

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



CONTENTS	Page
1. Description, use .....	1
2. Range .....	1
3. Overall dimensions .....	1
4. Preparation - Connection .....	2
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~

40A  
63A  
100A



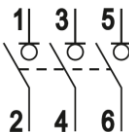
2-poles 400V~

40A  
63A  
100A  
125A



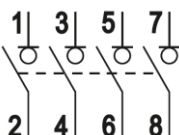
3-poles 400V~

40A  
63A  
100A  
125A



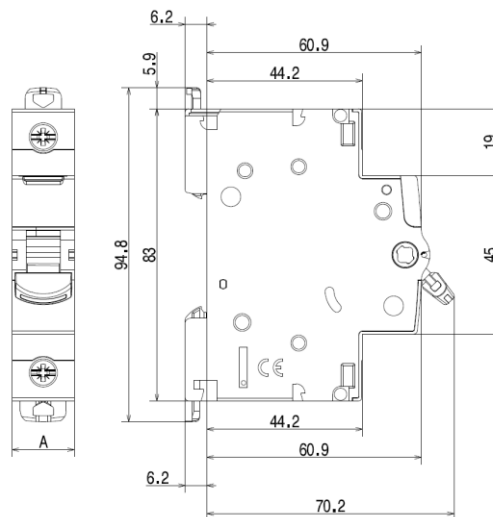
4-poles 400V~

40A  
63A  
100A  
125A

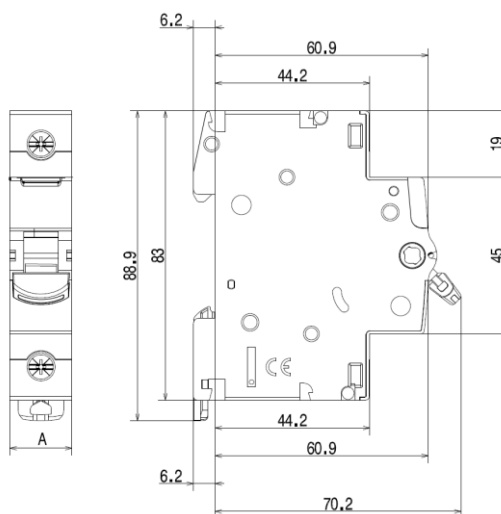


### 3. OVERALL DIMENSIONS

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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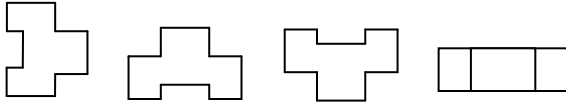
### 4. PREPARATION - CONNECTION

#### Mounting :

. On symmetrical EN 60.715 rail or DIN 35 rail.

#### Operating positions:

. Vertical      Horizontal      Upside down      On the side

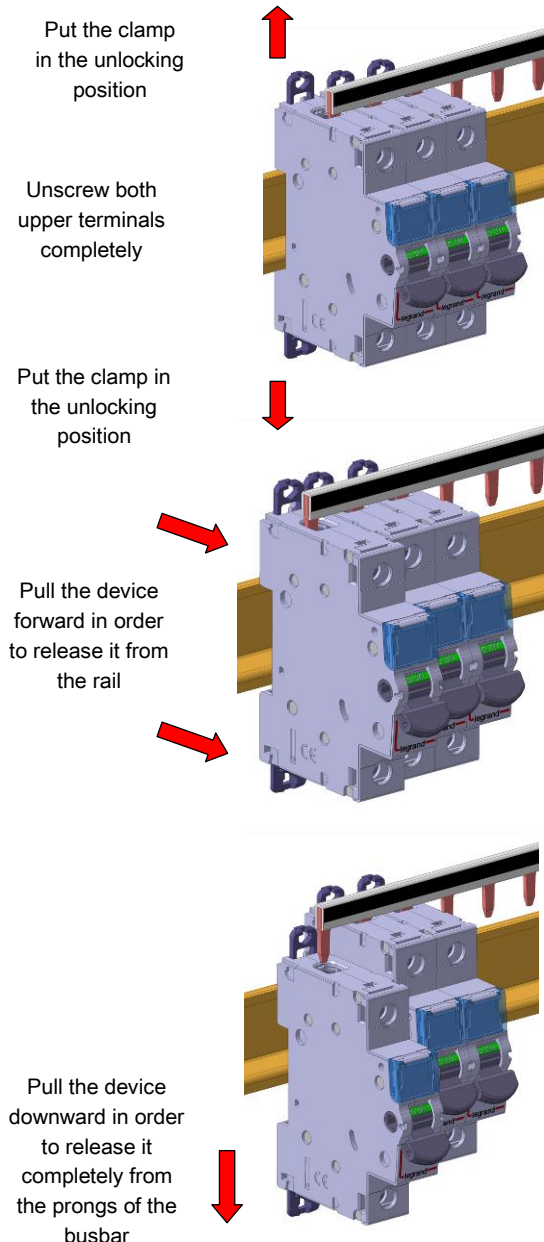


#### Power supply:

. 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
<b>Min torque</b>	2 Nm	2.5 Nm
<b>Recommended torque</b>	3 Nm	3 Nm
<b>Max torque</b>	3.5 Nm	4 Nm

#### Conductor type:

- . Copper cable or supply busbar.
- . Cable cross-section:  
Rated current 40/ 63A :

	Without ferrule	With ferrule
<b>Rigid cable</b>	1 conductor 1.5 to 35 mm <sup>2</sup> 2 conductors 1.5 to 16 mm <sup>2</sup>	
<b>Flexible cable</b>	1 conductor 1.5 to 25 mm <sup>2</sup> 2 conductors 1.5 to 10 mm <sup>2</sup>	1 conductor 1.5 to 25 mm <sup>2</sup>

Rated current 100 / 125A :

	Without ferrule	With ferrule
<b>Rigid cable</b>	1 conductor 4 to 50 mm <sup>2</sup> 2 conductors 4 to 16 mm <sup>2</sup>	
<b>Flexible cable</b>	1 conductor 4 to 35 mm <sup>2</sup> 2 conductors 4 to 10 mm <sup>2</sup>	1 conductor 1.5 to 35 mm <sup>2</sup>

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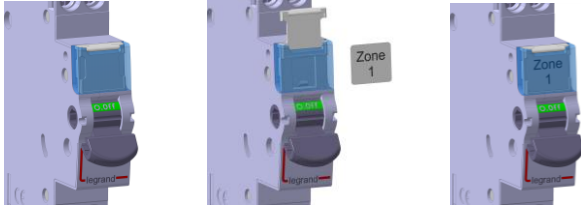
### 4. PREPARATION - CONNECTION (continued)

#### Sealing:

. Possible in the open or closed positions.

#### Labelling:

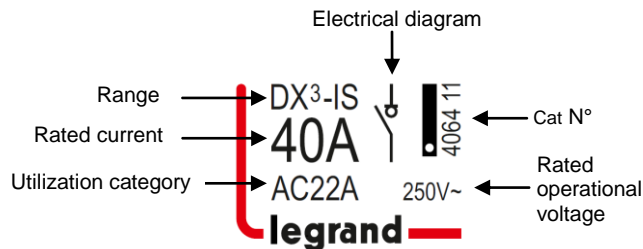
. Circuit identification by way of a label inserted in the label holder situated on the front of the product.



### 5. GENERAL CHARACTERISTICS

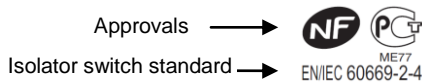
#### Marking on the front side:

. By permanent ink pad printing.



#### Marking on the upper panel:

. By permanent ink pad printing



#### Rated operational voltage :

1-pole:

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

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

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

- Rated current 40/63A: 4500 A

- Rated current 100/125A: 5000 A

	40 / 63 A	100 / 125 A
lcw following IEC/EN 60947-3	2000 A	2500 A
lcm following IEC/EN 60947-3	3000 A	3700 A
Inc following IEC/EN 60669-2-4 with fuse of same rated current	4500 A	

#### Insulation voltage:

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

### 5. GENERAL CHARACTERISTICS (continued)

#### 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.

#### Degree of pollution:

. 3 in accordance with standard CEI 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 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	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

#### 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		40A	63A	100A	125A
MCB	DX <sup>3</sup> 4500A/6kA	6	6		
	DX <sup>3</sup> 6000A/10kA	10	10	10	10
	DX <sup>3</sup> 10000A/16kA	10	10	10	10
	DX <sup>3</sup> 25kA	10	10	10	10
	DX <sup>3</sup> 36kA	10	10	10	10
	DX <sup>3</sup> 50kA	10	10	10	10
	DPX <sup>3</sup> 160A 16kA	10	10	10	10
	DPX <sup>3</sup> 160A 25kA	10	10	10	10
	DPX <sup>3</sup> 160A 36kA	10	10	10	10
	DPX <sup>3</sup> 160A 50kA	10	10	10	10
	DPX <sup>3</sup> 250A 25kA	10	10	10	10
	DPX <sup>3</sup> 250A 36kA	10	10	10	10
	DPX <sup>3</sup> 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 <sup>3</sup> 4500A/4,5kA	4,5	4,5		
	DX <sup>3</sup> 4500A/6kA	6	6		
	DX <sup>3</sup> 6000A/10kA	10	10	10	10
	DX <sup>3</sup> 10000A/16kA	16	16	16	16
	DX <sup>3</sup> 25kA	16	16	16	16
	DX <sup>3</sup> 36kA	16	16	16	16
	DX <sup>3</sup> 50kA	16	16	16	16
	DPX <sup>3</sup> 160A 16kA	16	16	16	16
	DPX <sup>3</sup> 160A 25kA	16	16	16	16
	DPX <sup>3</sup> 160A 36kA	16	16	16	16
	DPX <sup>3</sup> 160A 50kA	16	16	16	16
	DPX <sup>3</sup> 250A 25kA	16	16	16	16
	DPX <sup>3</sup> 250A 36kA	16	16	16	16
DPX <sup>3</sup> 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

#### Packaged volume:

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

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

#### 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 catégorie F of standard IEC/EN 60947-1.

#### Respect de l'environnement – Réponse aux directives de l'Union Européenne :

. 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 and connection module with busbar up to 63A:

- HX<sup>3</sup> 1-pole universal supply busbar (Cat N°: 4 049 26, 4 049 37).
- HX<sup>3</sup> 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).
- HX<sup>3</sup> busbar for screw terminal (Cat N°: 4 049 38, 4 049 39, 4 049 40, 4 049 41, 4 049 42, 4 049 43, 4 049 44, 4 049 45).

. HX<sup>3</sup> 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 mm<sup>2</sup> max for DX<sup>3</sup>-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 PRO<sup>3</sup>.