

Isolating switch DX³-IS

1 module per pole, from 16 to 63A

Cat N°(s) : 4 064 16, 4 064 17, 4 064 19, 4 064 20, 4 064 21, 4 064 45, 4 064 46, 4 064 47, 4 064 65, 4 064 66, 4 064 67, 4 064 85, 4 064 86, 4 064 87



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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~

16A
20A
32A
40A
63A



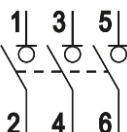
2-poles 400V~

32A
40A
63A



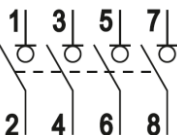
3-poles 400V~

32A
40A
63A

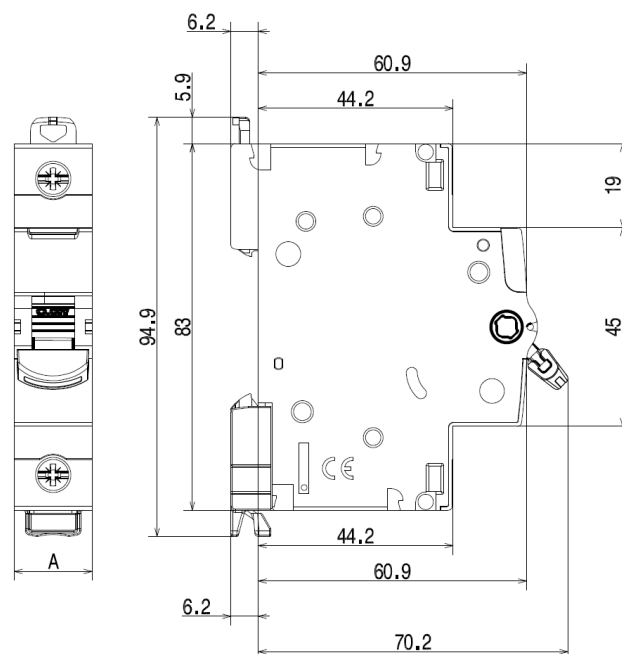


4-poles 400V~

32A
40A
63A



3. OVERALL DIMENSIONS



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

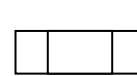
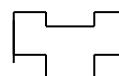
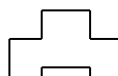
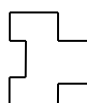
4. PREPARATION - CONNECTION

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.

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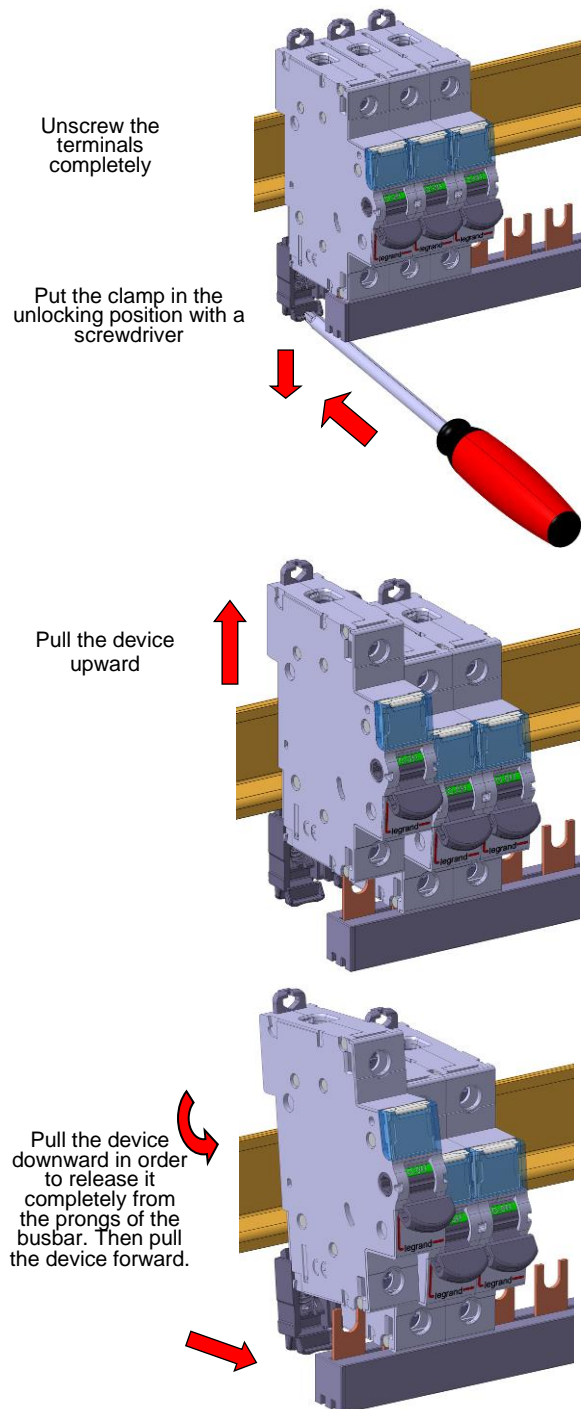
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4. PREPARATION - CONNECTION (continued)

Module maintenance :

- . 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, 4-poles.



Connection:

- . Terminals protected against direct contact IP20, wired device.
- . Cage terminals, with release and captive screws.
- . Terminals 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.

4. PREPARATION - CONNECTION (continued)

- . Terminal depth : 14 mm.
- . Screw head: mixed, slotted and Pozidriv no. 2.
- . Tightening torques:
 - Min: 2 Nm.
 - Recommended: 3 Nm.
 - Max: 3.5 Nm.

Conductor type:

- . Copper cable or supply busbar.
- . Cable cross-section:

	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

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 6.5 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:

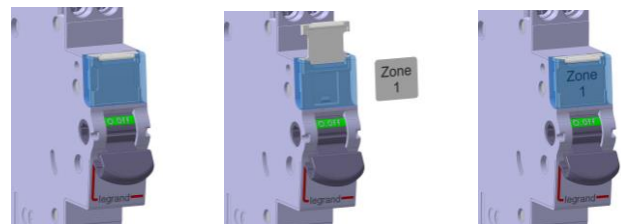
- . Padlocks possible in the open and closed positions with padlock support (Cat. No. 4 063 03) and Ø5 mm padlock (Cat. N°. 4 063 13) or Ø6 mm padlock (Cat. N°. 0 227 97).

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.



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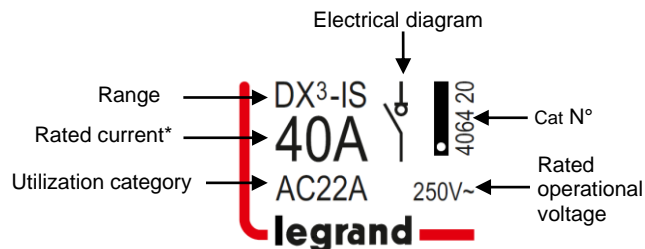
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5. GENERAL CHARACTERISTICS

Marking on the front side:

. By permanent ink pad printing.



*Rated current with X : Devices tested on fluorescent lamp

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.

Breaking capacity :

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

. Maximum capacity switching on short-circuit : 4500 A

Following IEC/EN 60947-3 :

. I_{cw} = 2000 A

. I_{cm} = 3000 A

Following IEC/EN 60669-2-4 :

. I_{nc} = 4500 A with fuse of same rated current.

Insulation voltage:

. U_i = 500 V

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.

5. GENERAL CHARACTERISTICS (continued)

Power dissipated per pole :

16A	20A	32A	40A	63A
0,11W	0,17W	0,43W	0,67W	1,67W

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
1.25 MJ	2.46 MJ	3.71 MJ	4.91 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

. 200 000 operations with no load.

Electrical endurance:

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

. 20 000 operations with load AC22A (in accordance with IEC/EN 60947-3).

. 1 500 operations with load AC23A (in accordance with IEC/EN 60947-3).

Vibrations and tremors resistance :

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

Ambient temperatures:

. Operation: from - 25 °C to + 70 °C.

. Storage: from - 40 °C to + 70 °C.

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5. GENERAL CHARACTERISTICS *(continued)*

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		16	20	32	40A	63A
MCB	DX ³ 4500A/6kA	6	6	6	6	6
	DX ³ 6000A/10kA	10	10	10	10	10
	DX ³ 10000A/16kA	10	10	10	10	10
	DX ³ 25kA	10	10	10	10	10
	DX ³ 36kA	10	10	10	10	10
	DX ³ 50kA	10	10	10	10	10
	DPX ³ 160A 16kA	10	10	10	10	10
	DPX ³ 160A 25kA	10	10	10	10	10
	DPX ³ 160A 36kA	10	10	10	10	10
	DPX ³ 160A 50kA	10	10	10	10	10
	DPX ³ 250A 25kA	10	10	10	10	10
	DPX ³ 250A 36kA	10	10	10	10	10
	DPX ³ 250A 70kA	10	10	10	10	10
Fuse gG / aM	20A	20	20			
	25A	20	20			
	32A	20	20	20		
	40A	20	20	20	20	
	63A	16	16	16	16	16
	80A	16	16	16	16	16
	100A	16	16	16	16	16
	125A	16	16	16	16	16

Rated voltage 250V~		Inc (kA)				
Upstream protection		16	20	32	40A	63A
MCB	DNX ³ 4500A/4,5kA	4,5	4,5	4,5	4,5	4,5
	DX ³ 4500A/6kA	6	6	6	6	6
	DX ³ 6000A/10kA	10	10	10	10	10
	DX ³ 10000A/16kA	16	16	16	16	16
	DX ³ 25kA	16	16	16	16	16
	DX ³ 36kA	16	16	16	16	16
	DX ³ 50kA	16	16	16	16	16
	DPX ³ 160A 16kA	16	16	16	16	16
	DPX ³ 160A 25kA	16	16	16	16	16
	DPX ³ 160A 36kA	16	16	16	16	16
	DPX ³ 160A 50kA	16	16	16	16	16
	DPX ³ 250A 25kA	16	16	16	16	16
	DPX ³ 250A 36kA	16	16	16	16	16
	DPX ³ 250A 70kA	16	16	16	16	16
Fuse gG / aM	20A	25	25			
	25A	25	25			
	32A	25	25	25		
	40A	25	25	25	25	
	63A	25	25	25	25	25
	80A	25	25	25	25	25
	100A	25	25	25	25	25
	125A	25	25	25	25	25

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:

1-pole	83 g
2-poles	162 g
3-poles	245 g
4-poles	325 g

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6. COMPLIANCE AND APPROVALS

In accordance with standards:

- . IEC/EN 60947-3.
- . 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:

- . Fork-type supply busbars (Cat N°: 4 049 56, 4 049 57, 4 049 59, 4 049 63, 4 049 64, 4 049 36).
- . Sealable screwcover (Cat N°: 4 063 04).
- . Terminal for aluminium conductor gauge 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 50).
- . Auxiliary contact (1 module, Cat N°: 4 062 64).

Installation software:

- . XL PRO³.