

Isolating switch DX³-IS

1 module per pole, from 40 to 125A

Cat N°(s) : F71N63, F72N63, F73N63, F74N63, F74N100



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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 :

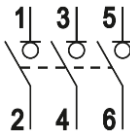
1-pole 250V~
63A



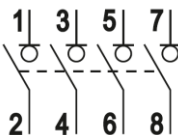
2-poles 400V~
63A



3-poles 400V~
63A

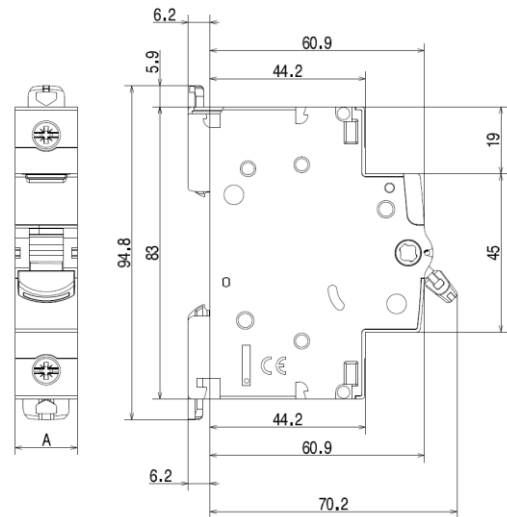


4-poles 400V~
63A
100A

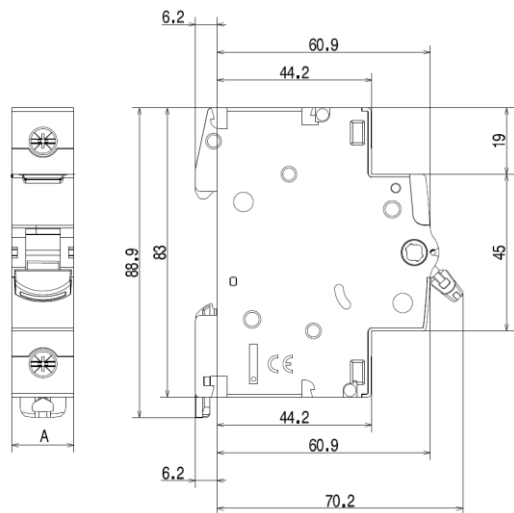


3. OVERALL DIMENSIONS

Rated current 63 A



Rated current 100 A



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

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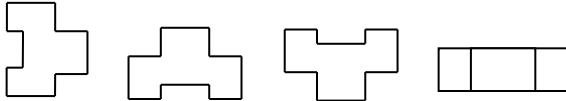
4. PREPARATION - CONNECTION

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.

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 63A: 14 mm.
- . Terminal depth on devices 100A: 19 mm.
- . Screw head: mixed, slotted and Pozidriv no. 2.
- . Tightening torques:

	63 A	100 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 63A :

	Without ferrule	With ferrule
Rigid cable	1 conductor 1.5 to 35 mm ² 2 conductors 1.5 to 16 mm ²	1 conductor 1.5 to 35 mm² 2 conductors 1.5 to 16 mm²
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 100A :

	Without ferrule	With ferrule
Rigid cable	1 conductor 4 to 50 mm ² 2 conductors 4 to 16 mm ²	1 conductor 4 to 50 mm² 2 conductors 4 to 16 mm²
Flexible cable	1 conductor 4 to 35 mm ² 2 conductors 4 to 10 mm ²	1 conductor 1.5 to 35 mm ²

4. PREPARATION - CONNECTION (continued)

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:

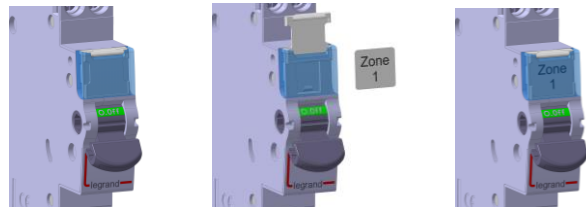
- . Padlocks possible in the open and closed positions with padlock support (Cat. No. F80BL) and Ø5 mm padlock or Ø6 mm padlock.

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.



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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 63A: 4500 A

- Rated current 100A: 5000 A

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

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.

Power dissipated per pole :

63A	100A
1.67W	3.70W

5. GENERAL CHARACTERISTICS (continued)

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	63 A	100 A
Nb operations with no load	200 000	100 000

Electrical endurance:

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

Rated current	63 A	100 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.

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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:

	63 A	100 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: 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 PRO³.