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DX³ Undervoltage release (MT)

Cat. N°(s): 4 062 80, 82



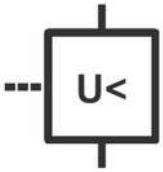
CONTENTS PAGE

1. Description - Use 1
2. Range 1
3. Overall dimensions 1
4. Preparation - Connection 2
5. General Characteristics 3
6. Compliance and approvals 4

1. DESCRIPTION - USE

. Undervoltage release (MT): enable the remote tripping of the associated device.
. This device is equipped by a time delay adjustable from 0 to 300ms to avoid unwanted tripping due to voltage dips of the supply

Symbol:

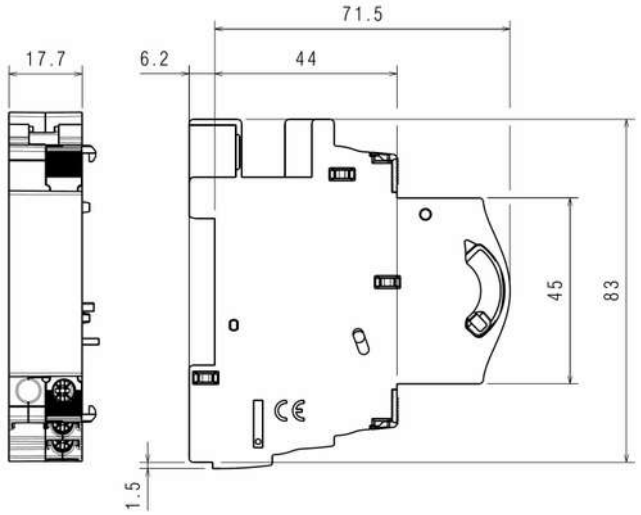


2. RANGE

. Cat n° 406 280 : 24 and 48 V ~/= (a.c. / d.c.).
. Cat n° 406 282 : 230 V ~ (a.c.).

3. OVERALL DIMENSIONS

1 module width.



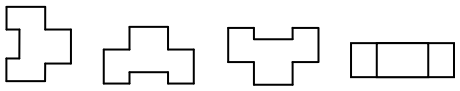
4. PREPARATION CONNECTION

Fixing:

. 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°1 or flat screwdriver 4 mm.
. For the adjustment pawl of the timer: 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**

Manual action of the MT:

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

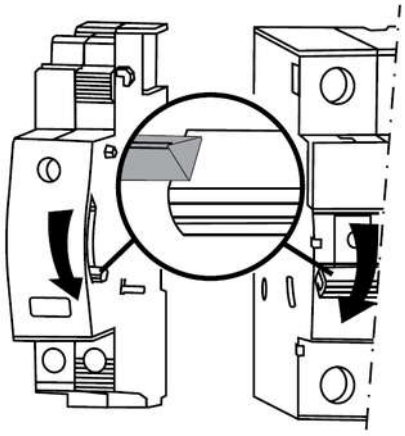
4. PREPARATION –CONNECTION *(continued)*

Display of Undervoltage release state:

. By mechanical indicator on front face:
- red: indicates the tripping of the device by the coil.
- transparent: the undervoltage release is in ON position (armed position, ready for tripping).

Assembling:

. On the left side of Legrand MCB, IS, RCBO or 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).
. For devices 1,5 modules per pole width:
If a Remote tripping auxiliary is already mounted on this kind of device,), under-voltage releases (4 062 80/82) then only 1 module signalling auxiliaries can be added (auxiliary + fault signalling contact or auxiliary contact + auxiliary contact 4 062 64 / 66). In this set up the ½ module signalling auxiliaries will not operate.
Nothing changes for the other modular references.

List of allowed associations (Particular rules):

. With an isolating switch DX-IS:
- only one signalling auxiliary CA type (Cat. n°(s) 4 062 50, 58 64, 66).

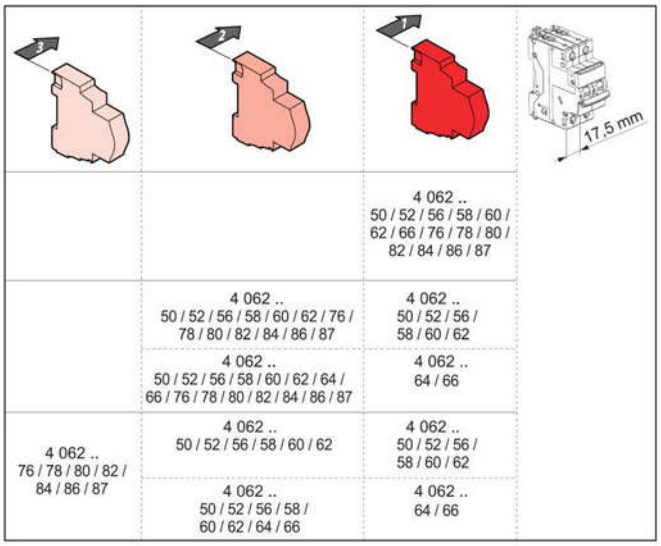
. With a remote trip head isolating switch DX-IS, three auxiliaries maximum which:
- one or two signalling auxiliaries CA type (Cat. n°(s) 4 062 50, 58 64, 66).
- one control auxiliary cat n°(s) 4 062 7x / 8x.

. 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.

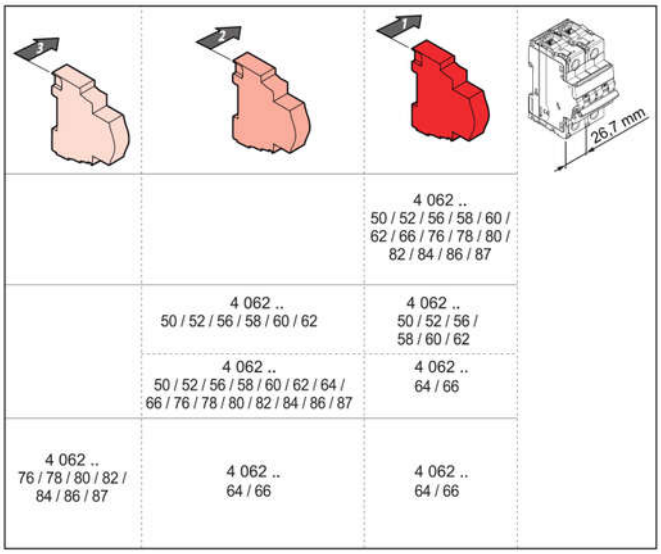
4. PREPARATION –CONNECTION *(continued)*

Combination tables of the auxiliaries:

. For devices 1 module per pole width:

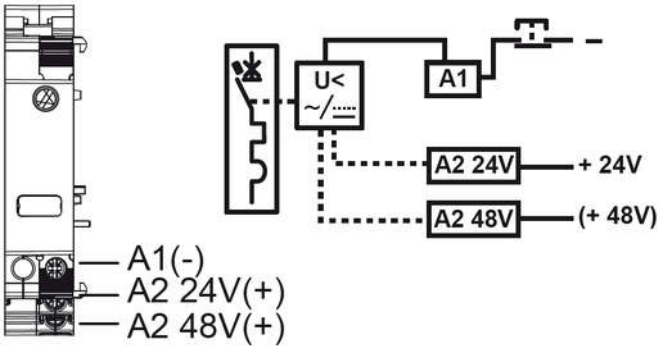


. For devices 1,5 modules per pole width:



Wiring diagrams:

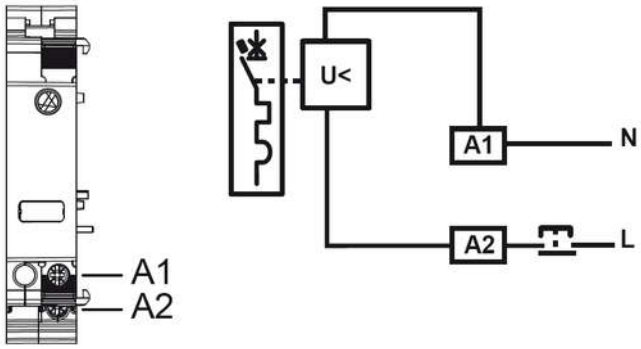
. Cat. n° 4 062 80.



4. PREPARATION –CONNECTION *(continued)*

Wiring diagrams: *(continued)*

. Cat. n° 4 062 82.

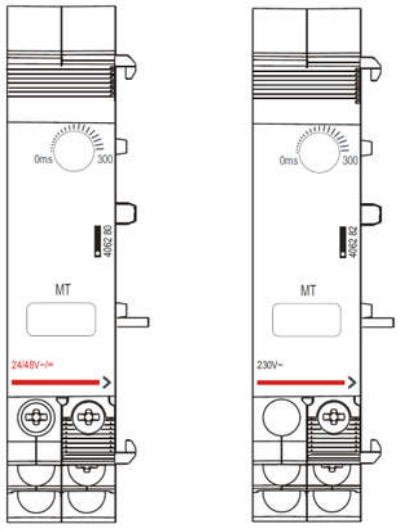


5. GENERAL CHARACTERISTICS

Front side marking:

. By permanent ink pad printing:

Cat. n° 4 062 80 Cat. n° 4 062 82



- Function name :
  MT = Undervoltage release
- Operating voltage
- Time delay setting
- Legrand reference code and Logo .

Operating voltage (Un):

. Cat n° 406 280: 24 and 48 V ~/= (a.c. / d.c.).
. Cat n° 406 282: 230 V~ (a.c.).

Tripping voltage:

. 35% of Un.

Voltage threshold:

. 70% of Un.

Tripping time:

. t ≤ 40 ms with the time delay setting at “0”.
. t = 400 ms (+/- 50%) with the time delay setting at “300”.

5. GENERAL CHARACTERISTICS *(continued)*

Power absorbed:

. Cat. n°4 062 80 :
- 24 V d.c. = 0,1 W
- 24 V a.c. = 0,1 VA
- 48 V d.c. = 0,2 W
- 48 V a.c. = 0,2 VA

. Cat. n°4 062 82 :
- 230 V a.c. = 1 VA.

Rated impulse withstand voltage:

. Uimp = 5kV.

Electromagnetic compatibility:

. Burst: 4 kV.
. Surge 1,2/50 µs : 4 kV differential mode and 5 kV common mode.

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°C. to +70°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 in accordance with standard 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).

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).

5. GENERAL CHARACTERISTICS *(continued)*

Sinusoidal vibration resistance in accordance with IEC 60068-2-6:

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

Average weight per device:

. 0,063 kg.

Volume when packed:

. 0,21 dm^3.

Power dissipated (W) :

. Cat. n° 4 062 80 :
- 24 V ac / d.c = 0,1 W.
- 48 V ac / d.c. = 0,2 W.

. Cat. n° 4 062 82 :
- 230 V a.c. = 1 VA.

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