

Isolating switch DX³-IS 1 module per pole, from 40 to 125A

Cat N°(s) : 4 064 11, 4 064 12, 4 064 23, 4 064 40, 4 064 41, 4 064 49, 4 064 50, 4 064 60, 4 064 61, 4 064 69, 4 064 70, 4 064 80, 4 064 81, 4 064 89, 4 064 90



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1. DESCRIPTION - USE

Isolating switch ensuring the breaking and the isolation of electrical circuits.

Fully visible breaking indication.

2. RANGE

Polarity and symbols :

1-pole 250V~

- 40A
- 63A
- 100A



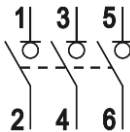
2-poles 400V~

- 40A
- 63A
- 100A
- 125A



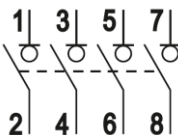
3-poles 400V~

- 40A
- 63A
- 100A
- 125A



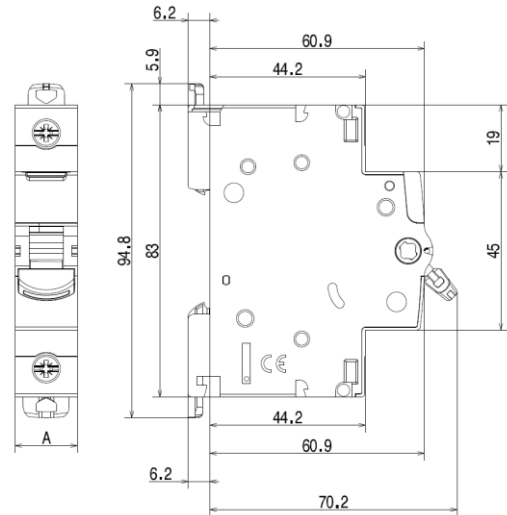
4-poles 400V~

- 40A
- 63A
- 100A
- 125A

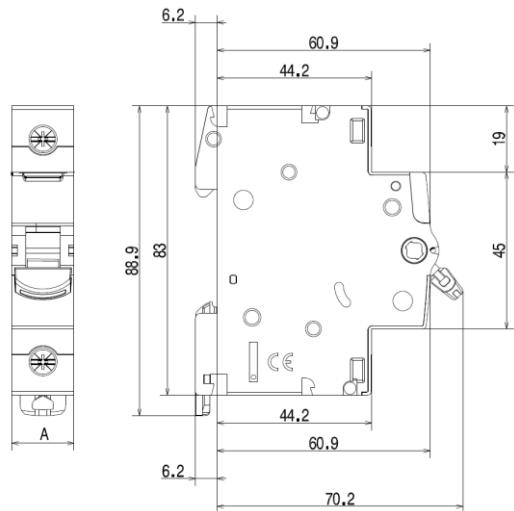


3. OVERALL DIMENSIONS

Rated current 40 et 63 A



Rated current 100 et 125 A



	1-pole	2-poles	3-poles	4-poles
A (mm)	17.7	35.4	53.1	70.8

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4. PREPARATION - CONNECTION

Mounting :

. On symmetrical EN 60.715 rail or DIN 35 rail.

Operating positions:

. Vertical Horizontal Upside down On the side



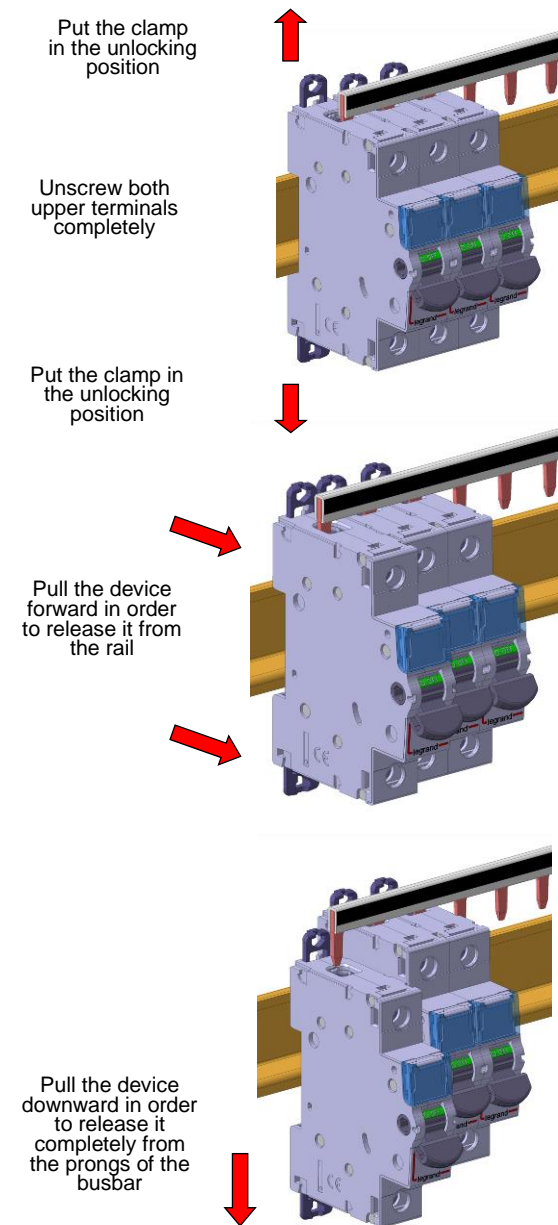
Power supply:

. Either from the top or the bottom.

Module maintenance on devices 40 and 63A:

. Isolating switches may be replaced in the middle of a row supplied with busbars without disconnecting the other products.

This method is available for the 1-pole, 2-poles, 3-poles and 4-poles.



4. PREPARATION - CONNECTION (continued)

Connection:

- . Terminals protected against direct contact IP20, wired device.
- . Cage terminals, with release and captive screws.
- . On devices 40 and 63A, terminals are fitted with shutters, preventing a cable being placed under the terminal, with the terminal partly open or closed.
- . Alignment and spacing of the terminals permitting connection with the other products in the range via prong supply busbars.
- . Terminal depth on devices 40 et 63A: 14 mm.
- . Terminal depth on devices 100 et 125A: 19 mm.
- . Screw head: mixed, slotted and Pozidriv no. 2.
- . Tightening torques:

	40 / 63 A	100 / 125 A
Min torque	2 Nm	2.5 Nm
Recommended torque	3 Nm	3 Nm
Max torque	3.5 Nm	4 Nm

Conductor type:

. Copper cable or supply busbar.

. Cable cross-section:

Rated current 40/ 63A :

	Without ferrule	With ferrule
Rigid cable	1 conductor 1.5 to 35 mm ² 2 conductors 1.5 to 16 mm ²	
Flexible cable	1 conductor 1.5 to 25 mm ² 2 conductors 1.5 to 10 mm ²	1 conductor 1.5 to 25 mm ²

Rated current 100 / 125A :

	Without ferrule	With ferrule
Rigid cable	1 conductor 4 to 50 mm ² 2 conductors 4 to 16 mm ²	
Flexible cable	1 conductor 4 to 35 mm ² 2 conductors 4 to 10 mm ²	1 conductor 1.5 to 35 mm ²

Recommended tools:

- . For the terminals:
 - Screwdriver with 5.5 to 6.5 mm blade.
 - Pozidriv no. 2 screwdriver.
- . For attaching or removing the DIN rail:
 - Screwdriver with 5.5 to 6 mm blade.
 - Pozidriv no. 2 screwdriver.

Manual actuation of the Isolating switch:

- . Ergonomic 2-position handle:
- . "O-OFF": Device open.
- . "I-ON": Device closed.

Contact status display:

- . By marking of the handle:
 - "O-OFF" in white on a green background = contacts open.
 - "I-ON" in white on a red background = contacts closed.

Locking:

- . Padlocks possible in the open and closed positions with padlock support (Cat. No. 4 063 03) and Ø5 mm padlock (Cat. N°: 4 063 13) or Ø6 mm padlock (Cat. N°: 0 227 97).

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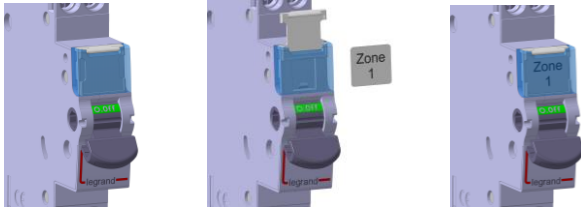
4. PREPARATION - CONNECTION (continued)

Sealing:

. Possible in the open or closed positions.

Labelling:

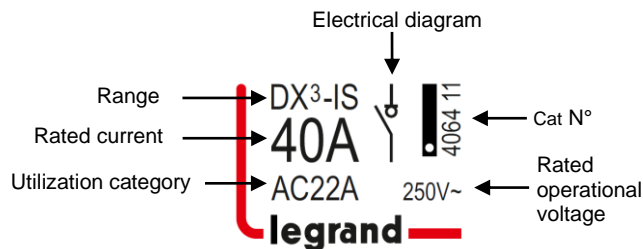
. Circuit identification by way of a label inserted in the label holder situated on the front of the product.



5. GENERAL CHARACTERISTICS

Marking on the front side:

. By permanent ink pad printing.



Marking on the upper panel:

. By permanent ink pad printing



Rated operational voltage :

1-pole:

. U_e = 250 V ~

2-poles, 3-poles and 4-poles :

. U_e = 400 V ~

Rated frequency :

. 50/60 Hz with standard tolerances.

Short circuit withstand:

. Rated conditional short-circuit current in combination: see coordination table on page 4.

. Maximum capacity switching on short-circuit :

- Rated current 40/63A: 4500 A
- Rated current 100/125A: 5000 A

	40 / 63 A	100 / 125 A
l _{cw} following IEC/EN 60947-3	2000 A	2500 A
l _{cm} following IEC/EN 60947-3	3000 A	3700 A
l _{nc} following IEC/EN 60669-2-4 with fuse of same rated current	4500 A	

Insulation voltage:

. U_i = 500 V

5. GENERAL CHARACTERISTICS (continued)

Rated impulse withstand voltage:

. U_{imp} = 6 kV

Direct current utilization :

. 48V (110V with 2 poles serial cabling).

Utilization category:

- . AC22 : Mixed load.
- . A : Frequent operations.
- . AC23 : Inductive load. Complies with IEC/EN 60947-3. Characteristic not marked on product

Degree of pollution:

. 3 in accordance with standard IEC 60664-1.

Power dissipated per pole :

40 A	63A	100A	125A
0.67W	1.67W	3.70W	5.78W

Degree or class of protection:

- . Terminals protected against direct contact, Class of protection against solid objects and liquids (wired device): IP20 in accordance with standards IEC 529 – EN 60529 and NF 20-010.
- . Class II in relation to metallic conductive parts.
- . Class of protection against mechanical impacts IK04 in accordance with standard EN 62262.

Plastic materials:

. Polyamide, PBT and PC

Enclosure heat and fire resistance:

- . Resistance to glow wire tests at 960°C, in accordance with standard IEC 60695-2-10 & 60695-2-11.
- . Classification V2, in accordance with standard UL94.

Higher heating potential:

. The heat potential is assessed at:

1-pole	2-poles	3-poles	4-poles
1.27 MJ	2.52 MJ	3.79 MJ	5.03 MJ

Closing and opening effort via the handle:

Handle force	1-pole	2-poles	3-poles	4-poles
To switch Off	6N	13N	18N	25N
To switch On	17N	34N	50N	66N

Mechanical endurance:

. Compliant with standard IEC/EN 60947-3 & IEC/EN 60669-2-4

Rated current	40 / 63 A	100 / 125 A
Nb operations with no load	200 000	100 000

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5. GENERAL CHARACTERISTICS (continued)

Electrical endurance:

. Compliant with standard IEC/EN 60947-3 & IEC/EN 60669-2-4

Rated current	40 / 63 A	100 / 125 A
operations with load AC22A (in accordance with IEC/EN 60947-3)	20 000	5 000
Operations with load AC23A (in accordance with IEC-EN 60947-3)	1 500	1 000

Vibrations and tremors resistance :

. Compliant with appendix Q category F of standard IEC/EN 60947-1.

Ambient temperatures:

. Operation: from - 25 °C to + 70 °C.

. Storage: from - 40 °C to + 70 °C.

Short-circuit behavior in coordination with upstream protection:

. Tests performed according to the protocol of IEC/EN 60669-2-4 :

The device remains fully functional and meets the switch tests after suffering two short circuit established in coordination with the DPCC of the following table.

- The first short circuit being set at an angle of 45 °.

- The second being provided by the switching on of the isolator switch on the short-circuit.

Rated voltage 400V~		Inc (kA)			
Upstream protection		40A	63A	100A	125A
MCB	DX ³ 4500A/6kA	6	6		
	DX ³ 6000A/10kA	10	10	10	10
	DX ³ 10000A/16kA	10	10	10	10
	DX ³ 25kA	10	10	10	10
	DX ³ 36kA	10	10	10	10
	DX ³ 50kA	10	10	10	10
	DPX ³ 160A 16kA	10	10	10	10
	DPX ³ 160A 25kA	10	10	10	10
	DPX ³ 160A 36kA	10	10	10	10
	DPX ³ 160A 50kA	10	10	10	10
	DPX ³ 250A 25kA	10	10	10	10
	DPX ³ 250A 36kA	10	10	10	10
	DPX ³ 250A 70kA	10	10	10	10
	Fuse gG / aM	40A	20		
63A		16	16		
80A		16	16		
100A		16	16	16	
125A		16	16	16	16

Rated voltage 250V~		Inc (kA)			
Upstream protection		40A	63A	100A	125A
MCB	DNX ³ 4500A/4,5kA	4,5	4,5		
	DX ³ 4500A/6kA	6	6		
	DX ³ 6000A/10kA	10	10	10	10
	DX ³ 10000A/16kA	16	16	16	16
	DX ³ 25kA	16	16	16	16
	DX ³ 36kA	16	16	16	16
	DX ³ 50kA	16	16	16	16
	DPX ³ 160A 16kA	16	16	16	16
	DPX ³ 160A 25kA	16	16	16	16
	DPX ³ 160A 36kA	16	16	16	16
	DPX ³ 160A 50kA	16	16	16	16
	DPX ³ 250A 25kA	16	16	16	16
	DPX ³ 250A 36kA	16	16	16	16
	DPX ³ 250A 70kA	16	16	16	16
Fuse gG / aM	40A	25			
	63A	25	25		
	80A	25	25		
	100A	25	25	25	
	125A	25	25	25	25

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5. GENERAL CHARACTERISTICS *(continued)*

Packaged volume:

	Packaging	Volume (dm ³)
1-pole	Per 10	1.6
2-poles	Per 5	1.6
3-poles	Per 1	0.5
4-poles	Per 1	0.7

Average unit weight:

	40 / 63 A	100 / 125 A
1-pole	86 g	91 g
2-poles	170 g	181 g
3-poles	255 g	272 g
4-poles	340 g	361 g

6. COMPLIANCE AND APPROVALS

In accordance with standards:

. IEC/EN 60947-3 and IEC/EN 60669-2-4.

Usage in special conditions:

. Compliant with appendix Q category F of standard IEC/EN 60947-1.

Respect for the environment – Compliance with European Union Directives:

. Compliance with Directive 2002/95/EC of 27/01/03 known as "RoHS" which provides for a restriction on the use of dangerous substances such as lead, mercury, cadmium, hexavalent chromium and polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) brominated flame retardants from 1st July 2006.

. Compliance with the Directive 91/338/EEC of 18/06/91 and decree 94-647 of 27/07/04.

Plastic materials:

. Halogen free plastic materials.
. Labelling of parts compliant with ISO 11469 and ISO 1043.

Packaging:

. Design and manufacture of packaging compliant with decree 98-638 of 20/07/98 and Directive 94/62/EC.

Approvals obtained:

. See list of approvals available.

7. AUXILIARIES AND ACCESSORIES

Wiring accessories:

. Supply busbar and connection module with busbar up to 63A:
- HX³ 1-pole universal supply busbar (Cat N°: 4 049 26, 4 049 37).
- HX³ 4-poles supply busbar « head of group » (Cat N°: 4 052 00, 4 052 01, 4 052 02) with DX-auto terminal connection module -2P or 4P (Cat N°: 4 063 00, 4 063 01).
- HX³ busbar for screw terminal (Cat N°: 4 049 46, 4 049 47, 4 049 48, 4 049 50, 4 049 51, 4 049 52, 4 049 54, 4 049 55).
. HX³ connection module plug-in system set (Cat N° 4 052 22) for devices 40A and 63A.
. Connection terminals (Cat N°: 4 049 05, 4 049 06, 4 052 08).
. Sealable screwcover (Cat N°: 4 063 04).
. Terminal for aluminium conductor 50 mm² max for DX³-IS ≤ 63A (Cat N°: 4 063 10).
. Insulating shield (Cat N°: 4 063 05).

Signalling auxiliaries :

. Auxiliary contact (0.5 module, Cat N°: 4 062 58).
. Double Auxiliary contact (1 module, Cat N°: 4 062 66).

Installation software:

. XL PRO³.