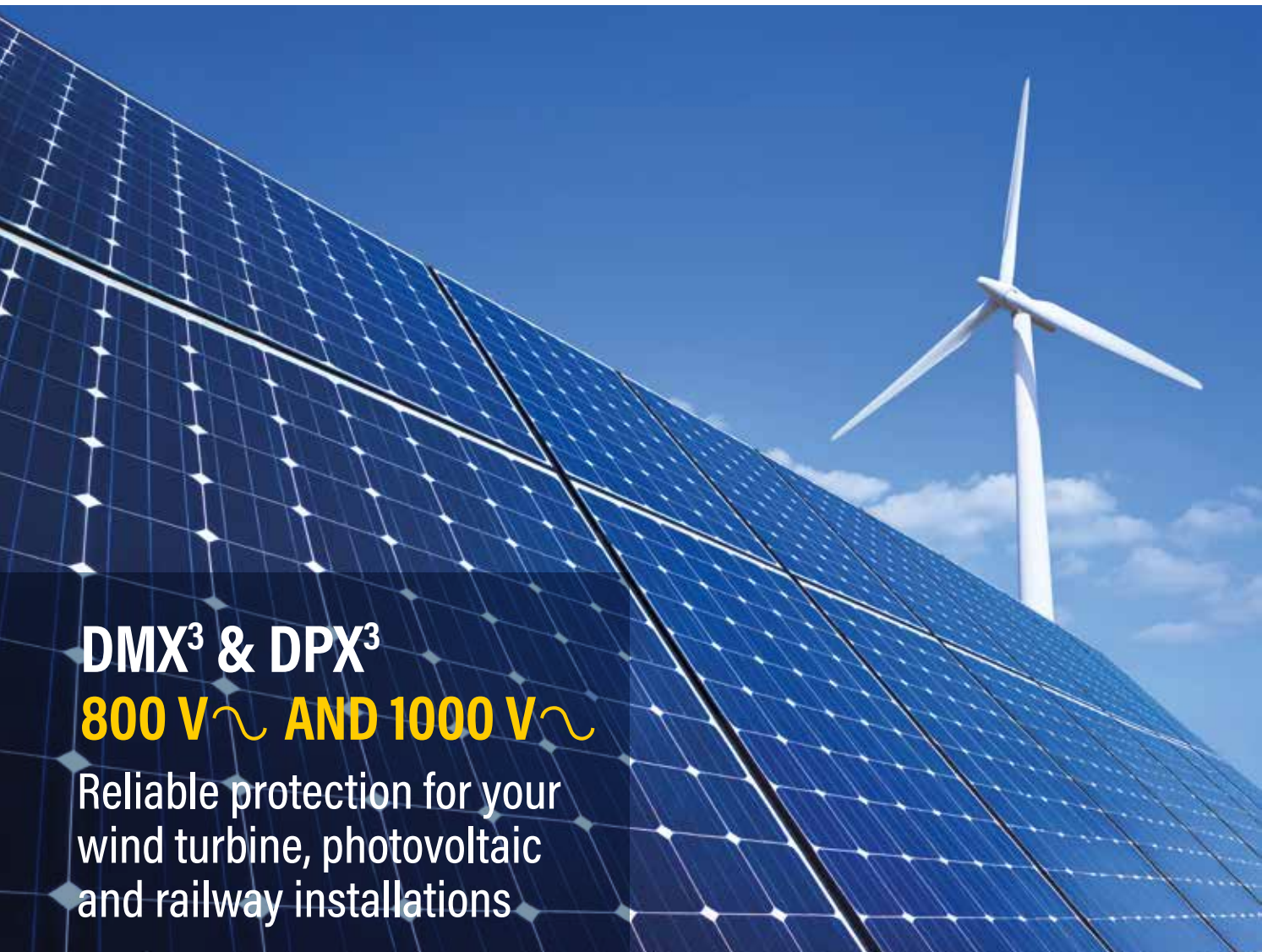




DMX³ & DPX³

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

Reliable protection for your
wind turbine, photovoltaic
and railway installations



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



DMX³ & 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.

CONTENTS

DMX³ 2500 - 800 V $\sim$ and DMX³ 4000 - 1000 V $\sim$
air circuit breakers **2-13**

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for energy management **15-16**

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circuit breakers **17-22**

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DMX³ 4000 - 1000 V $\sim$ ACBs
3 AND 4-POLE FIXED VERSION



DMX³ 2500 - 800 V $\sim$ ACBs
3 AND 4-POLE FIXED VERSIONS



DMX³ 2500 - 800 V~ ACBs
3 AND 4-POLE DRAW-OUT
VERSIONS



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



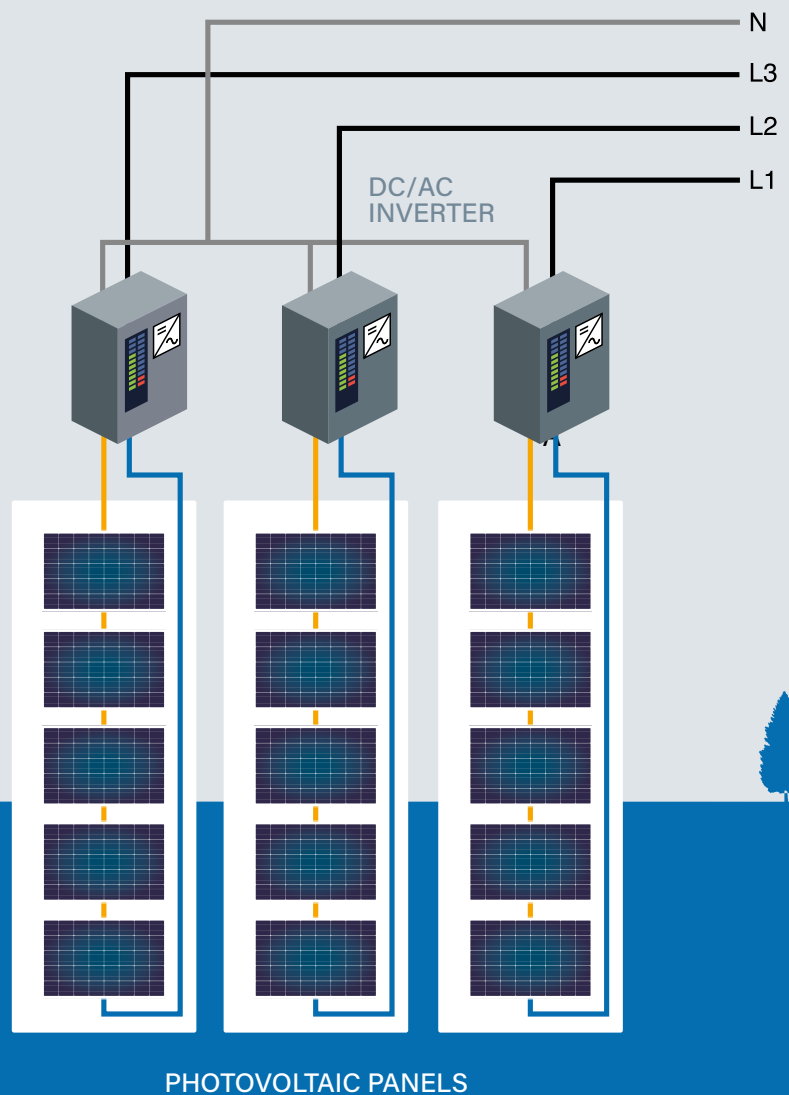
DPX³ 250 AND DPX³ 400 - 1000V~
3 AND 4-POLE FIXED VERSION

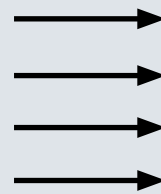
Dedicated, optimised solutions

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

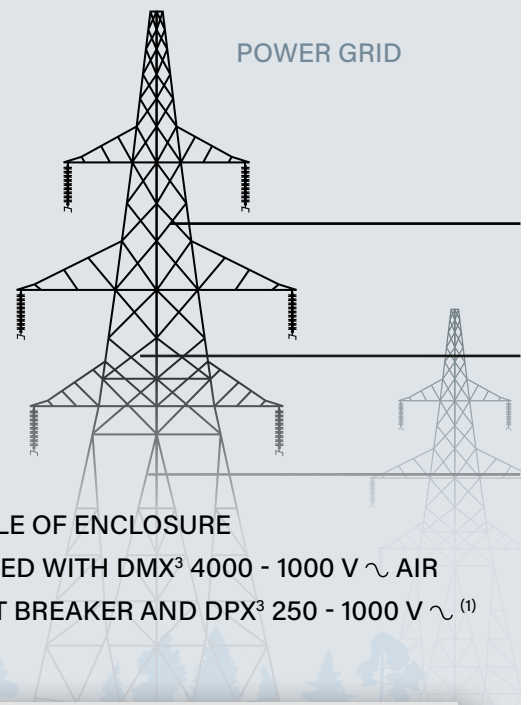
ABCs and MCCBs are used for incoming protection and control in specific wind, photovoltaic and railway sectors that need to operate at voltages of up to 1000 V $\sim$.

DMX³ 4000 – 1000 V $\sim$ air circuit breakers DPX³ 250 – 1000 V $\sim$ MCCBs⁽¹⁾ integrate seamlessly into XL³ DO enclosures to create different configurations according to the needs of the installation.





POWER GRID



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



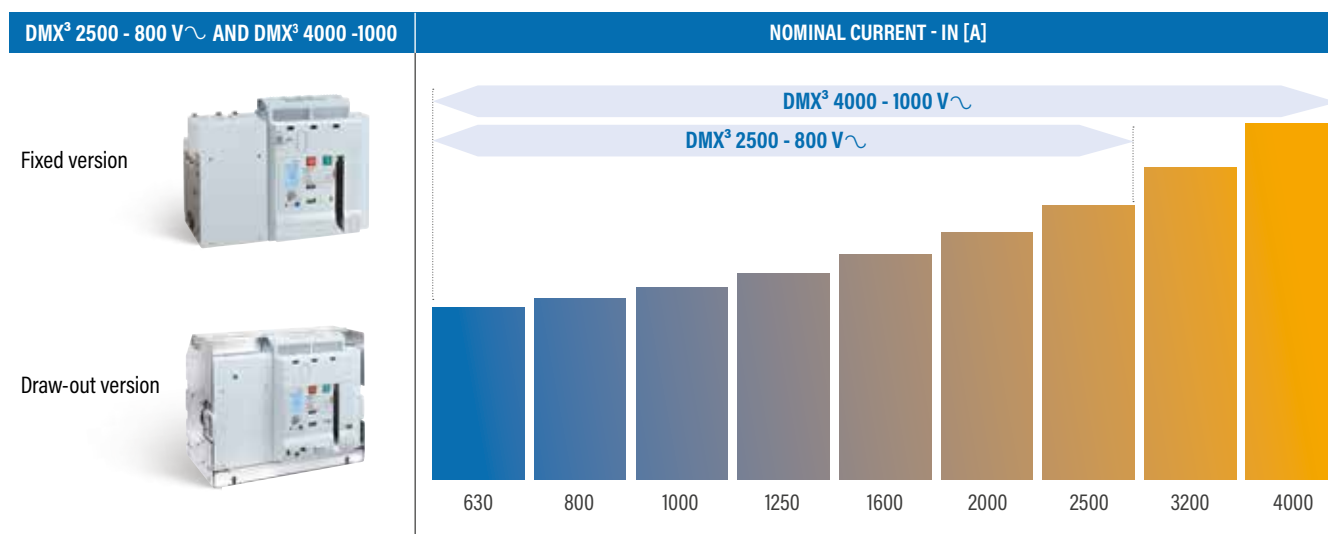
High performance, reliability and strength

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.



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 I _N (A)	I _N	0.98 x I _N	0.94 x I _N	0.90 x I _N	I _N	0.98 x I _N	0.94 x I _N	0.90 x I _N
Rated voltage U _e (V)	800	700	600	550	1000	880	750	690
Insulation voltage U _i (V)	1000	900	750	600	1250	1100	950	850
Impulse withstand voltage U _{imp} (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 4.10/4.10 M

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 and DMX³ 4000 - 1000 V ~

MP 4.10/4.10 M



Without measurement	With measurement
0 283 06	0 283 07

All DMX³ breakers are factory-equipped with MP 4.10/4.10 M 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 4.10/4.10 M 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.

Breaking capacities and rated currents

		630 A	800 A	1000 A	1250 A	1600 A	2000 A	2500 A	3200A	4000 A
2500 FRAME	800V AC	36 kA FIXED/ DRAWOUT								
4000 FRAME	1000V AC	50 kA FIXED/ DRAWOUT								
	800V AC	65 kA FIXED/ DRAWOUT								

OVERALL DIMENSIONS AND WEIGHT

Fixed version

		Height	Depth	Width	Weight
2500 FRAME 36kA/800V AC	3P	419 mm	354 mm	273 mm	41 kg
	4P	419 mm	354 mm	358 mm	48 kg



		Height	Depth	Width	Weight ⁽²⁾
4000 FRAME 65kA at 800V AC 50kA at 1000V AC	3P	419 mm	354 mm	408 mm	59 kg
	4P	419 mm	354 mm	538 mm	76 kg



Draw-out version

		Height	Depth	Width	Weight
2500 FRAME 36kA AT 800V AC	3P	465 mm	433 mm	327 mm	77 kg
	4P	465 mm	433 mm	412 mm	94 kg



		Height	Depth	Width	Weight
4000 FRAME 65kA AT 800V AC 50kA AT 1000V AC	3P	465 mm	433 mm	425 mm	108 kg
	4P	465 mm	433 mm	555 mm	137 kg



LEGRAND ADVANTAGE

The overall dimensions of the breaker contribute considerably to an efficient use of the space inside the distribution board. The constant depth for all rated currents for the 2500, 4000 and 6300 frames make it easier to configure the enclosures and connect the busbars.

OTHER ELECTRICAL FEATURES

Rated operational voltage U_e: 690 Vac 50/60 Hz
 Rated insulation voltage U_i: 1000 Vac 50/60 Hz
 Rated impulse withstand voltage U_{imp}: 12 kV
 Utilisation category: B
 Ambient temperature: -25°C to +70°C
 Humidity: +55°C with relative humidity of 95%, conforms to IEC 68-2-30

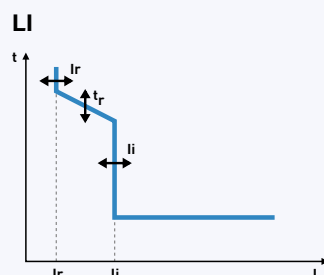
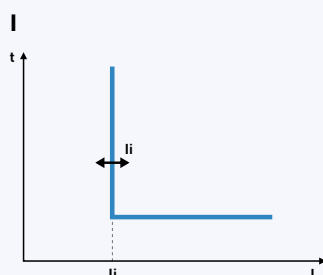
(2) For trip-free switches, please consult us. (3) Including base.

Configure your protection devices in complete freedom

NEW FULLY CONFIGURABLE PROTECTION UNITS

The new MP 4.10/4.10 M 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.

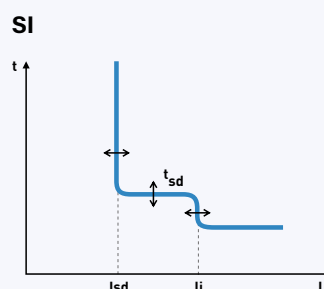
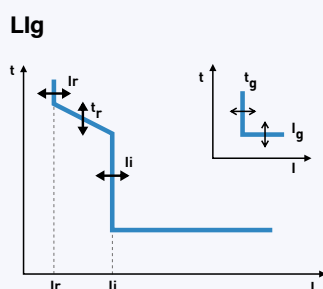
EXAMPLES OF TRIPPING CURVES



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

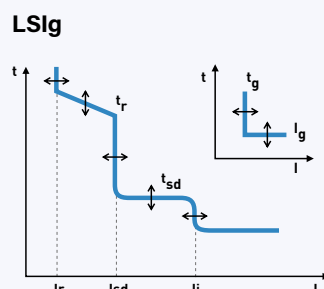
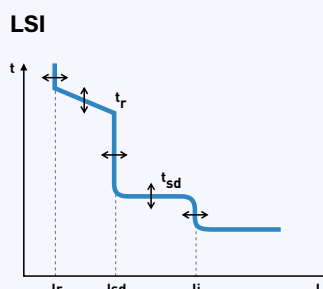
tr Long delay protection operation time
tr from 40 ms to 30 s (@6Ir) with steps of 40 ms
Thermal memory: ON/OFF

I_{sd} Short time delay protection against short-circuits
I_{sd} from 1.5 to 10 x Ir 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)

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



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

tg Time delay on earth fault tripping
tg 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 4.10/4.10 M 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 4.10/4.10 M 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

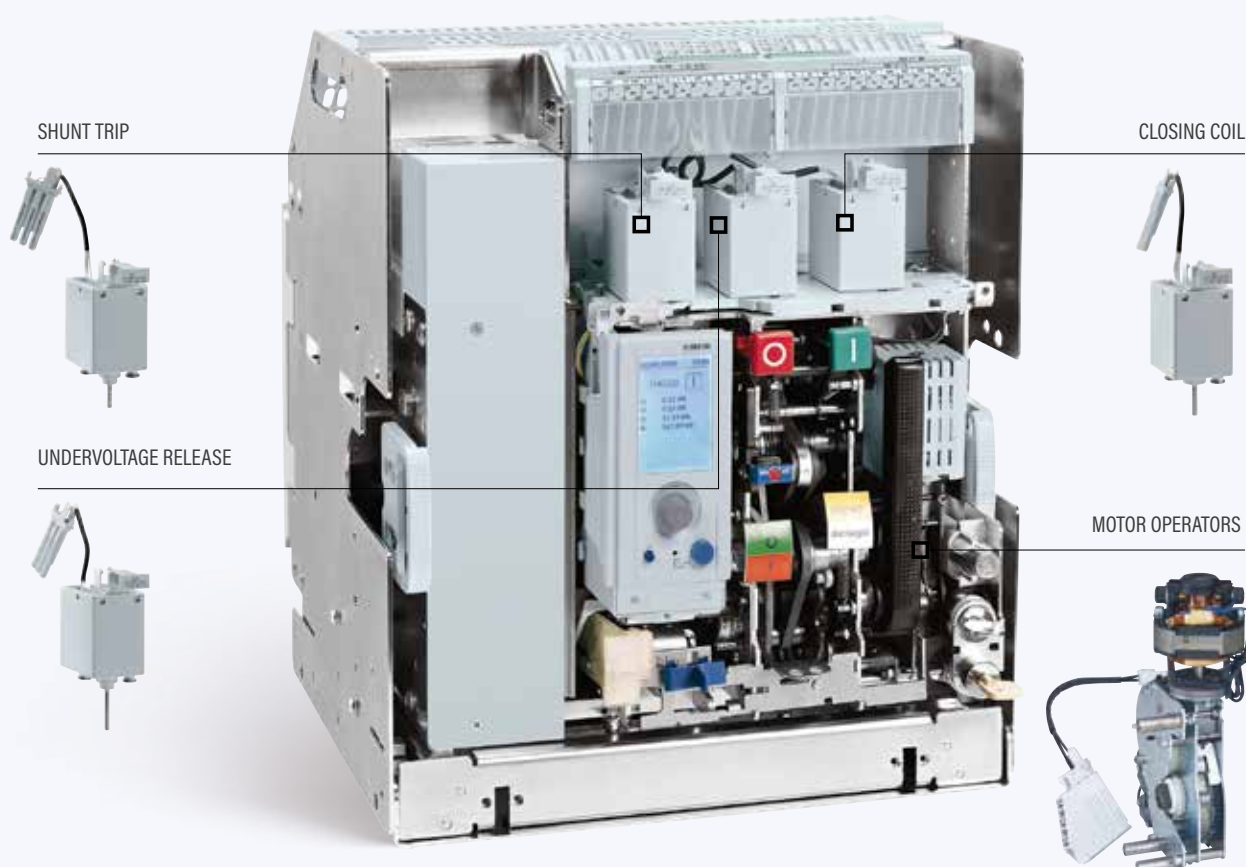


DMX³ 4000 - 1000 V $\sim$ // CONTROL AND SIGNALLING AUXILIARIES

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 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.



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 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 94/95 are fitted onto the rear terminals for flat connection Cat.Nos 0 288 84/85.

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 94/95.

COMPACT, OPTIMISED DIMENSIONS

The compact dimensions of DMX³ 4000 – 1000 V[~] 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 [~]			
	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 [~]			
	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 $\sim$ AND DMX³ 4000 -1000 V $\sim$ FIXED VERSION



Flat connection

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

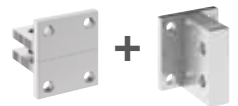


Horizontal connection

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 $\sim$ AND DMX³ 4000 -1000 V $\sim$ DRAW-OUT VERSION

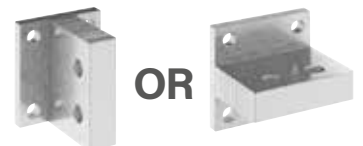


Flat connection

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



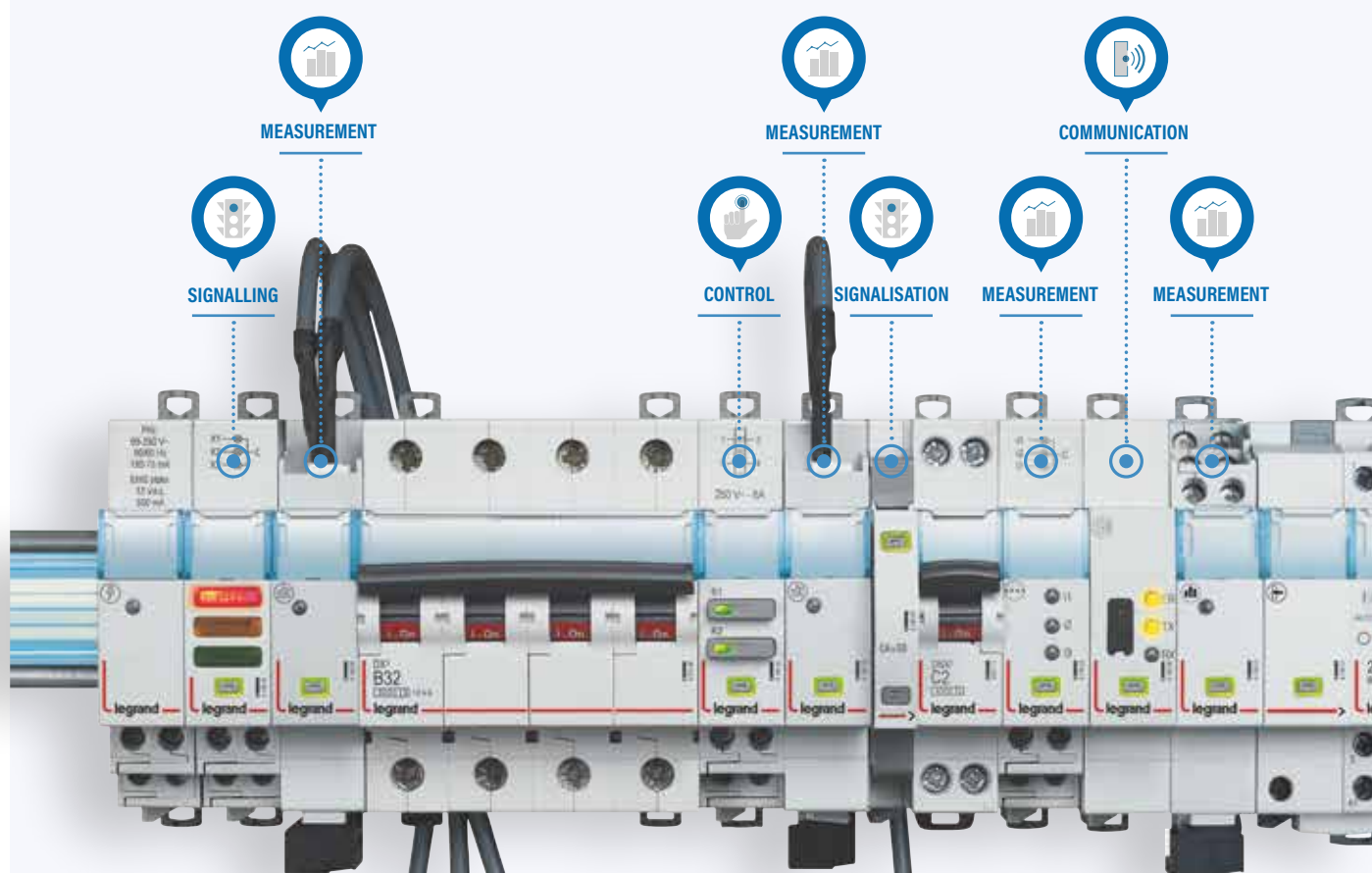
DMX³ 4000 - 1000 V~ // CX³ EMS

CX³ EMS, a universal, innovative system for energy management

MONITOR AND MANAGE ENERGY CONSUMPTION

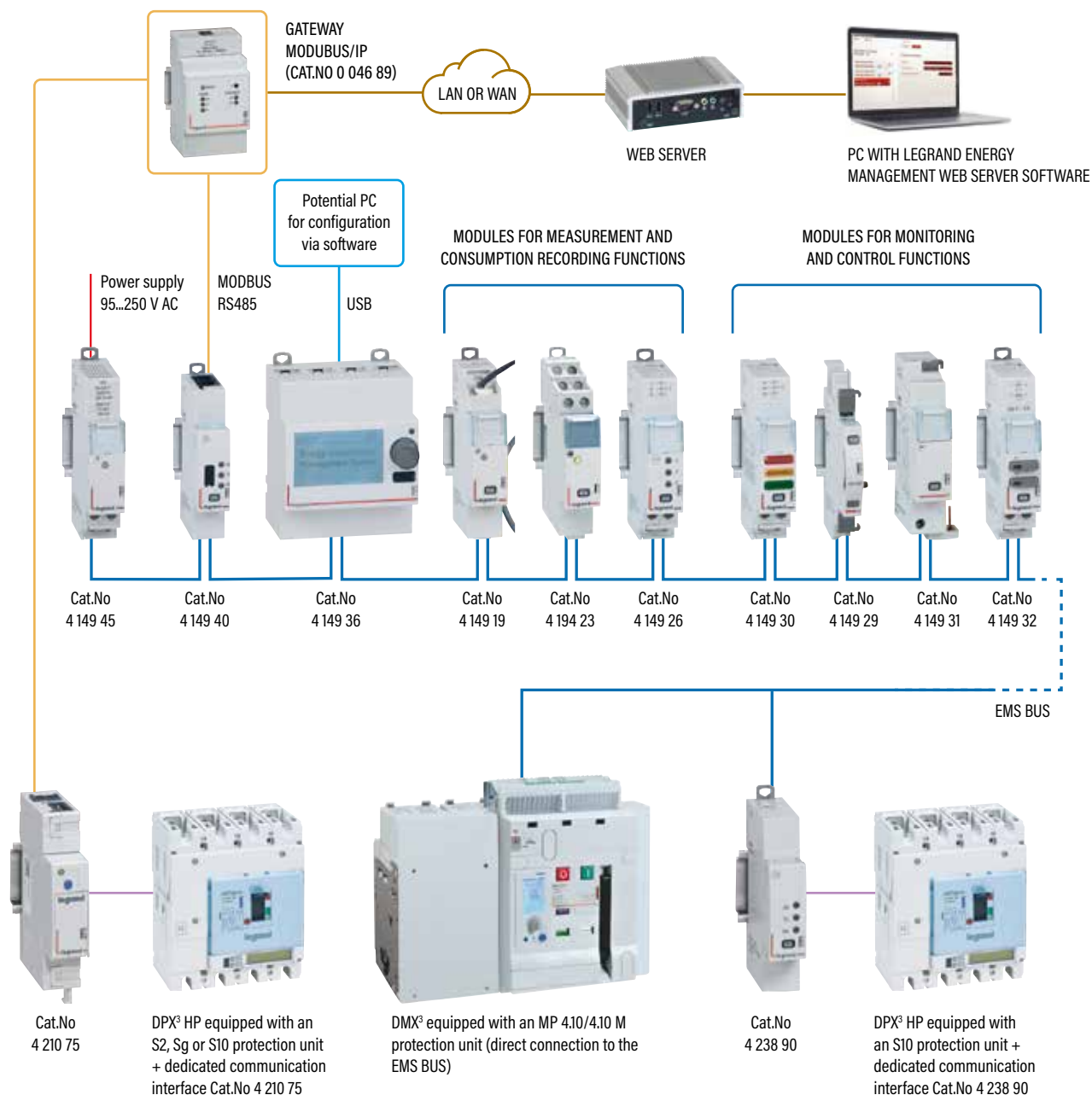
The CX³ EMS energy management system is used to supervise and manage a building's energy consumption, ensuring reliability and continuity of service, for optimum installation efficiency. It offers the option of viewing, measuring and controlling the installation remotely and/or locally. Thanks to the 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.

DPX³ 250 and DPX³ 400 - 1000 V $\sim$ // MOULDED CASE CIRCUIT BREAKERS FROM 63 A TO 400 A

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

Neutral protection for 4P MCCBs
100 % of I_n

Thermal adjustment:
 I_r from 0.8 to 1 x I_n

Sealing

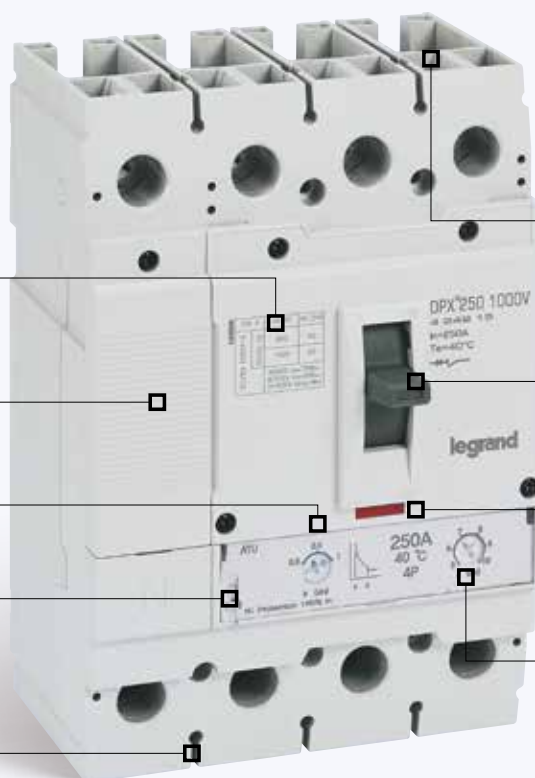
Dedicated slots for insulated
shields (phase barriers)

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

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

Test button (manual tripping)

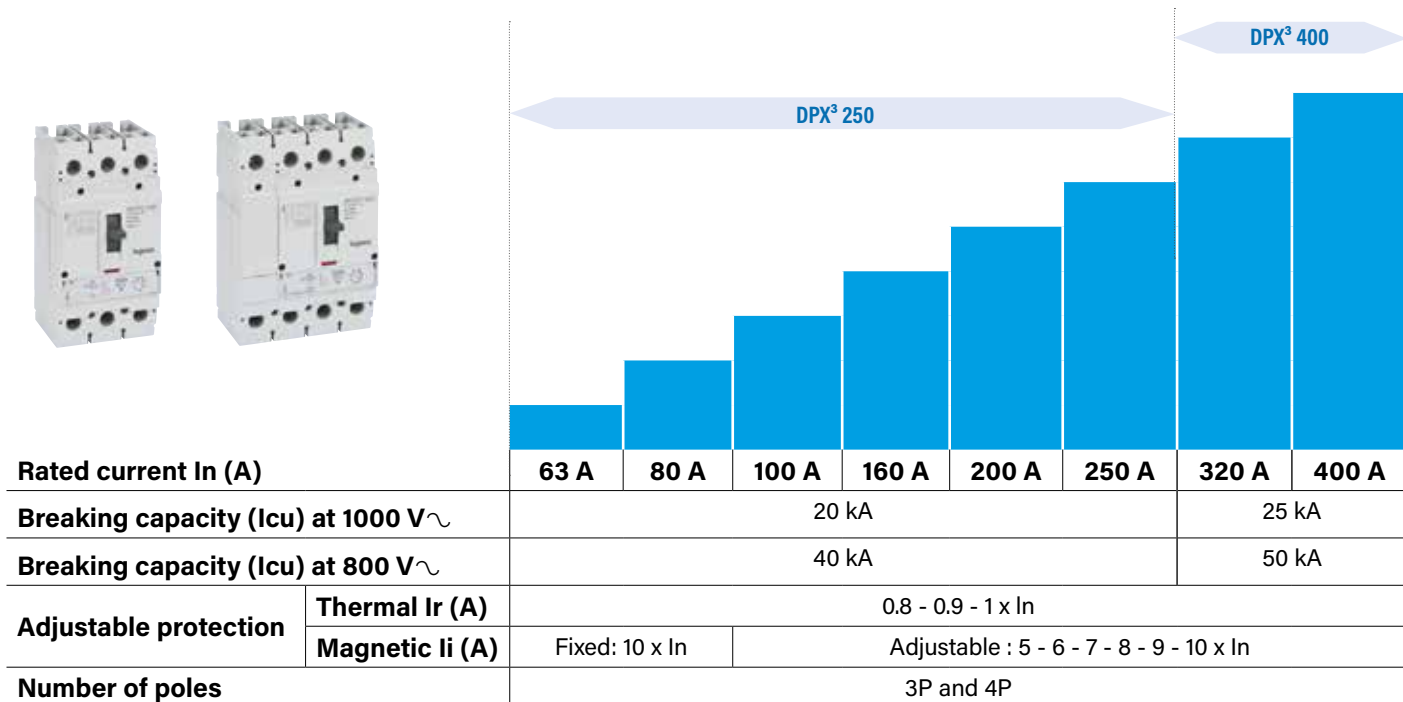
Magnetic adjustment:
 I_i from 5 to 10 x I_n
for $I_n \geq 100$ A



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



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

DPX³ 250 and DPX³ 400 - 1000 V $\sim$ // MOULDED CASE CIRCUIT BREAKERS FROM 63 A TO 400 A

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

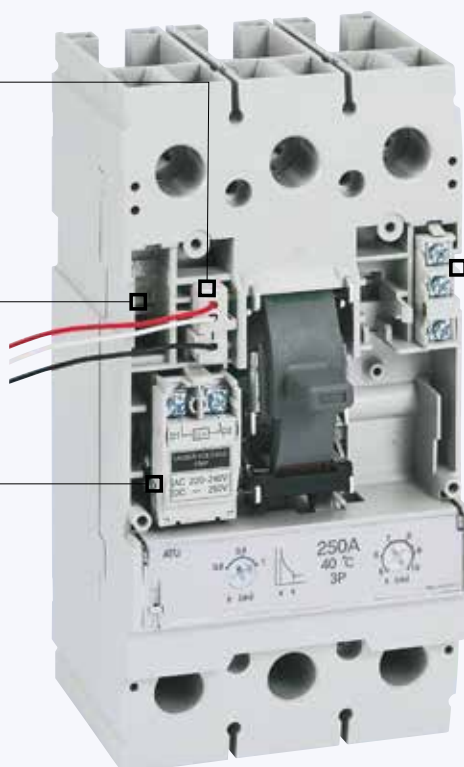


Dédicated slot for an additional auxiliary contact

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 - 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.

DPX³ 250 - 1000 V $\sim$ // MOULDED CASE CIRCUIT BREAKERS FROM 63 A TO 250 A

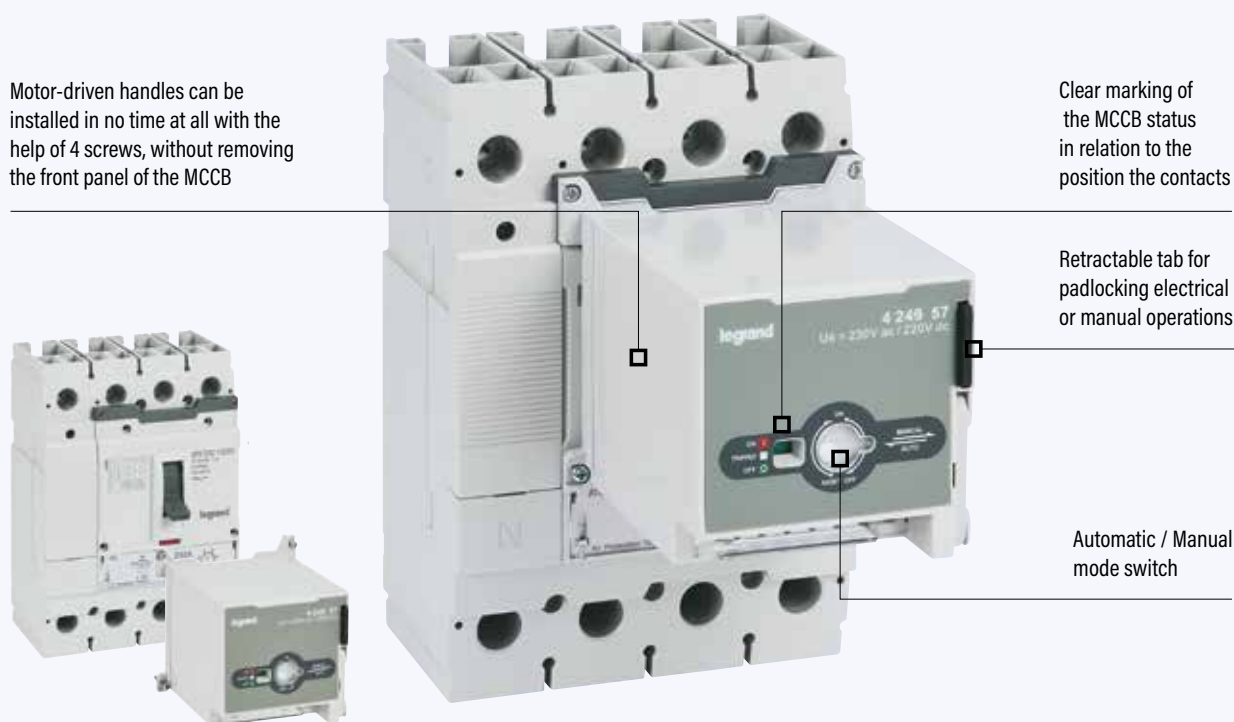
Simplified operation

DIRECT OR REMOTE CONTROL

Motor driven handles for DPX³ HP 250 - 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 $\rightleftharpoons$ or 230 V $\sim$ / 220 V $\rightleftharpoons$. 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

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

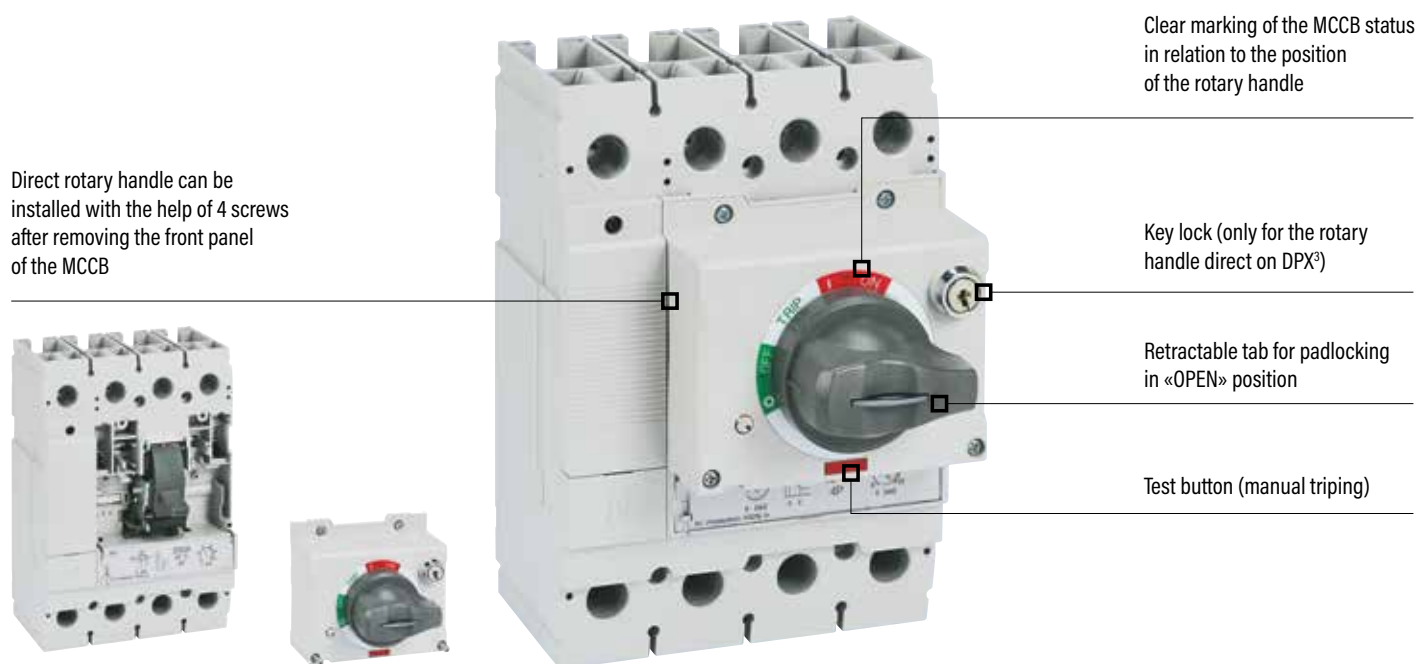


THE MOTOR-DRIVEN HANDLE

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



ROTARY HANDLES



DIRECT AND VARI-DEPTH ROTARY HANDLE

Are supplied with all required accessories to facilitate installation.



Air circuit breakers DMX³ 2500 - 800 V ~ - from 630 A to 4000 A



DMX3106F3MF4NY



DMX3125F3EF4NY



Dimensions **p. 25-26**
Electrical characteristics **p. 24**

Automatic air circuit breakers must be equipped with electronic protection unit (see opposite), 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 Manual Fixed		Supplied with - 4 auxiliary contacts: NO/NC - rear terminals for horizontal connection with bars - door sealing Breaking capacity Icu 36 kA (800VAC)
	3P	4P	In (A)
1	DMX3106F3MF4NY	DMX3106F4MF4NY	630
1	DMX3108F3MF4NY	DMX3108F4MF4NY	800
1	DMX3110F3MF4NY	DMX3110F4MF4NY	1000
1	DMX3112F3MF4NY	DMX3112F4MF4NY	1250
1	DMX3116F3MF4NY	DMX3116F4MF4NY	1600
1	DMX3120F3MF4NY	DMX3120F4MF4NY	2000
1	DMX3125F3MF4NY	DMX3125F4MF4NY	2500
	Electrical Fixed		
1	DMX3106F3EF4NY	DMX3106F4EF4NY	630
1	DMX3108F3EF4NY	DMX3108F4EF4NY	800
1	DMX3110F3EF4NY	DMX3110F4EF4NY	1000
1	DMX3112F3EF4NY	DMX3112F4EF4NY	1250
1	DMX3116F3EF4NY	DMX3116F4EF4NY	1600
1	DMX3120F3EF4NY	DMX3120F4EF4NY	2000
1	DMX3125F3EF4NY	DMX3125F4EF4NY	2500

Pack	Cat.Nos		Draw-out version
	Frame 2500 Manual Draw Out		Supplied with - 4 auxiliary contacts: NO/NC - draw-out base and kit - flat rear terminals for connection with bars - door sealing Breaking capacity Icu 36 kA (800VAC)
	3P	4P	In (A)
1	DMX3106F3MD4NY	DMX3106F4MD4NY	630
1	DMX3108F3MD4NY	DMX3108F4MD4NY	800
1	DMX3110F3MD4NY	DMX3110F4MD4NY	1000
1	DMX3112F3MD4NY	DMX3112F4MD4NY	1250
1	DMX3116F3MD4NY	DMX3116F4MD4NY	1600
1	DMX3120F3MD4NY	DMX3120F4MD4NY	2000
1	DMX3125F3MD4NY	DMX3125F4MD4NY	2500
	Electrical Draw-Out		
1	DMX3106F3ED4NY	DMX3106F4ED4NY	630
1	DMX3108F3ED4NY	DMX3108F4ED4NY	800
1	DMX3110F3ED4NY	DMX3110F4ED4NY	1000
1	DMX3112F3ED4NY	DMX3112F4ED4NY	1250
1	DMX3116F3ED4NY	DMX3116F4ED4NY	1600
1	DMX3120F3ED4NY	DMX3120F4ED4NY	2000
1	DMX3125F3ED4NY	DMX3125F4ED4NY	2500

Air circuit breakers DMX³ 4000 - 1000 V ~ - from 630 A to 4000 A



DMX3232N4EF4NZ



DMX3240N4ED4NZ



Dimensions **p. 25-26**
Electrical characteristics **p. 24**

Automatic air circuit breakers must be equipped with electronic protection unit (see opposite), 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 Manual Fixed		Supplied with - 4 auxiliary contacts: NO/NC - rear terminals for horizontal connection with bars - door sealing Breaking capacity Icu 50 kA (1000 V~) In (A)
	3P	4P	
1	DMX3206N3MF4NZ	DMX3206N4MF4NZ	630
1	DMX3208N3MF4NZ	DMX3208N4MF4NZ	800
1	DMX3210N3MF4NZ	DMX3210N4MF4NZ	1000
1	DMX3212N3MF4NZ	DMX3212N4MF4NZ	1250
1	DMX3216N3MF4NZ	DMX3216N4MF4NZ	1600
1	DMX3220N3MF4NZ	DMX3220N4MF4NZ	2000
1	DMX3225N3MF4NZ	DMX3225N4MF4NZ	2500
1	DMX3232N3MF4NZ	DMX3232N4MF4NZ	3200
1	DMX3240N3MF4NZ	DMX3240N4MF4NZ	4000
	Electrical Fixed		
1	DMX3206N3EF4NZ	DMX3206N4EF4NZ	630
1	DMX3208N3EF4NZ	DMX3208N4EF4NZ	800
1	DMX3210N3EF4NZ	DMX3210N4EF4NZ	1000
1	DMX3212N3EF4NZ	DMX3212N4EF4NZ	1250
1	DMX3216N3EF4NZ	DMX3216N4EF4NZ	1600
1	DMX3220N3EF4NZ	DMX3220N4EF4NZ	2000
1	DMX3225N3EF4NZ	DMX3225N4EF4NZ	2500
1	DMX3232N3EF4NZ	DMX3232N4EF4NZ	3200
1	DMX3240N3EF4NZ	DMX3240N4EF4NZ	4000

Pack	Cat.Nos		Draw-out version
	Frame 4000 Manual Draw Out		Supplied with - 4 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~) In (A)
	3P	4P	
1	DMX3206N3MD4NZ	DMX3206N4MD4NZ	630
1	DMX3208N3MD4NZ	DMX3208N4MD4NZ	800
1	DMX3210N3MD4NZ	DMX3210N4MD4NZ	1000
1	DMX3212N3MD4NZ	DMX3212N4MD4NZ	1250
1	DMX3216N3MD4NZ	DMX3216N4MD4NZ	1600
1	DMX3220N3MD4NZ	DMX3220N4MD4NZ	2000
1	DMX3225N3MD4NZ	DMX3225N4MD4NZ	2500
1	DMX3232N3MD4NZ	DMX3232N4MD4NZ	3200
1	DMX3240N3MD4NZ	DMX3240N4MD4NZ	4000
	Electrical Draw-Out		
1	DMX3206N3ED4NZ	DMX3206N4ED4NZ	630
1	DMX3208N3ED4NZ	DMX3208N4ED4NZ	800
1	DMX3210N3ED4NZ	DMX3210N4ED4NZ	1000
1	DMX3212N3ED4NZ	DMX3212N4ED4NZ	1250
1	DMX3216N3ED4NZ	DMX3216N4ED4NZ	1600
1	DMX3220N3ED4NZ	DMX3220N4ED4NZ	2000
1	DMX3225N3ED4NZ	DMX3225N4ED4NZ	2500
1	DMX3232N3ED4NZ	DMX3232N4ED4NZ	3200
1	DMX3240N3ED4NZ	DMX3240N4ED4NZ	4000

Electronic protection units for DMX³ 2500 - 800 V_~ and DMX³ 4000 - 1000 V_~

DMX³ 2500 - 800 V_~ and DMX³ 4000 - 1000 V_~ - technical characteristics



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	MP4.10/4.10 M protection units with LCD screen
1	0 283 06	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
1	0 283 07 ¹	Possibility to enable/disable protections Without measure With measure and display Instantaneous, maximum and average values of different electrical values and protection conditions Fault signaling and log
		Protection unit MP4.10 & MP 4.10 with measure LSig • Long time delay protection against overloads Ir from 0.2 to 1 x In (Step 1A) - OFF • Long delay protection operation time tr = 40 ms to 30 s (step 40 ms) • Short time delay protection against short circuits Isd from 1,5Ir to 10 Ir - OFF (step 1A) • Short time delay protection operation time (t=k, I2t=k) tsd = 40 ms to 1 s (step 40 ms) • Instantaneous protection against very high short circuits li from 2 to 15 In - OFF (step 1A) • Earth fault current lg from 0.2 to 1In - OFF (step 0.1In) • Time delay on earth fault tripping (t=k, I2t=k) tg from 80 ms to 1s (step 40 ms) • Neutral protection IN = 50% - 100% - 150% - 200% - OFF Bluetooth communication key IN = 50% - 100% - 150% - 200% - OFF
1	0 283 10 ²	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 _~ 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 _~)
1	0 281 98 ³	External neutral For DMX ³ 4000 - 1000 V _~

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 if required to be factory fitted, need to be ordered separately along with DMX3 ACB.

4: The cat. ref ending with 4NZ and 4MZ includes MP4.10 and MP4.10M Protection Units respectively.

5: The Cat.ref of EF and EDO ACBs include internal accessories Shunt opening Coil - 240VAC/DC, closing Coil 240VAC/DC, ECD 240 VAC/DC

6: For Internal Accessories with Auxiliary/control Voltages other than 220 - 240 V AC and DC, please contact sales office.

Technical characteristics

DMX ³ according to IEC 60947-3	DMX ³ 2500 - 800 V _~	DMX ³ 4000 - 1000 V _~
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 -
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 -
Rated short time withstand current I _{sw} (kA) for t = 1 s	800 V AC 1000 V AC	36 -
Rated short time withstand current I _{sw} (kA) for t = 3 s	800 V AC 1000 V AC	36 -
Category of use	B	B
Suitable for insulation	Yes	Yes
Neutral protection for 4P (%I _{in} 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 _~			
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 _~			
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_~ and DMX³ 4000 - 1000 V_~



Pack Cat.Nos Control and signalling auxiliaries

		Shunt trip
		When energised the circuit breaker will be tripped
1	0 288 48	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 _~
		Undervoltage releases
		When the coil is de-energised, the circuit breaker will be tripped
1	0 288 55	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 _~
		Module for delayed tripping
		To be used with above undervoltage releases
1	0 288 62	110 V _~ /=
1	0 288 63	230 V _~ /=
		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 _~ /=
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 _~ /=
		Closing coils
		Enables remote closing of the circuit breaker if the closing spring is charged
1	0 288 41	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 _~
		Signalling contact for auxiliaries
1	0 288 16	Signalling contact for shunt trips, undervoltage releases and closing coils
		Signalling contact for draw-out version
		Inserted / test / draw-out signalling contact
1	0 288 13	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
		Key locking support in "open" position
1	0 288 28	For locking a DMX ³ in "open" position To be equipped with universal keylocks Cat.Nos 4 238 80/81/82/83
		Key locking support in draw-out position
1	0 281 94	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
1	0 288 20	Prevents opening of the door with the circuit breaker closed Left-hand and right-hand side mounting
		Padlocks in "open" position
1	0 288 21	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)
		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	3P 0 289 02	4P 0 289 03
1	0 289 04	0 289 05
		Transformation kit for draw-out version
		For DMX ³ /DMX ³ -I frame 2500
1	0 289 09	0 289 10
1	0 289 11	0 289 12
		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
	3P	4P	
1	0 288 86	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
	3P	4P	
1	0 288 98	0 288 99	Insulation shields 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

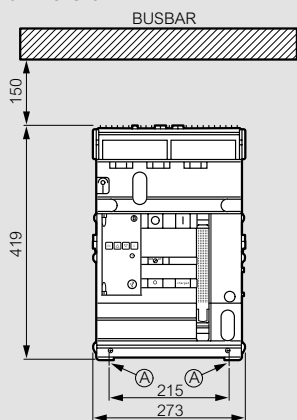
DMX³ 2500 - 800 V $\sim$ - frame 2500

dimensions

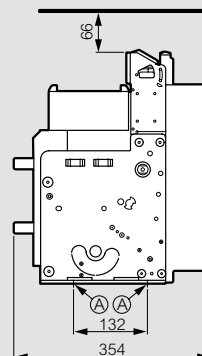
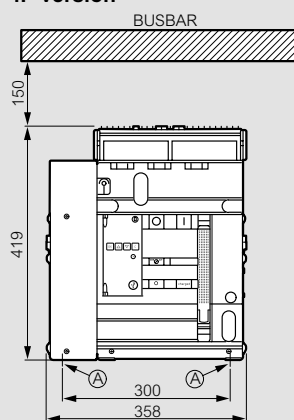
Fixed version - frame 2500

Overall dimensions

3P version

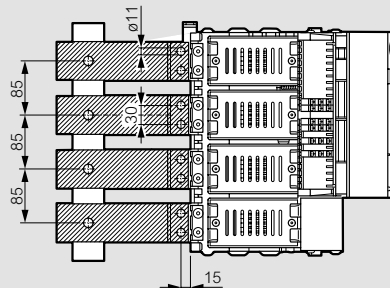
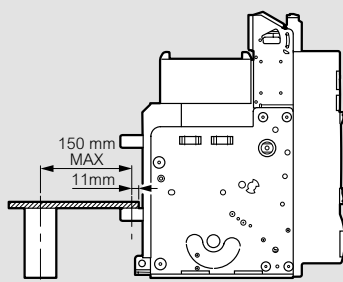


4P version

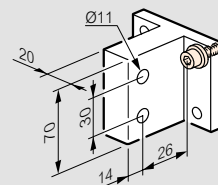


A = fixing point on plate of enclosure

Connection principle

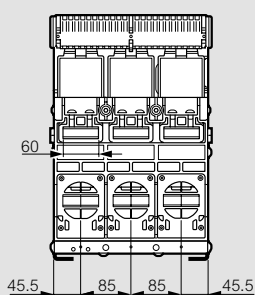


Rear terminals for vertical connection with bars Cat.Nos 0 288 82/83

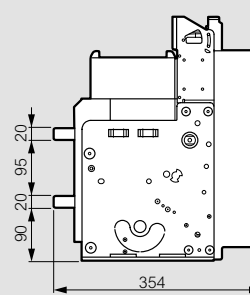
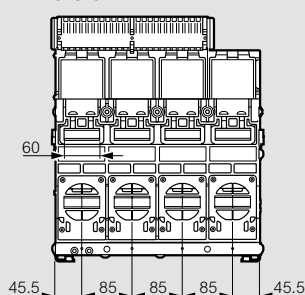


Rear terminals for horizontal connection with bars

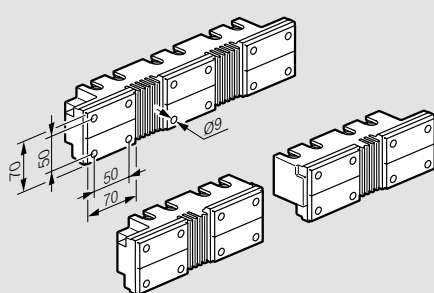
3P version



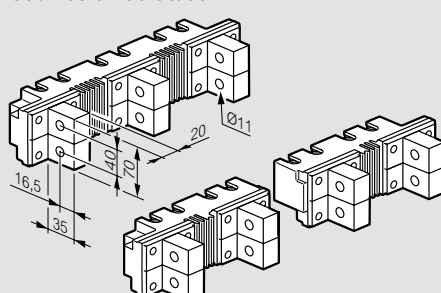
4P version



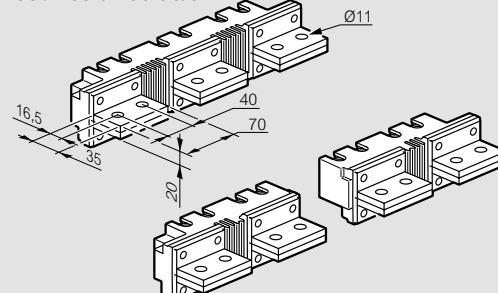
Spreaders for flat connection with bars Cat.Nos 0 288 86/87



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



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



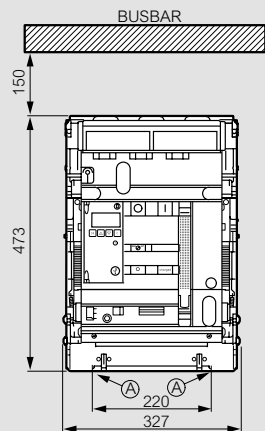
DMX³ 2500 - 800 V_~ - frame 2500

dimensions

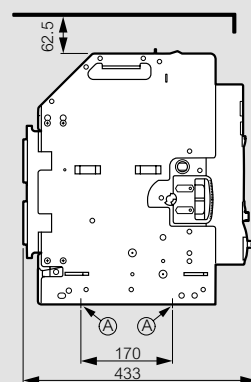
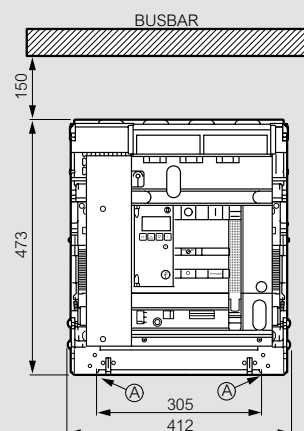
Draw-out version - frame 2500

Overall dimensions

3P version



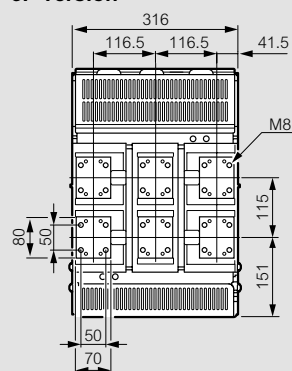
4P version



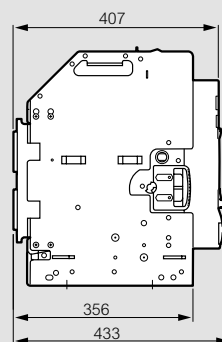
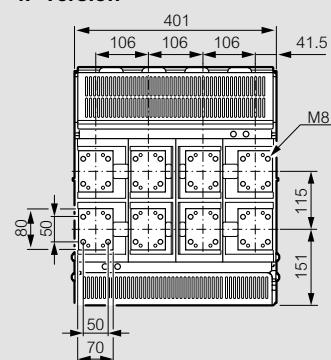
A = fixing point on plate of enclosure

Rear terminals for flat connection with bars

3P version

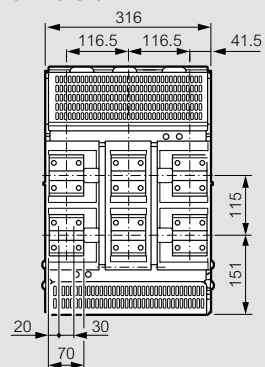


4P version

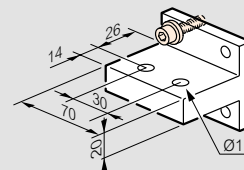
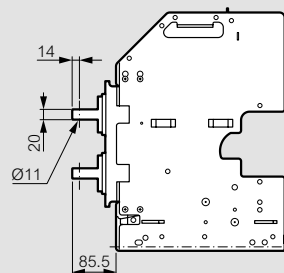
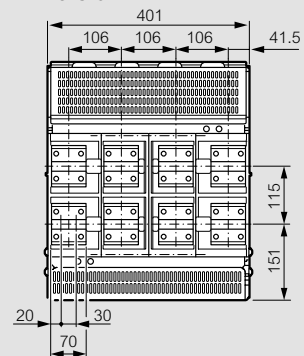


Rear terminals for horizontal connection with bars - Cat.Nos 0 288 96/97

3P version

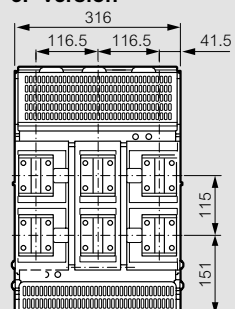


4P version

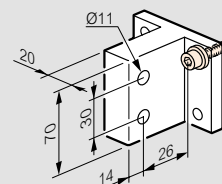
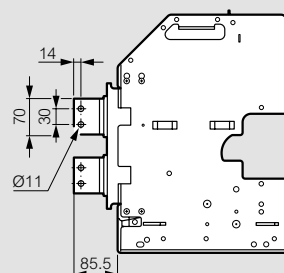
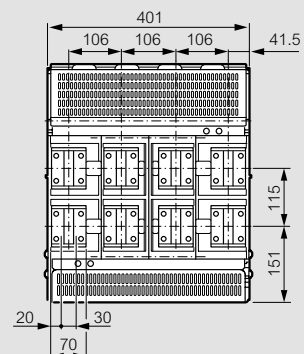


Rear terminals for vertical connection with bars - Cat.Nos 0 288 96/97

3P version



4P version



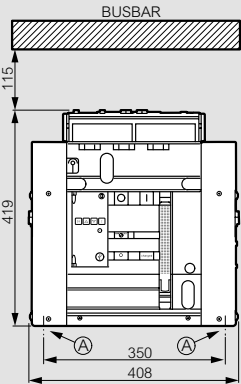
DMX³ 4000 - 1000 V_~ - frame 4000

dimensions

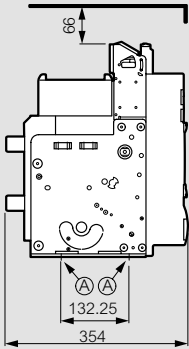
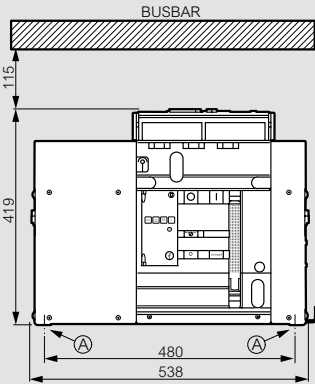
Fixed version - frame 4000

Overall dimensions

3P version

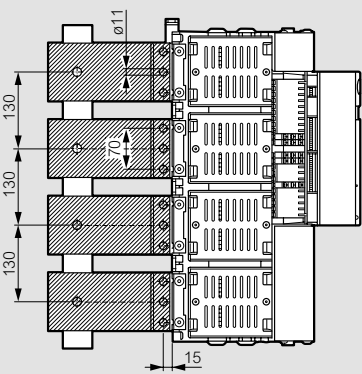
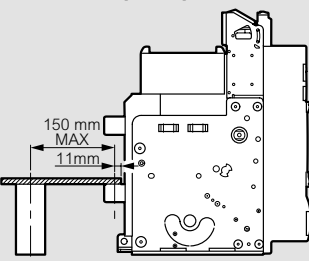


4P version



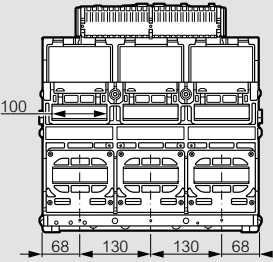
A = fixing point on plate of enclosure

Connection principle

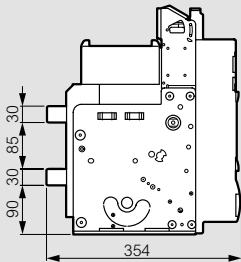
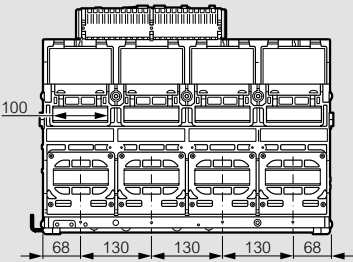


Rear terminals

3P version



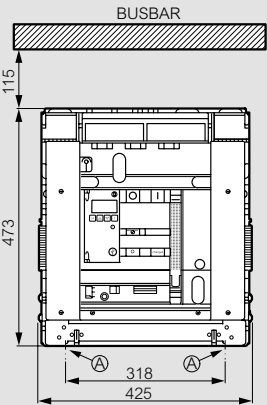
4P version



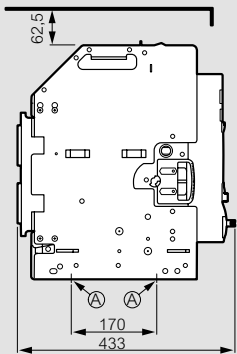
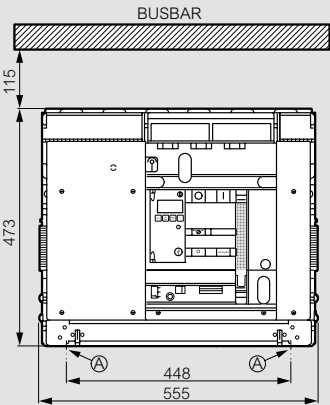
Draw-out version - frame 4000

Overall dimensions

3P version



4P version



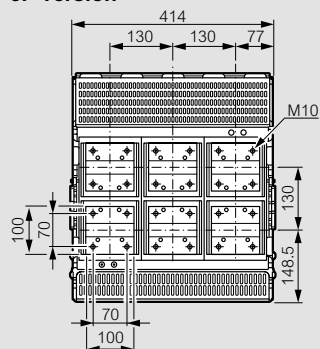
DMX³ 4000 - 1000 V_~ - frame 4000

dimensions (continued)

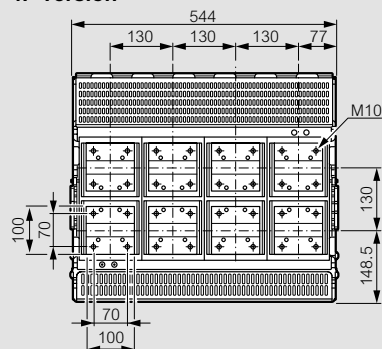
Draw-out version - frame 4000 (continued)

Rear terminals for flat connection with bars

3P version



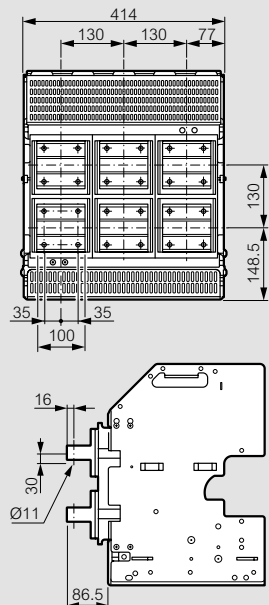
4P version



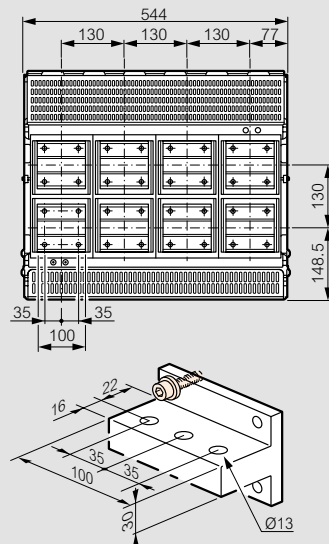
Rear terminals for horizontal connection with bars

Cat.Nos 0 288 92/93

3P version



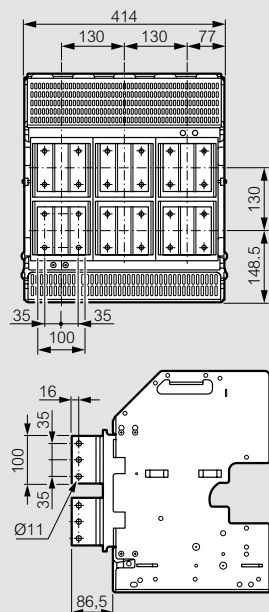
4P version



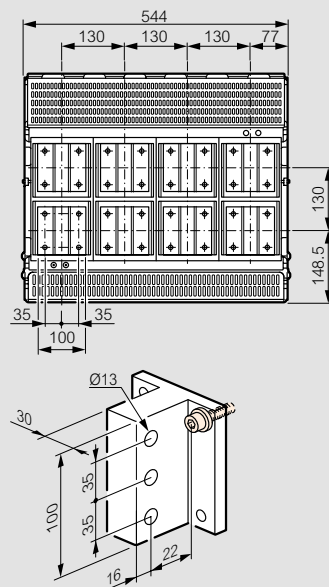
Rear terminals for vertical connection with bars

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. 29**
 Technical characteristics **p. 28**

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. 28)

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~) I _n (A)
1	4 249 00	4 249 10	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

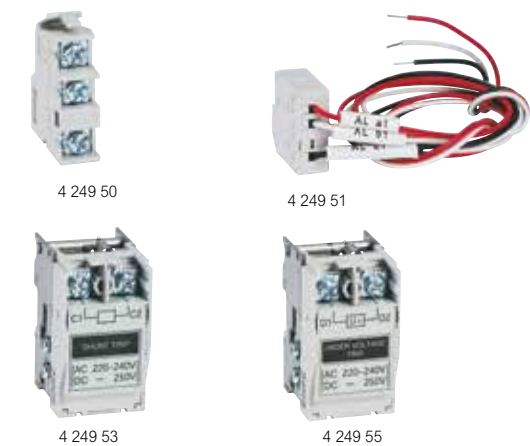


4 249 62

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
		Front installation motor operators For DPX ³ 250 - 1000 V~ 3P / 4P 24 V ~ 230 V~ / 220 V~
		Connection accessories
		Sealable 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
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 250 - 1000 V~

control and signalling auxiliaries



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 - 1000 V~ 24 V~ / =
1	4 249 54	Undervoltage releases
1	4 249 55	Allow remote tripping of a DPX ³ 250 - 1000 V~ 24 V~ / =

DPX³ 250 - 1000 V~

technical characteristics

Technical characteristics

MCCBs		DPX ³ 250 - 1000 V~
Rated current I _n (A)		63, 80, 100, 160, 200, 250
Number of poles		3P - 4P
Rated insulation voltage U _i (Vac)		1000
Rated operating voltage U _e (Vac)		1000
Rated impulse withstand voltage U _{imp} (kV)		8
Rated frequency (Hz)		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
Operating temperature (°C)		-25 to 70
Mechanical endurance (cycles)		20000
Electrical endurance at I _n (cycles)		1000
Category of use		A
Suitable for isolation		Yes
Release type		thermal-magnetic
Thermal adjustment I _t (A)		0.8 to 1 x I _n
Magnetic adjustemt I _Δ (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
Neutral protection for 4P MCCBs (% of I _n of phase pole)		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

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 DO 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 _~) I _n (A)
1	4 249 31	4 249 36	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
1	4 249 78	
1	4 249 79	For DPX ³ 400 - 1000 V _~ 4P
		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
1	4 249 76	
1	4 249 77	Set of 4 spreaders for DPX ³ 400 - 1000 V _~ 4P

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 _~ 230 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



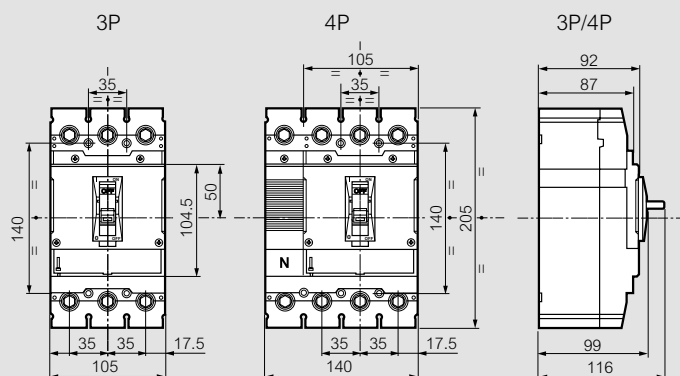
Detailed technical characteristics and performances in IT systems, **see the technical data sheet**

DPX³ 250 - 1000 V_~

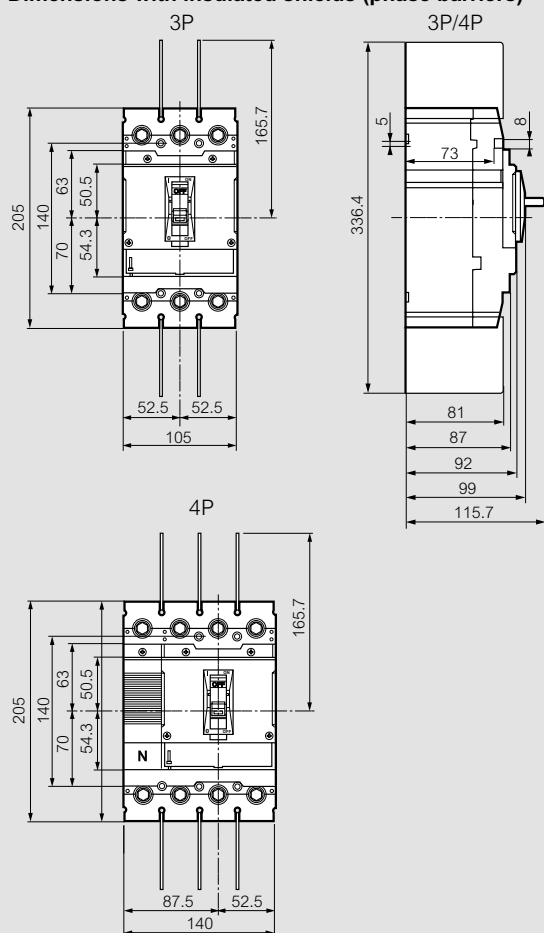
dimensions

Dimensions

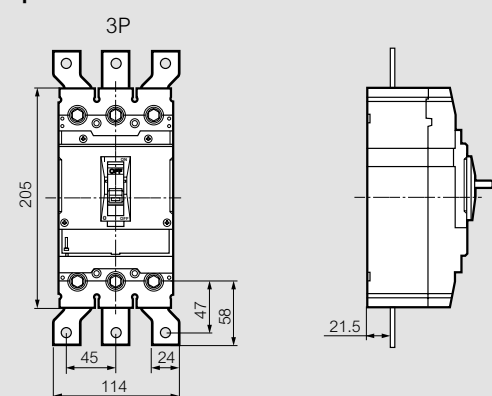
Fixed version



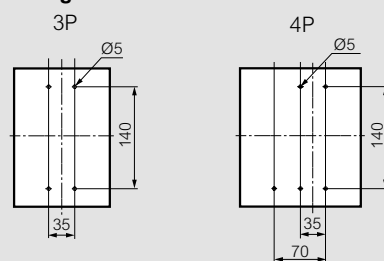
Dimensions with insulated shields (phase barriers)



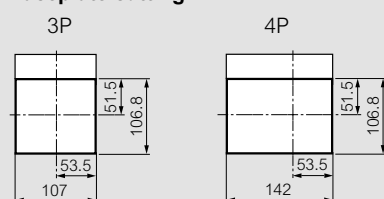
Spreaders Cat.Nos 4 249 62/63



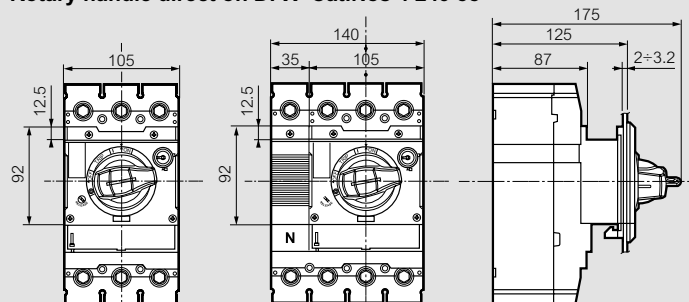
Fixing



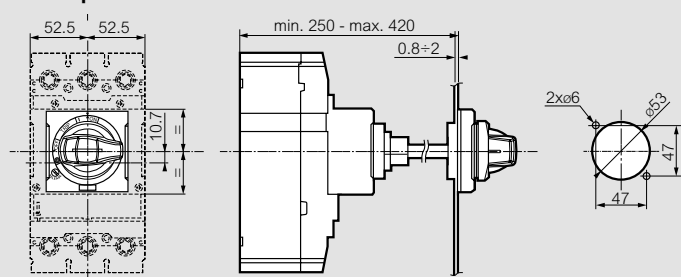
Faceplate cutting



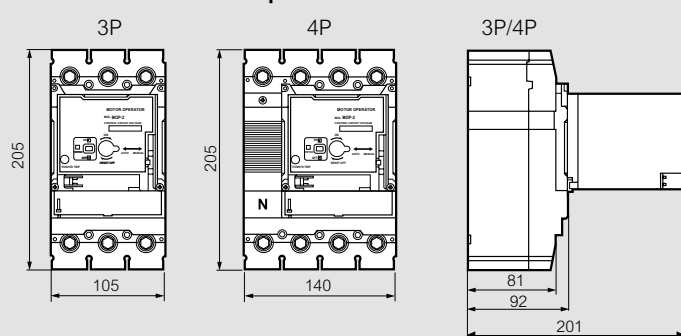
Rotary handle direct on DPX³ Cat.Nos 4 249 58



Vari-depth handle Cat.Nos 4 249 59



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

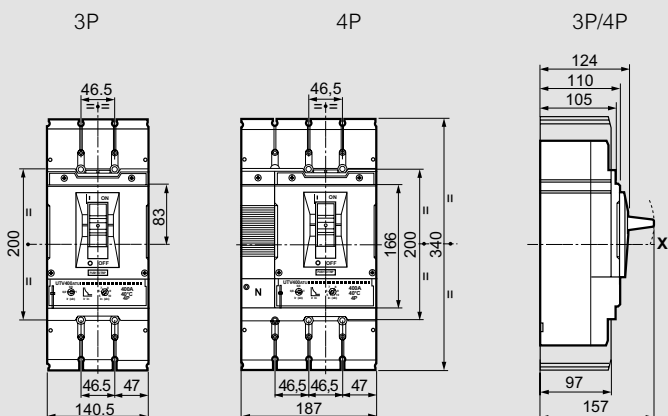


DPX³ 400 - 1000 V $\sim$

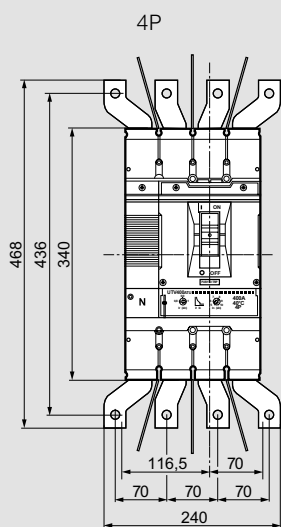
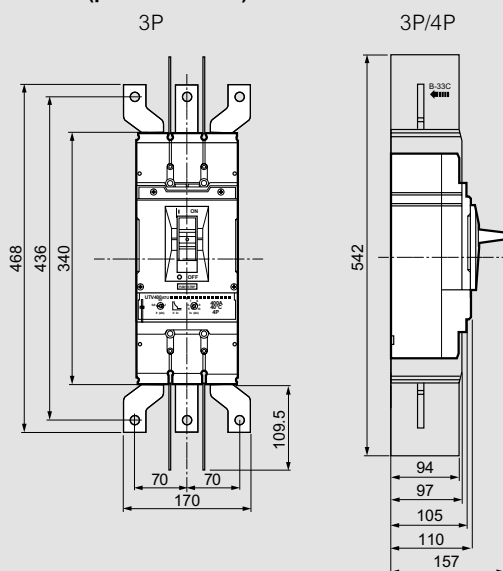
dimensions

Dimensions

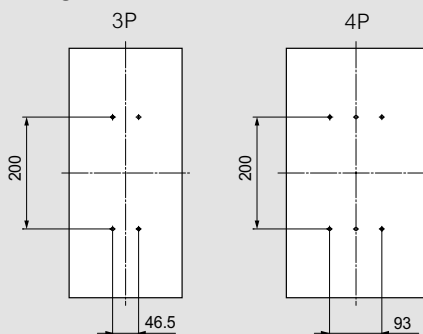
Fixed version



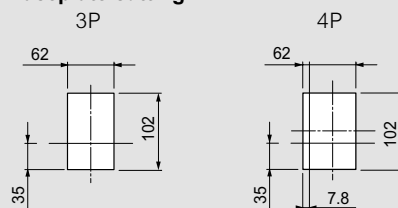
Dimensions with spreaders Cat.Nos 4 249 76/77 and insulated shields (phase barriers)



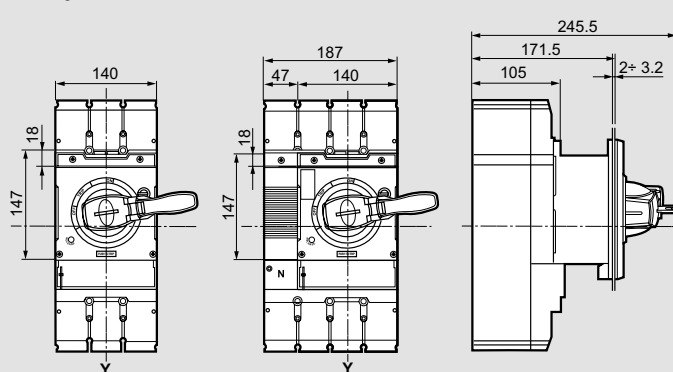
Fixing



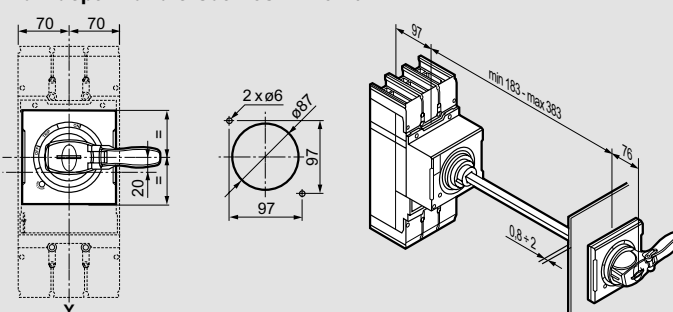
Faceplate cutting



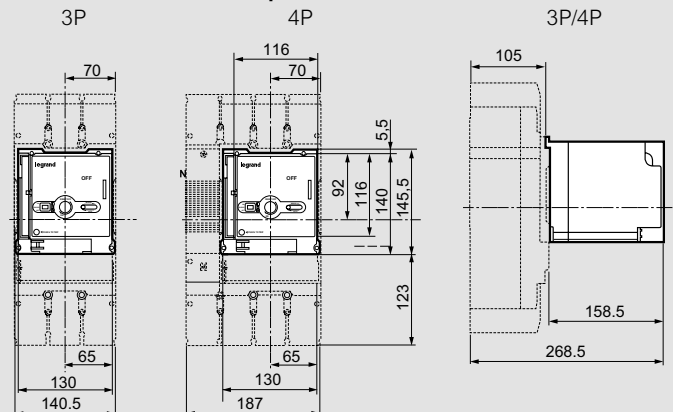
Rotary handle direct on DPX³ Cat.Nos 4 249 72



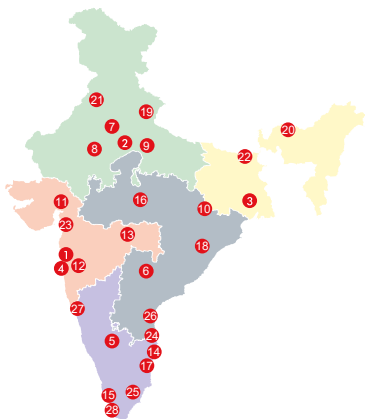
Vari-depth handle Cat.Nos 4 249 73



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



Notes



Head offices

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Kalpataru Square, Kondivita Road,
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Tel.: (022) 3041 6200
Fax : (022) 3041 6201
Website : www.legrand.co.in

Regional sales offices

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Tel.: (011) 3990 2200
Fax : (011) 2699 0047 [INDOVAL](#)
3. Unit no 1203, Ambuja Neotia
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KOLKATA – 700 091. [INDOVAL](#)
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4. C/203, Corporate Avenue, Atul Projects,
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5. Ferozes Manor, Situated at 58
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8. Building No-128, Mansarovar Link Road,
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RANCHI – 834 001.
Tel.: (651) 660 5400

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AHMEDABAD – 380 015.
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12. 8th Floor, Pinnacle Park Avenue,
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Shivaji Nagar, **PUNE** – 411004.
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16. 204-205, Megapolis Square,
579, M G Road,
INDORE – 452 001.
Tel.: (0731) 4999 891
17. MF-2, Datta's Lords House,
Jammi Chettu Street, Mogalrajapuram,
VIJAYAWADA – 520 010.
Tel.: (0866) 248 2393/6393
18. Plot No. 359, Saheed Nagar,
2nd Floor,
BHUBANESWAR – 751 007.
Tel.: (0674) 254 0623
19. Unit - 1 & 2, Vijay Park,
Main Chakrata Road,
DEHRADUN – 248 001.
Uttarakhand.
Tel.: (0135) 661 6100. [INDOVAL](#)
20. 509, Sri Kamakhya Tower, G.S.
Road, Christian Basti,
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21. SCO 50-51, 2nd Floor Lodhi Club
Road Shaheed Bhagat Singh
Nagar, **LUDHIANA** – 141 013.
Tel.: (0161) 277 0301 [INDOVAL](#)
22. 94, Udham Singh Sarani,
Ground Floor, Ashrampara,
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Tel.: (353) 264 1067
23. A-207, Universal Business
Center, Near Madhuvan Circle,
L.P. Savani Road, Adajan,
SURAT – 395 009.
Tel.: (0261) 263 3861 [INDOVAL](#)
24. Aparna Towers, 1st Floor, 2/3,
Bypass Road,
MADURAI – 625 010.
Telefax : (0452) 230 8414
25. 43-9-205, 3rd Floor, Plot No. 10,
Subbalakshmi Nagar,
Opp. More Super Market,
VISAKHAPATNAM – 530 016.
Tel.: (0891) 273 5652 / 2739363 [INDOVAL](#)
26. B-5, 1st Floor, Thirumalai Towers,
723, Avanashi Road,
COIMBATORE – 641 018.
Tel.: (0422) 668 3200 [INDOVAL](#)
27. 515 & 516, Gera Imperium Grand,
Patto centre ,
Panaji **GOA** – 403 001 [INDOVAL](#)
28. 1st Floor, Cordial Bharathi,
Nanthancodu, **Thiruvanthapuram**,
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