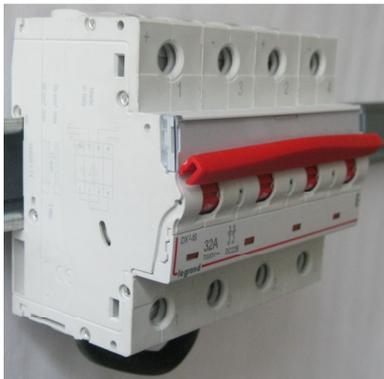


**DX<sup>3</sup> direct current IS ≤ 63A,  
1000V (1,5 modules per pole)**

Cat. N°(s) : 4 142 44 / 46

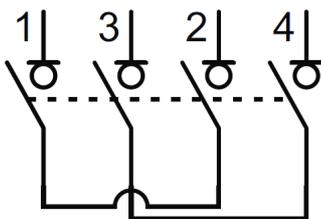


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**1. DESCRIPTION - USE**

. Modular isolating switch for the control and isolation of electrical circuits supplied in DC current. This isolating switch can be used for photovoltaic applications.

**Symbol:**



**2. RANGE**

**N° of poles:**

- . 2P in 6 modules.
- . 3 modules per pole (3 x 17,7 mm = 53.4 mm).

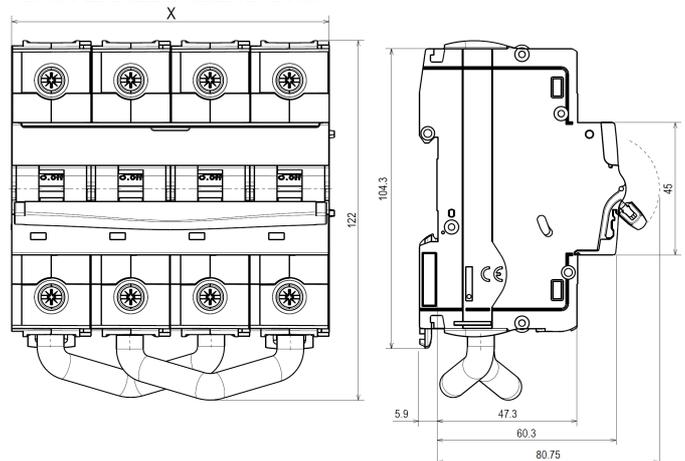
**Rated currents::**

- . 32 A and 63 A.

**Rated Voltage:**

- . 1000 V d.c. (direct current).

**3. OVERALL DIMENSIONS**



N° of poles	"X" (mm)
2P	<b>106.8 mm</b>

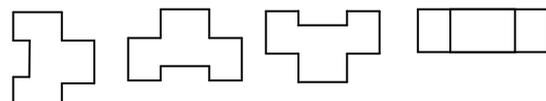
**4. PREPARATION - CONNECTION**

**Fixation :**

- . On symmetric rail EN/IEC 60715 or DIN 35.

**Operating positions:**

- . Vertical, horizontal, upside down, on the side



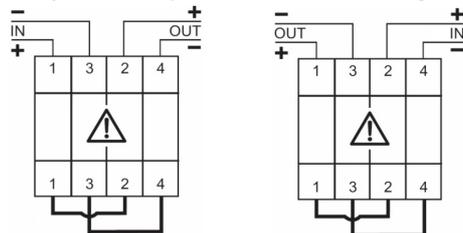
# DX<sup>3</sup> direct current IS ≤ 63A, 1000V (1,5 modules per pole)

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## 4. PREPARATION CONNECTION (continued):

### Supply:

. Only from the top as shown in the following wiring diagram:



### Link cable:

- . The IS is delivered with the link cables wired.
- . Semi-rigid copper cable, 16mm<sup>2</sup>
- . **Despite the precaution taken, the screws may have come loose during shipping. Please check them. Thank you.**

### Terminal depth:

- . 19 mm.
- . **It is mandatory to separate the terminals with the insulating shields integrated to the switch.**

### Stripping length recommended:

- . 17 mm.

### Screw head:

- . Mixed, slotted and Pozidriv 2.

### Tightening torque:

- . Recommended: 3 Nm.
- . Mini : 2,5 Nm. Maxi : 3,5 Nm.

### Tools required:

- . For the terminals: Pozidriv n°2 or flat screwdriver 5,5 mm (6 mm maximum).
- . For fixing: flat screwdriver 5,5 mm (6 mm maximum).

### Connectable section:

	Copper cables	
	Without ferrule	Without ferrule
Rigid cable	1 x 1,5 mm <sup>2</sup> to 50 mm <sup>2</sup> 2 x 1,5 mm <sup>2</sup> to 16 mm <sup>2</sup>	-
Flexible cable	1 x 1,5 mm <sup>2</sup> to 32 mm <sup>2</sup> 2 x 1,5 mm <sup>2</sup> to 10 mm <sup>2</sup>	1 x 1,5 mm <sup>2</sup> to 35 mm <sup>2</sup>

### Actuation of the circuit-breaker:

- . By the 2-position ergonomic handle:
  - 1 / ON: Closed circuit.
  - 0 / OFF: Opened circuit.

### Display of contact state:

- . By handle mark:
  - “O-Off” white on a red background = contacts opened.
  - “I-On” white on a red background = contacts closed.
- . By mechanical indicator on front face:
  - Green = contacts opened.
  - Red = contacts closed.

## 4. PREPARATION CONNECTION (continued):

### Consignment:

- . Only in “Open” mode (OFF) with, for example, a 2,4mm wide coloring.

### Sealing:

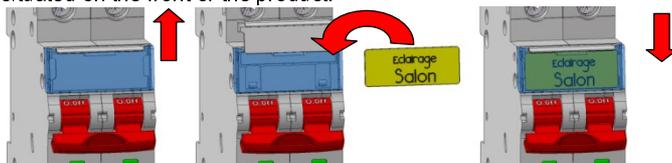
- . Possible in “Open” position (OFF) or “Close” position (ON).

### Lockout:

- . By 5 mm padlock (cat. N° 4 063 13) with padlock support (cat. N° 4 063 03) in open position.

### Labelling:

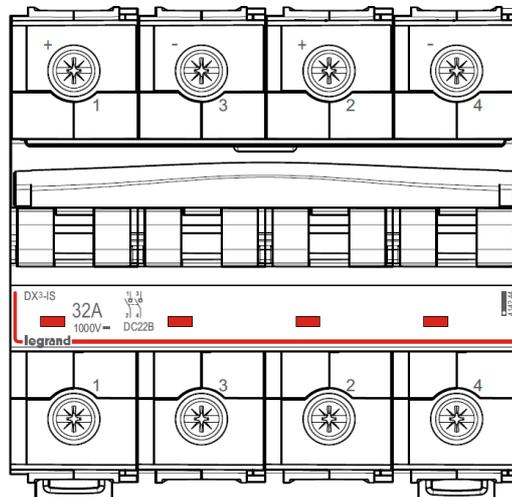
- . Circuit identification by way of a label inserted in the label holder situated on the front of the product.



## 5. GENERAL CHARACTERISTICS:

### Front face marking:

- . By permanent pad printing
  - Trade name : DX<sup>3</sup>-IS
  - Rated current (in A)
  - Rated operational voltage (in V)
  - Electric diagram
  - Utilization category
  - Legrand reference code and Logo
  - Mark: Legrand.



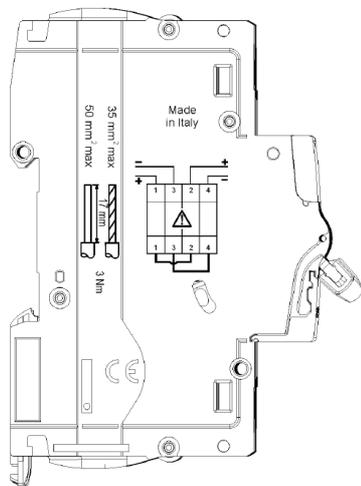
# DX<sup>3</sup> direct current IS ≤ 63A, 1000V (1,5 modules per pole)

Cat. N°(s) : 4 142 44 / 46

## 5. GENERAL CHARACTERISTICS (continued):

### Left side marking :

- . By laser:
- wiring diagram.



### Minimum operating voltage:

- . 12 V d.c. per pole.

### Maximum operating voltage:

- . 1000 V d.c.

### Rated short-time withstand current:

- . I<sub>cs</sub> = 1000 A for 1s according to IEC/EN 60947-3
- . I<sub>cs</sub> = 1500 A for 0,5s according to IEC/EN 60947-3

### Utilization category:

- . B : infrequent operations
- . DC22B: Switching of mixed resistive and inductive loads, including moderate overloads (according to IEC/EN 60947-3)
- . DC21B: Switching of resistive loads including moderate overloads (according to IEC/EN 60947-3)

### Dielectric strength:

- . 2500V.

### Insulation rated voltage:

- . U<sub>i</sub> = 1000 V

### Pollution degree:

- . 3.

### Pulse rated voltage:

- . U<sub>imp</sub> = 8 kV

### Isolating distance:

- . The distance between the contacts is greater than 12mm with the handle in the open position
- . The DC Isolating switch DX<sup>3</sup>-IS is appropriate for the isolation according to IEC / EN 60947-3

### Load to close and to open an IS by the handle:

- . 0,17 Nm per pole to close.
- . 0,09 Nm per pole to open.

## 5. GENERAL CHARACTERISTICS (continued):

### Protection class:

- . Protection index of terminals against solid and liquid bodies: IP 20 (according to IEC 529, EN 60529 et NF C 20-010).
- . Protection index of the box against solid and liquid bodies: IP 40 (according to IEC 529, EN 60529 et NF C 20-010).
- . Protection index against mechanical shocks: IK 02 (according to EN 50102 et NF C 20-015).

### Enclosure material:

- . Polyester.
- . Characteristics of this material: self extinguishing, heat and fire resistant according to EN 60898-1, glow-wire test at 960°C for external parts made of insulating material necessary to retain in position current-carrying parts and parts of protective circuit (650°C for all other external parts made of insulating material).

### Mechanical endurance:

- . Complies with the IEC 60947-3 standard
- . Higher than 10000 operations

### Electrical endurance:

- . Complies with the IEC 60947-3 standard
- . Tested at 1500 operations in DC22 (under In)
- . Tested at 1500 operations in DC21 (under In)

### Resistance to wet heat and salt spray:

- . Complies with IEC / EN 60947-1 Annex Q Class F

### Resistance to vibration and shock:

- . Complies with IEC / EN 60947-1 Annex Q Class F

### Ambient operating temperature:

- . Min. = -25°C. Max. = +70°C

### Ambient storage temperature:

- . Min. = -40°C. Max. = +70°C

### Average weight per device:

- . 0,83 kg.

### Volume when packed:

	Volume (dm <sup>3</sup> )
Double pole	1,14 dm <sup>3</sup>

### Power dissipated per pole (W) :

In	32 A	63 A
2P	2,3	9

- . Impedance per pole (Ω) =  $\frac{P \text{ dissipated}}{I_n^2}$

## **6. COMPLIANCE AND APPROVALS**

### **Compliance to standards:**

- . Standard: IEC/EN 60947-3.

### **Use in specific conditions:**

- . Complies with Class F according to the classification set out in Annex Q of the standard IEC / EN 60947-1.

### **Respect of the environment – Compliance with CEE directives:**

- . Compliance with Directive 2002/95/EC of 27/01/03 called "RoHS" which provides for the banning of hazardous substances such as lead, mercury, cadmium, hexavalent chromium, brominated flame retardants polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs) from 1<sup>st</sup> July 2006
- . Compliance with Directive 91/338/CEE of 18/06/91 and Decree 94-647 of 27/07/04
- . Compliance with Directives 83/336/CEE, 92/31/EEC and 93/68/EEC (EMC).

### **Plastic materials :**

- . Halogen-free plastic materials.
- . Marking of parts according to ISO 11469 and ISO 1043.

### **Packaging:**

- . Design and manufacture of packaging in accordance with Decree 98-638 of 07.20.98 and Directive 94/62/EC

## **7. AUXILIARIES AND ACCESSORIES**

### **Wiring accessories:**

- . Sealable screw cover (cat n° 4 063 06).
- . Sealable terminal cover (cat n° 4 063 12).

### **Signal auxiliaries:**

- . Auxiliary contact + fault signalling switch - can be modified to 2 auxiliary contacts (1 module - cat n° 4 062 66).

### **Control auxiliaries:**

- . Shunt releases (1 module - cat n° 4 062 76 / 78).
- . Under voltage release (1 module - cat n° 4 062 80 / 82).
- . Autonomous shunt trip for NC push-button (1 module - cat n° 4 062 84).
- . POP

### **Possible combinations of m.c.b and auxiliaries:**

- . Auxiliaries are dipped on the left of the IS
- . Maximum number of auxiliaries for one IS: 3.
- . Two signalling auxiliaries max. (cat. n° 4 062 66).
- . Only one control auxiliary (cat. n° 4 062 76 / 78 / 80 / 82 / 84).
- . If signalling and control auxiliaries are associated on the same device, the command auxiliary must be placed to the left of the signal auxiliary (ref. 4 062 66).

### **Sealing:**

- . Possible in "Open" position (OFF) or "Close" position (ON).

### **Lockout:**

- . By 5 mm padlock (cat. N° 4 063 13) with padlock support (cat. N° 4 063 03) in open position.

### **Installation software:**

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