

# Isolating switch DX<sup>3</sup>-IS

## 1/2 module per pole, up to 40A

Cat. N°(s): F71N16, F71NL16, F71N32, F71NL32, F72N16, F72NL16, F73N16, F74N16, F72N32, F72NL32, F73N32, F74N32



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.....	4
7. Auxiliaries and accessories.....	4

### 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  
32A



1-pole with indicator light 250V~

16A  
32A



2-poles 400V~

16A  
32A



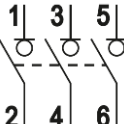
2-poles with indicator light 250V~

16A  
32A



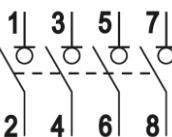
3-poles 400V~

16A  
32A

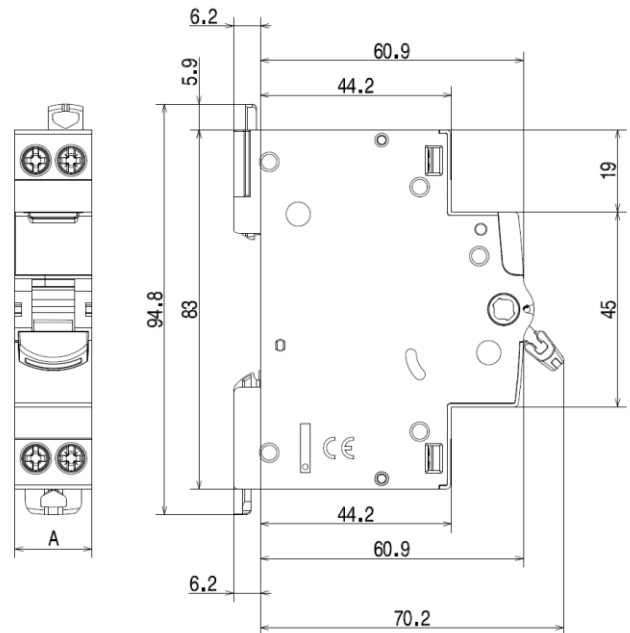


4-poles 400V~

16A  
32A



### 3. OVERALL DIMENSIONS



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

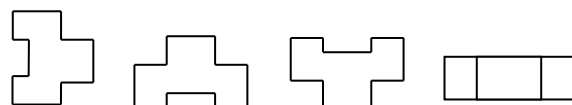
### 4. PREPARATION - CONNECTION

**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 DX<sup>3</sup>-IS

## 1/2 module per pole, up to 40A

Cat. N°(s): F71N16, F71NL16, F71N32, F71NL32, F72N16, F72NL16, F73N16, F74N16, F72N32, F72NL32, F73N32, F74N32

### 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.
- . 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
<b>Rigid cable</b>	1 conductor 1.5 to 16 mm <sup>2</sup> 2 conductors 1.5 to 6 mm <sup>2</sup>	X
<b>Flexible cable</b>	1 conductor 1.5 to 10 mm <sup>2</sup> 2 conductors 1.5 to 4 mm <sup>2</sup>	1 conductor 1.5 to 10 mm <sup>2</sup>

#### 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.

### 4. PREPARATION - CONNECTION *(continued)*

#### Locking:

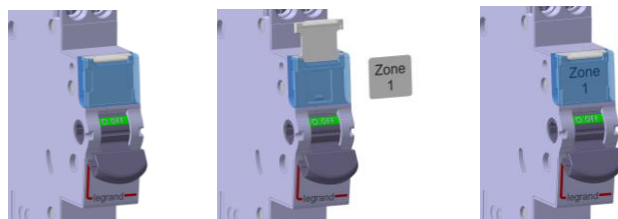
- . Padlocks possible in the open and closed positions with padlock support (Cat. No. F80BL) and Ø5 mm padlock or Ø6 mm padlock

#### 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 DX<sup>3</sup>-IS

## 1/2 module per pole, up to 40A

Cat. N°(s): F71N16, F71NL16, F71N32, F71NL32, F72N16, F72NL16, F73N16, F74N16, F72N32, F72NL32, F73N32, F74N32

### 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 with or without indicator light and 2 poles with indicator light:

- . U<sub>e</sub> = 250 V ~

2-poles without indicator light, 3-poles and 4-poles :

- . U<sub>e</sub> = 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.

Following IEC/EN 60947-3 :

- . I<sub>cw</sub> = 750 A

- . I<sub>cm</sub> = 1500 A

Following IEC/EN 60669-2-4 :

- . I<sub>nc</sub> = 4500 A with fuse of same rated current.

#### Insulation voltage:

- . U<sub>i</sub> = 500 V

#### Rated impulse withstand voltage:

- . U<sub>imp</sub> = 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 :

Without indicator light		With indicator light
16 A	32A	32A
0,23W	0,92W	0,32W

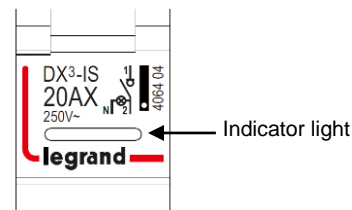
### 5. GENERAL CHARACTERISTICS (continued)

#### 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 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 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.

#### Electrical endurance:

- . Compliant with standard IEC/EN 60947-3 & IEC/EN 60669-2-4
- . 30 000 operations with load AC22A.
- . 1 500 operations with load AC23A.

#### 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.

# Isolating switch DX<sup>3</sup>-IS

## 1/2 module per pole, up to 40A

Cat. N°(s): F71N16, F71NL16, F71N32, F71NL32, F72N16, F72NL16, F73N16, F74N16, F72N32, F72NL32, F73N32, F74N32

### 5. GENERAL CHARACTERISTICS *(continued)*

#### Packaged volume:

	Packaging	Volume (dm <sup>3</sup> )
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 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 1<sup>st</sup> 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: Pin and Fork busbar (See BTicino catalogue).
- . Sealable screwcover (Cat N°: F80CV).

#### Signalling auxiliaries :

- . Auxiliary contact (0.5 module, Cat N°: F80CA05).
- . Double Auxiliary contact (1 module, Cat N°: F80RC).

#### Installation software:

- . XL PRO<sup>3</sup>.