DX³

PROTECTION THAT MEETS YOUR REQUIREMENTS

→ CATALOGUE PAGES INSIDE

GLOBAL SPECIALIST IN ELECTRICAL AND DIGITAL BUILDING INFRASTRUCTURES

legrand®

THE NEW DX^3 OFFER

Legrand offers you leading-edge technical features with its new DX^3 range of modular circuit breakers.

This range, up to 125 A, is suitable for all residential, commercial and industrial applications which require high performance, selectivity and back-up combination of devices.

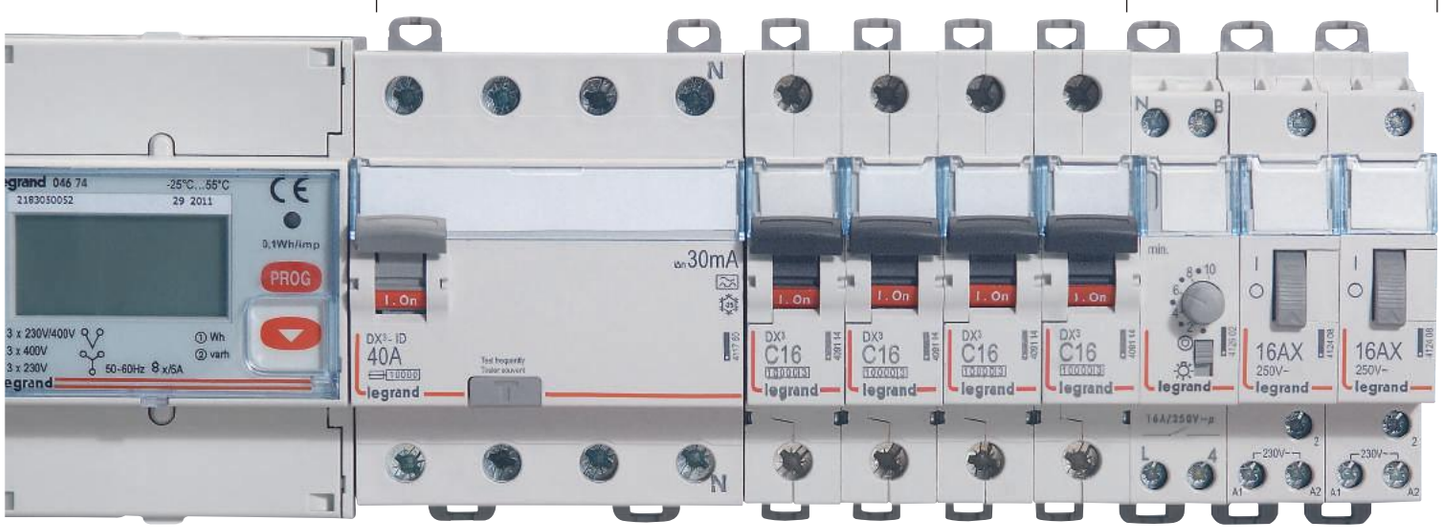
In this document, discover the innovations of this new range which will enable you to build more reliable, higher performance and more economical distribution boards.

LEGRAND, A CLEAR, COMPREHENSIVE OFFER FOR ALL TYPES OF APPLICATION

The new DX³ circuit breakers can be integrated in a wide range of products, providing exceptional technical and economic performance levels

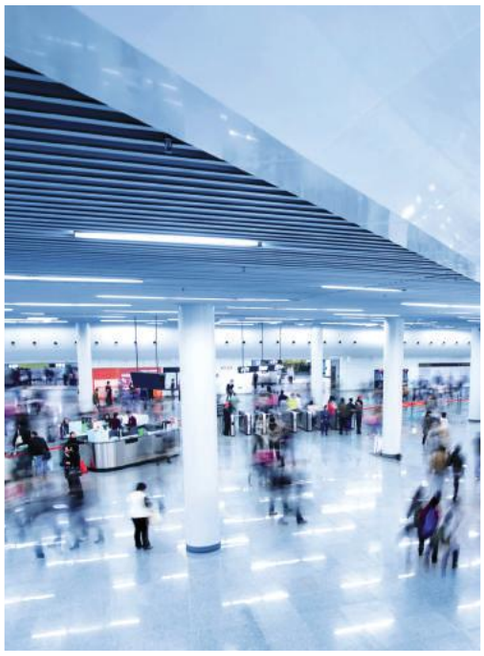
The variety of functions and range of characteristics offered will enable you to equip all your distribution boards. The very high levels of coordination between the various ranges of DX³ modular circuit breakers or between DX³ modular circuit breakers and DPX³ MCCBs enable the cost of the installation to be optimised.

MEASUREMENT | PROTECTION/BREAKING | CONTROL



All functions on DIN rail





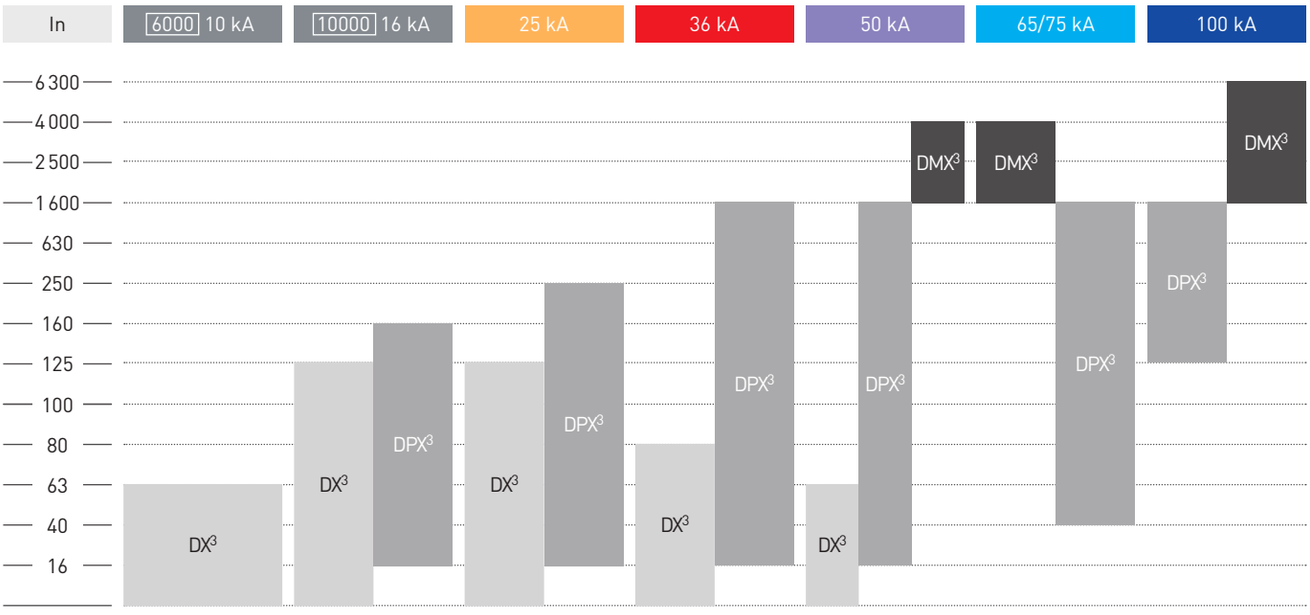

Each breaking capacity has its own power solution

Perfect complementarity
for your distribution boards up to 6300 A
and 100 kA breaking capacity.


DX³


DPX³

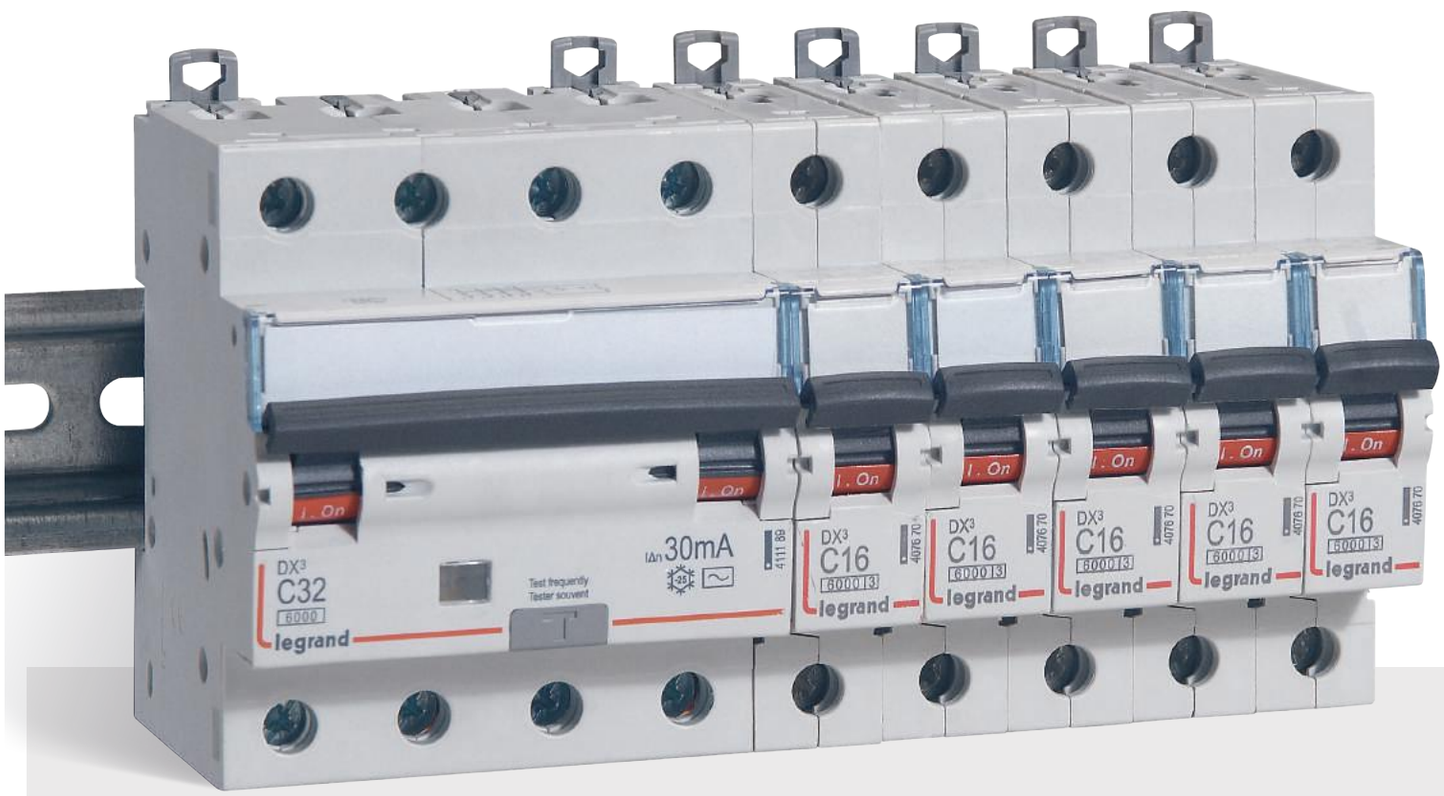

DMX³



PERFORMANCE THAT MEETS YOUR REQUIREMENTS

The DX³ range is designed to meet the efficiency, safety and compliance requirements with which new electrical installations must comply.

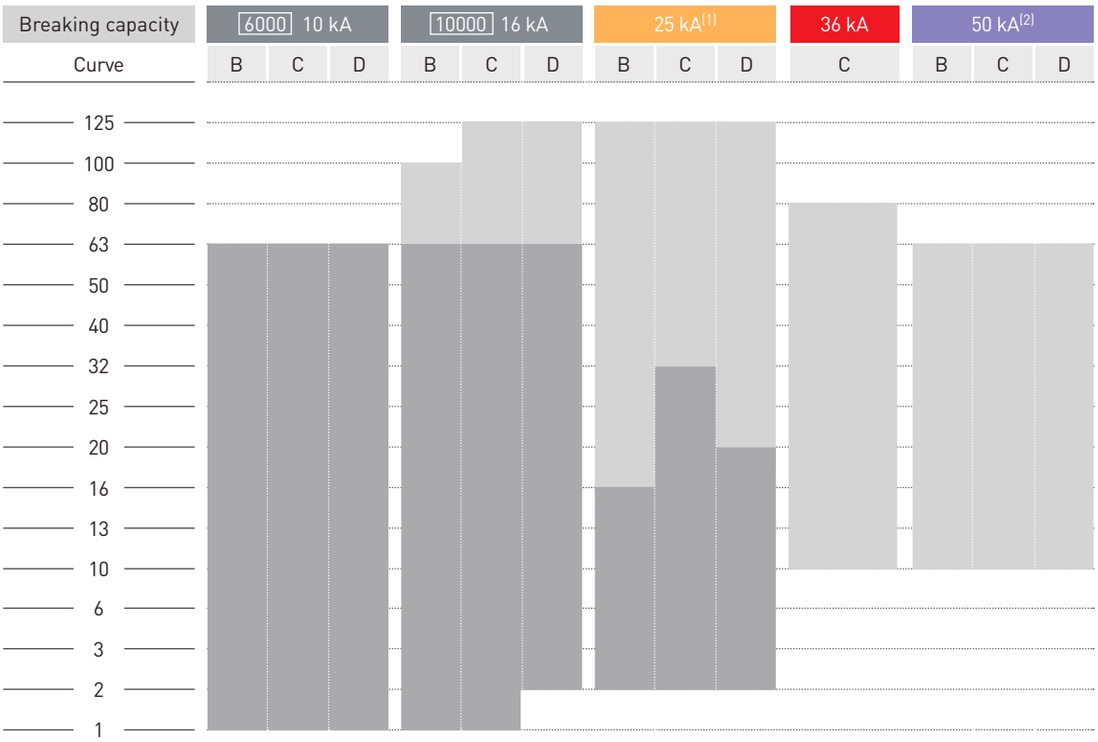
Nominal current, breaking capacity, number of poles, tripping curve, discrimination: the electrical characteristics of the new DX³ circuit breakers have been designed to meet the needs of all types of installations, from residential buildings to the largest industrial sites, including commercial buildings of all sizes.



Compact:
10 to 32 A 4-pole DX³ RCBO only 4 modules, protected neutral.

DX³ performance

A comprehensive, uniform range up to 125 A nominal current and 50 kA breaking capacity in a compact unit (1 or 1.5 modules/pole).



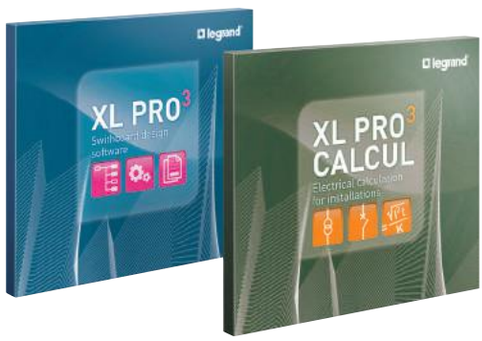
DX³ circuit breakers are limitation class 3 : they limit the short-circuit power in the cables and can prolong the installation's life by avoiding damage to the cables resulting from the stresses caused by the power flowing through them. The products never work at the "limit" of their capacity.

The information in the table applies to 1P, 3P and 4P circuit breakers. For further information on the number of modules per pole, please refer to the catalogue pages.

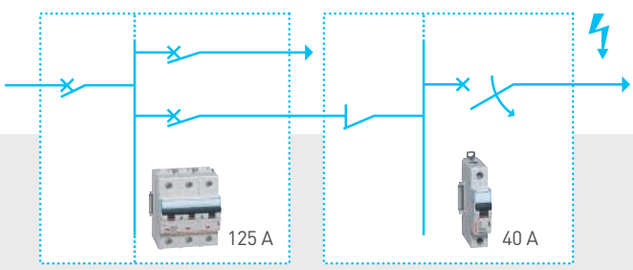
1 module per pole

1.5 module per pole

(1) Exists also in MA version (magnetic release only) and Z curve
(2) Exists also in MA version (magnetic release only)



THE XL PRO CALCUL AND XL PRO³ software include the whole DX³ range for building perfect distribution boards.



Main distribution board

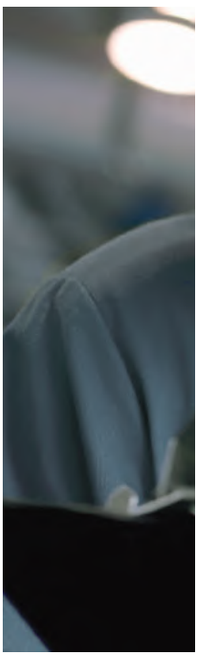
Secondary board

The tripping characteristics are calculated and adjusted to ensure correct discrimination between the different protection levels in order to improve ease of use.

CONTINUITY OF SERVICE: OPTIMUM DISCRIMINATION

The excellent discrimination between DX³ circuit breakers and with DPX³ MCCBs ensures optimum continuity of service for your installations.

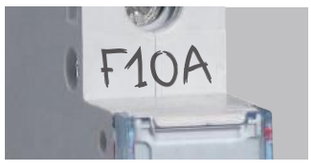
CLEAR IDENTIFICATION OF EACH CIRCUIT



At the head of distribution boards, at the head of rows or to protect outgoing lines up to 125 A. There is always a DX³ solution

Quick identification of devices and circuits is a guarantee of efficiency not only for installation but also for operation and maintenance. Legrand has always taken great care with the marking and ease of identification of its circuit breakers.
The DX³ range includes new enhancements so that your distribution boards are even easier to use.

Technical labelling area



Innovative label-holder:

- Improved opening
- Enhanced dust protection
- Label remains firmly in place during transport

Identification

Dual identification of the breaking capacity and clear marking for easier maintenance

Black handle: circuit breakers
Grey handle: switches

Colour marking for the breaking capacity
25 kA
36 kA
50 kA

Curve

Rating

Breaking capacity

Limitation class 3 (on concerned ratings and breaking capacities)

STATE OF THE CIRCUIT BREAKER

Can be identified quickly via the colour marking on the handle:

I-On/red
O-Off/green

DX³ IMPECCABLE QUALITY

Legrand pays particular attention to how these devices perform: each of them is set and checked individually on the production lines

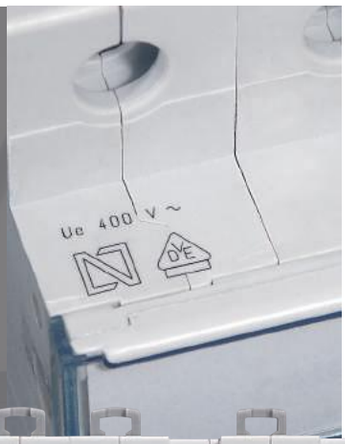
Isolating switches, RCDs, circuit breakers, RCBOs, add-on modules, control and signalling auxiliaries: the guarantee of finding the function you need with a uniform appearance and optimised dimensions.

CERTIFICATION OF LEGRAND'S FACTORIES:

- ISO 9001 for quality
- ISO 14001 for environmental protection

DX³ PRODUCTS ARE CERTIFIED IN ACCORDANCE WITH INTERNATIONAL PRODUCT STANDARDS.

Approvals, such as VDE, which are universally recognised for the rigour of their requirements, are renewed annually.



All DX³ circuit breakers can be used with an add-on module (see page 10).

The DX³ control and signalling auxiliaries are common to all the protection devices irrespective of their size (1 or 1.5 modules per pole) (see page 12).

COPYTRACER, THE FIGHT AGAINST COUNTERFEITING

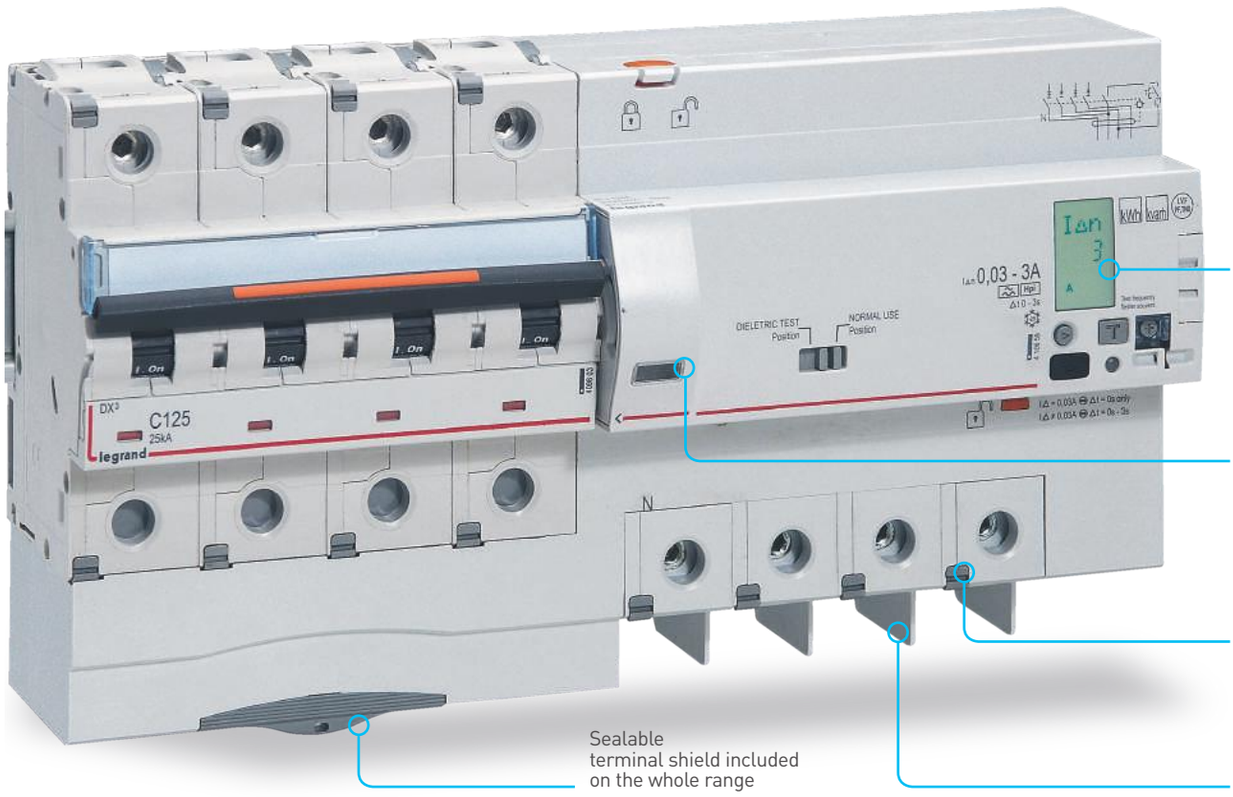
Copytracer is a unique registration number that is marked on some of our products. The number is stored in a database.

Go to the website: **www.legrand-copytracer.com**

PROTECTION TAILORED TO YOUR REQUIREMENTS

With the DX³ add-on modules

The new DX³ add-on modules have a wide range of features to meet the most stringent requirements for the protection of people. Like the new DX³ circuit breakers, they offer high performance levels and incorporate innovative solutions for installation and operation.



LCD backlit display for displaying measured values

Tripping on residual current faults is signalled by a yellow indicator

125 A add-on modules have automatic connection tap-off terminals for auxiliary circuits

High-capacity terminals and integrated insulating shields

Sealable terminal shield included on the whole range

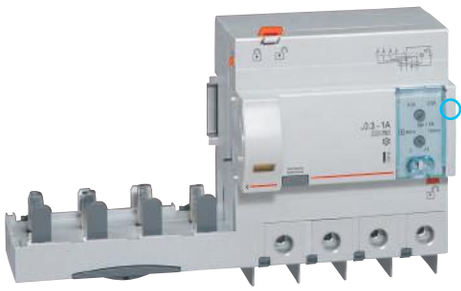
A single mounting principle for all DX³ add-on modules

It has never been so quick and safe to fit an add-on module.
The exclusive Legrand system, common to the whole DX³ range, makes the assembly extremely strong and provides guaranteed safety.

Version		FIXED				ADJUSTABLE		WITH ENERGY METER		WITH MEASUREMENT CONTROL UNIT
Sensitivity		30 mA		300 mA		300-500-1 000 mA		30-300-1 000-3 000 mA		30-300-1 000-3 000 mA
Time delay		Instantaneous		Instantaneous		0-60-150 ms		0-300 ms-1-3 s		0-300 ms-1-3 s
Max. current		63 A	125 A	63 A	125 A	63 A	125 A	63 A	125 A	125 A
AC type	4P		•		•					
A and type Hpi	2P	•	•			•	•			
	3P	•	•	•		•	•			
	4P	•	•	•		•	•	•	•	•

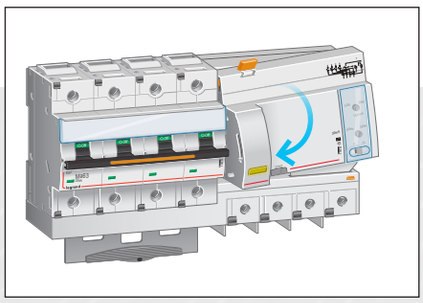
Maximum
continuity of service

DX³ adjustable add-on modules can provide discrimination up to 3 levels by adjusting their sensitivity. They enable those parts of the installation that are not affected by a fault to remain operational, while ensuring total safety of people.

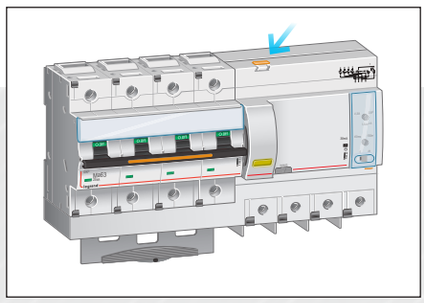


4P - 125 A ADD-ON MODULE
adjustable version

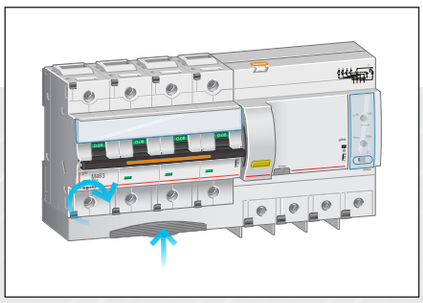
Easy to access settings on the front panel with sealable transparent cover



FIT THE CIRCUIT BREAKER
and the add-on module



LOCK THE COMBINATION TOGETHER



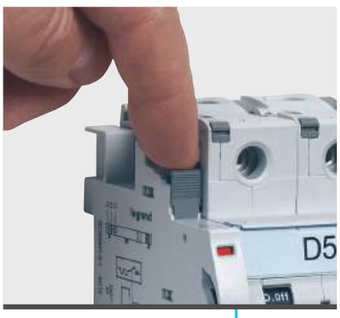
TIGHTEN THE TERMINALS
and fit the terminal shield

PERFECT CONTROL OF YOUR INSTALLATION

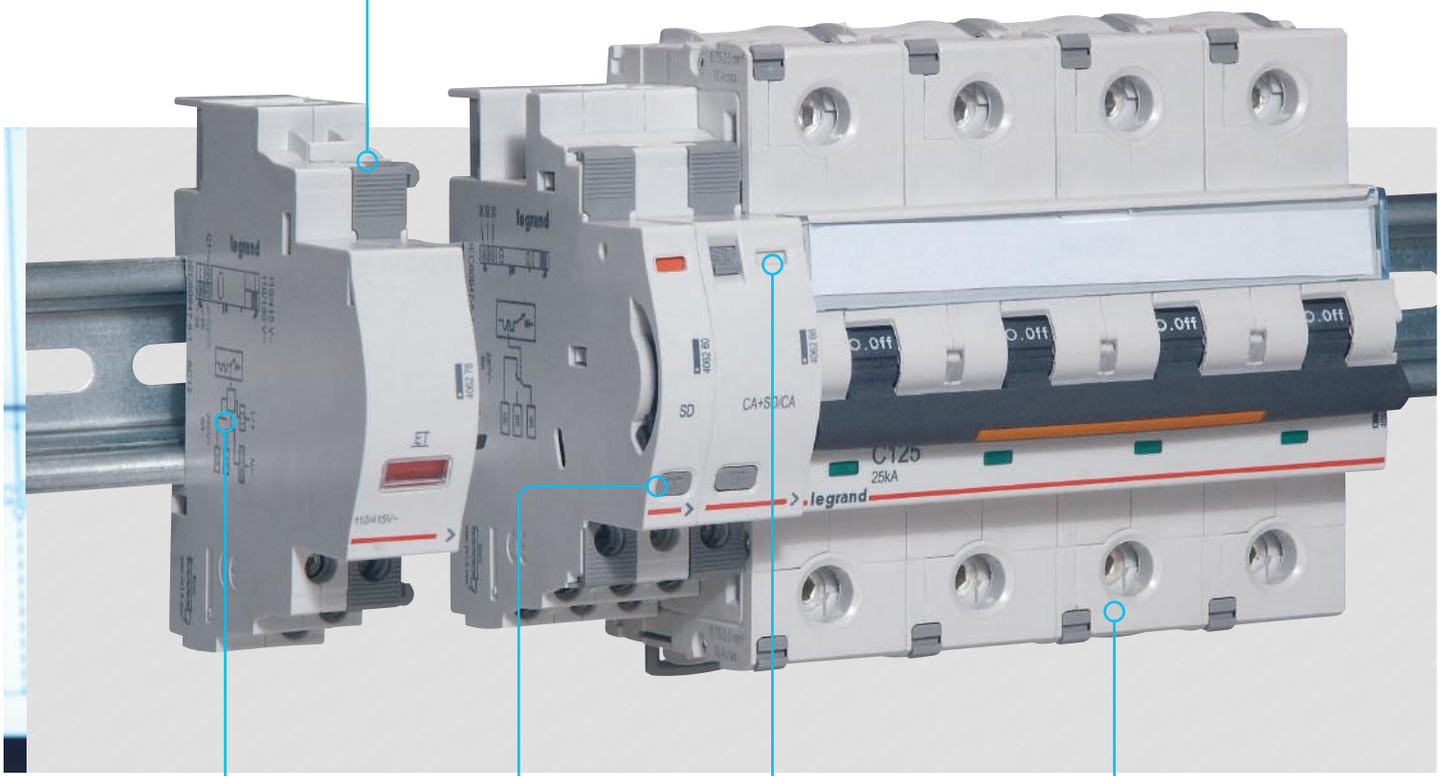
The DX³ range has a selection of electrical auxiliaries for monitoring and controlling circuits remotely

Auxiliary contacts and fault signal contacts, shunt trips, undervoltage releases, motorised controls and automatic reclosers

THE AUXILIARIES FIT FIRMLY WITHOUT
the need for any tools and ensure
the whole assembly is robust



THE ACCESSIBILITY OF THE TERMINALS
and the visibility of the screw heads make
the installer's work easier



Marking of auxiliaries (characteristics, connection, mounting)

The fault signal contacts have a test button

The colour code of the indicators on the signalling auxiliaries is the same as that of the remote indicators

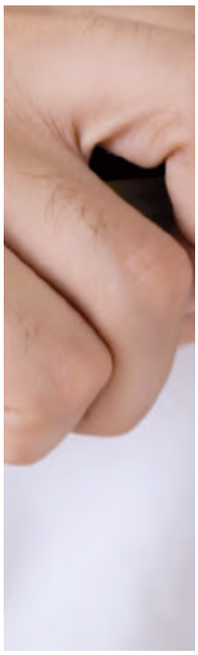
DX³ circuit breakers take up to 3 auxiliaries including one control auxiliary

DX³ motorised controls can be used with 1 module per pole devices (circuit breakers, RCBOs and RCCBs) just as easily as auxiliaries.

OPTIMISED SPACE IN THE DISTRIBUTION BOARD

Legrand motorised controls are the most compact on the market: 1 module wide.
They save a great deal of space inside the distribution board.

EASY, SAFE CONNECTION



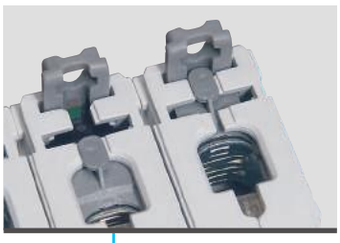
Safety is prioritised with the innovative features of the DX^3 products

The quality and hold of the connections are vital for the safety of distribution boards. This is why Legrand, with its wealth of experience and expertise, has broken new ground again with terminals with a loosening compensation system and retractable insulating shields.

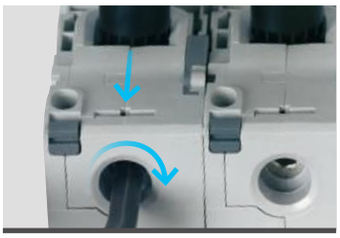
1 MODULE/POLE
Terminal capacity:
In ≤ 63 A → 35 mm²

1,5 MODULES/POLE
Terminal capacity:
In ≤ 63 A → 50 mm²
In ≥ 80 A → 70 mm²

WIRE GUIDE FLAP
ensures the wire
is in the correct position



RISING CLAMP TERMINALS
ensure a high quality, durable
connection



RELIABLE CONNECTIONS
Compensation for the effect of loosening
to ensure excellent hold over time
and consistent contact (In ≥ 80 A)

Clamping screw for flat or pozidriv
screwdriver. Tightening torques higher than
those recommended by the standard

The use of an Allen key
makes it easier to tighten
to the required torque (In ≥ 80 A)

RETRACTABLE INSULATING SHIELDS

With the integrated retractable insulating
shields, no additional accessories are
needed to isolate the connections
on all breaking capacities and high ratings
of the 1.5 modules/pole circuit breakers.

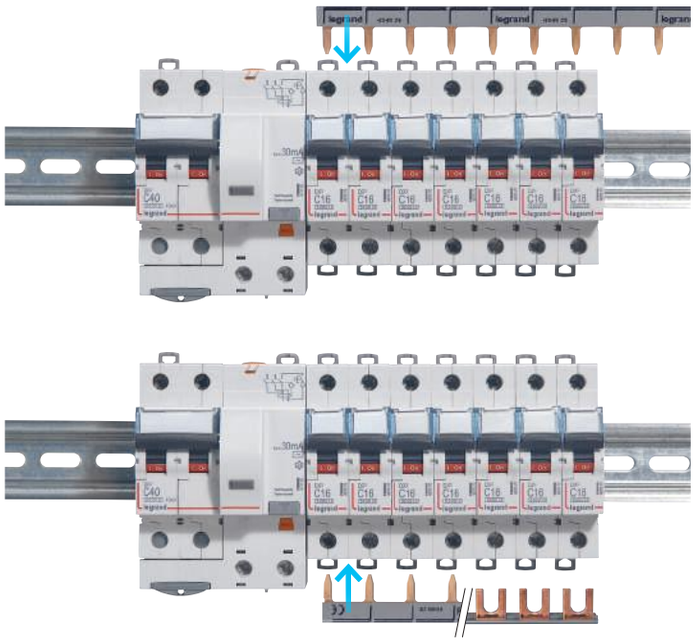
CHOOSE YOUR DISTRIBUTION

A wide range of distribution devices is available for your modular rows

From the simple supply busbar to the HX³ 125 A plug-in distribution block, whether they have conventional screw connections or more innovative automatic terminal connections, or plug in directly, Legrand quality is always there.

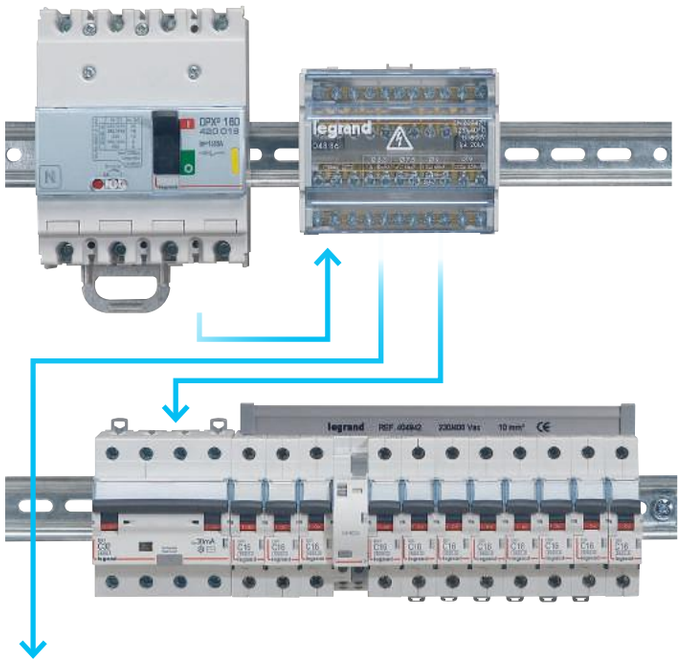
STANDARD DISTRIBUTION
Supply busbars

DX³ 1 module/pole devices up to 63 A can be connected to supply busbars via the top or the bottom.



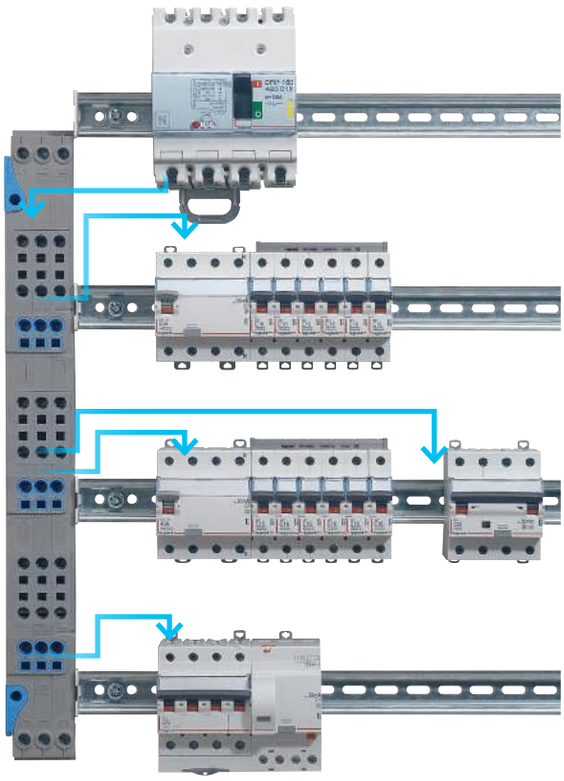
STANDARD DISTRIBUTION
Modular distribution blocks

The 40 to 250 A modular distribution blocks are totally universal, making them suitable for all types of distribution board.



Four-pole distribution

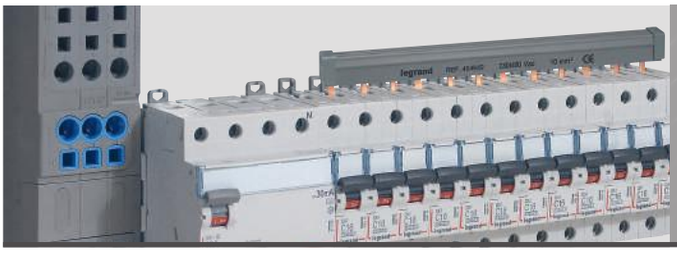
For three-phase horizontal distribution in a single action.



OPTIMISED DISTRIBUTION
VX³ 63 and 125 A, vertical distribution blocks with automatic terminals

- Significant space saving due to their vertical installation beside the rows
- Time saving as there is less wiring with the IP 2x automatic terminals for flexible or rigid wires.

Mounting in Legrand enclosures:
Plexo³, XL³125, 160, 3 to 6 rows



SUPPLY BUSBARS, AN IDEAL ADDITION

In addition to 4-pole vertical distribution blocks with automatic terminals, supply busbars power the devices in each row via the "head of row" protection device.

CHOOSE YOUR DISTRIBUTION (continued)

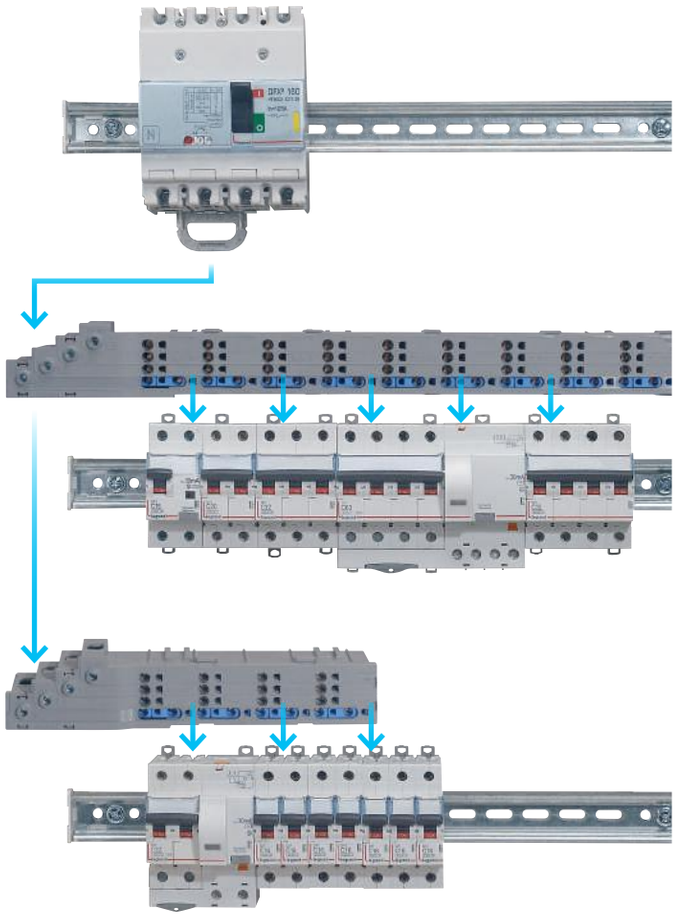
Legrand optimised distribution has been designed for maximum safety and for ease of installation and maintenance of distribution boards

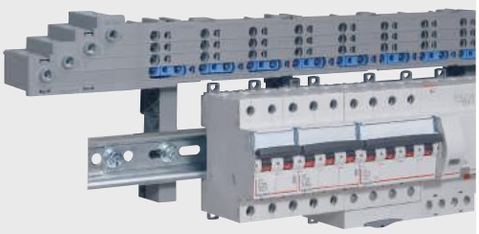
Wiring and tedious tightening operations are minimised, and the risks of poor contact and short-circuits are reduced while mounting time is optimised.

OPTIMISED DISTRIBUTION
HX³ 125 A horizontal distribution blocks with automatic terminals

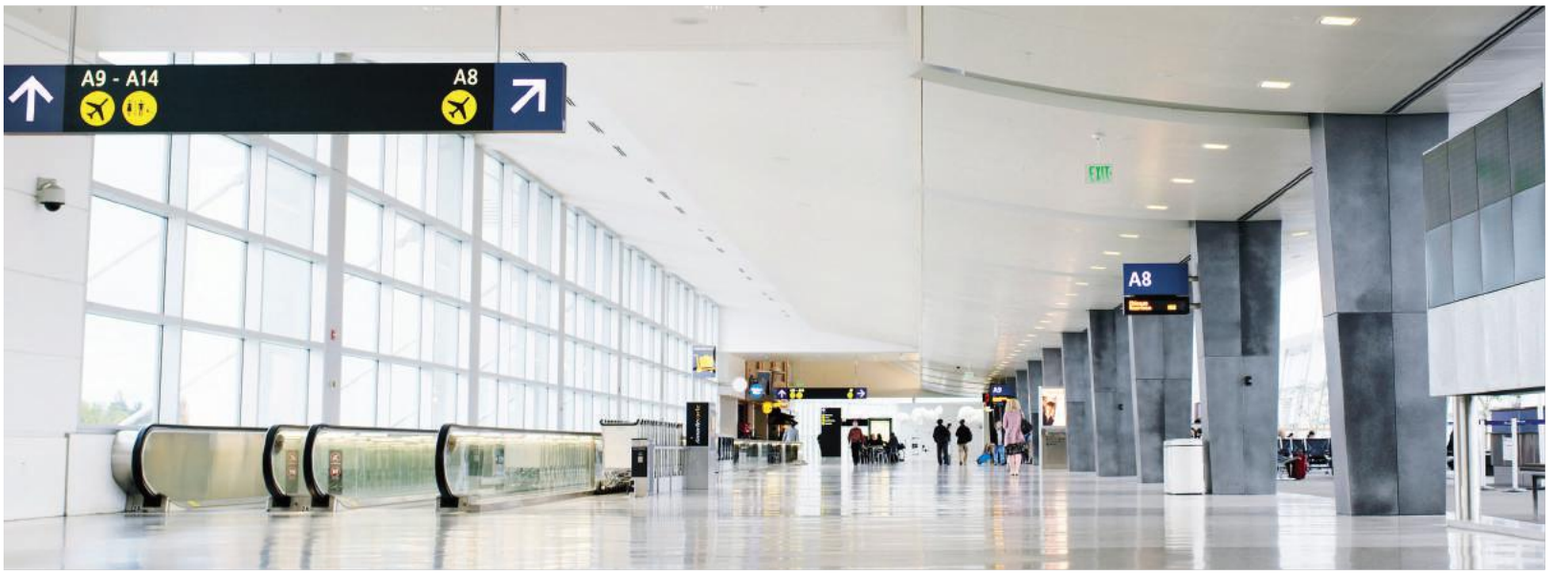
Horizontal 4-pole distribution for XL³ 160 to 4000 enclosures:

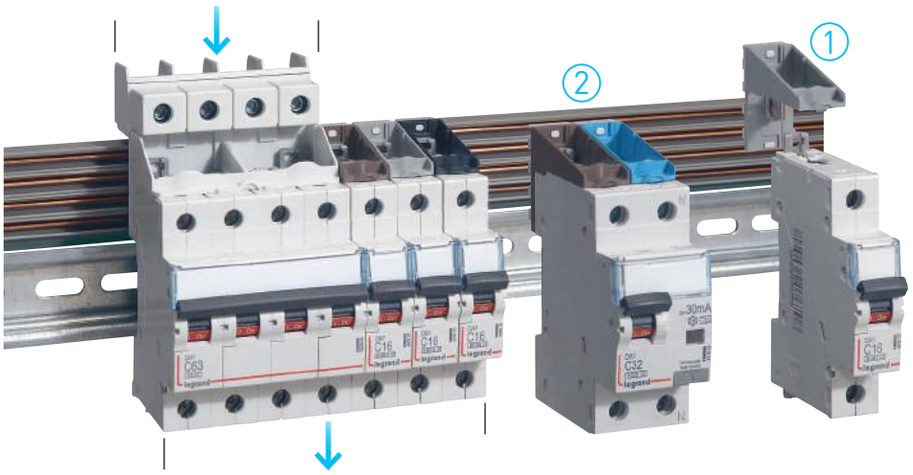
- Freedom to mix 1P, 1P+N, 2P, 3P and 4P devices on the same row
- Space saving: installed between the rows
- Time saving: less wiring, IP 2x automatic terminals for flexible or rigid wires





Fixing lugs for mounting on rails. Mounting also possible on solid plate





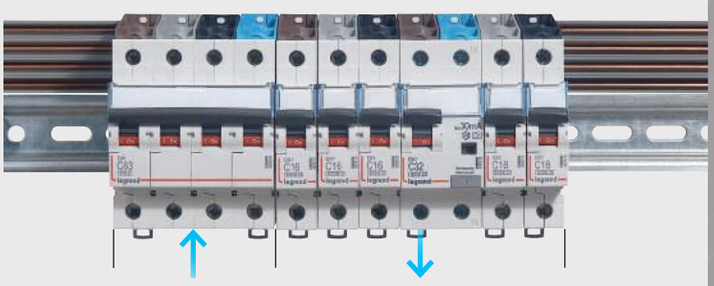
DISTRIBUTION BLOCK
SUPPLY VIA THE
POWER SUPPLY MODULE PROVIDED

CONNECTION MODULES
Set of 4 connection modules (L1, L2, L3, N)
for 1 module/pole devices

OPTIMISED DISTRIBUTION HX³ 125 A horizontal distribution blocks with plug-in connection

Horizontal 4-pole distribution for XL³ 160 to 4000 enclosures:

- Optimised design:
  freedom to mix 1P, 1P+N, 2P,
  3P and 4P devices on the same row
- Optimised installation: automatic connection with no wiring or clamping
- Safe connection and disconnection of devices, even when the distribution block is powered-up (due to the IP xxB insulation of the distribution block and the integral connection modules in the devices).



DISTRIBUTION
BLOCK SUPPLY
VIA THE MAIN
DEVICE

EASY CONNECTION

Circuit breakers with plug-in terminals are fixed onto the distribution block with no need for any tool. The phase to be connected is determined by the choice of connector. The distribution block can be supplied via the power supply module provided or via the head of row device.

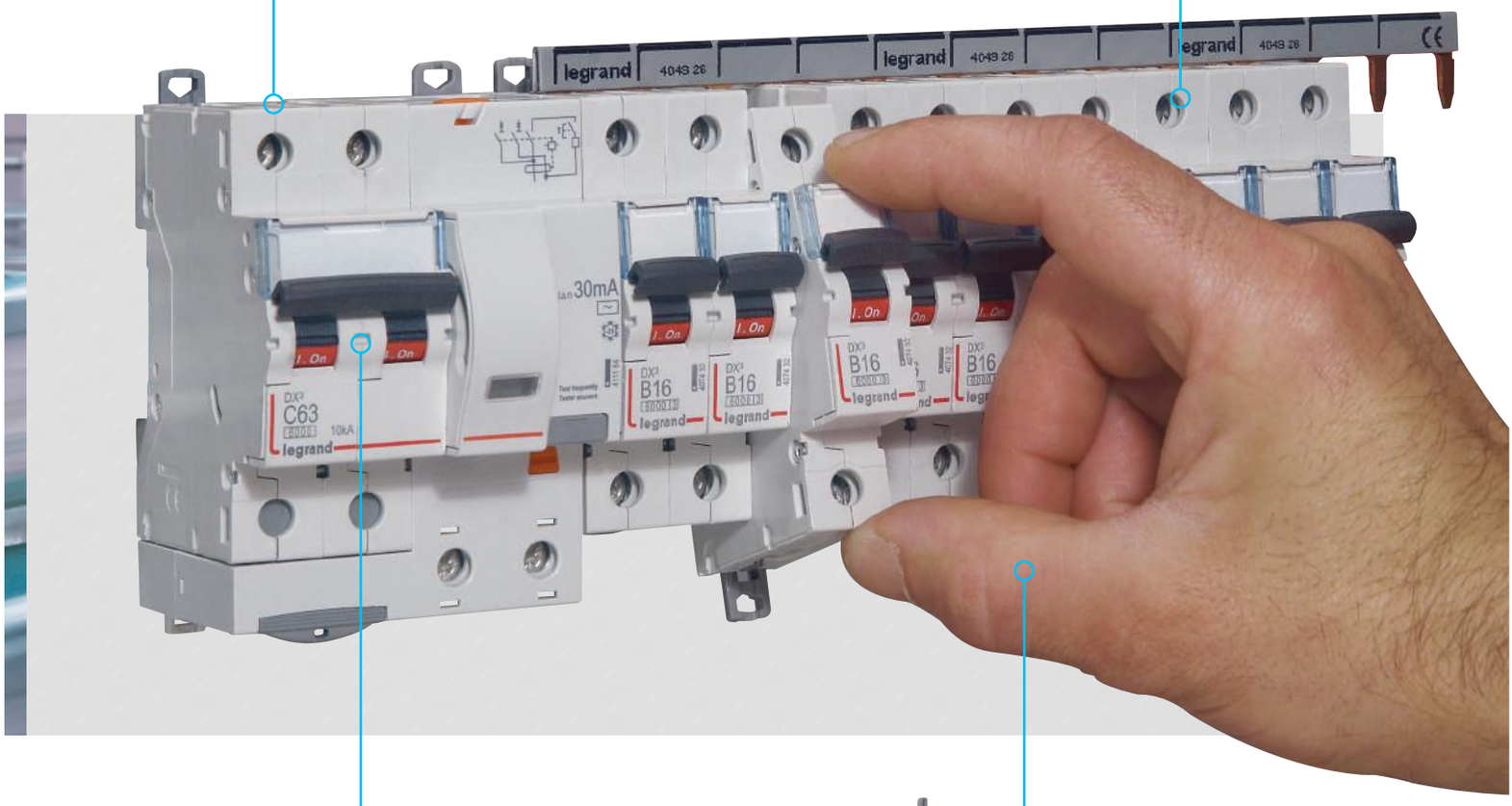
EASY OPERATION AND MAINTENANCE

When designing the DX³ range, Legrand did not forget about users and maintenance engineers

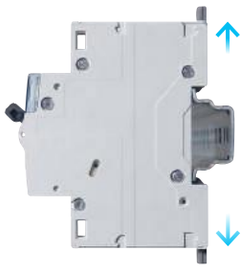
As well as the already well-known functions such as the double clip which enables maintenance to be carried out on the module, new features such as the labelling area, automatic connection tap-off terminals and status indicators have been added to make day-to-day use of distribution boards even easier.

EASY TAP-OFF CONNECTION FROM 80 A
The IP 2x automatic tap-off terminals can be used to connect an auxiliary circuit or a measuring device safely

INCREASED SAFETY
The DX³ range guarantees IP2x protection. There is no risk of contact with live parts, even when the faceplate is open.

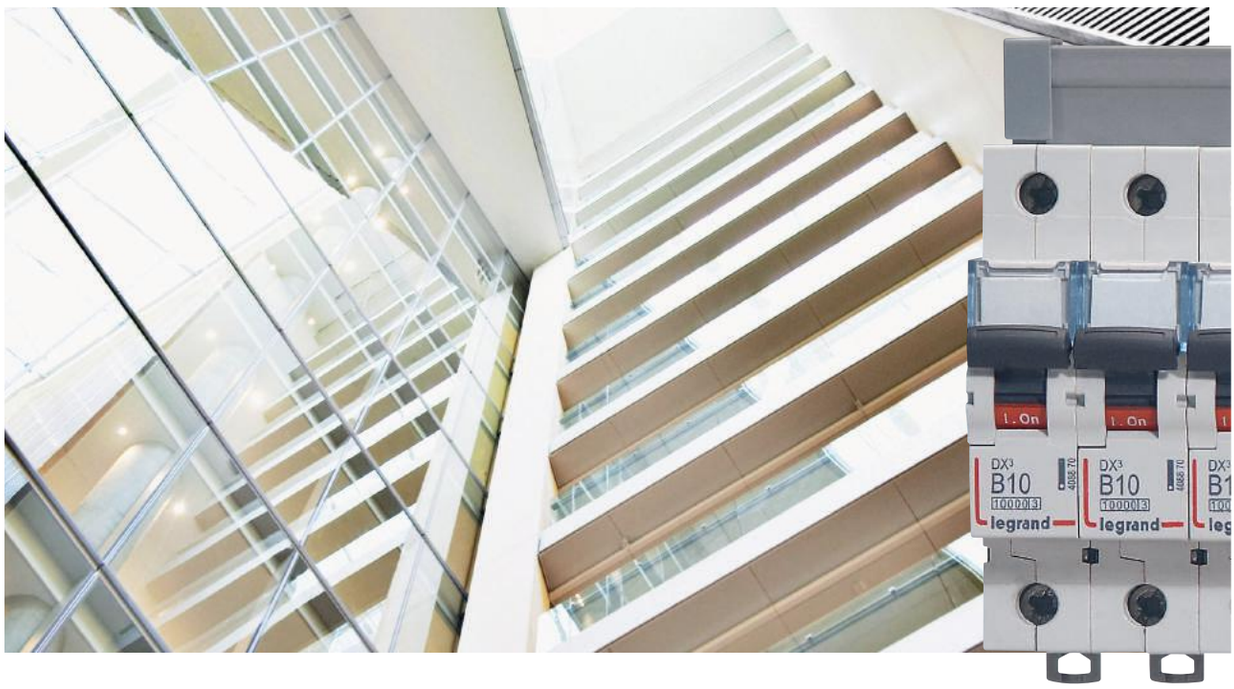


LOCKING IN OPEN POSITION
for 1.5 module per pole devices using a single Colring cable tie



THE DOUBLE CLIP
enables a device to be replaced without disconnecting the whole row

MORE COMFORTABLE BUILDINGS AND ENERGY SAVINGS



CX³ modular control and monitoring devices are a perfect addition to the range of DX³ protection devices

With the same design, they integrate perfectly in your distribution boards. Power contactors, pulse operated latching relays, pushbuttons, indicators, timers, programmers, etc. With the selection of functions available it is simple to improve the safety, efficiency and comfort of installations and meet energy requirements.

CHANGEOVER SWITCHES AND PUSH-BUTTONS
compatibles with fluorescent lamps (20 AX)

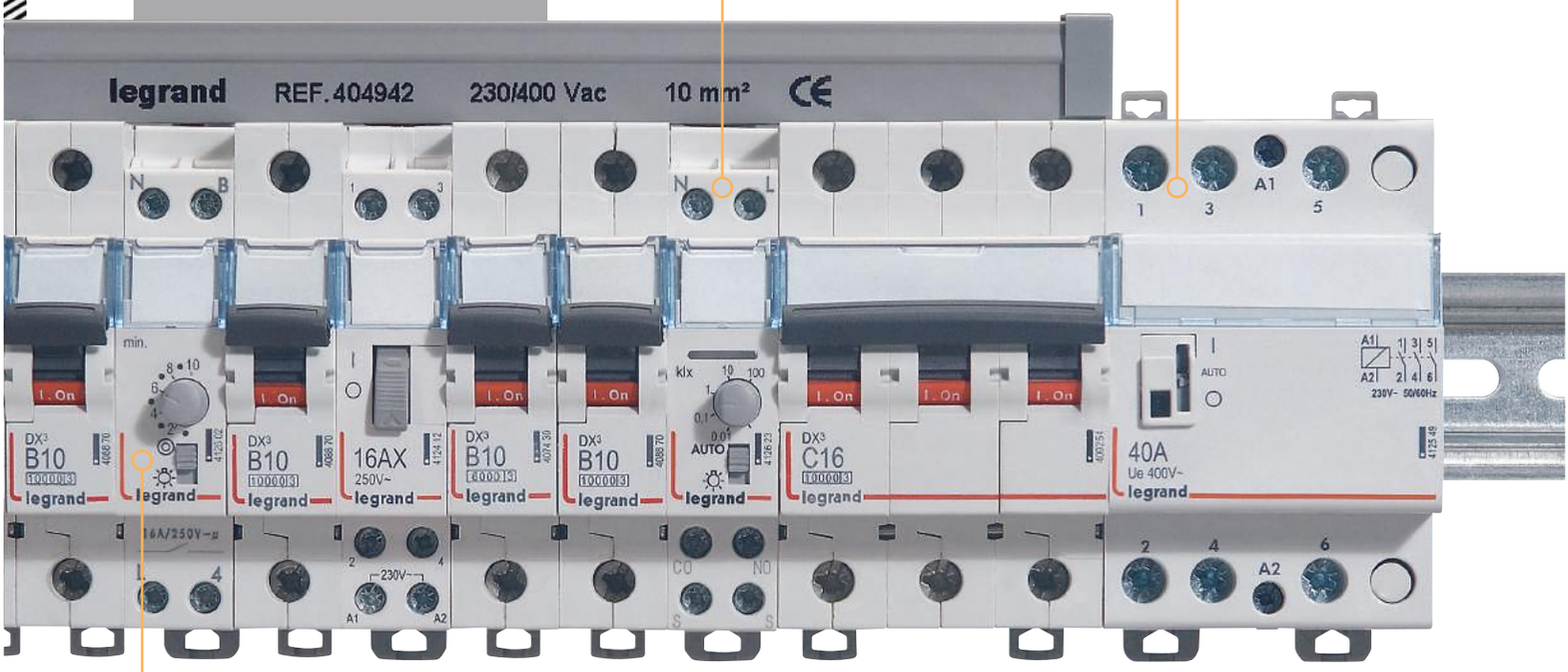
INDICATORS AND ILLUMINATED PUSH-BUTTONS
equipped with long life LED lamps for common use or specially adapted for ELV circuits and DC applications

SUPPLY BUSBAR INSERTION

There is a position on the top of the control devices for inserting the supply busbar

LIGHT SENSITIVE SWITCH
to switch lighting on automatically when the natural light decreases

16 A TO 63 A LEGRAND POWER CONTACTORS are available with 24 VAC or 230 VAC coil



TIMER
to switch off of lighting automatically after an adjustable period of 0.5 s to 10 min

- 1 to 4 x 16 A outputs
- 24-hour, 7-day or annual programming
- Programming direct or from a PC with a transfer key

ENERGY SAVINGS WITH TIMERS

In order to optimise power consumption, Legrand electronic timers can be used to assign operating periods, for example for heating or lighting.

MEASUREMENT AT THE HEART OF ENERGY EFFICIENCY

A project to optimise quality and energy efficiency must include measurement

Measurement upstream, to identify the critical points and ensure optimum targeting of the actions to be taken. Downstream to monitor the effects and control any drift. Legrand EMDX³ measurement control units and electricity meters will naturally have a place in distribution boards.

EMDX³ measurement control units

All the essential parameters of the installation on DIN rail or on the door :

- Dual tariff metering
- Active and reactive energy
- Operating time
- Power factor
- Harmonic distortion
- Programmable alarms

EMDX³ UNIT ON DIN RAIL

EMDX³ UNIT ON DOOR
EMDX³ units on doors provide a large size display and their capacity can be increased with extension modules.

ECO-DESIGN
A VOLUNTARY APPROACH

The Legrand group has been taking environmental problems into account since 2001. This approach is based on international standards for the objective measurement of the environmental impacts of products in terms of both consumption of resources and pollution. Legrand publishes these reports in the form of PEP (Product Environmental Profile) sheets.

Remote supervision and viewing

With the Legrand communication interfaces (RS 485, IP), supervision software and Web servers, measurements can be centralised and displayed remotely on a PC, tablet or smartphone.

Integrated measurement: choosing a more compact solution

Integrated measurement is available on the DMX³, DPX³ and DX³ ranges. The panel board display is an innovative solution, allowing to integrate information coming from 8 different devices DX³, DPX³, DMX³ or EMDX³ control units.

DISPLAY OF 32 MEASUREMENT POINTS
ON TABLET COMPUTERS AND WEB SERVERS

DIN RAIL equipment

DISCOVER THE PRODUCTS

DX³ - ID
RCDs
(p. 29)

DX³
RCBOs
(p. 32)

DX³
MCBs
(p. 34)

EMDX³
multi-function
mesauring units
(p. 70)

Isolating switches DX³-IS

from 16 A to 125 A


4 065 27


4 065 44


4 064 21


4 064 45


4 064 67


4 064 86

Dimensions **see e-catalogue**
Technical characteristics **p. 30**

AC 23 A according to IEC 60947 - 3, AC 22 A for 125 A
Double break contacts

Remote trip head isolating switches

Red handle
Visible contact indication
Remote tripping with associated control auxiliary (p. 44)
Can be fitted with motorised controls (p. 45)
Visual indication of the actual status of the contacts:
- Closed position (red indicator)
- Open position (green indicator)

Pack	Cat.Nos	Nominal rating In (A)	Number of modules
2P - 400 V~			
1	4 065 27	40	2
1	4 065 28	63	2
3P - 400 V~			
1	4 065 35	40	3
1	4 065 36	63	3
1	4 065 38[1]	100	4.5
1	4 065 39[1]	125	4.5
4P - 400 V~			
1	4 065 43	40	4
1	4 065 44	63	4
1	4 065 46[1]	100	6
1	4 065 47[1]	125	6

1: Can be equipped with add-on modules

Isolating switches

Grey handle
Can be equipped with 1 DX³ signalling auxiliary (p. 44)

Pack	Cat.Nos	Nominal rating In (A)	Number of modules
1P - 250 V~			
10	4 064 00	16	1
10	4 064 01	20	1
10	4 064 19	32	1
10	4 064 20	40	1
10	4 064 21	63	1
10	4 064 23	100	1
1P with indicator - 250 V~			
Supplied with lamp			
10	4 064 04	20	1
10	4 064 06	32	1
2P - 400 V~			
10	4 064 31	16	1
10	4 064 32	20	1
5	4 064 45	32	2
5	4 064 46	40	2
5	4 064 47	63	2
5	4 064 49	100	2
5	4 064 50	125	2
2P with indicator - 400 V~			
Supplied with lamp Do not accept auxiliaries			
10	4 064 36	20	1
10	4 064 38	32	1
10	4 064 39	40	1
3P - 400 V~			
5	4 064 57	20	2
1	4 064 65	32	3
1	4 064 66	40	3
1	4 064 67	63	3
1	4 064 69	100	3
1	4 064 70	125	3
4P - 400 V~			
5	4 064 77	20	2
1	4 064 85	32	4
1	4 064 86	40	4
1	4 064 87	63	4
1	4 064 89	100	4
1	4 064 90	125	4

RCCBs - DX³-ID

residual current circuit breakers 16 A to 100 A - AC, A, Hpi and B types


4 115 25


4 117 05


4 117 60


4 118 48

Technical characteristics **see e-catalogue**

Conform to IEC 61008 - 1
- AC type ~: detect sinusoidal AC residual currents
- A type ~: detect sinusoidal AC and pulsating DC residual currents
- Hpi type (High immunity) ~ Hpi: detect AC and pulsating DC residual currents
  Enhanced immunity to unwanted tripping in disturbed environments
- B type ~ ⎓: detect sinusoidal AC, pulsating DC and smooth DC residual currents

Can be equipped with DX³ signalling and remote tripping auxiliaries, except for B type (p. 44) and motorised controls (p. 45)

2-pole 230 V~

AC type ~

Pack	Cat.Nos	Sensitivity (mA)	Nominal Rating In (A)	Number of modules
1	4 115 00	10	16	2
1	4 115 01	10	25	2
1	4 115 04	30	25	2
1	4 115 05	30	40	2
1	4 115 06	30	63	2
1	4 115 07	30	80	2
1	4 115 08	30	100	2
1	4 115 14	100	25	2
1	4 115 15	100	40	2
1	4 115 16	100	63	2
1	4 115 17	100	80	2
1	4 115 24	300	25	2
1	4 115 25	300	40	2
1	4 115 26	300	63	2
1	4 115 27	300	80	2
1	4 115 28	300	100	2
1	4 115 37	100 selective	100	2
1	4 115 43	300 selective	63	2

A type ~

1	4 115 50	10	16	2
1	4 115 54	30	25	2
1	4 115 55	30	40	2
1	4 115 56	30	63	2
1	4 115 57	30	80	2
1	4 115 69	300	25	2
1	4 115 70	300	40	2
1	4 115 71	300	63	2
1	4 115 72	300	80	2
1	4 115 84	300 selective	63	2

Hpi type ~ Hpi

1	4 115 90	30	25	2
1	4 115 91	30	40	2
1	4 115 92	30	63	2

B type ~ ⎓

Accept auxiliary contact Cat.No 4 062 59 only (p. 44)

1	4 118 42	30	40	4
1	4 118 43	30	63	4
1	4 118 44	300	40	4
1	4 118 45	300	63	4

4-pole - 400 V~ - neutral on right-hand side

AC type ~

Pack	Cat.Nos	Vis/vis	Sensitivity (mA)	In (A)	Number of modules
1	4 117 02	30	25	4	
1	4 117 03	30	40	4	
1	4 117 04	30	63	4	
1	4 117 05	30	80	4	
1	4 117 12	100	25	4	
1	4 117 13	100	40	4	
1	4 117 14	100	63	4	
1	4 117 15	100	80	4	
1	4 117 22	300	25	4	
1	4 117 23	300	40	4	
1	4 117 24	300	63	4	
1	4 117 25	300	80	4	
1	4 117 45	300 selective	40	4	
1	4 117 46	300 selective	63	4	
1	4 117 32	500	25	4	
1	4 117 33	500	40	4	
1	4 117 34	500	63	4	
1	4 117 35	500	80	4	

A type ~

1	4 117 59	30	25	4
1	4 117 60	30	40	4
1	4 117 61	30	63	4
1	4 117 62	30	80	4
1	4 117 63	30	100	4
1	4 117 69	100	25	4
1	4 117 70	100	40	4
1	4 117 71	100	63	4
1	4 117 72	100	80	4
1	4 117 73	100	100	4
1	4 117 79	300	25	4
1	4 117 80	300	40	4
1	4 117 81	300	63	4
1	4 117 82	300	80	4
1	4 117 83	300	100	4
1	4 118 00	300 selective	40	4
1	4 118 01	300 selective	63	4
1	4 117 89	500	25	4
1	4 117 90	500	40	4
1	4 117 91	500	63	4
1	4 117 92	500	80	4
1	4 117 93	500	100	4

4-pole - 400 V~ - neutral on left-hand side

B type ~ ⎓

Accept auxiliary contact Cat.No 4 062 59 only (p. 44)

1	4 118 46	30	40	4
1	4 118 47	30	63	4
1	4 118 48	300	40	4
1	4 118 49	300	63	4

Auxiliaries, accessories and remote control **p. 44-45**

Isolating switches DX³-IS

technical characteristics

DX³-IS remote trip head isolating switches

Electrical characteristics

Thermal rating (Ith)		40 - 63 A 1 module/pole	100 - 125 A 1.5 module/pole
Terminals		Cage	Cage
Connection	flexible	1.5 to 25 mm²	6 to 50 mm²
	rigid	1.5 to 35 mm²	6 to 70 mm²
Insulation voltage (Ui)		500 V ∿	500 V ∿
Impulse withstand voltage (Uimp)		6 kV	6 kV
Category of use(1)		AC 22A / AC 23A	100 A = AC 22A / AC 23A 125 A = AC 22A
Short time withstand current (Icw)		1000 A during 1 s 1700 A during 0.5 s	1000 A during 1 s 1500 A during 0.5 s
Short-circuit making capacity (Icm)		3000 A	1500 A
No. of electrical operations		15000	10000
Protection index		IP 2X wired	IP 2X wired

(1) test conditions according to IEC 60947-3
AC 22 A: combined motor/resistor breaking with frequent operations
AC 23 A: inductive motor breaking at In/2 with frequent operations

DX³-IS isolating switches

Electrical characteristics

Thermal rating (Ith)		16 - 40 A 0.5 module/pole	40 - 63 A 1 module/pole	100 - 125 A 1 module/pole
Terminals		Cage	Cage	Cage
Connection	flexible	1.5 to 10 mm²	1.5 to 25 mm²	4 to 35 mm²
	rigid	1.5 to 16 mm²	1.5 to 35 mm²	4 to 50 mm²
Insulation voltage (Ui)		500 V∿	500 V∿	500 V∿
Impulse withstand voltage (Uimp)		6 kV	6 kV	6 kV
Category of use(1)		AC 22 A	AC 22 A	AC 22 A
Short time withstand current (Icw)		750 A	2000 A	2500 A
Short-circuit making capacity (Icm)		1500 A	3000 A	3700 A
No. of electrical operations		30000	20000	5000
Protection index		IP 2X wired	IP 2X wired	IP 2X wired

(1) test conditions according to IEC 60947-3
AC 22 A: combined motor/resistor breaking with frequent operations

RCCBs DX³-ID

technical characteristics

DX³-ID - RCCBs (residual current circuit breakers)

Connection cross-section

RCCBs	Cable (mm²)	
	Rigid	Flexible
Connection at top and bottom	50	35

AC type ⏦ - Standard applications

AC type RCCBs detect sinusoidal AC residual currents
In the majority of cases (standard applications), they are used for AC current detection at 50 Hz

A type ⏦ - Specific applications: dedicated lines

In addition to the characteristics of AC type RCCBs, A type RCCBs also detect pulsating DC residual currents
They are used whenever fault currents are not sinusoidal
They are particularly suitable for the following specific applications: hobs, washing machines or materials that may produce DC fault currents, speed drives with frequency inverters, etc.

G type ⏦ - Same applications like A type

Meet the requirements of ÖVE/ÖNORM E 8601 standard

B type ⏦ ⎓ - Specific applications: dedicated lines

In addition to the characteristics of A type RCCBs, B type RCCBs also detect smooth DC residual currents
They are used whenever fault currents are not sinusoidal
They are particularly suitable for the following specific applications : speed drives and inverters for supplying motors for pumps, lifts, textile machines, machine tools, photovoltaic installations, call centres, medical equipment, etc.

Hpi type ⏦ Hpi - Special applications

Type Hpi RCCBs are devices which offer additional immunity to unwanted tripping which significantly exceeds the level required by the standard
They are also able to detect AC and DC residual currents (A type)
Operation between - 25 °C and + 40 °C
They are used in special applications where:
• Loss of information is potentially damaging, e.g. power supply lines for computer equipment (banks, equipment on military bases, flight reservation centres, etc.)
• Loss of operation is potentially damaging (automated machinery, medical equipment, freezer cable, etc.)
They are also used:
• On sites where there is an increased risk of lightning strikes
• On sites where cables are subject to high levels of interference (use of fluorescents, etc.)
• On sites where very long cables are used
• For spaces with chlorinated swimming pool-type atmosphere

RCBOs DX™ 10000

residual current circuit breakers from 10 A to 45 A - AC type

6 064 40

6 064 15

Technical characteristics **see e-catalogue**

Breaking capacity:
10000 - IEC 61009-1
• AC type ~: detect AC component faults

Pack	Cat.Nos		**Single pole - 230 V~**	
			C curve	
	Black neutral leads	Blue neutral leads	**AC Type ~ 30 mA**	
			Nominal rating In (A)	Number of modules
1	6 064 40	6 064 10	10	1
1	6 064 41	6 064 11	16	1
1	6 064 42	6 064 12	20	1
1	6 064 43	6 064 13	25	1
1	6 064 44	6 064 14	32	1
1	6 064 45	6 064 15	45	1

MANUAL SUPPLY INVERTORS, FRONT EXTERNAL HANDLES

Discover the products

Thanks to the new manual supply invertors you can improve the continuity of service of your installation.
The front external rotary handles allow a better control of the modular devices without opening the door of the enclosure.

Manual supply invertor p. 45

MANUAL SUPPLY INVERTOR (MSI)

For 2P, 3P and 4P DX³ and MCBs and remote trip isolating switches
For manually switching between mains and an alternative power supply

Front external rotary handle p. 45

EXTERNAL HANDLE

For all DX³, TX³ and RX³ devices from 2P upwards.
Allow the manual control of the modular devices without opening the enclosure
Available in two versions : with black or yellow & red handle

Other products:
DX³ add-on modules with integrated measuring unit **p. 43**

Installation principle
see e-catalogue

RCBOs DX³ 6000 - 6 kA - residual current circuit breakers from 2 A to 40 A - AC, A and Hpi types

4 110 13

Technical characteristics **see e-catalogue**

Conform to IEC 61009-1
Breaking capacity:
6000 - IEC 61009-1 - 6 kA / IEC 60947
• AC type ~: detect AC component faults
• A type ⩙: detect AC and DC component faults
• Hpi type (High immunity) ⩙ Hpi: detect AC and DC component faults
Enhanced immunity to unwanted tripping in disturbed environments
Can be equipped with DX³ signalling and remote tripping auxiliaries and motorised controls (p. 44-45)

Single pole + neutral - 230 V~ (neutral on right-hand side)

Compatible with fork type supply busbars

Pack	Cat.Nos		Nominal rating In (A)	Number of modules
	B curve	C curve		
			AC Type ~ 10 mA	
1	4 109 07	4 109 95	16	2
			AC Type ~ 30 mA	
1		4 110 07	2	2
1		4 110 08	3	2
1		4 110 09	4	2
1	4 109 18	4 110 10	6	2
1	4 109 19	4 110 11	10	2
1	4 109 20	4 110 12	13	2
1	4 109 21	4 110 13	16	2
1	4 109 22	4 110 14	20	2
1	4 109 23	4 110 15	25	2
1	4 109 24	4 110 16	32	2
1	4 109 25	4 110 17	40	2
			AC Type ~ 300 mA	
1		4 110 33	10	2
1		4 110 35	16	2
			A Type ⩙ 10 mA	
1	4 109 47	4 110 43	16	2
			A Type ⩙ 30 mA	
1	4 109 62	4 110 58	6	2
1	4 109 63	4 110 59	10	2
1	4 109 64	4 110 60	13	2
1	4 109 65	4 110 61	16	2
1	4 109 66	4 110 62	20	2
1	4 109 67	4 110 63	25	2
1	4 109 68	4 110 64	32	2
1	4 109 69	4 110 65	40	2
			A Type ⩙ 300 mA	
1		4 110 81	10	2
1		4 110 83	16	2
1		4 110 84	20	2
			Hpi Type ⩙ Hpi 30 mA	
1		4 111 02	6	2
1		4 111 03	10	2
1		4 111 04	13	2
1		4 111 05	16	2
1		4 111 06	20	2
1		4 111 07	25	2
1		4 111 08	32	2
1		4 111 09	40	2

RCBOs DX³ 6000 - 10 kA - residual current circuit breakers from 10 A to 63 A - AC, A and Hpi types

4 110 68

4 111 49

Technical characteristics **see e-catalogue**

Conform to IEC 61009-1
Breaking capacity:
6000 - IEC 61009-1 - 10 kA / IEC 60947-2
• AC type ~: detect AC component faults
• A type ⩙: detect AC and DC component faults
• Hpi type (High immunity) ⩙ Hpi: detect AC and DC component faults
Enhanced immunity to unwanted tripping in disturbed environments
Can be equipped with DX³ signalling and remote tripping auxiliaries and motorised controls (p. 44-45)

2-pole - 230 V~

Compatible with prong-type and fork type supply busbars

Pack	Cat.Nos	Nominal rating In (A)	Number of modules
	C curve		
		AC Type ~ 10 mA	
1	4 111 49	10	4
1	4 111 50	16	4
1	4 111 51	20	4
		AC Type ~ 30 mA	
1	4 111 57	10	4
1	4 111 58	16	4
1	4 111 59	20	4
1	4 111 60	25	4
1	4 111 61	32	4
1	4 111 62	40	4
1	4 111 63	50	4
1	4 111 64	63	4
		AC Type ~ 300 mA	
1	4 111 71	10	4
1	4 111 72	16	4
1	4 111 73	20	4
1	4 111 74	25	4
1	4 111 75	32	4
1	4 111 76	40	4
1	4 111 77	50	4
1	4 111 78	63	4

RCBOs DX³ 6000 - 10 kA - residual current circuit breakers from 10 A to 63 A - AC, A and Hpi types (continued)

4 111 92

4 112 41

Technical characteristics **see e-catalogue**

Conform to IEC 61009-1
Breaking capacity:
6000 - IEC 61009-1 - 10 kA / IEC 60947-2
• AC type ~: detect AC component faults
• A type ⩘: detect AC and DC component faults
• Hpi type (High immunity) ⩘ Hpi: detect AC and DC component faults
Enhanced immunity to unwanted tripping in disturbed environments
Can be equipped with DX³ signalling and remote tripping auxiliaries and motorised controls (p. 44-45)

Pack	Cat.Nos	4-pole - 400 V~	
		4-module RCBOs are compatible with both prong-type and fork type supply busbars 7-module RCBOs are compatible with prong-type supply busbars only	
		AC Type ~ 30 mA	
	C curve	Nominal rating In (A)	Number of modules
1	4 111 85	10	4
1	4 111 86	16	4
1	4 111 87	20	4
1	4 111 88	25	4
1	4 111 89	32	4
1	4 111 90	40	7
1	4 111 91	50	7
1	4 111 92	63	7
		AC Type ~ 300 mA	
1	4 112 04	10	4
1	4 112 05	16	4
1	4 112 06	20	4
1	4 112 07	25	4
1	4 112 08	32	4
1	4 112 09	40	7
1	4 112 10	50	7
1	4 112 11	63	7
		A Type ⩘ 30 mA	
1	4 112 33	10	4
1	4 112 34	16	4
1	4 112 35	20	4
1	4 112 36	25	4
1	4 112 37	32	4
		A Type ⩘ 300 mA	
1	4 112 38	10	4
1	4 112 39	16	4
1	4 112 40	20	4
1	4 112 41	25	4
1	4 112 42	32	4
		Hpi Type ⩘ Hpi 30 mA	
1	4 112 44	16	4
1	4 112 45	20	4
1	4 112 46	25	4
1	4 112 47	32	4

For detailed dimensions, **see e-catalogue**

RCBOs DX³ 10000 - 16 kA - residual current circuit breakers from 6 A to 40 A - AC and A types

4 113 12

Technical characteristics **see e-catalogue**

Conform to IEC 61009-1
Breaking capacity:
10000 - IEC 61009-1 - 16 kA / IEC 60947-2
• AC type ~: detect AC component faults
• A type ⩘: detect AC and DC component faults
• G type ⩘: detect AC and DC component faults as per ÖVE/ÖNORM E 8601
Enhanced immunity to unwanted tripping in disturbed environments
Can be equipped with DX³ signalling and remote tripping auxiliaries and motorised controls (p. 44-45)

Pack	Cat.Nos		Single pole + neutral - 230 V~ (neutral on right-hand side)	
			Compatible with fork type supply busbars	
			AC Type ~ 10 mA	
	B curve	C curve	Nominal rating In (A)	Number of modules
1	4 109 71	4 109 78	10	2
1	4 109 72	4 109 79	16	2
1	4 109 73	4 109 80	20	2
1	4 109 74	4 109 81	25	2
1	4 109 75	4 109 82	32	2
1	4 109 76	4 109 83	40	2
			A Type ⩘ 30 mA	
1	4 112 85	4 112 93	6	2
1	4 112 86	4 112 94	10	2
1	4 112 87	4 112 95	13	2
1	4 112 88	4 112 96	16	2
1	4 112 89	4 112 97	20	2
1	4 112 90	4 112 98	25	2
1	4 112 91	4 112 99	32	2
1	4 112 92	4 113 00	40	2
			G Type ⩘ 30 mA	
1	4 113 02	4 113 10	10	2
1	4 113 03	4 113 11	13	2
1	4 113 04	4 113 12	16	2
1	4 113 05	4 113 13	20	2
1	4 113 06	4 113 14	25	2

MCBs DX³ 6000 - 10 kA

thermal magnetic MCBs from 0.5 A to 63 A - B and C curves

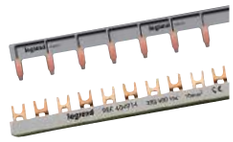

4 074 35


4 077 42


4 078 02


4 075 65


4 079 34



Technical characteristics **see e-catalogue**

Conform to IEC 60898-1
Compatible with both prong-type and fork type supply busbars (except single pole + neutral 1 module MCBs)
Breaking capacity:
6000 - IEC 60898-1 - 400 V~
10 kA - IEC 60947-2 - 400 V~
Can be equipped with DX³ signalling and remote tripping auxiliaries, motorised controls (p. 44-45) and add-on modules (p. 42)

Single pole 230/400 V~

Pack	Cat.Nos		Nominal rating In (A)	Number of modules
	B curve	C curve		
1	4 074 25	4 076 62	1	1
1	4 074 26	4 076 63	2	1
1	4 074 27	4 076 64	3	1
1	4 074 28	4 076 65	4	1
1	4 074 29	4 076 66	6	1
10	4 074 30	4 076 68	10	1
1	4 074 31	4 076 69	13	1
10	4 074 32	4 076 70	16	1
1	4 074 33	4 076 71	20	1
1	4 074 34	4 076 72	25	1
1	4 074 35	4 076 73	32	1
1	4 074 36	4 076 74	40	1
1	4 074 37	4 076 75	50	1
1	4 074 38	4 076 76	63	1

3-pole 400 V~

Pack	Cat.Nos		Nominal rating In (A)	Number of modules
	B curve	C curve		
1	4 075 54	4 078 51	1	3
1	4 075 55	4 078 52	2	3
1	4 075 56	4 078 53	3	3
1	4 075 57	4 078 54	4	3
1	4 075 58	4 078 55	6	3
1	4 075 59	4 078 57	10	3
1	4 075 60	4 078 58	13	3
1	4 075 61	4 078 59	16	3
1	4 075 62	4 078 60	20	3
1	4 075 63	4 078 61	25	3
1	4 075 64	4 078 62	32	3
1	4 075 65	4 078 63	40	3
1	4 075 66	4 078 64	50	3
1	4 075 67	4 078 65	63	3

Single pole + neutral 230 V~

Neutral on right-hand side

	B curve	C curve	Nominal rating In (A)	Number of modules
1	4 074 67	4 077 33	0.5	1
1	4 074 68	4 077 34	1	1
1	4 074 69	4 077 35	2	1
1	4 074 70	4 077 36	3	1
1	4 074 71	4 077 37	4	1
1	4 074 72	4 077 38	6	1
1	4 074 73	4 077 40	10	1
1	4 074 74	4 077 41	13	1
10	4 074 75	4 077 42	16	1
1	4 074 76	4 077 43	20	1
1	4 074 77	4 077 44	25	1
1	4 074 78	4 077 45	32	1
1	4 074 79	4 077 46	40	1

4-pole 400 V~

	B curve	C curve	Nominal rating In (A)	Number of modules
1	4 076 17	4 079 20	1	4
1	4 076 18	4 079 21	2	4
1	4 076 19	4 079 22	3	4
1	4 076 20	4 079 23	4	4
1	4 076 21	4 079 24	6	4
1	4 076 22	4 079 26	10	4
1	4 076 23	4 079 27	13	4
1	4 076 24	4 079 28	16	4
1	4 076 25	4 079 29	20	4
1	4 076 26	4 079 30	25	4
1	4 076 27	4 079 31	32	4
1	4 076 28	4 079 32	40	4
1	4 076 29	4 079 33	50	4
1	4 076 30	4 079 34	63	4

2-pole 230/400 V~

	B curve	C curve	Nominal rating In (A)	Number of modules
1	4 075 02	4 077 92	1	2
1	4 075 03	4 077 93	2	2
1	4 075 04	4 077 94	3	2
1	4 075 05	4 077 95	4	2
1	4 075 06	4 077 96	6	2
1 I 5	4 075 07	4 077 98	10	2
1	4 075 08	4 077 99	13	2
1 I 5	4 075 09	4 078 00	16	2
1	4 075 10	4 078 01	20	2
1	4 075 11	4 078 02	25	2
1	4 075 12	4 078 03	32	2
1	4 075 13	4 078 04	40	2
1	4 075 14	4 078 05	50	2
1	4 075 15	4 078 06	63	2

MCBs DX³ 6000 - 10 kA

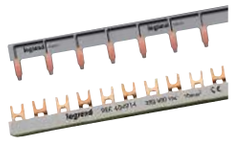
thermal magnetic MCBs from 0.5 A to 63 A - D curve


4 079 67


4 080 33


4 080 87


4 081 43



Technical characteristics **see e-catalogue**

Conform to IEC 60898-1
Compatible with both prong-type and fork type supply busbars
Breaking capacity:
6000 - IEC 60898-1 - 400 V~
10 kA - IEC 60947-2 - 400 V~
Can be equipped with DX³ signalling and remote tripping auxiliaries, motorised controls (p. 44-45) and add-on modules (p. 42)

Single pole 230/400 V~

Pack	Cat.Nos			
	D curve	Nominal rating In (A)	Number of modules	
1	4 079 62	0.5	1	
1	4 079 63	1	1	
1	4 079 64	2	1	
1	4 079 65	3	1	
1	4 079 66	4	1	
1	4 079 67	6	1	
1	4 079 69	10	1	
1	4 079 70	13	1	
1	4 079 71	16	1	
1	4 079 72	20	1	
1	4 079 73	25	1	
1	4 079 74	32	1	
1	4 079 75	40	1	
1	4 079 76	50	1	
1	4 079 77	63	1	

2-pole 230/400 V~

	D curve	Nominal rating In (A)	Number of modules
1	4 080 22	0.5	2
1	4 080 23	1	2
1	4 080 24	2	2
1	4 080 25	3	2
1	4 080 26	4	2
1	4 080 27	6	2
1	4 080 29	10	2
1	4 080 30	13	2
1	4 080 31	16	2
1	4 080 32	20	2
1	4 080 33	25	2
1	4 080 34	32	2
1	4 080 35	40	2
1	4 080 36	50	2
1	4 080 37	63	2

3-pole 400 V~

Pack	Cat.Nos		
	D curve	Nominal rating In (A)	Number of modules
1	4 080 80	0.5	3
1	4 080 82	2	3
1	4 080 83	3	3
1	4 080 84	4	3
1	4 080 85	6	3
1	4 080 87	10	3
1	4 080 88	13	3
1	4 080 89	16	3
1	4 080 90	20	3
1	4 080 91	25	3
1	4 080 92	32	3
1	4 080 93	40	3
1	4 080 94	50	3
1	4 080 95	63	3

4-pole 400 V~

	D curve	Nominal rating In (A)	Number of modules
1	4 081 43	6	4
1	4 081 45	10	4
1	4 081 46	13	4
1	4 081 47	16	4
1	4 081 48	20	4
1	4 081 49	25	4
1	4 081 50	32	4
1	4 081 51	40	4
1	4 081 52	50	4
1	4 081 53	63	4

MCBs DX³ 10000 - 16 kA

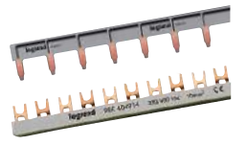
thermal magnetic MCBs from 0.5 A to 125 A - B and C curves


4 088 69


4 089 43


4 088 90


4 093 64



Technical characteristics **see e-catalogue**

Conform to IEC 60898-1
Compatible with both prong-type and fork type supply busbars (except 80 A, 100 A and 125 A MCBs)
Breaking capacity:
10000 - IEC 60898-1 - 400 V~
16 kA - IEC 60947-2 - 400 V~
Can be equipped with DX³ signalling and remote tripping auxiliaries, motorised controls (p. 44-45) and add-on modules (p. 42-43)

Single pole 230/400 V~

Pack	Cat.Nos		Nominal rating In (A)	Number of modules
	B curve	C curve		
1	4 088 64	4 091 06	0.5	1
1	4 088 65	4 091 07	1	1
1	4 088 66	4 091 08	2	1
1	4 088 67	4 091 09	3	1
1	4 088 68	4 091 10	4	1
1	4 088 69	4 091 11	6	1
1 I 10	4 088 70	4 091 12	10	1
1	4 088 71	4 091 13	13	1
1 I 10	4 088 72	4 091 14	16	1
1	4 088 73	4 091 15	20	1
1	4 088 74	4 091 16	25	1
1	4 088 75	4 091 17	32	1
1	4 088 76	4 091 18	40	1
1	4 088 77	4 091 19	50	1
1	4 088 78	4 091 20	63	1
1		4 091 40	80	1.5
1		4 091 41	100	1.5
1		4 091 42	125	1.5

2-pole 230/400 V~

Pack	B curve	C curve	Nominal rating In (A)	Number of modules
1	4 089 34	4 091 94	0.5	2
1	4 089 35	4 091 95	1	2
1	4 089 36	4 091 96	2	2
1	4 089 37	4 091 97	3	2
1	4 089 38	4 091 98	4	2
1	4 089 39	4 091 99	6	2
1	4 089 40	4 092 00	10	2
1	4 089 41	4 092 01	13	2
1	4 089 42	4 092 02	16	2
1	4 089 43	4 092 03	20	2
1	4 089 44	4 092 04	25	2
1	4 089 45	4 092 05	32	2
1	4 089 46	4 092 06	40	2
1	4 089 47	4 092 07	50	2
1	4 089 48	4 092 08	63	2
1	4 089 66	4 092 28	80	3
1	4 089 67	4 092 29	100	3
1		4 092 30	125	3

3-pole 400 V~

Pack	Cat.Nos		Nominal rating In (A)	Number of modules
	B curve	C curve		
1	4 089 83	4 092 46	0.5	3
1	4 089 84	4 092 47	1	3
1	4 089 85	4 092 48	2	3
1	4 089 86	4 092 49	3	3
1	4 089 87	4 092 50	4	3
1	4 089 88	4 092 51	6	3
1	4 089 89	4 092 52	10	3
1	4 089 90	4 092 53	13	3
1	4 089 91	4 092 54	16	3
1	4 089 92	4 092 55	20	3
1	4 089 93	4 092 56	25	3
1	4 089 94	4 092 57	32	3
1	4 089 95	4 092 58	40	3
1	4 089 96	4 092 59	50	3
1	4 089 97	4 092 60	63	3
1	4 090 15	4 092 80	80	4.5
1	4 090 16	4 092 81	100	4.5
1		4 092 82	125	4.5

4-pole 400 V~

Pack	B curve	C curve	Nominal rating In (A)	Number of modules
1	4 090 57	4 093 28	0.5	4
1	4 090 58	4 093 29	1	4
1	4 090 59	4 093 30	2	4
1	4 090 60	4 093 31	3	4
1	4 090 61	4 093 32	4	4
1	4 090 62	4 093 33	6	4
1	4 090 63	4 093 34	10	4
1	4 090 64	4 093 35	13	4
1	4 090 65	4 093 36	16	4
1	4 090 66	4 093 37	20	4
1	4 090 67	4 093 38	25	4
1	4 090 68	4 093 39	32	4
1	4 090 69	4 093 40	40	4
1	4 090 70	4 093 41	50	4
1	4 090 71	4 093 42	63	4
1	4 090 89	4 093 62	80	6
1	4 090 90	4 093 63	100	6
1		4 093 64	125	6

MCBs DX³ 10000 - 16 kA

thermal magnetic MCBs from 2 A to 125 A - D curve


4 094 28


4 094 52


4 095 08


4 095 42

Technical characteristics **see e-catalogue**

Conform to IEC 60898-1
Compatible with both prong-type and fork type supply busbars (except 80 A, 100 A and 125 A MCBs)
Breaking capacity:
10000 - IEC 60898-1 - 400 V~
16 kA - IEC 60947-2 - 400 V~
Can be equipped with DX³ signalling and remote tripping auxiliaries, motorised controls (p. 44-45) and add-on modules (p. 42-43)

Single pole 230/400 V~

Pack	Cat.Nos	D curve	Nominal rating In (A)	Number of modules
1	4 094 25		2	1
1	4 094 28		6	1
1	4 094 30		10	1
1	4 094 32		16	1
1	4 094 33		20	1
1	4 094 34		25	1
1	4 094 35		32	1
1	4 094 36		40	1
1	4 094 37		50	1
1	4 094 38		63	1

2-pole 230/400 V~

Pack	Cat.Nos	D curve	Nominal rating In (A)	Number of modules
1	4 094 44		2	2
1	4 094 47		6	2
1	4 094 49		10	2
1	4 094 51		16	2
1	4 094 52		20	2
1	4 094 53		25	2
1	4 094 54		32	2
1	4 094 55		40	2
1	4 094 56		50	2
1	4 094 57		63	2
1	4 094 58		80	3
1	4 094 59		100	3
1	4 094 60		125	3

3-pole 400 V~

Pack	Cat.Nos	D curve	Nominal rating In (A)	Number of modules
1	4 094 92		2	3
1	4 094 95		6	3
1	4 094 97		10	3
1	4 094 99		16	3
1	4 095 00		20	3
1	4 095 01		25	3
1	4 095 02		32	3
1	4 095 03		40	3
1	4 095 04		50	3
1	4 095 05		63	3
1	4 095 06		80	4.5
1	4 095 07		100	4.5
1	4 095 08		125	4.5

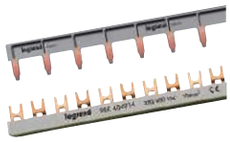
4-pole 400 V~

Pack	Cat.Nos	D curve	Nominal rating In (A)	Number of modules
1	4 095 26		2	4
1	4 095 29		6	4
1	4 095 31		10	4
1	4 095 33		16	4
1	4 095 34		20	4
1	4 095 35		25	4
1	4 095 36		32	4
1	4 095 37		40	4
1	4 095 38		50	4
1	4 095 39		63	4
1	4 095 40		80	6
1	4 095 41		100	6
1	4 095 42		125	6

MCBs DX³ - 16 kA - direct current

thermal magnetic MCBs from 0.5 A to 63 A

4 095 69



Technical characteristics **see e-catalogue**

Operating voltage from 12 V⎓ to 500 V⎓
Breaking capacity:
16 kA - IEC 60947-2 - 230 V⎓
10 kA - IEC 60947-2 - 440 V⎓
6 kA - IEC 60947-2 - 500 V⎓
Magnetic threshold from 5 to 7 In
Can be equipped with DX³ signalling and remote tripping auxiliaries and motorised controls (p. 44-45)

Direct current circuit breakers

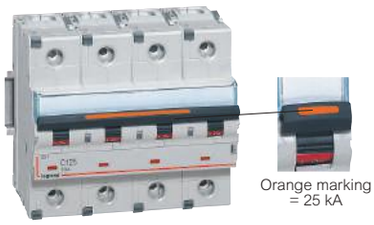
Pack	Cat.Nos	Nominal rating In (A)	Number of poles protected	Number of modules
1	4 095 59	0.5	2	2
1	4 095 60	1	2	2
1	4 095 61	1.6	2	2
1	4 095 62	2	2	2
1	4 095 63	3	2	2
1	4 095 64	4	2	2
1	4 095 65	6	2	2
1	4 095 66	8	2	2
1	4 095 67	10	2	2
1	4 095 68	16	2	2
1	4 095 69	20	2	2
1	4 095 70	25	2	2
1	4 095 71	32	2	2
1	4 095 72	40	2	2
1	4 095 73	50	2	2
1	4 095 74	63	2	2

For detailed dimensions, **see e-catalogue**

MCBs DX³ - 25 kA

thermal magnetic MCBs from 2 A to 125 A - B and C curves

4 097 72



4 098 03

Technical characteristics **see e-catalogue**

Breaking capacity:
25 kA - IEC 60947-2 - 400 V∿
Can be equipped with DX³ signalling and remote tripping auxiliaries and motorised controls (p. 44-45)

Single pole 230/400 V∿

Pack	Cat.Nos C curve	Nominal rating In (A)	Number of modules
1	4 097 52	2	1
1	4 097 53	6	1
1	4 097 54	10	1
1	4 097 55	16	1
1	4 097 56	20	1
1	4 097 57	25	1
1	4 097 58	32	1.5
1	4 097 59	40	1.5
1	4 097 60	50	1.5
1	4 097 61	63	1.5
1	4 097 62	80	1.5
1	4 097 63	100	1.5
1	4 097 64	125	1.5

2-pole 230/400 V∿

Pack	Cat.Nos B curve	Cat.Nos C curve	Nominal rating In (A)	Number of modules
1		4 097 65	2	2
1		4 097 66	6	2
1	4 097 15	4 097 67	10	2
1	4 097 16	4 097 68	16	2
1	4 097 17	4 097 69	20	2
1	4 097 18	4 097 70	25	2
1	4 097 19	4 097 71	32	2
1	4 097 20	4 097 72	40	3
1	4 097 21	4 097 73	50	3
1	4 097 22	4 097 74	63	3
1		4 097 75	80	3
1		4 097 76	100	3
1		4 097 77	125	3

3-pole 400 V∿

Pack	Cat.Nos B curve	Cat.Nos C curve	Nominal rating In (A)	Number of modules
1		4 097 78	2	3
1		4 097 79	6	3
1	4 097 28	4 097 80	10	3
1	4 097 29	4 097 81	16	3
1	4 097 30	4 097 82	20	3
1	4 097 31	4 097 83	25	3
1	4 097 32	4 097 84	32	4.5
1	4 097 33	4 097 85	40	4.5
1	4 097 34	4 097 86	50	4.5
1	4 097 35	4 097 87	63	4.5
1		4 097 88	80	4.5
1		4 097 89	100	4.5
1		4 097 90	125	4.5

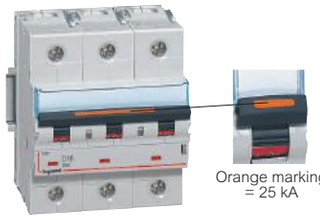
4-pole 400 V∿

Pack	Cat.Nos B curve	Cat.Nos C curve	Nominal rating In (A)	Number of modules
1		4 097 91	2	4
1		4 097 92	6	4
1	4 097 41	4 097 93	10	4
1	4 097 42	4 097 94	16	4
1	4 097 43	4 097 95	20	4
1	4 097 44	4 097 96	25	4
1	4 097 45	4 097 97	32	6
1	4 097 46	4 097 98	40	6
1	4 097 47	4 097 99	50	6
1	4 097 48	4 098 00	63	6
1	4 097 49	4 098 01	80	6
1	4 097 50	4 098 02	100	6
1	4 097 51	4 098 03	125	6

MCBs DX³ - 25 kA

thermal magnetic MCBs from 1 A to 125 A - D and Z curves

4 098 24



4 098 33

Technical characteristics **see e-catalogue**

Breaking capacity:
25 kA - IEC 60947-2 - 400 V~
Can be equipped with DX³ signalling and remote tripping auxiliaries and motorised controls (p. 44-45)

Single pole 230/400 V~

Pack	Cat.Nos		Nominal rating In (A)	Number of modules
	D curve	Z curve		
1		4 098 96	1	1
1	4 098 04	4 098 97	2	1
1		4 098 98	3	1
1	4 098 05	4 099 00	6	1
1	4 098 06	4 099 01	10	1
1	4 098 07	4 099 02	16	1
1	4 098 08	4 099 03	20	1
1	4 098 09	4 099 04	25	1
1	4 098 10		32	1.5
1	4 098 11		40	1.5
1	4 098 12		50	1.5
1	4 098 13		63	1.5
1	4 098 14		80	1.5
1	4 098 15		100	1.5
1	4 098 16		125	1.5

2-pole - 230/400 V~

	D curve	Z curve	Nominal rating In (A)	Number of modules
1	4 098 17	4 099 08	2	2
1		4 099 09	3	2
1	4 098 18	4 099 11	6	2
1	4 098 19	4 099 12	10	2
1	4 098 20	4 099 13	16	2
1	4 098 21	4 099 14	20	2
1	4 098 22		25	2
1	4 098 23		32	2
1	4 098 24		40	3

3 pole 400 V~

	D curve	Z curve	Nominal rating In (A)	Number of modules
1	4 098 30		2	3
1		4 099 20	3	3
1	4 098 31	4 099 22	6	3
1	4 098 32	4 099 23	10	3
1	4 098 33	4 099 24	16	3
1	4 098 34	4 099 25	20	3
1	4 098 35	4 099 26	25	3
1	4 098 36		32	4.5
1	4 098 37		40	4.5
1	4 098 38		50	4.5
1	4 098 39		63	4.5
1	4 098 40		80	4.5
1	4 098 41		100	4.5
1	4 098 42		125	4.5

4 pole 400 V~

	D curve	Z curve	Nominal rating In (A)	Number of modules
1	4 098 43		2	4
1	4 098 44		6	4
1	4 098 45	4 099 34	10	4
1	4 098 46	4 099 35	16	4
1	4 098 47	4 099 36	20	4
1	4 098 48	4 099 37	25	4
1	4 098 49		32	6
1	4 098 50		40	6
1	4 098 51		50	6
1	4 098 52		63	6
1	4 098 53		80	6
1	4 098 54		100	6
1	4 098 55		125	6

MCBs DX³ - 25 kA

magnetic release only (MA) MCBs from 1.6 A to 63 A

4 098 69

4 098 85

Technical characteristics **see e-catalogue**

Breaking capacity:
25 kA - IEC 60947-2 - 400 V~
Can be equipped with DX³ signalling and remote tripping auxiliaries and motorised controls (p. 44-45)

2-pole 230/400 V~

Pack	Cat.Nos	Nominal rating In (A)	Number of modules
	MA curve		
1	4 098 66	1.6	2
1	4 098 67	2.5	2
1	4 098 68	4	2
1	4 098 69	6.3	2
1	4 098 70	10	2
1	4 098 71	12.5	3
1	4 098 72	16	3
1	4 098 73	25	3

3-pole 400 V~

	MA curve	Nominal rating In (A)	Number of modules
1	4 098 76	1.6	3
1	4 098 77	2.5	3
1	4 098 78	4	3
1	4 098 79	6.3	3
1	4 098 80	10	3
1	4 098 81	12.5	4.5
1	4 098 82	16	4.5
1	4 098 83	25	4.5
1	4 098 84	40	4.5
1	4 098 85	63	4.5

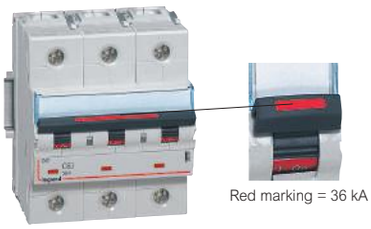
4-pole 400 V~

	MA curve	Nominal rating In (A)	Number of modules
1	4 098 86	1.6	4
1	4 098 87	2.5	4
1	4 098 88	4	4
1	4 098 89	6.3	4
1	4 098 90	10	4
1	4 098 91	12.5	6
1	4 098 92	16	6
1	4 098 93	25	6
1	4 098 94	40	6
1	4 098 95	63	6

MCBs DX³ - 36 kA

thermal magnetic MCBs from 10 A to 80 A - C curve

4 100 12



4 100 27

Technical characteristics **see e-catalogue**

Breaking capacity:
36 kA - IEC 60947-2 - 400 V~
Can be equipped with DX³ auxiliaries and accessories (p. 44)

2-pole - 230/400 V~

Pack	Cat.Nos	Nominal rating In (A)	Number of modules
	C curve		
1	4 100 07	10	3
1	4 100 08	16	3
1	4 100 09	20	3
1	4 100 10	25	3
1	4 100 11	32	3
1	4 100 12	40	3
1	4 100 13	50	3
1	4 100 14	63	3
1	4 100 15	80	3

3-pole - 400 V~

Pack	Cat.Nos	Nominal rating In (A)	Number of modules
	C curve		
1	4 100 20	10	4.5
1	4 100 21	16	4.5
1	4 100 22	20	4.5
1	4 100 23	25	4.5
1	4 100 24	32	4.5
1	4 100 25	40	4.5
1	4 100 26	50	4.5
1	4 100 27	63	4.5
1	4 100 28	80	4.5

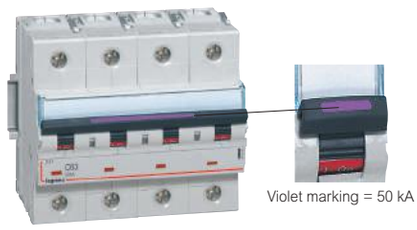
4-pole - 400 V~

Pack	Cat.Nos	Nominal rating In (A)	Number of modules
	C curve		
1	4 100 33	10	6
1	4 100 34	16	6
1	4 100 35	20	6
1	4 100 36	25	6
1	4 100 37	32	6
1	4 100 38	40	6
1	4 100 39	50	6
1	4 100 40	63	6
1	4 100 41	80	6

MCBs DX³ - 50 kA

thermal magnetic MCBs from 10 A to 63 A - B and C curves

4 101 51



4 101 80

Technical characteristics **see e-catalogue**

Breaking capacity:
50 kA - IEC 60947-2 - 400 V~
Can be equipped with DX³ auxiliaries and accessories (p. 44)

Single pole 230/400 V~

Pack	Cat.Nos	Nominal rating In (A)	Number of modules
	C curve		
1	4 101 34	10	1.5
1	4 101 35	16	1.5
1	4 101 36	20	1.5
1	4 101 37	25	1.5
1	4 101 38	32	1.5
1	4 101 39	40	1.5
1	4 101 40	50	1.5
1	4 101 41	63	1.5

2-pole 230/400 V~

Pack	Cat.Nos		Nominal rating In (A)	Number of modules
	B curve	C curve		
1	4 100 97	4 101 47	10	3
1	4 100 98	4 101 48	16	3
1	4 100 99	4 101 49	20	3
1	4 101 00	4 101 50	25	3
1	4 101 01	4 101 51	32	3
1	4 101 02	4 101 52	40	3
1		4 101 53	50	3
1		4 101 54	63	3

3-pole 400 V~

Pack	Cat.Nos	Nominal rating In (A)	Number of modules
	C curve		
1	4 101 60	10	4.5
1	4 101 61	16	4.5
1	4 101 62	20	4.5
1	4 101 63	25	4.5
1	4 101 64	32	4.5
1	4 101 65	40	4.5
1	4 101 66	50	4.5
1	4 101 67	63	4.5

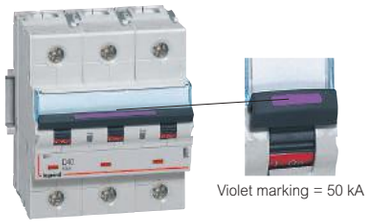
4-pole 400 V~

Pack	Cat.Nos		Nominal rating In (A)	Number of modules
	B curve	C curve		
1	4 101 21	4 101 73	10	6
1	4 101 22	4 101 74	16	6
1	4 101 23	4 101 75	20	6
1	4 101 24	4 101 76	25	6
1	4 101 25	4 101 77	32	6
1	4 101 26	4 101 78	40	6
1	4 101 27	4 101 79	50	6
1	4 101 28	4 101 80	63	6

For detailed dimensions,
see e-catalogue

MCBs DX³ - 50 kA

thermal magnetic MCBs from 10 A to 63 A - D curve



4 102 17

Technical characteristics **see e-catalogue**

Breaking capacity:
50 kA - IEC 60947-2 - 400 V~
Can be equipped with DX³ auxiliaries and accessories (p. 44)

Pack	Cat.Nos	Single pole 230/400 V~	
	D curve	Nominal rating In (A)	Number of modules
1	4 101 86	10	1.5
1	4 101 87	16	1.5
1	4 101 88	20	1.5
1	4 101 89	25	1.5
1	4 101 90	32	1.5
1	4 101 91	40	1.5
1	4 101 92	50	1.5
1	4 101 93	63	1.5

		2-pole 230/400 V~	
	D curve	Nominal rating In (A)	Number of modules
1	4 101 99	10	3
1	4 102 00	16	3
1	4 102 01	20	3
1	4 102 02	25	3
1	4 102 03	32	3
1	4 102 04	40	3

		3-pole 400 V~	
	D curve	Nominal rating In (A)	Number of modules
1	4 102 12	10	4.5
1	4 102 13	16	4.5
1	4 102 14	20	4.5
1	4 102 15	25	4.5
1	4 102 16	32	4.5
1	4 102 17	40	4.5
1	4 102 18	50	4.5
1	4 102 19	63	4.5

		4-pole 400 V~	
	D curve	Nominal rating In (A)	Number of modules
1	4 102 25	10	6
1	4 102 26	16	6
1	4 102 27	20	6
1	4 102 28	25	6
1	4 102 29	32	6
1	4 102 30	40	6
1	4 102 31	50	6
1	4 102 32	63	6

MCBs DX³ - 50 kA

magnetic release only (MA) MCBs from 1.6 A to 63 A

4 102 51

4 102 65

Technical characteristics **see e-catalogue**

Breaking capacity:
50 kA - IEC 60947-2 - 400 V~
Can be equipped with DX³ auxiliaries and accessories (p. 44)

Pack	Cat.Nos	3-pole 400 V~	
	MA curve	Nominal rating In (A)	Number of modules
1	4 102 46	1.6	4.5
1	4 102 47	2.5	4.5
1	4 102 48	4	4.5
1	4 102 49	6.3	4.5
1	4 102 50	10	4.5
1	4 102 51	12.5	4.5
1	4 102 52	16	4.5
1	4 102 53	25	4.5
1	4 102 54	40	4.5
1	4 102 55	63	4.5

		4-pole 400 V~	
	MA curve	Nominal rating In (A)	Number of modules
1	4 102 56	1.6	6
1	4 102 57	2.5	6
1	4 102 58	4	6
1	4 102 59	6.3	6
1	4 102 60	10	6
1	4 102 61	12.5	6
1	4 102 62	16	6
1	4 102 63	25	6
1	4 102 64	40	6
1	4 102 65	63	6

For detailed dimensions,
see e-catalogue

Add-on modules DX³

for 1 module/pole DX³ MCBs

4 104 01

4 104 71

4 105 55

Technical characteristics **see e-catalogue**

Conform to IEC 61009-1
- AC type : detect AC components faults
- A type : detect AC and DC component faults
- Hpi type Hpi: detect faults with AC and DC components, increased immunity to false tripping

For mounting on the right-hand side of 1 module per pole DX³ MCBs

2-pole - 230 V~

Pack	Cat.Nos	Sensitivity (mA)	Nominal rating In (A)	Number of modules
		AC Type		
1	4 104 01	30	40	2
1	4 104 02	30	63	2
1	4 104 13	300	40	2
1	4 104 14	300	63	2
1	4 104 24	300 selective	63	2
1	4 104 26	1000 selective	63	2
		A Type		
1	4 104 28	30	40	2
1	4 104 29	30	63	2
1	4 104 10	100	40	2
1	4 104 11	100	63	2
1	4 104 31	300	40	2
1	4 104 32	300	63	2
		Hpi Type Hpi		
1	4 104 34	30	40	2
1	4 104 35	30	63	2
1	4 104 46	30	40	2
1	4 104 57	300 selective	63	2
1	4 104 62	1000 selective	63	2

3-pole - 400 V~

Pack	Cat.Nos	Sensitivity (mA)	Nominal rating In (A)	Number of modules
		AC Type		
1	4 104 71	30	40	3
1	4 104 72	30	63	3
1	4 104 74	300	40	3
1	4 104 75	300	63	3
1	4 104 77	300 selective	63	3
		A Type		
1	4 104 80	30	63	3
1	4 104 83	300	63	3
		Hpi Type Hpi		
1	4 104 86	30	63	3
1	4 104 89	300	63	3
1	4 104 93	300 selective	63	3

4-pole - 400 V~

Pack	Cat.Nos	Sensitivity (mA)	Nominal rating In (A)	Number of modules
		AC Type		
1	4 104 99	30	40	3
1	4 105 00	30	63	3
1	4 105 11	300	40	3
1	4 105 12	300	63	3
1	4 105 20	300 selective	40	3
1	4 105 21	300 selective	63	3
1	4 105 23	1000 selective	63	3
		A Type		
1	4 105 25	30	40	3
1	4 105 26	30	63	3
1	4 105 08	100	40	3
1	4 105 09	100	63	3
1	4 105 28	300	40	3
1	4 105 29	300	63	3
1	4 105 31	300 selective	63	3
		Hpi Type Hpi		
1	4 105 33	30	40	3
1	4 105 34	30	63	3
1	4 105 45	300	40	3
1	4 105 46	300	63	3
1	4 105 55	300 selective	63	3
1	4 105 60	1000 selective	63	3

Add-on modules DX³

for 1.5 module/pole DX³ MCBs

4 106 43

4 106 59

Technical characteristics **see e-catalogue**

Conform to IEC 61009-1
• AC type ~: detect AC components faults
• Hpi type ~ Hpi: detect faults with AC and DC components, increased immunity to false tripping
For mounting on the right-hand side of 1.5 module per pole DX³ MCBs

Pack	Cat.Nos			
		2-pole - 230 V~		
		Hpi Type ~ Hpi		
		Sensitivity (mA)	Nominal rating In (A)	Number of modules
1	4 105 76	30	63	2
1	4 105 77	30	125	4
		Hpi Type ~ Hpi adjustable		
1	4 105 83	from 300 to 1000	63	4
1	4 105 84	from 300 to 1000	125	4
		3-pole - 400 V~		
		Hpi Type ~ Hpi		
		Sensitivity (mA)	Nominal rating In (A)	Number of modules
1	4 106 05	30	63	3
1	4 106 06	30	125	3
1	4 106 08	300	63	3
		Hpi Type ~ Hpi adjustable		
1	4 106 11	from 300 to 1000	63	6
1	4 106 12	from 300 to 1000	125	6
		4-pole - 400 V~		
		AC Type ~		
		Sensitivity (mA)	Nominal rating In (A)	Number of modules
1	4 106 24	30	125	6
1	4 106 28	300	125	6
		Hpi Type ~ Hpi		
1	4 106 36	30	63	3
1	4 106 37	30	125	6
1	4 106 40	300	63	3
		Hpi Type ~ Hpi adjustable		
1	4 106 43	from 300 to 1000	63	6
1	4 106 44	from 300 to 1000	125	6
		4-pole 400 V~ - Metering		
		LCD display For displaying active energy, instantaneous power and current per phase (A) consumption		
		Hpi type ~ Hpi with integrated energy meter		
		Sensitivity (mA)	Nominal rating (A)	Number of modules
1	4 106 57	30 à 3000	63	7.5
1	4 106 58	30 à 3000	125	7.5
		4-pole 400 V~ - Measurement		
		LCD display For displaying current per phase, voltage, frequency, active and reactive power, power factor, active and reactive energy consumption and harmonics		
		Hpi type ~ Hpi with integrated measurement control unit		
		Sensitivity (mA)	Nominal rating (A)	Number of modules
1	4 106 59	30 à 3000	125	7.5

Add-on modules DX³

Compatibility MCBs/add-on modules

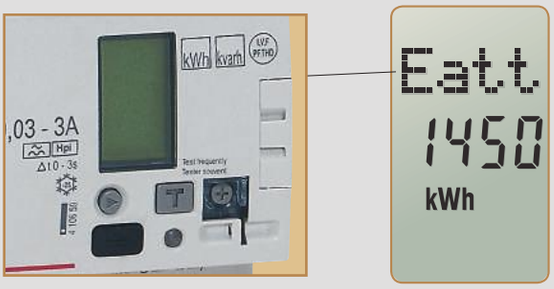
Breaking capacity	Curve	Number of poles	Add-on module for 1 module/pole MCBs	Add-on module for 1.5 module/pole MCBs
6000 / 10 kA	B, C, D	2P, 3P, 4P	All range	-
10000 / 16 kA	B, C, D	2P, 3P, 4P	In ≤ 63 A	In ≥ 80 A
25 kA	B, C, Z	3P, 4P	In ≤ 25 A	In ≥ 32 A
		2P	In ≤ 32 A	In ≥ 40 A
	D	3P, 4P	In ≤ 10 A	In ≥ 12,5 A
		2P	In ≤ 25 A	In ≥ 32 A
50 kA	B, C, D	2P, 3P, 4P	-	All range

Adjustable add-on modules, Hpi type

Easy to access settings on front panel with sealable transparent cover
Sensitivity: 300, 500 and 1000 mA
Time delay: instantaneous, selective (60 ms) or delayed (150 ms)

Hpi add-on modules with integrated metering unit or measurement control unit

Conform to standards EN 61009-1, EN 60947-2 and 61557-12 (PMD/DD/K55)
Electronic settings on the front panel
Sensitivity: 30, 300, 1000, 3000 mA
Time delay: instantaneous, or delayed
(300 ms, 1 s, 3 s)
For integration in the EDMX³ display and supervision system with interface Cat.No 4 210 75 (p. 85), to feed back information and the status of the remote MCB.
Precision: EN 61557-12 Class 1



For detailed dimensions, **see e-catalogue**

Signalling and remote tripping auxiliaries DX³


4 062 58


4 062 60


4 062 62


4 062 66


4 062 78


4 062 82


4 062 86

Pack	Cat.Nos	Signalling auxiliaries prong busbar adapted	Number of modules
		To fit on the left-hand side of DX³ and TX³ devices Maximum number of auxiliaries per device: - 3 signalling auxiliaries or - 2 signalling auxiliaries + 1 remote tripping auxiliary Allow insertion of the supply busbar, top side No tool required for joining together the auxiliary and the main device.	
		Auxiliary contact	
1	4 062 58	6 A - 250 V~ (changeover switch) For MCBs, RCBOs, RCCBs, isolating switches or remote trip isolating switches Indicates the position of the contacts of its associated device.	0.5
		Fault signalling contact	
1	4 062 60	6 A - 250 V~ (changeover switch) For MCBs, RCBOs, RCCBs, Indicates the fault tripping of its associated device	0.5
		Auxiliary or fault signalling contact	
1	4 062 62	6 A - 250 V~ (changeover switch) For MCBs, RCBOs, RCCBs Allows the choice between the two functions	0.5
		Auxiliary + fault signalling contact or auxiliary contact + auxiliary contact	
1	4 062 66	6 A - 250 V~ (changeover switch) For MCBs, RCBOs, RCCBs	1

Pack	Cat.Nos	Signalling auxiliaries fork busbar adapted	Number of modules
		To fit on the left-hand side of DX³ and TX³ devices Maximum number of auxiliaries per device: - 3 signalling auxiliaries or - 2 signalling auxiliaries + 1 remote tripping auxiliary Allow insertion of supply busbar, bottom side No tool required for joining together the auxiliary and the main device.	
		Auxiliary contact	
1	4 062 50	6 A - 250 V~(changeover switch) For MCBs, RCBOs, RCCBs, isolating switch or remote trip isolating switch Indicates the position of the contacts of its associated device	0.5
1	4 062 59	6 A - 250 V~(changeover switch) For DX³-ID B type RCCBs (p. 29)	0.5
		Fault signalling contact	
1	4 062 52	6 A - 250 V~ (changeover switch) For MCBs, RCBOs, RCCBs, Indicates the fault tripping of its associated device	0.5
		Auxiliary or fault signalling contact	
1	4 062 56	6 A - 250 V~ (changeover switch) For MCBs, RCBOs, RCCBs Allows the choice between the two functions	0.5
		Auxiliary + fault signalling contact or auxiliary contact + auxiliary contact	
1	4 062 64	6 A - 250 V~ (changeover switch) For MCB, RCBOs, RCCBs	1

Pack	Cat.Nos	Remote tripping auxiliaries	Number of modules
		To fit on the left-hand side of DX³ and TX³ devices Maximum 1 remote tripping auxiliary per device Allow insertion of the supply busbar No tool required for joining together the auxiliary and the main device. For MCBs, RCBOs, RCCBs and remote trip isolating switches	
		Current shunt trips	
		For remote tripping of its associated device via a N/O push button	
1	4 062 76	12 to 48 V~/ ⎓	1
1	4 062 78	110 to 415 V~	1
		Undervoltage releases	
		For remote tripping of its associated device in case of mains voltage drop down or with the help of a N/C push button	
1	4 062 80	24 to 48 V~/ ⎓	1
1	4 062 82	230 V~	1
		Power overvoltage protection (POP)	
1	4 062 86	Protects the circuit by tripping its associated device in case of overvoltage between phase and neutral. Tripping threshold: 275 V (eg. in case of neutral failure)	1
		Autonomous shunt trip for N/C push-button	
1	4 062 87	230 V~ For remote tripping with positive security on a control circuit via a N/C push-button or emergency stop. Does not trigger its associated device in case of mains power failure (the trigger occurs only after a deliberate action of a N/C push-button). Supplied with battery Mimimum working reserve: 60 hours (for remote tripping even if there is no supply voltage)	1.5
1	4 062 85	Spare battery for autonomous shunt trip Cat.No 4 062 87	

Motorised controls DX³, STOP&GO automatic resetting


4 062 91


4 062 92


4 062 88

Pack	Cat.Nos	Motorised controls		
		For remote control (opening and closing) of their associated device. To fit on the left-hand side of DX³ and TX³ devices For MCBs, RCBOs, RCCBs and remote trip isolating switches (from 1P to 4P) Can take one control auxiliary and one signalling auxiliary. No tool required for joining together the motorised control and the main device		
		ON/OFF function - for 1 module / pole devices (In up to 63 A)	Control voltage	Number of modules
1	4 062 90		24-48 V~/ ⎓	1
1	4 062 91		230 V~	1
		ON/OFF function - for 1.5 module / pole devices (In up to 125 A)		
1	4 062 92		230 V~	1
		ON/OFF + automatic resetting function - for 1 module / pole devices (In up to 63 A)		
		Automatically resets the device to which it is associated, thus ensuring continuity of service		
1	4 062 93		24-48 V~/ ⎓	2
1	4 062 95		230 V~	2
		STOP&GO automatic resetting		
		For automatic resetting of 1 module per pole RCCBs and RCBOs up to 63 A STOP&GO is used in the event of unwanted tripping generated by temporarily electrical disturbances or other external events. Can take one control auxiliary and one signalling auxiliary. The signalling auxiliary must be placed between the STOP&GO and the control auxiliary. No tool required for assembling		
		Automatic resetting function	Control voltage	No. of modules
1	4 062 88		230 V~	2
		Automatic resetting + periodic self-test function		
1	4 062 89		230 V~	2

Manual supply invertor DX³ and accessories


4 063 14


4 063 19

Pack	Cat.Nos	Manual supply invertor (MSI)
		For manually switching between the mains and an alternative power supply. Allow to restore power on pre-designated and/or critical circuits in case of a power failure of the main supply. For DX³ MCBs and remote trip isolating switches Installation principle - see e-catalogue
1	4 063 14	For 2P 2-module devices
1	4 063 15	For 3P 3-module devices
1	4 063 16	For 4P 4-module devices
		Front external rotary handles
		Allow the manual control (open/close) of a modular device without opening the enclosure For all DX³ devices from 2P upwards
1	4 063 19	Black handle
1	4 063 20	Yellow and red handle
		Wiring management accessories
		Insulating shields For 1 module per pole MCBs
1	4 063 05	For separation between the terminals of the MCB, when using high cross section cables
		Spacing unit with feedthrough
10	4 063 07	0.5 module Allows cables to run between two modular devices and creates an air channel in order to limit temperature rise
		Terminals for aluminium cables
1	4 063 10	For 1.5 module/pole MCBs up to 63 A
1	4 063 11	For 1.5 module/pole MCBs and remote trip isolating switches from 80 A to 125 A
		Safety and maintenance accessories
		Sealable screw covers
2	4 063 04	For 1 module per pole MCBs (set of 4)
1	4 063 12	For 1.5 module per pole MCBs (set of 4)
		Terminal shield
1	4 063 06	For 1.5 module/pole MCBs (set of 2)
		Padlocking
		To lock the handle of a modular device during maintenance
1	0 227 97	Large padlock, Ø6 mm, 50 mm length Supplied with two keys and labels
3	4 063 13	Small padlock, Ø5 mm
2	4 063 03	Support for one padlock (for small or large model) For locking the handle of the modular devices (MCBs, RCCBs, RCBOs or isolating switches) in OFF position

Performance of MCBs and auxiliaries

Breaking capacity in IT neutral earthing system

MCB single pole breaking capacity at 400 V according to IEC 60947-2

DX³ 6000 10 kA	1P/2P/3P/4P	3 kA
DX³ 10000 16 kA	1P/2P/3P/4P	4 kA
DX³ 25 kA	1P/2P/3P/4P	6.25 kA
DX³ 50 kA	1P/2P/3P/4P	12.5 kA

Breaking capacity in the event of short-circuit to earth and insulation voltage

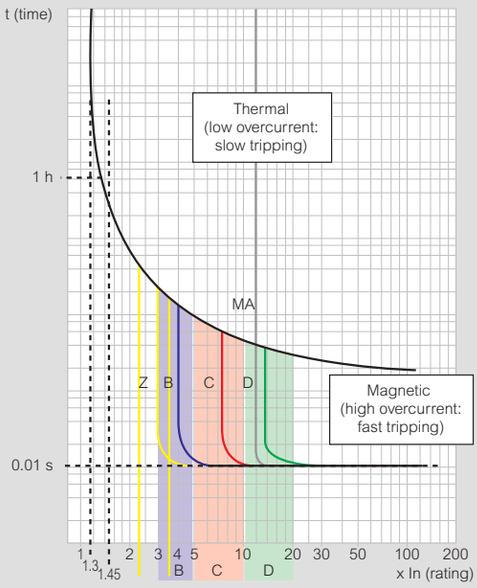
	1P/2P/3P/4P 230/400 V~ MCBs			
	DX³ 6000 10 kA	**DX³ 10000 16 kA**	**DX³ 25 kA**	**DX³ 50 kA**
Icn1	10000 A	16000 A	25000 A	50000 A
Ui	500 V	500 V	500 V	500 V

Icn 1: Breaking capacity on 1 pole for multipole MCBs in the event of short-circuit to earth
Ui: Rated insulation voltage

Terminal connection cross-sections (mm²)

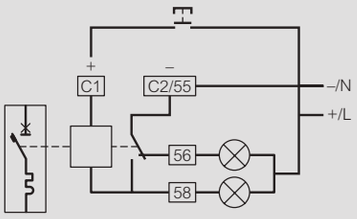
Copper cable	Rigid	Flexible
DX³ 6000 10 kA	35	25
DX³ 10000 16 kA		
DX³ 80 to 125 A	70	50
DX³ 25 kA ≥ **32 A (C curve)** ≥ **16 A (D curve)** ≤ **63 A**	50	35
DX³ 36 kA, DX³ 50 kA and add-on modules		
Auxiliaries	2.5	2.5

MCB tripping curves



Thermal tripping for an ambient temperature 30°C
In = nominal current (rating) of MCB

Curves	Magnetic threshold settings	
Z	2.4 to 3.6 In	
B	3 to 5 In	
C	5 to 10 In	
D	10 to 14 In	(10 to 20 acc. to the stds)
MA	12 to 14 In	

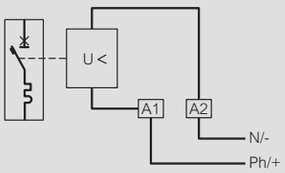


Nominal voltage (Un)
- 12 to 48 V~ and ⎓
- 110 to 415 V~ and 110 to 125 V⎓

Consumption	Umin.	Umax.
12 to 48 V	522 mA	2610 mA
110 to 415 V	69 mA	259 mA

Undervoltage releases

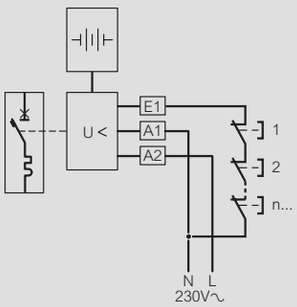
Pull-in voltage ≥ 0.55 Un
Tripping time: 100 to 400 ms ± 10% (adjustable)
Power consumption: 24 V~ and ⎓: 0.1 VA
48 V~ and ⎓: 0.2 VA
230 V~: 1 VA



Nominal voltage:
24 and 48 V~ and ⎓
230 V~

Stand-alone releases for N/C push-buttons

Min. and max. operating voltage: 196 to 250 V~
Power consumption: 1.4 VA



Signalling auxiliaries

Umin.: 24 V~/⎓ and Imin.: 5 mA

Compatibility between auxiliaries on 1 module/pole devices

1 module / pole device (auxiliary on the left side)	1st auxiliary	2nd auxiliary	3rd auxiliary
1st auxiliary	4 062 .. 50/52/56/58/60/ 62/66/76/78/80/ 82/84/86/87	-	-
2nd auxiliary	4 062 .. 50/52/56/ 58/60/62	4 062 .. 50/52/56/58/60/62/76/ 78/80/82/84/86/87	-
	4 062 .. 64/66/	4 062 .. 50/52/56/58/60/62/64/ 66/76/78/80/82/84/86/87	
3rd auxiliary	4 062 .. 50/52/56/ 58/60/62	4 062 .. 50/52/56/58/60/62	4 062 .. 76/78/80/82/ 84/86/87
	4 062 .. 64/66	4 062 .. 50/52/56/58/ 60/62/64/66	

Compatibility between auxiliaries on 1.5 module/pole devices

1.5 module / pole device (auxiliary on the left side)	1st auxiliary	2nd auxiliary	3rd auxiliary
1st auxiliary	4 062 .. 50/52/56/58/60/ 62/66/76/78/80/ 82/84/86/87	-	-
2nd auxiliary	4 062 .. 50/52/56/ 58/60/62	4 062 .. 50/52/56/58/60/62/	-
	4 062 .. 64/66/	4 062 .. 50/52/56/58/60/62/64/ 66/76/78/80/82/84/86/87	
3rd auxiliary	4 062 .. 64/66	4 062 .. 64/66	4 062 .. 76/78/80/82/ 84/86/87

Performance of add-on modules

AC type ~ - Standard applications

Detection of 50-60 Hz AC residual currents

A type ~ - Specific applications: dedicated lines

In addition to the characteristics of AC type add-on modules, A type add-on modules also detect residual currents with DC components. They are used whenever the fault currents are not sinusoidal. They are particularly suitable for the following dedicated line applications:

• On circuits where class 1 equipment may produce fault currents with DC components, such as variable speed drives with frequency inverter, etc.

Hpi type ~ Hpi - Special applications

Hpi add-on modules, with additional immunity to false tripping, which is much higher than the level required by the standard, detect residual currents with AC and DC components (A type), operate between - 25°C and + 40°C, and are used in the following special cases:

- When loss of data would be detrimental, such as computer equipment power supply lines (banks, military instrumentation, airline reservation centres, etc.)
- When loss of operation would be detrimental (automated machines, medical instrumentation, freezer lines, etc.)

• In places where there is a high risk of lightning strikes

- On sites with lines subject to considerable interference (use of fluorescent lights, etc)
- On sites with very long lines

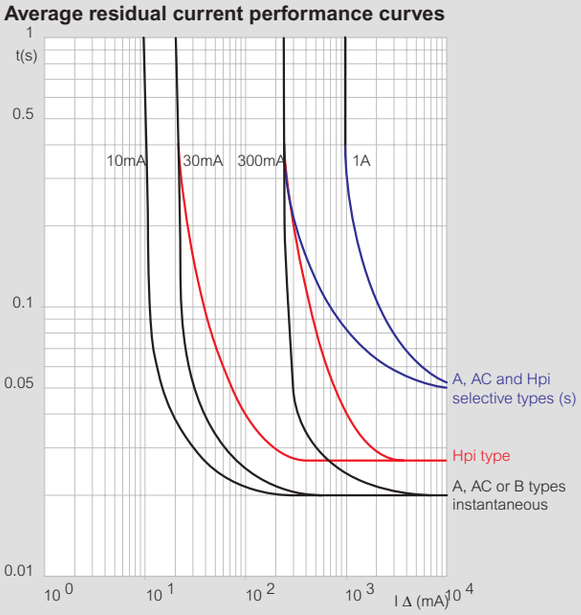
Special case of continuity of service

In certain locations where no staff are present and in which continuity of service is particularly important, false tripping of MCBs is not permitted (isolated telephone/TV or radio substations, pumping stations, etc.)
Combining an Hpi RCBO with a motorised control and a STOP & GO recloser provides optimum continuity of service

B type ⎓

In addition to the characteristics of A type RCDs, B type RCDs also detect smooth DC residual currents
They are used whenever fault currents are not sinusoidal
They are particularly suitable for the following specific applications : speed drives and inverters for supplying motors for pumps, lifts, textile machines, machine tools, photovoltaic installations, call centres, medical equipment, etc.

Average residual current performance curves



Residual current breaking capacity of DX³ add-on modules

IΔm according to EN 61009-1
AC, A and Hpi add-on modules

DX³ add-on modules used with an MCB		IΔm
DX³ (1 mod./pole)	25 kA ≤ 25 A (B, C, Z curves) 25 kA ≤ 10 A (D, MA curves)	6000 A
DX³ (1.5 mod./pole)	10000 16 kA (80 to 125 A) 25 kA ≥ 32 A (B, C, Z curves) 25 kA ≥ 12.5 A (D, MA curves) 36 kA 50 kA	30000 A

DPX³ and DX³

back-up tables[1] (in kA)

Breaking capacity (enhanced by cascading) in three-phase networks (+N) 400/415 V according to IEC 60947-2 (kA)

Back-up protection allows to increase the breaking capacity of a circuit breaker by coordinating it with another protection device, placed upstream. This coordination makes it possible to use a protection device with a breaking capacity which is lower than the maximum prospective short-circuit current at its installation point[(1)].

MCBs/MCCBs upstream		DX³ 10000 16 kA B, C and D curves	DX³ 25 kA B, C and D curves	DX³ 36 kA C curve	DX³ 50 kA B, C and D curves	DPX³ 160 with or without e.l.c.b.s				DPX³ 250 with or without e.l.c.b.s			
						16 kA	25 kA	36 kA	50 kA	25 kA	36 kA	50 kA	70 kA
MCBs downstream		10 to 125 A	10 to 125 A	10 to 80 A	10 to 63 A	16 to 160 A	16 to 160 A	16 to 160 A	16 to 160 A	40 to 250 A	40 to 250 A	40 to 250 A	40 to 250 A
DX³ 6000 / 10 kA B, C and D curves	≤ 20 A	16 kA	25 kA	36 kA	50 kA	16 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	25 A	16 kA	25 kA	36 kA	50 kA	16 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	32 A	16 kA	25 kA	36 kA	50 kA	16 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	40 A	16 kA	25 kA	36 kA	50 kA	16 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	50 A	16 kA	25 kA	36 kA	50 kA	16 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	63 A	16 kA	25 kA	36 kA	-	16 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
DX³ 10000 / 16 kA B, C and D curves	≤ 20 A	-	25 kA	36kA	50 kA	-	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	25 A	-	25 kA	36kA	50 kA	-	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	32 A	-	25 kA	36kA	50 kA	-	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	40 A	-	25 kA	36kA	50 kA	-	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	50 A	-	25 kA	36kA	50 kA	-	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	63 A	-	25 kA	36kA	-	-	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	80 and 100 A	-	-	-	-	-	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
	125 A	-	-	-	-	-	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA
DX³ 25 kA B, C curves	≤ 25 A	-	-	36 kA	50 kA	-	-	36 kA	36 kA	-	36 kA	36 kA	36 kA
	32 to 50 A	-	-	36 kA	50 kA	-	-	36 kA	36 kA	-	36 kA	36 kA	36 kA
	63 to 80 A	-	-	-	-	-	-	36 kA	36 kA	-	36 kA	36 kA	36 kA
	100 and 125 A	-	-	-	-	-	-	36 kA	36 kA	-	36 kA	36 kA	36 kA
DX³ 25 kA D and MA curves	≤ 10 A	-	-	36 kA	50 kA	-	-	36 kA	36 kA	-	36 kA	36 kA	36 kA
	16 to 63 A	-	-	36 kA	50 kA	-	-	36 kA	36 kA	-	36 kA	36 kA	36 kA
DX³ 36 kA C curve	10 to 63 A	-	-	-	50 kA	-	-	-	50 kA	-	-	50 kA	50 kA
	80 A	-	-	-	-	-	-	-	50 kA	-	-	50 kA	50 kA
DX³ 50 kA B, C, D and MA curves	≤ 63 A	-	-	-	-	-	-	-	-	-	-	-	70 kA

Breaking capacity (enhanced by cascading) in three-phase networks (+N) 230/240 V according to IEC 60947-2 (kA)

Breaking capacity of the combination between a Phase+Neutral or 2P MCB (connected between phase and neutral in 230V) downstream to a 2P or 4P MCB, for TT, TNS or TNC earthing systems.

MCBs/MCCBs upstream		DX³ Ph+N (1 mod.)			DX³ 4500 6 kA C curve	DX³ 6000 10 kA B, C and D curves	DX³ 10000 16 kA B, C and D curves		DX³ 25 kA B, C and D curves		DX³ 36 kA C curve		DX³ 50 kA B and C curves		DX³ 50 kA D curve	
		DNX³ 4500 6 kA C curve	DX³ 6000 10 kA C curve	DX³ 10000 16 kA C curve												
MCBs downstream		10 to 40 A	10 to 40 A	≤ 20 A	≤ 40 A	≤ 63 A	≤ 32 A	40 to 125 A	≤ 32 A	40 to 125 A	≤ 32 A	40 to 80 A	≤ 32 A	40 to 63 A	≤ 32 A	40 to 63 A
IP+N in 1 mod. MCBs																
DX³ 6000 10 kA B and C curves	≤ 10 A	-	-	16 kA	-	15 kA	25 kA	25 kA	40 kA	40 kA	70 kA	70 kA	75 kA	75 kA	75 kA	75 kA
	16 and 20 A	-	-	16 kA	-	15 kA	25 kA	25 kA	40 kA	40 kA	70 kA	70 kA	75 kA	75 kA	75 kA	75 kA
	25 A	-	-	-	-	15 kA	25 kA	25 kA	40 kA	40 kA	70 kA	70 kA	75 kA	75 kA	75 kA	75 kA
	32 A	-	-	-	-	15 kA	25 kA	25 kA	40 kA	40 kA	70 kA	70 kA	75 kA	75 kA	75 kA	75 kA
	40 A	-	-	-	-	15 kA	-	25 kA	-	40 kA	-	70 kA	-	75 kA	-	75 kA
DX³ 10000 16kA C curve	≤ 10 A	-	-	-	-	25 kA	16 kA	16 kA	25 kA	25 kA	36 kA	36 kA	50 kA	50 kA	50 kA	50 kA
	16 and 20 A	-	-	-	-	25 kA	16 kA	16 kA	25 kA	25 kA	36 kA	36 kA	50 kA	50 kA	50 kA	50 kA
DX³ 6000 10 kA B, C and D curves	≤ 20 A	-	-	-	-	-	32 kA	25 kA	40 kA	40 kA	70 kA	70 kA	75 kA	75 kA	75 kA	75 kA
	25 to 40 A	-	-	-	-	-	-	25 kA	-	40 kA	-	70 kA	-	75 kA	-	75 kA
	50 A	-	-	-	-	-	-	25 kA	-	40 kA	-	70 kA	-	-	-	-
	63 A	-	-	-	-	-	-	25 kA	-	40 kA	-	70 kA	-	-	-	-
DX³ 10000 16kA B, C and D curves	≤ 20 A	-	-	-	-	-	-	-	40 kA	40 kA	70 kA	70 kA	75 kA	75 kA	75 kA	75 kA
	25 to 40 A	-	-	-	-	-	-	-	-	40 kA	-	70 kA	-	75 kA	-	75 kA
	50 and 63 A	-	-	-	-	-	-	-	-	40 kA	-	70 kA	-	75 kA	-	75 kA
	80 to 125 A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DX³ 25kA B and C curves	≤ 25 A	-	-	-	-	-	-	-	-	-	70 kA	70 kA	75 kA	75 kA	75 kA	75 kA
	32 to 125 A	-	-	-	-	-	-	-	-	-	-	70 kA	-	75 kA	-	75 kA
DX³ 25kA D and MA curves	≤ 10 A	-	-	-	-	-	-	-	-	-	70 kA	70 kA	75 kA	75 kA	75 kA	75 kA
	16 to 63 A	-	-	-	-	-	-	-	-	-	70 kA	70 kA	75 kA	75 kA	75 kA	75 kA
DX³ 36kA C curve	10 to 80 A	-	-	-	-	-	-	-	-	-	-	-	85 kA	75 kA	75 kA	75 kA
DX³ 50kA B, C, D and MA curves	≤ 63 A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1 : All the values apply also to RCBOs. Nominal rating and magnetic threshold of the upstream MCB must be superior to the ones of the downstream MCB

Note : In accordance with its policy of continuous improvement the Company reserves the right to change values without notice.

	DPX³ 630		DPX³ 1600
	36 kA 160 to 630 A	70 kA 160 to 630 A	50 kA and 70 kA 630 to 1600 A
	25 kA	25 kA	25 kA
	25 kA	25 kA	20 kA
	25 kA	25 kA	15 kA
	20 kA	20 kA	15 kA
	16 kA	16 kA	12.5 kA
	16 kA	16 kA	12.5 kA
	25 kA	25 kA	25 kA
	25 kA	25 kA	20 kA
	25 kA	25 kA	16 kA
	20 kA	20 kA	16 kA
	20 kA	20 kA	16 kA
	20 kA	20 kA	16 kA
	20 kA	20 kA	16 kA
	16 kA	16 kA	16 kA
	30 kA	30 kA	30 kA
	36 kA	36 kA	36 kA
	36 kA	36 kA	36 kA
	30 kA	30 kA	30 kA
	30 kA	30 kA	30 kA
	36 kA	36 kA	36 kA
	-	50 kA	50 kA
	-	36 kA	36 kA
	-	70 kA	70 kA

	DPX³ 160 with or without e.l.c.b.s				DPX³ 250 with or without e.l.c.b.s				DPX³ 630		DPX³ 1600
	16 kA	25 kA	36 kA	50 kA	25 kA	36 kA	50 kA	70 kA	36 kA	70 kA	50 kA and 70 kA
	16 to 160 A	16 to 160 A	16 to 160 A	16 to 160 A	40 to 250 A	40 to 250 A	40 to 250 A	40 to 250 A	160 to 630 A	160 to 630 A	630 to 1600 A
	22 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	25 kA	25 kA	25 kA
	22 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	25 kA	25 kA	25 kA
	22 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	25 kA	20 kA	20 kA	20 kA
	16 kA	16 kA	16 kA	16 kA	16 kA	16 kA	16 kA	16 kA	10 kA	10 kA	10 kA
	16 kA	16 kA	16 kA	16 kA	16 kA	16 kA	16 kA	16 kA	10 kA	10 kA	10 kA
	22 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	25 kA	25 kA	25 kA
	22 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	30 kA	25 kA	25 kA	25 kA
	25 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA
	28 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA
	28 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	25 kA	25 kA	12.5 kA
	28 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	25 kA	25 kA	12.5 kA
	-	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA
	-	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	25 kA
	-	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	25 kA
	-	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	25 kA	25 kA	25 kA
	-	-	70 kA	70 kA	-	70 kA	70 kA	70 kA	30 kA	30 kA	30 kA
	-	-	70 kA	70 kA	-	70 kA	70 kA	70 kA	70 kA	70 kA	70 kA
	-	-	70 kA	70 kA	-	70 kA	70 kA	70 kA	70 kA	30 kA	30 kA
	-	-	70 kA	70 kA	-	70 kA	70 kA	70 kA	70 kA	70 kA	70 kA
	-	-	-	75 kA	-	-	75 kA	75 kA	-	75 kA	75 kA
	-	-	-	-	-	-	-	140 kA	-	140 kA	140 kA

DPX³ and DX³ upstream / DX³ downstream

selectivity limits (kA)

	Upstream MCB	DX³ 25 kA, DX³ 36 kA, DX³ 50 kA and DX³ 10000 16 kA (80 to 125 A) C curve							DX³ 25 kA, DX³ 50kA and DX³ 10000 16kA (80 to 125 A) D curve							DPX³ 160 with or without e.l.c.b.s 16 kA, 25 kA, 36 kA and 50 kA					
Downstream MCB	**In (A)**	**32**	**40**	**50**	**63**	**80**	**100**	**125**	**32**	**40**	**50**	**63**	**80**	**100**	**125**	**40**	**63**	**80**	**100**	**125**	**160**
DX³ 6000 / 10kA (1P+N)[1] DX³ 10000 / 16kA (1P+N)[1] B and C curves 1P+N in 1 mod.[1]	≤ 6	0,7	1,2	1,5	3	4	T	T	0,7	1,2	1,5	3	4	T	T	T	T	T	T	T	T
	10	0,5	0,7	1	1,8	3	5	T	0,5	0,7	1	1,8	3	5	T	T	T	T	T	T	T
	13	0,5	0,7	1	1,8	3	5	T	0,5	0,7	1	1,8	3	5	T	T	T	T	T	T	T
	16	0,3	0,5	0,7	1,3	2	3,6	5,5	0,4	0,5	0,7	1,3	2	3,6	5,5	T	T	T	T	T	T
	20	0,3	0,4	0,5	1	1,6	3	4	0,384	0,48	0,6	1	1,6	3	4	T	T	T	T	T	T
	25	0,24	0,4	0,5	0,8	1,3	2,4	3,3	0,384	0,48	0,6	0,8	1,3	2,4	3,3	T	T	T	T	T	T
	32	-	0,3	0,5	0,6	1	1,8	2,7	-	0,48	0,6	0,756	1,1	1,45	2,7	T	T	T	T	T	T
	40	-	-	0,4	0,6	0,8	1,6	2,4	-	-	0,6	0,756	1	1,25	2,4	-	T	T	T	T	T
DX³ 6000 / 10 kA DX³ 10000 / 16 kA B and C curves	≤ 6	0,7	1,2	1,5	3	4	T	T	0,7	1,2	1,5	3	4	T	T	12	T	T	T	T	T
	10	0,5	0,7	1	1,8	3	5	T	0,5	0,7	1	1,8	3	5	T	7	7	T	T	T	T
	13	0,5	0,7	1	1,8	3	5	T	0,5	0,7	1	1,8	3	5	T	7	7	T	T	T	T
	16	0,3	0,5	0,7	1,3	2	3,6	5,5	0,384	0,5	0,7	1,3	2	3,6	5,5	6	6	6	T	T	T
	20	0,3	0,4	0,5	1	1,6	3	4	0,384	0,48	0,6	1	1,6	3	4	5	5	5	6	T	T
	25	0,24	0,4	0,5	0,8	1,3	2,4	3,3	0,384	0,48	0,6	0,8	1,3	2,4	3,3	4,5	4,5	4,5	4,5	8,5	T
	32	-	0,3	0,5	0,6	1	1,8	2,7	-	0,48	0,6	0,756	1,1	1,45	2,7	-	3	4	4	7	10
	40	-	-	0,4	0,6	0,8	1,6	2,4	-	-	0,6	0,756	1	1,25	2,4	-	3	3	3	6	8
	50	-	-	-	0,5	0,8	0,9	1,7	-	-	-	0,756	0,95	1,2	1,7	-	-	3	3	5,5	7
	63	-	-	-	-	0,65	0,9	1,2	-	-	-	-	0,95	1,2	1,5	-	-	3	3	5	6
DX³ 10000 / 16 kA B and C curves	80	-	-	-	-	-	0,6	0,75	-	-	-	-	-	1,2	1,5	-	-	-	-	5	6
	100	-	-	-	-	-	-	0,75	-	-	-	-	-	-	1,5	-	-	-	-	-	5
	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
DX³ 6000 / 10 kA DX³ 10000 / 16 kA D curve	≤ 6	0,7	1,2	1,5	3	4	T	T	0,5	1,2	1,5	3	4	T	T	T	T	T	T	T	T
	10	0,5	0,7	1	1,8	3	5	T	0,4	0,7	1	1,8	3	5	T	7,5	7,5	T	T	T	T
	16	0,3	0,5	0,7	1,3	2	3,6	5,5	0,384	0,5	0,7	1,3	2	3,6	5,5	6	6	6	T	T	T
	20	-	0,4	0,5	1	1,6	3	4	0,384	0,48	0,6	1	1,6	3	4	5	5	6	6	T	T
	25	-	-	0,5	0,8	1,3	2,4	3,3	-	0,48	0,6	0,8	1,3	2,4	3,3	4,5	4,5	4,5	4,5	8,5	T
	32	-	-	-	0,6	1	1,8	2,7	-	0,48	0,6	0,756	1,1	1,45	2,7	-	3	4	4	7	T
	40	-	-	-	-	0,8	1,6	2,4	-	-	0,6	0,756	1	1,25	2,4	-	3	3	3	6	T
	50	-	-	-	-	-	0,9	1,7	-	-	-	0,756	0,95	1,2	1,7	-	-	3	3	5,5	T
	63	-	-	-	-	-	-	1,2	-	-	-	-	0,95	1,2	1,5	-	-	3	3	5	T
DX³ 10000 / 16 kA D curve	80	-	-	-	-	-	-	-	-	-	-	-	-	1,2	1,5	-	-	-	-	5	6
	100	-	-	-	-	-	-	-	-	-	-	-	-	-	1,5	-	-	-	-	-	5
	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
DX³ 25 kA B and C curves	≤ 6	0,7	1,2	1,5	3	4	T	T	0,5	1,2	1,5	3	4	T	T	T	T	T	T	T	T
	10	0,5	0,7	1	1,8	3	5	T	0,4	0,7	1	1,8	3	5	T	T	T	T	T	T	T
	16	0,3	0,5	0,7	1,3	2	3,6	5,5	0,384	0,5	0,7	1,3	2	3,6	5,5	T	T	T	T	T	T
	20	0,3	0,4	0,5	1	1,6	3	4	0,384	0,48	0,6	1	1,6	3	4	T	T	T	T	T	T
	25	0,24	0,4	0,5	0,8	1,3	2,4	3,3	-	0,48	0,6	0,8	1,3	2,4	3,3	T	T	T	T	T	T
	32	-	0,3	0,5	0,6	1	1,8	2,7	-	0,48	0,6	0,756	1,1	1,45	2,7	-	T	T	T	T	T
	40	-	-	0,4	0,6	0,8	1,6	2,4	-	-	0,6	0,756	1	1,25	2,4	-	T	T	T	T	T
	50	-	-	-	0,5	0,8	0,9	1,7	-	-	-	0,756	0,95	1,2	1,7	-	4	4	5	10	10
	63	-	-	-	-	0,65	0,9	1,2	-	-	-	-	0,95	1,2	1,5	-	-	3	5	10	10
	80	-	-	-	-	-	0,6	0,75	-	-	-	-	-	1,2	1,5	-	-	-	-	5	6
	100	-	-	-	-	-	-	0,75	-	-	-	-	-	-	1,5	-	-	-	-	-	5
	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
DX³ 25 kA D curve	≤ 6	0,7	1,2	1,5	3	4	T	T	0,5	1,2	1,5	3	4	T	T	T	T	T	T	T	T
	10	0,5	0,7	1	1,8	3	5	T	0,4	0,7	1	1,8	3	5	T	T	T	T	T	T	T
	16	0,3	0,5	0,7	1,3	2	3,6	5,5	0,384	0,5	0,7	1,3	2	3,6	5,5	T	T	T	T	T	T
	20	-	0,4	0,5	1	1,6	3	4	0,384	0,48	0,6	1	1,6	3	4	T	T	T	T	T	T
	25	-	-	0,5	0,8	1,3	2,4	3,3	0,384	0,48	0,6	0,8	1,3	2,4	3,3	T	T	T	T	T	T
	32	-	-	-	0,6	1	1,8	2,7	-	0,48	0,6	0,756	1,1	1,45	2,7	-	T	T	T	T	T
	40	-	-	-	-	0,8	1,6	2,4	-	-	0,6	0,756	1	1,25	2,4	-	T	T	T	T	T
	50	-	-	-	-	-	0,9	1,7	-	-	-	0,756	0,95	1,2	1,7	-	-	4	5	10	10
	63	-	-	-	-	-	-	1,2	-	-	-	-	0,95	1,2	1,5	-	-	3	5	10	10
	80	-	-	-	-	-	-	-	-	-	-	-	-	1,2	1,5	-	-	-	-	5	6
	100	-	-	-	-	-	-	-	-	-	-	-	-	-	1,5	-	-	-	-	-	5
	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
DX³ MA 25 kA	10	0,5	0,7	1	1,8	3	5	T	0,5	0,7	1	1,8	3	5	T	T	T	T	T	T	T
	12,5	0,3	0,5	0,7	1,3	2	5	T	0,384	0,5	0,7	1,3	2	3,6	5,5	T	T	T	T	T	T
	16	0,3	0,5	0,7	1,3	2	3,6	5,5	0,384	0,5	0,7	1,3	2	3,6	5,5	T	T	T	T	T	T
	25	-	-	0,5	0,8	1,3	2,4	3,3	0,384	0,48	0,6	0,8	1,3	2,4	3,3	T	T	T	T	T	T
	40	-	-	-	-	0,8	1,6	2,4	-	-	0,6	0,756	1	1,25	2,4	-	T	T	T	T	T
	63	-	-	-	-	-	-	1,2	-	-	-	-	0,95	1,2	1,5	-	-	3	5	10	10
DX³ 36 kA C curve	10	0,5	0,7	1	1,8	3	-	-	0,5	0,7	1	1,8	-	-	-	T	T	T	T	T	T
	16	0,3	0,5	0,7	1,3	2	-	-	0,384	0,5	0,7	1,3	-	-	-	T	T	T	T	T	T
	20	0,3	0,4	0,5	1	1,6	-	-	0,384	0,48	0,6	1	-	-	-	T	T	T	T	T	T
	25	0,24	0,4	0,5	0,8	1,3	-	-	0,384	0,48	0,6	0,8	-	-	-	T	T	T	T	T	T
	32	-	0,3	0,5	0,6	1	-	-	-	0,48	0,6	0,756	-	-	-	-	T	T	T	T	T
	40	-	-	0,4	0,6	0,8	-	-	-	-	0,6	0,756	-	-	-	-	T	T	T	T	T
	50	-	-	-	0,5	0,8	-	-	-	-	-	0,756	-	-	-	-	-	4	5	10	10
	63	-	-	-	-	0,65	-	-	-	-	-	-	-	-	-	-	-	3	5	10	10
	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	6
DX³ 50 kA B and C curves	10	0,5	0,7	1	1,8	3	-	-	0,5	0,7	1	1,8	-	-	-	T	T	T	T	T	T
	16	0,3	0,5	0,7	1,3	2	-	-	0,384	0,5	0,7	1,3	-	-	-	T	T	T	T	T	T
	20	0,3	0,4	0,5	1	1,6	-	-	0,384	0,48	0,6	1	-	-	-	T	T	T	T	T	T
	25	0,24	0,4	0,5	0,8	1,3	-	-	0,384	0,48	0,6	0,8	-	-	-	36	T	T	T	T	T
	32	-	0,3	0,5	0,6	1	-	-	-	0,48	0,6	0,756	-	-	-	-	T	T	T	T	T
	40	-	-	0,4	0,6	0,8	-	-	-	-	0,6	0,756	-	-	-	-	T	T	T	T	T
	50	-	-	-	0,5	0,8	-	-	-	-	-	0,756	-	-	-	-	-	4	5	10	10
	63	-	-	-	-	0,65	-	-	-	-	-	-	-	-	-	-	-	-	5	10	10
DX³ 50 kA D curve	10	0,5	0,7	1	1,8	3	-	-	0,5	0,7	1	1,8	-	-	-	T	T	T	T	T	T
	16	0,3	0,5	0,7	1,3	2	-	-	0,384	0,5	0,7	1,3	-	-	-	T	T	T	T	T	T
	20	-	0,4	0,5	1	1,6	-	-	0,384	0,48	0,6	1	-	-	-	T	T	T	T	T	T
	25	-	-	0,5	0,8	1,3	-	-	0,384	0,48	0,6	0,8	-	-	-	36	T	T	T	T	T
	32	-	-	-	0,6	1	-	-	-	0,48	0,6	0,756	-	-	-	-	T	T	T	T	T
	40	-	-	-	-	0,8	-	-	-	-	0,6	0,756	-	-	-	-	T	T	T	T	T
	50	-	-	-	-	-	-	-	-	-	-	0,756	-	-	-	-	-	4	5	10	10
	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	10	10
DX³ MA 50 kA	≤ 4	0,7	1,2	1,5	3	4	-	-	0,7	1,2	1,5	3	-	-	-	T	T	T	T	T	T
	6,3	0,7	1,2	1,5	3	4	-	-	0,7	1,2	1,5	3	-	-	-	T	T	T	T	T	T
	10	0,5	0,7	1	1,8	3	-	-	0,5	0,7	1	1,8	-	-	-	T	T	T	T	T	T
	12,5	0,3	0,5	0,7	1,3	2	-	-	0,5	0,7	1	1,8	-	-	-	T	T	T	T	T	T
	16	0,3	0,5	0,7	1,3	2	-	-	0,384	0,5	0,7	1,3	-	-	-	T	T	T	T	T	T
	25	-	-	0,5	0,8	1,3	-	-	0,384	0,48	0,6	0,8	-	-	-	36	T	T	T	T	T
	40	-	-	-	-	0,8	-	-	-	-	0,6	0,756	-	-	-	-	T	T	T	T	T
	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	10	10

T = Total selectivity, until downstream MCB breaking capacity, according NE 60947-2
The magnetic threshold and the nominal rating of the downstream MCB must always be inferior to the ones of the upstream MCB
1 : For 1P+N MCBs the selectivity applies for Ik1 between phase and neutral, whether 230V in 230/400V networks

	DPX³ 250 with or without e.l.c.b.s 25 kA, 36 kA, 50 kA and 70kA					DPX³ 630 and 1600 DMX² 2500, 4000 and 6300
	40	100	160	200	250	160 to 4000 A
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	7	T	T	T	T	T
	5	T	T	T	T	T
	4	T	T	T	T	T
	-	5	T	T	T	T
	-	5	T	T	T	T
	-	4	T	T	T	T
	-	4	T	T	T	T
	-	4	T	T	T	T
	-	-	T	T	T	T
	-	-	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	6	T	T	T	T	T
	5	8	T	T	T	T
	-	6	T	T	T	T
	-	5	T	T	T	T
	-	5	T	T	T	T
	-	4	T	T	T	T
	-	-	T	T	T	T
	-	-	T	T	T	T
	-	-	T	T	T	T
	-	-	-	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	-	T	T	T	T	T
	-	T	T	T	T	T
	-	20	T	T	T	T
	-	15	T	T	T	T
	-	4	T	T	T	T
	-	-	T	T	T	T
	-	-	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	-	T	T	T	T	T
	-	T	T	T	T	T
	-	20	T	T	T	T
	-	15	T	T	T	T
	-	-	T	T	T	T
	-	-	T	T	T	T
	-	-	-	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	-	T	T	T	T	T
	-	-	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	-	T	T	T	T	T
	-	T	T	T	T	T
	-	20	T	T	T	T
	-	15	T	T	T	T
	-	4	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	-	T	T	T	T	T
	-	T	T	T	T	T
	-	20	T	T	T	T
	-	15	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	-	T	T	T	T	T
	-	T	T	T	T	T
	-	20	T	T	T	T
	-	15	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	T	T	T	T	T	T
	-	T	T	T	T	T
	-	-	T	T	T	T

For columns applicable to several circuit breakers with different breaking capacities, selectivity never exceeds upstream MCB breaking capacity. If this value is superior, use upstream MCB breaking capacity value.
Example : DPX³ 250 (36 kA) 160 A upstream, and DX³ 50 kA D curve downstream. Use 36 kA value, and not 50 kA value as the T (total selectivity) indicated in the table. T (total selectivity) is applicable with the DPX³ 250 (70 kA) upstream, unless the DPX³ is associated with another upstream device.
Note : In accordance with its policy of continuous improvement the Company reserves the right to change values without notice.

Protection of DC circuits

DX³ 6000 and DX³ 10000 MCBs (1P/2P/3P/4P - In ≤ 63 A) designed for use in 230/400 V~ supplies, can also be used in DC circuits
In this case, the following deratings and precautions must be taken into account

1 - Protection against short-circuits

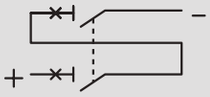
Max. magnetic tripping threshold: multiplied by 1.4
Example: For a C curve MCB for which the AC tripping threshold is between 5 and 10 In, the DC tripping threshold will be between 7 and 14 In

2 - Protection against overloads

The time/current thermal tripping curve is the same as for AC

3 - Operating voltage

Max. operating voltage: 80 V per pole (60 V for single-pole + N MCBs)
For voltages higher than this value, several poles must be wired in series

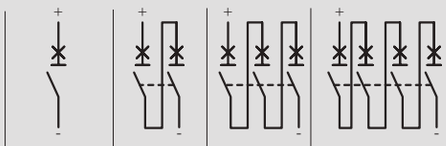


Example: for a 110 V voltage, use a 2-pole MCB and connect the 2 poles in series

4 - Breaking capacity

4000 A for a single pole MCB at max. voltage (80 V⎓ per pole)

For other voltages, the breaking capacities are as follows:



DX³ 6000		voltage	single-pole	2P	3P	4P
Acc. to IEC 60947.2	Icu	≤ 48 V	6 kA	6 kA		
		110 V		6 kA	6 kA	
		230 V				10 kA
	Ics(1)	≤ 48 V	100 %	100 %		
		110 V		100 %	100 %	
		230 V				100 %

DX³ 10000		voltage	single-pole	2P	3P	4P
Acc. to IEC 60947.2	Icu	≤ 48 V	10 kA	10 kA		
		110 V		10 kA	10 kA	
		230 V				16 kA
	Ics(1)	≤ 48 V	100 %	100 %		
		110 V		100 %	100 %	
		230 V				100 %

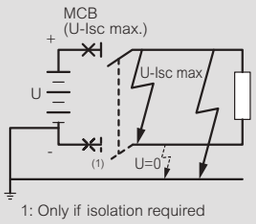
1: As a % of Icu

5 - Distribution of breaking poles

To choose the MCB and determine the pole distribution necessary for breaking on each of the polarities, it is necessary to know how the installation is earthed

• Supply with one polarity earthed:

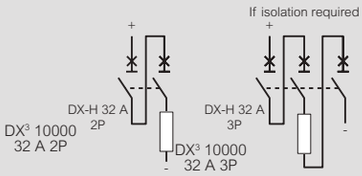
Place all the poles necessary for breaking on the other polarity If isolation is required, an additional pole must be added on the earthed polarity



1: Only if isolation required

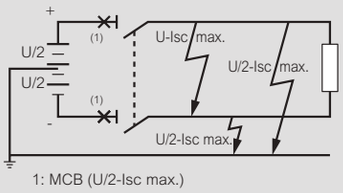
Example: circuit earthed via the negative polarity / U = 110 V⎓ / Isc = 10 kA / In = 32 A
Protect the positive polarity using an MCB capable of breaking 10 kA at 110 V (DX³ 10000 2P 32 A with 2 poles on the positive polarity)
For isolation, use a DX³ 10000 3P 32 A with 2 poles on the positive polarity and one pole on the negative polarity

DX³ 10000		voltage	single-pole	2P	3P	4P
Acc. to IEC 60947.2	Icu	≤ 48 V	10 kA	10 kA		
		110 V		10 kA	10 kA	
		230 V				15 kA



• Network earthed via a middle point:

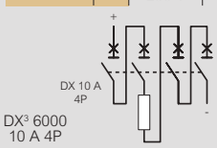
Place on each polarity the number of poles necessary for max. Isc breaking at half voltage



1: MCB (U/2-Isc max.)

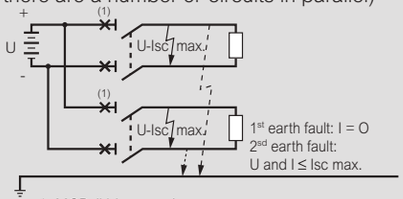
Example: circuit earthed via a middle point / U = 230 V⎓ / Isxc = 6 kA / In = 10 A
Protect each polarity using an MCB capable of breaking 6 kA at half voltage, i.e. 115 V (DX³ 6000 4P 10 A with 2 poles on each polarity)

DX³ 6000		voltage	single-pole	2P	3P	4P
Acc. to IEC 60947.2	Icu	≤ 48 V	6 kA	6 kA		
		110 V		6 kA	6 kA	
		230 V				10 kA



• Isolated earth supply:

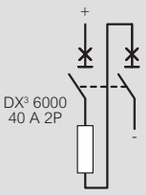
Distribute the poles necessary for breaking over the 2 polarities to provide protection in the event of a double earth fault (particularly if there are a number of circuits in parallel)



1: MCB (U-Isc max.)

Example: isolated earth circuit / U = 48 V⎓ / Isc = 4.5 kA / In = 40 A
Protect the installation with an MCB capable of breaking 4.5 kA at 48 V and protect each polarity (DX³ 6000 MCB 2P 40 A with one pole on each polarity)

DX³ 6000		voltage	single-pole	2P	3P	4P
Acc. to IEC 60947.2	Icu	≤ 48 V	6 kA	6 kA		
		110 V		6 kA	6 kA	
		230 V				10 kA



Pulse operated latching relays CX³


4 124 01


4 124 12


0 491 20


4 124 29


4 124 36

Dimensions **see e-catalogue**

Noiseless pulse operated latching relay

Conform to standard EN 60669-2-2

Single pole - 16 A - 250 V~

Pack	Cat.Nos	Control voltage	Type of contact	Connection	Number of modules
1	4 124 00	230 V	1 N/O		1

Delayed noiseless pulse operated latching relay

Switch-off, pre-warning function
Conform to standard EN 60669-2-2

Single pole - 16 A - 250 V~

Pack	Cat.Nos	Control voltage	Type of contact	Connection	Number of modules
1	4 124 01	230 V	1 N/O		1

Standard pulse operated latching relays

Conform to standard EN 60669-2-2
Maximum 2 auxiliary devices per latching relay

Single pole - 16 A - 250 V~

Pack	Cat.Nos	Control voltage	Type of contact	Connection	Number of modules
1	4 124 04	12 V	1 N/O		1
1	4 124 05	24 V	1 N/O		1
10	4 124 08	230 V	1 N/O		1

2-pole - 16 A - 250 V~

Pack	Cat.Nos	Control voltage	Type of contact	Connection	Number of modules
1	4 124 10	24 V	2 N/O		1
1	4 124 11	48 V	2 N/O		1
10	4 124 12	230 V	2 N/O		1

4-pole - 16 A - 250 V~

Can be used for 3-pole assembly

Pack	Cat.Nos	Control voltage	Type of contact	Connection	Number of modules
1	4 124 14	24 V	4 N/O		2
1	4 124 16	230 V	4 N/O		2

Surface mounting pulse operated latching relays

10 A - 230 V~ - 50/60 Hz
Suitable for new installations or retrofitting of existing ones
Compatible with electronic ballasts and fluocompact lamps
Mounting on plate or in flush-mounting boxes Ø 67 mm
Equipped with automatic terminals for flexible or rigid wires (max. 2.5 mm)
Power : min. 7 W / max. 2300 W
IP 20 - IK 04
Dimensions: 49 x 46 x 26 mm
Maximum current when used with illuminated push-buttons : 50 mA

Noiseless

Pack	Cat.Nos	
10	0 491 20	Single pole
10	0 491 21	Single pole with timer Enables energy savings by switching off lighting after a specified period Time delay adjustment from 1 to 60 min. Switch-off pre-warning function (can be disabled)

Signalling auxiliary

Fitted on left-hand side of latching relay (equipped or not with control auxiliary)
Maximum 2 auxiliaries per latching relay
Used to signal the status of the contacts on the associated product

Auxiliary changeover switch

Pack	Cat.Nos	I max.	Voltage	Contact	Number of modules
1	4 124 29	5 A	250 V~	N/C + N/O	0.5

Control auxiliary

Fitted on left-hand side of latching relay
Maximum 1 control auxiliary per latching relay
Compatible with signalling auxiliary Cat.No 4 124 29

Auxiliary device for centralized control

For a centralized control of different latching relays from one single point

Pack	Cat.Nos		Number of modules
1	4 124 33	For latching relays 24 V~ to 48 V~	0.5
1	4 124 34	For latching relays 230 V~	0.5

Auxiliary device for general centralized control

Pack	Cat.Nos		Number of modules
1	4 124 36	For simultanous control of different groups of latching relays, already fitted with auxiliary device for centralised control 230 V~ Cat.No 4 124 34	1

Auxiliary device for maintained contact

Pack	Cat.Nos		Number of modules
1	4 124 37	Allows the control of a latching relay via one maintained contact (i.e. time switches)	0.5

Compensator module

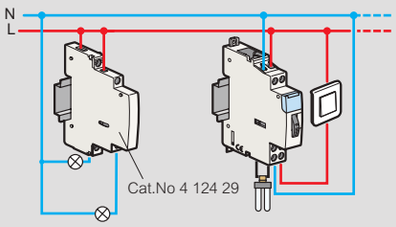
Used to control 230 V~ - 50 Hz pulse operated latching relays via illuminated push-buttons without malfunctions
Connects to the terminals of the pulse operated latching relay coil
Compensation:
- 1 compensator module for a total consumption of 3 to 6 mA (example: 6 to 11 illuminated push-buttons consuming 0.55 mA each)
- 2 compensators modules for a total consumption of 6 to 9 mA (example: 12 to 17 illuminated push-buttons with consuming 0.5 mA each)

Pack	Cat.Nos		Number of modules
1	4 124 39	Impedance compensator for 230 V~ pulse operated latching relays	1

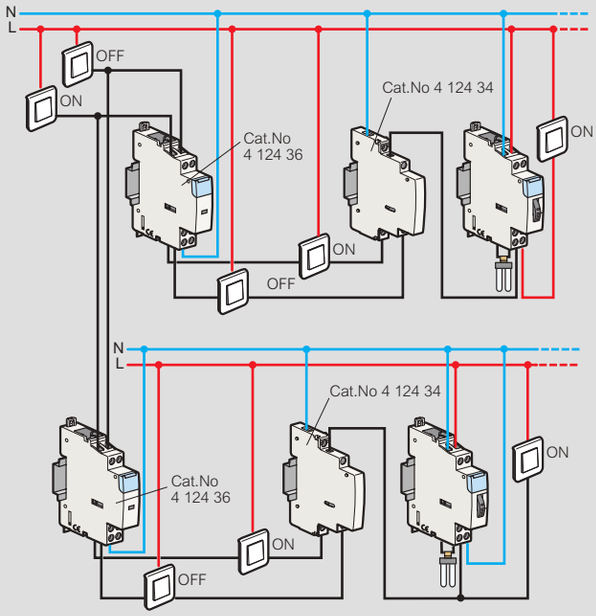
Pulse operated latching relays

Wiring diagrams

Signalling with auxiliary Cat.No 4 124 29

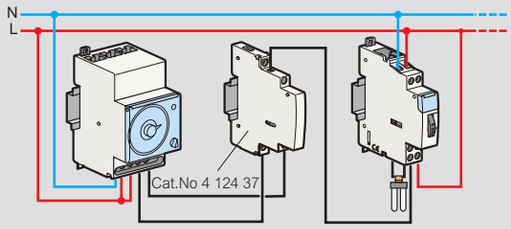


Centralized control at one point using auxiliary devices Cat.Nos 4 124 34 and 4 124 36



Use only non illuminated push-buttons

Control via maintained contact using auxiliary device Cat.No 4 124 37 and time switch



Technical characteristics

Power consumption

Cat.Nos	4 124 00 4 124 01	4 124 04	4 124 05 4 124 10	4 124 14	4 124 11	4 124 08 4 124 12	4 124 16
Control voltage	230 V∿	12 V∿	24 V∿	24 V∿	48 V∿	230 V∿	230 V∿
Nominal current	16 A	16 A	16 A	16 A	16 A	16 A	16 A
Connection	1 N/O	1 N/O	1 N/O 2 N/O	4 N/O	2 N/O	1 N/O 2 N/O	4 N/O
Number of modules	1	1	1	1	1	1	2
Holding	-	670 mA	280 mA	570 mA	170 mA	30 mA	50 mA
Inrush	-	2500 mA	1200 mA	2500 mA	700 mA	130 mA	250 mA

Connection cross section mm²

Type of conductors	Cross section
Rigid	1 x 6 mm² or 2 x 2.5 mm²
Flexible	1 x 6 mm² or 2 x 2.5 mm²
Flexible with single ferrule	6 mm²
Flexible with double ferrule	2 x 4 mm²

Power contactors with handle CX³

from 25 A to 63 A

4 125 44

4 125 56

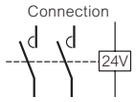
Dimensions **see e-catalogue**
Technical charcteristics **p. 57**

Conform to IEC/EN 61095
Space for power supply busbar on top (up to 25 A)

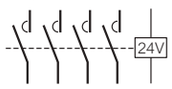
Power contactors with 24 V~ coil and handle

Manual override for test and repair function, carried out via the handle
Permanent “ON” or “OFF” without automatic reset

2-pole - 250 V~

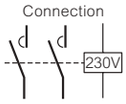
Pack	Cat.Nos	I max	Connection	Type of contact	Number of modules
1	4 125 14	25 A		2 N/O	1
1	4 125 15[1]	40 A		2 N/O	2
1	4 125 16[1]	63 A		2 N/O	2

4-pole - 400 V~

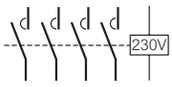
Pack	Cat.Nos	I max	Connection	Type of contact	Number of modules
1	4 125 17	25 A		4 N/O	2
1	4 125 18[1]	40 A		4 N/O	3
1	4 125 19[1]	63 A		4 N/O	3

Low noise power contactors with 230 V~ coil and handle

2-pole - 250 V~

Pack	Cat.Nos	I max	Connection	Type of contact	Number of modules
1	4 125 58	25 A		2 N/O	1
1	4 125 59[1]	40 A		2 N/O	2
1	4 125 60[1]	63 A		2 N/O	2

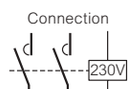
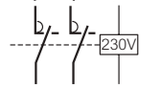
4-pole - 400 V~

Pack	Cat.Nos	I max	Connection	Type of contact	Number of modules
1	4 125 61	25 A		4 N/O	1
1	4 125 62[1]	40 A		4 N/O	2
1	4 125 63[1]	63 A		4 N/O	2

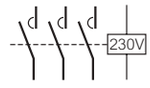
Power contactors with 230 V~ coil and handle

Manual override for test and repair function, carried out via the handle
Permanent “ON” or “OFF” without automatic closing of the contactor

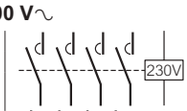
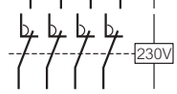
2-pole - 250 V~

Pack	Cat.Nos	I max	Connection	Type of contact	Number of modules
4	4 125 44	25 A		2 N/O	1
1	4 125 45[1]	40 A		2 N/O	2
1	4 125 47[1]	63 A		2 N/O	2
1	4 125 48[1]	63 A		2 N/C	2

3-pole - 400 V~

Pack	Cat.Nos	I max	Connection	Type of contact	Number of modules
1	4 125 49[1]	40 A		3 N/O	3
1	4 125 50[1]	63 A		3 N/O	3

4-pole - 400 V~

Pack	Cat.Nos	I max	Connection	Type of contact	Number of modules
2	4 125 51	25 A		4 N/O	2
1	4 125 53[1]	40 A		4 N/O	3
1	4 125 56[1]	63 A		4 N/O	3
1	4 125 57[1]	63 A		4 N/C	3

1: Handle can be accessed after removing blanking plate

Power contactors without handle CX³

from 16 A to 63 A

4 125 05

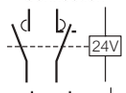
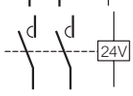
4 125 35

Dimensions **see e-catalogue**
Technical charcteristics **see opposite**

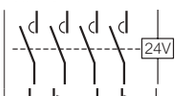
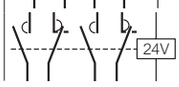
Conform to IEC/EN 61095
Space for power supply busbar on top (up to 25 A)

Power contactors with 24 V~ coil

2-pole - 250 V~

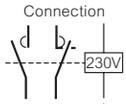
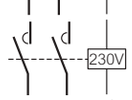
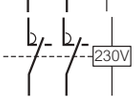
Pack	Cat.Nos	I max	Connection	Type of contact	Number of modules
1	4 125 03	16 A		N/C + N/O	1
1	4 125 05	25 A		2 N/O	1

4-pole - 400 V~

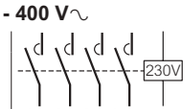
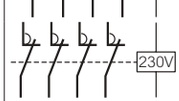
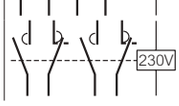
Pack	Cat.Nos	I max	Connection	Type of contact	Number of modules
1	4 125 10	25 A		4 N/O	2
1	4 125 09	25 A		2 N/C + 2 N/O	2

Power contactors with 230 V~ coil

2-pole - 250 V~

Pack	Cat.Nos	I max	Connection	Type of contact	Number of modules
4	4 125 21	16 A		N/C + N/O	1
10	4 125 23	25 A		2 N/O	1
1	4 125 27	63 A		2 N/O	2
1	4 125 24	25 A		2 N/C	1

4-pole - 400 V~

Pack	Cat.Nos	I max	Connection	Type of contact	Number of modules
5	4 125 35	25 A		4 N/O	2
1	4 125 41	63 A		4 N/O	3
1	4 125 36	25 A		4 N/C	2
1	4 125 33	25 A		2 N/C + 2 N/O	2

Auxiliaries for contactors CX³

4 124 29

4 124 31

Signalling auxiliaries for contactors

Auxiliary changeover switch for all CX³ contactors
Used to signal the position status of the contacts on the product to which it is connected

For 1 module contactors 16 A to 25 A
Maximum 2 auxiliary devices per contactor
Fitted on left-hand side of contactor

Pack	Cat.Nos	I max	Voltage	Contact	Number of modules
1	4 124 29	5 A	250 V~	N/C + N/O	0.5

For 2 module contactors 25 A
Maximum 2 auxiliary devices per contactor
Fitted on left-hand side of contactor

Pack	Cat.Nos	I max	Voltage	Contact	Number of modules
1	4 124 30	5 A	250 V~	N/C + N/O	0.5

For 40 and 63 A contactors
Maximum 1 auxiliary device per contactor
Fitted on left-hand side of contactor

Pack	Cat.Nos	I max	Voltage	Contact	Number of modules
1	4 124 31	5 A	250 V~	N/C + N/O	0.5

For detailed dimensions,
see e-catalogue

Power contactors CX³

Technical characteristics

- Rated impulse withstand voltage (Uimp): 4 kV
- Mechanical endurance (no. of operating cycles): 10^6 cycles
- Operating temperatures: - 25 °C to + 40 °C
- Storage temperatures: - 40 °C to + 70 °C

Contactor protection against short circuits according to standard EN 61095, conditional short-circuit current:

- Iq = 6 kA for 16 to 25 A contactors
- Iq = 3 kA for 40 to 63 A contactors

Circuit breaker or gG fuse rated:

- ≤ 16 A for 16 A rating
- ≤ 40 A for 40 A rating
- ≤ 25 A for 25 A rating
- ≤ 63 A for 63 A rating

• Consumption of a contactor control coil

	16 A and 25 A power contactors				
Coil voltage	24 V~		230 V~ low noise	230 V~	
Current	16 A and 25 A	25 A	25 A	16 A and 25 A	16 A and 25 A
Type of contact	NC + NO 2 NO	4 NO	2 NO	NC + NO 2 NO 2 NC	2 NC + 2 NO 4 NO 4 NC
Dimensions	1 mod.	2 mod.	1 mod.	1 mod.	2 mod.
Holding current	200 mA	300 mA	12 mA	20 mA	20 mA
Inrush current	970 mA	2500 mA	60 mA	90 mA	200 mA

	40 A and 63 A power contactors			
Coil voltage	24 V~		230 V~	
Current	40 A and 63 A	40 A and 63 A	40 A and 63 A	40 A and 63 A
Type of contact	2 NO	4 NO	2 NO 2 NC	3 NO 4 NO 4 NC
Dimensions	2 mod.	3 mod.	2 mod.	3 mod.
Holding current	250 mA	270 mA	15 mA	30 mA
Inrush current	1750 mA	1500 mA	150 mA	200 mA

• Recommendations

Insert a spacing module (Cat.No 4 063 07 p. 45):
- every two contactors when the ambient temperature is below 40 °C
- every contactor when the ambient temperature is between 40 and 60 °C

Contactor rating	40 °C	50 °C	60 °C
Ie = 16 A	16 A	14 A	12 A
Ie = 25 A	25 A	22 A	20 A
Ie = 40 A	40 A	36 A	32 A
Ie = 63 A	63 A	57 A	50 A

• Max. connection cross-section in mm²

Conductor type	Ratings ≤ 25 A	Ratings 40 & 63 A
Rigid	6^2 or 2 x 2.5^2	25^2 or 2 x 10^2
Flexible	6^2 or 2 x 2.5^2	25^2 or 2 x 10^2
Flexible with single end cap	6^2	16^2
Flexible with double end cap	2 x 4^2	2 x 16^2

Contactor selection charts

• Incandescent lamps

Tungsten and halogen filaments 230 V~								
Nominal wattage	**40 W**	**60 W**	**75 W**	**100 W**	**150 W**	**200 W**	**500 W**	**1000 W**
16 A	45	30	24	19	13	10	4	2
25 A	60	48	38	30	20	15	6	3
40 A	96	77	61	48	32	24	10	5
63 A	154	123	97	77	51	38	15	8

	ELV halogen bulbs with ferromagnetic ballast						ELV halogen bulbs with electronic ballast					
Nominal wattage	**20 W**	**35 W**	**50 W**	**75 W**	**100 W**	**150 W**	**20 W**	**35 W**	**50 W**	**75 W**	**100 W**	**150 W**
16 A	32	20	15	12	9	6	60	40	28	18	14	9
25 A	52	30	24	16	12	8	80	50	40	26	20	13
40 A	68	39	31	21	16	10	112	70	56	36	28	18
63 A	88	51	41	27	20	14	157	98	78	51	39	25

Contactor selection charts (continued)

• Fluorescent tubes with ferromagnetic ballast

	Single parallel compensated fluorescent					Double series compensated fluorescent				
Nominal wattage	**18 W**	**20 W**	**36 W**	**58 W**	**115 W**	**2 x 20 W**	**2 x 36 W**	**2 x 40 W**	**2 x 58 W**	**2 x 140 W**
16 A	24	24	16	11	5	30	24	22	15	6
25 A	33	30	25	17	9	45	38	35	24	10
40 A	43	39	33	22	12	68	57	53	36	15
63 A	56	51	42	29	15	101	86	79	54	23

	Quadruple series compensated fluorescent	Compact fluorescent with built-in starter			
Nominal wattage	**4 x 18 W**	**7 W**	**10 W**	**18 W**	**26 W**
16 A	16	50	40	28	19
25 A	24	60	50	42	28
40 A	36	78	65	55	36
63 A	54	101	85	71	47

• Fluorescent tubes with electronic ballast

	Single fluorescent				Double fluorescent		
Nominal wattage	**18 W**	**30 W**	**36 W**	**58 W**	**2 x 18 W**	**2 x 36 W**	**2 x 58 W**
16 A	72	42	36	22	36	20	12
25 A	110	68	58	36	56	30	19
40 A	165	102	87	54	84	45	29
63 A	248	153	131	81	126	68	43

	Triple fluorescent (series compensated)		Quadruple fluorescent (series compensated)	
Nominal wattage	**3 x 14 W**	**3 x 18 W**	**4 x 14 W**	**4 x 18 W**
16 A	34	26	26	20
25 A	46	38	37	28
40 A	62	51	52	39
63 A	84	69	73	55

Compact fluorescent with built-in electronic power supply					
Nominal wattage	**7 W**	**11 W**	**15 W**	**20 W**	**23 W**
16 A	120	80	64	50	43
25 A	200	125	90	70	60
40 A	280	175	126	98	84
63 A	392	245	176	137	118

• Discharge lamps with compensation

	Metal halogenide						Low pressure sodium vapour					
Nominal wattage	**35 W**	**70 W**	**100 W**	**150 W**	**250 W**	**400 W**	**18 W**	**35 W**	**55 W**	**90 W**	**135 W**	**180 W**
16 A	10	6	5	3	2	1	12	6	5	3	2	2
25 A	15	9	7	5	3	2	20	10	7	5	3	3
40 A	23	14	11	8	5	3	30	15	11	8	5	5
63 A	34	20	16	11	7	5	45	23	16	11	7	7

	High pressure sodium vapour					High pressure mercury vapour				
Nominal wattage	**70 W**	**150 W**	**250 W**	**400 W**	**1000 W**	**50 W**	**80 W**	**125 W**	**250 W**	**400 W**
16 A	8	7	5	3	1	11	8	6	3	2
25 A	10	9	6	4	2	15	10	8	4	3
40 A	15	14	9	6	3	21	14	11	6	4
63 A	23	20	14	9	5	29	20	16	8	6

High pressure mixed				
Nominal wattage	**100 W**	**160 W**	**250 W**	**400 W**
16 A	9	6	4	2
25 A	11	7	5	3
40 A	14	9	7	4
63 A	19	12	8	5

CX³ changeover switches, push-buttons, control switches and LED indicators


4 129 00


4 129 01


4 129 04


4 129 08


4 129 16


4 129 12


4 129 21


4 129 31

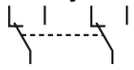
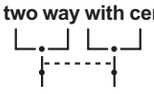

4 129 34


6 040 77

Technical characteristics **see e-catalogue**

Changeover switches

Conform to IEC 60669-1
Nominal rating 32 A
Compatible with fluorescent lamps (20 AX)

Pack	Cat.Nos		Connection	Number of modules
		Two-way - 250 V~		
10	4 129 00			1
		Double two-way - 400 V~		
5	4 129 01			2
		Two way with centre point - 250 V~		
10	4 129 02			1
		Double two way with centre point - 250 V~		
5	4 129 03			2
		Switch NO + NC - 250 V~		
10	4 129 04			1

Push-buttons and control switches

Conform to IEC 60669-1
Nominal rating 20 A - 250 V~
Compatible with florescent lamps (20 AX)
Accept prong-type supply busbars

Pack	Cat.Nos		Connection	Number of modules
		Single function push-buttons		
10	4 129 08	1 NO		1
10	4 129 09	1 NC		1
		Dual functions push-buttons without indicator		
10	4 129 16	1 NO (green push-button) + 1 NC (red push-button)		1
		Single function control switches		
10	4 129 10	2 NO		1
10	4 129 11	1 NO + NC		1

Push-buttons and control switches (continued)

Pack	Cat.Nos		Connection	Number of modules
		Dual functions control switches with indicator		
10	4 129 12	1 NO + green LED indicator 12/48 V~/⎓		1
10	4 129 13	1 NC + red LED indicator 12/48 V~/⎓		1
10	4 129 14	1 NO + green LED indicator 110/400 V~		1
10	4 129 15	1 NC + red LED indicator 110/400 V~		1

LED indicators

Equipped with non replaceable LED lamps
LED life: 100 000 h
LED consumption: 0.17 W under 230 V~/ 0.11 W under 24 V~
Conform to IEC 60947-5-1
Accept prong-type supply busbars

Pack	Cat.Nos		Connection	Number of modules
		Single - 12/48 V~/⎓		
10	4 129 21	● Green		1
10	4 129 22	● Red		1
10	4 129 23	● Yellow		1
10	4 129 24	● Blue		1
10	4 129 25	○ White		1
		Single - 110/400 V~		
10	4 129 26	● Green		1
10	4 129 27	● Red		1
10	4 129 28	● Yellow		1
10	4 129 29	● Blue		1
10	4 129 30	○ White		1
		Double - 110/400 V~		
10	4 129 31	● ● Green/Red		1
		Triple - 230/400 V~		
2 | 10	4 129 32	○ ○ ○ White		1
10	4 129 33	● ● ● Red		1
10	4 129 34	● ● ● Red/Yellow/ Green		1
10	4 129 35	● ● ● Red/Yellow/ Blue		1

LED indicators - 230 V~

Equipped with non replaceable LED lamps

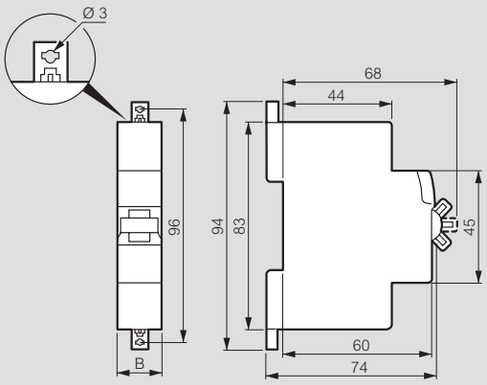
Pack	Cat.Nos		Connection	Number of modules
		Single		
12	6 040 77	● Green		1
12	6 040 78	● Red		1
12	6 040 79	● Orange		1

CX³ changeover switches, push-buttons, control switches and LED indicators

technical characteristics

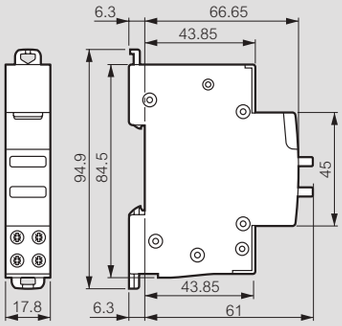
Dimensions

Changeover switches

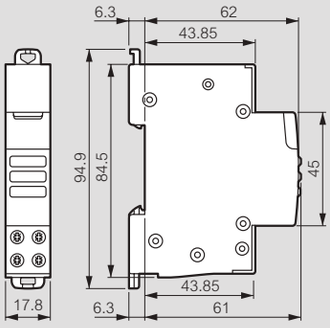


Cat.Nos	B
4 129 00/02/04	17.7
4 129 01/03	35.6

Push-buttons and control switches



LED indicators



Technical characteristics

Changeover switches

Power dissipation per pole : 1.5 W
Overvoltage category : 4 kV~
Dielectric withstand : 2 kV~
Degree of pollution : 2

Push-buttons and control switches

Electrical endurance : 30 000 cycles AC12
(cos ϕ= 0.9) IEC 60947-5-1
Electrical endurance under fluorescent loads : 30 000 cycles according to IEC 60669-1

LED indicators

Equipped with non replaceable LED lamps
LED life : 100 000 h.
LED consumption :
- 0.17 W under 230 V~
- 0.11 W under 24 V~

Programmable time switches

with digital display


0 037 05


4 126 31


4 126 30


0 047 70

Dimensions **see e-catalogue**

For switching an electric circuit (lighting, heating) ON or OFF at selected times during a pre-programmed time period
Temporary (automatic return) or permanent (forced switching ON or OFF) override on output

Pack	Cat.Nos	Standard - daily or weekly programme with 6 years clock working reserve	Number of modules
		Compatible with alternative renewable energy systems such as photovoltaic panels Automatic summer/winter changeover Clock precision: ± 1 sec per day Minimum programme setting: 1 min 28 programmes	
		Power supply 120/230 V∿ - 50/60 Hz	
1	0 037 05	1 output 16 A - 250 V∿ μ cos φ = 1 per 1 inverter contact Low consumption: 0.1 W	1

Pack	Cat.Nos	Multiple functions - daily or weekly programme - 5 years clock working reserve	Number of modules
		Programme settings: on daily or weekly basis 15 languages A programme consists of a on and off time and their assignement to certain days Option to suspend the programme for a specific period to set-up with start and date Minimum programme setting: 1 s. High precision clock: ± 0.1 sec per day Particularly suited to irregular cycles: - security installations (access point, alarms, etc.), - industrial installations (pump stations, etc.) Programmed directly on keypad, or using program transfer key Cat.No 4 128 72 Additional functions including random (irregular cycles), hour counters	
		Power supply 230 V∿ - 50/60 Hz	
1	4 126 31	1 output 16 A - 250 V∿ 56 programmes μ cos φ = 1 per 1 inverter contact	2
1	4 126 41	2 output 16 A - 250 V∿ 2 x 28 programmes μ cos φ = 1 per 2 inverters contacts	2
1	4 126 54	1 output 16 A - 250 V∿ Astronomical function 56 programmes μ cos φ = 1 per 1 inverter contact	2
1	4 126 57	2 outputs 16 A - 250 V∿ Astronomical function 2 x 28 programmes μ cos φ = 1 per 2 inverter contacts	
1	4 126 32	1 output 16 A - 120 V∿ 56 programmes μ cos φ = 1 per 1 inverter contact	2
		Power supply 24 V∿ - 50/60 Hz and ⎓	
1	4 126 33	1 output 16 A - 24 V∿ 56 programmes μ cos φ = 1 per 1 inverter contact	2

Pack	Cat.Nos	2 outputs multiple functions annual programme - 5 years clock working reserve	Number of modules
		Programme settings: on daily, weekly or yearly basis 15 languages A programme consists of a on and off time and their assignement to certain days Option to suspend the programme for a specific period to set-up with start and date Minimum programme setting: 1 s. High precision clock: ± 0.1 sec per day Programmed directly on keypad, or using program transfer key Cat.No 4 128 72	
		Power supply 230 V∿ - 50/60 Hz	
1	4 126 30	2 outputs - 230 V∿ - 50/60 Hz Astronomical function 2 x 3 x 28 = 168 programmes	2

Pack	Cat.Nos	4 outputs multiple functions annual programme - 5 years clock working reserve	Number of modules
		15 languages High precision clock: ± 0.2 sec per day For programming periods throughout the year 28 programmes per channel possible: - daily - weekly / astronomical programmes - yearly programmes - exceptional programmes Manual override (switch on and off) for every channel on the front of the switch Programmed directly on keypad, or using programme transfer key supplied	
		Annual programme	
1	0 047 70	4 outputs - 120/230 V∿ - 50/60 Hz Astronomical function	6
		Battery	
1	0 047 82	Working reserve 5 years for Cat.No 0 047 70	

Pack	Cat.Nos	Programming transfer key
1	4 128 72	Can be used to store programme settings made: - Directly on a multifunction and multi-programme time switch Cat.Nos 4 126 30/31/32/33/41/54/57 (loading on device) - with the programming software installe d on a PC running Windows (loading on data loader)

Pack	Cat.Nos	Programming software
1	4 128 73	Can be used to create, save and transfer program settings for multifunction and multi-program time switches, Cat.Nos 0 047 70, 4 126 30/31/32/33/41/54/57 Data is transferred to the program transfer key Cat.No 4 128 72, using the data loader connected to the USB port of the PC Kit comprising software on CD-ROM, data loader and transfer key Windows XP, Windows 7, Windows 8 compatible

Programmable time switches

with analogue dial

4 127 90

4 127 95

Dimensions **see e-catalogue**

Programmed via captive segment
Power supply: 230 V∿ - 50/60 Hz
3-position override switch "ON-AUTO-OFF" on front panel
Manual changeover to summer/winter time
1 outlet 16 A - 250 V∿ - μ cos = 1

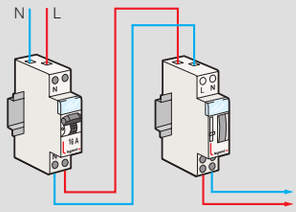
Pack	Cat.Nos	Daily programme	Number of modules
		1 segment = 15 minutes Accuracy: ± 5 minutes	
		Vertical dial Minimum switching time: 15 minutes N/O contact	
1	4 127 80	Without working reserve	1
1	4 127 90	With 100 h working reserve	1
		Horizontal dial Minimum switching time: 15 minutes Changeover switch	
1	4 128 12	Without working reserve	3
1	4 128 13	With 100 h working reserve	3
		Weekly programme	
		1 segment = 2 hours Accuracy: ± 30 minutes	
		Vertical dial Minimum switching time: 2 hours N/O contact	
1	4 127 94	With 100 h working reserve	1
		Horizontal dial Minimum switching time: 4 hours Changeover switch	
1	4 127 95	With 100 h working reserve	3

Programmable time switches

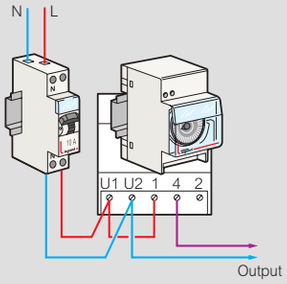
with analogue and digital dial

Diagrams

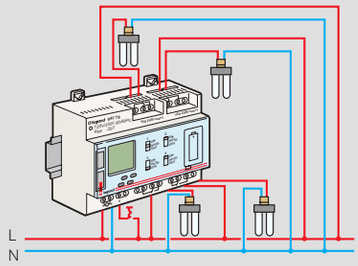
Cat.Nos 4 127 80/90/94



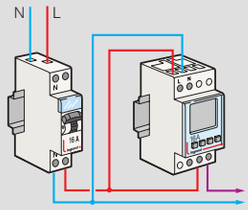
Cat.Nos 4 128 12/13, 4 127 95



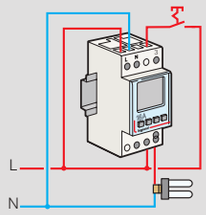
Cat.No 0 047 70



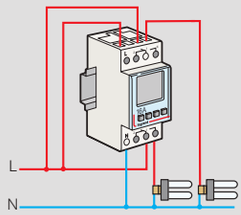
Cat.Nos 4 126 31/32/33



Cat.No 4 126 54



Cat.No 4 126 57



Output closing and breaking times are calculated based on the date, the actual time when the device was switched and on geographical coordinates of the actual location

Technical characteristics

Cat.Nos	Prog. time	Min. programme settings	Working reserve	Summer/ winter time	Outputs 16 A	Nb of prog.	Nb of modules
0 037 05	7 d	1 min	5 years	auto	1	28	1
0 047 70	24 h/7 d/1 y	1 s	5 years	auto	4	4 x 3 x 28	6
4 126 30	1 year	1 s	5 years	auto	2	2 x 3 x 28	2
4 126 31	24 h/7 d	1 s	5 years	auto	1	56	2
4 126 32	24 h/7 d	1 s	5 years	auto	1	56	2
4 126 33	24 h/7 d	1 s	5 years	auto	1	56	2
4 126 41	24 h/7 d	1 s	5 years	auto	2	2 x 28	2
4 126 54	24 h/7 d	1 s	5 years	auto	1	56	2
4 126 57	24 h/7 d	1 s	5 years	auto	2	2 x 28	2

Cat.Nos	Programme	Segment	Min. switching time	Working reserve	16 A output via contact		Nb of modules
					N/O	Chang. S.	
4 128 12	24 h	15 min	30 min	without	-	1	3
4 128 13	24 h	15 min	30 min	100 h	-	1	3
4 127 80	24 h	15 min	15 min	without	1	-	1
4 127 90	24 h	15 min	15 min	100 h	1	-	1
4 127 94	7 d	2 h	2 h	100 h	1	-	1
4 127 95	7 d	2 h	4 h	100 h	-	1	3

Analogue time switches


6 499 14


0 499 26


6 998 11

Power supply 230 V∿
Override switching "ON" or "OFF" in front face
1 output via changeover contact
(2 changeover contacts for Cat.No 0 499 26)

Pack	Cat.Nos	Daily programme
		20 A - 250 V∿ - μ cos φ = 1
1	6 499 14	Shortest switching time: 30 minutes (1 segment = 10 minutes) Switching accuracy: + 5 minutes
		Weekly programme
		16 A - 250 V∿ - μ cos φ = 1
1	0 497 56	Shortest switching time: 3 hours (1 segment = 1 hour) Switching accuracy: + 20 minutes Working reserve: 500 h with quartz controlled motor
1	0 044 09	Adaptor for fixing time switch on rail EN 50022 ⌙
		Defrosting time switch
		Time switch for short periods for control of defrosting, regularly repeated switching of pumps, feed conveyors, sprinkler systems, periodic lubrication of machines 16 A - 250 V∿ μ cos φ = 1 IP 30 Daily programme The timer can repeat one or two settable short programmes within 24 hours Shortest switching sequence 2.5 hours - up to 9 times 1 switching step = 1 segment = 30 min. 50 Hz
1	0 499 26	Defrosting time from 1 to 60 minutes per contact
		OmniRex - Plug-in time switches
		Manuel switch ON - Auto With 2P+⏚ plug and 10/16 A socket base and 16 A socket With child protection Override/manual switch Mains hold accuracy Synchronous motor, 230 V, 50 Hz 1 contact NO 250 V/50 Hz, 16 A∿ cos φ = 1
		OmniRex T - 24-hour programme
1	6 998 11	German standard - With child protection Switching step 15 min Mini switching time 15 min Switching accuracy ± 5 min
		OmniRex W - 7-day programme
1	6 998 12	German standard - With child protection Switching step 2 hours Mini switching time 2 hours Switching accuracy ± 30 min

MicroRex Plus 2 - programmable time switches - with digital display


6 037 70


6 037 71

Conform to EN 60730-1 and EN 60730-2-7

Digital daily weekly DIN rail mounting time switches
A programme consists of a ON and OFF time and their assignment to certain days of the week (or a combination of days) and a selected channel (for the 2-channel version).

Additional features:
- manual override (permanent ON or OFF)
- automatic override (ON/OFF): actual program will be inversed (ON->OFF, OFF->ON) till next programmed ON time
- working reserve : 3 years
- replaceable battery

Pack	Cat.Nos	MicroRex D21 Plus
		1 channel 230 V∿ , 50/60 Hz
		Language
1	6 037 70	English
1	6 037 78	French
1	6 037 72	Spanish
		MicroRex D22 Plus
		2 channels 230 V∿ , 50/60 Hz
		Language
1	6 037 71	English
1	6 037 79	French
1	6 037 73	Spanish

Electronic time-lag switches

Electronic time-lag switches


4 126 02


Space for supply busbar


0 047 04

Dimensions **see e-catalogue**

Designed for supply busbar compatibility
Power supply: 230 V∿ - 50/60 Hz
Switches a lighting circuit for a specific time
Self-protection in the event of blocked pushbutton

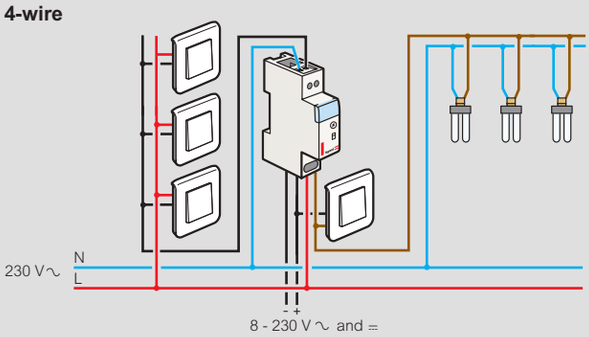
Pack	Cat.Nos	Time-lag switch	Number of modules
10	4 126 02	Resettable 230 V∿ - 50/60 Hz Timing adjustable from 0.5 sec to 10 min Manual override contact Output 16 A - 250 V∿ - μ cos φ = 1 2000 W incandescent/halogen 2000 W halogen - 230 V∿ 1000 VA fluo - series compensated 120 VA fluo - parallel compensated 14 μF 100 VA compact fluorescent 1000 W energy saving lamp automatic 3-wire or 4-wire connection	1

Pack	Cat.Nos	Multi-function time-lag switch	Number of modules
10	0 047 04	Resettable 230 V∿ - 50/60 Hz Timing adjustable from 0.5 sec to 12 min Operation with 3 or 4 wires automatically recognised by the time-lag switch - Inputs for separate control 8-230 V (presence detection, lighting control by door entry system etc.) - Switch-off pre-warning function, - Long duration function (1 hour) and manual switch-off Output 16 A - 250 V∿ - μ cos φ = 1 3680 W incandescent/halogen 2000 W halogen 230 VA 1000 VA fluo - parallel compensated ≤ 100 μF 2000 VA compact fluorescent 500 W halogen lamp + ferromagnetic transformer 2000 W halogen lamp + electronic transformer - Specially suited to energy saving lamps 1000 W	1

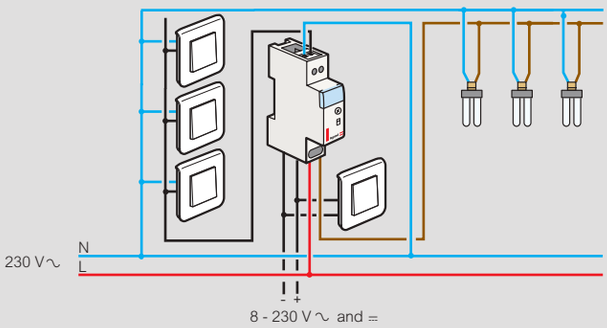
Pack	Cat.Nos	Automatic staircase time-lag switch for wall mounting 230 V - 50 Hz	Type of delay adjustable	Type
1	0 497 83	Switches a lighting circuit during a determined period Controlled by illuminated push-button 50 mA max 3 wire connection Output : 1 contact Contact rating 10 A - 250 V∿ - cos φ = 1	Electronic 0.5 to 10 min.	Resettable

Multi-function time-lag switch

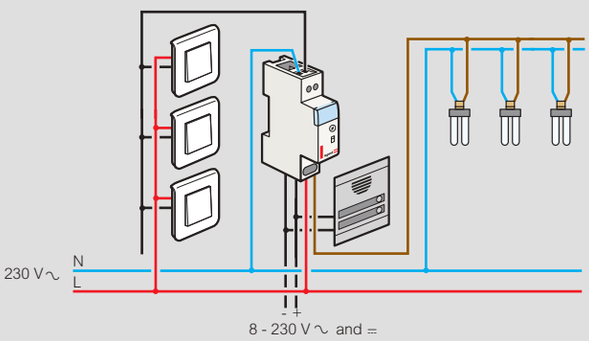
4-wire



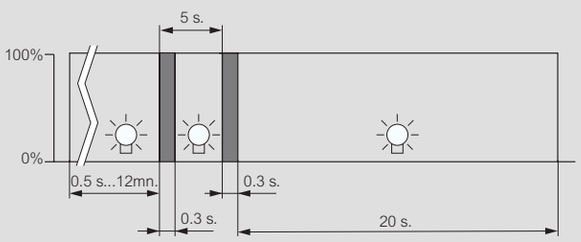
3-wire



Multi-function time-lag switch: lighting control by door entry system



Switch-off pre-warning function



For fluorescent and energy saving lamps the switch-off period is longer than 0.3 s, because of re-starting time required by the lamps

Light sensitive switches


4 126 23


4 126 26


4 128 58

Dimensions **see e-catalogue**

Can be used to switch a lighting circuit "ON" and "OFF" based on light conditions (nightfall, daybreak)
Supplied with IP 65 weatherproof photoelectric cell
Power supply: 230 V∿ - 50/60 Hz

Pack	Cat.Nos	Standard
1	4 126 23	Output 16 A - 250 V∿ - μ cos φ = 1 2000 W incandescent 2000 W series compensated fluorescent 1000 W parallel compensated fluorescent 70 μF 1000 W energy-saving bulb 2000 W halogen bulb + ferromagnetic transformer 2000 W halogen bulb + electronic transformer Automatic timer response Adjustable from 1 to 100 000 lux Number of modules: 1 Supplied with IP 65 photoelectric cell Cat.No 4 128 60
		Programmable
1	4 126 26	56 programmes possible : daily, weekly or yearly programmes Output 16 A - 250 V∿ - μ cos φ = 1 2000 W incandescent 2000 VA series compensated fluorescent 1000 W energy-saving bulb Integrated hour counter High precision clock : ± 0.1 sec per day at 25°C Working reserve : 5 years Adjustable from 3 to 100 000 lux Automatic changeover between summer/winter time Number of modules: 2 Programmed directly on keypad, or using programme transfer key Cat.No 4 128 72 (p. 60) Supplied with IP 65 photoelectric cell Cat.No 4 128 60
		Replacement IP 65 photoelectric cell
1	4 128 60	IP 65 - IK 07 For use with standard or programmable light sensitive switches Cat.Nos 4 126 23/26

Remote control dimmers


0 026 71


0 036 71

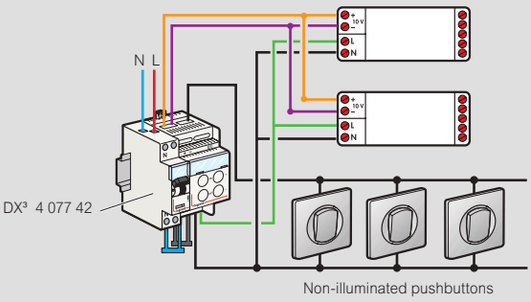
230 V∿ - 50/60 Hz power supply

Pack	Cat.Nos	Remote control dimmers	Number of modules
		Standalone operation Storage of the last lighting level in the event of a power cut or on a switch-off command	
1	0 036 58	For fluorescent lamps with 1-10 V electronic ballast Controllable power: 800 VA Control current: 50 mA max. Local and remote control Dimming via non-illuminated 1-gang pushbutton	2
1	0 026 71	Compatible with energy-saving lamps (LEDs, CFLs) For loads: - 3 to 150 W LEDs/CFLs - 3 to 400 W for halogen lamps (built-in ballast) - 3 to 400 W for halogen lamps with electronic or ferromagnetic transformer Light level dimmed by holding down the button. Switch-off warning function 110-230 V. 50-60 Hz Max. standby consumption: 0.1 W DIN rail mounting Has space for inserting a supply busbar Can be installed instead of a remote control dimmer controlled via a pushbutton	2
		Operation on a BUS Local and remote control via auxiliary controls or via pushbuttons, 1 or 2-gang, non-illuminated Supplied in 2-gang pushbutton version A 2-gang pushbutton (3 wires) can be changed to 1-gang (2 wires) by configuring the product Light indication of the load level via bargraph, which allows control to be viewed directly on the front panel. Can be combined with one another in master/slave mode by means of the BUS	
1	0 036 60	For light sources with separate 1/10 V ballast (fluorescent tubes, compact fluorescent bulbs, LEDs, etc) Compatible with all loads which can be controlled by ballasts dimmable from 1 - 10 V Max. power: 1000 VA Control current: 50 mA max.	4
1	0 036 71	For incandescent, halogen, ELV halogen lamps with ferromagnetic or electronic transformers Automatic recognition of the load Self-regulating against overloads Max. power: 1000 W	6
		Power supply for BUS line	Number of modules
1	0 036 80	BUS power supply for remote controlled dimmers Cat.Nos 036 60/71 For maximum 8 peripherals	2

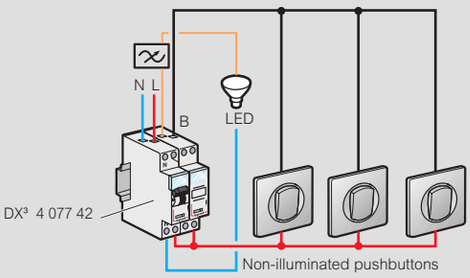
Remote control dimmers

Wiring

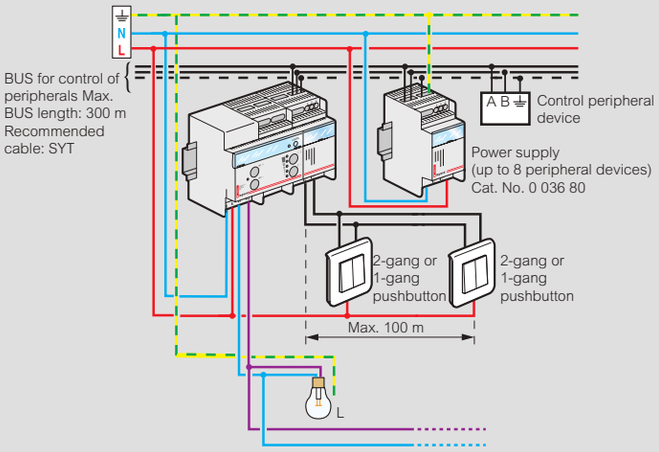
800 VA remote control dimmer for fluorescent lamps Cat. No. 0 036 58



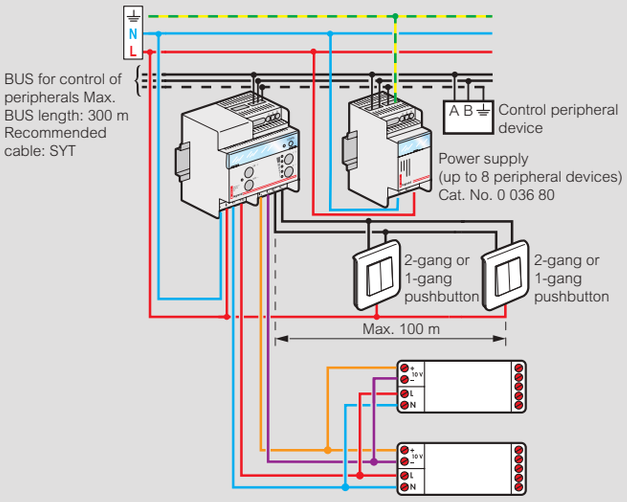
400 W remote control dimmer for energy-saving and halogen lamps Cat. No. 0 026 71



1000 VA remote control dimmer for incandescent, halogen, ELV halogen lamps with ferromagnetic or electronic transformers Cat. No. 0 036 71



1000 VA remote control dimmer for light sources with 1-10 V ballast Cat. No. 0 036 60



Select your dimmer

Cat.Nos	Power		❶	❷	❸	❹	❺	❻ LED
0 036 58	Max.	800 VA	no	yes with 1-10 V ballast	no	yes with 1-10 V ballast	yes with 1-10 V ballast	yes with 1-10 V ballast
	Min.	-						
0 026 71	Max.	400 W	yes (min: 3 W max: 400 W)	no	yes (min: 3 VA max: 400 VA)	yes (min: 3 VA max: 400 VA)	no	yes (min: 3 W max: 150 W)
	Min.	3 W						
0 036 60	Max.	1000 VA	no	yes with 1-10 V ballast	no	yes with 1-10 V ballast	yes with 1-10 V ballast	yes with 1-10 V ballast
	Min.	-						
0 036 71	Max.	1000 VA	yes	no	yes	yes	no	no
	Min.	-						

❶ 230 V halogen lamps
❷ Fluorescent lamps T5/T8
❸ ELV halogen lamps with ferromagnetic transformer
❹ ELV halogen lamps with electronic transformer
❺ Compact fluorescent lamps with separate 1-10 V electronic ballast
❻ LED

Time delay relays

12 to 230 VA and ⎓


0 047 40


0 047 41


0 047 42

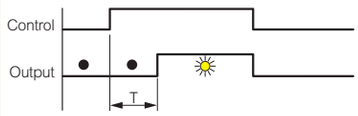
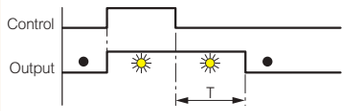
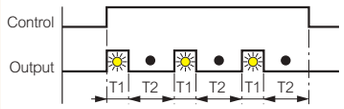

0 047 43

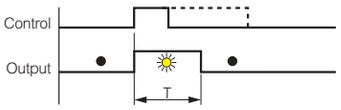
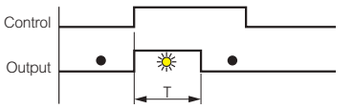

0 047 45


0 047 44

Dimensions **see e-catalogue**

For controlling the switching ON or OFF of a circuit (lighting, ventilation, automation, signalling) in operation for a specific time from 0.1 sec to 100 hrs
Supply voltage: 12 to 230 V∿ (50/60 Hz) and ⎓
Output: 8 A - 250 V∿ - μ cos φ = 1 per inverter contact

Pack	Cat.Nos	Time delay relays	Number of modules
		ON delay	
1	0 047 40	Delays load switch-on (alarm, lighting, contactor)  The time period starts when the relay is switched ON. At the end of the time period (T), the load is switched ON	1
		OFF delay	
1	0 047 41	Delays load switch-off (ventilation, etc.)  The time period (T) starts with the opening of the non-illuminated switch or pushbutton At the end of the time period, the load is switched OFF	1
		Flashing	
1	0 047 42	For switching ON and OFF a load (lighting, sounder) for different times and cyclically 	1

Pack	Cat.Nos	Time delay relays (continued)	Number of modules
		Timer (pulse)	
1	0 047 43	For switching a load ON for a specific time (contactor)  The time period (T) starts with the closing of the non-illuminated switch or pushbutton At the end of the time period, the load is switched OFF	1
		Wipe contact flick contactor	
1	0 047 45	For switching a load ON for a specific time  The time period (T) starts when the relay is switched ON At the end of the time period (T), the load is switched OFF	1
		Multifunction	
1	0 047 44	• ON delay • OFF delay • ON/OFF delay • Timer (pulse) • Timer and passing contact • Flashing • Totalizer on delay • Totalizer delay on power-up	1

For detailed dimensions, **see e-catalogue**

Transformers, buzzers and bells


4 130 91


4 130 98


0 041 07

Dimensions **see e-catalogue**

Bell transformers

Conform to IEC / EN 61558-2-8
Protected against overloads and short circuits.
In the event of an overload, switch «OFF» the power supply and allow the transformer to cool down before switching on again
With label holders
Wall or rail mounting (for 4 modules)
Possibility for supply busbars to run through (Cat.No 4 130 91)

230 V/12 V - 8 V

Pack	Cat.Nos	Secondary (V)	Rating (A)	Power (VA)	Number of modules
1	4 130 90	8	0.5	4	2
1	4 130 91	12/8	0.66/1	8	2
1	4 130 92	12/8	2/3	24	4

230 V/24 V - 12 V

Pack	Cat.Nos	Secondary (V)	Rating (A)	Power (VA)	Number of modules
1	4 130 93	24/12	1/1.5	24 - 18	4

Safety transformers

Conform to IEC / EN 61558-2-6
Protected against overloads and short circuits.
In the event of an overload, switch «OFF» the power supply and allow the transformer to cool down before switching on again
Wall or rail mounting (for 4 modules)

230 V/12 or 24 V

(per coupling 2 x 12 V for Cat.No 4 130 98)
Supplied with strip

Pack	Cat.Nos	P (VA)	No-load loss (W)	Voltage % drop Cos φ = 1	Efficiency % Cos φ = 1	Ucc (%)	I (A) primary loaded	Number of modules
1	4 130 96	25	2.5	29	66	23.3	0.142	4
1	4 130 98	63	4	15.7	75	13.6	0.33	5

Buzzers and bells

50 Hz AC - Connection by screw terminals, with label holder
Allow insertion of supply busbars
Caution: remove lamps from illuminated push-buttons when used with Cat.Nos 0 041 01

Bells

Pack	Cat.Nos	Voltage (V~)	Power (VA)	Consum. (mA)	Acoustic power[1](dB)	Number of modules
10	0 041 01	8/12	4/5	360/420	80/84	1
10	0 041 07	230	6	27	83	1

Buzzers

Pack	Cat.Nos	Voltage (V~)	Power (VA)	Consum. (mA)	Acoustic power[1](dB)	Number of modules
10	0 041 13	230	6	27	73	1

1: Acoustic power at 1 m

Socket outlets and special supports


0 042 80


0 042 85


0 044 05
Equipment model: auxiliary control


0 044 06
Equipment model: bulbs, switch


0 802 99
Equipped with RJ45 socket

Dimensions **see e-catalogue**

Allow insertion of supply busbars

10-16 A - 250 V~

Pack	Cat.Nos		Number of modules
		French standard	
10	0 042 80	2P + ⏚ shuttered	2.5
		German standard	
10	0 042 85	2P + ⏚ shuttered	2.5

20 A - 400 V~

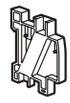
Pack	Cat.Nos		Number of modules
		French standard	
5	0 042 91	3P + ⏚ shuttered	3.5
5	0 042 92	3P + N + ⏚ shuttered	3.5

Special supports

Pack	Cat.Nos		Number of modules
10	0 044 05	Pre-drilled support For mounting Ø22.5 mm control and signalling units	3
10	0 044 06	Support or blanking cover For other equipment (ex. switch, bulbs, printed-circuits...)	3
10	0 802 99	For mounting Mosaic 2-module mechanisms Support width 46.3 mm 2.5 modules	

Wiring management accessories

Pack	Cat.Nos		
		Spacing unit with feedthrough	
10	4 063 07	0.5 module Allows cables to run between two modular devices and creates an air channel in order to limit temperature rise	



Single phase power supplies

Single phase power supplies

4 131 05

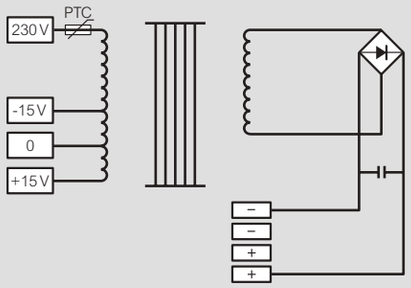
0 047 93

Dimensions **see e-catalogue**

For supplying PLCs and their peripherals or any use requiring a voltage of 5 V, 12 V, 15 V or 24 V⎓
Fixing on rail ⊔

Pack	Cat.Nos	Filtered rectified power supplies		
		Conform to standards IEC EN 61558-2-6 For equipment conforming to standards EN 61131-2, EN 60204 and EN 61439-1 Comprising: - A safety transformer with interference filtration - A filter capacitor - Protection by PTC integrated in the primary - Double operating terminals Terminal capacity: 6 mm² flexible Class II after addition of faceplate Ripple factor < 3% Ambient temperature without derating: 60 °C Power supply 230 V ± 15 V∿		
		12 V⎓		
		Power (W)	Current (A)	Number of modules
1	4 131 05	15	1.3	5
		15 V⎓		
1	4 131 06	15	1	5
		24 V⎓		
1	4 131 07	12	0.5	5
1	4 131 08	21.5	0.9	5
		Stabilised power supplies		
		Conform to standards NF EN 61204, NF EN 60950 (Low Voltage Directive), EN 55022 (class B), EN 61000-4-2, EN 61000-3-26, ENV 50204 Switching mode Galvanic isolation 4000 V (input/output) With: - Electronic protection (overloads and short-circuits) - Integral fuse protection on input - A green voltage present indicator on output Power supply 115 - 230 V∿		
		5 V⎓		
		Power (W)	Current (A)	Number of modules
1	0 047 91	12.5	2.5	6
		12 V⎓		
1	0 047 92	30	2.5	6
		24 V⎓		
1	0 047 93	24	1	4
		Power supplies with battery back-up		
		Conform to standards IEC/EN 61558-2-6, EN 55022 (class B), EN 61000-4-2 With "ON"/"OFF" button, operation indicator, fuse protection Power supply 230 V∿		
		12 V⎓ Capacity 280 mA/h		
		Power (W)	Current (A)	Number of modules
1	0 042 10	6	0.5	6

Filtered rectified power supplies



Cat.Nos	Voltage (V)	Current (A)	Weight (Kg)	I Prim. on load (A) at 230 V
4 131 05	12	1.3	0.95	0.15
4 131 06	15	1	0.95	0.15
4 131 07	24	0.5	0.95	0.13
4 131 08	24	0.9	0.95	0.17

Cat.Nos	Voltage of use				No load losses (W)	Total losses at 100% load (W)	Voltage drop cos φ = 1
	A no load (V)	On load (V)	With 100 kA load and prim. voltage + 10%	With nominal load and prim. voltage - 15%			
4 131 05	15.1	11.8	16.3	10.4	3.4	8.7	28.5
4 131 06	18.5	14.6	19.9	12.9	3.4	8.9	26.7
4 131 07	28.9	23.6	30.6	20.7	3.4	7.1	22.3
4 131 08	29.9	22.8	32.0	20.3	3.4	10.4	31.0

Stabilised power supplies

Cat.Nos	Secondary		Primary			Max. out current (A)	Power consumption at max. temp. (W)	Efficiency
	Voltage (V)	Current (A)	Voltage (V)	Current consump. max. (A)	Inrush current max. (A)			
0 047 91	5	2.5	109-264	0.15/0.35	16	2.5	12.5	58
0 047 92	12	2.5	109-264	0.3/0.55	11	2.5	30	
0 047 93	24	1	109-264	0.25/0.45	13	1	24	73

Cat.Nos	Starting time on energisation (s) 230 V/115 V	Hold time (at 230 V) (ms)	Operating temperature	Residual ripple peak to peak (mVpp)	Line protection		Dim.	Max. weight	Max. operating temperature with derating (°C)
					With fuse (A)	With MCB (A) + type			
0 047 91	2.4/0.8	90	-10/+50	35	1A aM	2A/C	6 modules	0.32	50
0 047 92	10/3.7	115	-10/+50	20	1A aM	2A/C	6 modules	0.32	50
0 047 93	2.6/1	124	-10/+50	80	2A aM	6A/C	4 modules	0.25	50

PTC protection

PTC: Positive temperature coefficient (limitation of overloads and temperature). In the event of an overload switch "off" the power supply and allow the power supplies to cool down before switching on again

EMDX³ electrical energy meters

rail mounting

0 046 70

0 046 74

0 046 87

Technical characteristics **p. 71**

Measure the electricity consumed by a single-phase or three-phase circuit downstream of the electricity distribution metering
Display electricity consumption in kWh, as well as other values such as current, active energy, reactive energy and power (depending on the catalogue number)
Conform to standards IEC 62053-21/23, IEC 62052-11 and IEC 61010-1
MID compliance ensures accuracy of the metering with a view to recharging for the electricity used

Pack	Cat.Nos		
	Non-MID	MID compliant	**Single-phase meters**
			Direct connection
1	0 046 70		32 A - 1 module Pulse output
1	0 046 81		36 A - 2 modules Pulse output
1	0 046 72	0 046 78	63 A - 2 modules Pulse output
1	0 046 77	0 046 79	63 A - 2 modules RS 485 output
			Three-phase meters
	Non-MID	MID compliant	
			Direct connection
1	0 046 73	0 046 82	63 A - 4 modules Pulse output
1	0 046 80	0 046 83	63 A - 4 modules RS 485 output
			Connection with CT
1	0 046 74	0 046 85	5 A - 4 modules pulse output
1	0 046 84	0 046 86	5 A - 4 modules RS 485 and pulse output
1	0 046 87		**Pulse concentrator** For collecting and transmitting measurements taken by 7 universal pulse electricity meters Also collects data from other meters (gas meters, water meters, etc.) RS485 output 4 modules
1	4 120 00		**Measurement concentrator** Full or partial electricity metering for 5 uses: heating, cooling, domestic hot water, and power sockets + "other" 5 inputs for current transformers (up to 2 current transformers per input) 2 pulse inputs for water and gas metering LCD screen and 6-button keypad RJ45 IP output Power supply 110/230 VAC - 50/60 Hz 6 modules
1	4 120 02		**Split core current transformer** 90 A max. for the measurement concentrator Cat.No 4 120 00 Accepts : 10 x 1.5 mm² cables, or 7 x 2.5 mm² cables, or 2 x 6 mm² cables, or 1 x 10 or 16 mm² cable

EMDX³ multi-function measuring units

rail mounting

0 046 76

Technical characteristics **p. 72**

Conform to standards:
- IEC 61557-12
- IEC 62053-22 class 0.5 S
- IEC 62053-23 class 2

Pack	Cat.Nos	**EMDX³ modular**
		For mounting on rail Width: 4 modules • LCD display • Measurement of currents, voltages, active, reactive and apparent power and internal temperature • Dual tariff metering: - Active energy consumed - Reactive energy consumed - Operating time - Power factor • THD voltages and currents up to order 51 • Programmable alarms on all functions • Outputs for controlling wiring devices, alarm feedback and pulse feedback
		EMDX³ pulse unit
1	0 046 75	Data transmission via pulses
		EMDX³ RS 485 unit
1	0 046 76	Data transmission via RS 485 communication interface and pulses

Add-on modules with integrated energy meter
p. 43

EMDX³ multi-function measuring units

for mounting on door or solid faceplate

0 146 68

0 146 69

0 146 73

Technical characteristics **p. 72**

Conform to standards:
- IEC 61557-12
- IEC 62053-22 class 0.5 S
- IEC 62053-23 class 2

Pack	Cat.Nos	EMDX³ - Access
		Multi-function measuring unit
1	0 146 68	For mounting on door or solid faceplate Dimensions: 96 x 96 x 60 mm • LCD display • Measurement of currents, voltages, active, reactive and apparent power, internal temperature and power factor • Metering: - Active energy consumed or produced - Reactive energy consumed or produced - Operating time - Pulses • THD voltages and currents up to order 51 • Programmable alarms on all functions Can take 2 optional modules
		Modules for EMDX³ - Access multi-function measuring unit
1	0 146 71	RS485 communication module MODBUS link
1	0 146 72	1-output module Can be assigned to pulse feedback, alarm feedback or control of wiring devices
		EMDX³ - Premium
		Multi-function measuring units
1	0 146 69	For mounting on door or solid faceplate Dimensions: 96 x 96 x 60 mm • LCD display • Measurement of currents, voltages, active, reactive and apparent power, internal temperature and power factor • Metering: - Active energy consumed or produced - Reactive energy consumed or produced - Operating time - Pulses • Individual harmonics up to order 63 • Programmable alarms on all functions Can take 4 optional modules

Pack	Cat.Nos	EMDX³ - Premium (continued)
		Modules for EMDX³ - Premium multi-function measuring units
1	0 146 73	RS 485 communication module MODBUS link
1	0 146 74	Storage module Storage of active and reactive power over 62 days, the last 10 alarms and the average voltage and frequency values over 60 days max.
1	0 146 75	Module with 2 inputs/2 outputs Up to 3 modules, i.e. 6 inputs/6 outputs, can be installed Outputs can be assigned to monitoring mode, remote control or timed remote control
1	0 146 77	Temperature module Indication of the internal temperature and possibility of connecting 3 sensors for measuring the external temperature
		Communication and supervision
		Web servers
1	0 261 78	Enable remote viewing, via a web browser on PCs, smartphones, web viewers, tablet computers such as iPads, Archos, etc., of values collected on electricity meters and multi-function measuring units For 32 metering points (meters or multi-function measuring units)
1	0 261 79	For an unlimited number of metering points (meters or multi-function measuring units)
		Legrand software dedicated to measurement
1	0 261 88	For displaying the values collected from electricity meters or multi-function measuring units on a PC connected to the network For 32 metering points (supplied on CD)
1	0 261 89	For an unlimited number of metering points (supplied on CD)
		Accessories
		IP converter
1	0 046 89	For RS485/Ethernet conversion for connecting electricity meters and multi-function measuring units to an IP network Supply voltage: 90-260 V~ 50/60 Hz Dimension: 2 modules

Current transformers (CT)
p. 74

EMDX³ electrical energy meters

rail mounting

Technical characteristics

Single-phase meters Cat.Nos 0 046 70/72/77/78/79/81

LCD display: 7 digits
Resolution: 0.1 kWh
Maximum indication: 99999.9 kWh
Metrological LED: 1 Wh/pulse (Cat.No 0 046 70 : 0.5 Wh/pulse)
Accuracy (EN 62053-21): class 1
Reference voltage Un: 230 V-240 V
Reference frequency: 50-60 Hz

Three-phase meters Cat.Nos 0 046 73/74/80/82/83/84/85/86

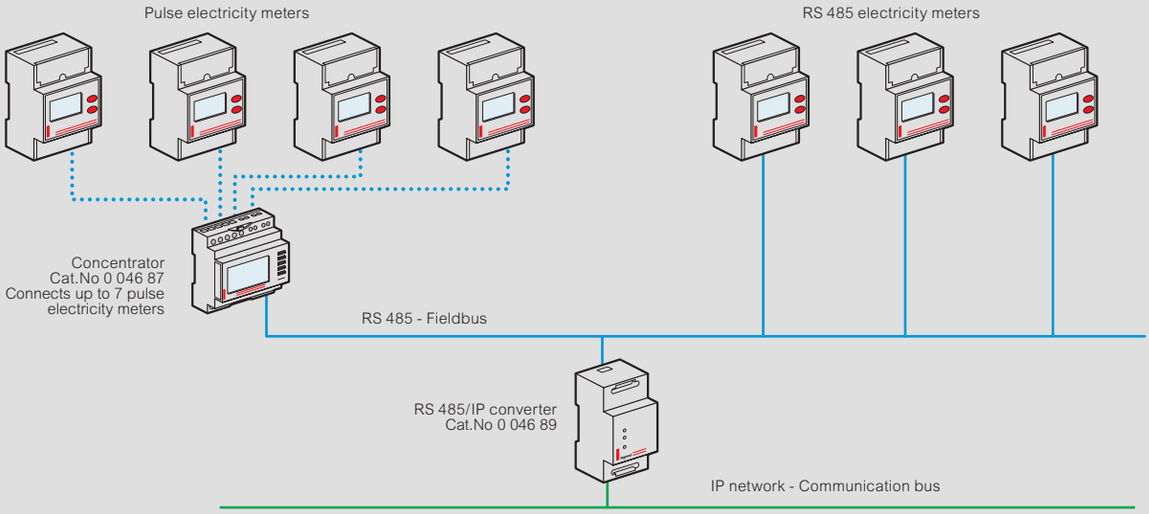
LCD display: 8 digits
Resolution: 0.01 kWh(1)
Maximum indication: 99999.99 kWh(1)
Metrological LED: 0.1 Wh/pulse or 1 Wh/pulse
Active energy accuracy (EN 62053-21): class 1
Reactive energy accuracy (EN 62053-23): class 2
Reference voltage Un:
- Single-phase: 230-240 V
- Three-phase: 230(400)-240(415) V

Operating limit range (EN 62053-21, EN 62053-23):
- Single-phase: 110 to 254 V
- Three-phase: 110(190) to 254(440) V

Pulse output: 1 pulse/10 Wh

Cat.Nos		0 046 70	0 046 81	0 046 72	0 046 77	0 046 78	0 046 79	0 046 73	0 046 80	0 046 82	0 046 83	0 046 74	0 046 84	0 046 85	0 046 86
Number of modules		1	2	2	2	2	2	4	4	4	4	4	4	4	4
Connection	Direct	●	●	●	●	●	●	●	●	●	●				
	Via a current transformer											●	●	●	●
	Single-phase	●	●	●	●	●	●					●	●		
	Three-phase							●	●	●	●	●	●	●	●
Max. current		32 A	36 A	63 A	63 A	63 A	63 A	63 A	63 A	63 A	63 A	5 A (CT)	5 A (CT)	5 A (CT)	5 A (CT)
Metering and measurement	Total active energy	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Total reactive energy							●	●	●	●	●	●	●	●
	Partial active energy (reset)		●	●	●	●	●	●	●	●	●	●	●		
	Partial reactive energy (reset)							●	●	●	●	●	●		
	Active power			●	●	●	●	●	●	●	●	●	●	●	●
	Reactive power							●	●	●	●	●	●	●	●
	Apparent power							●	●	●	●	●	●	●	●
	Current			●	●	●	●	●	●	●	●	●	●	●	●
	Voltage			●	●	●	●	●	●	●	●	●	●	●	●
	Frequency			●	●			●	●	●	●	●	●	●	●
	Power factor			●	●			●	●	●	●	●	●	●	●
	Time-of-use			●	●										
	Average active power							●	●	●	●	●	●	●	●
	Max. average active power value							●	●	●	●	●	●	●	●
	Dual tariff							●							
Communication	Pulse output	●	●	●		●		●		●		●	●	●	●
	RS 485 interface				●		●		●		●		●		●
MID compliant						●	●			●	●			●	●
Operating conditions	Reference temperature	23 °C ± 2 °C													
	Operating temperature	-20 to +55 °C	-10 to +45 °C					-5 to +55 °C							
	Storage temperature	-40 to +70 °C	-25 to +70 °C					-25 to +70 °C							
	Consumption	≤ 8 VA						≤ 4 VA per phase				≤ 1 VA per phase			
	Heat dissipation	≤ 6.5 W						≤ 6 W				≤ 4 W			

Interfacing with IP communication network



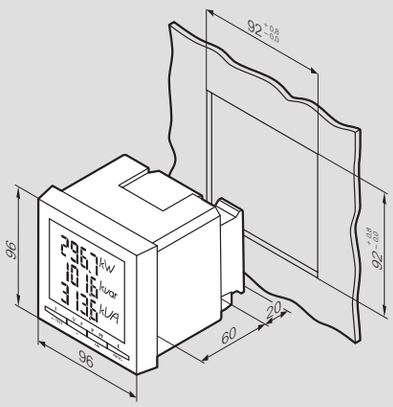
1: For direct connection meters
If connected via transformers, the resolution and maximum indication depend on the transformation ratios of these transformers

EMDX³ multi-function measuring units

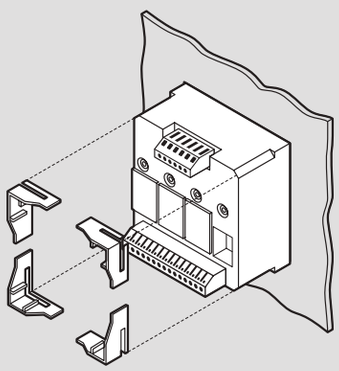
Technical characteristics

Cat.Nos			0 046 75/76	0 146 68	0 146 69
Connection	Current measurement terminals		4 mm²	6 mm²	6 mm²
	Other terminals		2.5 mm²	2.5 mm²	2.5 mm²
Protection index	Front cover		IP 51	IP 52	IP 52
	Casing		IP 20	IP 30	IP 30
Weight			205/215 g	400 g	400 g
Display			Backlit LCD	Backlit LCD	Backlit LCD
Measurements			3P+N, 3P, 2P, 1P+N	3P+N, 3P, 2P, 1P+N	3P+N, 3P, 2P, 1P+N
Voltage measurement	Direct	Phase/phase	50 to 520 V~	50 to 500 V~	18 to 700 V~
		Phase/neutral	28 to 300 V~	28 to 289 V~	11 to 404 V~
	From a PT	Primary	-	-	≤ 500 kV
		Secondary	-	-	60, 100, 110, 115, 120, 173, 190 V~
	Permanent overload between phases		760 V~	800 V~	760 V~
	Update period		1 s	1 s	1 s
Current measurement	From a CT	Primary	5 to 9999 A	≤ 9999 A	≤ 9995 A
		Secondary	5 A	5 A	1 or 5 A
	Minimum measurement		5 mA	5 mA	10 mA
	Input consumption		< 0.6 VA	< 0.6 VA	< 0.3 VA
	Display		0 to 9999 A	1 to 11 kA	0 to 11 kA
	Permanent overload		6 A	6 A	10 A
	Intermittent overload		60 A/1 s - 120 A/0.5 s	10 In/1 s	10 In/1 s
	Update period		1 s	1 s	1 s
	Max. CT x PT ratio		-	-	10000000
Power measurement	Total		0 to 9999 kW/kvar/kVA	0 to 11 MW/Mvar/MVA	0 to 8000 MW/Mvar/MVA
	Update period		1 s	1 s	1 s
Frequency measurement	Measurement range		45.0 to 65.0 Hz	45.0 to 65.0 Hz	45.0 to 65.0 Hz
	Update period		1 s	1 s	1 s
Auxiliary power supply	50/60 Hz		200 to 277 V~ ±15%	110 to 400 V~ ±10%	110 to 400 V~ ±10%
	DC		-	120 to 350 V⎓ ±20%	120 to 350 V⎓ ±20%
	Consumption		< 5 VA	< 10 VA	< 10 VA
Operating temperature			-10 °C to +55 °C	-10 °C to +55 °C	-10 °C to +55 °C
Storage temperature			-20 °C to +70 °C	-20 °C to +85 °C	-20 °C to +85 °C

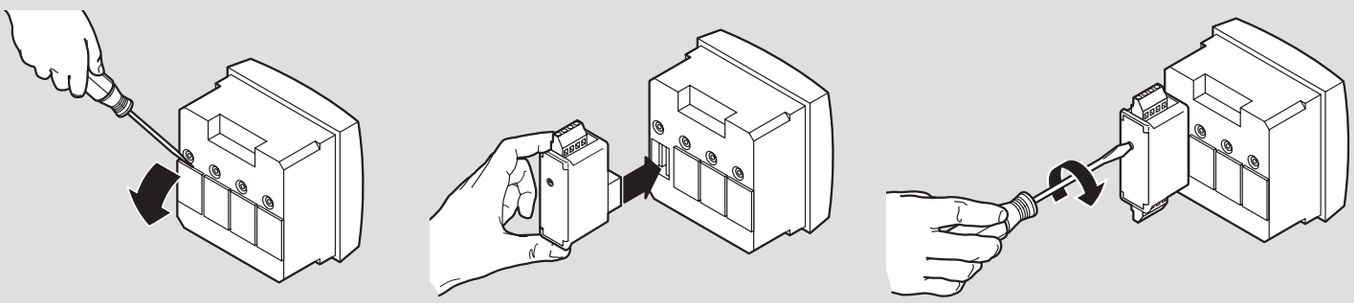
Flush-mounting dimensions Cat.Nos 0 146 68/69



Fixing on door Cat.Nos 0 146 68/69

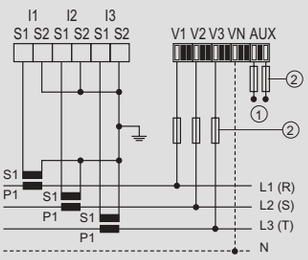


Fitting modules Cat.Nos 0 146 68/69

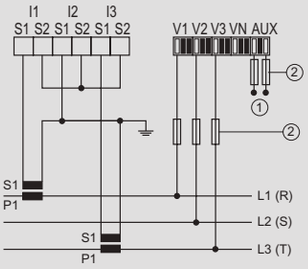


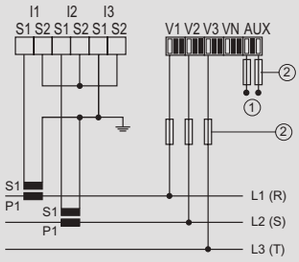
Connection solutions

Unbalanced three-phase network (3 or 4-wire)

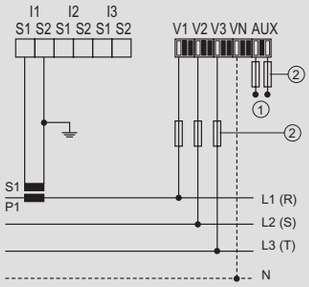


(3-wire)

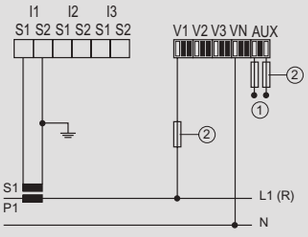




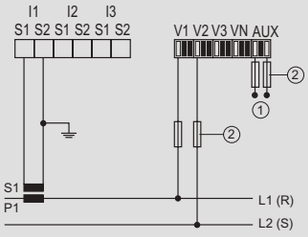
Balanced three-phase network (3 or 4-wire)



Single-phase network (2-wire)

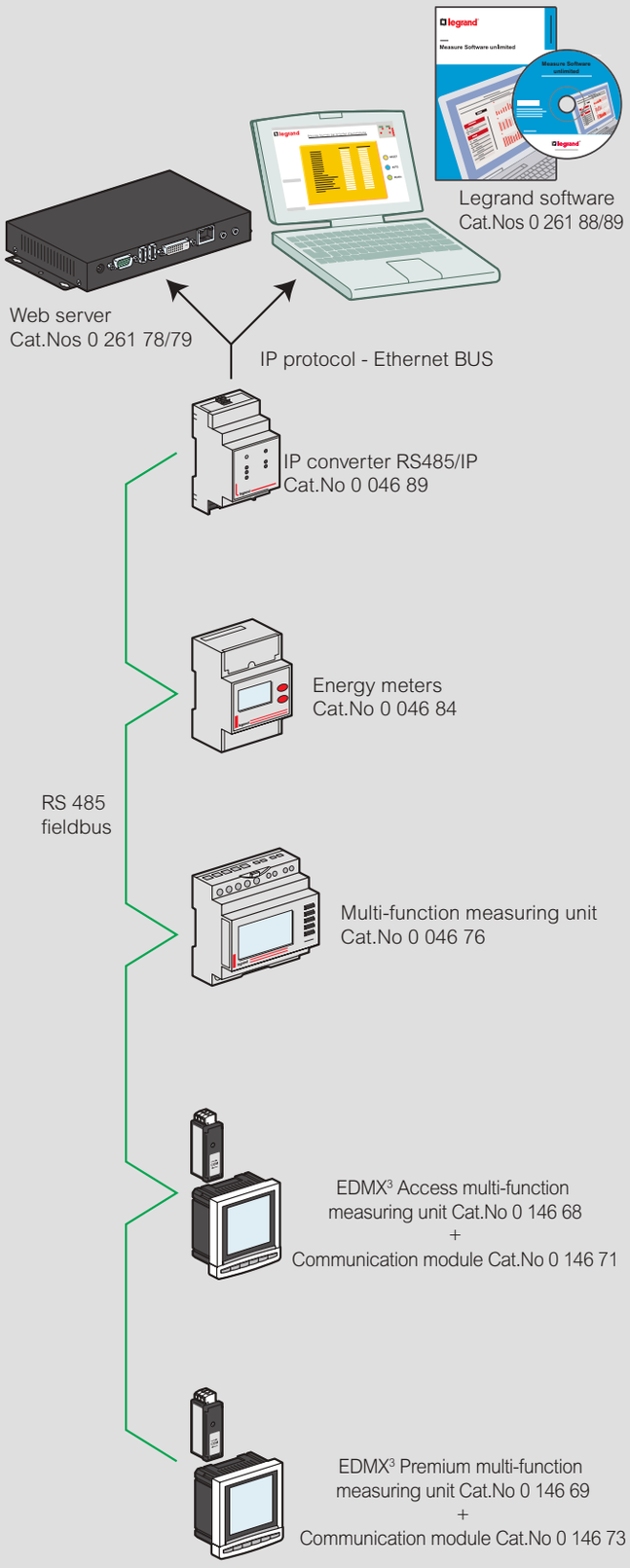


Two-phase network (2-wire)



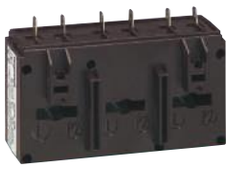
① Auxiliary power supply: 110 ... 400 VAC/120 ... 350 VDC
② Fuse: 0.5 A gG/BS 88 2A gG/0.5 A class CC

Wiring example of communication network



Current transformers (CT)

4 121 42



4 121 58

4 121 62

Technical characteristics **see e-catalogue**

Single-phase solid core current transformers

Used with ammeters, electricity meters or multi-function measuring units
Current at the secondary: 5 A
Can be fixed on plate, EN 60715 ⊔ rail Cat.No 4 121 01/02/03/04/05/06/07, or bars
Secondary connected by terminals or lugs
Precision class: 0.5 % (1 % for Cat.No 4 121 01/02)

Pack	Cat.Nos	Transformation ratio	Output (VA)
		For 16 x 12.5 mm bar or Ø21 mm cable	
1	4 121 01	50/5	1.25
1	4 121 02	75/5	1.5
1	4 121 03	100/5	2
1	4 121 04	125/5	2.5
1	4 121 05	160/5	3
1	4 121 06	200/5	4
1	4 121 07	250/5	5
		For 32.5 x 10.5 and 25.5 x 15.5 mm bars or Ø27 mm cable	
1	4 121 12	400/5	10
1	4 121 14	600/5	12
		For 40.5 x 12.5 and 32.5 x 15.5 mm bars or Ø26 mm cable	
1	4 121 16	250/5	3
1	4 121 17	400/5	6
1	4 121 19	700/5	8
		For 40.5 x 10.5, 32.5 x 20.5 and 25.5 x 25.5 mm bars or Ø32 mm cable	
1	4 121 23	250/5	3
1	4 121 24	300/5	5
1	4 121 25	400/5	8
1	4 121 26	600/5	12
		For 50.5 x 12.5 and 40.5 x 20.5 mm bars or Ø40 mm cable	
1	4 121 31	700/5	8
1	4 121 32	800/5	8
1	4 121 33	1000/5	10
		For 65 x 32 mm bar	
1	4 121 36	600/5	8
1	4 121 38	800/5	12
1	4 121 39	1000/5	15
		For 84 x 34 mm bar	
1	4 121 42	1250/5	12
		For 127 x 38 mm bar	
1	4 121 46	1600/5	10
1	4 121 47	2000/5	15
1	4 121 49	3200/5	25
		For 127 x 54 mm bar	
1	4 121 50	1600/5	20
1	4 121 51	2000/5	25
1	4 121 52	2500/5	30
1	4 121 53	3200/5	30
1	4 121 54	4000/5	30

Three-phase solid core current transformers

Used with ammeters, electricity meters or multi-function measuring units
Current at the secondary: 5 A
For fixing directly on bars
Secondary connected by terminals or lugs
Precision class: 1 %

Pack	Cat.Nos	Transformation ratio	Output (VA)
		For three 20.5 x 5.5 mm bars	
1	4 121 57	250/5	3
		For three 30.5 x 5.5 mm bars	
1	4 121 58	400/5	4

Single-phase split-core current transformers

Used with ammeters, electricity meters or multi-function measuring units
Current at the secondary: 5 A
For fixing directly on bars
Secondary connected by terminals or lugs
Precision class: 0.5 %

Pack	Cat.Nos	Transformation ratio	Output (VA)
		For 50 x 80 mm bar	
1	4 121 62	400/5	1.5
1	4 121 63	800/5	3
		For 80 x 120 mm bar	
1	4 121 64	1000/5	5
1	4 121 65	1500/5	8
		For 80 x 160 mm bar	
1	4 121 66	2000/5	15
1	4 121 67	2500/5	15
1	4 121 68	3000/5	20
1	4 121 69	4000/5	20

Viking 3 disconnector block for measurement - 1 connection

With its accessories, allows intervention (measurement, maintenance, etc) on a current, voltage and power measuring circuit by keeping the current transformer secondary circuit closed

Pack	Cat.Nos	Colour	Nominal cross section (mm^2)	Capacity: Rigid wire (mm^2)	Capacity: Flexible wire (mm^2)	Pitch (mm^2)
25	0 371 92	Grey	4	0.25 to 4	0.25 to 4	8

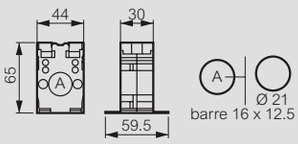
Current transformers (CT)

technical characteristics

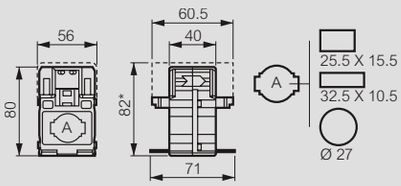
Dimensions

Single-phase solid core current transformers

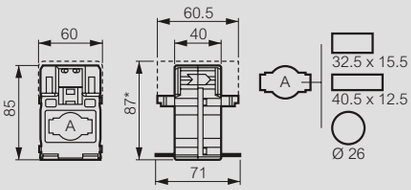
Cat.No 4 121 01/02/03/04/05/06/07



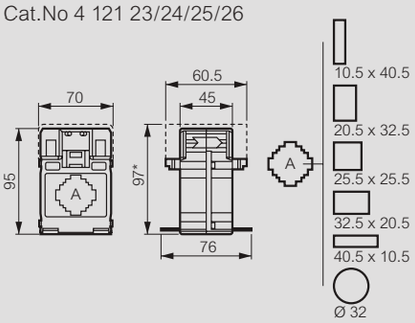
Cat.No 4 121 12/14



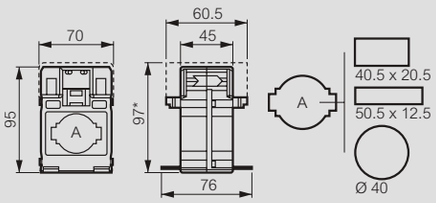
Cat.No 4 121 16/17/19



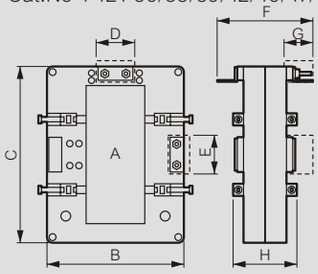
Cat.No 4 121 23/24/25/26



Cat.No 4 121 31/32/33

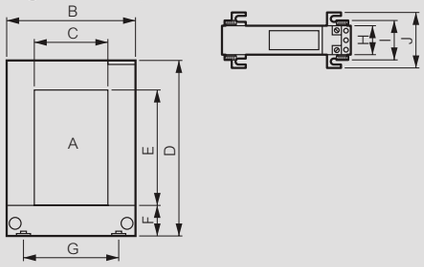


Cat.No 4 121 36/38/39/42/46/47/49/50/51/52/53/54



Cat.No	A	B	C	D	E	F	G	H
4 121 36/38/39	32 x 65	90	94	33.5	33.5	90	25	40
4 121 42	34 x 84	96	116	33.5	33.5	87	25	40
4 121 46/47/49	38 x 127	99	160	33.5	33.5	87	25	58
4 121 50/51/52/53/54	54 x 127	125	160	33.5	33.5	87	25	40

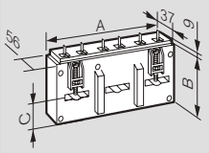
Single-phase split core current transformers



Cat.No	A	B	C	D	E	F	G	H	I	J
4 121 62/63	50 x 80	114	50	145	80	33	78	32	46	69
4 121 64/65	80 x 120	144	80	185	121	32	108	32	46	69
4 121 66/67/68/69	80 x 160	184	80	245	160	38	120	32	46	69

Three-phase solid core current transformers

Cat.No 4 121 57 for three 20.5 x 5.5 mm bars
Cat.No 4 121 58 for three 30.5 x 5.5 mm bars
For fixing directly on bars



Cat.No	A	B	C
4 121 57	107	58.5	25
4 121 58	135	66.5	30

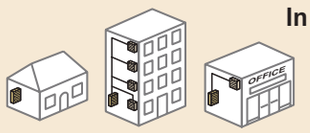
Maximum cable length between current transformers (CT) and meters

Size (A)	Cat.No	Max. output		Maximum cable length between current transformers & meters (m)		
		Class 0.5 (VA)	Class 1 (VA)	Cable 1.5mm²	Cable 2.5mm²	Cable 6mm²
50	4 121 01		1.25	1.1	1.8	4.4
75	4 121 02		1.5	1.5	2.4	5.9
100	4 121 03	2		2.2	3.7	8.9
125	4 121 04	2.5		2.9	4.9	11.8
160	4 121 05	3		3.7	6.1	14.8
200	4 121 06	4		5.1	8.5	20.7
250	4 121 07	5		6.6	11.0	26.6
400	4 121 12	10		13.9	23.2	56.2
600	4 121 14	12		16.8	28.1	68.1
250	4 121 16	3		3.7	6.1	14.8
400	4 121 17	6		8.0	13.4	32.6
700	4 121 19	8		11.0	18.3	44.4
250	4 121 23	3		3.7	6.1	14.8
300	4 121 24	5		6.6	11.0	26.6
400	4 121 25	8		11.0	18.3	44.4
600	4 121 26	12		16.8	28.1	68.1
700	4 121 31	8		11.0	18.3	44.4
800	4 121 32	8		11.0	18.3	44.4
1000	4 121 33	10		13.9	23.2	56.2
600	4 121 36	8		11.0	18.3	44.4
800	4 121 38	12		16.8	28.1	68.1
1000	4 121 39	15		21.2	35.4	85.8
1250	4 121 42	12		16.8	28.1	68.1
1600	4 121 46	10		13.9	23.2	56.2
2000	412 147	15		21.2	35.4	85.8
3200	4 121 49	25		35.8	59.8	145.0
1600	4 121 50	20		28.5	47.6	115.4
2000	4 121 51	25		35.8	59.8	145.0
2500	4 121 52	30		43.1	72.0	174.6
3200	4 121 53	30		43.1	72.0	174.6
4000	4 121 54	30		43.1	72.0	174.6
3 X 250	4 121 57		3	3.7	6.1	14.8
3 X 400	4 121 58		4	5.1	8.5	20.7
400	4 121 62	1.5		1.5	2.4	5.9
800	4 121 63	3		3.7	6.1	14.8
1000	4 121 64	5		6.6	11.0	26.6
1500	4 121 65	8		11.0	18.3	44.4
2000	4 121 66	15		21.2	35.4	85.8
2500	4 121 67	15		21.2	35.4	85.8
3000	4 121 68	20		28.5	47.6	115.4
4000	4 121 69	20		28.5	47.6	115.4

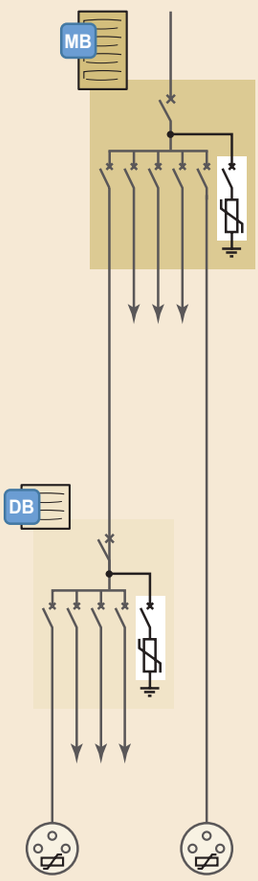
Selecting Surge Protective Devices (SPDs) and their associated protection

SPDs are compulsory [1]:
- In all areas (apart from specific cases):
  - With lightning protection of buildings (LPS): SPDs in the main distribution boards and distribution boards
  - With IEC/EN 62305 standards
  - Commercial installations
  - Public services, hospitals
- In AQ2 areas with overhead (or partially overhead) lines

Group or individual houses, small commercial buildings — **In ≤ 125 A**



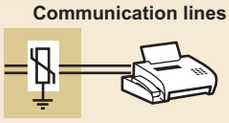
Low voltage installation



MB: Main Distribution Board
DB: Distribution Board

Main distribution board	Power network	Isc	SPD type	SPD (N left/right) + recommended overcurrent protection[2]
Very high risk — All areas	1P+N	≤ 10 kA	 T1+T2 / 12.5 kA	4 122 74/76 + 4 078 06
	3P			4 122 72 + 4 078 65
	3P+N			4 122 75/77 + 4 079 34
High risk — Non-urban areas, mountains, etc.	1P+N		 T1+T2 / 8 kA	4 122 54/56 + 4 078 04
	3P			4 122 52 + 4 078 63
	3P+N			4 122 55/57 + 4 079 32
Low risk — Urban areas, excluding mountains, etc.	1P+N		 T2 / 40 kA	4 122 44/46 + 4 078 02
	3P			4 122 42 + 4 078 61
	3P+N			4 122 45/47 + 4 079 30
Distribution board — **All risks**	1P+N	≤ 6 kA	 T2 /12 kA	0 039 51 (integrated protection)
	3P			-
	3P+N			0 039 53 (integrated protection)
	1P+N		 T2 / 20 kA	4 122 24/26 + 4 078 01
	3P			-
	3P+N			4 122 25/27 + 4 079 29
Proximity protection of sensitive equipment		Multi-outlet extensions		6 946 14/48/51/56/64/66/70/71
		Mosaic		0 775 40

Communication lines



(See p. 14)

1: According to installation standards IEC/HD 60364 parts 443 and 534
2: Recommended protective device to be used according to the type of SPD and requirements of the installation (see opposite table and technical pages)
3: Standard modular SPD

SPDs Cat.Nos	T1 / 25 kA and 35 kA 4 122 80/81/82/83		T1+T2 / 12.5 kA 4 122 70/71/72/73/74/75/76/77			T1+T2 / 8 kA 4 122 50/51/52/53/54/55/56/57			T2 / 40 kA 4 122 30/32/33/40/41/42/43/44/45/46/47/64/65/66/67		
Network	3P	3P+N	1P+N	3P	3P+N	1P+N	3P	3P+N	1P+N	3P	3P+N
Circuit breaker	DPX³160 - 80 A		DX³ 63 A C curve			DX³ 40 A C curve			DX³ 25 A C curve		
	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P
Isc ≤ 10 kA	-	-	4 078 06	4 078 65	4 079 34	4 078 04	4 078 63	4 079 32	4 078 02	4 078 61	4 079 30
Isc ≤ 16 kA	4 200 04	4 200 14	4 092 08	4 092 60	4 093 42	4 092 06	4 092 58	4 093 40	4 092 04	4 092 56	4 093 38
Isc ≤ 25 kA	4 200 44	4 200 54	4 097 74	4 097 87	4 098 00	4 097 72	4 097 85	4 097 98	4 097 70	4 097 83	4 097 96
Isc ≤ 50 kA	4 201 24	4 201 34	4 101 54	4 101 67	4 101 80	4 101 52	4 101 65	4 101 78	4 101 50	4 101 63	4 101 76

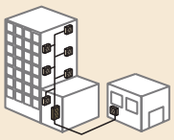
Risk levels:

- **Very high risk:** EN/IEC 62305 standards, installations with a LPS or metal structure (acting as a lightning conductor), installations that are isolated, or on a high mountain, or have a history of lightning strikes, etc.

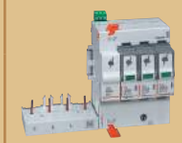
- **High risk:** installations outside of urban areas, in mountainous areas, isolated, at the end of a line, near a body of water, trees or near installations equipped with lightning conductors, etc.

- **Low risk:** installations in urban areas (or grouped buildings), flat areas, or low and medium height mountains

Commercial buildings

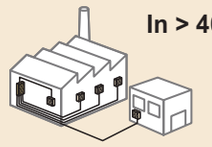


In ≤ 400 A

Isc	SPD type	SPD (N left/right) + recommended overcurrent protection(2)
≤ 25 kA	 T1 / 25 kA	-
		4 122 82 + 4 200 44
		4 122 83 + 4 200 54
	 T1+T2 / 12.5 kA	-
		4 122 72 + 4 097 87
		4 122 75/77 + 4 098 00
	 T1+T2 / 12.5 kA	-
		4 122 72 + 4 097 87
		4 122 75/77 + 4 098 00
≤ 10 kA	 T2 / 12 kA	0 039 71 (integrated protection)
		-
		0 039 73 (integrated protection)
≤ 16 kA	 T2/20 kA	4 122 60/62 + 4 092 03
		4 122 42(3) + 4 092 55
		4 122 61/63 + 4 093 37
Mosaic		0 775 40

Large commercial/ Industrial buildings

(IT earthing system: see below)



In > 400 A

Isc	SPD type	SPD (N left/right) + recommended overcurrent protection(2)
≤ 50 kA	 T1/25 kA	-
		4 122 82 + 4 201 24
		4 122 83 + 4 201 34
	 T1/25 kA	-
		4 122 82 + 4 201 24
		4 122 83 + 4 201 34
	 T1+T2/12.5 kA	-
		4 122 72 + 4 101 67
		4 122 75/77 + 4 101 80
≤ 25 kA	-	-
		-
		-
	 T2/40 kA	4 122 64/66 + 4 097 70
		4 122 42(3) + 4 097 83
		4 122 65/67 + 4 097 96
Mosaic		0 775 40

When low voltage SPDs are present, protection of all lines entering the building is recommended

	T2 / 20 kA 4 122 20/21/23/24/25/26/27/60/61/62/63		
	1P+N	3P	3P+N
	DX³ 20 A C curve		
	2P	3P	4P
	4 078 01	4 078 60	4 079 29
	4 092 03	4 092 55	4 093 37
	4 097 69	4 097 82	4 097 95
	-	-	-

IT earthing system (all risks)

SPD type		Network	Icc	SPD + protective device(2)
MB	T1 50 kA/440 V	3P	50 kA	0 030 00 (x 3) + 4 201 24
		3P+N		0 030 00 (x 4) + 4 201 34
DB	T2 40 kA/440 V	1P+N	25 kA	4 122 30 (x 2) + 4 097 70
		3P		4 122 32 + 4 097 83
		3P+N		4 122 33 + 4 097 96

Class I (T1) low voltage SPDs


4 122 75


4 122 57


4 122 83


4 123 03


4 122 84

Technical characteristics **p. 15-17**

Protection against transient overvoltagess for 230/400 V~ power networks (50/60 Hz). SPDs compliant with EN/IEC 61643-11 standards
Recommended for main distribution boards
Class I+II (T1+T2) : SPDs tested and specified according to both T1 and T2 test classes

SPDs for general protection of main distribution board

SPDs with plug-in modules and status indicators:
- Green: SPD operational
- Orange: plug-in modules to be replaced
Earthing systems: TT, TNC, TNS

T1+T2 - limp 12,5 kA/pole
For general protection of big installations and protection of small installations with external lightning protection (LPS).
Up: 1.5 kV - Imax: 60 kA/pole - Uc: 320 V~
Recommended MCB: DX³ 63 A - C curve

Pack	Cat.Nos	Number of poles	Neutral position	Itotal (10/350)	Remote status monitoring (FS contact)	Number of modules
1	4 122 70	1P	-	12.5 kA	No	1
1	4 122 74[1]	1P+N	Left	25 kA	Yes	2
1	4 122 76[1]	1P+N	Right	25 kA	Yes	2
1	4 122 71	2P	-	25 kA	No	2
1	4 122 72	3P	-	37.5 kA	Yes	3
1	4 122 75[1]	3P+N	Left	50 kA	Yes	4
1	4 122 77[1]	3P+N	Right	50 kA	Yes	4
1	4 122 73	4P	-	50 kA	No	4

T1+T2 - limp 8 kA/pole
SPDs for small installations without external lightning protection (LPS)
Up: 1.3 kV - Imax: 50 kA/pole - Uc: 320 V~
Recommended MCB: DX³ 40 A - C curve

Pack	Cat.Nos	Number of poles	Neutral position	Itotal (10/350)	Remote status monitoring (FS contact)	Number of modules
1	4 122 50	1P	-	8 kA	No	1
1	4 122 54[1]	1P+N	Left	16 kA	No	2
1	4 122 56[1]	1P+N	Right	16 kA	No	2
1	4 122 51	2P	-	16 kA	No	2
1	4 122 52	3P	-	25 kA	No	3
1	4 122 55[1]	3P+N	Left	25 kA	No	4
1	4 122 57[1]	3P+N	Right	25 kA	No	4
1	4 122 53	4P	-	32 kA	No	4

SPDs for high risk level installations

SPDs for big installations with external lightning protection (LPS) and for high risk level installations according to EN/IEC 62305 standards.

T1 - limp 50 kA/pole - 440V~ (IT) - Monobloc
Up: 2.5 kV - Uc: 440 V~
Earthing systems: TT, TNC, TNS, IT
Recommended MCCB: DPX³160 - 80 A

Pack	Cat.Nos	Number of poles	Itotal (10/350)	Remote status monitoring (FS contact)	Number of modules
1	0 030 00[2]	1P	50 kA	No	2

SPDs for high risk level installations (continued)

T1 - limp 35 kA/pole - 440V~ (IT) - Plug-in
SPDs with plug-in modules and status indicators:
- Green: SPD operational
- Red: plug-in modules to be replaced
Up: 2.5 kV - Uc: 440 V~
Earthing systems: TT, TNC, TNS, IT
Recommended MCCB: DPX³160 - 80 A

Pack	Cat.Nos	Number of poles	Neutral position	Itotal (10/350)	Remote status monitoring (FS contact)	Number of modules
1	4 122 80	1P	-	35 kA	Yes	2

T1 - limp 25 kA/pole
SPDs with plug-in modules and status indicators:
- Green: SPD operational
- Red: plug-in modules to be replaced
Up: 1.5 kV - Uc: 350 V~
Earthing systems: TT, TNC, TNS.
Recommended MCCB: DPX³160 - 80 A

Pack	Cat.Nos					
1	4 122 81[1]	1P+N	Right	50 kA	Yes	4
1	4 122 82	3P	-	75 kA	Yes	6
1	4 122 83[1]	3P+N	Right	100 kA	Yes	8

Replacement plug-in modules

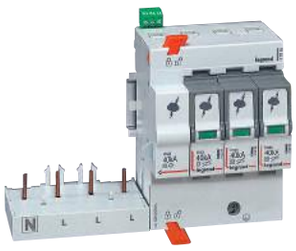
Pack	Cat.Nos	
1	4 123 02	For SPDs T1+T2 - 8 kA Cat.Nos 4 122 50/51/52/53/54/55/56/57
1	4 123 03	For SPDs T1+T2 - 12.5 kA Cat.Nos 4 122 70/71/72/73/74/75/76/77
1	4 122 84	For SPDs T1 - 25 kA Cat.Nos 4 122 81/82/83 and 0 030 20/22/23/27
1	4 122 85	N-PE module for SPDs T1 - 25 kA Cat.Nos 4 122 81/83 and 0 030 23
1	4 122 86	For SPDs T1 - 35 kA Cat.No 4 122 80

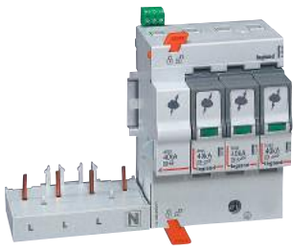
Cabling accessories

Pack	Cat.Nos	
1	4 123 10	Ready to use cabling kit consisting of 5 conductors (including the earth conductor) Cross section :16mm² Lenght : 40cm For cabling SPDs in industrial enclosures (for EN/IEC 61439 compliance).

1: 1P+N and 3P+N: L-N and N-PE protection modes (common and differential modes), the N pole being protected by encapsulated spark gaps. Also called sometimes 1+1 and 3+1
2: Replaced mid 2015 by Cat.No 4 122 80

Class II (T2) low voltage SPDs


4 122 65


4 122 67


4 122 45


4 122 99

Technical characteristics **p. 15-17**

Protection against transient overvoltagess for 230/400 V~ power networks (50/60 Hz). SPDs compliant with EN/IEC 61643-11 standards
Recommended for distribution boards

T2 add-on SPDs

SPDs with plug-in modules and status indicators:
- Green: SPD operational
- Orange: plug-in modules to be replaced

SPDs providing increased safety during their lifetime and maintenance cycles. Prewired MCB connexions for increased reliability and for quick and easy Installation.
To be equipped with DX³ MCBs (1 module/pole)
Earthing systems: TT, TNS

T2 - Imax 40 kA/pole

SPDs recommended for power installations
Up: 1.7 kV - In: 20 kA/pole - Uc: 320 V~
Recommended MCB: DX³ 25 A - C curve

Pack	Cat.Nos	Number of poles	Neutral position	Remote status monitoring (FS contact)	Number of modules
1	4 122 64[1]	1P+N	Left	Yes	4
1	4 122 66[1]	1P+N	Right	Yes	4
1	4 122 65[1]	3P+N	Left	Yes	8
1	4 122 67[1]	3P+N	Right	Yes	8

T2 - Imax 20 kA/pole

SPDs recommended for small installations
Up: 1.2 kV - In: 5 kA/pole - Uc: 320 V~
Recommended MCB: DX³ 20A - C curve

Pack	Cat.Nos	Number of poles	Neutral position	Remote status monitoring (FS contact)	Number of modules
1	4 122 60[1]	1P+N	Left	Yes	4
1	4 122 62[1]	1P+N	Right	Yes	4
1	4 122 61[1]	3P+N	Left	Yes	8
1	4 122 63[1]	3P+N	Right	Yes	8

T2 SPDs

SPDs with plug-in modules and status indicators:
- Green: SPD operational
- Orange: plug-in modules to be replaced

T2 - Imax 40 kA/pole

SPDs recommended for power installations
Up: 1.7 kV - In: 20 kA/pole - Uc: 320 V~
Earthing systems : TT, TNC, TNS
Recommended MCB: DX³ 25 A - C curve

Pack	Cat.Nos	Number of poles	Neutral position	Remote status monitoring (FS contact)	Number of modules
1	4 122 40	1P	-	No	1
1	4 122 44[1]	1P+N	Left	No	2
1	4 122 46[1]	1P+N	Right	No	2
1	4 122 41	2P	-	No	2
1	4 122 42	3P	-	Yes	3
1	4 122 45[1]	3P+N	Left	No	4
1	4 122 47[1]	3P+N	Right	No	4
1	4 122 43	4P	-	No	4

T2 - Imax 40 kA/pole - 440V~ (IT)

SPDs recommended for big installations
Up: 2.1 kV - In: 20 kA/pole - Uc: 440 V~
Earthing systems : TT, TNC, TNS, IT
Recommended MCB: DX³ 25 A - C curve

Pack	Cat.Nos	Number of poles	Neutral position	Remote status monitoring (FS contact)	Number of modules
1	4 122 30	1P	-	No	1
1	4 122 32	3P	-	Yes	3
1	4 122 33	4P	-	Yes	4

T2 - Imax 20 kA/pole

SPDs recommended for small installations
Up: 1.2 kV - In: 5 kA/pole - Uc: 320 V~
Earthing systems : TT, TNC, TNS
Recommended MCB: DX³ 20 A - C curve

Pack	Cat.Nos	Number of poles	Neutral position	Remote status monitoring (FS contact)	Number of modules
1	4 122 20	1P	-	No	1
1	4 122 24[1]	1P+N	Left	No	2
1	4 122 26[1]	1P+N	Right	No	2
1	4 122 21	2P	-	No	2
1	4 122 25[1]	3P+N	Left	No	4
1	4 122 27[1]	3P+N	Right	No	4
1	4 122 23	4P	-	No	4

Replacement plug-in modules

Pack	Cat.Nos	
1	4 122 99	For SPDs T2 - 40 kA Cat.Nos 4 122 40/41/42/43/44/45/46/47/64/65/66/67
1	4 123 00	N-PE module for SPDs T2 - 40 kA Cat.Nos 4 122 44/45/46/47
1	4 123 01	For SPDs T2 - 440 V Cat.Nos 4 122 30/32/33
1	4 122 97	For SPDs T2 - 20 kA Cat.Nos 4 122 20/21/23/24/25/26/27/60/61/62/63
1	4 123 98	N-PE module for SPDs T2 - 20 kA Cat.Nos 4 122 24/25/26/27

1: 1P+N and 3P+N: L-N and N-PE protection modes (common and differential modes), the N pole being protected by encapsulated spark gaps. Also called sometimes 1+1 and 3+1

Class II (T2) low voltage SPDs with integrated protection

0 039 51

0 039 53

0 039 54

Technical characteristics **p. 15-17**

SPDs with integrated protection against overload currents and short-circuit currents
SPDs compliant with EN/IEC 61643-11 standards
For 230/400 V~ power networks (50/60 Hz)

Pack	Cat.Nos	Protection for consumer units			
		For residential and small commercial installations With plug-in modules and status indicators: - Green: SPD operational - Red: plug-in module need to be replaced			
		T2 self protected SPDs - Imax 12 kA/pole			
		For installations with low risk level (in urban areas, underground power supplies, etc.) In: 10 kA/pole - Uc: 275 V~ Earthing systems: TT, TNS Cat. No. 0 039 51: SPDs with Y connection (both incoming and outgoing terminals ar the top of the SPDs) providing better protection against overvoltages			
		Number of poles	Neutral position	Integrated protection	Number of modules
1	0 039 51[1]	1P+N	Left	Isc ≤ 6 kA	2
1	0 039 53[1]	3P+N	Left	Isc ≤ 6 kA	6
		Protection for secondary distribution boards			
		Protection of sensitive equipment. With plug-in modules and status indicators: - Green: SPD operational - Red: plug-in module need to be replaced In: 10 kA/pole - Uc: 275 V~ Earthing systems: TT, TNS. Cat. No. 0 039 71: both incoming and outgoing terminals ar the top of the SPDs, providing better protection against overvoltages			
		T2 self protected SPDs - Imax 12 kA/pole			
		Number of poles	Neutral position	Integrated protection	Number of modules
1	0 039 71[1]	1P+N	Left	Isc ≤ 10 kA	2
1	0 039 73[1]	3P+N	Left	Isc ≤ 10 kA	6
		Replacement plug-in modules			
		For self protected SPDs			
1	0 039 54	Cat.Nos 0 039 51/53			
1	0 039 74	Cat.Nos 0 039 71/73			
		For old SPDs			
1	0 039 28	Cat.Nos 0 039 20/21/22/23			
1	0 039 34	Cat.Nos 0 039 30/31/32/33			
1	0 039 39	Cat.Nos 0 039 35/36/38			
1	0 039 44	Cat.Nos 0 039 40/41/43			

1: 1P+N and 3P+N: L-N and N-PE protection modes (common and differential modes), the N pole being protected by encapsulated spark gaps. Also sometimes called 1+1 and 3+1.

SPDs for telephone lines

0 038 28

0 038 29

Technical characteristics **p. 15-17**

Pack	Cat.Nos	SPDs for telephone and data lines			
		Overvoltage protection of equipment such as telephones, modems, video door entry phones, RS485 networks, measurement loops, etc. Not compatible with VDSLs SPDs needed to provide complete protection of the installation when low voltage SPDs are present (TS/IEC 61643-12). SPDs with status indicators: - Green: SPD operational - Orange: plug-in module need to be replaced Compliant with EN/IEC 61643-21 standards			
		"Analogue" SPD (STN, non-unbundled ADSL, etc.)			
		In/Imax	Max. voltage(Uc)	Level of protection (Up)	No. of modules
1	0 038 28	5/10 kA	170 V	260 V	1
		"Digital" SPD (unbundled ADSL, SDSL, ISDN, etc.)			
1	0 038 29	5/10 kA	48 V	100 V	1

Surge Protective Devices (SPDs)
protection against transient overvoltages

Protection against lightning and overvoltages

Protection against the effects of lightning is essentially based on:
• Protecting buildings using a lightning protection system (LPS or lightning conductors) to catch lightning strikes and to drive the lightning current to earth.
• The use of surge protective devices (SPDs) to protect equipment.
• The design of the earthing system (passive protection of the installation).
Throughout the world, there are millions of lightning strikes each day in the summer (up to 1000 lightning strikes/second). Lightning is responsible for 25% to 40% of all damage to equipment. When added to industrial overvoltages (switching overvoltages due to the operation of internal equipment), they account for more than 60% of all electrical damages, which can be prevented by installing SPDs (according to the country and type of installation - source: insurance companies).
In some countries, and depending on the end use of the building, national regulations may always stipulate the installation of SPDs (for example, Germany, Austria, Norway, etc.). If there are no specific national regulations, SPDs are usually specified by national installation standards (based on HD/IEC 60364 international installation standards) and EN/IEC 62305 standards.

External lightning protection system (LPS) or lightning conductors: protection of buildings (EN/IEC 62305)

An external lightning protection system (LPS) protects buildings against direct lightning strikes. It is generally based on the use of lightning conductors (single rod, with sparkover device, meshed cage, etc.) and/or the metallic structure of the building.
If there is an LPS or if a lightning risk assessment has been carried out in accordance with EN/IEC 62305 standards, SPDs are generally required in the main distribution board (T1 SPDs) and distribution boards (T2 SPDs).
Determination of the SPDs in the main distribution board in accordance with EN/IEC 62305 and TS/IEC 61643-12 (if there is insufficient information available):

LPL[1]: Lightning protection level	Total lightning current of the LPS	Min. value of Imp current of the SPD (T1)	Usage practices
I	200 kA	25 kA/pole (IT: 35kA min.)	Power installations
II	150 kA	18.5 kA/pole	Rarely used
III/IV	100 kA	12.5 kA/pole	Small installations

1: LPL (Lightning Protection Level)

Surge protective device (SPD) (internal protection)

The SPD
• Protects sensitive devices against overvoltages caused by lightning and industrial overvoltages, by limiting the overvoltages to values that are tolerated by the equipment
• Limits the possible harmful consequences in terms of the safety of people (medical equipment installed in the home, security systems, environmental systems, etc.)
• Maximises the continuity of operation of equipment and limits production losses

SPDs and standards

Standards EN/IEC 61643-11

Type of SPD		Test waves
EN 61643-11	IEC 61643-11	
Type 1 (T1)	Class I (T1)	Iimp: 10/350 µs (discharge current) In: 8/20 µs (nominal current, 15 shocks)
Type 2 (T2)	Class II (T2)	Imax: 8/20 µs (discharge current) In: 8/20 µs (nominal current, 15 shocks)

T1+T2 SPDs: tested in accordance with both methods.
T1 or T1+T2 SPDs are being increasingly used at the supply origin of installations, even when there is no lightning conductor, as they enable higher energies to be discharged and increase the service life the SPD.

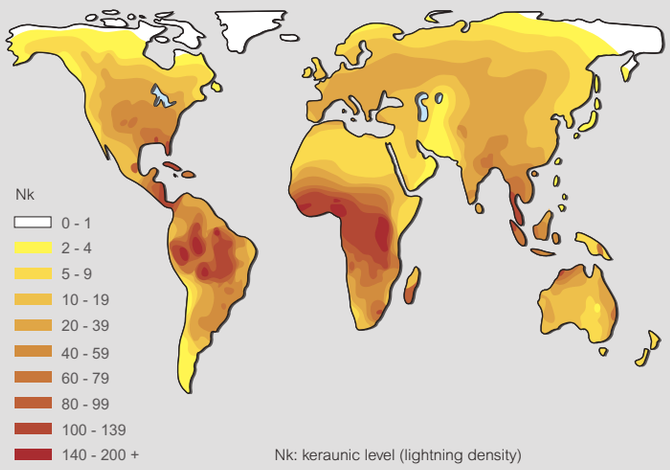
HD/IEC 60364 electrical installation standards

According to articles 443 and 534 of HD/IEC 60364 standards and the TS/IEC 61643-12 guides, the use of SPDs in new or renovated buildings is compulsory at the supply origin of the installation in the following cases:
• Buildings with lightning conductors (T1 SPDs, Iimp ≥ 12.5 kA)
• Buildings with totally or partially overhead power supplies in AQ2 geographical areas (article 443.3.2.1 - AQ2: Nk > 25, see map below) and based on a risk assessment taking into account the type of power supply to the building (article 443.3.2.2)

According to article 443.3.2.2, SPDs (Type 2) are also required in the following cases:
• Commercial/industrial buildings, public buildings and services, religious buildings, schools and large residential complexes, etc.
• Hospitals and buildings containing medical equipment and/or security systems for people and property (fire alarm, technical alarms, etc.)

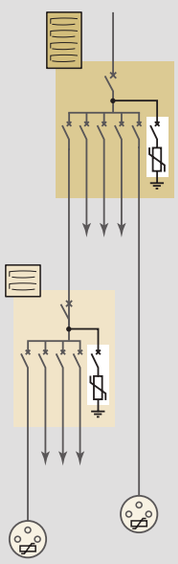
Important: it is advisable to install an SPD when the safety of people may depend on the continuity of service of equipment (even if this is not required by national standards). Although not compulsory according to the installation standards, an SPD should always be installed to protect the communication equipment when there is an SPD on the low voltage power network.

These rules should change in 2015. Please consult Legrand.



Nk: keraunic level (lightning density)

Protection of distribution boards and sensitive equipment (cascaded protection)



Effective protection against overvoltages cannot generally be assured with a single SPD if its protection level (Up) is greater than 1.2 kV (EN/IEC 62305 and TS/IEC 61643-12).
When there are overvoltages, an SPD protects equipment by limiting these overvoltages to values that can be tolerated by the equipment. Thus, depending on its discharge capacity (discharge current In, Imax, etc.) and its protection level (Up), an SPD will limit these overvoltages to varying values depending on the energy levels involved. The overvoltage values that may be transmitted downstream of the SPD may double over distances of more than 10 m due to resonances associated with the type of electrical installation and the type of equipment. Overvoltages greater than 2.5 kV may then occur and damage equipment if the residual energy is high enough (2.5 kV being the insulation level of most electrical and electronic equipment, or typically 1.5 kV for electrical domestic appliances).
SPDs should be installed in the distribution boards supplying equipment that is sensitive or critical for the activity being carried out (and/or near to equipment with proximity SPDs).

Surge Protective Devices (SPDs)
technical characteristics

Modular SPDs

230/400 V~ power network (50/60 Hz) - Degree of protection IP 20
Operating temperature: -10 to +40°C/Storage temperature: -20 to +70°C
1P+N (3P+N) SPDs: L-N and N-PE protection, also called 1+1 (3+1 resp.) or CT2 type protection depending on installation standards.

Cat.Nos	Type	Poles	Earthing system	Max. voltage (Uc)	Protection mode	Nominal current In/pole (8/20)	Max. discharge current			Protection level		Max. short-circuit current Isc (Isccr)	Protective device to be used [1]	FS auxiliary (remote status monitoring)
							Imax/ pole (8/20)	Iimp/pole (10/350)	I total (10/350)	Up (L-N/L-PE/N-PE)	Up at 5 kA			
0 030 00 4 122 80	T1/50 kA T1/35 kA	1P	TT, TNC, TNS, IT	440 V~	CT1	50 kA 35 kA		50 kA 35 kA	50 kA 35 kA	2.5 kV		50 kA	DPX³160 80 A	no yes
4 122 81	T1/25 kA	1P+N	TT, TNS	350 V~	CT2	25/50 kA		25/50 kA	50 kA	1.5/2.5/1.5 kV				yes
4 122 82	T1/25 kA	3P	TNC	350 V~	CT1	25 kA		25 kA	75 kA	1.5 kV				yes
4 122 83	T1/25 kA	3P+N	TT, TNS	350 V~	CT2	25/100 kA		25/100 kA	100 kA	1.5/2.5/1.5 kV				yes
4 122 70	T1+T2/12.5 kA	1P	TT, TNC, TNS	320 V~	CT1	25 kA	60 kA	12.5 kA	12.5 kA	1.5 kV at 12.5 kA 1.9 kV at 25 kA	1 kV	50 kA	DX³ 63 A C curve	no
4 122 71	T1+T2/12.5 kA	2P	TT, TNS	320 V~	CT1	25 kA	60 kA	12.5 kA	25 kA					no
4 122 72	T1+T2/12.5 kA	3P	TNC	320 V~	CT1	25 kA	60 kA	12.5 kA	37.5 kA					yes
4 122 73	T1+T2/12.5 kA	4P	TT, TNS	320 V~	CT1	25 kA	60 kA	12.5 kA	50 kA					no
4 122 74/76	T1+T2/12.5 kA	1P+N	TT, TNS	320 V~	CT2	25/25 kA	60 kA	12.5/25 kA	25 kA	1.5/1.6/1.5 kV at 12.5 kA 1.9/2.1/1.5 kV at 25 kA	1 kV			yes
4 122 75/77	T1+T2/12.5 kA	3P+N	TT, TNS	320 V~	CT2	25/50 kA	60 kA	12.5/50 kA	50 kA					yes
4 122 50	T1+T2/8 kA	1P	TT, TNC, TNS	320 V~	CT1	20 kA	50 kA	8 kA	8 kA	1.2 kV at 8 kA 1.7 kV at 20 kA	1 kV	50 kA	DX³ 40 A C curve	no
4 122 51	T1+T2/8 kA	2P	TT, TNS	320 V~	CT1	20 kA	50 kA	8 kA	16 kA					no
4 122 52	T1+T2/8 kA	3P	TNC	320 V~	CT1	20 kA	50 kA	8 kA	25 kA					no
4 122 53	T1+T2/8 kA	4P	TT, TNS	320 V~	CT1	20 kA	50 kA	8 kA	32 kA					no
4 122 54/56	T1+T2/8 kA	1P+N	TT, TNS	320 V~	CT2	20 kA	50 kA	8 kA	16 kA	1.2/1.5/1.5 kV at 8 kA 1.7/2/1.5 kV at 20 kA	1 kV			no
4 122 55/57	T1+T2/8 kA	3P+N	TT, TNS	320 V~	CT2	20 kA	50 kA	8 kA	25 kA					no
4 122 40	T2/40 kA	1P	TT, TNC, TNS	320 V~	CT1	20 kA	40 kA			1.5 kV at 15 kA 1.7 kV at 20 kA	1 kV	50 kA	DX³ 25 A C curve	no
4 122 41	T2/40 kA	2P	TT, TNS	320 V~	CT1	20 kA	40 kA					50 kA		no
4 122 42	T2/40 kA	3P	TNC	320 V~	CT1	20 kA	40 kA					50 kA		yes
4 122 43	T2/40 kA	4P	TT, TNS	320 V~	CT1	20 kA	40 kA					50 kA		no
4 122 44/46 4 122 64/66	T2/40 kA	1P+N	TT, TNS	320 V~	CT2	20 kA	40 kA			1.5/1.6/1.4 kV at 15 kA 1.7/2/1.4 kV at 20 kA	1 kV	50 kA 25 kA		no yes
4 122 45/47 4 122 65/67	T2/40 kA	3P+N	TT, TNS	320 V~	CT2	20 kA	40 kA					50 kA 25 kA		no yes
4 122 30	T2/40 kA	1P	TT, TNC, TNS, IT	440 V~	CT1	20 kA	40 kA			1.8 kV at 15 kA 2.1 kV at 20 kA	1.3 kV	50 kA	DX³ 25 A C curve	no
4 122 32	T2/40 kA	3P	TNC, IT	440 V~	CT1	20 kA	40 kA							yes
4 122 33	T2/40 kA	4P	TT, TNS, IT	440 V~	CT1	20 kA	40 kA							yes
4 122 20	T2/20 kA	1P	TT, TNS	320 V~	CT1	10 kA	20 kA			1.2 kV at 5 kA 1.4 kV at 10 kA	1.2 kV	25 kA	DX³ 20 A C curve	no
4 122 21	T2/20 kA	2P	TT, TNS	320 V~	CT1	10 kA	20 kA							no
4 122 23	T2/20 kA	4P	TT, TNS	320 V~	CT1	10 kA	20 kA							no
4 122 24/26 4 122 60/62	T2/20 kA	1P+N	TT, TNS	320 V~	CT2	10/20 kA	20 kA			1.2/1.4/1.4 kV at 5 kA 1.4/1.4/1.4 kV at 10 kA	1.2 kV			no yes
4 122 25/27 4 122 61/63	T2/20 kA	3P+N	TT, TNS	320 V~	CT2	10/20 kA	20 kA							no yes
0 039 51 0 039 71	T2+T3/12 kA	1P+N	TT, TNS	275 V~	CT2	10/10 kA	12 kA			1.1/1.2/1.2 kV at 10 kA	1 kV	6 kA 10 kA	integrated protection	no
0 039 53 0 039 73	T2+T3/12 kA	3P+N	TT, TNS	275 V~	CT2	10/20 kA	20 kA					6 kA 10 kA		

CT1: L(N)-PE protection modes.
CT2: L-N and N-PE protection modes.
1: DPX³ (with T1 SPDs), DX³ or similar type circuit breakers (with T2 and T1+T2 SPDs). For fuse protection or values other than those indicated in the table: please consult Legrand.

Characteristics of proximity SPDs

230 V~ protection: Type 3 (T3) SPDs

Cat.Nos	0 775 40	6 946 64/66/70	6 946 14/48/51/56/71
Protection mode	LN/NPE	LN/LPE/NPE	LN
Up	1/1.2 kV	1 kV	1 kV
Imax	6 kA	-	-
In	1.5 kA	2 kA	2 kA
Uoc	3 kV	4 kV	4 kV

TT earthing system: Installation downstream of a residual current device (HPI type recommended).

RJ 45/RJ 11 protection

Cat. No.	6 946 64	6 946 70
Uc	200 V	
Up	600 V	
Imax	1.5 kA	
In	1 kA	
Uoc	3 kV	

TV protection (9.5 mm coax.)

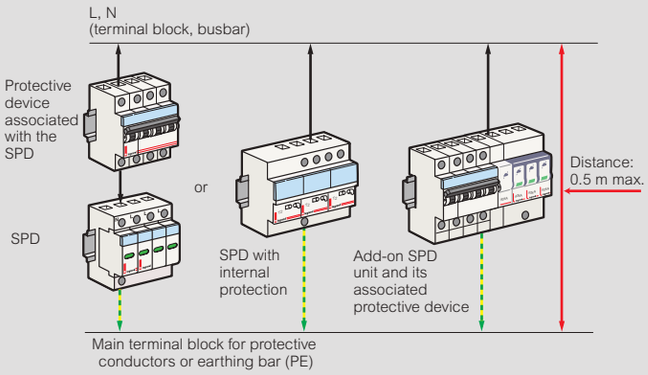
Cat. No.	6 946 66
Uc	50 V
Up	900 V
Imax	5 kA
In	1 kA
Uoc	3 kV

Installation

Associated overcurrent protection

SPDs must be protected by a circuit breaker (or fuses), to provide protection in the event of an overload, which may make the SPD reach its end of life (see selection table p. 10-11). This protective device will be defined to be coordinated or discriminating with regard to upstream protective devices.

Connection principles



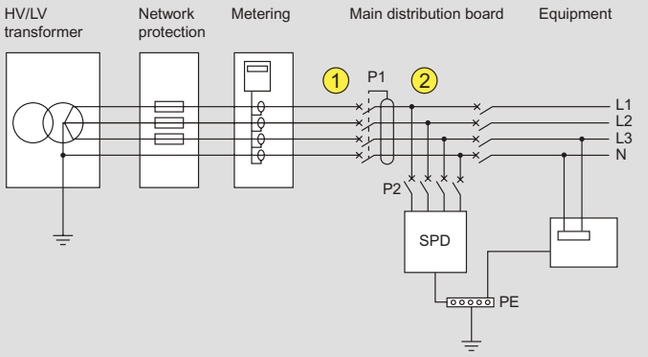
Connection lengths: as short as possible (< 50 cm if possible).

EMC (Electromagnetic Compatibility) rules: avoid loops, fix the cables firmly against the exposed metal conductive parts of the enlcosure.

SPD types and earthing systems

When possible (according to local rules), the SPD and its associated overcurrent protection (P2) should be installed upstream of the main protection (P1) as shown below (according to standards HD/IEC 60364).

SPDs and TT earthing system

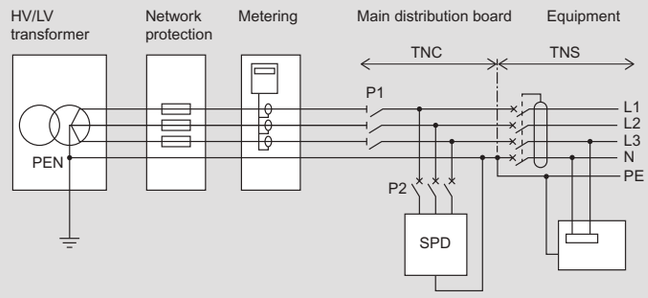


P1: main protection of the installation
SPD: surge protective device with Uc 275 or 320 V recommended

1 (upstream of P1): 1P+N/3P+N SPDs only (except for Cat.Nos 0 039 51/53/71/73).
1P/2P/3P/4P SPDs and Cat.Nos 0 039 51/53/71/73 must always be installed downstream of a residual current device (discriminating or delayed, at the supply end of the installation).

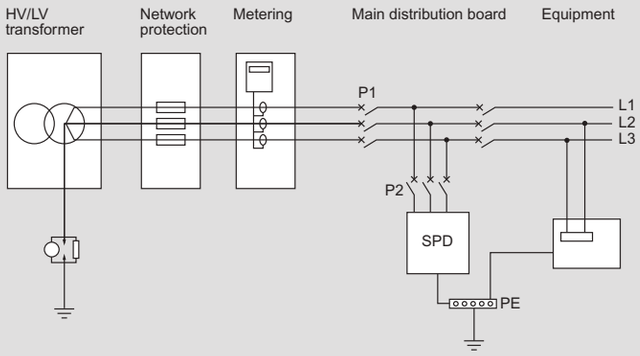
2 (downstream of P1): any SPD.

SPDs and TN (TNC, TNS and TNC-S) earthing systems



P1: main protection of the installation
SPD: surge protective device with Uc 275 or 320 V recommended

SPDs and IT earthing system



P1: main protection of the installation
SPD: surge protective device with Uc 440 V (Uc < 440 V prohibited)

Coordinating upstream/downstream SPDs

Consists of ensuring that any downstream SPD (in distribution enclosures or proximity SPDs) is correctly coordinated in energy terms with any SPD located upstream (TS 61643-12).

Minimum distances between SPDs

Upstream SPD	Downstream SPD	Min. distance (m)
T1/50 and T1/25	**T2/40**	10
T1/12.5 and T1/8	**T2/40**	6
	T2/20, T2/12	8
T2/40	**T2/20**	4
	T2/12	6
T2/20 and T2/12	**Proximity SPD**	2

Domestic fuse carriers


0 058 11


0 058 14


0 058 21


0 058 24

Dimensions **see e-catalogue**

With label-holders
With insulated carrier class II, padlockable
Coupling via supply busbars
Shielded terminals capacity 2 x 10 mm²
Possibilty to signal indicator blown fuse
Fuse not supplied

For domestic cylindrical cartridge fuses

Conform to EN 60269-1 and IEC 60269-1,3

Single pole

Pack	Cat.Nos	For domestic cartridges	Cartridge dimensions (mm)	Number of modules
10	0 058 10	10 A - 230 V~	8.5 x 23	1
10	0 058 11	16 A	10.3 x 25.8	1
10	0 058 12	20 A - 400 V~	8.5 x 31.5	1
10	0 058 13	25 A	10.3 x 31.5	1
10	0 058 14	32 A	10.3 x 38	1

Single pole + neutral

10	0 058 20	10 A - 230 V~	8.5 x 23	1
10	0 058 21	16 A	10.3 x 25.8	1
10	0 058 22	20 A - 400 V~	8.5 x 31.5	1
10	0 058 23	25 A	10.3 x 31.5	1
10	0 058 24	32 A	10.3 x 38	1

For miniature cylindrical cartridge fuses

Conform to EN 60127-6 and IEC 60127-6
To protect sensitive equipment: transformers, electronic equipment, etc.

Single pole

Pack	Cat.Nos	Cartridge dimensions (mm)	Voltage	Number of modules
5	0 058 00	5 x 20	250 V~	1

Single pole + neutral

5	0 058 02	5 x 20	250 V~	1

Domestic cartridge fuses


0 102 63


0 103 06


0 113 10


0 117 16


0 124 20


0 126 25


0 134 32

Miniature type 5 x 20

Instant reaction fuse - Ceramic body
Conform to EN/IEC 60127-2
High rupture capacity (A)
For use with dimmers, Viking terminal blocks and emergency lightning units, transformers

Pack	Cat.Nos	Rating (Amps)	Voltage ~ (Volts)	Rupture capacity (Amps)
10	0 102 02	0.2		
10	0 102 05	0.5		
10	0 102 06	0.63		
10	0 102 10	1		
10	0 102 20	2	250	1500
10	0 102 30	3.15		
10	0 102 50	5		
10	0 102 63	6.3		
10	0 102 96[1]	10	250	500

Cylindrical

6.3 x 23

Pack	Cat.Nos Without indicator	Cat.Nos With indicator	Rating (Amps)	Voltage ~ (Volts)	Rupture capacity (Amps) Copper	Protected section (mm²)	Color Indication
10	0 103 06[2]		6	230	6000	1.5	

8.5 x 23

10		0 114 06	6	230	6000		
10|100	0 113 10	0 114 10	10			1.5	

10.3 x 25.8

10	0 116 10[2]		10	230	6000		
10	0 116 16[2]	0 117 16[2]	16			2.5	

8.5 x 31.5

10|100	0 123 20	0 124 20	20	400	20000	2.5	

10.3 x 31.5

10	0 126 16		16				
10	0 126 20		20	400	20000		
10	0 126 25	0 127 25	25			4	

10.3 x 38

10|100	0 133 32		32	400	20000		
10		0 134 32	32			6	

Neutral links

Pack	Cat.Nos	
10	0 123 00	8 x 32 (previously 8.5 x 31.5)
10	0 133 00	10 x 38

1: Overrating not described by standarts
2: Conform to BS 1361 (1971)

Isolating fuse carriers


0 058 06


0 058 28


0 058 48

Dimensions **see e-catalogue**

Pack	Cat.Nos	For industrial cylindrical cartridge fuses type aM or gG Conform to standard IEC 60269-2 Isolators conform to IEC 60947-3 Icc: - 20 kA with 8.5 x 31.5 cartridge fuse - 100 kA with 10 x 38 cartridge fuse Fuse not supplied (p. 159)	Cartridge dimensions (mm)	Voltage	Number of modules
		Single pole			
10	0 058 06[1]		8.5 x 32	400 V~	1
10	0 058 08		10 x 38	500 V~	1
		Single pole + neutral			
10	0 058 16[1]		8.5 x 32	400 V~	1
10	0 058 18		10 x 38	500 V~	1
		2-pole			
5	0 058 26[1]		8.5 x 32	400 V~	2
5	0 058 28		10 x 38	500 V~	2
		3-pole			
3	0 058 36[1]		8.5 x 32	400 V~	3
3	0 058 38		10 x 38	500 V~	3
		3-pole + neutral			
2	0 058 46[1]		8.5 x 32	400 V~	4
2	0 058 48		10 x 38	500 V~	4
		Accessoires			
10	0 057 90	Blow-out indicator 250 V~			
1	0 057 96	Early break N/O + N/C contact auxiliary 5 A - 250 V~ (0.5 module)			
2	0 044 44	Sealable screw cover (4 separable poles)			


Blow-out indicator


Sealable screw cover

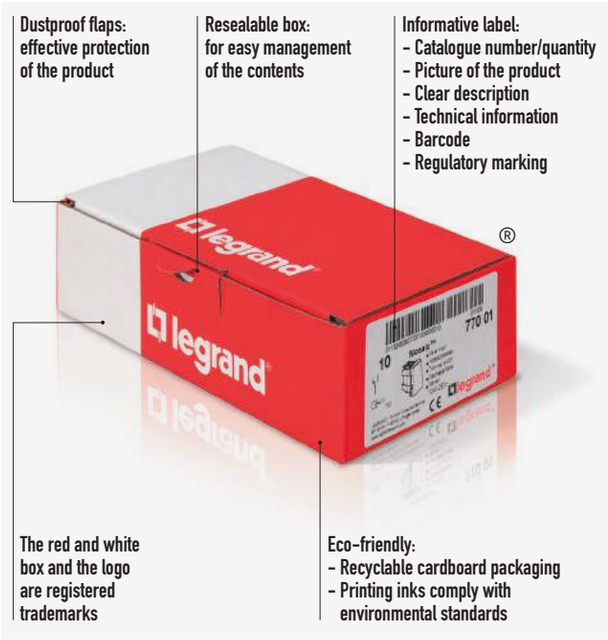
1: Previously 8.5 x 31.5 mm

Photovoltaic installations
Please, consult us

LEGRAND PACKAGING

practical & eco-friendly

Legrand packaging – your assistance of a certified original product which is factory inspected, protected and clearly identifiable



MORE INFORMATION

www.legrand-copytracer.com

Copytracer involves a unique registration number that appears on some of our products. This number is stored in a database and can be consulted on this website.
By entering it you can immediately check whether or not the Copytracer number is consistent with your product.

Catalogue number index

Cat.Nos	Page N°	Pack
0 026 00		
0 026 71	64	1
0 030 00[2]		
0 030 00[2]	78	1
0 036 00		
0 036 58	64	1
60	-	1
71	-	1
80	-	1
0 037 00		
0 037 05	60	1
0 038 00		
0 038 28	80	1
29	-	1
0 039 00		
0 039 28	80	1
34	-	1
39	-	1
44	-	1
51[1]	-	1
53[1]	-	1
54	-	1
71[1]	-	1
73[1]	-	1
74	-	1
0 041 00		
0 041 01	67	10
07	-	10
13	-	10
0 042 00		
0 042 10	68	1
80	67	10
85	-	10
91	-	5
0 042 92	67	5
0 044 00		
0 044 05	67	10
06	-	10
09	62	1
44	85	2
0 046 00		
0 046 70	69	1
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73	-	1
74	-	1
75	-	1
76	-	1
77	-	1
78	-	1
79	-	1
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81	-	1
82	-	1
83	-	1
84	69	1
85	-	1
86	-	1
87	-	1
89	70	1
0 047 00		
0 047 04	63	10
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42	66	1
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44	-	1
45	-	1
70	60	1
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91	68	1
92	-	1
93	-	1
0 057 00		
0 057 90	85	10
0 05796	85	1
0 058 00		
0 058 00	84	5
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10	-	10
11	-	10
12	-	10
13	-	10
14	-	10
20	-	10
21	-	10
22	-	10
23	-	10
24	-	10
06[1]	85	10
08	-	10
16[1]	-	10
18	-	10
26[1]	-	5
28	-	5
36[1]	-	3
38	-	3
46[1]	-	2
48	-	2
0 102 00		
0 102 02	84	10
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06	-	10
10	-	10
20	-	10
30	-	10
50	-	10
63	-	10
96[1]	-	10
0 103 00		
0 103 06[2]	84	10/100
0 113 00		
0 113 10	84	10/100
0 114 00		
0 114 06	84	10
10	-	10/100
0 116 00		
0 116 10[2]	84	10
16[2]	-	10
0 117 00		
0 117 16[2]	84	10
0 123 00		
0 123 00	84	10
20	-	10/100
25	-	10
0 124 00		
0 124 20	84	10/100
0 126 00		
0 126 16	84	10
0 127 00		
0 127 25	84	10
0 133 00		
0 133 00	84	10
0 113 10	-	5
32	-	10/100
0 134 00		
0 134 32	84	10
0 146 00		
0 146 68	70	1
69	-	1
71	-	1
72	-	1
73	-	1
74	-	1
75	-	1
77	70	1
0 227 00		
0 227 97	44	1
0 261 00		
0 261 78	70	1
79	-	1
88	-	1
89	-	1
0 371 00		
0 371 92	74	25
0 491 00		
0 491 20	53	10
21	-	10
56	62	1
83	63	1
26	62	1
0 802 00		
0 802 99	67	10
4 062 00		
4 062 50	44	1
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56	-	1
58	-	1
59	-	1
60	-	1
62	-	1
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88	-	1
89	-	1
90	-	1
91	-	1
0 146 92	44	1
93	-	1
95	-	1
4 063 00		
4 063 03	44	2
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06	-	1
07	-	10
07	67	10
10	44	1
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20	44	1
4 064 00		
4 064 00	28	10
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57	-	5
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69	-	1
70	-	1
77	-	5
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86	-	1
87	-	1

Cat.Nos	Page N°	Pack
4 064 81	28	1
89	-	1
90	-	1

4 065 00

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36	-	1
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4 078 00

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4 079 20	34	1
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4 081 00

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53	-	1

4 088 00

Cat.Nos	Page N°	Pack
4 088 64	36	1
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76	-	1
77	-	1

Cat.Nos	Page N°	Pack
4 088 78	36	1

4 089 00

Cat.Nos	Page N°	Pack
4 089 34	36	1
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4 090 00

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63	-	1
64	-	1

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Cat.Nos	Page N°	Pack
4 098 55	39	1
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23	-	1

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4 099 24	39	1
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37	-	1

4 100 00

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23	-	1
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4 101 00

Cat.Nos	Page N°	Pack
4 101 00	40	1
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22	-	1
23	-	1

Cat.Nos	Page N°	Pack
4 101 24	40	1
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4 102 00

Cat.Nos	Page N°	Pack
4 102 00	41	1
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4 104 00

Cat.Nos	Page N°	Pack
4 104 01	42	1
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11	-	1
13	-	1

Cat.Nos	Page N°	Pack
4 104 14	42	1
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32	-	1
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4 105 00

Cat.Nos	Page N°	Pack
4 105 00	42	1
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Cat.Nos	Page N°	Pack
4 106 05	43	1
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Cat.Nos	Page N°	Pack
4 109 18	32	1
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Cat.Nos	Page N°	Pack
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4 110 07	32	1
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4 111 02	32	1
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4 112 04	33	1
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4 113 00		
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47'	-	1
60'	-	1
61'	-	1

Cat.Nos	Page N°	Pack
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4 124 00		
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4 126 00		
4 126 02	63	10
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4 127 00		
4 127 80	61	1
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4 128 00		
4 128 12	61	1
13	-	1
60	64	1
72	60	1
73	-	1

Cat.Nos	Page N°	Pack
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4 130 00		
4 130 90	67	1
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4 131 00		
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07	-	1
08	-	1

Cat.Nos	Page N°	Pack
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43	-	1
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6 499 00		
6 499 14	62	1
6 998 00		
6 998 11	62	1
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