

#### 87045 LIMOGES Cedex

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# DX<sup>3</sup> Shunt trip (ET)

Cat N°(s): 4 062 76, 78

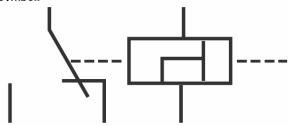


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#### 1. DESCRIPTION - USE

- . Shunt release (ET): allows the remote tripping of the associated device and the remand of the signalling of the tripping by an integrated contact.
- . This device is equipped with a self-tripping contact

#### Symbol:

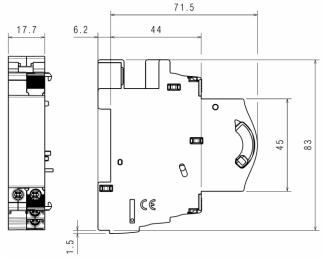


#### 2. RANGE

- . Cat.  $n^{\circ}~4~062~76$ : from 12 to 48 V~/= (a.c. / d.c.).
- . Cat.  $n^{\circ}~4~062~78$ : from110 to 415 V~ (a.c.) and from110 to 125 V~ = (d.c.).

# 3. OVERALL DIMENSIONS

. 1 module width



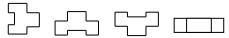
#### 4. PREPARATION -CONNECTION

#### **Fixina**

. On symmetric EN/IEC 60715 or DIN 35 rail, by the device which is associated.

#### Operating positions:

. Vertical Horizontal Upside down On the side



#### **Power Supply:**

. Only from the bottom.

#### Terminals:

- . Terminal depth: 8 mm.
- . Stripping length: 8 mm

# Screw head:

. Mixed, slotted and Pozidriv n°1 (UNI7596 type Z1).

# Recommended tightening torque:

. 1 Nm.

#### Recommended tools:

. For the terminals: Pozidriv  $n^{\circ}1$  or flat screwdriver 4 mm.

# Conductor type:

	Copper cable	
	Without ferrule	With ferrule
Rigid Cable	1 x 0,5 mm² to 1,5 mm² 2 x 1,5 mm²	-
Flexible Cable	1 x 0,5 mm² to1,5 mm² 2 x 1,5 mm²	1 x 0,5 mm² to 1,5 mm² 2 x 1,5 mm²

#### Display of shunt release state:

- . By mechanical indicator on front face:
  - Red: indicates the tripping of the device by the coil. The auxiliary contact of the shunt release is in OFF position.
  - Transparent: the shunt release is in ON position (armed position, ready for tripping). The auxiliary contact of the shunt release is in ON position.

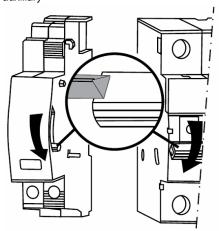
#### 4. PREPARATION -CONNECTION (continued)

#### Manual actuation of the ET

. By the handle of the associated device, for reset the shunt release.

#### Assembling:

- . On the left side of Legrand MCB, IS, RCCBO,RCCB and isolating switches equipped or not with signalling auxiliaries
- . No tool required. Clipped by mean of plastic clamps on the associated device.
- . Assembling products in OFF position
- . The switching device of the shunt release must be positioned above of the handle of the associated device or the signalling auxiliary



#### List of allowed associations (General rules):.

Three auxiliaries maximum which:

- two signalling auxiliaries (Cat. n°(s) 4 062 50, 52, 56, 58, 60, 62, 64, 66).
- Only one control auxiliary (Cat. n°(s) 4 062 76, 78, 80, 82, 84).
- . If signalling and control auxiliaries are associated on the same circuit breaker, the command auxiliary must be placed to the left of the signal auxiliary (ref. 4 062 5x / 6x).
- . If control auxiliaries are associated to devices of 1,5 modules width, is not possible to use signalling aux. ½ module width (cat  $n^{\circ}(s)$  4 062 50 / 52 / 56 / 58 / 60 / 62): is mandatorily to use signalling auxiliaries 1 module width (cat  $n^{\circ}(s)$  4 062 64 / 66).

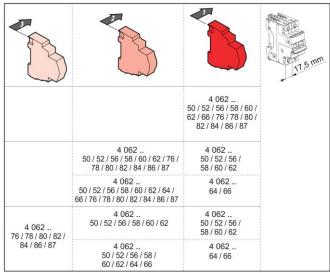
#### List of allowed associations (Particular rules):

- . With an isolating switch DX-IS:
  - only one signalling auxiliary CA type (Cat.  $n^{\circ}(s)$  4 062 50, 58 64 66)
- . With a remote trip head isolating switch DX-IS, three auxiliaries maximum which:
  - one or two signalling auxiliaries CA type (Cat.  $n^{\circ}(s)$  4 062 50, 58 64, 66).
  - one control auxiliary cat n°(s) 4 062 7x / 8x.
- . With a MCB, IS, RCBO,RCCB three auxiliaries maximum which:
  - one or two signalling auxiliaries, CA or SD type (Cat. n°(s)
  - 4 062 50, 52, 56, 58, 60, 62, 64, 66).
  - one control auxiliary Cat. n°(s) 4 062 7x / 8x.

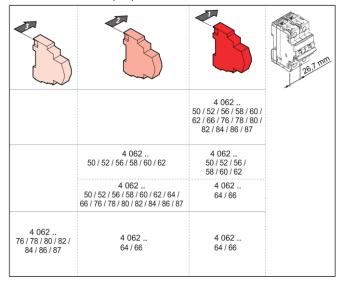
#### 4. PREPARATION -CONNECTION (continued)

#### Combination tables of the auxiliaries:

. Devices 1 module per pole width:

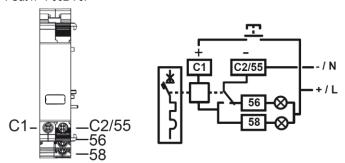


#### . Devices 1,5 modules per pole width:



# Wiring diagrams:

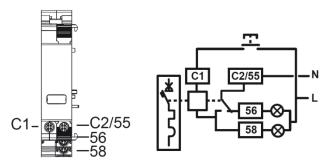
. Cat n 4 062 76



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

# Wiring diagrams: (continued)

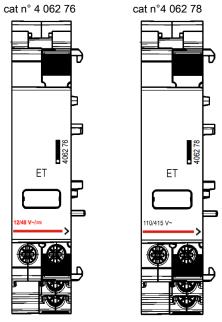
. Cat n 4 062 78



## 5. GENERAL CHARACTERISTICS

# Front face marking:

. By permanent ink pad printing:



- Function name :ET = voltage emission
- Operating voltage range
- Legrand reference code and Logo

#### Operating voltage range (Un):

- . Cat. n° 4 062 76 :
- from 12 to 48 V ~/= (a.c. / d.c.).
- . Cat. n° 4 062 78 :
- from 110 to 415 V~ (a.c.) and from 110 to 125 V = (d.c.).

# Operating range (in % of Un):

. 70 to 115% uf Un.

#### 5. GENERAL CHARACTERISTICS (continued)

## Tripping time:

. ≤ 20 ms.

#### Power absorbed:

- . Cat .n° 4 062 76 :
- Cat ... 1 002 70 .
  - 12 V d.c. = 5,16 W.
  - 12 V a.c. = 6,12 VA.
  - 48 V d.c. = 56,45 W.
  - 48 V a.c. = 94,56 VA.
- . Cat n° 4 062 78 :
  - 110 V d.c. = 6,16 W.
  - 110 V a.c. = 7,97 VA.
  - 125 V d.c. = 7,62 W.
  - 415 V a.c. = 120,76 VA.

#### Coil impedance:

- . Cat.  $n^{\circ}$  406 276 :  $Z = 23 \Omega$ .
- . Cat. n° 406 278 : Z = 1640 Ω.

#### Thermal current:

. Ithe = 6A.

# Rated impulse withstand voltage:

. Uimp = 5kV.

## Insulation voltage:

. Ui = 500 V

# Dielectric strength:

. 2500 V.

# Tripping force:

. 3 Nm.

# Mechanical endurance:

- . 3,000 electrical tripping.
- . These devices support the mechanical cycles of the associated devices

#### Ambient temperatures:

- . Operation: from 25  $^{\circ}$ C to + 70  $^{\circ}$ C.
- . Storage: from 40 °C to + 70 °C.

#### **Enclosure material:**

- . Polycarbonate charged 10% glass fiber.
- . 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).

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#### 5. GENERAL CHARACTERISTICS (continued)

# Degree of class protection:

- . Protection index of terminals against solid and liquid bodies: IP20 (in accordance with standards IEC 529, EN 60529 and NF C 20-010).
- . Protection index of the box against solid and liquid bodies: IP40 (in accordance with standards IEC 529, EN 60529 and NF C 20-010).
- . Protection index against mechanical shocks: IK02 (in accordance with standards EN 50102 and NF C 20-015).

# Sinusoidal vibration resistance in accordance with IEC 60068-2-6.

- . Axes : x, y, z.
- . Frequency range: 5÷100 Hz ; duration 90 minutes
- . Displacement (5÷13,2 Hz) : 1mm
- . Acceleration (13,2÷100 Hz) : 0,7g (g=9,81 m/s<sup>2</sup>)

#### Average weight per device:

. 0,081 kg.

#### Volume when packed:

. 0,21 dm<sup>3</sup>.

# 6. COMPLIANCE AND APPROVALS

#### In accordance with:

.Standards IEC/EN 23-105, EN 60439-1 (Low Voltage Directive 2006/95/EC), EN 60439-3 (Directive EMC 2004/108/EC).

. CEE guidelines : 73/23/CEE + 93/68/CEE

#### Plastic materials:

- . Halogens-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

**La** legrand