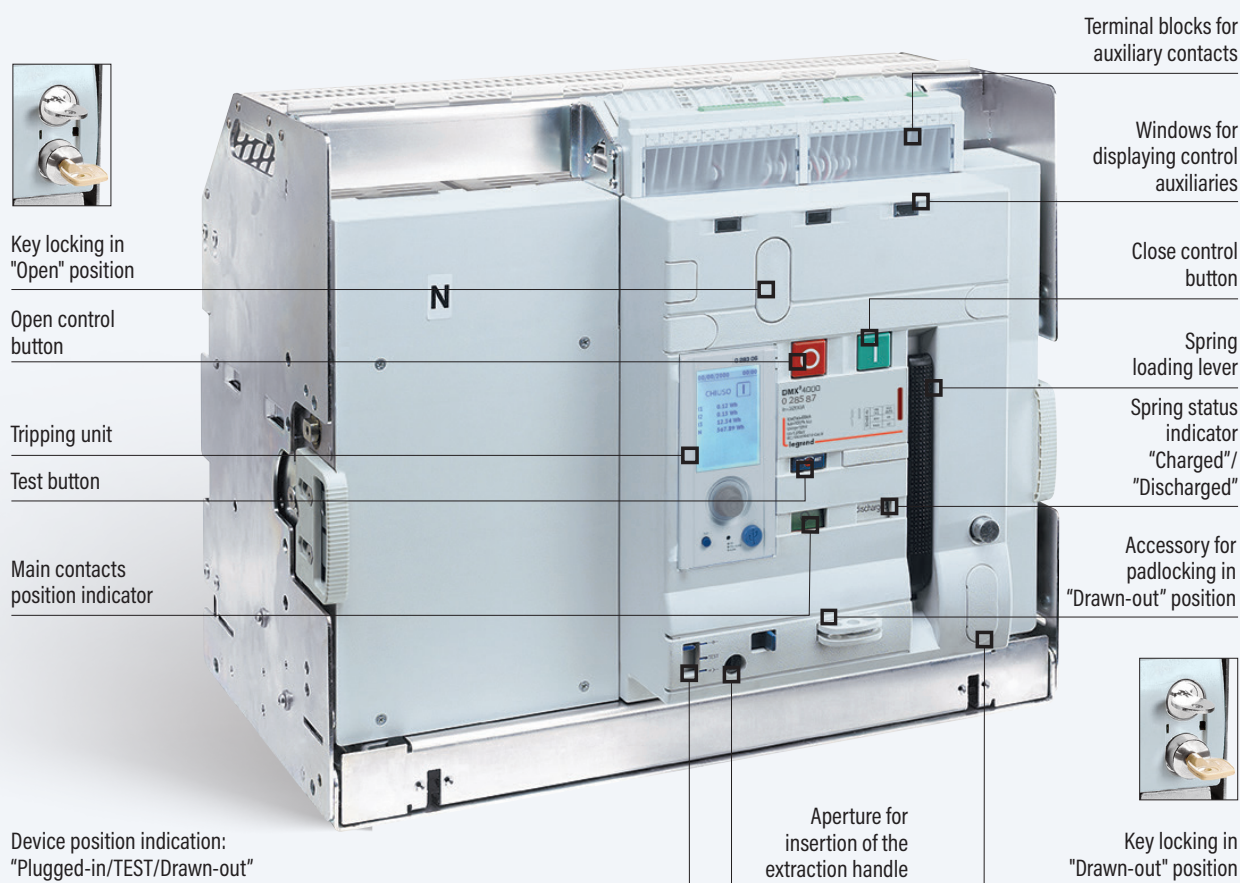
(1) : Possible with XL³ HP range

High performance, reliability and strength

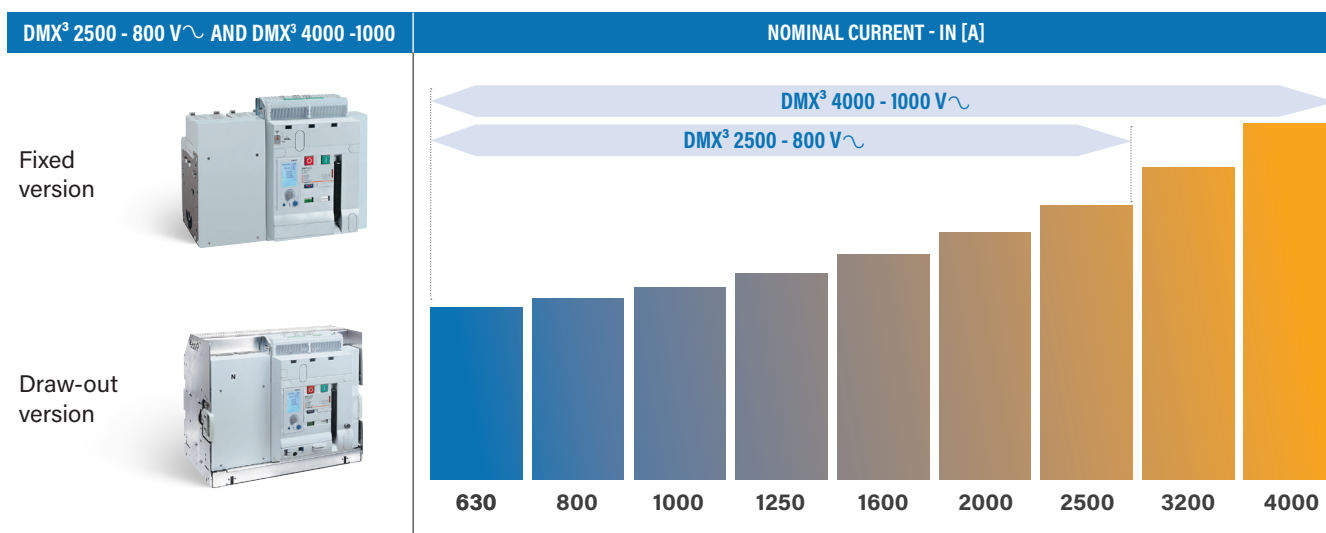
AVAILABLE IN 3 OR 4-POLE FIXED OR DRAW-OUT VERSIONS

These products are easy to use and to install, and provide effective protection for your installation. They are available with 3 and 4 poles, in fixed or draw-out versions, and come equipped with appropriate protection units depending on the desired performance level. This offer also includes a range of control and signalling auxiliaries and connection accessories for easy integration in any electrical installation, regardless of configuration.

EXAMPLE OF A DMX³ 4000 - 1000 V $\sim$



DMX ³ 2500 - 800 V $\sim$	
Rated operating voltage U _e	Breaking capacity I _{cu} (kA)
800 V $\sim$	36 kA
DMX ³ 4000 - 1000 V $\sim$	
Rated operating voltage U _e	Breaking capacity I _{cu} (kA)
800 V $\sim$	65 kA
1000 V $\sim$	50 kA



DMX³ 2500 - 800 V $\sim$ and DMX³ 4000 - 1000 V $\sim$ air circuit breakers have been specially designed to ensure excellent performance, including when used at high altitude and in extreme temperature conditions. When installed at above 2000 m altitude, the air pressure decreases, making it harder for heat to be exchanged between the circuit breaker and its environment. Derating must therefore be applied.

	DMX ³ 2500 - 800 V $\sim$				DMX ³ 4000 - 1000 V $\sim$			
Altitude (m)	2000	3000	4000	5000	2000	3000	4000	5000
Nominal current à 40°C In (A)	In	0,98 x In	0,94 x In	0,90 x In	In	0,98 x In	0,94 x In	0,90 x In
Rated voltage Ue (V)	800	700	600	550	1000	880	750	690
Insulation voltage Ui (V)	1000	900	750	600	1250	1100	950	850
Impulse withstand voltage Uimp (V)	3500	3200	2500	2000	3500	3200	2500	2000

DMX³ 2500 - 800 V $\sim$ and DMX³ 4000 - 1000 V $\sim$ air circuit breakers can be used in ambient temperature conditions between -25°C and +70°C, which is ideal for existing wind and solar power installations. They can also be installed in industrial environments. For temperatures above 40°C, derating must be applied. For detailed information please consult the technical data sheet.

Protection units that adapt perfectly to your project

EFFECTIVE PROTECTION AGAINST ELECTRICAL FAULTS

Besides their easy mounting and connection, strength and good continuity of operation, 2 types of configurable electronic units, with or without integrated measurement function, allow precise adjustment of different limits for current values and time delay. The result is efficient protection against electrical faults and perfect adaptation to each type of installation, while maintaining total discrimination with downstream breakers. The display lets you monitor the measured current values and informs you about fault adjustments and logs (the cause of last trip and maintenance operations).

MP 2.10

electronic protection unit



Display - LED matrix
for common
measurements
and settings

MP 4.10

electronic protection unit



Display - LCD screen for common
measurements and settings

Rotary selector switch for setting
trip thresholds and navigating
around the menu

Micro USB port for either:
• connecting the protection unit
to a computer (to run tests, configure
or manage the protection unit using a PC
equipped with the Power Control Station
software)
• or fitting it with a Bluetooth
communication key Cat.No 0 283 10
(to run tests, display parameters
or manage the protection unit using
a tablet or smartphone, equipped with
the EnerUp+ Project app)

LED indicating that the protection unit
is in good working order or an alarm
has tripped

Test button

THE RANGE

Protection units for DMX³ 2500, 4000 and 6300, DMX³ 2500 - 800 V ~ and DMX³ 4000 - 1000 V ~

MP 2.10		MP 4.10	
Without measurement	With measurement	Without measurement	With measurement
0 283 04	0 283 05	0 283 06	0 283 07

All DMX³ breakers are factory-equipped with MP 2.10 or MP 4.10 protection units. You just need to select and indicate the 2 catalogue numbers when placing the order (1 for the breaker and 1 for the trip unit).



LEGRAND ADVANTAGE

MP 2.10 protection unit is particularly suitable for operation in extreme conditions: temperatures between -50°C and +70°C, tropical climates and saline environments.

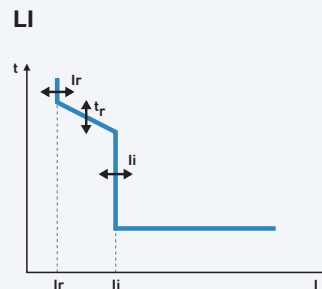
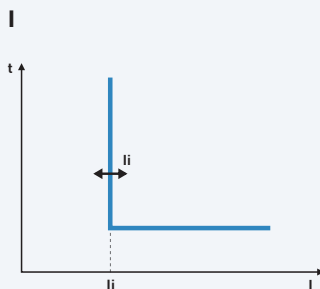
MP 4.10 protection unit is fitted with batteries so that it can display parameters and back up data if there is a power cut or the circuit breaker is open/not connected. Intuitive use thanks to the LCD display.

Configure your protection devices in complete freedom

NEW FULLY CONFIGURABLE PROTECTION UNITS

The new MP 2.10/MP 4.10 protection units are fully configurable. They can be used to adapt settings as closely as possible to the requirements of your installation, either by enabling/disabling the different protection devices (currents and tripping times), or by altering the different trip thresholds. The tripping curve is thus fully customised to suit the real-life conditions of each project. Protection units with integrated measurement function can also be used to display voltages, active and reactive powers, frequency, power factor, and also energy, in addition to monitoring currents. Alarms can be programmed on a number of these parameters: max. voltage, min. voltage, voltage unbalance, max. and min. frequency, etc.

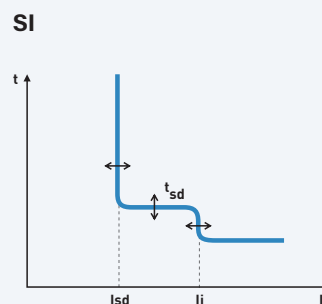
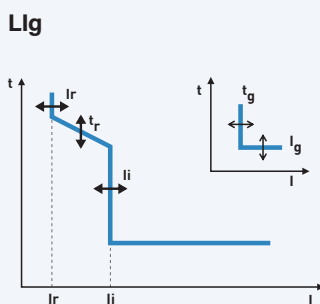
EXAMPLES OF TRIPPING CURVES



I_r Long time delay protection against overloads
I_r from 0.2 to 1 x I_n with steps of 1 A
Protection: ON/OFF

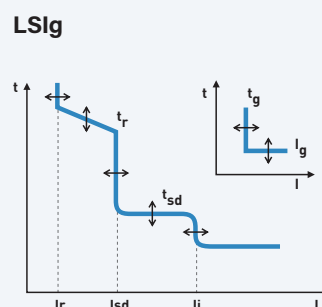
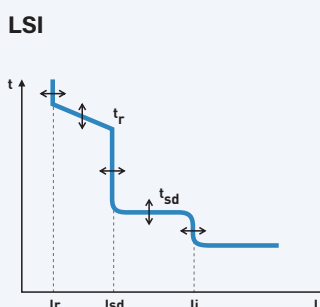
t_r Long delay protection operation time
t_r from 40 ms to 30 s (@6I_r) with steps of 40 ms
Thermal memory: ON/OFF

I_{sd} Short time delay protection against short-circuits
I_{sd} from 1.5 to 10 x I_r with steps of 1 A
Protection: ON/OFF



t_{sd} Short time delay protection operation time
t_{sd} from 40 ms to 1 s with steps of 40 ms
(both t=k and I₂t=k)

I_i Instantaneous protection against very high short-circuits
I_i from 2 to 15 x I_n or I_{cw} with steps of 1 A
Protection: ON/OFF



I_g Earth fault current
I_g from 0.2 to 1 x I_n with steps of 1 A
Protection: ON/OFF

t_g Time delay on earth fault tripping
t_g from 80 ms to 1 s with steps of 40 ms
(both t=k and I₂t=k)

IN Neutral protection
OFF - 50% - 100% - 200%

MANAGEMENT WITH SOFTWARE AND APP

Protection units can be managed: directly on the protection units (using the rotary selector switch), on a PC pre-equipped with the Power Control Station software or on a tablet or smartphone via the EnerUp+ Project app.

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 DMX³.

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 and installation (only with EnerUp + Project App.)

(1) Only with Power Control Station software

(2) Only for Legrand technical assistance via Power Control Station software

CONFIGURATION ON A PC WITH THE POWER CONTROL STATION SOFTWARE



Any model in the MP 2.10/MP 4.10 range

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).

MANAGEMENT ON A SMARTPHONE/TABLET:

EnerUp + Project app available from the Apple Store and Google Play



Any model in the MP 2.10/MP 4.10 range

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.

EnerUp + Project App.
available on App Store
and Google Play

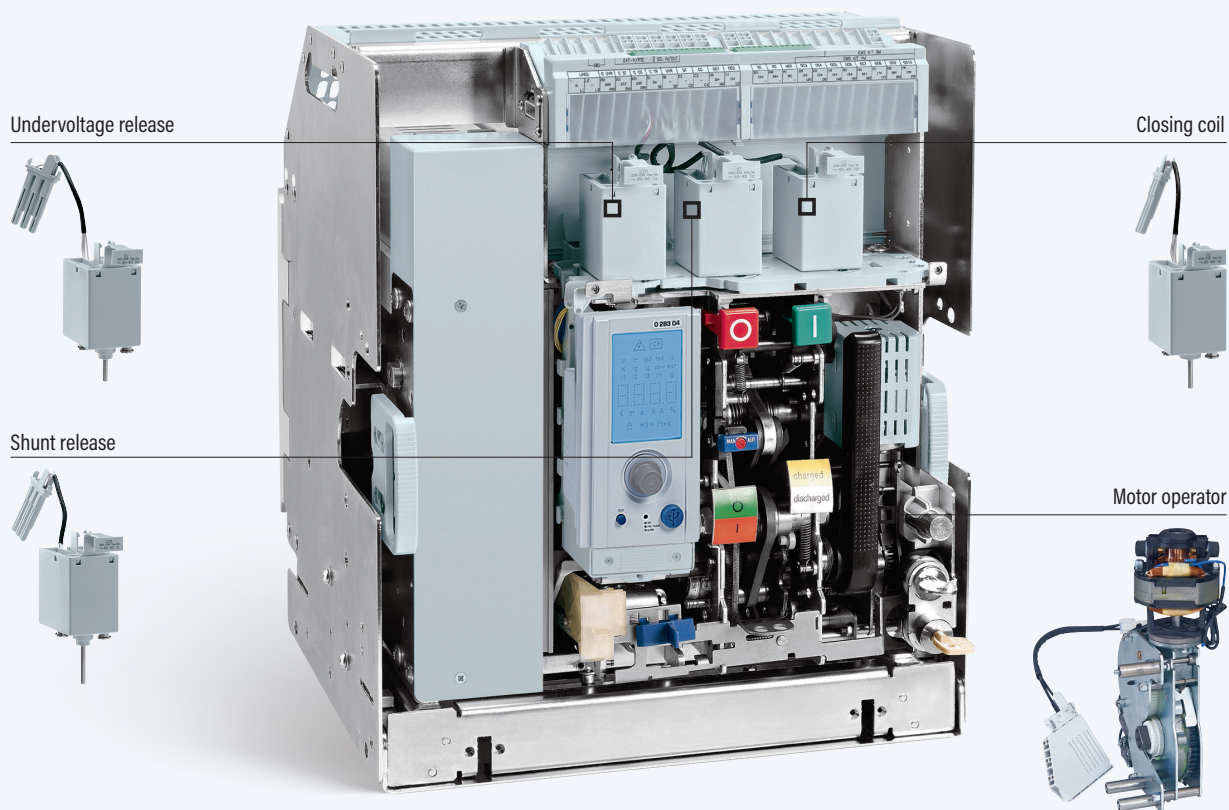


Simplicity and time-saving installation

THEY SIMPLY CLIP INSIDE THE CIRCUIT BREAKER

The complete range of control and signalling auxiliaries (shunt releases or undervoltage releases, motor operators, auxiliary contacts, etc) can be used to control DMX³ 2500 - 800 V $\sim$ and DMX³ 4000 - 1000 V $\sim$ air circuit breakers remotely and relay information concerning the status of the device contacts. All the control auxiliaries simply clip inside the circuit breaker after removing the front panel. They are fitted with quick-connect connectors for maximum time saving when wiring the terminal block provided for this purpose.

EXAMPLE OF A DMX³ 4000 - 1000 V $\sim$ EQUIPPED WITH AUXILIARIES



ALL THE CONTROL ACCESSORIES CAN EASILY BE INSTALLED WITHOUT A SPECIAL TOOL IN A MATTER OF MINUTES. THEY SHOULD BE INSTALLED ON THE FRONT PANEL OF THE AIR CIRCUIT BREAKER. THIS ENSURES SEPARATION BETWEEN THE POWER AND CONTROL CIRCUITS.

SHUNT RELEASES

Shunt releases are devices used for remote instantaneous opening of the air circuit breaker. They are usually controlled by an NO type contact. The shunt releases are fitted with a special quick-release connector, to be directly inserted into the auxiliary contact block.



Rated voltage U_n (V)	24 V~ / ∞ 48 V~ / ∞ 110 - 130 V~ / ∞ 220 - 250 V~ / ∞ 415 - 440 V~
Operating threshold % U_n	70 to 100
Maximum consumption (W/VA)	500/500
Pulse duration (ms)	180
Hold-in consumption (W/VA)	5/5
Response time (ms)	30
Insulation voltage (kV)	2.5

UNDervOLTAGE RELEASES

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



Rated voltage U_n (V)	24 V~ / ∞ 48 V~ / ∞ 110 - 130 V~ / ∞ 220 - 250 V~ / ∞ 415 - 440 V~
Operating threshold % U_n	85 to 110
Maximum consumption (W/VA)	500/500
Pulse duration (ms)	180
Hold-in consumption (W/VA)	5/5
Response time (ms)	60
Insulation voltage (kV)	2.5

CLOSING COILS

These coils are used for remotely controlling closing of the circuit breaker power contacts. The circuit breaker springs should be loaded prior to action of the closing coils. The coils are controlled by an NO type contact.



Rated voltage U_n (V)	24 V~ / ∞ 48 V~ / ∞ 110 - 130 V~ / ∞ 220 - 250 V~ / ∞ 415 - 440 V~
Operating threshold % U_n	85 to 110
Maximum consumption (W/VA)	500/500
Pulse duration (ms)	180
Hold-in consumption (W/VA)	5/5
Response time (ms)	50
Insulation voltage (kV)	2.5

MOTOR OPERATORS



Rated voltage U_n (V)	24 V~ / ∞ 48 V~ / ∞ 110 - 130 V~ / ∞ 220 - 250 V~ / ∞ 415 - 440 V~ 480 V~
Operating threshold % U_n	85 to 110
Maximum consumption (W/VA)	240/240
Max. peak current	2 to 3 x I_n for around 80 ms
Spring reloading time (s)	5
Number of operations/minute	2

Maximum adaptability in the distribution board

DIFFERENT CONFIGURATIONS POSSIBLE

The connection accessories are quick to install and are totally adaptable to different busbar configurations in the distribution board: flat, vertical or horizontal connection. In addition the catalogue numbers are the same to those for the DMX³ range, which helps to optimise management.



FIXED VERSION

DMX³ air circuit breakers are factory-fitted with rear terminals for horizontal connection. For flat connection, simply add rear terminals Cat.Nos 0 288 84/85/92/93 which fit directly on to the built-in horizontal terminals. With vertical connection, 2 accessories are used: reversible rear terminals Cat.Nos 0 288 82/83/94/95 are fitted onto the rear terminals for flat connection Cat.Nos 0 288 84/85/92/93.

DRAW-OUT VERSION

DMX³ air circuit breakers are factory-fitted with rear terminals for flat connection. You can easily reconfigure the circuit breaker for vertical or horizontal connection using reversible rear terminals Cat.Nos 0 288 82/83/94/95.

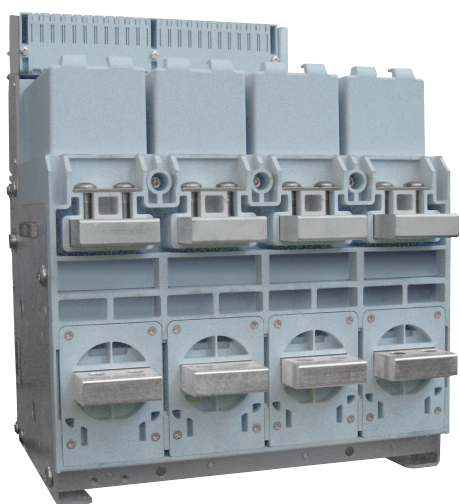
COMPACT, OPTIMISED DIMENSIONS

The compact dimensions of air circuit breakers optimise the use of space inside the enclosure so the most appropriate size of enclosure can be chosen

Dimensions (mm)	DMX ³ 2500 - 800 V $\sim$			
	Fixed version		Draw-out version	
	3P	4P	3P	4P
Height	419	419	465	465
Width	354	354	433	433
Depth	273	358	327	412

Dimensions (mm)	DMX ³ 4000 - 1000 V $\sim$			
	Fixed version		Draw-out version	
	3P	4P	3P	4P
Height	419	419	465	465
Width	408	538	425	555
Depth	354	354	433	433

DMX³ 2500 - 800 V~ AND DMX³ 4000 -1000 V~ FIXED VERSION



Flat connection

Frame 2500 - Cat.Nos 0 288 84/85
Frame 4000 - Cat.Nos 0 288 92/93

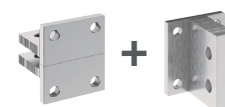


Horizontal connection

Directly on the device

Vertical connection

Frame 2500 - Cat.Nos 0 288 84/85 + 0 288 82/83
Frame 4000 - Cat.Nos 0 288 92/93 + 0 288 94/95

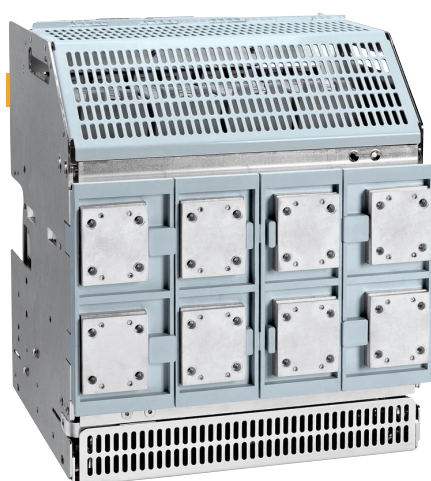


Spreaders

Frame 2500
Flat connection : Cat.Nos 0 288 86/87
Horizontal connection : Cat.Nos 0 288 88/89
Vertical connection : Cat.Nos 0 288 90/91



DMX³ 2500 - 800 V~ AND DMX³ 4000 -1000 V~ DRAW-OUT VERSION

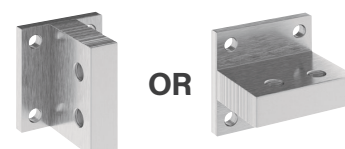


Flat connection

Directly on the device

Horizontal connection

Frame 2500 - Cat.Nos 0 288 96/97
Frame 4000 - Cat.Nos 0 288 94/95



Vertical connection

Frame 2500 - Cat.Nos 0 288 96/97
Frame 4000 - Cat.Nos 0 288 94/95

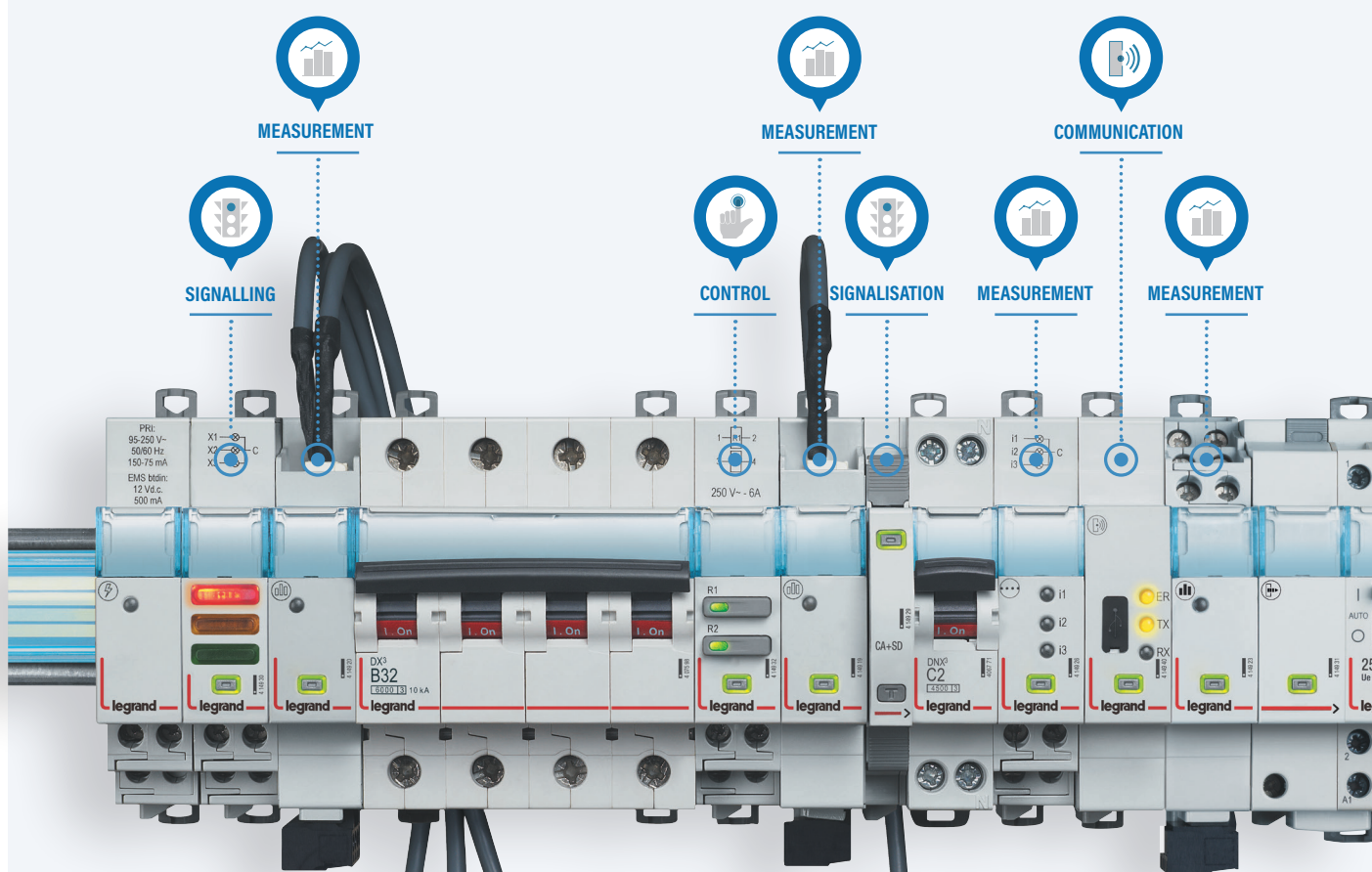


CX³ EMS, a universal, innovative system for energy management

MONITOR AND MANAGE ENERGY CONSUMPTION

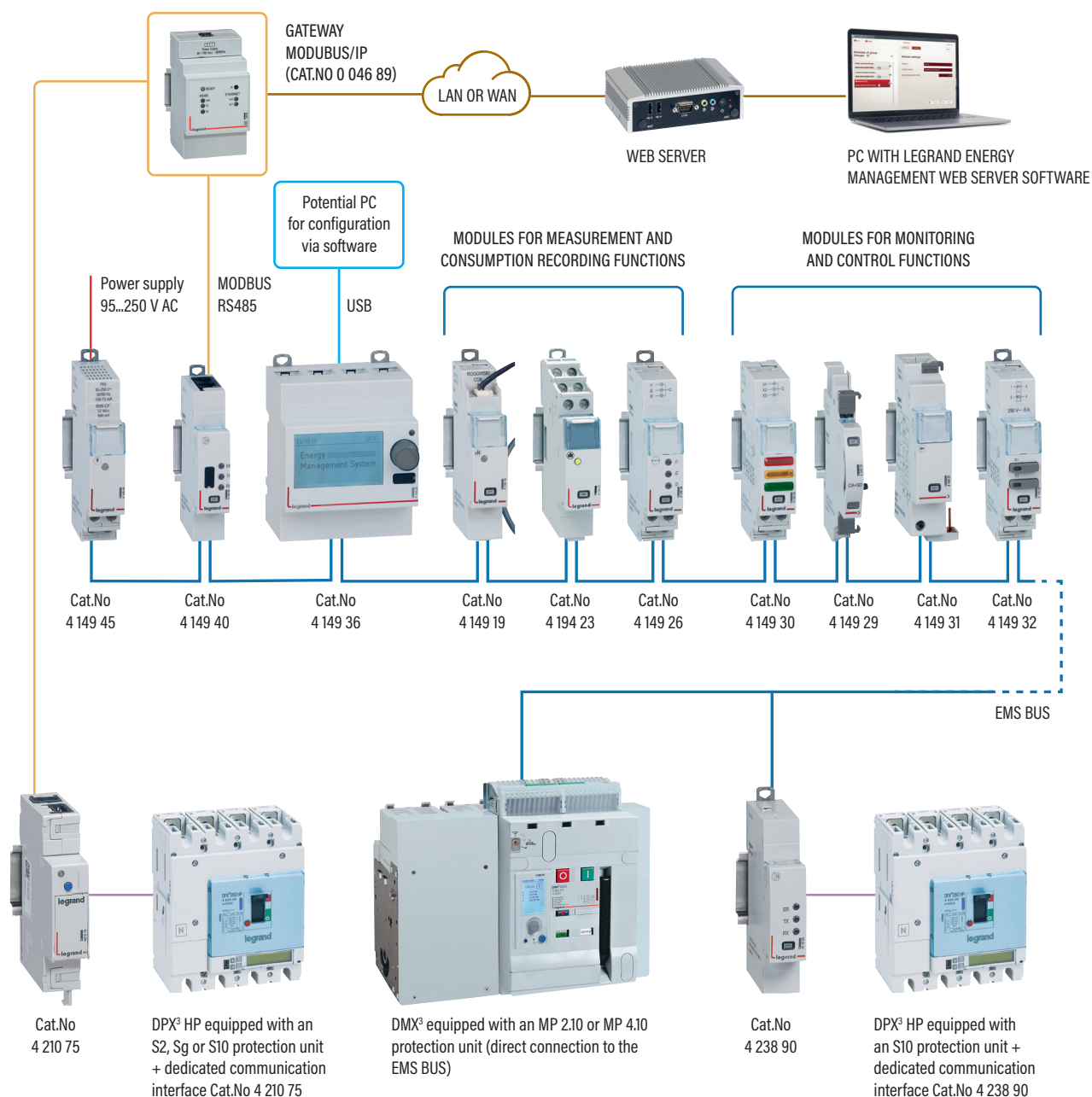
The CX³ EMS energy management system is used to supervise and manage a building's energy consumption, ensuring reliability and continuity of service, for optimum installation efficiency. It offers the option of viewing, measuring and controlling the installation remotely and/or locally. Thanks to the innovative automatic connection process, this autonomous and fully integrated system simplifies mounting and does not require changes to the existing distribution boards wiring.

The CX³ EMS system consists of modules to be mounted on a DIN rail. There is no minimum number of modules and it can also be used to perform very basic supervision tasks. Thanks to its scalability, new functions can be added at any time to suit the needs of the installation.



SCHEMATIC DIAGRAM

CX³ EMS modules are compatible with all Legrand protection devices, from the simple DIN rail mounting circuit breaker, to DPX³ MCCBs or DMX³ ACBs.



LEGRAND ADVANTAGE

For DPX³ and DMX³ devices equipped with protection units with integrated measurement, the measured values are automatically fed back to the Legrand Energy Management Web Server software.

Efficient and reliable protection up to 400 A

AVAILABLE IN 3 OR 4-POLE FIXED VERSION

The DPX³ 250 and DPX³ 400 - 1000 V $\sim$ range of thermal magnetic circuit breakers has been designed to meet your requirements when it comes to protecting an electrical installation up to 400 A, especially when it comes to photovoltaic plants, railway infrastructures or tunnels. The robust design of the range, the adjustable protection, the different accessories for connection and remote tripping have made it the right choice in terms of efficiency and reliability.

EXAMPLE OF A DPX³ 250 - 1000 V $\sim$

Clear, simple, indelible marking on the front of the MCCB stating the main characteristics, such as:

- the rated current and frequency
- the rated operating voltage
- the breaking capacity

Terminals for connection via cables with lugs or busbars.
Can be equipped with cage terminals or with spreaders

Neutral protection for 4P MCCBs
100 % of I_n

Robust handle
The DPX³ 250 - 1000 V $\sim$ has proven mechanical endurance up to 20000 operations.

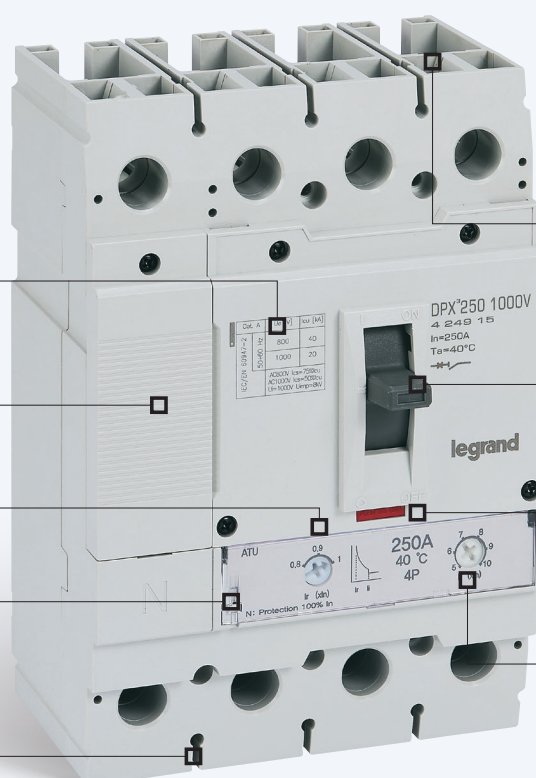
Thermal adjustment:
 I_r from 0.8 to 1 x I_n

Test button (manual tripping)

Sealing

Magnetic adjustment:
 I_i from 5 to 10 x I_n
for $I_n \geq 100$ A

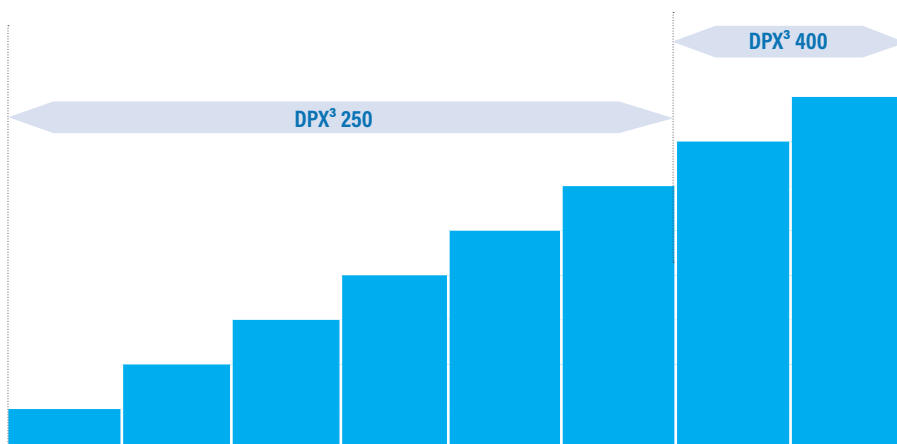
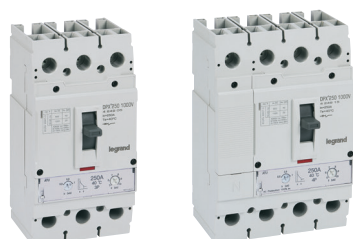
Dedicated slots for insulated shields (phase barriers)



DPX³ 250 and DPX³ 400 - 1000 V $\sim$
Conforming to
standard IEC 60947-2

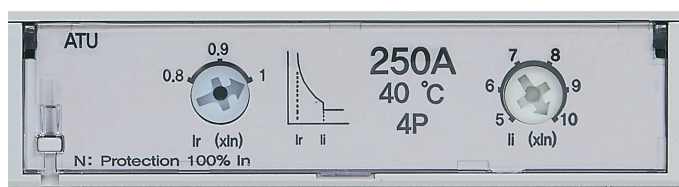
RATED OPERATING VOLTAGE U_e	BREAKING CAPACITY I_{cu} (kA)	
	DPX ³ 250	DPX ³ 400
800 V $\sim$	40 kA	50 kA
1000 V $\sim$	20 kA	25 kA

THE RANGE



Rated current In (A)		63 A	80 A	100 A	160 A	200 A	250 A	320 A	400 A
Breaking capacity (Icu) at 1000 V~		20 kA						25 kA	
Breaking capacity (Icu) at 800 V~		40 kA						50 kA	
Adjustable protection	Thermal Ir (A)	0,8 - 0,9 - 1 x In							
	Magnetic Ii (A)	Fixed: 10 x In		Adjustable : 5 - 6 - 7 - 8 - 9 - 10 x In					
Number of poles		3P and 4P							

THERMAL-MAGNETIC PROTECTION



The tripping thresholds for the thermal and magnetic protection can be easily adjusted thanks to the dedicated thumbwheel on the front of the MCCBs.

TEMPERATURE DERATING

DPX³ 250 and DPX³ 400 - 1000 V~ moulded case circuit breakers can be used in ambient temperature conditions between -25°C and +70°C, which is ideal for existing wind and solar power installations. They can also be installed in industrial environments. For temperatures above 40°C, derating must be applied.

I_n (A)	Maximum rated current in accordance with ambient temperature I_{max} (A)									
	-20 °C	-10 °C	0 °C	10 °C	20 °C	30 °C	40 °C	50 °C	60 °C	70 °C
63	90	86	81	77	72	68	63	60	57	54
80	114	109	103	98	92	86	80	76	72	68
100	143	136	129	122	115	108	100	95	90	85
160	229	218	206	195	184	173	160	152	144	136
200	286	272	258	244	230	216	200	190	180	170
250	358	340	322	305	287	270	250	238	225	213
320	458	435	413	390	367	346	320	304	288	272
400	572	544	516	488	459	432	400	380	360	340

Easy to install auxiliaries and connection accessories

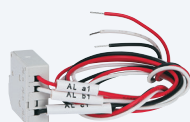
SIMPLY CLIP ON

DPX³ 250 and DPX³ 400 - 1000 V $\sim$ circuit breakers can very easily be fitted with a comprehensive range of electrical auxiliaries to provide emergency breaking, automatic or remote control, and feedback on the status of the device. All auxiliaries are installed in dedicated slots under the front panel of the MCCB. Connexion accessories complete the range.

EXAMPLE OF A DPX³ 250 - 1000 V $\sim$ EQUIPPED WITH AUXILIARIES

Alarm contact

Changeover contact 1 NO + 1 NC



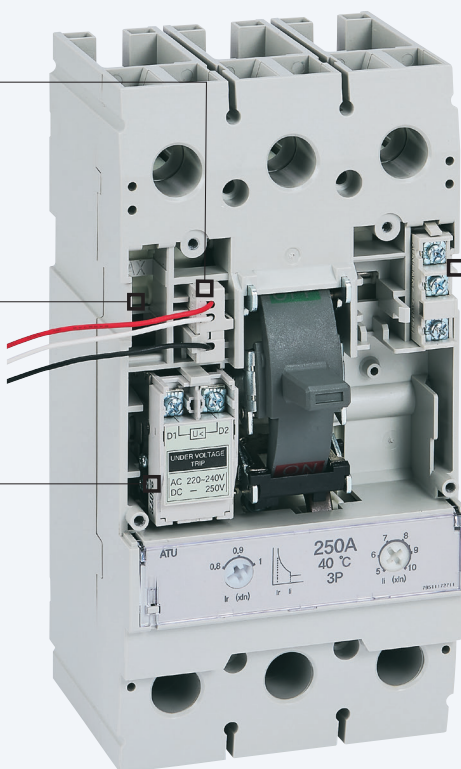
Dédicated slot for an additional auxiliary contact

Undervoltage or shunt release
Allow remote tripping of the MCCB
Available in:
- 24 V $\sim$ / $\equiv$ and
- 230 V $\sim$ / $\equiv$



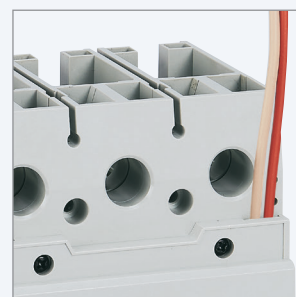
Auxiliary contact

Changeover contact 1 NO + 1 NC



CONNECTION WIRES

DPX³ 250 and DPX³ 400 - 1000 V $\sim$
Offer different options for outgoing connection wires on the side or on the upper part of the MCCB.



CONNECTION ACCESSORIES FOR MULTIPLE CONFIGURATIONS



DPX³ 250 and DPX³ 400 - 1000 V~
Have the accessories needed for upstream and downstream connection using cables or bars in different configurations.

SPREADERS



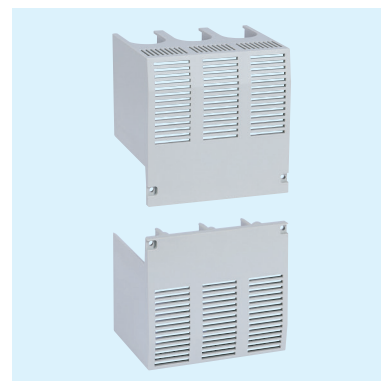
These can be used for connection with large cross-section cables. Available in 3P and 4P versions.

CAGE TERMINALS



Cage terminals can be used for connection with large cross-section copper or aluminium cables. Available in 3P and 4P versions.

TERMINAL COVERS



These provide IP 30 protection for the connections. Available in 3P and 4P versions.

Simplified operation

DIRECT OR REMOTE CONTROL

Motor driven handles for DPX³ 250 and DPX³ 400 - 1000 V $\sim$ enable devices to be tripped and reset remotely to provide a simple answer to operating requirements. They are available in front version and offer a choice between two supply voltages: 24 V $\sim$ or 230 V $\sim$ / 220 V $\sim$. A rotary handle direct on DPX³ and a vari-depth handle provide the utmost convenience and can be locked using padlocks to ensure the safety of maintenance operations. The rotary handle direct on DPX³ can be locked also with the help of keylock.

MOTOR-DRIVEN HANDLE

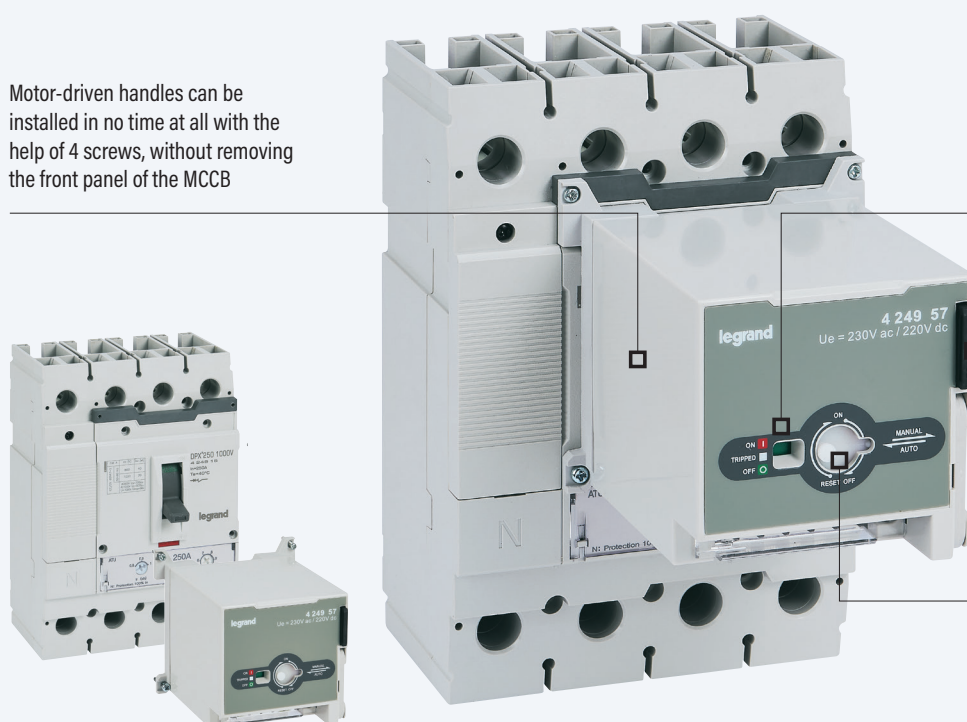
EXAMPLE OF A DPX³ 250 - 1000 V $\sim$ EQUIPPED WITH A MOTOR-DRIVEN HANDLE

Motor-driven handles can be installed in no time at all with the help of 4 screws, without removing the front panel of the MCCB

Clear marking of the MCCB status in relation to the position the contacts

Retractable tab for padlocking electrical or manual operations

Automatic / Manual mode switch



THE MOTOR-DRIVEN HANDLE

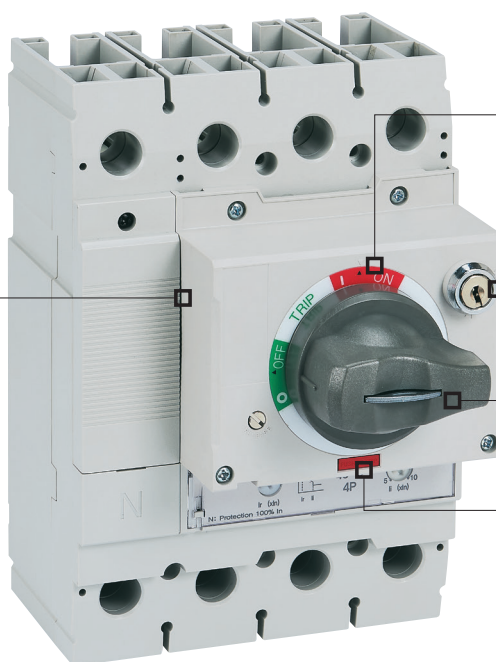
Connection terminal is easily accessible in its lower part. Wiring operations are simplified thanks to the wiring diagram marked on the product.



ROTARY HANDLES

EXAMPLE OF A DPX³ 250 - 1000 V $\sim$ EQUIPPED WITH A ROTARY HANDLE

Direct rotary handle can be installed with the help of 4 screws after removing the front panel of the MCCB



Clear marking of the MCCB status in relation to the position of the rotary handle

Key lock (only for the rotary handle direct on DPX³)

Retractable tab for padlocking in «OPEN» position

Test button (manual tripping)

DIRECT AND VARI-DEPTH ROTARY HANDLE

Are supplied with all required accessories to facilitate installation.



Direct handle



Vari-depth handle on door

Air circuit breakers DMX³ 2500 - 800 V_~

from 630 A to 2500 A



0 285 76



0 285 99



Dimensions **p. 26-27**
Electrical characteristics **p. 23**

Automatic air circuit breakers must be equipped with electronic protection unit (p. 23), imperatively ordered together for factory assembly
Please ask for DMX³ order form
Conform to IEC 60947-2
Suitable for wind turbine, photovoltaic or railway installations

Pack	Cat.Nos		Fixed version
	Frame 2500		Supplied with - 1 fault signalling contact NO/NC - 2 auxiliary contacts: NO/NC - rear terminals for horizontal connection with bars - door sealing Breaking capacity Icu 36 kA (800 V _~)
	3P	4P	In (A)
1	0 285 09	0 285 70	630
1	0 285 19	0 285 71	800
1	0 285 29	0 285 72	1000
1	0 285 39	0 285 73	1250
1	0 285 49	0 285 74	1600
1	0 285 59	0 285 75	2000
1	0 285 69	0 285 76	2500
	Frame 2500		Draw-out version
	Frame 2500		Supplied with - 1 fault signalling contact NO/NC - 2 auxiliary contacts: NO/NC - draw-out base and kit - flat rear terminals for connection with bars - door sealing Breaking capacity Icu 36 kA (800 V _~)
	3P	4P	In (A)
1	0 285 77	0 285 93	630
1	0 285 78	0 285 94	800
1	0 285 79	0 285 95	1000
1	0 285 89	0 285 96	1250
1	0 285 90	0 285 97	1600
1	0 285 91	0 285 98	2000
1	0 285 92	0 285 99	2500

Air circuit breakers DMX³ 4000 - 1000 V_~

from 630 A to 4000 A



0 285 57



0 285 87



Dimensions **p. 28-29**
Electrical characteristics **p. 23**

Automatic air circuit breakers must be equipped with electronic protection unit (p. 23), imperatively ordered together for factory assembly
Please ask for DMX³ order form
Conform to IEC 60947-2
Suitable for wind turbine, photovoltaic or railway installations

Pack	Cat.Nos		Fixed version
	Frame 4000		Supplied with - 1 fault signalling contact NO/NC - 2 auxiliary contacts: NO/NC - rear terminals for horizontal connection with bars - door sealing Breaking capacity Icu 50 kA (1000 V _~)
	3P	4P	In (A)
1	0 285 40	0 285 50	630
1	0 285 41	0 285 51	800
1	0 285 42	0 285 52	1000
1	0 285 43	0 285 53	1250
1	0 285 44	0 285 54	1600
1	0 285 45	0 285 55	2000
1	0 285 46	0 285 56	2500
1	0 285 47	0 285 57	3200
1	0 285 48	0 285 58	4000
	Frame 4000		Draw-out version
	Frame 4000		Supplied with - 1 fault signalling contact NO/NC - 2 auxiliary contacts: NO/NC - draw-out base and kit - flat rear terminals for connection with bars - door sealing Breaking capacity Icu 50 kA (1000 V _~)
	3P	4P	In (A)
1	0 285 60	0 285 80	630
1	0 285 61	0 285 81	800
1	0 285 62	0 285 82	1000
1	0 285 63	0 285 83	1250
1	0 285 64	0 285 84	1600
1	0 285 65	0 285 85	2000
1	0 285 66	0 285 86	2500
1	0 285 67	0 285 87	3200
1	0 285 68	0 285 88	4000

Electronic protection units for DMX³ 2500 - 800 V $\sim$ and DMX³ 4000 - 1000 V $\sim$



DMX³ circuit breakers must be equipped with electronic protection units (to be ordered together for factory assembly) enabling very precise adjustments of the protection conditions, while maintaining total discrimination with downstream devices

Pack	Cat.Nos	MP2.10 protection units with LED matrix screen
1	0 283 04	Integrated LED matrix screen to show electrical values and settings Adjustment via rotating encoder Adjustment of Ir, tr, isd, tsd, li, lg and tg Possibility to enable/disable protections
1	0 283 05 ¹	Without measure With measure Measure and display instantaneous, maximum and average values of different electrical values and protection conditions Fault signaling and log
1	0 283 06	MP4.10 protection units with LCD screen Integrated LCD screen for displaying electrical values, settings and log Equipped with batteries for powering in case of main fault or when the breaker is open or not connected Adjustment via rotating encoder Adjustment of Ir, tr, isd, tsd, li, lg and tg Possibility to enable/disable protections
1	0 283 07 ¹	Without measure With measure Measure and display instantaneous, maximum and average values of different electrical values and protection conditions Fault signaling and log
1	0 283 10 ²	Bluetooth communication key USB key for Bluetooth communication with DMX ³ protection units. Needed to remotely configure, monitor and manage the DMX ³ protection units through EnerUp + Project App USB connection port on front of protection unit
1	4 149 45	Power supply module 500 mA 12V $\sim$ stabilized power supply module for CX ³ energy management system
1	4 149 40	Communication interface RS485 / CX ³ energy management system conversion Consumption: 0.344 W - 28.7 mA (12 V $\sim$)
1	0 281 98	External neutral For DMX ³ 2500 - 800 V $\sim$ and DMX ³ 4000 - 1000 V $\sim$

1: For the correct working of metering function it's necessary to connect a CX³ EMS power supply module Cat.No 4 149 45
2: EnerUp + Project App for smartphone and tablet available on Apple Store and Google Play. Configuration, monitoring and management software (PCS) available for download via e-catalogue (does not require the use of Bluetooth communication key Cat.No 0 283 10)
3: Optional accessories, to be ordered when ordering electronic protection unit and DMX³ air circuit breakers for factory assembly

DMX³ 2500 - 800 V $\sim$ and DMX³ 4000 - 1000 V $\sim$ - technical characteristics

Technical characteristics

DMX ³ according to IEC 60947-3	DMX ³ 2500 - 800 V $\sim$	DMX ³ 4000 - 1000 V $\sim$
Release type	electronic	electronic
Number of poles	3P - 4P	3P - 4P
Pole pitch (mm)	85	130
Rated current I _n (A)	630, 800, 1000, 1250, 1600, 2000, 2500	630, 800, 1000, 1250, 1600, 2000, 2500, 3200, 4000
Rated insulation voltage U _i (V)	1250	1250
Rated impulse withstand voltage U _{imp} (kV)	12	12
Rated operational voltage (50/60Hz) U _e (V)	800	1000
Frame	2500	4000
Rated ultimate short-circuit breaking capacity I _{cu} (kA)	800 V AC 1000 V AC	36 65 - 50
Rated service short-circuit breaking capacity I _{cs} (% I _{cu})	100 %	100 %
Rated short-circuit making capacity I _{cm} (kA)	800 V AC 1000 V AC	76 143 - 105
Rated short time withstand current I _{cw} (kA) for t = 1s	800 V AC 1000 V AC	36 65 - 50
Rated short time withstand current I _{cw} (kA) for t = 3s	800 V AC 1000 V AC	36 65 - 50
Category of use	B	B
Suitable for insulation	Yes	Yes
Neutral protection for 4P (%I _{th} of phase pole)	0 - 50 - 100 - 150 - 200	0 - 50 - 100 - 150 - 200
Pole pitch (mm)	85	130
Operating temperature (°C)	-25 to +70	-25 to +70
Storage temperature (°C)	-25 to +85	-25 to +85

Derating at different altitudes

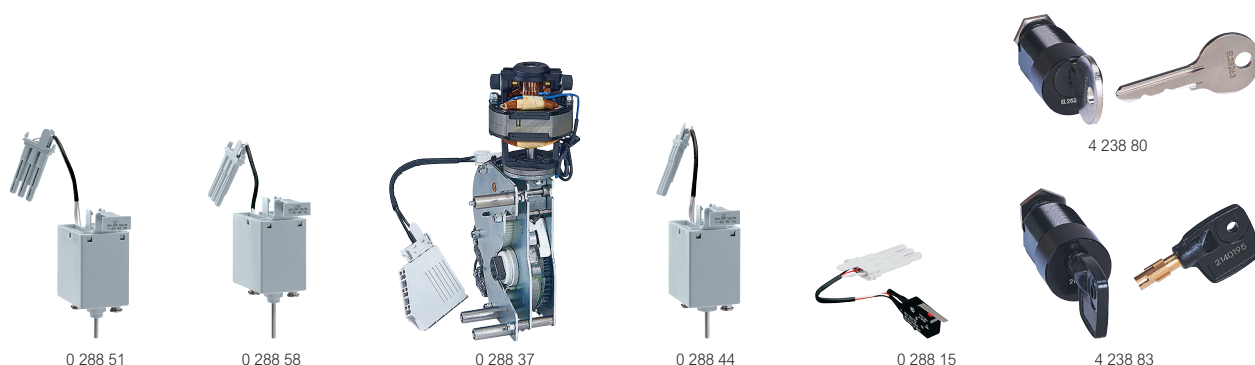
Air circuit breaker	DMX ³ 2500 - 800 V $\sim$			
Altitude (m)	2000	3000	4000	5000
Rated current (at 40°C) I _n (A)	I _n	0.98 x I _n	0.94 x I _n	0.9 x I _n
Rated voltage U _e (V)	800	700	600	550
Rated insulation voltage U _i (V)	1000	900	750	600
Dielectric withstand (V)	3500	3200	2500	2000

Air circuit breaker	DMX ³ 4000 - 1000 V $\sim$			
Altitude (m)	2000	3000	4000	5000
Rated current (at 40°C) I _n (A)	I _n	0.98 x I _n	0.94 x I _n	0.9 x I _n
Rated voltage U _e (V)	1000	880	750	690
Rated insulation voltage U _i (V)	1250	1100	950	850
Dielectric withstand (V)	3500	3200	2500	2000



Detailed technical characteristics and performances in IT systems, **see the technical data sheet**

Auxiliaries and accessories for DMX³ 2500 - 800 V $\sim$ and DMX³ 4000 - 1000 V $\sim$



Pack	Cat.Nos	Control and signalling auxiliaries
		Shunt trip When energised the circuit breaker will be tripped
1	0 288 48	24 V $\sim$ /=
1	0 288 49	48 V $\sim$ /=
1	0 288 50	110 - 130 V $\sim$ /=
1	0 288 51	220 - 250 V $\sim$ /=
1	0 288 52	415 - 480 V $\sim$
		Undervoltage releases When the coil is de-energised, the circuit breaker will be tripped
1	0 288 55	24 V $\sim$ /=
1	0 288 56	48 V $\sim$ /=
1	0 288 57	110 - 130 V $\sim$ /=
1	0 288 58	220 - 250 V $\sim$ /=
1	0 288 59	415 - 480 V $\sim$
		Module for delayed tripping To be used with above undervoltage releases
1	0 288 62	110 V $\sim$ /=
1	0 288 63	230 V $\sim$ /=
		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
1	0 288 34	24 V $\sim$ /=
1	0 288 35	48 V $\sim$ /=
1	0 288 36	110 - 130 V $\sim$ /=
1	0 288 37	220 - 250 V $\sim$ /=
1	0 288 38	415 - 440 V $\sim$
1	0 288 40	480 V $\sim$ /=
		Closing coils Enables remote closing of the circuit breaker if the closing spring is charged
1	0 288 41	24 V $\sim$ /=
1	0 288 42	48 V $\sim$ /=
1	0 288 43	110 - 130 V $\sim$ /=
1	0 288 44	220 - 250 V $\sim$ /=
1	0 288 45	415 - 480 V $\sim$
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

Pack	Cat.Nos	Locking
		Universal key locks To be used in combination with key locking supports Cat.Nos 0 281 94/0 288 28
1	4 238 80	Key barrel and flat key with random mapping
1	4 238 81	Key barrel and flat key with fixed mapping EL43525
1	4 238 82	Key barrel and flat key with fixed mapping EL43363
1	4 238 83	Key barrel and star key with random mapping
1	0 288 28	Key locking support in "open" position For locking a DMX ³ in "open" position To be equipped with universal keylocks Cat.Nos 4 238 80/81/82/83
1	0 281 94	Key locking support in draw-out position For locking a DMX ³ in draw-out position To be equipped with universal keylocks Cat.Nos 4 238 80/81/82/83
		Door locking Prevents opening of the door with the circuit breaker closed Left-hand and right-hand side mounting
1	0 288 20	
		Padlocks in "open" position Padlocking system for ACB (padlock not supplied)
1	0 288 21	
1	0 288 24	Padlock for buttons
1	0 288 26	Padlocking system for shutters (padlock not supplied)
		Equipment for conversion of a fixed device into draw-out device
		Bases for draw-out device
1	0 289 02 0 289 03	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 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
		Accessories
1	0 288 17	Inserted/Test/Draw-out lock button
1	0 288 25	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 - 800 V $\sim$ and DMX³ 4000 - 1000 V $\sim$



0 288 84



0 288 82



0 288 96



0 288 94



0 288 91



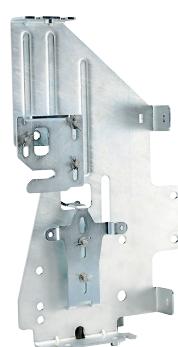
Dimensions p. 26 to 29

Pack	Cat.Nos		Rear terminals
	3P	4P	
1	0 288 84	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	6 696 18	6 696 19	For DMX³ frame 2500 fixed or draw-out version (max. rating 1600 A) - Aluminium version When used for DMX ³ fixed version, must be fixed on the spreaders Cat.Nos 0 288 86/87 When used for DMX ³ draw-out version, must be fixed directly on the flat 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

	Cat.Nos		Spreaders for DMX ³ frame 2500 fixed version
	3P	4P	
1	0 288 86	0 288 87	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

	Cat.Nos		Insulation shields
	3P	4P	
1	0 288 98	0 288 99	For fixed version Insulation shields for DMX ³ /DMX ³ -I frames 2500 / 4000 / 6300, DMX ³ 2500 - 800 V $\sim$ and DMX ³ 4000 - 1000 V $\sim$
1	0 288 18	0 288 19	For draw-out version Insulation shields for DMX ³ /DMX ³ -I frames 2500 / 4000 / 6300, DMX ³ 2500 - 800 V $\sim$ and DMX ³ 4000 - 1000 V $\sim$

Equipment for DMX³ 2500 - 800 V $\sim$ and DMX³ 4000 - 1000 V $\sim$ transfer switches



0 288 64

Pack	Cat.Nos	Equipment for transfer switches
		The mechanical interlock is set up using cables and can interlock 2 or 3 devices, which may be different type in a vertical or horizontal configuration The interlock unit is mounted on the right-hand side of the device Cable interlock to be ordered separately (cable length to be specified according to every configuration - see below)
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
		Cable interlock
		Length
1	0 289 17	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

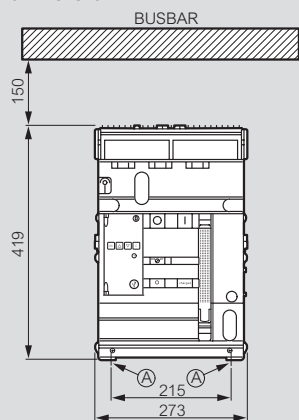
DMX³ 2500 - 800 V_~ - frame 2500

dimensions

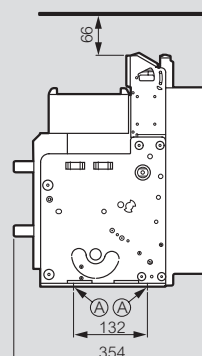
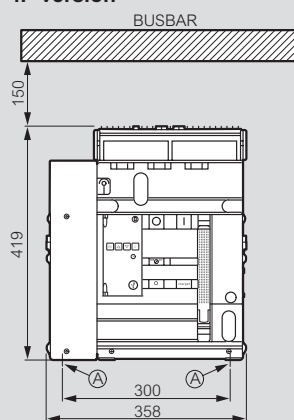
Fixed version - frame 2500

Overall dimensions

3P version

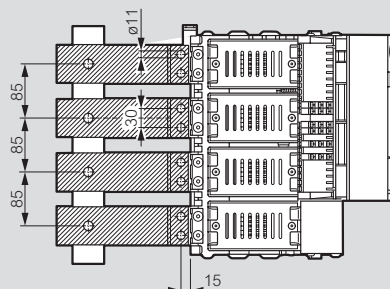
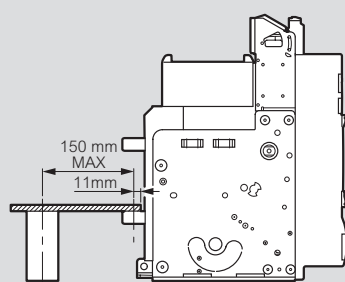


4P version

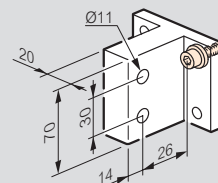


A = fixing point on plate of enclosure

Connection principle

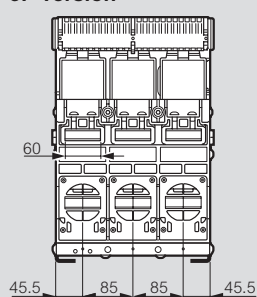


Rear terminals for vertical connection with bars Cat.Nos 0 288 82/83

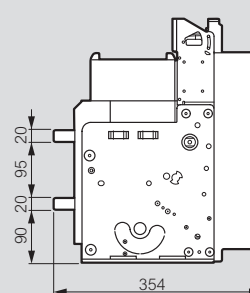
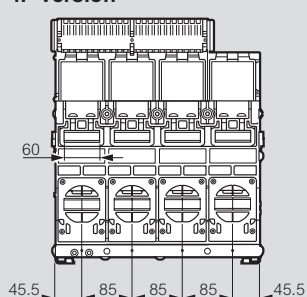


Rear terminals for horizontal connection with bars

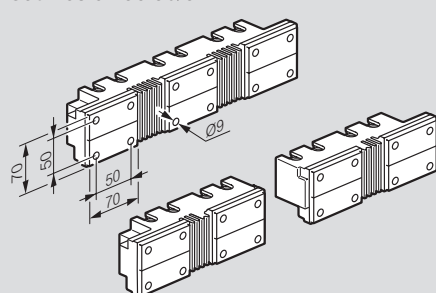
3P version



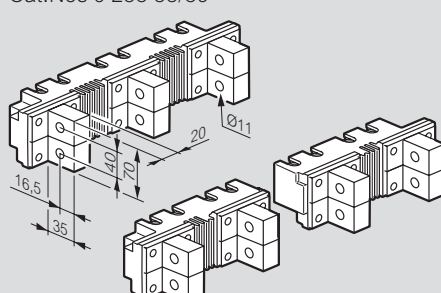
4P version



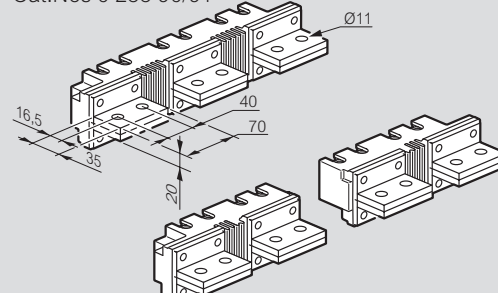
Spreaders for flat connection with bars Cat.Nos 0 288 86/87



Spreaders for vertical connection with bars Cat.Nos 0 288 88/89



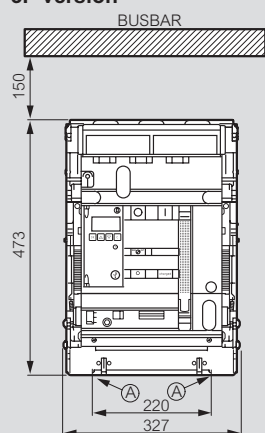
Spreaders for horizontal connection with bars Cat.Nos 0 288 90/91



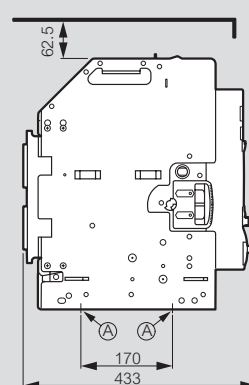
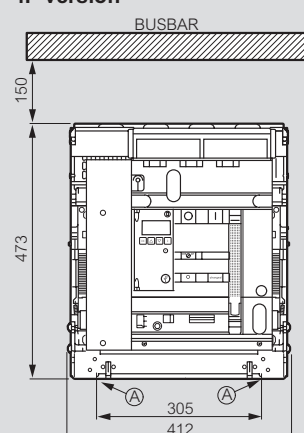
Draw-out version - frame 2500

Overall dimensions

3P version



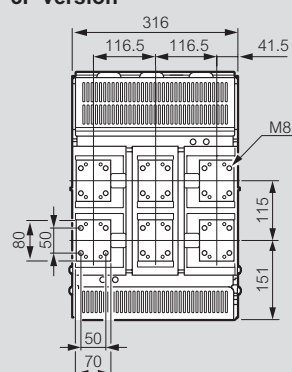
4P version



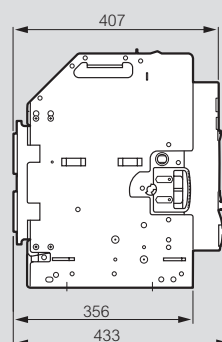
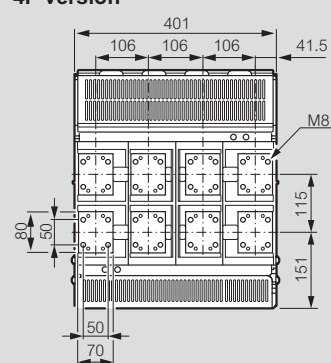
A = fixing point on plate of enclosure

Rear terminals for flat connection with bars

3P version

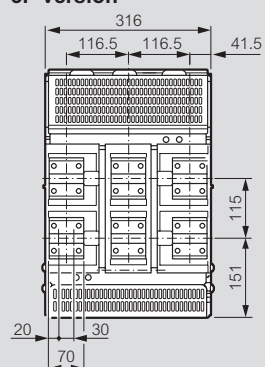


4P version

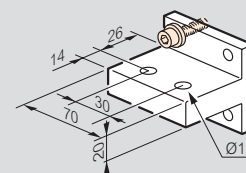
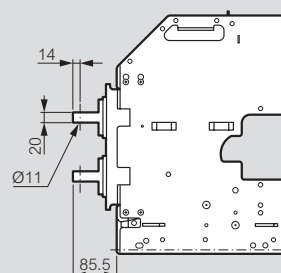
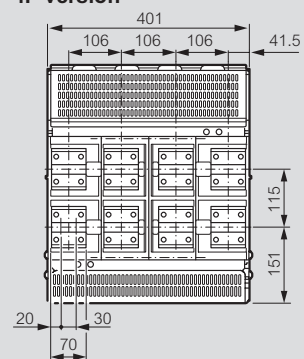


Rear terminals for horizontal connection with bars - Cat.Nos 0 288 96/97

3P version

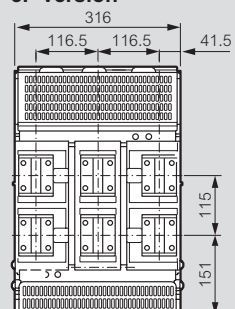


4P version

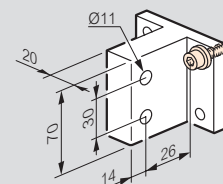
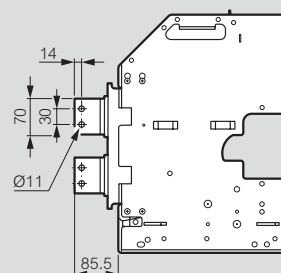
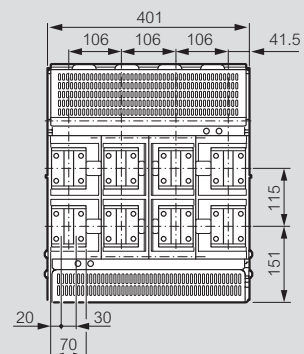


Rear terminals for vertical connection with bars - Cat.Nos 0 288 96/97

3P version



4P version



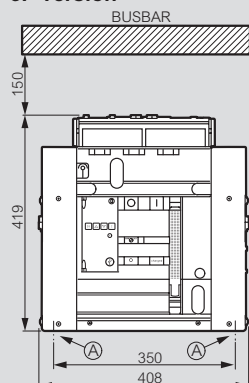
DMX³ 4000 - 1000 V_~ - frame 4000

dimensions

Fixed version - frame 4000

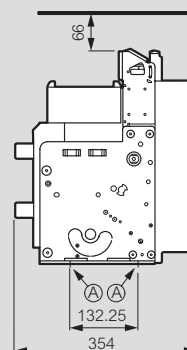
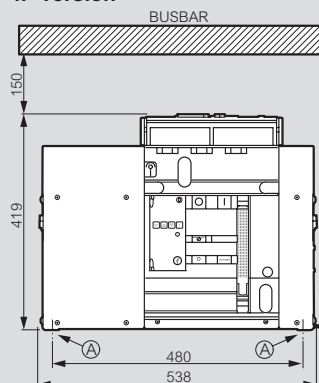
Overall dimensions

3P version

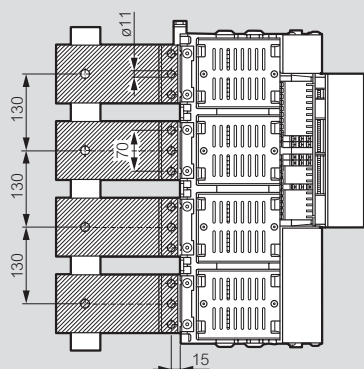
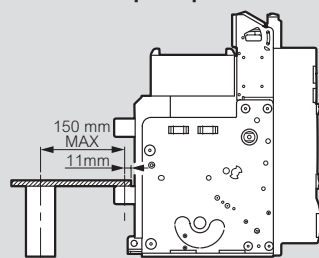


A = fixing point on plate of enclosure

4P version

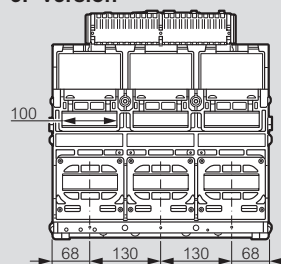


Connection principle

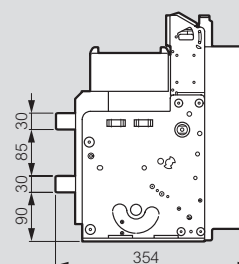
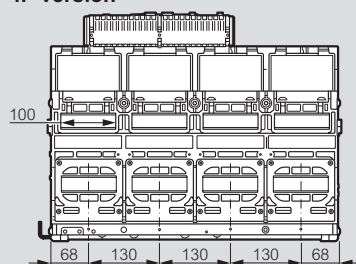


Rear terminals

3P version



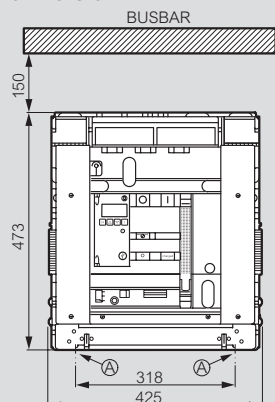
4P version



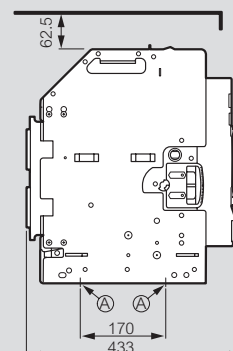
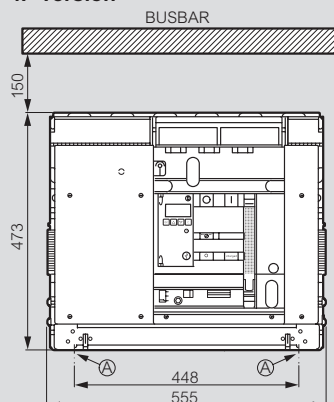
Draw-out version - frame 4000

Overall dimensions

3P version



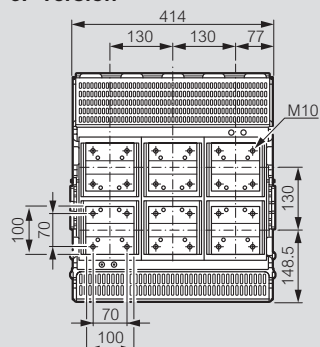
4P version



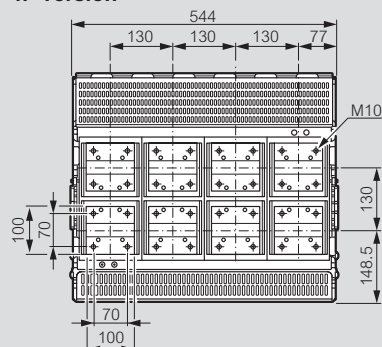
■ Draw-out version - frame 4000 (continued)

Rear terminals for flat connection with bars

3P version



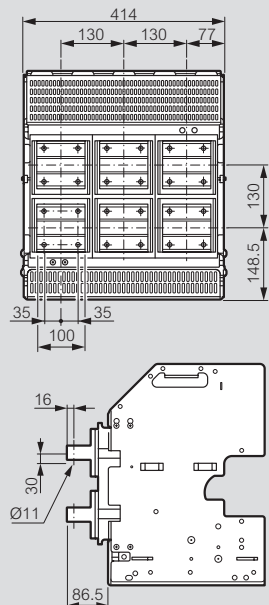
4P version



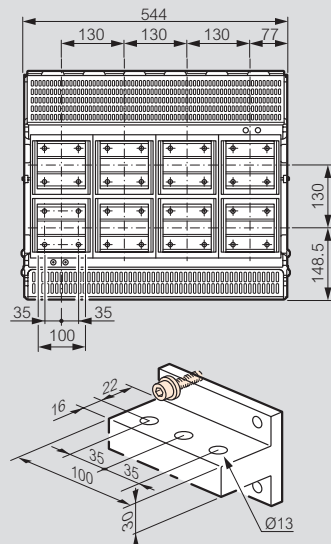
Rear terminals for horizontal connection with bars

Cat.Nos 0 288 92/93

3P version



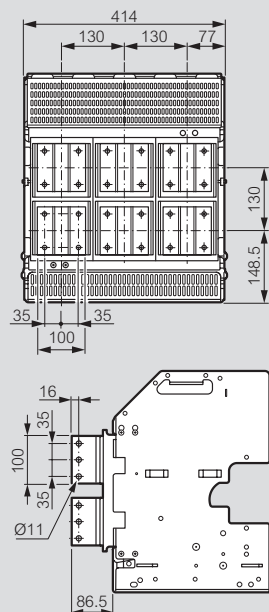
4P version



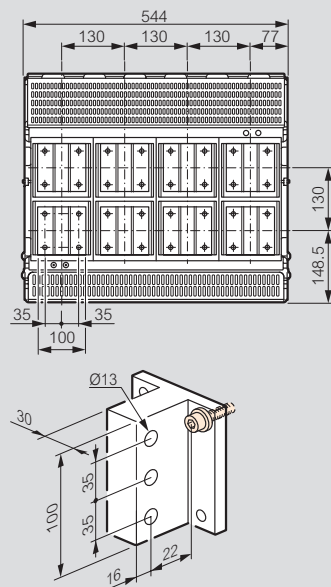
Rear terminals for vertical connection with bars

Cat.Nos 0 288 92/93

3P version



4P version



DPX³ 250 - 1000 V_~ - thermal magnetic release

MCCBs from 63 to 250 A - fixing on plate



4 249 05



4 249 15



Dimensions **p. 33**
Technical characteristics **p. 32**

Moulded case MCCBs for switching, control isolation and protection of low voltage electrical lines
Suitable for renewable energy (photovoltaic, wind turbine) or railway installations

Can be fitted with auxiliaries (p. 32)

Supplied with: screws for connections, fixing screws, and insulated shields (phase barriers)

Can be fitted with cage terminals for Cu/Al cables

Conform to IEC 6094/-2 - sealable adjustment

Can be mounted on plate in XL³ HP cabinets and enclosures

Pack	Cat.Nos		MCCBs thermal magnetic release - fixed version
	3P	4P	
			Thermal adjustable from 0,8 to 1 x I _n Magnetic: - fixed 10 x I _n for I _n = 63 A and 80 A - adjustable from 5 to 10 x I _n for I _n = 100 A to 250 A Breaking capacity I _{cu} 20 kA (1000 V _~)
1	4 249 00	4 249 10	I _n (A) 63
1	4 249 01	4 249 11	80
1	4 249 02	4 249 12	100
1	4 249 03	4 249 13	160
1	4 249 04	4 249 14	200
1	4 249 05	4 249 15	250

DPX³ 250 - 1000 V_~

accessories



4 249 58



4 249 57



4 249 64



4 249 61



4 249 62

Pack	Cat.Nos	Rotary handles
1	4 249 58	Direct on DPX³ Standard (grey)
1	4 249 59	Vari-depth handle Standard (grey)
		Motor-driven handles
1	4 249 56	Front installation motor operators For DPX ³ 250 - 1000 V _~ 3P / 4P 24 V =
1	4 249 57	230 V _~ / 220 V _~
		Connection accessories
		Terminal shields (for front terminals) Set of 2 For DPX ³ 250 - 1000 V _~ 3P For DPX ³ 250 - 1000 V _~ 4P
1	4 249 64	
1	4 249 65	
		Cage terminals For flexible or rigid Cu/Al cables Cu: 120 - 150 mm ² Al: 150 mm ² max.
1	4 249 61	Set of 3 terminals for DPX ³ 250 - 1000 V _~ 3P
1	4 249 66	Set of 4 terminals for DPX ³ 250 - 1000 V _~ 4P
		Spreaders For incoming bars or cable lugs For incoming bars or cable lugs
1	4 249 62	Set of 3 spreaders for DPX ³ 250 - 1000 V _~ 3P
1	4 249 63	Set of 4 spreaders for DPX ³ 250 - 1000 V _~ 4P

DPX³ 400 - 1000 V_~ - thermal magnetic release

MCCBs from 320 to 400 A - fixing on plate



4 249 31



4 249 36

Dimensions **p. 34**
 Technical characteristics **p. 32**

Moulded case MCCBs for switching, control isolation and protection of low voltage electrical lines
 Suitable for renewable energy (photovoltaic, wind turbine) or railway installations

Can be fitted with auxiliaries (p. 32)

Supplied with: screws for connections, fixing screws, and insulated shIELDS (phase barriers)

Can be fitted with cage terminals for Cu/Al cables

Conform to IEC 60947-2 - sealable adjustment

Can be mounted on plate in XL³ HP cabinets and enclosures

Pack	Cat.Nos		MCCBs thermal magnetic release - fixed version
	3P	4P	
1	4 249 30	4 249 35	Thermal adjustable from 0,8 to 1 x I _n Magnetic adjustable from 5 to 10 x I _n Breaking capacity I _{cu} 25 kA (1000 V _~)
1	4 249 31	4 249 36	I _n (A) 320 400

DPX³ 400 - 1000 V_~

accessories



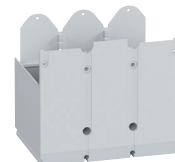
4 249 72



4 249 71



4 249 78



4 249 74



4 249 76

Pack	Cat.Nos	Rotary handles
1	4 249 72	Direct on DPX³ Standard (grey)
1	4 249 73	Vari-depth handle Standard (grey)
		Motor-driven handles
		Front installation motor operators For DPX ³ 400 - 1000 V _~ 3P / 4P
1	4 249 70	24 V =
1	4 249 71	230 V _~ / 220 V=
		Connection accessories
		Terminal shields (for front terminals) Set of 2 For DPX ³ 400 - 1000 V _~ 3P For DPX ³ 400 - 1000 V _~ 4P
1	4 249 78	
1	4 249 79	
		Cage terminals For Cu/Al cables Cu: flexible cable 240 mm ² - rigid cable 300 mm ² Al: 300 mm ² max.
1	4 249 74	Set of 3 terminals for DPX ³ 400 - 1000 V _~ 3P
1	4 249 75	Set of 4 terminals for DPX ³ 400 - 1000 V _~ 4P
		Spreaders For incoming bars or cable lugs Set of 3 spreaders for DPX ³ 400 - 1000 V _~ 3P Set of 4 spreaders for DPX ³ 400 - 1000 V _~ 4P
1	4 249 76	
1	4 249 77	

DPX³ 250 and DPX³ 400 - 1000 V_~

control and signalling auxiliaries



4 249 50

4 249 51



4 249 53



4 249 55

Pack	Cat.Nos	Auxiliary contact
1	4 249 50	Auxiliary contact
1	4 249 51	Alarm contact
1	4 249 52	Shunt releases
1	4 249 53	Allow remote tripping of a DPX ³ 250 / 400 - 1000 V _~ 24 V _~ / =
1	4 249 54	Undervoltage releases
1	4 249 55	Allow remote tripping of a DPX ³ 250 / 400 - 1000 V _~ 24 V _~ / =

DPX³ 250 and DPX³ 400 - 1000 V_~

technical characteristics

Main technical characteristics

MCCBs	DPX ³ 250 - 1000 V _~	DPX ³ 400 - 1000 V _~
Rated current I _n (A)	63, 80, 100, 160, 200, 250	320, 400
Number of poles	3P - 4P	3P - 4P
Rated insulation voltage U _i (Vac)	1000	1000
Rated operating voltage U _e (Vac)	1000	1000
Rated impulse withstand voltage U _{imp} (kV)	8	8
Rated frequency (Hz)	50-60	50-60
Rated ultimate short-circuit breaking capacity I _{cu} (kA)	800 V _~	40
	1000 V _~	20
Rated service short-circuit breaking capacity I _{cs} (% I _{cu})	800 V _~	75
	1000 V _~	50
Rated short-circuit making capacity I _{cm} (kA)	800 V _~	84
	1000 V _~	40
Reference ambient temperature (°C)	40	40
Operating temperature (°C)	-25 to 70	-25 to 70
Mechanical endurance (cycles)	20000	20000
Electrical endurance at I _n (cycles)	1000	1000
Category of use	A	A
Suitable for isolation	Yes	Yes
Release type	thermal-magnetic	thermal-magnetic
Thermal adjustment I _t (A)	0.8 to 1 x I _n	0.8 to 1 x I _n
Magnetic adjustment I _l (A)	10 x I _n for I _n = 63 and 80 A 5 to 10 x I _n for I _n = 100 to 250 A	5 to 10 x I _n
Neutral protection for 4P MCCBs (% of I _n of phase pole)	100 %	100 %

Temperature derating

I _n (A)	Compensated rated current in accordance with ambient temperature (A)									
	-20 °C	-10 °C	0 °C	10 °C	20 °C	30 °C	40 °C	50 °C	60 °C	70 °C
63	90	86	81	77	72	68	63	60	57	54
80	114	109	103	98	92	86	80	76	72	68
100	143	136	129	122	115	108	100	95	90	85
160	229	218	206	195	184	173	160	152	144	136
200	286	272	258	244	230	216	200	190	180	170
250	358	340	322	305	287	270	250	238	225	213
320	458	435	413	390	367	346	320	304	288	272
400	572	544	516	488	459	432	400	380	360	340



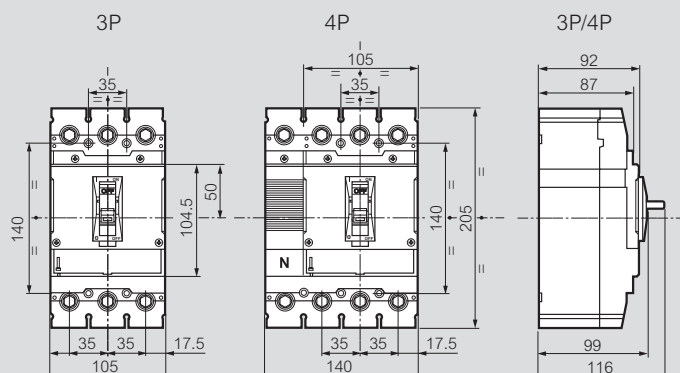
Detailed technical characteristics and performances in IT systems, **see the technical data sheet**

DPX³ 250 - 1000 V_~

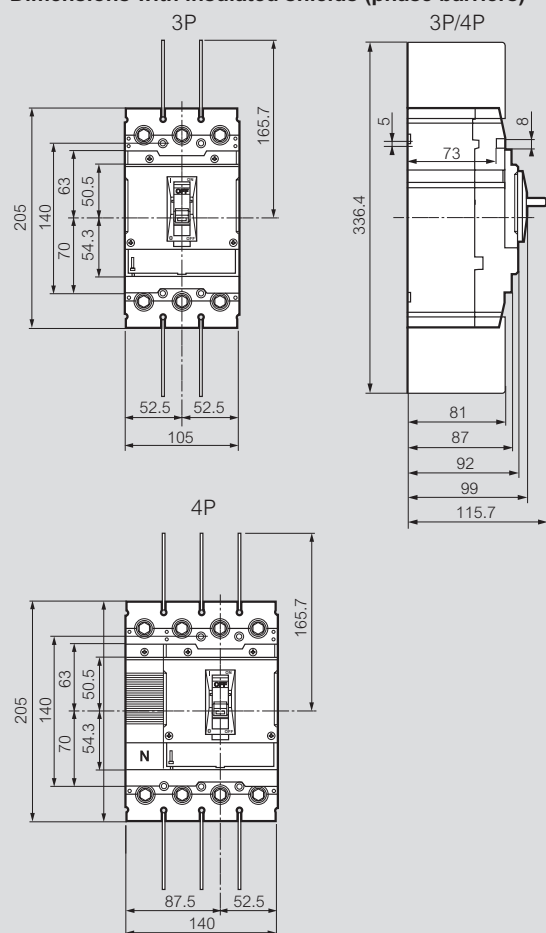
dimensions

Dimensions

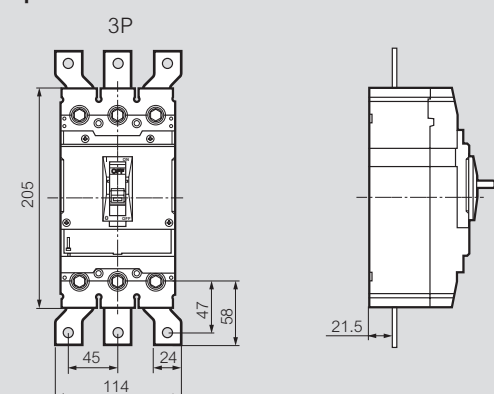
Fixed version



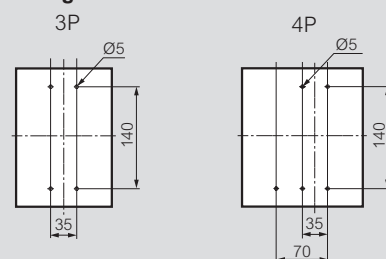
Dimensions with insulated shields (phase barriers)



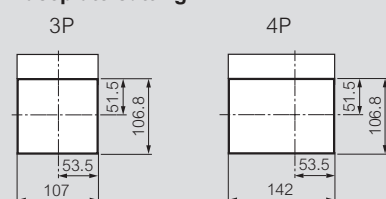
Spreaders Cat.Nos 4 249 62/63



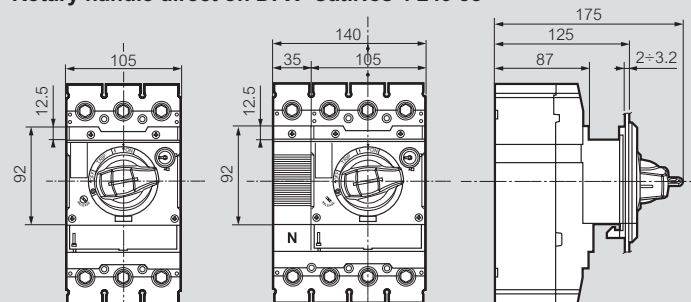
Fixing



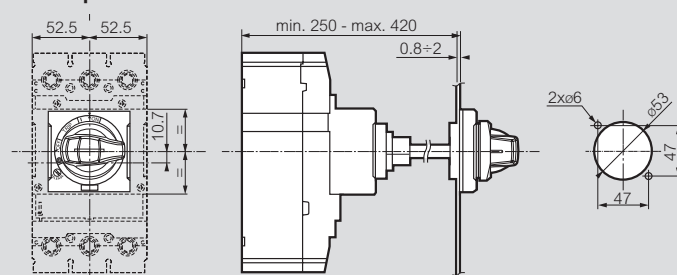
Faceplate cutting



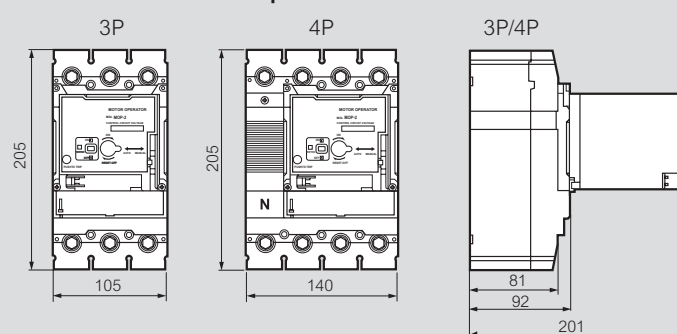
Rotary handle direct on DPX³ Cat.Nos 4 249 58



Vari-depth handle Cat.Nos 4 249 59



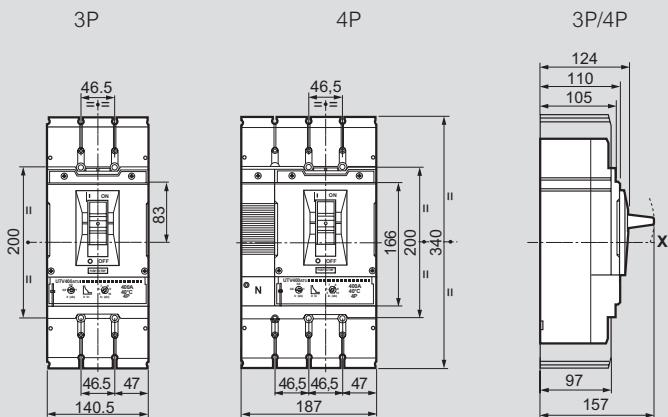
Front installation motor operators Cat.Nos 4 249 56/57



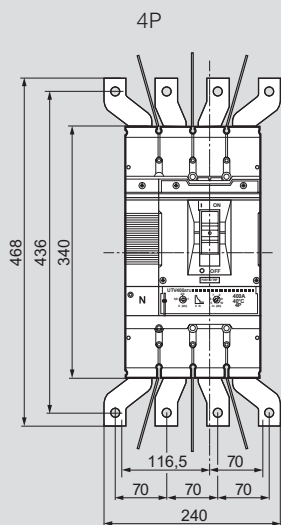
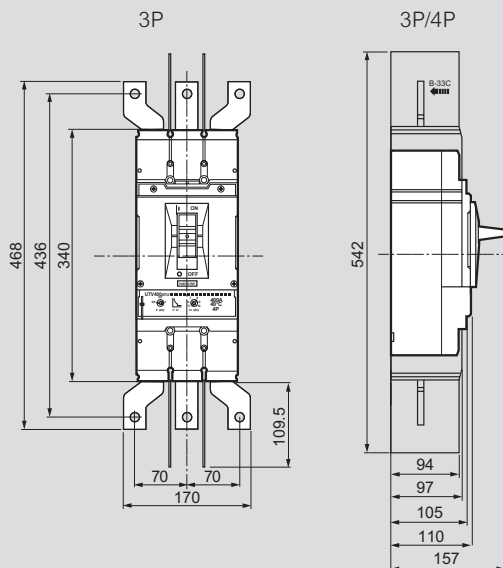
Detailed technical characteristics,
see the technical data sheet

Dimensions

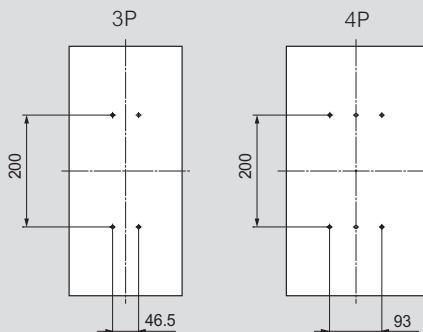
Fixed version



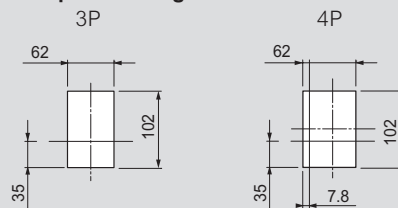
Dimensions with spreaders Cat.Nos 4 249 76/77 and insulated shields (phase barriers)



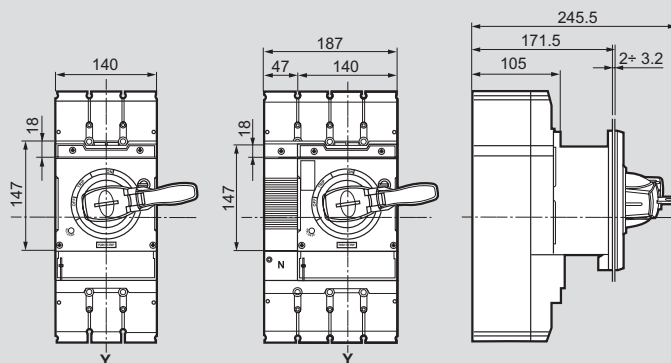
Fixing



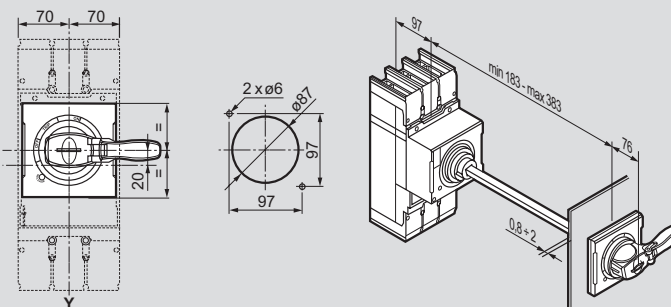
Faceplate cutting



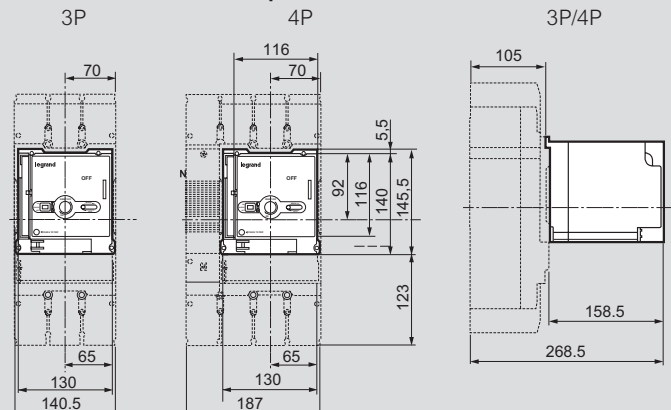
Rotary handle direct on DPX³ Cat.Nos 4 249 72



Vari-depth handle Cat.Nos 4 249 73



Front installation motor operators Cat.Nos 4 249 70/71



SPX³-V vertical fuse carriers - for NH blade type cartridge fuses, mounting on 185 mm busbar supports



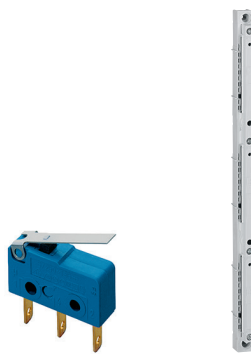
6 058 50

6 058 52

Technical characteristics **p. 36**
Dimensions **p. 36**

Pack	Cat.Nos	SPX ³ -V isolators with vertical blades			
		Conform to standard IEC/EN 60947-3 - enable safe handling while energised Protection against accidental contact - fuse can be checked through transparent window - voltage control via small opening in window - sealable cover - simultaneous switching on all poles, 1600 mechanical operations - cover position indicated by auxiliary contact (accessory) - screw connection for lug - Interchangeable connection accessories 2 types of connection possible: - plate/lug (SPX ³ -V size 00 to size 3) - prism connection terminals (accessory SPX ³ -V size 1 to size 3) Vertical installation To be fixed on 185 mm busbar support: 5 or 10 mm: interchangeable top or bottom connection The blade type fuse cartridges are available separately			
1	6 058 50	185 mm	160 A	00	With M8 lug
1	6 058 51	185 mm	250 A	1	With M12 lug
1	6 058 52	185 mm	400 A	2	With M12 lug
1	6 058 53	185 mm	630 A	3	With M12 lug

SPX³-V accessories



6 052 30

6 058 80

Pack	Cat.Nos	Cage terminals		
		For copper and aluminium cables Conductor: flexible or rigid multicore copper cables and aluminium cables Cross-section (mm ²) SPX ³ -V frame 10-95 160 70-240 250/400/630 120-300 250/400/630 185 mm 630 A		
		Terminal shields For SPX ³ -V frame 160 Can be fixed at the bottom of the SPX ³ -V vertical fuse carriers For SPX ³ -V frames 250, 400 and 630 Can be fixed at the top or at the bottom of the SPX ³ -V vertical fuse carriers		
		Signalling contact To indicate the status of the cover Changeover contact Cartridge Size SPX ³ -V frame 5 A 250 V AC 000, 00, All 4 A 30 V DC 1, 2, 3		
		Busbar support for 185 mm fixing centres Universal busbar support 185 mm for drilled and undrilled flat busbars 30, 40, 60, 80, 100, 120 x 10 mm Cartridge Size 3P 00, 1, 2, 3		
		DPX³ 1600 adaptors For connection between DPX ³ 1600 MCCBs and the busbars Screw connection to drilled busbars Circuit breaker connection Top		
		Current transformers Accuracy class 1, secondary rated current 5A Rated current (A) SPX ³ -V frame 80 160 150 160 150 250, 400, 630 200 250, 400, 630 250 250, 400, 630 400 250, 400, 630 600 250, 400, 630		

SPX³-V vertical fuse carriers

for NH blade type cartridge fuses, mounting on 185 mm busbar supports

Electrical characteristics

Type	SPX ³ -V 00 185 mm	SPX ³ -V 1 185 mm	SPX ³ -V 2 185 mm	SPX ³ -V 3 185 mm
Cartridge size	00	1	2	3
Nominal current I _n	160 A	250 A	400 A	630 A
Type of current	AC (50-60 Hz)	AC (50-60 Hz)	AC (50-60 Hz)	AC (50-60 Hz)
Nominal voltage U _n	800 V AC	800 V AC	690 V AC	800 V AC
Rated insulating voltage U _e	1000 V	1000 V	1000 V	1000 V
Rated impulse withstand voltage U _{imp}	8 kV	12 kV	8 kV	12 kV
Category of use EN 60947-3	400 V	AC-23 B	AC-23 B	AC-23 B
	500 V	AC-22 B	AC-22 B	AC-22 B
	690 V	AC-21 B (125 A)	AC-22B & AC-21 B	AC-22B & AC-21 B
	800 V	AC-22 B (63A)	AC-22 B (160 A)	AC-20 B ⁽¹⁾ (315 A)

1: Rated current according to the available fuse links, taking into account the maximum permissible power dissipation 34 W. Do not switch under load.

Power dissipated by fuse carrier (without fuse component)

Cat.Nos	Type	U _e / I _e	I (A)	P (W)
6 058 50	SPX ³ -V Size 00	400 V / AC 23 B / 160 A	160	28
		800 V / AC 22 B / 63 A	63	4
6 058 51	SPX ³ -V Size 1	400 V / AC 23 B / 250 A	250	24
		800 V / AC 22 B / 160 A	160	10
6 058 52	SPX ³ -V Size 2	400 V / AC 23 B / 400 A	400	60
6 058 53	SPX ³ -V Size 3	400 V / AC 23 B / 630 A	630	118
		800 V / AC 22 B / 315 A	315	30

Conditional short-circuit current with fuses

Cat.Nos	Type	U _e / I _e	Conditional rated short-circuit current with fuses ⁽²⁾
6 058 50	SPX ³ -V Size 00	690 V / 160 A	100 kA
		800 V / 63 A	30 kA
6 058 51	SPX ³ -V Size 1	500 V / 250 A	120 kA
		690 V / 250 A	100 kA
		800 V / 160 A	50 kA
6 058 52	SPX ³ -V Size 2	500 V / 400 A	120 kA
		690 V / 400 A	100 kA
6 058 53	SPX ³ -V Size 3	500 V / 630 A	100 kA
		690 V / 500 A	80 kA
		800 V / 315 A	50 kA

2: Approved with fuse links of operation class gG

Connection characteristics

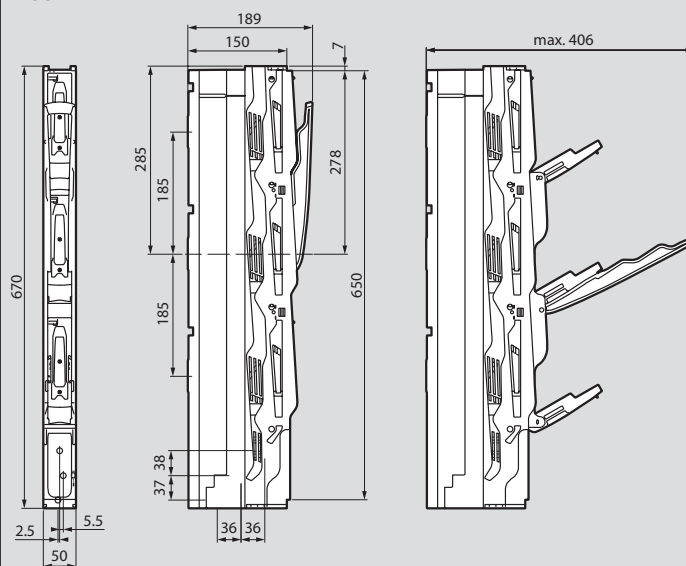
Size	Screw terminals	Direct connection terminals	
		Cu	Al ⁽³⁾
00	M8 70 mm ² Tightening torque 8 - 10 Nm	Cu (with terminal Cat.No 6 058 65) re: 1 x 10 mm ² rm: 1 x 16 - 95 mm ² sm: 1 x 35 - 95 mm ² f: 1 x 10 - 95 mm ² f+AE: 1 x 10 - 70 mm ² Tightening torque 3 - 4 Nm	Not allowed
1 2 3	M12 2 x 185 mm ² - 240 mm ² Tightening torque 30 Nm	Cu (with terminal Cat.No 6 058 66) sm: 1 x 70 - 240 mm ² se: 1 x 95 - 240 mm ² rm: 1 x 70 - 185 mm ² Tightening torque 20 - 25 Nm	Al (with terminal Cat.No 6 058 66) se: 1 x 95 - 240 mm ² Tightening torque 20 - 25 Nm
		Cu (with terminal Cat.No 6 058 67) sm: 1 x 150 - 300 mm ² se: 1 x 185 - 300 mm ² rm: 1 x 120 - 300 mm ² Tightening torque 25-30 Nm	Al (with terminal Cat.No 6 058 67) sm: 1 x 150 - 300 mm ² Tightening torque 25-30 Nm

3: Al connections allowed up to 80°C

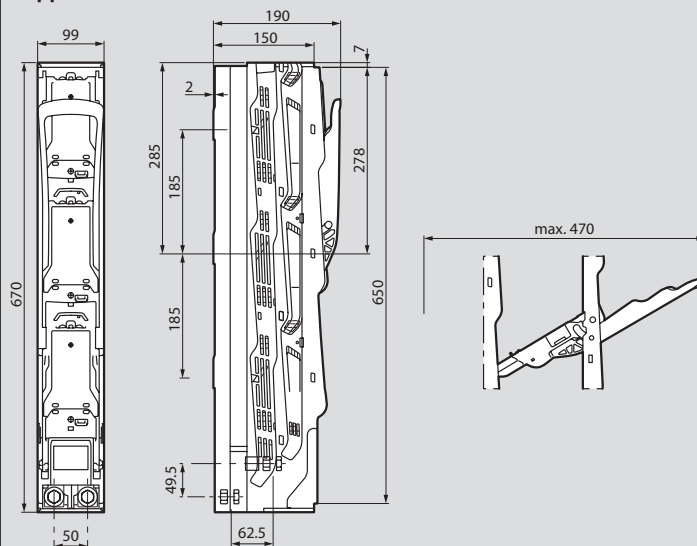
Cable type:
sm: stranded sector / se: solid sector / rm: stranded round / re: solid round / f: flexible
AE: wire-end ferrules

Dimensions (mm)

Installing the SPX³-V 00 Cat.No 6 058 50 on 185 mm busbar supports



Installing the SPX³-V Cat.No 6 058 51/52/53 on 185 mm busbar supports



[illegible]



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