

Isolating switch DX³-IS

1/2 module per pole, up to 40A

Cat. N°(s) : 4 064 00, 4 064 01, 4 064 03, 4 064 04, 4 064 06, 4 064 31, 4 064 32, 4 064 34, 4 064 36, 4 064 38, 4 064 39, 4 064 57, 4 064 59, 4 064 77, 4 064 79



CONTENTS

Page

| | |
|-------------------------------------|---|
| 1. Description, use | 1 |
| 2. Range | 1 |
| 3. Overall dimensions | 1 |
| 4. Preparation - Connection | 1 |
| 5. General Characteristics..... | 3 |
| 6. Compliances and approvals..... | 5 |
| 7. Auxiliaries and accessories..... | 5 |

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



1-pole with indicator light 250V~

- 20A
- 32A



2-poles 400V~

- 16A
- 20A
- 32A



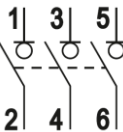
2-poles with indicator light 250V~

- 20A
- 32A
- 40A



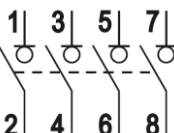
3-poles 400V~

- 20A
- 32A

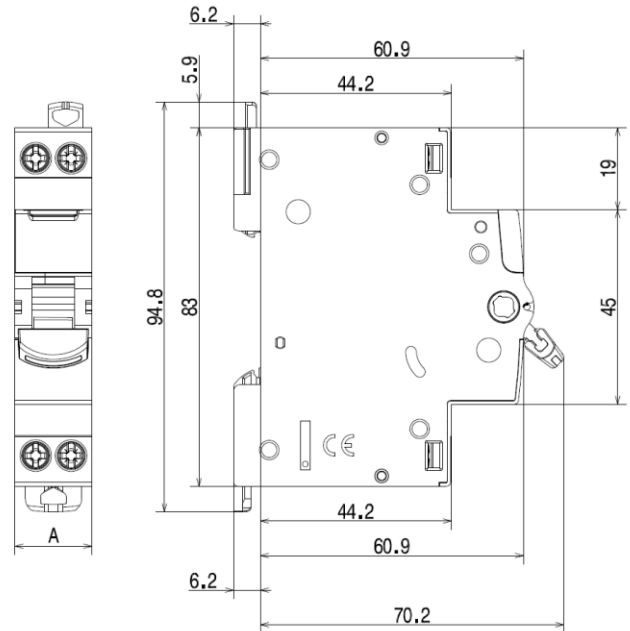


4-poles 400V~

- 20A
- 32A



3. OVERALL DIMENSIONS



| | 1-pole | 2-poles | 3-poles | 4-poles |
|--------|--------|---------|---------|---------|
| A (mm) | 17.8 | 17.8 | 35.6 | 35.6 |

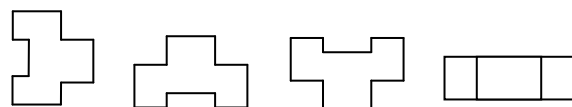
4. PREPARATION - CONNECTION

Mounting :

. On symmetrical EN 60.715 rail or DIN 35 rail.

Operating positions:

. Vertical Horizontal Upside down On the side



Power supply:

. For devices without indicator light : Either from the top or the bottom.

. For devices with indicator light : From the top.

Isolating switch DX³-IS

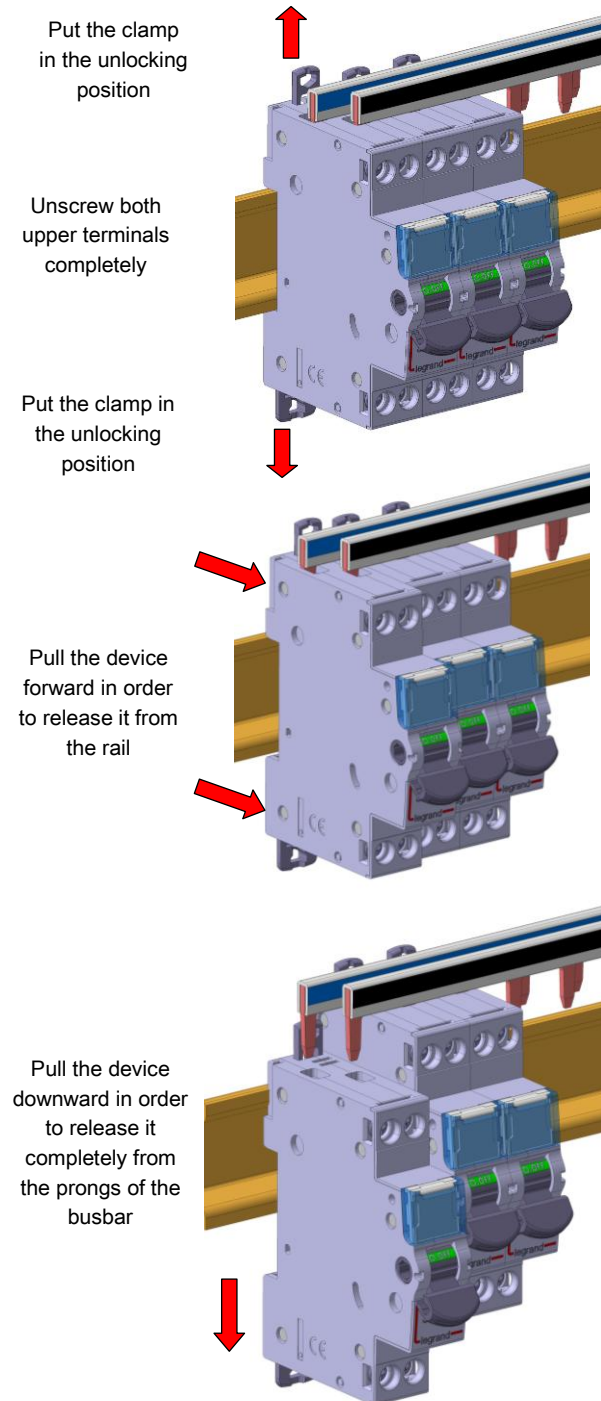
1/2 module per pole, up to 40A

Cat. N°(s): 4 064 00, 4 064 01, 4 064 03, 4 064 04, 4 064 06, 4 064 31, 4 064 32, 4 064 34, 4 064 36, 4 064 38, 4 064 39, 4 064 57, 4 064 59, 4 064 77, 4 064 79

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 : 1.2 Nm
 - Recommended : 1.6 to 2 Nm
 - Max : 2.8 Nm

Conductor type:

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

| | Without ferrule | With ferrule |
|-----------------------|--|---------------------------------------|
| Rigid cable | 1 conductor 1.5 to 16 mm ² 2 conductors 1.5 to 6 mm ² | |
| Flexible cable | 1 conductor 1.5 to 10 mm ² 2 conductors 1.5 to 4 mm ² | 1 conductor 1.5 to 10 mm ² |

Recommended tools:

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

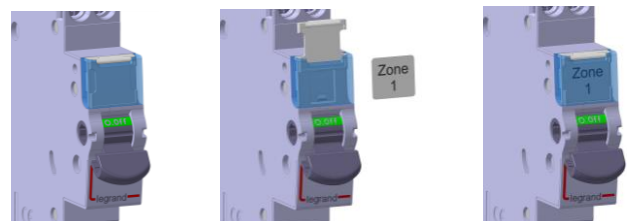
- . Padlocks possible in the open and closed positions with padlock support (Cat. No. 4 063 03) and Ø5 mm padlock (Cat. N°. 4 063 13) or Ø6 mm padlock (Cat. N°. 0 227 97).

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.



Isolating switch DX³-IS

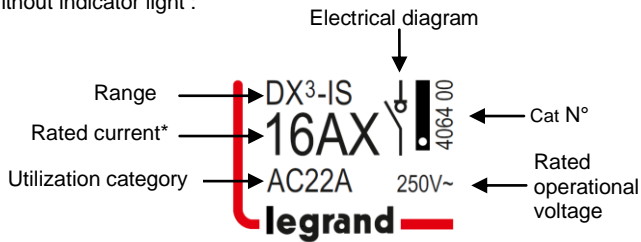
1/2 module per pole, up to 40A

Cat. N°(s): 4 064 00, 4 064 01, 4 064 03, 4 064 04, 4 064 06, 4 064 31,
4 064 32, 4 064 34, 4 064 36, 4 064 38, 4 064 39,
4 064 57, 4 064 59, 4 064 77, 4 064 79

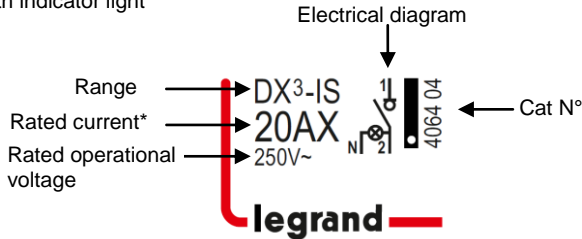
5. GENERAL CHARACTERISTICS

Marking on the front side:

- By permanent ink pad printing.
- Without indicator light :



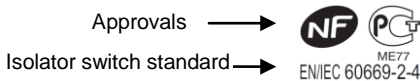
With indicator light



*Rated current with X : Devices tested on fluorescent lamp.

Marking on the upper panel:

- By permanent ink pad printing.
- Without indicator light :



With indicator light:



Rated operational voltage :

- 1-pole with or without indicator light and 2 poles with indicator light:
 - U_e = 250 V ~
- 2-poles without indicator light, 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.

Following IEC/EN 60947-3 :

- I_{cw} = 750 A
- I_{cm} = 1500 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

5. GENERAL CHARACTERISTICS (continued)

Direct current utilization :

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

Utilization category:

- AC22 : Mixed load.
- A : Frequent operations.

Degree of pollution:

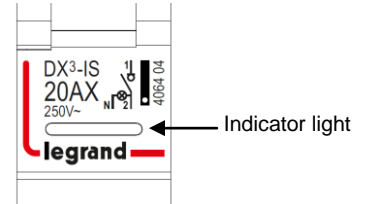
- 3 in accordance with standard CEI 60664-1.

Power dissipated per pole :

| Without indicator light | | | | With indicator light | | |
|-------------------------|-------|-------|-------|----------------------|-------|-------|
| 16 A | 20A | 32A | 40A | 20A | 32A | 40 A |
| 0,23W | 0,36W | 0,92W | 1,44W | 0,45W | 1,01W | 1,53W |

Indicator light (if equipped):

- Technology : fluorescent lamp.
- Shelf life: 50 000 Hours.
- Color: Orange.



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 CEI 60695-2-10 & 60695-2-11.
- Classification V2, in accordance with standard UL94.

Higher heating potential:

- The heat potential is assessed at:

| 1-pole and 2-poles | 3-poles and 4-poles |
|--------------------|---------------------|
| 1.29 MJ | 2.56 MJ |

Closing and opening effort via the handle:

| Handle force | 1-pole | 2-poles | 3-poles | 4-poles |
|---------------|--------|---------|---------|---------|
| To switch Off | 4N | 7N | 10N | 14N |
| To switch On | 10N | 18N | 29N | 35N |

Mechanical endurance:

- Compliant with standard IEC/EN 60947-3 & IEC/EN 60669-2-4
- 300 000 operations with no load.

Isolating switch DX³-IS

1/2 module per pole, up to 40A

Cat. N°(s): 4 064 00, 4 064 01, 4 064 03, 4 064 04, 4 064 06, 4 064 31,
4 064 32, 4 064 34, 4 064 36, 4 064 38, 4 064 39,
4 064 57, 4 064 59, 4 064 77, 4 064 79

5. GENERAL CHARACTERISTICS (continued)

Electrical endurance:

- . Compliant with standard IEC/EN 60947-3 & IEC/EN 60669-2-4
- . 30 000 operations with load AC22A.

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.

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 | | 16A | 20A | 32A |
| MCB | DX ³ 4500A/6kA | 4,5 | 4,5 | 4,5 |
| | DX ³ 6000A/10kA | 4,5 | 4,5 | 4,5 |
| | DX ³ 10000A/16kA | 4,5 | 4,5 | 4,5 |
| | DX ³ 25kA | 4,5 | 4,5 | 4,5 |
| | DX ³ 36kA | 4,5 | 4,5 | 4,5 |
| | DX ³ 50kA | 4,5 | 4,5 | 4,5 |
| | DPX ³ 160A 16kA | 4,5 | 4,5 | 4,5 |
| | DPX ³ 160A 25kA | 4,5 | 4,5 | 4,5 |
| | DPX ³ 160A 36kA | 4,5 | 4,5 | 4,5 |
| | DPX ³ 160A 50kA | 4,5 | 4,5 | 4,5 |
| | DPX ³ 250A 25kA | 4,5 | 4,5 | 4,5 |
| | DPX ³ 250A 36kA | 4,5 | 4,5 | 4,5 |
| | DPX ³ 250A 70kA | 4,5 | 4,5 | 4,5 |
| Fuse gG / aM | 20A | 8 | 8 | |
| | 25A | 8 | 8 | |
| | 32A | 8 | 8 | 8 |
| | 40A | 8 | 8 | 8 |
| | 63A | 8 | 8 | 8 |
| | 80A | 8 | 8 | 8 |
| | 100A | 8 | 8 | 8 |
| | 125A | 6 | 6 | 6 |

| Rated voltage 250V~ | | Inc (kA) | | | |
|----------------------------|------------------------------|----------|-----|-----|-----|
| Upstream protection | | 16A | 20A | 32A | 40A |
| MCB | DNX ³ 4500A/4,5kA | 4,5 | 4,5 | 4,5 | 4,5 |
| | DX ³ 4500A/6kA | 6 | 6 | 6 | 6 |
| | DX ³ 6000A/10kA | 7 | 7 | 7 | 7 |
| | DX ³ 10000A/16kA | 7 | 7 | 7 | 7 |
| | DX ³ 25kA | 7 | 7 | 7 | 7 |
| | DX ³ 36kA | 7 | 7 | 7 | 7 |
| | DX ³ 50kA | 7 | 7 | 7 | 7 |
| | DPX ³ 160A 16kA | 7 | 7 | 7 | 7 |
| | DPX ³ 160A 25kA | 7 | 7 | 7 | 7 |
| | DPX ³ 160A 36kA | 7 | 7 | 7 | 7 |
| | DPX ³ 160A 50kA | 7 | 7 | 7 | 7 |
| | DPX ³ 250A 25kA | 7 | 7 | 7 | 7 |
| | DPX ³ 250A 36kA | 7 | 7 | 7 | 7 |
| DPX ³ 250A 70kA | 7 | 7 | 7 | 7 | |
| Fuse gG / aM | 20A | 10 | 10 | | |
| | 25A | 10 | 10 | | |
| | 32A | 10 | 10 | 10 | |
| | 40A | 10 | 10 | 10 | 10 |
| | 63A | 10 | 10 | 10 | 10 |
| | 80A | 10 | 10 | 10 | 10 |
| | 100A | 10 | 10 | 10 | 10 |
| | 125A | 10 | 10 | 10 | 10 |

Isolating switch DX³-IS

1/2 module per pole, up to 40A

Cat. N°(s): 4 064 00, 4 064 01, 4 064 03, 4 064 04, 4 064 06, 4 064 31,
4 064 32, 4 064 34, 4 064 36, 4 064 38, 4 064 39,
4 064 57, 4 064 59, 4 064 77, 4 064 79

5. GENERAL CHARACTERISTICS *(continued)*

Packaged volume:

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

Average unit weight:

| | |
|---------|-------|
| 1-pole | 65 g |
| 2-poles | 81 g |
| 3-poles | 145 g |
| 4-poles | 160 g |

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 catégorie 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 used on 1 pole and 2 poles:
 - HX³ 1-pole universal supply busbar (Cat N°: 4 049 26, 4 049 37).
 - HX³ 4-poles supply busbar «screw» (Cat N°: 4 052 10).
 - HX³ 4-poles supply busbar « head of group » (Cat N°: 4 052 00, 4 052 01, 4 052 02).
- . HX³ connection module plug-in system set (Cat N°: 4 052 23).
- . Connection terminals (Cat N°: 4 049 05, 4 052 08).
- . Sealable screwcover (Cat N°: 4 063 04).

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.