CATALOGUE

2016
2017

PRODUCTS AND SYSTEMS
FOR ELECTRICAL AND DIGITAL BUILDING INFRASTRUCTURES

legrand®

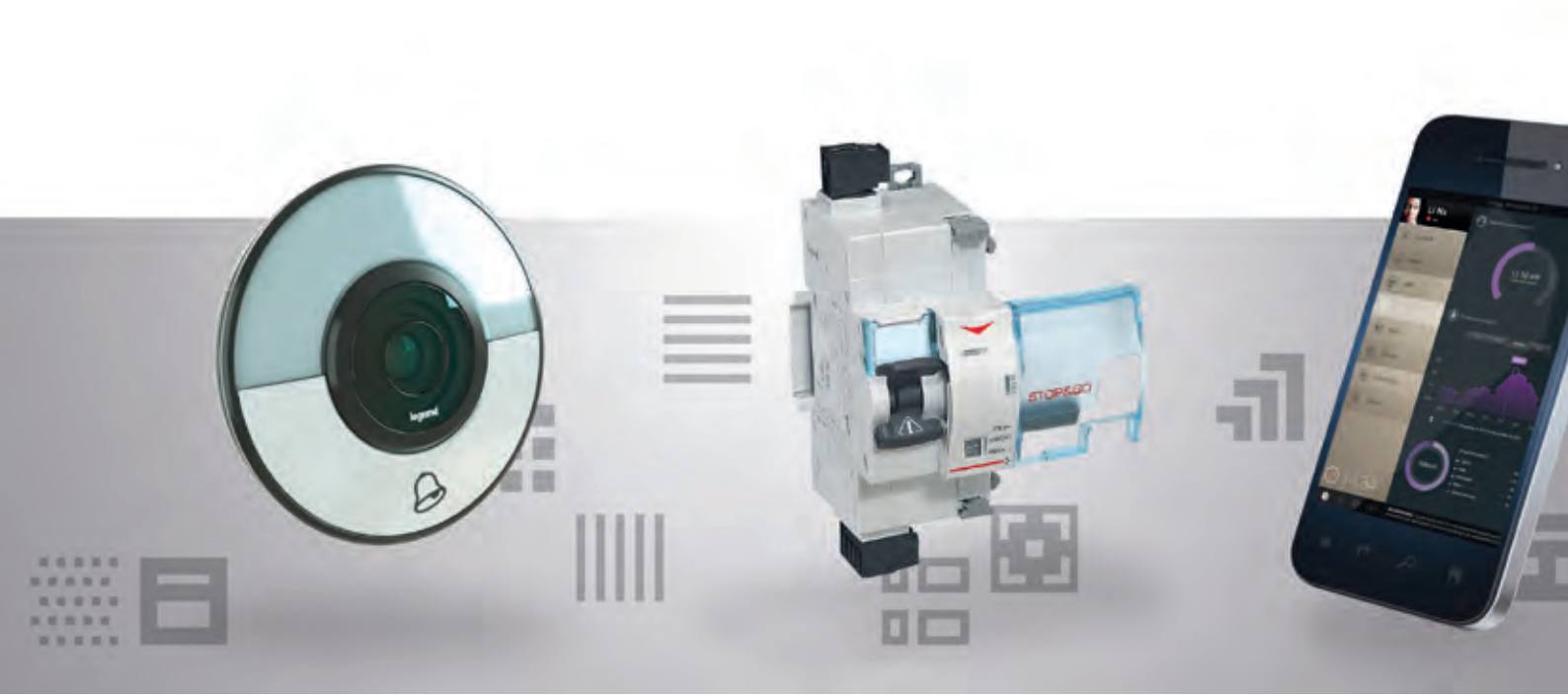
GIVE LIFE
TO DEVICES

CONNECTED TO YOUR CUSTOMERS' PERSONAL AND PRIVATE LIVES, PROGRAMME ELIOT BY LEGRAND DEVICES MAKE EVERYONE'S DAILY LIVES EASIER.

With Eliot, everyday devices around the home adapt to your customers' life style and requirements. Lighting, automatic shutters, braodcasting music, etc.: with the remote control, your customers have fingertip control of their comfort from their tablet or smartphone, even from outside the home. With Programme Eliot by Legrand connected devices, you have complete freedom to customise installations, including remotely, by designing scenarios to suit your customers, with their input.

In office and industrial buildings, with Programme Eliot by Legrand connected products, you can supervise the electrical installation without moving. The connection capability of uninterruptible power supplies, like that of security lighting units, for example, allows you to provide remote surveillance, carry out predictive maintenance and customise selected services. Finally, the Stop & Go connected control allows you, in particular, to reset an installation remotely in the event of a nuisance power cut.

Programme Eliot by Legrand connected products also allow you to make savings for your customers by easily controlling and measuring energy consumption.



PROGRAMME ELIOT BY LEGRAND CONNECTED PRODUCTS RESPECT THE CONFIDENTIAL NATURE OF CUSTOMER DATA.

For your customers to give access to personal information on how they lead their lives, on their working habits, on energy consumption or even about their health requires total confidence. Legrand is committed to maintaining these values and makes respect for the user an imperative. Thanks to an ultra-secure Cloud system, data is protected and so Programme Eliot by Legrand connected products contribute to maintaining confidentiality. Data may only be communicated to partners if they provide additional services to your customer and on condition that the customer has given permission. In this way, Programme Eliot by Legrand products respect everyone's right to privacy.

PROGRAMME ELIOT BY LEGRAND CONNECTED PRODUCTS ARE MADE TO LAST.

Programme Eliot connected devices will support you over the long term. Legrand has been designing high quality, easy to install, durable products for buildings for more than 100 years. Permanently installed at the heart of the building, Programme Eliot by Legrand connected products pay attention to your habits. Intelligent and intuitive, they are designed to be used and are built to last.

WHY THE ELIOT PROGRAMME?

Eliot is a fusion between Electricity and the IoT (Internet of Things). It is the name of the Legrand series launched in 2015, dedicated to the Internet of Things.

Internet of Things (**IoT**)

Eliot

Electricity

A LABEL TO IDENTIFY PROGRAMME ELIOT BY LEGRAND CONNECTED OBJECTS

eliot™ PROGRAM BY LEGRAND

Every Programme Eliot by Legrand connected product is identified by the label opposite. The presence of this logo certifies that the connected product in question provides real benefit for you the installer or specifier (maintenance, etc.) and also for your customer, that the confidentiality of data is preserved and that everything has been done for your long-term satisfaction.

You will find it throughout the catalogue.

MCBs, RCDs & DIN RAIL EQUIPMENT

RCCBs, MCBs, RCBOs, add-on modules & accessories

P. 44
RX³ RCCBs ≤ 63 A
AC & A type prong & fork type busbar

P. 48
TX³ RCCBs ≤ 80 A
AC & A type prong & fork type busbar

P. 54
DX³ RCBOs ≤ 63 A
6000 / 10 kA
AC, A & Hpi type prong & fork type busbar

P. 61
DX³ MCBs ≤ 63 A
50 kA

Surge protective devices & other control and signalling devices

NEW
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Low voltage SPDs

Time & light sensitive switches

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Programmable time switches with digital display

Dimmers, relays, transformers, power supplies & accessories

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Remote control dimmers

NEW PRODUCTS 2016

DX³ RCBOs ≤ 63 A
6000 / 6 kA
A type
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DX³ MCBs ≤ 80 A
36 kA
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RX³ MCBs ≤ 63 A
4500 & 6000
prong type busbar

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RX³ MCBs ≤ 63 A
6000 prong & fork
type busbar

P. 47
TX³ RCCBs ≤ 63 A
AC & A type prong
type busbar

P. 47
TX³ MCBs ≤ 63 A
6000 prong type
busbar

P. 48
TX³ MCBs ≤ 63 A
6000 & 10000
prong & fork
type busbar

P. 50
DX³-IS isolating
switches

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DX³-ID RCCBs
≤ 100 A
AC, A, Hpi & B type

NEW
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DX³ RCBOs ≤ 32 A
6000 / 6 kA
A type prong
type busbar

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DX³ MCBs ≤ 63 A
6000 / 10 kA
prong & fork type
busbar

P. 58
DX³ MCBs ≤ 125 A
10000 / 16 kA
prong & fork type
busbar

P. 60
DX³ MCBs ≤ 125 A
25 kA

NEW
P. 61
DX³ MCBs ≤ 80 A
36 kA

P. 62
DX³ add-on
modules ≤ 125 A
AC, A & Hpi type

P. 64
DX³ signalling &
remote tripping
auxiliaries

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DX³ motorised
controls

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DX³ manual
supply invertor

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Domestic fuse
carriers &
cartridge fuses

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latching relays

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power contactors

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Programmable
time switches
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Socket outlets &
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Single phase
power supplies

Connected STOP & GO
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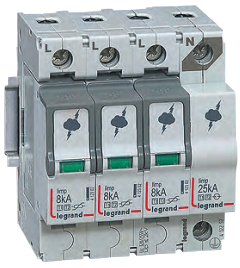


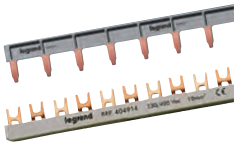
Low voltage SPDs class I (T1) and class II (T2)
(p. 68)

RCCBs RX³

residual current circuit breakers from 25 A to 63 A - AC and A types

4 020 25

4 020 70



Dimensions **see e-catalogue**

Conform to IEC 61008-1
• AC type ~: detect AC component faults
• A type ⩙: detect AC and DC component faults
Compatible with prong-type and fork type supply busbars
Do not accept auxiliaries

Pack	Cat.Nos	2-pole - 230 V~		
		AC type ~		
		Sensitivity (mA)	In (A)	Number of modules
1	4 020 24	30	25	2
1	4 020 25	30	40	2
1	4 020 26	30	63	2
1	4 020 27	30	80	2
1	4 020 28	100	25	2
1	4 020 29	100	40	2
1	4 020 30	100	63	2
1	4 020 32	300	25	2
1	4 020 33	300	40	2
1	4 020 34	300	63	2
		A type ⩙		
1	4 020 36	30	25	2
1	4 020 37	30	40	2
1	4 020 38	30	63	2

		4-pole - 400 V~ neutral on right-hand side		
		AC type ~		
		Sensitivity (mA)	In (A)	Number of modules
1	4 020 62	30	25	4
1	4 020 63	30	40	4
1	4 020 64	30	63	4
1	4 020 66	100	25	4
1	4 020 67	100	40	4
1	4 020 68	100	63	4
1	4 020 70	300	25	4
1	4 020 71	300	40	4
1	4 020 72	300	63	4
		A type ⩙		
1	4 020 74	30	25	4
1	4 020 75	30	40	4
1	4 020 76	30	63	4

MCBs RX³ 3000

thermal magnetic MCBs from 6 A to 32 A - C curve

4 194 97

4 194 99

4 195 00

Technical characteristics **see e-catalogue**

Conform to IEC 60898-1
Do not accept auxiliaries, and RCD add-on modules
Compatible with prong-type supply busbars
Breaking capacity:
3000 - IEC 60898-1 - 230 V~

Pack	Cat.Nos	Single pole + neutral 230 V~ neutral on left-hand side	
	C curve	Nominal rating In (A)	Number of modules
10	4 194 96	6	1
10	4 194 97	10	1
10	4 194 99	16	1
10	4 195 00	20	1
10	4 195 01	25	1
10	4 195 02	32	1

For detailed dimensions,
see e-catalogue

MCBs RX³ 4500

thermal magnetic MCBs from 6 A to 63 A - C curve

4 196 62 | 4 196 64 | 4 199 50 | 4 197 08

Technical characteristics **see e-catalogue**

Conform to IEC 60898-1
Do not accept auxiliaries, and add-on modules
Compatible with prong-type supply busbars
Breaking capacity:
4500 - IEC 60898-1 - 230/400 V~
4.5 kA - IEC 60947-2 - 230/400 V~
6000 - IEC 60898-1 - 127/220 V~
6 kA - IEC 60947-2 - 127/220 V~

Single pole 230/400 V~

Pack	Cat.Nos C curve	Nominal rating In (A)	Number of modules
12	4 196 61	6	1
12	4 196 62	10	1
12	4 196 64	16	1
12	4 196 65	20	1
12	4 196 66	25	1
12	4 196 67	32	1
12	4 196 68	40	1
12	4 196 69	50	1
12	4 196 70	63	1

Single pole + neutral 230 V~ neutral on left-hand side

	C curve	Nominal rating In (A)	Number of modules
10	4 199 46	6	1
10	4 199 47	10	1
10	4 199 49	16	1
10	4 199 50	20	1
10	4 199 51	25	1
10	4 199 52	32	1

2-pole 230/400 V~

	C curve	Nominal rating In (A)	Number of modules
6	4 196 94	6	2
6	4 196 95	10	2
6	4 196 97	16	2
6	4 196 98	20	2
6	4 196 99	25	2
6	4 197 00	32	2
6	4 197 01	40	2
6	4 197 02	50	2
6	4 197 03	63	2

3-pole 400 V~

	C curve	Nominal rating In (A)	Number of modules
4	4 197 05	6	3
4	4 197 06	10	3
4	4 197 08	16	3
4	4 197 09	20	3
4	4 197 10	25	3
4	4 197 11	32	3
4	4 197 12	40	3
4	4 197 13	50	3
4	4 197 14	63	3

4-pole 400 V~

	C curve	Nominal rating In (A)	Number of modules
3	4 197 38	6	4
3	4 197 39	10	4
3	4 197 41	16	4
3	4 197 42	20	4
3	4 197 43	25	4
3	4 197 44	32	4
3	4 197 45	40	4
3	4 197 46	50	4
3	4 197 47	63	4

MCBs RX³ 6000

thermal magnetic MCBs from 6 A to 63 A - C curve

4 198 38 | 4 198 40 | 4 198 73 | 4 198 84

Technical characteristics **see e-catalogue**

Conform to IEC 60898-1
Do not accept auxiliaries, and add-on modules
Compatible with prong-type supply busbars
Breaking capacity:
6000 - IEC 60898-1 - 230/400 V~
6 kA - IEC 60947-2 - 230/400 V~
10000 - IEC 60898-1 - 127/220 V~
10 kA - IEC 60947-2 - 127/220 V~

Single pole 230/400 V~

Pack	Cat.Nos C curve	Nominal rating In (A)	Number of modules
12	4 198 37	6	1
12	4 198 38	10	1
12	4 198 40	16	1
12	4 198 41	20	1
12	4 198 42	25	1
12	4 198 43	32	1
12	4 198 44	40	1
12	4 198 45	50	1
12	4 198 46	63	1

2-pole 230/400 V~

	C curve	Nominal rating In (A)	Number of modules
6	4 198 70	6	2
6	4 198 71	10	2
6	4 198 73	16	2
6	4 198 74	20	2
6	4 198 75	25	2
6	4 198 76	32	2
6	4 198 77	40	2
6	4 198 78	50	2
6	4 198 79	63	2

3-pole 400 V~

	C curve	Nominal rating In (A)	Number of modules
4	4 198 81	6	3
4	4 198 82	10	3
4	4 198 84	16	3
4	4 198 85	20	3
4	4 198 86	25	3
4	4 198 87	32	3
4	4 198 88	40	3
4	4 198 89	50	3
4	4 198 90	63	3

4-pole 400 V~

	C curve	Nominal rating In (A)	Number of modules
3	4 199 14	6	4
3	4 199 15	10	4
3	4 199 17	16	4
3	4 199 18	20	4
3	4 199 19	25	4
3	4 199 20	32	4
3	4 199 21	40	4
3	4 199 22	50	4
3	4 199 23	63	4

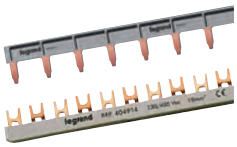
MCBs RX³ 6000

thermal magnetic MCBs from 6 A to 63 A - B curve

4 191 36

4 191 55

4 191 69



Technical characteristics **see e-catalogue**

Conform to IEC 60898-1
Do not accept auxiliaries, and add-on modules
Compatible with prong-type and fork type supply busbars
Breaking capacity:
6000 - IEC 60898-1 - 230/400 V~
6 kA - IEC 60947-2 - 230/400 V~
10000 - IEC 60898-1 - 127/220 V~
10 kA - IEC 60947-2 - 127/220 V~

Single pole 230/400 V~

Pack	Cat.Nos	B curve	Nominal rating In (A)	Number of modules
12	4 191 33		6	1
12	4 191 34		10	1
12	4 191 35		13	1
12	4 191 36		16	1
12	4 191 37		20	1
12	4 191 38		25	1
12	4 191 39		32	1
12	4 191 40		40	1
12	4 191 41		50	1
12	4 191 42		63	1

2-pole 230/400 V~

Pack	Cat.Nos	B curve	Nominal rating In (A)	Number of modules
6	4 191 55		6	2
6	4 191 56		10	2
6	4 191 57		13	2
6	4 191 58		16	2
6	4 191 59		20	2
6	4 191 60		25	2
6	4 191 61		32	2
6	4 191 62		40	2
6	4 191 63		50	2
6	4 191 64		63	2

3-pole 400 V~

Pack	Cat.Nos	B curve	Nominal rating In (A)	Number of modules
4	4 191 66		6	3
4	4 191 67		10	3
4	4 191 68		13	3
4	4 191 69		16	3
4	4 191 70		20	3
4	4 191 71		25	3
4	4 191 72		32	3
4	4 191 73		40	3
4	4 191 74		50	3
4	4 191 75		63	3

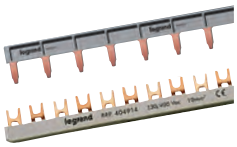
MCBs RX³ 6000

thermal magnetic MCBs from 6 A to 63 A - C curve

4 192 02

4 192 21

4 192 35



Technical characteristics **see e-catalogue**

Conform to IEC 60898-1
Do not accept auxiliaries, and add-on modules
Compatible with prong-type and fork type supply busbars
Breaking capacity:
6000 - IEC 60898-1 - 230/400 V~
6 kA - IEC 60947-2 - 230/400 V~
10000 - IEC 60898-1 - 127/220 V~
10 kA - IEC 60947-2 - 127/220 V~

Single pole 230/400 V~

Pack	Cat.Nos	C curve	Nominal rating In (A)	Number of modules
12	4 191 99		6	1
12	4 192 00		10	1
12	4 192 01		13	1
12	4 192 02		16	1
12	4 192 03		20	1
12	4 192 04		25	1
12	4 192 05		32	1
12	4 192 06		40	1
12	4 192 07		50	1
12	4 192 08		63	1

2-pole 230/400 V~

Pack	Cat.Nos	C curve	Nominal rating In (A)	Number of modules
6	4 192 21		6	2
6	4 192 22		10	2
6	4 192 23		13	2
6	4 192 24		16	2
6	4 192 25		20	2
6	4 192 26		25	2
6	4 192 27		32	2
6	4 192 28		40	2
6	4 192 29		50	2
6	4 192 30		63	2

3-pole 400 V~

Pack	Cat.Nos	C curve	Nominal rating In (A)	Number of modules
4	4 192 32		6	3
4	4 192 33		10	3
4	4 192 34		13	3
4	4 192 35		16	3
4	4 192 36		20	3
4	4 192 37		25	3
4	4 192 38		32	3
4	4 192 39		40	3
4	4 192 40		50	3
4	4 192 41		63	3

4-pole 400 V~

Pack	Cat.Nos	N C curve	Nominal rating In (A)	Number of modules
3	4 192 55		10	4
3	4 192 56		13	4
3	4 192 57		16	4
3	4 192 58		20	4

RCCBs TX³ - residual current circuit breakers

from 25 A to 63 A - AC and A types

4 030 00

4 030 10

Technical characteristics **see e-catalogue**

Conform to IEC 61008-1
Compatible with prong-type supply busbars
• AC type ⏦: detect AC component faults
• A type ⏦: detect AC and DC component faults
Do not accept auxiliaries

Pack	Cat.Nos	2-pole - 230 V~		
		AC type ⏦		
		Sensitivity (mA)	In (A)	Number of modules
1	4 030 00	30	25	2
1	4 030 01	30	40	2
1	4 030 02	30	63	2
1	4 030 38	300	25	2
1	4 030 39	300	40	2
1	4 030 40	300	63	2
		A type ⏦		
1	4 030 35	30	25	2
1	4 030 36	30	40	2

		4-pole - 400 V~		
		Neutral on left-hand side		
		AC type ⏦		
		Sensitivity (mA)	In (A)	Number of modules
1	4 030 04	30	25	4
1	4 030 05	30	40	4
1	4 030 06	30	63	4

		4-pole - 400 V~		
		Neutral on right-hand side		
		AC type ⏦		
		Sensitivity (mA)	In (A)	Number of modules
1	4 030 08	30	25	4
1	4 030 09	30	40	4
1	4 030 10	30	63	4
1	4 030 42	300	25	4
1	4 030 43	300	40	4
1	4 030 44	300	63	4

See the video

MCBs TX³ 6000

thermal magnetic MCBs from 6 A to 63 A - C curve

4 035 76

4 036 16

Technical characteristics **see e-catalogue**

Conform to IEC 60898-1
Compatible with prong-type supply busbars
Breaking capacity:
6000 - IEC 60898-1 - 230/400 V~
6 kA - IEC 60947-2 - 230/400 V~
Can be equipped with DX³ signalling and remote tripping auxiliaries and motorised controls (p. 64)
Do not accept add-on modules

Pack	Cat.Nos	Single pole 230/400 V~		
	C curve	Nominal rating In (A)		Number of modules
10	4 035 74	6		1
10	4 035 75	10		1
10	4 035 76	16		1
10	4 035 77	20		1
10	4 035 78	25		1
10	4 035 79	32		1
10	4 035 80	40		1
10	4 035 81	50		1
10	4 035 82	63		1

		Single pole + neutral 230 V~		
		Neutral on left-hand side		
	C curve	Nominal rating In (A)		Number of modules
5	4 035 84	6		2
5	4 035 85	10		2
5	4 035 86	16		2
5	4 035 87	20		2
5	4 035 88	25		2
5	4 035 89	32		2
5	4 035 90	40		2

		2-pole 230/400 V~		
	C curve	Nominal rating In (A)		Number of modules
5	4 036 04	6		2
5	4 036 05	10		2
5	4 036 06	16		2
5	4 036 07	20		2
5	4 036 08	25		2
5	4 036 09	32		2
5	4 036 10	40		2
5	4 036 11	50		2
5	4 036 12	63		2

		3-pole 400 V~		
	C curve	Nominal rating In (A)		Number of modules
1	4 036 14	6		3
1	4 036 15	10		3
1	4 036 16	16		3
1	4 036 17	20		3
1	4 036 18	25		3
1	4 036 19	32		3
1	4 036 20	40		3
1	4 036 21	50		3
1	4 036 22	63		3

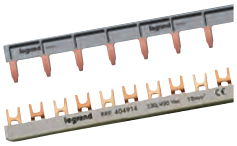
		4-pole 400 V~		
	C curve	Nominal rating In (A)		Number of modules
1	4 036 24	6		4
1	4 036 25	10		4
1	4 036 26	16		4
1	4 036 27	20		4
1	4 036 28	25		4
1	4 036 29	32		4
1	4 036 30	40		4
1	4 036 31	50		4
1	4 036 32	63		4

RCCBs TX³ residual current circuit breakers

from 16 A to 80 A - AC and A types

4 115 10

4 117 09



Technical characteristics **see e-catalogue**

Conform to IEC 61008-1
Compatible with prong-type and fork type supply busbars
• AC type ~: detect AC component faults
• A type ⩙: detect AC and DC component faults

Pack	Cat.Nos	2-pole - 230 V~		
		AC type ~		
		Sensitivity (mA)	In (A)	Number of modules
1	4 115 02	10	16	2
1	4 115 09	30	25	2
1	4 115 10	30	40	2
1	4 115 11	30	63	2
1	4 115 12	30	80	2
1	4 115 19	100	25	2
1	4 115 20	100	40	2
1	4 115 21	100	63	2
1	4 115 22	100	80	2
1	4 115 29	300	25	2
1	4 115 30	300	40	2
1	4 115 31	300	63	2
1	4 115 32	300	80	2
		A type ⩙		
1	4 115 52	10	16	2
1	4 115 59	30	25	2
1	4 115 60	30	40	2
1	4 115 61	30	63	2
1	4 115 62	30	80	2
1	4 115 64	100	25	2
1	4 115 65	100	40	2
1	4 115 66	100	63	2
1	4 115 67	100	80	2
1	4 115 74	300	25	2
1	4 115 75	300	40	2
1	4 115 76	300	63	2
1	4 115 77	300	80	2

		4-pole 400 V~		
		Neutral on right-hand side		
		AC type ~		
		Sensitivity (mA)	In (A)	Number of modules
1	4 117 07	30	25	2
1	4 117 08	30	40	2
1	4 117 09	30	63	2
1	4 117 10	30	80	2
1	4 117 17	100	25	2
1	4 117 18	100	40	2
1	4 117 19	100	63	2
1	4 117 20	100	80	2
1	4 117 27	300	25	2
1	4 117 28	300	40	2
1	4 117 29	300	63	2
1	4 117 30	300	80	2
		A type ⩙		
1	4 117 64	30	25	2
1	4 117 65	30	40	2
1	4 117 66	30	63	2
1	4 117 67	30	80	2
1	4 117 74	100	25	2
1	4 117 75	100	40	2
1	4 117 76	100	63	2
1	4 117 77	100	80	2
1	4 117 84	300	25	2
1	4 117 85	300	40	2
1	4 117 86	300	63	2
1	4 117 87	300	80	2

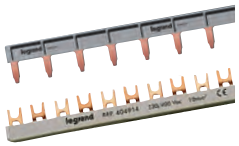
MCBs TX³ 6000

thermal magnetic MCBs from 2 A to 63 A - B & C curve

4 034 34

4 035 32

4 035 51



Technical characteristics **see e-catalogue**

Conform to IEC 60898-1
Compatible with prong-type and fork type supply busbars
Equipped with special DIN rail clamp allowing independent MCB removal with supply busbar in place
Breaking capacity:
6000- IEC 60898-1 - 230/400 V~
6 kA - IEC 60947-2 - 230/400 V~
Can be equipped with DX³ signalling and remote tripping auxiliaries and motorised controls (p. 64)
Do not accept add-on modules

Pack	Cat.Nos		Single pole 230/400 V~	
	B curve	C curve	Nominal rating In (A)	Number of modules
10	4 033 50	4 034 27	2	1
10	4 033 53	4 034 30	6	1
10	4 033 55	4 034 32	10	1
10	4 033 56	4 034 33	13	1
10	4 033 57	4 034 34	16	1
10	4 033 58	4 034 35	20	1
10	4 033 59	4 034 36	25	1
10	4 033 60	4 034 37	32	1
10	4 033 61	4 034 38	40	1
10	4 033 62	4 034 39	50	1
10	4 033 63	4 034 40	63	1

			2-pole 230/400 V~	
	B curve	C curve	Nominal rating In (A)	Number of modules
5	4 033 80	4 035 21	2	2
5	4 033 83	4 035 24	6	2
5	4 033 85	4 035 26	10	2
5	4 033 86	4 035 27	13	2
5	4 033 87	4 035 28	16	2
5	4 033 88	4 035 29	20	2
5	4 033 89	4 035 30	25	2
5	4 033 90	4 035 31	32	2
5	4 033 91	4 035 32	40	2
5	4 033 92	4 035 33	50	2
5	4 033 93	4 035 34	63	2

			3-pole 400 V~	
	B curve	C curve	Nominal rating In (A)	Number of modules
1	4 033 95	4 035 38	2	3
1	4 033 98	4 035 41	6	3
1	4 034 00	4 035 43	10	3
1	4 034 01	4 035 44	13	3
1	4 034 02	4 035 45	16	3
1	4 034 03	4 035 46	20	3
1	4 034 04	4 035 47	25	3
1	4 034 05	4 035 48	32	3
1	4 034 06	4 035 49	40	3
1	4 034 07	4 035 50	50	3
1	4 034 08	4 035 51	63	3

			4-pole 400 V~	
	B curve	C curve	Nominal rating In (A)	Number of modules
1	4 034 10	4 035 55	2	4
1	4 034 13	4 035 58	6	4
1	4 034 15	4 035 60	10	4
1	4 034 16	4 035 61	13	4
1	4 034 17	4 035 62	16	4
1	4 034 18	4 035 63	20	4
1	4 034 19	4 035 64	25	4
1	4 034 20	4 035 65	32	4
1	4 034 21	4 035 66	40	4
1	4 034 22	4 035 67	50	4
1	4 034 23	4 035 68	63	4

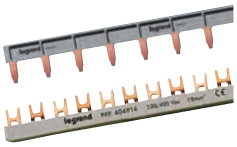
MCBs TX³ 10000

thermal magnetic MCBs from 2 A to 63 A - B & C curve

4 041 71

4 042 09

4 042 28



Technical characteristics **see e-catalogue**

Conform to IEC 60898-1
Compatible with prong-type and fork type supply busbars
Equipped with special DIN rail clamp allowing independent MCB removal with supply busbar in place
Breaking capacity:
10000 - IEC 60898-1 - 230/400 V~
10 kA - IEC 60947-2 - 230/400 V~
Can be equipped with DX³ signalling and remote tripping auxiliaries and motorised controls (p. 64)
Do not accept add-on modules

Single pole 230/400 V~

Pack	Cat.Nos		Nominal rating In (A)	Number of modules
	B curve	C curve		
10	4 040 78	4 041 64	2	1
10	4 040 81	4 041 67	6	1
10	4 040 82	4 041 69	10	1
10	4 040 83	4 041 70	13	1
10	4 040 84	4 041 71	16	1
10	4 040 85	4 041 72	20	1
10	4 040 86	4 041 73	25	1
10	4 040 87	4 041 74	32	1
10	4 040 88	4 041 75	40	1
10	4 040 89	4 041 76	50	1
10	4 040 90	4 041 77	63	1

2-pole 230/400 V~

			Nominal rating In (A)	Number of modules
	B curve	C curve		
5	4 041 06	4 041 98	2	2
5	4 041 09	4 042 01	6	2
5	4 041 10	4 042 03	10	2
5	4 041 11	4 042 04	13	2
5	4 041 12	4 042 05	16	2
5	4 041 13	4 042 06	20	2
5	4 041 14	4 042 07	25	2
5	4 041 15	4 042 08	32	2
5	4 041 16	4 042 09	40	2
5	4 041 17	4 042 10	50	2
5	4 041 18	4 042 11	63	2

3-pole 400 V~

Pack	Cat.Nos		Nominal rating In (A)	Number of modules
	B curve	C curve		
1	4 041 20	4 042 15	2	3
1	4 041 23	4 042 18	6	3
1	4 041 24	4 042 20	10	3
1	4 041 25	4 042 21	13	3
1	4 041 26	4 042 22	16	3
1	4 041 27	4 042 23	20	3
1	4 041 28	4 042 24	25	3
1	4 041 29	4 042 25	32	3
1	4 041 30	4 042 26	40	3
1	4 041 31	4 042 27	50	3
1	4 041 32	4 042 28	63	3

4-pole 400 V~

			Nominal rating In (A)	Number of modules
	B curve	C curve		
1	4 041 48	4 042 49	6	4
1	4 041 51	4 042 52	6	4
1	4 041 52	4 042 54	10	4
1	4 041 53	4 042 55	13	4
1	4 041 54	4 042 56	16	4
1	4 041 55	4 042 57	20	4
1	4 041 56	4 042 58	25	4
1	4 041 57	4 042 59	32	4
1	4 041 58	4 042 60	40	4
1	4 041 59	4 042 61	50	4
1	4 041 60	4 042 62	63	4

See the video

Isolating switches DX³-IS

from 16 A to 125 A

4 065 27

4 065 44

4 064 06

4 064 59

4 064 81

Dimensions **see e-catalogue**
Technical characteristics **p. 52**

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. 64)
Can be fitted with motorised controls and 2 DX³ signalling auxiliaries (p. 64)
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[1]	40	2
1	4 065 28[1]	63	2
3P - 400 V~			
1	4 065 35[1]	40	3
1	4 065 36[1]	63	3
1	4 065 38[2]	100	4.5
1	4 065 39[2]	125	4.5
4P - 400 V~			
1	4 065 43[1]	40	4
1	4 065 44[1]	63	4
1	4 065 46[2]	100	6
1	4 065 47[2]	125	6

Isolating switches - Red handle

Can be equipped with 1 DX³ signalling auxiliary (p. 64)

Pack	Cat.Nos	Nominal rating In (A)	Number of modules
2P - 400 V~			
5	N 4 064 55[1]	100	2
3P - 400 V~			
1	4 064 75[1]	100	3
4P - 400 V~			
1	4 064 95[1]	100	4

Isolating switches - Grey handle

Grey handle
Can be equipped with 1 DX³ signalling auxiliary (p. 64)

Pack	Cat.Nos	Nominal rating In (A)	Number of modules
1P - 250 V~			
10	4 064 00[3]	16	1
10	4 064 01[3]	20	1
10	4 064 03[3]	32	1
10	4 064 11[1]	40	1
10	4 064 12[1]	63	1
10	4 064 23	100	1
1P with indicator - 250 V~			
Supplied with lamp			
10	4 064 04[3]	20	1
10	4 064 06[3]	32	1
2P - 400 V~			
10	4 064 31[3]	16	1
10	4 064 32[3]	20	1
10	4 064 34[3]	32	1
5	4 064 40[1]	40	2
5	4 064 41[1]	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[3]	20	1
10	4 064 38[3]	32	1
10	4 064 39[3]	40	1
3P - 400 V~			
5	4 064 57[3]	20	2
5	4 064 59[3]	32	2
1	4 064 60[1]	40	3
1	4 064 61[1]	63	3
1	4 064 69	100	3
1	4 064 70	125	3
4P - 400 V~			
5	4 064 77[3]	20	2
5	4 064 79[3]	32	2
1	4 064 80[1]	40	4
1	4 064 81[1]	63	4
1	4 064 89	100	4
1	4 064 90	125	4

1: Compatible with prong-type and fork type supply busbars
2: Can be equipped with add-on modules
3: Compatible with prong-type supply busbars

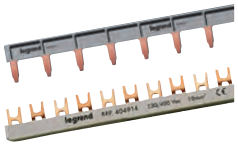
RCCBs - DX³-ID

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

4 115 25

4 117 05

4 117 60



Technical characteristics **see e-catalogue**

Conform to IEC 61008 - 1
- Compatible with prong-type and fork type supply busbars
- 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 and motorised controls (p. 64)

2-pole 230 V~

Pack	Cat.Nos	Sensitivity (mA)	Nominal Rating In (A)	Number of modules
		AC type		
1	4 115 00	10	16	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
		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		
		Can be equipped with dedicated auxiliary contact Cat. No 4 062 59 (p. 64)		
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

Pack	Cat.Nos	Vis/vis	Sensitivity (mA)	In (A)	Number of modules
			AC type		
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

Pack	Cat.Nos	Vis/vis	Sensitivity (mA)	In (A)	Number of modules
			B type		
			Can be equipped with dedicated auxiliary contact Cat. No 4 062 59 (p. 64)		
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. 64**

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 1.5 to 35 mm²	6 to 50 mm² 6 to 70 mm²
	rigid		
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 16 mm²	1.5 to 25 mm² 1.5 to 35 mm²	4 to 35 mm² 4 to 50 mm²
	rigid			
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.

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 (see p. 66)
• On sites where cables are subject to high levels of interference (use of fluorescents, etc.)
• On sites where very long cables are used

RCBOs DX™ 10000

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

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~	
		Blue neutral leads	
		AC Type ~ 30 mA	
	C curve	Nominal rating In (A)	Number of modules
1	6 064 10	10	1
1	6 064 11	16	1
1	6 064 12	20	1
1	6 064 13	25	1
1	6 064 14	32	1
1	6 064 15	45	1

RCBOs DX³ 6000 - 6 kA

residual current circuit breakers from 6 A to 32 A - A type

4 111 31

Technical characteristics **see e-catalogue**

Conform to IEC 61009-1
Compatible with prong-type supply busbars
Breaking capacity:
6000 - IEC 61009-1 - 6 kA / IEC 60947-2 for single pole + neutral
• A type ~: 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. 64)

Pack	Cat.Nos	Single pole + neutral - 230 V~	
		Neutral on left-hand side	
		A Type ~ 10 mA	
1	4 111 21	6	1
1	4 111 22	10	1
1	4 111 24	16	1
1	4 111 25	20	1
1	4 111 26	25	1
1	4 111 27	32	1
		A Type ~ 30 mA	
1	4 111 28	6	1
1	4 111 29	10	1
1	4 111 31	16	1
1	4 111 32	20	1
1	4 111 33	25	1
1	4 111 34	32	1

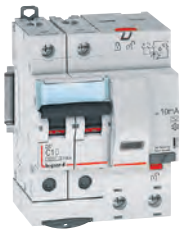
RCBOs DX³ 6000 - 10 kA

residual current circuit breakers from 3 A to 63 A - AC, A and Hpi types

4 110 02

4 110 28

4 110 50


4 111 49

4 111 62

4 111 73

Technical characteristics **see e-catalogue**

Conform to IEC 61009-1
Compatible with prong-type and fork type supply busbars
Breaking capacity:
6000 - IEC 61009-1 - 10 kA / IEC 60947-2 for single pole + neutral, 2 and 4-pole
• 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. 64)

Single pole + neutral - 230 V~

Neutral on right-hand side

Pack	Cat.Nos	C curve	Nominal rating In (A)	Number of modules
AC Type ~ 10 mA				
1	4 109 93		16	2
AC Type ~ 30 mA				
1	4 109 97		3	2
1	4 109 99		6	2
1	4 110 00		10	2
1	4 110 02		16	2
1	4 110 03		20	2
1	4 110 04		25	2
1	4 110 05		32	2
1	4 110 06		40	2
AC Type ~ 300 mA				
1	4 110 21		6	2
1	4 110 22		10	2
1	4 110 24		16	2
1	4 110 25		20	2
1	4 110 26		25	2
1	4 110 27		32	2
1	4 110 28		40	2
A Type ⩙ 10 mA				
1	4 110 41		16	2
A Type ⩙ 30 mA				
1	4 110 47		6	2
1	4 110 48		10	2
1	4 110 50		16	2
1	4 110 51		20	2
1	4 110 52		25	2
1	4 110 53		32	2
1	4 110 54		40	2
Hpi Type ⩙ Hpi 30 mA				
1	4 110 91		6	2
1	4 110 92		10	2
1	4 110 94		16	2
1	4 110 95		20	2
1	4 110 96		25	2
1	4 110 97		32	2
1	4 110 98		40	2

2-pole - 230 V~

Compatible with prong-type supply busbars

Pack	Cat.Nos	C curve	Nominal rating In (A)	Number of modules
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

See the video

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 for single pole + neutral, 2 and 4-pole
• 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. 64)

Pack	Cat.Nos	4-pole - 400 V~	
		4-module RCBOs are compatible with 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**

Common auxiliaries & remote control

The signalling and remote tripping auxiliaries and the motorised controls are common for DX³ MCBs, RCBOs and RCCBs and TX³ MCBs.
Signalling auxiliaries are available in two versions, adapted to the pin or fork type supply busbars.

1 module motorised controls p. 64

COMPACT SIZE
1 module motorised controls for remote tripping of 1-pole to 4-pole modular devices.

Auxiliaries p. 64

EASY TO INSTALL
Perfect fitting to protection devices
Easy access and visible terminals
Allow insertion of supply busbars

Power overvoltage protection p. 64
Motorised control with automatic resetting p. 64

AVAILABLE FUNCTIONS
- auxiliary or fault signal contact
- current shunt trips
- undervoltage releases
- power overvoltage protection
- motorised controls with or without automatic resetting

MCBs DX³ 6000 - 10 kA

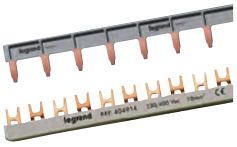
thermal magnetic circuit breakers from 1 A to 63 A - B and C curves

4 074 35

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
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. 64) and add-on modules (p. 62)

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
10	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
10	4 074 33	4 076 71	20	1
10	4 074 34	4 076 72	25	1
10	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

Single pole + neutral 230 V~

Neutral on right-hand side

	B curve	C curve	Nominal rating In (A)	Number of modules
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

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 I 5	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 I 5	4 075 10	4 078 01	20	2
1 I 5	4 075 11	4 078 02	25	2
1 I 5	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

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

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

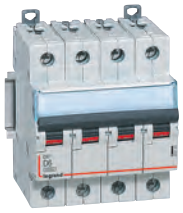
MCBs DX³ 6000 - 10 kA

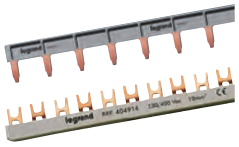
thermal magnetic MCBs from 0.5 A to 63 A - D curve

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. 64) and add-on modules (p. 62)

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~

Pack	Cat.Nos	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 81		1	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~

Pack	Cat.Nos	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

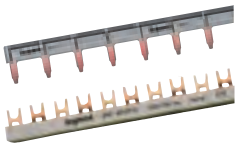
thermal magnetic circuit breakers from 1 A to 125 A - B and C curves

4 088 69

4 089 43

4 088 90

4 093 64



Technical characteristics **see e-catalogue**

Conform to IEC 60898-1
Compatible with 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. 64) and add-on modules (p. 62-63)

Single pole 230/400 V~

Pack	Cat.Nos		Nominal rating In (A)	Number of modules
	B curve	C curve		
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
10	4 088 69	4 091 11	6	1
10	4 088 70	4 091 12	10	1
10	4 088 71	4 091 13	13	1
10	4 088 72	4 091 14	16	1
10	4 088 73	4 091 15	20	1
10	4 088 74	4 091 16	25	1
10	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	Cat.Nos		Nominal rating In (A)	Number of modules
	B curve	C curve		
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

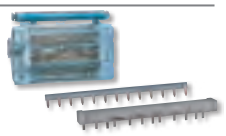
3-pole 400 V~

Pack	Cat.Nos		Nominal rating In (A)	Number of modules
	B curve	C curve		
1	4 089 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	Cat.Nos		Nominal rating In (A)	Number of modules
	B curve	C curve		
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

Supply busbars and modular distribution blocks **p. 190**



MCBs DX³ 10000 - 16 kA

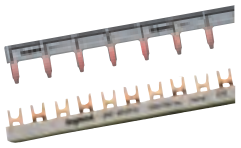
thermal magnetic MCBs from 2 A to 125 A - D curve

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. 64) and add-on modules (p. 62-63)

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

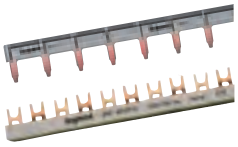
4-pole 400 V~

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 circuit breakers 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. 64)

Direct current circuit breakers

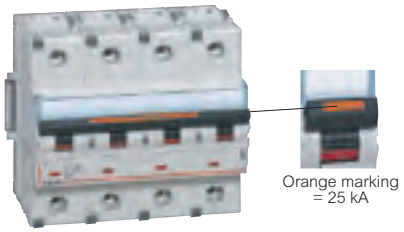
Pack	Cat.Nos	Nominal rating In (A)	Number of poles protected	Number of modules
1	4 095 59	0.5	2	2
1	4 095 60	1	2	2
1	4 095 61	1,6	2	2
1	4 095 62	2	2	2
1	4 095 63	3	2	2
1	4 095 64	4	2	2
1	4 095 65	6	2	2
1	4 095 66	8	2	2
1	4 095 67	10	2	2
1	4 095 68	16	2	2
1	4 095 69	20	2	2
1	4 095 70	25	2	2
1	4 095 71	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 - C and D 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. 64)

Single pole 230/400 V∿

Pack	Cat.Nos C curve	Cat.Nos D curve	Nominal rating In (A)	Number of modules
1	4 097 52	4 098 04	2	1
1	4 097 53	4 098 05	6	1
1	4 097 54	4 098 06	10	1
1	4 097 55	4 098 07	16	1/1.5
1	4 097 56	4 098 08	20	1/1.5
1	4 097 57	4 098 09	25	1/1.5
1	4 097 58	4 098 10	32	1.5
1	4 097 59	4 098 11	40	1.5
1	4 097 60	4 098 12	50	1.5
1	4 097 61	4 098 13	63	1.5
1	4 097 62	4 098 14	80	1.5
1	4 097 63	4 098 15	100	1.5
1	4 097 64	4 098 16	125	1.5

2-pole - 230/400 V∿

Pack	C curve	D curve	Nominal rating In (A)	Number of modules
1	4 097 65	4 098 17	2	2
1	4 097 66	4 098 18	6	2
1	4 097 67	4 098 19	10	2
1	4 097 68	4 098 20	16	2
1	4 097 69	4 098 21	20	2
1	4 097 70	4 098 22	25	2
1	4 097 71	4 098 23	32	2/3
1	4 097 72	4 098 24	40	3
1	4 097 73		50	3
1	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	C curve	D curve	Nominal rating In (A)	Number of modules
1	4 097 78	4 098 30	2	3
1	4 097 79	4 098 31	6	3
1	4 097 80	4 098 32	10	3
1	4 097 81	4 098 33	16	3/4.5
1	4 097 82	4 098 34	20	3/4.5
1	4 097 83	4 098 35	25	3/4.5
1	4 097 84	4 098 36	32	4.5
1	4 097 85	4 098 37	40	4.5
1	4 097 86	4 098 38	50	4.5
1	4 097 87	4 098 39	63	4.5
1	4 097 88	4 098 40	80	4.5
1	4 097 89	4 098 41	100	4.5
1	4 097 90	4 098 42	125	4.5

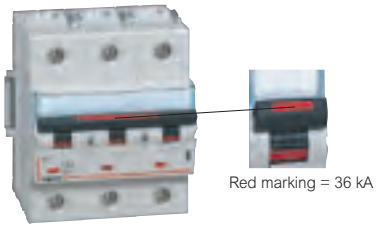
4-pole - 400 V∿

Pack	C curve	D curve	Nominal rating In (A)	Number of modules
1	4 097 91	4 098 43	2	4
1	4 097 92	4 098 44	6	4
1	4 097 93	4 098 45	10	4
1	4 097 94	4 098 46	16	4/6
1	4 097 95	4 098 47	20	4/6
1	4 097 96	4 098 48	25	4/6
1	4 097 97	4 098 49	32	6
1	4 097 98	4 098 50	40	6
1	4 097 99	4 098 51	50	6
1	4 098 00	4 098 52	63	6
1	4 098 01	4 098 53	80	6
1	4 098 02	4 098 54	100	6
1	4 098 03	4 098 55	125	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. 64)

Pack	Cat.Nos	2-pole - 230/400 V~	
	C curve	Nominal rating In (A)	Number of modules
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

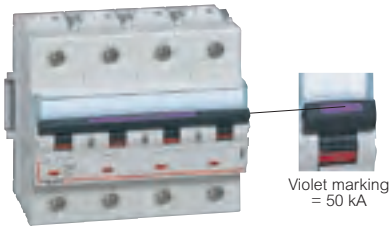
		3-pole - 400 V~	
	C curve	Nominal rating In (A)	Number of modules
1	4 100 20	10	4.5
1	4 100 21	16	4.5
1	4 100 22	20	4.5
1	4 100 23	25	4.5
1	4 100 24	32	4.5
1	4 100 25	40	4.5
1	4 100 26	50	4.5
1	4 100 27	63	4.5
1	4 100 28	80	4.5

		4-pole - 400 V~	
	C curve	Nominal rating In (A)	Number of modules
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 - C and D 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. 64)

Pack	Cat.Nos		Single pole 230/400 V~	
	C curve	D curve	Nominal rating In (A)	Number of modules
1	4 101 34	4 101 86	10	1.5
1	4 101 35	4 101 87	16	1.5
1	4 101 36	4 101 88	20	1.5
1	4 101 37	4 101 89	25	1.5
1	4 101 38	4 101 90	32	1.5
1	4 101 39	4 101 91	40	1.5
1	4 101 40	4 101 92	50	1.5
1	4 101 41	4 101 93	63	1.5

			2-pole - 230/400 V~	
	C curve	D curve	Nominal rating In (A)	Number of modules
1	4 101 47	4 101 99	10	3
1	4 101 48	4 102 00	16	3
1	4 101 49	4 102 01	20	3
1	4 101 50	4 102 02	25	3
1	4 101 51	4 102 03	32	3
1	4 101 52	4 102 04	40	3
1	4 101 53		50	3
1	4 101 54		63	3

			3-pole - 400 V~	
	C curve	D curve	Nominal rating In (A)	Number of modules
1	4 101 60	4 102 12	10	4.5
1	4 101 61	4 102 13	16	4.5
1	4 101 62	4 102 14	20	4.5
1	4 101 63	4 102 15	25	4.5
1	4 101 64	4 102 16	32	4.5
1	4 101 65	4 102 17	40	4.5
1	4 101 66	4 102 18	50	4.5
1	4 101 67	4 102 19	63	4.5

			4-pole - 400 V~	
	C curve	D curve	Nominal rating In (A)	Number of modules
1	4 101 73	4 102 25	10	6
1	4 101 74	4 102 26	16	6
1	4 101 75	4 102 27	20	6
1	4 101 76	4 102 28	25	6
1	4 101 77	4 102 29	32	6
1	4 101 78	4 102 30	40	6
1	4 101 79	4 102 31	50	6
1	4 101 80	4 102 32	63	6

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~

AC Type ~

Pack	Cat.Nos	Sensitivity (mA)	Nominal rating In (A)	Number of modules
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 ~

Pack	Cat.Nos	Sensitivity (mA)	Nominal rating In (A)	Number of modules
1	4 104 28	30	40	2
1	4 104 29	30	63	2
1	4 104 31	300	40	2
1	4 104 32	300	63	2

Hpi Type ~ Hpi

Pack	Cat.Nos	Sensitivity (mA)	Nominal rating In (A)	Number of modules
1	4 104 35	30	63	2

3-pole - 400 V~

AC Type ~

Pack	Cat.Nos	Sensitivity (mA)	Nominal rating In (A)	Number of modules
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 ~

Pack	Cat.Nos	Sensitivity (mA)	Nominal rating In (A)	Number of modules
1	4 104 80	30	63	3
1	4 104 83	300	63	3

Hpi Type ~ Hpi

Pack	Cat.Nos	Sensitivity (mA)	Nominal rating In (A)	Number of modules
1	4 104 86	30	63	3

4-pole - 400 V~

AC Type ~

Pack	Cat.Nos	Sensitivity (mA)	Nominal rating In (A)	Number of modules
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 21	300 selective	63	3
1	4 105 23	1000 selective	63	3

A Type ~

Pack	Cat.Nos	Sensitivity (mA)	Nominal rating In (A)	Number of modules
1	4 105 25	30	40	3
1	4 105 26	30	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

Pack	Cat.Nos	Sensitivity (mA)	Nominal rating In (A)	Number of modules
1	4 105 34	30	63	3
1	4 105 55	300 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 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

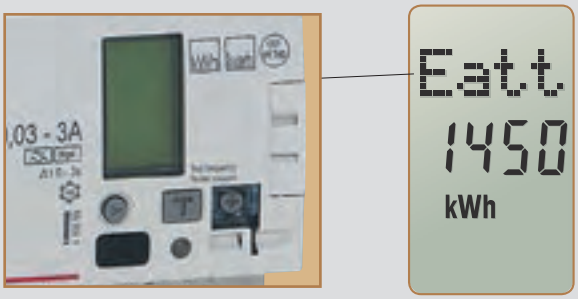
Breaking capacity	Curve	Number of poles	Add-on module for 1 module/pole MCBs	Add-on module for 1.5 module/pole MCBs
6000 / 10 kA	B, C, D	2P, 3P, 4P	All range	-
10000 / 16 kA	B, C, D	2P, 3P, 4P	In ≤ 63 A	In ≥ 80 A
25 kA	B, C, Z	3P, 4P	In ≤ 25 A	In ≥ 32 A
		2P	In ≤ 32 A	In ≥ 40 A
	D	3P, 4P	In ≤ 10 A	In ≥ 12,5 A
		2P	In ≤ 25 A	In ≥ 32 A
36kA, 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 EMDX³ 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, remote tripping auxiliaries and motorised controls DX³

4 062 58

4 062 60

4 062 62

4 062 66

4 062 78

4 062 82

4 062 86

4 062 91

4 062 92

Signalling auxiliaries prong busbar adapted

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.

Pack	Cat.Nos		Number of modules
		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

Signalling auxiliaries fork busbar adapted

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.

Pack	Cat.Nos		Number of modules
		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
		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
1	4 062 59	6 A - 250 V~ (changeover switch) For DX³-ID RCCBs B type Cat.No 4 118 42/43/44/45/46/47/48/49 (p. 51) 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

Remote tripping auxiliaries

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

Pack	Cat.Nos		Number of modules
		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

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

Pack	Cat.Nos		Control voltage	Number of modules
		ON/OFF function - for 1 module / pole devices (In up to 63 A)		
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) from 2P to 4P		
1	4 062 92		230 V~	2
		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 connected kit and automatic resetting

4 149 54

4 062 88

Pack	Cat.Nos	Connected STOP&GO (remote control resetting)		
		For remotely switching (via a smartphone or tablet) 1 module per pole RCCBs and RCBOs up to 63 A. Examples of use: - In the event of unwanted tripping (generated by temporarily electrical disturbances or other external events) the Connected STOP&GO will do an automatic checking of the installation. If no permanent fault is detected: it will send a message on the smartphone or tablet of the user in order to get an authorization to switch on the associated device. In case of permanent fault: the user will be informed about it without having the possibility to remotely switch on the power. Needs a permanent internet connection via a Wi-FI modem/router (powered by an UPS) in order to send messages to the user and allow him to remotely control the circuit. - In a normal situation, to remotely switch ON a circuit (like the electrical heating in a holiday house). 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. Kit comprising: - 1 Connected STOP&GO (non-automatic) - 1 IP gateway (Wi-Fi connection) - 1 power supply module, input voltage 230 V~/ output voltage 12 V⎓ - 2 communication cables		
			Control voltage	No. of modules
1	N 4 149 54		230 V~	4
		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

Voltage surge protectors
p. 66-70

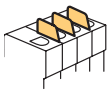
Keor UPS
p. 678

Manual supply invertor DX³ and accessories

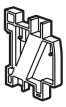
4 063 14

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, TX³ and RX³ devices from 2P upwards Supplied with bracket, connection rod, handle, self-adhesive drilling template and connection accessories Installation principle - see e-catalogue
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 and 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)

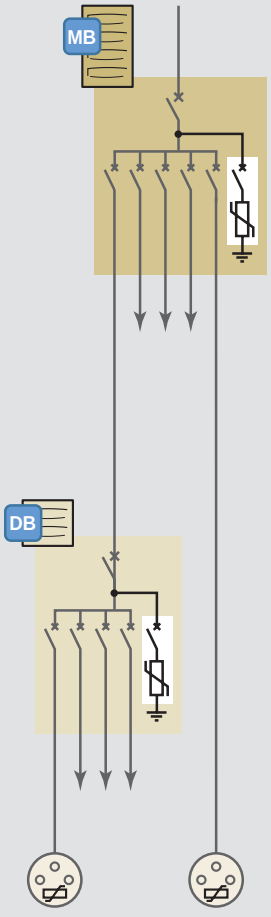
		Terminal shield
1	4 063 06	For 1.5 module/pole MCBs (set of 2)
		Padlocking To lock the handle of a modular device during maintenance
1	0 227 97	Large padlock, Ø6 mm, 50 mm length Supplied with two keys and labels
3	4 063 13	Small padlock, Ø5 mm
2	4 063 03	Support for one padlock (for small or large model) For locking the handle of the modular devices (MCBs, RCCBs, RCBOs or isolating switches) in OFF position

Selecting Surge Protective Devices (SPDs) and their associated protection

SPDs are mandatory[1] for buildings:
- With risks for the persons: buildings with safety services or medical care facilities, hospitals, …
- Dedicated to public services, cultural heritage, religious buildings,…
- With professional activities: commercial buildings, hotels, banks, industries, farms,…
- Equipped with a LPS (Lightning Protection System: protection of buildings against direct lightning strikes) and/or designed according to IEC/EN 62035 standard
- With large number of persons: large residential, offices, schools, (Mandatory in Europe according to HD 60364)
- Small buildings: small commercial buildings, houses, small multi-family buildings, according to a risk analysis[1]

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

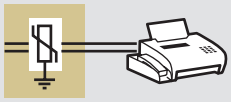
Low voltage installation



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. 70)

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+T2 / 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

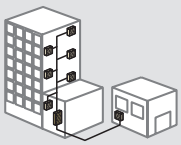
Risk levels:

- **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.

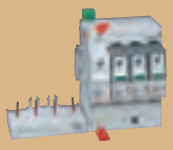
- **High risk:** installations outside of urban areas, in mountainous areas, isolated, at the end of a line, near a body of water, trees or near installations equipped with lightning conductors, etc.

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

Commercial buildings

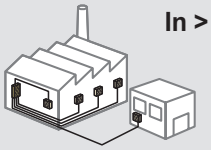


In ≤ 400 A

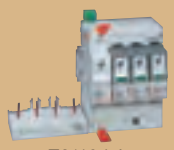
Isc	SPD type	SPD (N left/right) + recommended overcurrent protection(2)
≤ 25 kA	T1+T2/25 kA	-
		4 122 82 + 4 200 44
		4 122 83 + 4 200 54
	T1+T2/12.5 kA	-
		4 122 72 + 4 097 87
		4 122 75/77 + 4 098 00
	T1+T2/12.5 kA	-
		4 122 72 + 4 097 87
		4 122 75/77 + 4 098 00
≤ 10 kA	T2 / 12 kA	0 039 71 (integrated 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+T2/25 kA	-
		4 122 82 + 4 201 24
		4 122 83 + 4 201 34
	T1+T2/25 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+T2 35 kA/440 V	3P	50 kA	4 122 80 (x 3) + 4 201 24
		3P+N		4 122 80 (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 + II (T1+T2) low voltage SPDs

4 122 75

4 122 57

4 122 83

4 123 03

4 122 84

Technical characteristics **p. 71-73**

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

T1 + T2 - Iimp 35 kA/pole - 440V~ (IT) - Plug-in

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

SPDs for high risk level installations (continued)

T1 + T2 - Iimp 25 kA/pole

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

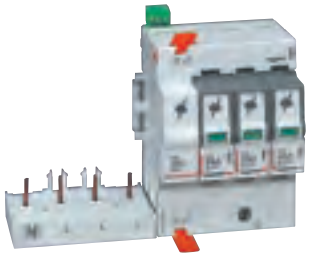
Pack	Cat.Nos	
1	4 123 02	For SPDs T1+T2 - 8 kA Cat.Nos 4 122 50/51/52/53/54/55/56/57
1	4 123 03	For SPDs T1+T2 - 12.5 kA Cat.Nos 4 122 70/71/72/73/74/75/76/77
1	4 122 84	For SPDs T1+T2 - 25 kA Cat.Nos 4 122 81/82/83 and 0 030 20/22/23/27
1	4 122 85	N-PE module for SPDs T1+T2 - 25 kA Cat.Nos 4 122 81/83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

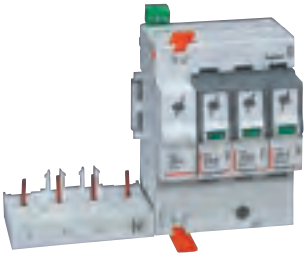
Cabling accessories

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 1+1 and 3+1

Class II (T2) low voltage SPDs


4 122 65


4 122 67

4 122 45

4 122 99

Technical characteristics **p. 71-73**

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

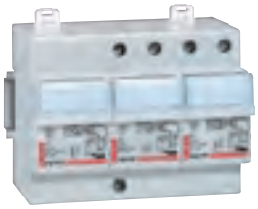
Pack	Cat.Nos	
1	4 122 99	For SPDs T2 - 40 kA Cat.Nos 4 122 40/41/42/43/44/45/46/47/64/65/66/67
1	4 123 00	N-PE module for SPDs T2 - 40 kA Cat.Nos 4 122 44/45/46/47
1	4 123 01	For SPDs T2 - 440 V Cat.Nos 4 122 30/32/33
1	4 122 97	For SPDs T2 - 20 kA Cat.Nos 4 122 20/21/23/24/25/26/27/60/61/62/63
1	4 122 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 1+1 and 3+1

See the video

Class II (T2) low voltage SPDs with integrated protection

0 039 51


0 039 53

0 039 54

Technical characteristics **p. 71-73**

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)

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: SPD with Y connection (both incoming and outgoing terminals at the top of the SPD) providing better protection against overvoltages

Pack	Cat.Nos	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: SPD with Y connection both incoming and outgoing terminals at the top of the SPD, providing better protection against overvoltages

T2 self protected SPDs - Imax 12 kA/pole

Pack	Cat.Nos	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

Pack	Cat.Nos	
1	0 039 54	Cat.Nos 0 039 51/53
1	0 039 74	Cat.Nos 0 039 71/73

For old SPDs

Pack	Cat.Nos	
5	0 039 28	Cat.Nos 0 039 20/21/22/23
5	0 039 34	Cat.Nos 0 039 30/31/32/33
5	0 039 39	Cat.Nos 0 039 35/36/38
5	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 called 1+1 and 3+1.

SPDs for telephone lines

0 038 28

0 038 29

Technical characteristics **p. 73**

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.)

Pack	Cat.Nos	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.)

Pack	Cat.Nos	In/Imax	Max. voltage(Uc)	Level of protection (Up)	No. of modules
1	0 038 29	5/10 kA	48 V	100 V	1

Download SPDs brochure on
www.docexport.legrand.com

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 or T1+T2 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 or T1+T2)	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 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

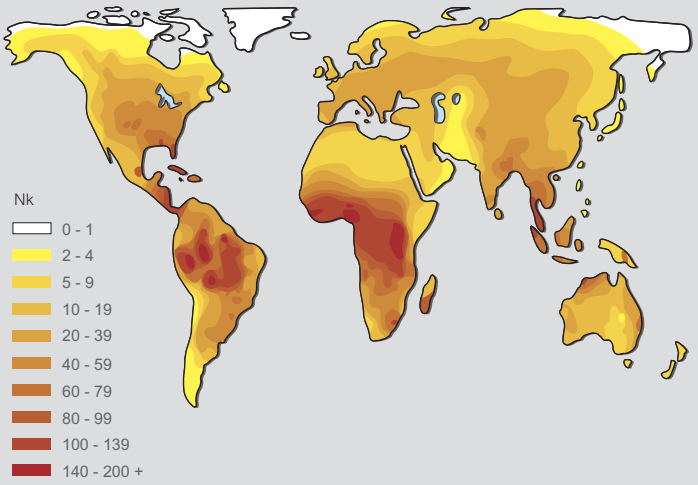
According to articles 443 and 534 of HD/IEC 60364 standards from year 2015 and the TS/IEC 61643-12 guides, the use of SPDs in new or renovated buildings is compulsory for buildings with:
• Risks for human life, e.g. safety services, medical care facilities, hospitals...
• Public services and cultural heritage, e.g. loss of public services, data centres, museums, religious buildings, ...
• Commercial or industrial activities, e.g. hotels, banks, industries, commercial markets, farms, …
• With direct lightning protection and/or designed according to EN/IEC 62305-2 (with LPS: T1 or T1+T2 SPDs, Iimp ≥ 12.5 kA)
• Receiving large number of persons, e.g. large residential, offices, schools, … (Europe)

In the case of small buildings, e.g. small commercial buildings, houses, small multi-family buildings, ..., a risk analysis shall be realized (article 443.5). If this is not done, SPDs are made mandatory by HD/IEC 60364 installation standards.

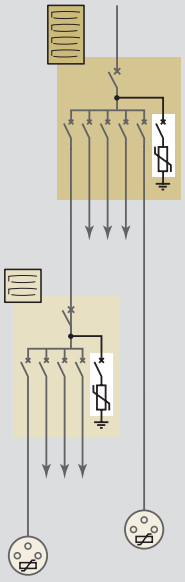
Countries still following earlier versions of HD/IEC installation standards:

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 or LPS (T1 or T1+T2 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 safety services 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 national installation standards, an SPD should always be installed to protect the communication equipment when there is an SPD on the low voltage power network.



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			
4 122 80	T1+T2/35 kA	1P	TT, TNC, TNS, IT	440 V~	CT1	35 kA	50 kA	35 kA	35 kA	2.5 kV		50 kA	DPX³160 80 A	yes
4 122 81	T1+T2/25 kA	1P+N	TT, TNS	350 V~	CT2	25/50 kA	50/100 kA	25/50 kA	50 kA	1.5/2.5/1.5 kV				yes
4 122 82	T1+T2/25 kA	3P	TNC	350 V~	CT1	25 kA	50 kA	25 kA	75 kA	1.5 kV				yes
4 122 83	T1+T2/25 kA	3P+N	TT, TNS	350 V~	CT2	25/100 kA	50/100 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 (only T1 + T2 SPDs Cat.Nos 4 122 80/81/82/83), DX³ or similar type circuit breakers (with T2 and other 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** (p. 828)	**6 946 64/66/70** (p. 608 and 614)	**6 946 14/48/51/56/71** (p. 614)
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** (p. 614)	**6 946 70** (p. 608)
Uc	200 V	
Up	600 V	
Imax	1.5 kA	
In	1 kA	
Uoc	3 kV	

TV protection (9.5 mm coax.)

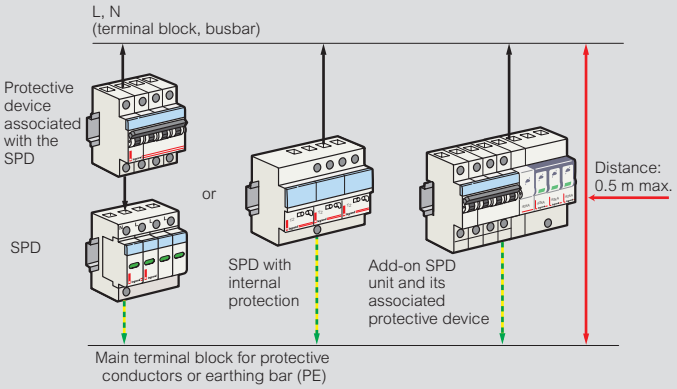
Cat. No.	**6 946 66** (p. 614)
Uc	50 V
Up	900 V
Imax	5 kA
In	1 kA
Uoc	3 kV

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



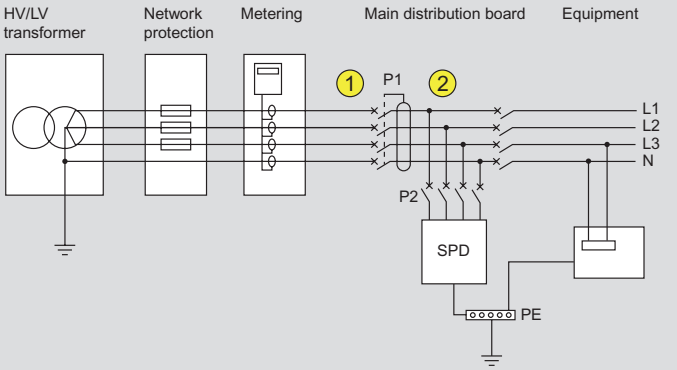
Connection lengths: as short as possible (< 50 cm if possible).

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

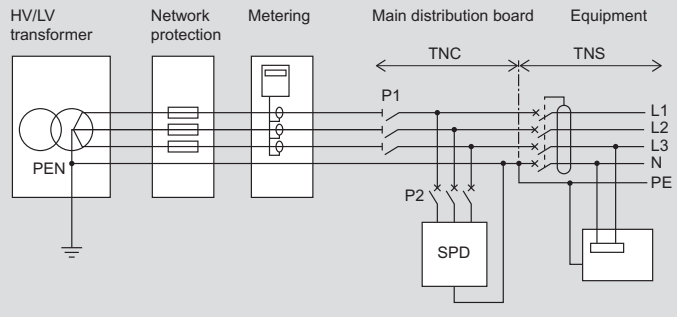


P1: main protection of the installation
SPD: surge protective device with Uc 275 or 320 V recommended

(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).

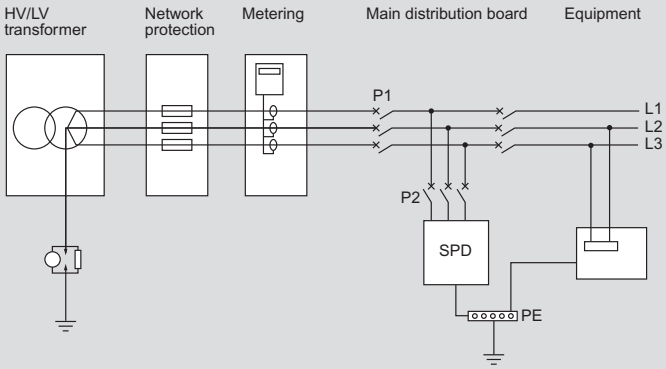
(2) (downstream of P1): any SPD.

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).

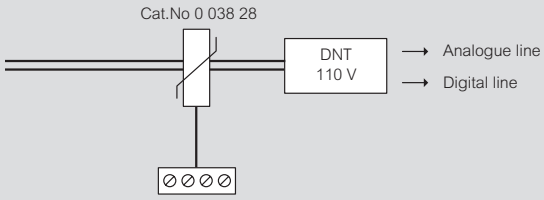
Minimum distances between SPDs

Upstream SPD	Downstream SPD	Minimum distance between SPDs (m)	
		With LPS	Without LPS
T1+T2/35 and T1+T2/25	T2/40 (Uc 440V)	0	0
	T2/40 (Uc 320V)	1	0
T1+T2/12.5 and T1+T2/8	T2/40	5	0
	T2/20 or T2/12	8	0
T2/40	T2/20 or T2/12	-	1
T2/20	T2/12	-	0.5
T2/20 and T2/12	Proximity SPDs	-	2

Installation for telephone lines

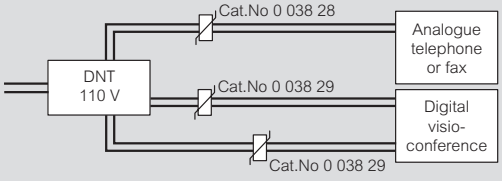
Protection of a telephone line

• Upstream the communication distribution box



• Downstream the communication distribution box

- Analogue or digital



- Digital

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

Pack	Without indicator	With indicator	Rating (Amps)	Voltage ~ (Volts)	Rupture capacity (Amps) Copper	Protected section (mm²)	Color Indication
6.3 x 23							
10	0 103 06[2]		6	230	6000	1.5	
8.5 x 23							
10		0 114 06	6	230	6000		
10	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	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	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

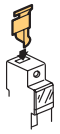
0 058 28

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. 171)		
		Single pole		
		Cartridge dimensions (mm)	Voltage	Number of modules
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

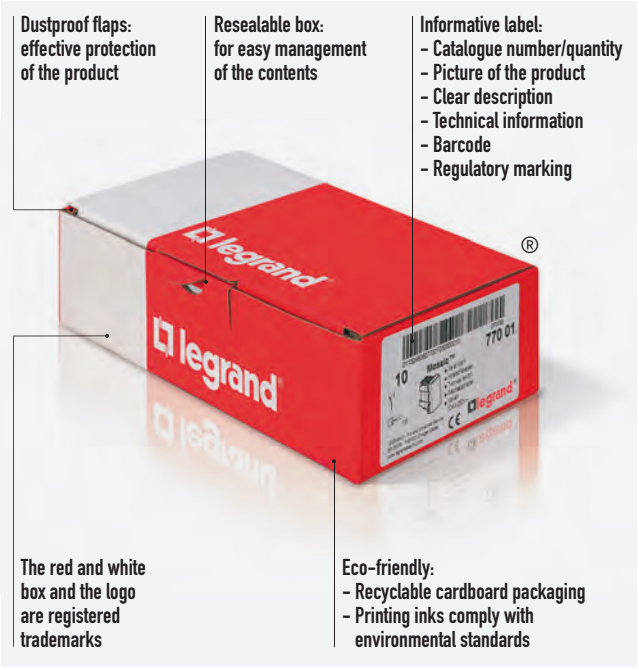

Sealable screw cover

1: Previously 8.5 x 31.5 mm

LEGRAND PACKAGING

practical & eco-friendly

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



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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~

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

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

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

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

Compensator module

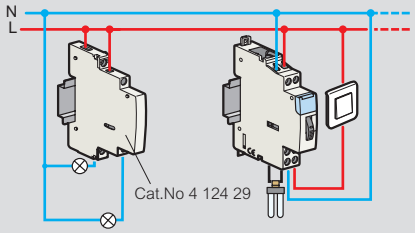
Used to control 230 V~ - 50 Hz pulse operated latching relays via illuminated push-buttons without malfunctions
Connects to the terminals of the pulse operated latching relay coil
Compensation:
- 1 compensator module for a total consumption of 3 to 6 mA (example: 6 to 11 illuminated push-buttons consuming 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

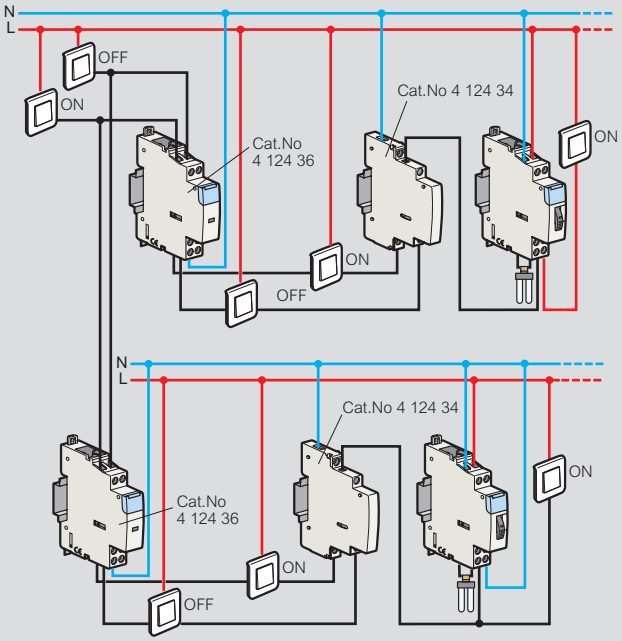
Pulse operated latching relays

Wiring diagrams

Signalling with auxiliary Cat.No 4 124 29

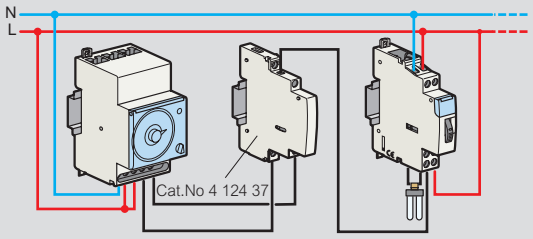


Centralized control at one point using auxiliary devices Cat.Nos 4 124 34 and 4 124 36



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 16 A to 63 A

4 125 44

4 125 63

4 125 50

4 125 56

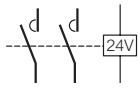
Dimensions **see e-catalogue**
Technical charcteristics **p. 80**

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

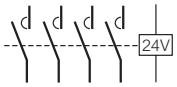
Power contactors with 24 V~ coil and handle

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

2-pole - 250 V~

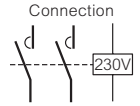
Pack	Cat.Nos	I max	Connection	Type of contact	Number of modules
1	4 125 14	25 A		2 N/O	1
1	4 125 15[1]	40 A		2 N/O	2
1	4 125 16[1]	63 A		2 N/O	2

4-pole - 400 V~

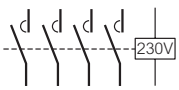
Pack	Cat.Nos	I max	Connection	Type of contact	Number of modules
1	4 125 17	25 A		4 N/O	2
1	4 125 18[1]	40 A		4 N/O	3
1	4 125 19[1]	63 A		4 N/O	3

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

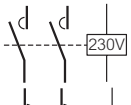
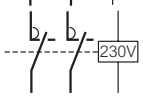
4-pole - 400 V~

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

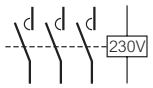
Power contactors with 230 V~ coil and handle

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

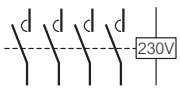
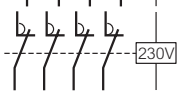
2-pole - 250 V~

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

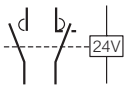
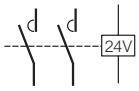
4 125 35

Dimensions **see e-catalogue**
Technical charcteristics **p. 80**

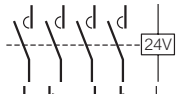
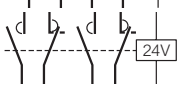
Conform to IEC/EN 61095
Space for power supply busbar on top (up to 25 A)

Power contactors with 24 V~ coil

2-pole - 250 V~

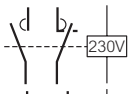
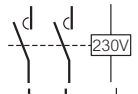
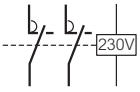
Pack	Cat.Nos	I max	Connection	Type of contact	Number of modules
1	4 125 03	16 A		N/C + N/O	1
1	4 125 05	25 A		2 N/O	1

4-pole - 400 V~

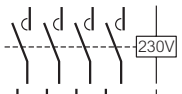
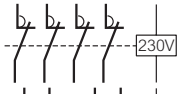
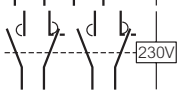
Pack	Cat.Nos	I max	Connection	Type of contact	Number of modules
1	4 125 10	25 A		4 N/O	2
1	4 125 09	25 A		2 N/C + 2 N/O	2

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

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

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 29	5 A	250 V~	N/C + N/O	0.5
1	4 124 30	5 A	250 V~	N/C + N/O	0.5
1	4 124 31	5 A	250 V~	N/C + N/O	0.5

For detailed dimensions,
see e-catalogue

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
- ≤ 25 A for 25 A rating
- ≤ 40 A for 40 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. 61):
- 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 (number of lamps per contactor)

• 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 (number of lamps per contactor)(continued)

• LED lamps

Nominal wattage	Non-dimmable LED lamps (without driver)									
	2 W	**5 W**	**7 W**	**9 W**	**12 W**	**18 W**	**22 W**	**30 W**	**40 W**	**50 W**
16A	16	16	16	16	16	15	14	12	10	9
25A	30	30	30	30	30	27	25	22	18	15
40A	90	90	85	85	85	80	75	65	50	37
63A	150	150	140	140	140	115	100	80	70	55

Nominal wattage	Dimmable LED lamps (equipped with driver)									
	2 W	**5 W**	**7 W**	**9 W**	**12 W**	**18 W**	**22 W**	**30 W**	**40 W**	**50 W**
16A	40	40	40	35	35	33	30	27	23	20
25A	65	65	65	60	60	56	51	45	33	30
40A	170	170	170	162	162	129	113	95	77	65
63A	265	265	265	260	260	214	176	139	121	105

• 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

Fluorescent lamps with ferromagnetic ballast, **please consult us**

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 charcateristics **see e-catalogue**

Changeover switches

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

Two-way - 250 V~

Pack	Cat.Nos		Connection	Number of modules
10	4 129 00			1

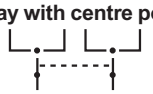
Double two-way - 400 V~

Pack	Cat.Nos		Connection	Number of modules
5	4 129 01			2

Two way with centre point - 250 V~

Pack	Cat.Nos		Connection	Number of modules
10	4 129 02			1

Double two way with centre point - 250 V~

Pack	Cat.Nos		Connection	Number of modules
5	4 129 03			2

Switch NO + NC - 250 V~

Pack	Cat.Nos		Connection	Number of modules
10	4 129 04			1

Momentary contact push-buttons

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

Single function push-buttons

Pack	Cat.Nos		Connection	Number of modules
10	4 129 08	1 NO		1
10	4 129 09	1 NC		1

Dual functions push-buttons without indicator

Pack	Cat.Nos		Connection	Number of modules
10	4 129 16	1 NO (green push-button) + 1 NC (red push-button)		1

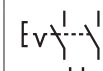
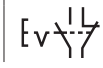
Dual functions push-buttons with indicator

Pack	Cat.Nos		Connection	Number of modules
10	4 129 18	1 NO + green LED indicator 12/48 V~/⎓		1
10	4 129 19	1 NC + red LED indicator 12/48 V~/⎓		1
10	4 129 20	1 NO + green LED indicator 100/400 V~		1
10	4 129 40	1 NC + red LED indicator 100/400 V~		1

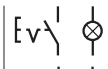
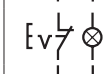
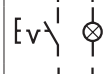
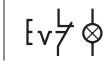
Maintained contact control switches

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

Single function control switches

Pack	Cat.Nos		Connection	Number of modules
10	4 129 10	2 NO		1
10	4 129 11	1 NO + NC		1

Dual functions control switches with indicator

Pack	Cat.Nos		Connection	Number of modules
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

Single - 12/48 V~/⎓

Pack	Cat.Nos		Connection	Number of modules
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~

Pack	Cat.Nos		Connection	Number of modules
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

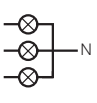
Double - 12/48 V~

Pack	Cat.Nos			Number of modules
10	4 129 41	Green/Red		1

Double - 110/400 V~

Pack	Cat.Nos			Number of modules
10	4 129 31	Green/Red		1

Triple - 230/400 V~

Pack	Cat.Nos			Number of modules
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

TX³ LED indicators - 230 V~

Equipped with non replaceable LED lamps

Single

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

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
10	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

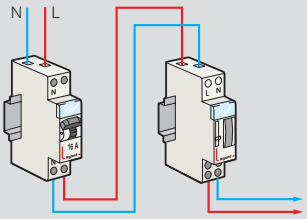
Pack	Cat.Nos	Daily programme	Number of modules
		1 segment = 15 minutes Accuracy: ± 5 minutes	
		Vertical dial Minimum switching time: 15 minutes N/O contact	
1	4 127 80	Without working reserve	1
1	4 127 90	With 100 h working reserve	1
		Horizontal dial Minimum switching time: 15 minutes Changeover switch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

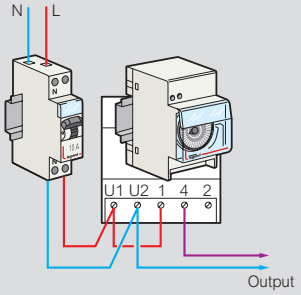
with analogue and digital dial

Diagrams

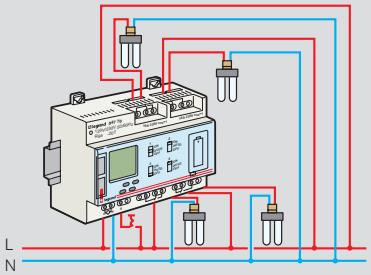
Cat.Nos 4 127 80/90/94



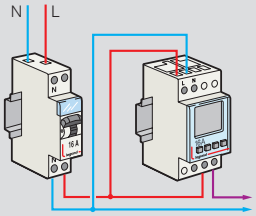
Cat.Nos 4 128 12/13, 4 127 95



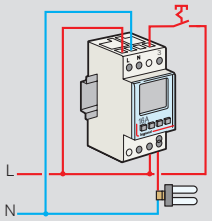
Cat.No 0 047 70



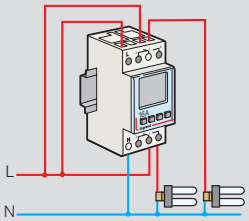
Cat.Nos 4 126 31/32/33



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
1	6 499 14	**20 A - 250 V∿ - μ cos φ = 1** Shortest switching time: 30 minutes (1 segment = 10 minutes) Switching accuracy: + 5 minutes

Pack	Cat.Nos	Weekly programme
1	0 497 56	**16 A - 250 V∿ - μ cos φ = 1** 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 ⌙

Pack	Cat.Nos	Defrosting time switch
1	0 499 26	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 Defrosting time from 1 to 60 minutes per contact

Pack	Cat.Nos	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
1	6 998 11	**OmniRex T - 24-hour programme** German standard - With child protection Switching step 15 min Mini switching time 15 min Switching accuracy ± 5 min
1	6 998 12	**OmniRex W - 7-day programme** 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 1 output 16 A - 250 V∿ 28 programmes μ cos φ = 1 per 1 inverter contact Power consumption: 0.9 W		
			Language	Number of modules
1	6 037 70		English	2
1	6 037 78		French	2
1	6 037 72		Spanish	2

Pack	Cat.Nos	MicroRex D22 Plus		
		2 channels 230 V∿ , 50/60 Hz 2 outputs 16 A - 250 V∿ 14 programmes per channel μ cos ø = 1 per 2 inverter contacts Power consumption: 1.3 W		
			Language	Number of modules
1	6 037 71		English	2
1	6 037 79		French	2
1	6 037 73		Spanish	2

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

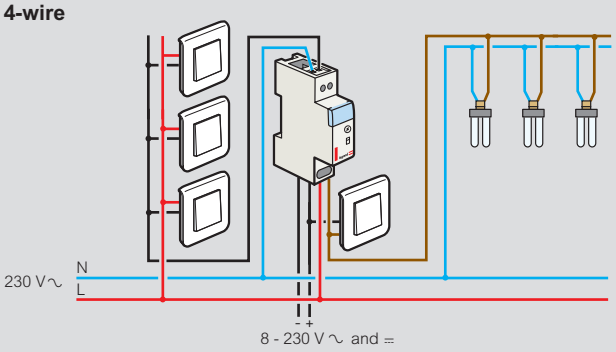
Pack	Cat.Nos	Multi-function time-lag switch	Number of modules
10	0 047 04	Resettable 230 V∿ - 50/60 Hz Timing adjustable from 0.5 sec to 12 min Operation with 3 or 4 wires a utomatically recognised by the time-lag switch - Inputs for separate control 8-230 V (presence detection, lighting control by door 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 V∿ 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

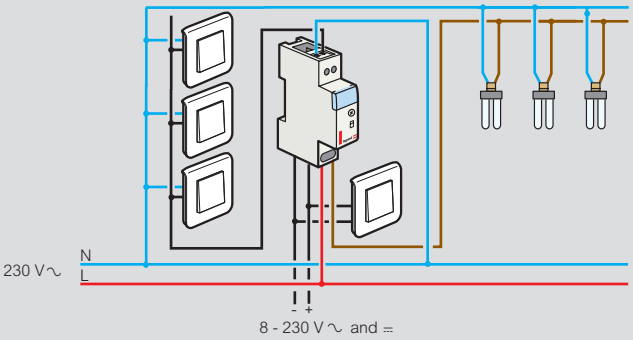
Electronic time-lag switches

Multi-function time-lag switch

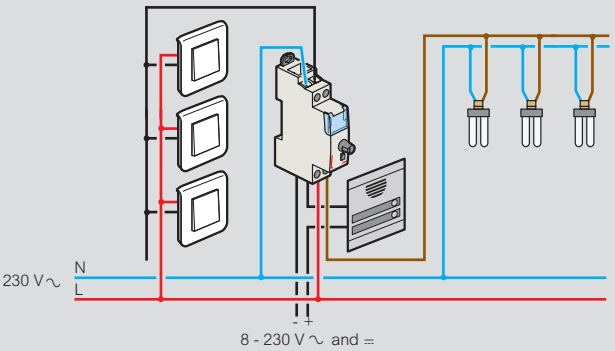
4-wire



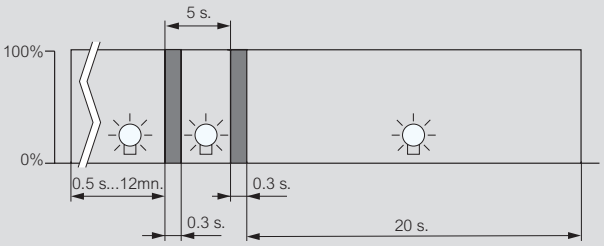
3-wire



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 58
		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. 74) Supplied with IP 65 photoelectric cell Cat.No 4 128 58
		Replacement IP 65 photoelectric cell
1	4 128 58	IP 65 - IK 07 For use with standard or programmable light sensitive switches Cat.Nos 4 126 23/26

Lighting management remote control dimmers

0 036 58

0 036 59

0 036 60

0 026 71

Pack	Cat.Nos	Remote control dimmers 100 - 240 V~ - 50/60 Hz	Number of modules
		Controlled via non-illuminated push-buttons ⎓ rail mounting The last lighting level is stored into memory, in case of power cut or switch-off Direct or remote control (switching and dimming) with non-illuminated push-buttons	
1	0 036 58	For fluorescent lamps with 1-10 V dimmable ballast (fluorescent tubes and compact fluorescent lamps with separated dimmable ballast) Ballast power: maximum 800 VA (for 230 V~ 50/60 Hz) Control current: 50 mA	2
1	0 036 59	For incandescent and halogen lamps 230 V~ and ELV halogen lamps with ferromagnetic transformers Load: 60 to 600 W (for 230 V~ 50/60 Hz)	2
		Controlled via BUS line ⎓ rail mounting Direct or remote control (switching and dimming) with non-illuminated double push-buttons or bus peripherals (Mosaic Programme and Céliane Programme) Equipped with illuminated scale indicating the light level of controlled lamps	
1	0 036 71	For incandescent and halogen lamps 230 V~, ELV halogen lamps with ferromagnetic or electronic transformers Load: 1000 W (for 230 V~ 50/60 Hz)	6
1	0 036 60	For fluorescent lamps with 1-10 V ballast (fluorescent tubes and compact fluorescent lamps with separated ballast) Ballast power: maximum 1000 VA (for 230 V~ 50/60 Hz) Control current: 50 mA	4

Pack	Cat.Nos	Multifunction remote control dimmer 240 V~ 50/60Hz	Number of modules
1	0 026 71	⎓ rail mounting Compatible with energy saving lamps: dimmable LEDs and CFLs (Compact Fluorescent Lamps) Load: - 1 to 75 W dimmable LEDs - 1 to 100 W dimmable CFL - 1 to 300 VA dimmable fluorescent tubes - 1 to 200 VA dimmable LED / halogen lamps with ferromagnetic transformer - 1 to 200 VA dimmable LED / halogen lamps with electronic transformer - 1 to 300 W halogen and incandescent lamps 5 manually programmable functions: dimmer with level memory, dimmer without level memory, latching relay, timer, dual threshold timer. 3 additional functions accessible via Legrand NFC Close UP application only: child room fading, timer with switch-off warning function, dimming at preset levels. Remote control with non-illuminated push-button. Can replace a pre-installed dimmer, actuator or timer controlled by push-buttons. Power consumption in standby mode: 0.1 W	1

Pack	Cat.Nos	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

Time delay relays

12 to 230 V∿ and ⎓

0 047 40

0 047 41

0 047 42

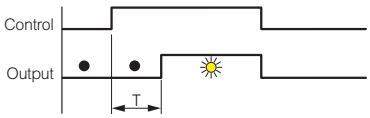
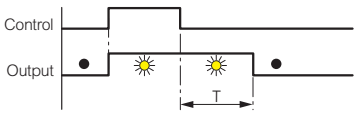
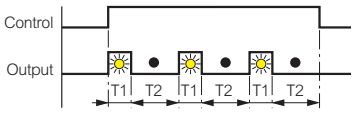
0 047 43

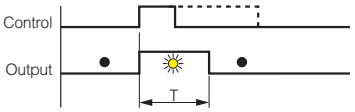
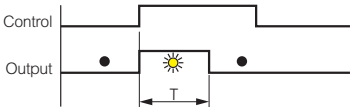
0 047 45

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 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				
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	5
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					
10	0 041 13	230	6	27	73	1

1: Acoustic power at 1 m

Socket outlets and special modular supports

0 042 80

0 042 85

4 129 50 + 0 775 94

4 129 50 + 4 129 51 + 0 238 74

4 129 50 + 4 129 52

Dimensions **see e-catalogue**

Allow insertion of supply busbars

Pack	Cat.Nos		Number of modules
		10-16 A - 250 V~	
		French standard	
10	0 042 80	2P + ⏚ shuttered	2.5
		German standard	
10	0 042 85	2P + ⏚ shuttered	2.5
		20 A - 400 V~	
		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
		Modular support for ⎓ rail	
10	4 129 50	Can be equipped with: - Ateor or Mosaic Programme 2-module mechanisms - Osmoz control and signalling units with the special adaptator Cat.No 4 129 51 - other equipment when used with the blanking plate Cat.No 4 129 52	2.5
		Osmoz adaptor	
10	4 129 51	Pre-drilled adaptor for mounting Ø 22.5 mm control and signalling units on the modular support Cat.No 4 129 50	
		Blanking plate	
10	4 129 52	Can be used as a blanking plate or for mounting different equipment on the modular support Cat.No 4 129 50 (e.g switches, lamps, printed circuits, potentiometers)	

Wiring management accessories **p. 65**

Single phase power supplies

4 131 05

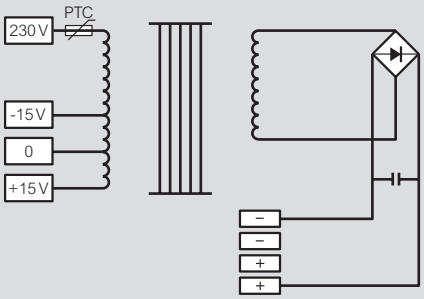
0 047 93

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

ACBs, MCCBs, HEAD EQUIPMENT & ENERGY COMPENSATION

Energy management & measurement

NEW
P. 92
CX³ energy management system

Reactive energy compensation

P. 104
Alpimatic automatic capacitor banks

Head equipment

P. 120
DRX 125 thermal magnetic MCCBs ≤ 125 A

P. 131
DPX³ 250 electronic release MCCBs ≤ 250 A

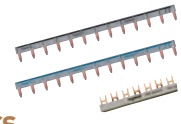
P. 142
DPX³ 1600 thermal magnetic MCCBs ≤ 1250 A

NEW
P. 148
DMX³ 1600 ACBs ≤ 1600 A

P. 159
DPX-IS isolating switches ≤ 1600 A

P. 171
HRC cartridge fuses

Supply busbars, distribution blocks & copper busbars



P. 191
Supply busbars

NEW PRODUCTS 2016

CX³
energy management system
(p. 92)

EMDX³
multi-function measuring units
(p. 95)

P. 94
EMDX³ electrical energy meters & multi-function measuring units
⌙⌐ rail mounting

NEW
P. 95
EMDX³ multi-function measuring units on door

P. 102
Ammeters & voltmeters
⌙⌐ rail mounting

P. 103
Ammeters & voltmeters on door

P. 108
Alpibloc fixed capacitor banks

P. 111
Alpivar³ capacitors

P. 112
Alpican capacitors

NEW
P. 115
Alptec power factor controllers

P. 122
DRX 250 thermal magnetic MCCBs ≤ 250 A

P. 124
DRX 630 thermal magnetic MCCBs ≤ 630 A

P. 128
DPX³ 160 thermal magnetic MCCBs ≤ 160 A

P. 130
DPX³ 250 thermal magnetic MCCBs ≤ 250 A

P. 134
Auxiliaries & accessories for DPX³ 160/250

P. 136
DPX³ 630 thermal magnetic MCCBs ≤ 630 A

P. 137
DPX³ 630 electronic release MCCBs ≤ 630 A

P. 140
DPX³ 630 earth leakage modules

P. 142
DPX³ 1600 electronic release MCCBs ≤ 1600 A

P. 146
Auxiliaries & accessories for DPX³ 630/1600

P. 146
Supervision system

P. 147
Residual current relays and coils

P. 152
DMX³ 2500/4000 ACBs ≤ 4000 A

P. 153
DMX³ 6300 ACBs ≤ 4000 A

P. 154
DMX³ - I trip free switches ≤ 6300 A

P. 158
Vistop isolating switches ≤ 160 A

P. 163
DPX³-I trip free switches ≤ 1600 A

P. 164
DCX-M changeover switches ≤ 1600 A

P. 168
Proximity switches

P. 170
SP fuse carriers

P. 172
Blade type cartridge fuses

P. 176
MPX³ MPCBs for 3-phase motors ≤ 45 kW

P. 180
CTX³ industrial contactors 9 A ≤ 800 A

P. 184
RTX³ thermal relays

P. 193
Modular distribution blocks ≤ 250 A

P. 194
Power distribution blocks ≤ 400 A

P. 197
Flat copper busbars & accessories

P. 199
Isolating supports for busbars ≤ 6300 A

DMX³ 1600
air circuit breakears up to 1600 A
(p. 148)

Automation control units for supply invertors
(p. 157)

CX³ energy management system

4 149 19

4 149 20

4 149 23

4 149 26

4 149 29

4 149 30

4 149 32

4 149 31

Conform to IEC/EN 61131-2 (Programmable controllers)
CX³ energy management system enables to measure, control and visualize the state of ⎓ rail mounting protection devices (MCBs, RCCBs, RCBOs, etc...) and head equipment (DMX³ and DPX³), locally ("Stand alone") or remotely. All the modules of the system are equipped with two specific communication ports: one at the backside (for communication rail) and one underneath (for communication patch cords). Power supply with specific module Cat.No 4 149 45 (p. 93).
Remote configuration possible with the help of the Energy Management Configuration Software, available for free download via E-Catalogue (giving also access to a 30-day trial version of Energy Management Software Cat.No 4 149 38/39)

Measurement modules

For measuring current, voltage, active/reactive power and other values
Conform to IEC/EN 61557-12
Accuracy: class 0.5

Pack	Cat.Nos		Number of modules
		Direct connection up to 63 A	
1	4 149 19[1]	Single-phase measuring module and closed Rogowski coil up to 63 A Consumption: 0.409 W - 34.1 mA (12 V ⎓)	1
1	4 149 20[1]	3-phase measuring module and closed Rogowski coil up to 63 A Consumption: 0.418 W - 34.8 mA (12 V ⎓)	1
		Connection with CT	
1	4 149 23	5 A measuring module connected via current transformers (CT) Consumption: 0.391 W - 32.6 mA (12 V ⎓)	1

Pulse concentrator

Pack	Cat.Nos		Number of modules
1	4 149 26[1]	For collecting and transmitting measurements taken by universal pulse energy meters (water, gas, etc...) Up to 3 pulse circuits Consumption: 0.288 W - 24 mA (12 V ⎓)	1

State reporting modules

Pack	Cat.Nos		Number of modules
		Auxiliary + fault signalling contact	
1	4 149 29[1]	Indicates the position of the contacts and the fault tripping of its associated device. To fit on the left-hand side of DX³ MCBs, RCCBs, RCBOs and isolating switches Consumption: 0.236 W - 19.7 mA (12 V ⎓)	0.5
		Universal signalling module	
1	4 149 30[1]	Equipped with 3 LED lights: green, red and yellow Indicates various type of information, according to selected configuration: contacts position, plugged-in or drawn-out product, etc... Equipped with DIP switches (on the side) allowing product configuration: selection of information type and of the LED behaviour Compatible with ⎓ rail mounting protection devices or head equipment (DMX³ and DPX³) Consumption: 0.377 W - 31.4 mA (12 V ⎓)	1

Universal control module

Pack	Cat.Nos		Number of modules
1	4 149 32[1]	2 relays: 240 V ∿ - 6 A Enables to remotely control different electrical loads or motorised controls associated to ⎓ rail mounting protection devices or head equipment (DPX³ MCCBs) Equipped with DIP switches (on the side) allowing product configuration: contact type (NO + NC, 2 NO, etc...) and function (maintained or momentary contact) Consumption: 0.456 W - 38 mA (12 V ⎓)	1

Control and state reporting module

Pack	Cat.Nos		Number of modules
		For CX³ latchnig relays and 1 and 2-module contactors up to 25 A	
1	4 149 31[1]	Indicates the position of the contacts and enables remote control of its associated product Equipped with DIP switches (on the side) allowing product configuration: selection of the main product (latching relay or contactor). To fit on the left-hand side of the CX³ latching relays and contactors Consumption: 0.372 W - 31 mA (12 V ⎓)	1

1 : Enables upstream busbar connection

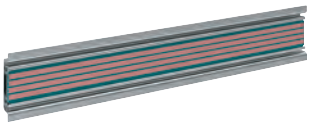
CX³ energy management system (continued)

4 149 36

4 149 38

0 261 78

0 046 89


4 149 01 installed on ⊔ rail

4 149 07

Conform to IIEC/EN 61131-2 (Programmable controllers)
CX³ energy management system enables to measure, control and visualize the state of ⊔ rail mounting protection devices (MCBs, RCCBs, RCBOs, etc...) or head equipment ((ACBs, MCCBs, etc...), locally ("Stand alone") or remotely. All the modules of the system are equipped with two specific communication ports: one at the backside (for communication rail) and one underneath (for patch cords).
Power supply with specific module Cat.No 4 149 45 (p. 93)
Remote configuration possible with the help of the Energy Management Configuration Software, available for free download via E-Catalogue (giving also access to a 30-day trial version of Energy Management Software Cat.No 4 149 38/39)

Pack	Cat.Nos	Stand alone configuration module	Number of modules
		⊔ rail mounting	
1	4 149 36[1]	Optional module for "stand alone" supervision need Enables to configure, test and control CX³ energy management system and to visualize supervision data No computer or IP connection required Consumption: 0.438 W - 36.5 mA (12 V ⎓)	4
		Door mounting touch screen	
1	0 261 56	Optional touch screen allowing to: - visualize information coming from DX³, DPX³ and DMX³ protection devices and EMDX³ multi-function measuring units and - control protection devices equipped with the universal control module Cat.No 4 149 32 (p. 92) Can manage up to 9 devices Power supply: 18-30 V ⎓ IP connection For mounting on door or solid faceplate Door cut: 92 x 92 mm	
		Remote configuration and supervision	
		Energy management software for 1 computer (user key) Allows remote configuration, test, control and visualization of data collected from EMDX³ electrical energy meters and multi-function measuring units and CX³ energy management system on one computer connected to the network 30-day free trial version available for download via E-Catalogue	
1	4 149 38	Software licence agreement (user key) for 32 Modbus adresses or 32 pulse modules	
1	4 149 39	Software licence agreement (user key) 255 Modbus adresses or 255 pulse modules	
		Energy management multi-support web servers Allow remote configuration, test, control and visualization, via a web browser on PCs, smartphones, web viewers, tablet computers, of data collected from: protection devices (DX³ add-on modules with integrated measurement control unit, DPX³ and DMX³), EMDX³ electricity meters and multi-function measuring units and CX³ energy management system	
1	0 261 78	For 32 Modbus adresses or 32 pulse modules	
1	0 261 79	For 255 Modbus adresses or 32 pulse modules	

1 : Enables upstream busbar connection

Pack	Cat.Nos	Communication interfaces	Number of modules
		RS485 / CX³ energy management system	
1	4 149 40	RS485 / CX³ energy management system conversion Consumption: 0.344 W - 28.7 mA (12 V ⎓)	1
		RS485 / Ethernet	
1	0 046 89	RS485 / Ethernet conversion (for connection to an IP network)	3
		Power supply module	Number of modules
1	4 149 45	500 mA 12 V ⎓ stablized power supply module for CX³ energy management system	1
		Connection accessories	
		Communication rails To be fitted on ⊔ rail or spacer Allows data transmission between the different modules of CX³ energy supervision system	
1	4 149 01[2]	18 modules	
1	4 149 02[2]	24 modules	
1	4 149 03[2]	36 modules	
		Communication patch cords Allows data transmission between the different modules of CX³ energy supervision system Can be used instead of communication rails or to create a link between two rows (individually connected with communication rails)	
1	4 149 07	Length 250 mm	
1	4 149 08	Length 500 mm	
1	4 149 09	Length 1000 mm	
		Communication patch cord connector	
1	4 149 10	Enables to extend communication patch cords length by clipping them together Max. length: 3 m	
		Plastic cover for communication rail	
1	4 149 14	Must be used for protection of the unused parts of the communication rail Length: 36 modules Can be cut to the required length. Fixing: direct clip on to the rail	

2 : For other lengths, please consult us

Current transformers (CT)
p. 98

EMDX³ electrical energy meters

⌴ rail mounting

0 046 70

0 046 74

4 120 65

Technical characteristics **p. 99**

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

Single-phase meters

Pack	Cat.Nos		
	Non-MID	MID compliant	
			Direct connection
1	0 046 70		32 A - 1 module Pulse output
1	0 046 81		36 A - 2 modules Pulse output
1		4 120 69	45 A - 1 module 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

Pack	Cat.Nos		
	Non-MID	MID compliant	
			Direct connection
1	0 046 73[1]	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

Pulse concentrator

Pack	Cat.Nos	
1	4 120 65	For collecting and transmitting measurements taken by 12 universal pulse electricity meters Also collects pulses from other meters (gas meters, water meters, etc.) RS485 output 4 modules

Measurement concentrator

Pack	Cat.Nos	
1	4 120 00	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

Split core current transformer

Pack	Cat.Nos	
1	4 120 02	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

Solid core current transformer

Pack	Cat.Nos	
1	4 120 04	60 A, for the measurement concentrator Cat.No 4 120 00

1: Double tariff mettering

EMDX³ multi-function measuring units - ⌴ rail mounting

4 120 51

Technical characteristics **p. 100**

Conform to standards:
- IEC 61557-12
- IEC 62053-22 class 0.5
- IEC 62053-23 class 1

EMDX³ modular

Pack	Cat.Nos	
		Multi-function measuring unit
1	4 120 51	For mounting on ⌴ rail Width: 4 modules • LCD display • Measurement of currents, voltages, active, reactive and apparent power • 4 tariff metering: • THD voltages, currents and harmonic analysis up to order 25 (available on Modbus COM port) • Programmable alarms on all functions • RS 485 and pulse output

EMDX³ multi-function measuring units - for mounting on door or solid faceplate

4 120 52

4 120 53

4 120 55

4 120 57

Technical characteristics **p. 100**

Conform to standards:
- IEC 61557-12
- IEC 62053-22 class 0.5
- IEC 62053-23 class 1 for Cat.No 4 120 52 - Class 2 for Cat.No 4 120 53

Pack	Cat.Nos	EMDX³ - Access
		Multi-function measuring unit
1	4 120 52	For mounting on door or solid faceplate Dimensions: 96 x 96 x 62 mm • LCD display • Measurement of currents, voltages, active, reactive and apparent power and power factor • Metering: - Active energy consumed or produced - Reactive energy consumed or produced - Operating time - Pulses • THD voltages, currents, and individual harmonic up to order 25(1) • RS 485 communication and Pulse output
		EMDX³ - Premium
		Multi-function measuring units
1	4 120 53	For mounting on door or solid faceplate Dimensions: 96 x 96 x 62 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 - THD • Programmable alarms on all functions Can take 4 EMDX³ optional modules
		EMDX³ modules
		Modules for EMDX³ - Premium multi-function measuring units
1	4 120 56	Memory + RS 485 communication module Active and reactive power storage, alarms and measured values
1	4 120 55	R485 communication module with Modbus link
1	4 120 59	Pulse ouput module for energy count 2 independent and insulated outputs
1	4 120 57	2 inputs / 2 outputs module Output can be assigned to alarms on different values
1	4 120 60	2 analog outputs module 0...20 mA and/or 4...20 mA
1	4 120 58	Temperature module 2 Pt100 inputs resistances
1	4 120 61	Harmonic analysis module Voltage, current, phase angle between current or voltage, crest factor... Up to order 50(1)

1: Available on Modbus COM port

Current transformers (CT)
p. 98

EMDX³ Supervision system

0 261 78

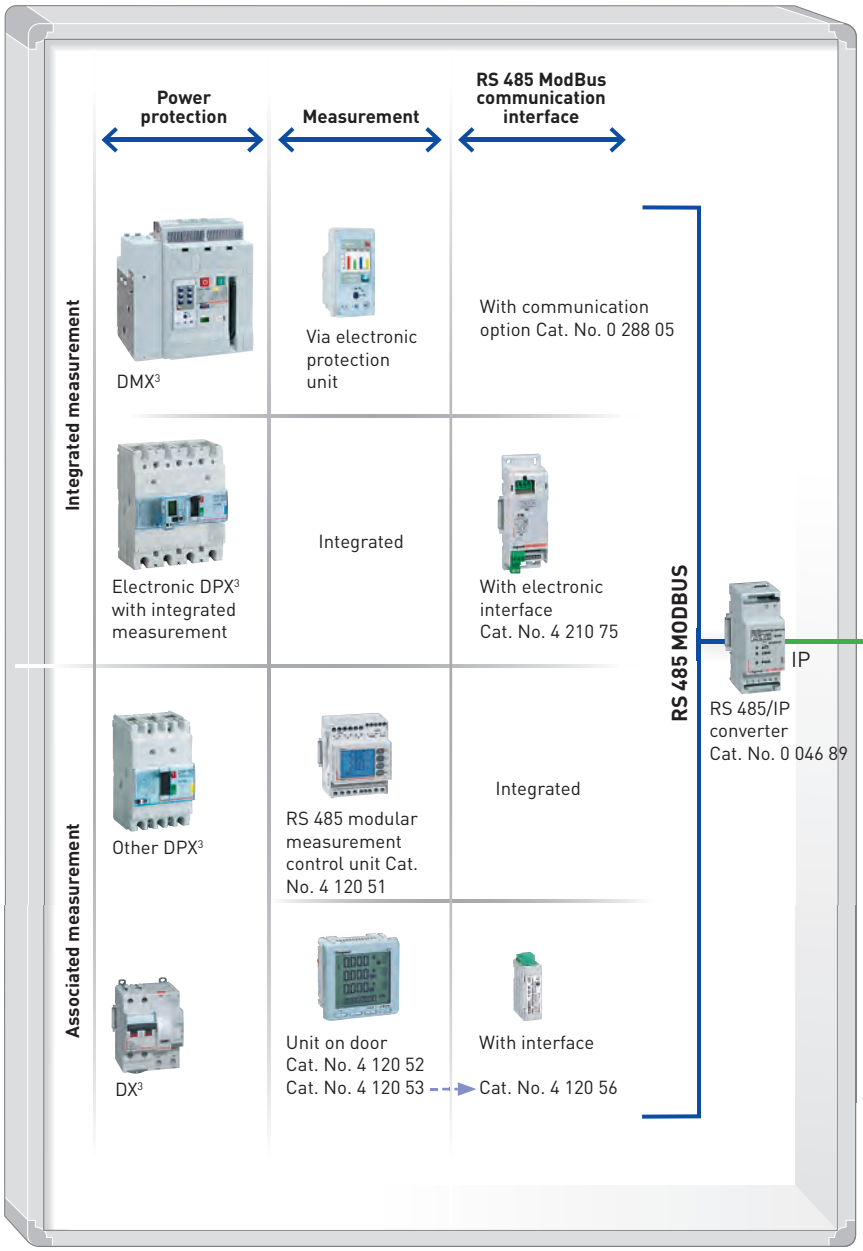
Technical characteristics **p. 101**

Pack	Cat.Nos	Remote communication and supervision
		Energy management multi-support web servers
		Allow remote configuration, test, control and visualization, via a web browser on PCs, smartphones, web viewers, tablet computers, of data collected from: protection devices (DX³ add-on modules with integrated measurement control unit, DPX³ and DMX³), EMDX³ electricity meters and multi-function measuring units and ⎓ rail bus energy supervision system
1	0 261 78	For 32 Modbus addresses or 32 pulse modules
1	0 261 79	For 255 Modbus addresses or 255 pulse modules
		Legrand software dedicated to measurement
		For displaying the values collected from electricity meters or multi-function measuring units on a PC connected to the network
1	0 261 88	For 32 metering devices (supplied on CD)
1	0 261 89	For 255 metering devices (supplied on CD)
		Communication interface
		RS485 / Ethernet
1	0 046 89	For RS 485 / Ethernet conversion (for connection to an IP network) — Number of modules 3

Incorporate measurement via e.communication in protection devices

Legrand is bringing a new dimension to protection devices, with measurement via e.communication directly integrated in the new DMX³ and DPX³ electronic circuit breakers. Measurement can be associated with DPX³ and DX³ circuit breakers using EMDX³ meters and measurement control units.

MAIN LV DISTRIBUTION BOARD
or secondary distribution board



RS 485 - Fieldbus

IP protocol - Ethernet bus

Power supervision system

remote control, monitoring and measurement

0 261 37

0 261 36

0 261 45

With the Legrand Power supervision system, circuit breakers are integrated in a supervision system
You can therefore check the status of the circuit breakers, measure the electrical values and control the circuit breakers remotely
MODBUS protocol

RS485 Modbus communication interfaces

Pack	Cat.Nos	
		DPX electronic interface
1	0 261 37	For reading information from an electronic DPX : phase 1, 2 and 3 currents, the currents in the neutral, the temperature (electronic card), the nominal current and the DPX settings Dimension: 2 modules Power supply: 24 V~ / ⎓ . RS 485 link (2-wire) Address, speed and coding can be modified with configurator kit
		DPX³ electronic interface
1	4 210 75	For connecting electronic DPX³ (except DPX³ 630 and 1600 S1 electronic releases) to an RS485 Modbus communication network All the information managed by the circuit breaker's electronic card will be shared on the Modbus network Dimension: 2 modules Power supply: 24 V~ / ⎓ . RS 485 link (2-wire) Address, speed and coding can be modified with configurator kit
		RS 485 Modbus communication option for DMX³
1	0 288 05[1]	Option making the DMX³ capable of communicating for supervision

Modular power supply

Pack	Cat.Nos	
1	0 035 67	230 V~ - 27 V⎓ - 0.6 A 2 modules

DPX and DX³ signalling and control interface

Pack	Cat.Nos	
1	0 261 36	Signalling and control interface between the power supervision system and the thermal magnetic and electronic circuit breakers. Equipped with analogue / digital inputs and relay outputs. Can handle multiple circuit breakers. - 24 inputs for collecting information from the signalling auxiliaries on the DPX and DX³ circuit breakers: auxiliary contact NO position (1 input) or NO+NC position (2 inputs), fault signal (1 input) - 6 outputs for: the remote control of the motor driven circuit breakers (2 outputs) and for tripping the circuit breakers for testing purposes (1 output) Dimension: 6 modules Power supply: 24 V~ / ⎓ RS 485 link (2-wire) Address, speed and coding can be modified with configuration kit.

1: Factory fitted

Accessories

Pack	Cat.Nos					
		Configurator kit				
1	0 261 45	For configuring the DPX and DPX³ I/O card and interface Kit with configurators 0 to 9 (10 configurators for each digit)				
		Single phase stabilised power supply				
		For supplying communication devices Primary 115-230 V 24 V⎓				
			Power (W)	Current (A)	Flexible cable terminal capacity	
					Input (mm²)	Output (mm²)
1	0 466 23		120	5	6	2 x 6
		IP converter				
1	0 046 89	For RS 485/Ethernet conversion for connecting electricity meters and measurement control units to an IP network Supply voltage 90-260 V~ 80/60 HZ Dimension: 2 modules				

Remote Communication and supervision

Pack	Cat.Nos	
		Energy management multi-support web servers
		Allow remote configuration, test, control and visualization, via a web browser on PCs, smartphones, web viewers, tablet computers, of data collected from: protection devices (DX³ add-on modules with integrated measurement control unit, DPX³ and DMX³), EMDX³ electricity meters and multi-function measuring units and CX³ energy management system
1	0 261 78	For 32 Modbus adresses or 32 pulse modules
1	0 261 79	For 255 Modbus adresses or 32 pulse modules
		Legrand software dedicated to measurement
		For displaying the values collected from electricity meters or multi-function measuring units on a PC connected to the network
1	0 261 88	For 32 metering devices (supplied on CD)
1	0 261 89	For 255 metering devices (supplied on CD)

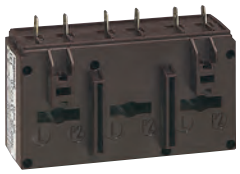
Automation control units for supply invertors **p. 157**

Electronic DPX³ 250 with integrated measurement unit **p. 132**

EMDX³ measurement control units **p. 94**

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	750/5	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 (mm²)	Capacity: Rigid wire (mm²)	Capacity: Flexible wire (mm²)	Pitch (mm²)
25	0 371 92	Grey	4	0.25 to 4	0.25 to 4	8

EMDX³ electrical energy meters

rail mounting

Technical characteristics

Single-phase meters Cat.Nos 0 046 70/72/77/78/79/81 and 4 120 69

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

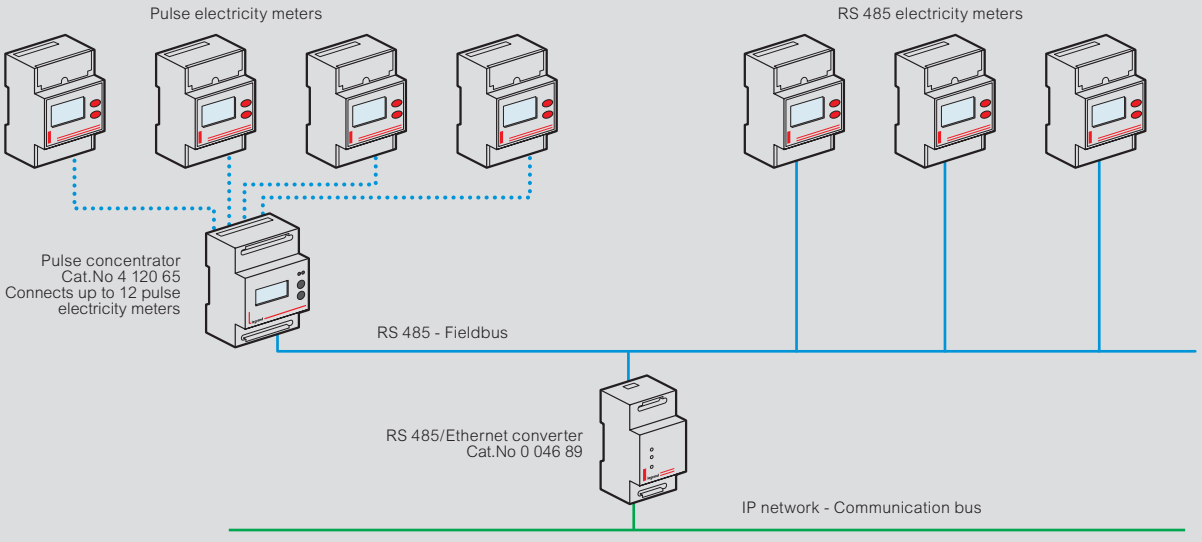
LCD display: 8 digits
Resolution: 0.01 kWh(1)
Maximum indication: 99999.99 kWh(1)
Metrological LED: 0.1 Wh/pulse or 1 Wh/pulse
Active energy accuracy (EN 62053-21): class 1
Reactive energy accuracy (EN 62053-23): class 2
Reference voltage Un:
- Single-phase: 230-240 V
- Three-phase: 230(400)-240(415) 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	4 120 69	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	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	45 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	-5 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					-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

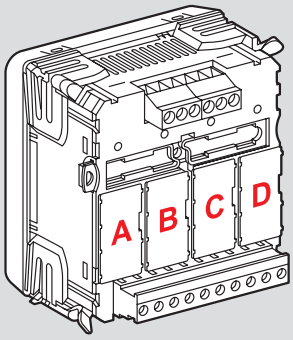
Technical characteristics

Cat.Nos			4 120 51	4 120 52	4 120 53
Connection	Current measurement terminals	Flexible cable	4mm²	4mm²	4mm²
		Rigid cable	6 mm²	6 mm²	6 mm²
	Other terminals	Flexible cable	2.5 mm²	2.5 mm²	2.5 mm²
		Rigid cable	4mm2	4mm²	4mm²
Protection index	Front cover		IP 54	IP 54	IP 54
	Casing		IP 20	IP 20	IP 20
Weight			250 g	285 g	285 g
Display	Type		Backlit LCD	Backlit LCD	Backlit LCD
	Update period		1 s	1 s	1 s
Measurements			1P+N, 3P, 3P+N	1P+N, 3P, 3P+N	1P+N, 3P, 3P+N
Voltage measurement	Direct	Phase/Phase	80 - 500 V	80 - 500 V	80 - 690 V
		Phase/Neutra!	50 -290 V	50 - 290 V	50 - 400 V
	From PT	Primary	max. 1200 V	max. 1200 V	max. 150 kV
		Secondary	-	-	-
	Update period		0.2 s	0.2 s	0.2 s
Current measurement	Direct		-	-	-
	From a CT	Primary	max. 10 kA (X/1 A) or 50 kA (X/5A)	max. 10 kA (X/1 A) or 50 kA (X/5A)	max. 10 kA (X/1 A) or 50 kA (X/5A)
		Secondary	1 A or 5 A	1 A or 5 A	1 A or 5 A
	Minimum measurement		5 mA	5 mA	5 mA
	Input consumption		≤ 1 VA	≤ 1 VA	≤ 0,2 VA
	Display		0.005 A - 10 kA (x/1 A) o 0.005 A - 50 kA (x/5 A)	0.005 A - 10 kA (x/1 A) o 0.005 A - 50 kA (x/5 A)	0.005 A - 10 kA (x/1 A) o 0.005 A - 50 kA (x/5 A)
	Permanent overload		1.2 In	1.2 In	1.2 In
	Intermittent overload		20 In / 0.5 s	20 In / 0.5 s	20 In / 0.5 s
	Update period		0.2s	0.2 s	0.2 s
	Max. CT x PT ratio		99990	99990	10000000 (x/1 A) 2000000 (x/5 A)
Power measurement	Total		0 - 9999 kW/ kVAr / kVA 0 - 9999 MW I MVAr / MVA	0 - 9999 kW/ kVAr / kVA 0 - 9999 MW I MVAr / MVA	0 - 9999 kW/ kVAr / kVA 0 - 9999 MW I MVAr / MVA
	Update period		0.2 s	0.2 s	0.2 s
Frequency measurement	Measurement range		45/65 Hz - 360/440 Hz	45/65 Hz - 360/440 Hz	45/65 Hz
	Update period		0.2 s	0.2 s	0.2 s
Auxiliary power supply	50 / 60 Hz		80 - 265 V ± 10%	80 - 265 V ± 10%	80 - 265 V ± 10%
	d.c.		100 - 300 V ± 10%	100 - 300 V ± 10%	100 - 300 V ± 10%
	Consumption	a.c.	≤ 2.5 VA	≤ 2.5 VA	≤ 2.5 VA
		d.c.	≤ 2.5 W	≤ 3.5 W	≤ 3.5 W
Operating temperature			from - 5° C to + 55° C	from - 5° C to + 55° C	from - 5° C to + 55° C
Storage temperature			from - 25° C to + 70° C	from - 25° C to + 70° C	from - 25° C to + 70° C

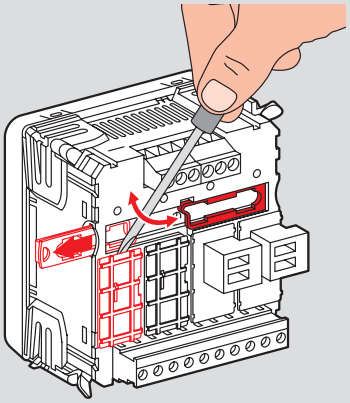
1: except for Cat.No 4 120 53 - 50 Hz only

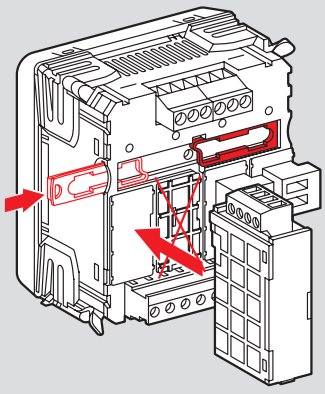
Maximum number of modules and installing position for multi-function measuring unit Cat.No 4 120 53

Cat.Nos	Designation	Max. number	EMDX³-Premium 4 120 53
4 120 55	RS 485 communication module	1	A
4 120 56	Memory + RS 485 communication module	1	A
4 120 57	2 inputs / 2 outputs module	2	C, D
4 120 58	Temperature module	1	D
4 120 59	Pulse output module for energy count	2	A, B, C, D
4 120 60	2 analog outputs module	2	C, D
4 120 61	Harmonic analysis module	1	A + B



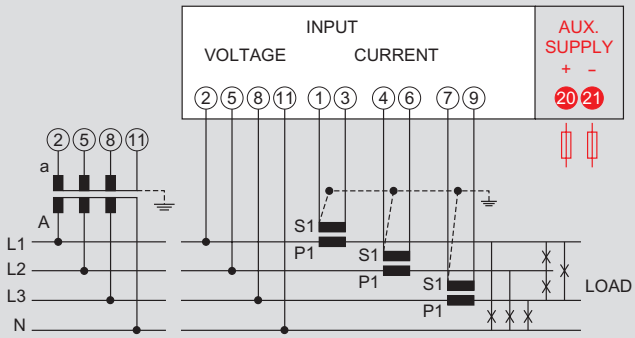
Fitting modules Cat.Nos 4 120 52/53



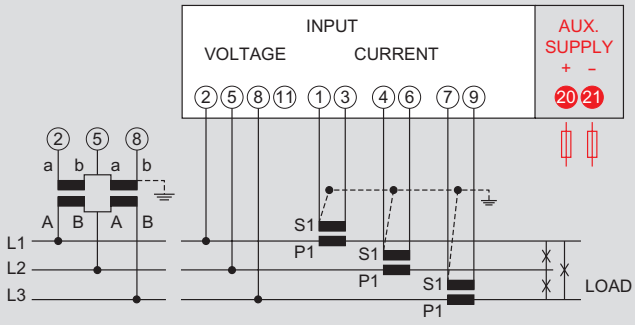


Connection solutions

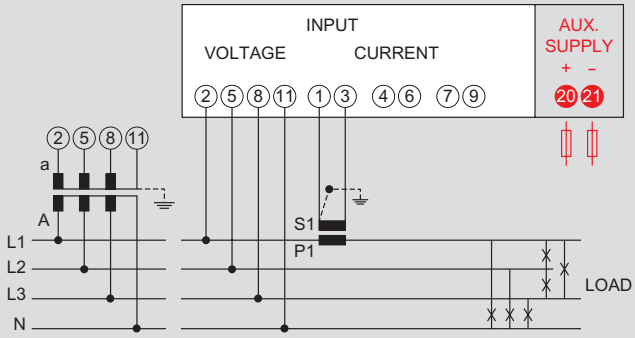
Unbalanced three-phase network (4-wire)



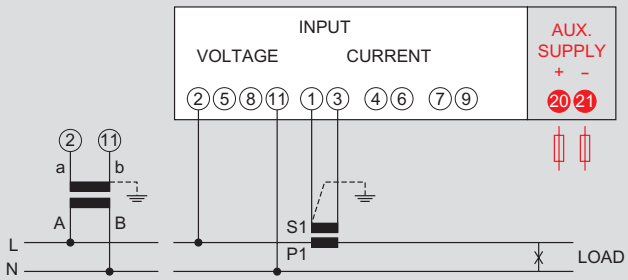
(3-wire)



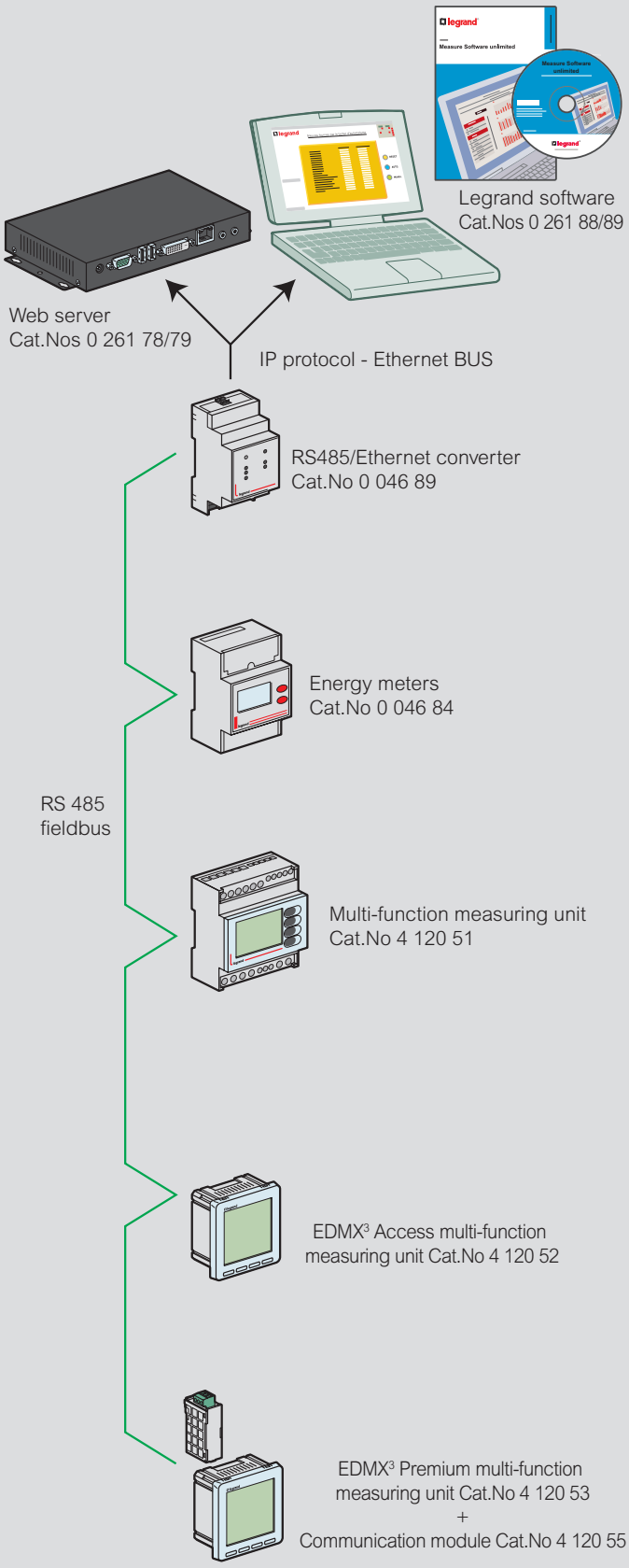
Balanced three-phase network (3-wire)



Single-phase network (2-wire)



Wiring example of communication network



0 046 02

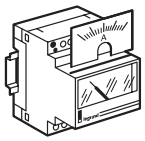
0 046 00

0 046 63

Dimensions **see e-catalogue**

Analogue metering devices

Pack	Cat.Nos		
		Ammeters	
		Measure the intensity in Amperes (A) of the current circulating in an electrical circuit	Number of modules
1	0 046 02	Direct connection AC or DC Scale: 0 - 30 A - supplied with dial	4
1	0 046 00	Connected via a 0 - 5 A output current transformer (CT)	4
		Measuring dials for ammeter Cat.No 0 046 00	
2	0 046 10	0-50 A	
2	0 046 13	0-100 A	
2	0 046 15	0-200 A	
2	0 046 16	0-250 A	
2	0 046 17	0-300 A	
2	0 046 18	0-400 A	
2	0 046 20	0-600 A	
2	0 046 21	0-800 A	
2	0 046 22	0-1000 A	
2	0 046 66	0-1250 A	
2	0 046 24	0-1500 A	
2	0 046 25	0-2000 A	
		Voltmeter	
		Measure the AC or DC voltage in a circuit in volts (V)	Number of modules
1	0 046 60	Scale: 0-500 V	4



Digital ammeter / voltmeter

Pack	Cat.Nos		
		- Ammeter mode: connected via a 0 - 5 A current transformer (CT) Reading range adjusted according to CT used - Voltmeter mode: measures the AC or DC voltage of an electrical circuit; scale 0 - 600 V	Number of modules
1	0 046 63	Voltage: 230 V~ - 50/60 Hz Reading: I - 0 to 8000 A U - 0 to 500 V	4

Selective measurement switches

Pack	Cat.Nos		
		For manual selection of the circuits to be measured	
		Ammeter cam switch	
		For measuring the current in a circuit with one ammeter, connected via a current transformer (CT)	Number of modules
1	0 046 50	3-phase, 4-position cam switch	3
		Voltmeter cam switches	
		For measuring the voltages in a circuit with one voltmeter	
1	0 046 52	3-phase, 4-position cam switch	3
1	0 046 53	3-phase with neutral, 7-position cam switch	3

Digital frequency meter

Pack	Cat.Nos		
		For measuring the frequency of a 230 V~ electrical circuit in hertz (Hz) Supply voltage 230 V~ (connected to circuit to be measured)	Number of modules
1	0 046 64	Green LED 3 digit display - 40-80 Hz display	4

Totalising hour counters

Pack	Cat.Nos		
		Count the operating hours of a machine or an electrical device to determine its exact operating time Counter with numerical display Capacity: 5 digits + 2 decimal places (1 unit = 1 hour) Precision: 1/100th hour Consumption: 0.2 VA	Number of modules
1	0 046 94	230 V~ - 50 Hz	2
1	0 046 91	24 V~ - 50 Hz	2

Current transformers (CT)
p. 98

Electrical energy metering on door

0 146 00 + 0 146 16

0 146 61

0 495 55

Ammeters, voltmeters, totalising, can be mounted on XL³ 800 and XL³ 4000 curved doors

Pack	Cat.Nos	Analogue metering devices
		Ammeters
		Measure the intensity in amperes (A) of the current Connected via a 0 - 5 A output current transformer (CT) To be fitted with a measuring dial appropriate for the current to be measured
1	0 146 00	Round barrel Ø56 mm
1	0 146 01	Square barrel 68 x 68 mm
		Measuring dial for ammeters
		Supplied by set of 2 (1 for round barrel, 1 for square barrel)
1	0 146 10	0 - 50 A
1	0 146 13	0 - 100 A
1	0 146 15	0 - 200 A
1	0 146 16	0 - 250 A
1	0 146 17	0 - 300 A
1	0 146 18	0 - 400 A
1	0 146 20	0 - 600 A
1	0 146 21	0 - 800 A
1	0 146 22	0 - 1000 A
1	0 146 66	0 - 1250 A
1	0 146 24	0 - 1500 A
1	0 146 25	0 - 2000 A
1	0 146 26	0 - 2500 A
1	0 146 28	0 - 4000 A
		Voltmeters
		Measure the voltage in volts (V) AC ou DC Scale: 0 - 500 V
1	0 146 60	Round barrel Ø56 mm
1	0 146 61	Square barrel 68 x 68 mm
		Totalising hour counters (48 x 48)
		One-piece device - IP 40 Front mounting on enclosure or cabinet doors Synchronous motor operation (operation indicator) For counting the operating hours of an electrical machine or device, with no reset Supplied with cover frame (55 x 55 mm) (for round cut-out) and fixing accessories Connection: 2 x 1.5 mm²
1	0 495 52	24 V∿ - 50 Hz
1	0 495 53	110 to 120 V∿ - 50 Hz
1	0 495 54	110 to 120 V∿ - 60 Hz
1	0 495 55	200 to 240 V∿ - 50 Hz
1	0 495 58	48 V∿ - 50 Hz
1	0 495 59	400 V∿ - 50 Hz
1	0 495 60	12 to 36 V⎓
100	0 495 97	Frame 55 x 55 mm

Electrical energy metering

Metering devices on rail

Technical characteristics

Analogue ammeters

Type of measurement	Analogue Ferromagnetic	
Frequency	50 to 60 Hz	
Precision	1.5 %	
Operating temperature	- 10 °C to + 40 °C	
Storage temperature	- 20 °C to + 80 °C	
Consumption: • voltage circuit • measurement circuit	- 1.1 VA	
Connection capacity	Direct 6 mm²	Par TI 4 mm²
Conformity to standards	NF EN 61010-1	

Analogue Voltmeters

Type of measurement	Analogue Ferromagnetic integration
Frequency	50 to 60 Hz
Precision	1.5 %
Operating temperature	- 10°C to + 40°C
Storage temperature	- 20°C to + 80°C
Consumption	3 VA
Connection capacity	2 x 2.5 mm²
Conformity to standards	NF EN 61010-1

Digital frequency meter

Type of measurement	Quartz electronic
Precision	± 0.2 % for ± 1 digit
Operating temperature	- 10°C to + 40°C
Storage temperature	- 20°C to + 70°C
Consumption	4.5 VA
Connection capacity	2 x 2.5 mm²
Conformity to standards	NF EN 61010-1

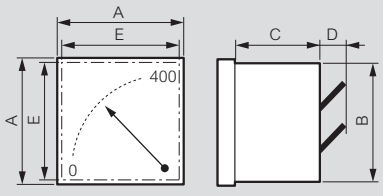
Analogue metering devices on door

Technical characteristics

Frequency: 50/60 Hz
Precision class: 1.5 %
Operating temperature: - 10 °C to + 40 °C
Storage temperature: - 20 °C to + 80 °C
Consumption:
- ammeter: 1.1 VA
- voltmeter: 3 VA
Connection capacity: 2 x 2.5 mm² with screws or
Conform to IEC 60051, VDE 0410, BS 89,
EN 60051-1, cenelec HD 223

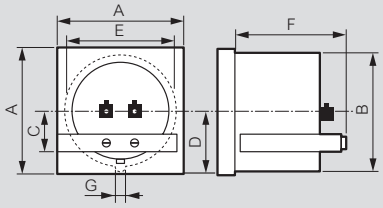
Dimensions

Cat.Nos 0 146 01/61



Dimensions (mm)				
A	B	C	D	E
72	66.5	44	12	68±0,7

Cat.Nos 0 146 00/60



Dimensions (mm)						
A	B	C	D	E	F	G
72	Ø55	21.4	28.5	56	46	3.2