

RCBO DX3 with switched neutral 6000A (1P+N)

Cat N° (s):
4 188 91 to 4 188 96

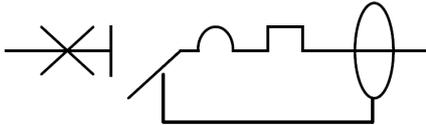


CONTENTS	PAGE
1. Description - Use	1
2. Range	1
3. Overall dimensions	1
4. Preparation – Connection.....	2
5. General characteristics.....	2
6. Conformities and approvals.....	3

1. DESCRIPTION - USE

Residual Current Circuit Breaker with Over Current Protection (RCBO) with positive contact indication for control, protection against short-circuits and overloads, and isolation of electrical circuits, protecting people from direct and indirect contact and protecting installations from insulation faults.

Symbol:



Technology:

- Current limiting device.
- Electronical residual current (Voltage Dependent).

Type :

- A (alternating and pulsating direct currents).

Rated Voltage / Frequency:

- 230/240 V ~, 50/60 Hz with standard tolerances.

Operating voltage~ 50/60 Hz:

U mini	170 V ~
U maxi	264 V ~

Breaking capacity:

- 6000A according to IEC /EN 61009-1

Limitation class:

- 3

Residual breaking capacity IΔm:

- In accordance with standard IEC/EN 61009-1 (IΔm: short-circuit to ground) IΔm = 4500A

2. RANGE

Number of poles:

- 1 pole.

Polarity:

- 1P + N (with switched Neutral)

Rated currents:

- 6 / 10 / 16 / 20 / 25 / 32A

Tripping characteristics and magnetic tripping calibrations:

- C (between 5 and 10 In)

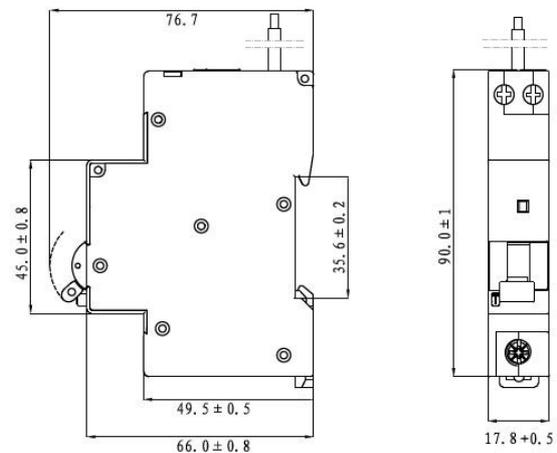
Conventional overcurrent thermal threshold:

- according to IEC/EN 61009-1
- Non-tripping current (I_{nt}): 1.13 I_n.
- Tripping current (I_t): 1.45 I_n.

Sensitivity - Operating time:

- 30 mA instantaneous.

3. OVERALL DIMENSIONS



RCBO with switched neutral 6000A (1P+N)

Cat N° (s):
4 188 91 to 4 188 96

4. PREPARATION - CONNECTION

Fixing:

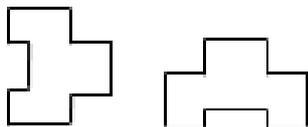
- On symmetric rail IEC/EN 60715 or DIN 35.

Supply:

- From the bottom.

Operating position:

- Vertical, Horizontal



Screw terminals:

Main terminal (L IN):

Connection mode: Pin or Fork busbar

Capacity:

	Without ferrule	With ferrule
Rigid cable	1 x 1,5 mm ² to 35 mm ² 2 x 1,5 mm ² to 16 mm ²	-
Flexible cable	1 x 1,5 mm ² to 25 mm ² 2 x 1,5 mm ² to 10 mm ²	1 x 1,5 mm ² to 25 mm ²

Depth: 14 mm

Sealable: no

Screw head: PZ2

Torque: 2 Nm

Terminals (L OUT) and (N OUT)

Capacity:

	Without ferrule	With ferrule
Rigid cable	1 x 0,75 mm ² to 16 mm ² 2 x 0,75 mm ² to 6 mm ²	-
Flexible cable	1 x 0,75 mm ² to 10 mm ² 2 x 0,75 mm ² to 4 mm ²	1 x 0,75 mm ² to 10 mm ²

Depth: 12 mm

Sealable: no

Screw head: PZ2

Torque: 1.2 Nm

Recommended tools:

- For the main terminal (L IN): screwdriver Pozidriv n° 2 or flat screwdriver 5,5 mm (6,5 mm maximum).

- For the terminals (L OUT) and (N OUT): screwdriver Pozidriv n° 2 or flat screwdriver 4 mm (5,5 mm maximum).

- For fixing on the DIN rail: flat screwdriver 5 mm (from 4 to 5 mm).

Manual actuation of the circuit-breaker:

- By the 2-position ergonomic handle:

1 / ON: Closed circuit.

0 / OFF: Opened circuit.

4. PREPARATION - CONNECTION (continued)

Display of contact status:

- By a mechanical indicator on the front and marking on the front

- "O-OFF" = contacts open

- "I-ON" = contacts closed

Sealing:

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

Neutral tail:

- colour black and length 0,9 m

- conductor section:

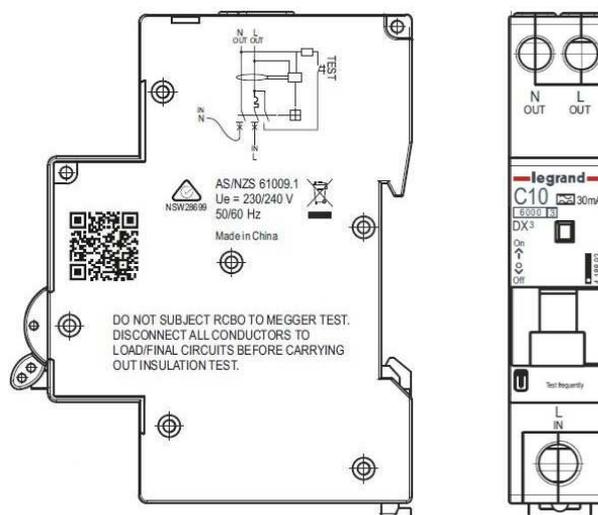
6 / 10 / 16 / 20A 2,5 mm²

25 / 32A 4 mm²

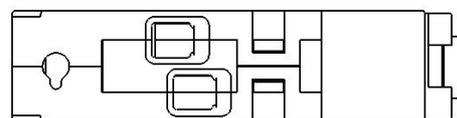
5. GENERAL CHARACTERISTICS

Front and lateral side marking:

- By permanent ink pad printing and laser marking.



Top side:

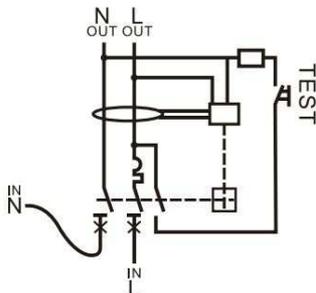


RCBO with switched neutral 6000A (1P+N)

Cat N° (s):
4 188 91 to 4 188 96

5. GENERAL CHARACTERISTICS *(continued)*

Electrical scheme:



Neutral system:

TN.

Rated Insulation voltage:

- $U_i = 500$ V according to IEC/EN 61009-1

Pollution degree:

- 2.

Dielectric strength:

- 2500 V

Rated impulse voltage:

- $U_{imp} = 4$ kV

Mechanical endurance:

- 10000 operations without load.
- 4000 operations with load.

Specific use:

Humidity not exceeding 90%
Altitude not exceeding 2000 meters

5. GENERAL CHARACTERISTICS *(continued)*

Protection against nuisance tripping:

- Damped recurrent wave – $0.5 \mu s/10kHz$: 200A
- Wave 8/20 μs : 250A

Resistance to sinusoidal vibrations:

- According to IEC 60068-2-6.
- Axis : x, y, z.
- Frequency range: $5 \div 100$ Hz ; duration 90 minutes
- Displacement ($5 \div 13,2$ Hz) : 1mm
- Acceleration ($13,2 \div 100$ Hz) : 0,7g ($g=9,81$ m/s²)

Ambient operating temperature:

- Min. = -25° C. Max. = +40° C

Ambient storage temperature:

- Min. = -40° C. Max. = +70° C

Protection class:

- Protection index of terminals against solid and liquid bodies:
IP 20

Enclosure material:

- Polyamide
- Characteristics of this material: self-extinguishing, heat and fire resistant in accordance with standard EN IEC/61009-1, 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).

Average weight per device:

- 0,150 kg

6. CONFORMITIES AND APPROVALS

In accordance with standards:

- IEC 61009-1.
- AS/NZS 61009.1