

# 87045 LIMOGES Cedex

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# Remote trip isolating switch DX<sup>3</sup>, 100A and 125A (1,5 module per pole)

Cat N°(s): 4 065 38, 4 065 39, 4 065 46, 4 065 47



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# 1. DESCRIPTION - USE

Remote trip isolating switch with positive contact indication for isolation of electrical circuits.

Remote tripping with associated control auxiliaries.

It is possible to add the residual current function by associating the isolating switch with an RCD add-on module.

### 2. RANGE

# Polarity and symbols:

. 3P

• 100A

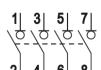
• 125A

1 3 5

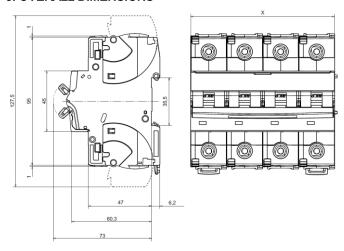
. 4P

• 100A

• 125A



# 3. OVERALL DIMENSIONS



	Triple-poles	Four poles
"X" (mm)	80.1 mm	106.8 mm

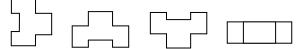
# 4. PREPARATION - CONNECTION

# Fixing:

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

# Operating position:

. Vertical, Horizontal, upside down and on the side



# Supply:

. Either from the top or the bottom

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# 4. PREPARATION - CONNECTION (continued)

### Connection:

Terminal depth: 19 mm.

- . XCage terminals, with release and captive srews.
- . It is possible to separate the terminals by retractable insulation shields
- . Stripping length recommended:
- 17 mm for main terminals.
- 10 mm for extra automatic terminals.
- . Screw head: Allen screw.
- . Tightening torque:
- Recommended: 5.5 Nm.
- Mini 4.5 Nm
- Maxi 6 Nm.

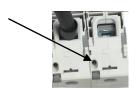
# Conductor type:

. For main terminals:



	Copper cable		
	Without ferrule	With ferrule	
Rigid cable	6 mm² to 70 mm²	-	
Flexible cable	6 mm² to 50 mm²	6 mm² to 50 mm²	

. For extra terminals:



	Copper cable			
	Without ferrule With ferrule			
Rigid cable	0.75 mm² à 2.5 mm²	-		
Flexible cable	0.75 mm² à 2.5 mm²	0.75 mm² à 1.5 mm²		

#### Recommended tools:

- . For the terminals: Allen wrench 4 mm.
- . For fixing: flat screwdriver 5.5 mm (6 mm maximum).

### 4. PREPARATION - CONNECTION (continued)

### Manual actuation of the MCB:

. By the 2-position ergonomic handle:

"I - ON": Closed circuit.

"0 - OFF": Opened circuit.

# Contact status display:

By marking of the MCBs handle:

"O-Off" in white on a red background = contacts opened.

"I-On" in white on a red background = contacts closed.

. By mechanical indicator on front face:

Green = contacts opened.

Red = contacts closed.

#### Locking options:

. By padlock  $\varphi$  5mm (cat. n° 4 063 13) or padlock  $\varphi$  6mm (cat. n° 0 227 97), whit padlock support (cat. n° 4 063 03)

#### Sealing:

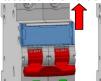
. Possible in "Open" position (OFF) or "Closed" position (ON).

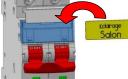
#### Consignment:

. On site padlocking system, possible only in open circuit -"0 – OFF" handle position - with  $1.5 \text{mm}^2$  stripped wire for example or 2.4 mm wide "colring".

### Labelling:

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







## 5. GENERAL CHARACTERISTICS

#### Neutral system

. IT, TT, TN.

# Front side marking:

- . By permanent ink pad printing:
  - Name of range : DX3-IS
  - Rated current (in A)
  - Rated operational voltage (in V)
  - Electric diagram
  - Utilization category
  - Catalogue number and logo
  - Brand: Legrand



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5. GENERAL CHARACTERISTICS (continued)

# Remote trip isolating switch DX<sup>3</sup>, 100A and 125A (1,5 module per pole)

# 5. GENERAL CHARACTERISTICS (continued)

# Minimum operating voltage:

. U = 12 V a.c.

#### Maximum operating voltage:

. U = 455 V a.c.

#### Rated operational voltage:

. Ue = 415 V a.c.

#### Rated Frequency:

. 50 / 60 Hz with standard tolerances.

### Rated short-time withstand current:

- . Icw = 1000 A for 1s according to IEC/EN 60947-3
- . Icw = 1500 A for 0,5s according to IEC/EN 60947-3

#### Rated short-circuit making capacity:

. Icm = 1500 A. according to IEC/EN 60947-3

#### Utilization category:

- . A: Frequent operations
- . AC22A :Switching of mixed resistive and inductive loads, including moderate overload (Rated current 125A)
- . AC23A :Switching of motor loads or other highly inductive loads, (Rated current 100A) according to IEC/EN 60947-3

#### Insulation rated voltage:

. Ui = 500 V.

# Pollution degree:

. 3.

#### Pulse rated voltage:

. Uimp = 6 kV (wave 1.5 / 50  $\mu$ s.

## Dielectric strength:

. 2500 V.

# 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:

- . Polyamide and PBT.
- . 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).
- . Classification V2 according to UL94.

# Closing and opening force via the handle:

- . 0.17 Nm per pole to close.
- . 0.09 Nm per pole to open.

# Mechanical endurance according to IEC 60947-3:

. Higher than 10000 operations

# Electrical endurance according to IEC 60947-3:

- . Tested at 1000 operations in AC22 (under In x Cos  $\phi$ =0.8)
- . Tested at 1500 operations in AC23 (under In x Cos  $\phi$ =0.65)

## Resistance to sinusoidal vibrations:

. Compliance with IEC 60947-1 Annex Q Class F

## Resistance to wet heat and salt spray:

. Compliance 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

# Operation at 400Hz:

. Operating at 400 Hz: yes.

## Average weight per pole:

. 0,220 kg.

### Packaged volume:

	Volume (dm³)
Triple pole	0,63
Four pole	1,14

# Power dissipated and impedance per device at In (in W):

. switch under In and Un

In	100 A	125 A
3P et 4P	7	11

. Impedance per pole ( $\Omega$ ) = Power dissipated

In<sup>2</sup>

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# 5. GENERAL CHARACTERISTICS (continued)

Back-up protection between IS and MCB, three-phase network (+N) 400/415V according to IEC 60 947-2:

		m.c.b. upstream		
IS downstrea	ım	DX <sup>3</sup> 10000A/16kA DX <sup>3</sup> 25kA		
DX <sup>3</sup> -IS	100A	25kA	25kA	
DX3-12	125A	25kA	25kA	

Back-up protection between MCCB's and, three-phase network (+N) 400/415V according to IEC 60 947-2:

		m.c.c.b upstream					
			DPX <sup>3</sup> 160			DPX <sup>3</sup> 250	
IS downstream		16kA	25kA	50kA	25kA	36kA	70kA
DX3-IS	100A	25kA	25kA	25kA	25kA	25kA	25kA
DX3-15	125A	25kA	25kA	25kA	25kA	25kA	25kA

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#### 6. COMPLIANCE AND APPROVALS

#### Compliance to standards:

. Standard: IEC/EN 60947-3.

# Classification according to Annex Q (standard IEC/EN 60947-1):

. Compliance with the category F

#### 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 1st 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:

- . Terminal shields (cat n° 4 063 06).
- . Sealable screw cover (cat n° 4 063 12)
- . Aluminium terminal 95 mm² max (cat. n° 4 063 11)

# Possible combinations of the auxiliaries and the IS:

- . Assembling on the left side of IS
- . Maximum number of auxiliaries = 3

# Signal auxiliaries:

- . Auxiliary contact (1/2 module cat n° 4 062 58).
- . Fault signalling changeover switch (1/2 module cat n° 4 062 60).
- . Auxiliary contact modifiable in default signal ( $\frac{1}{2}$  module cat n° 4 062 62).
- . Auxiliary contact + fault signalling switch can be modified to 2 auxiliary contacts (1 module cat n° 4 062 66).
- . Maximum number of signal auxiliaries = 2

#### 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 87).
- . Overvoltage release "POP" (1 module cat n°. 4 062 86).
- . Maximum number of controls auxiliaries = 1
- . The control auxiliary (Cat. Nos. 4 062 76 to 4 062 87) must mandatorily be placed to the left of the signalling auxiliaries (Cat. Nos. 4 062 58 to 4 062 66) where the auxiliaries from these 2 families are connected to the same IS.

#### RCD add-on modules:

- . RCD add-on module with count integrated (cat N° 4 106 58)
- . RCD add-on module with measure integrated (cat N° 4 106 59)
  - Possibility to remote information on bus via the communication interface (cat N° 4 210 75).
- . Others RCD add-on modules (Cat N°(s) 4 106 06, 12, 24, 28, 37, 44)

# Sealing:

. Possible in "Open" mode (OFF) or "Close" mode (ON).

# Locking options:

. By padlock φ 5mm (cat. n° 4 063 13) or padlock φ 6mm (cat. n° 0 227 97), whit padlock support (cat. n° 4 063 03)

# Installation software:

Technical data sheet: F01555EN/00

. XL PRO3

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