

Product Data Sheet

Type: Reference: Family: Residual Current Block

AOB

TD3 M06, TD3 M10



Summary:

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1 Objective:

The residual add on blocks (AOB) are intended to be coupled with the multipolar circuit breakers to form a residual circuit breaker device. The operation of coupling being done by the customer according to his requirements in In and $I\Delta n$.

This unit ensures in addition to the current overload and the short-circuits, the protection of the installations against the defect of insulation and the protection of the people against the direct or indirect contacts.

Two types of residual protection exist according to the residual sensitivity (tripping level)(I∆n):

- $(I\Delta n) > 30 \text{ mA}$: Protection of the installations against the defect of insulation(deterioration of the material, fire hazard,...).
- $(I\Delta n) \le 30 \text{ mA}$: Protection of the people against the dangers of electrocution by direct or indirect contact with a live part.

2 Description

The AOB is an electro-magnetic residual triggered which operates without auxiliary source (non-voltage dependent). The AOB is already equipped with the residual relay and core into a single enclosure. The AOB is equipped with an articulated and sealed screw cover. The locking and association system allows an easy mounting on the MCB.

The AOB can be used with all 2 to 4 poles Terasaki MCBs.

The basic circuit breakers keep their current characteristics.

Range AOB up to 63A

The range:

1. All RCD Range description

- RCCB 16-63A
- RCCB 80-100A
- RCBO 2mod
- RCBO 1mod BS
- AOB 63A

1.1. General specification for AOB

- The range is based on Terasaki product range TD3 M06 and TD3 M10: standard range.

3 Technical characteristics

3.1 Mechanical characteristics

• **Technology**: Electro-magnetic = non-voltage dependent

• IP rating : IP2X

Enclosure material: Thermoplastic (Polyamide)
 Glow-wire test: Casing: 960°C; Other parts: 650°C

Service life



Endurance: Mechanical switching operations: 2000 for In <= 25A and 1000 for In>25A

| Electrical endurance | Idn <= 10mA | Idn>10mA |
|---------------------------------|-------------|----------|
| On load switching operations at | 500 | 1000 |
| In,Un x cos φ 0.9 | | |
| Via test button | 750 | 500 |
| By fault current | 750 | 500 |

3.2 Electrical characteristics

Range: 2-pole & 4-pole
Rated current (In): 63A
Sensitivity: 30mA & 300mA

• Rated operational voltage (Ue): 230/400V

• Rated frequency: 50Hz

• Test button :

| | 2 pole | 4 pole |
|------|-----------|-----------|
| Min. | 230 ± 15% | 230 ± 15% |
| Max | 400 ± 15% | 400 ± 15% |

• Impulse withstand voltage (Uimp): 4000V

Peak withstand current: Lightning: Wave 8/20 μs
 AC type: 250A

3.3 Environment

Ambient temperature : -25°C to + 40°C
 Storage temperature : -55°C to + 70°C
 Altitude of installation : 2000m maximum

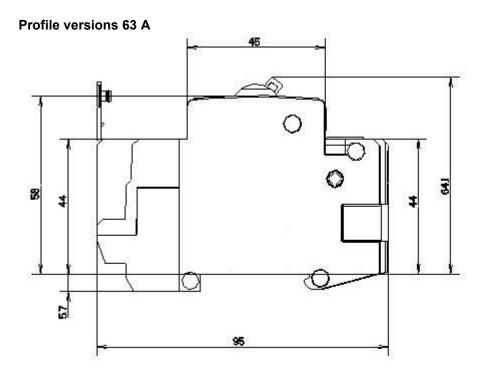
• Working position: Performances not affected if installed vertically, horizontally or flat

• Tropicalisation: All climates* (*Not compatible with salted and chlorinated environments)

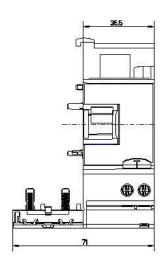
4 Dimension, weight and packaging

| # of poles | 2 | 4 |
|--------------------|------|------|
| Rated Current (A) | 63 | 63 |
| # of modules (with | 4 | 7 |
| MCB) | | |
| Weight (g) | 177g | 275g |
| Qty per pack | 1 | 1 |



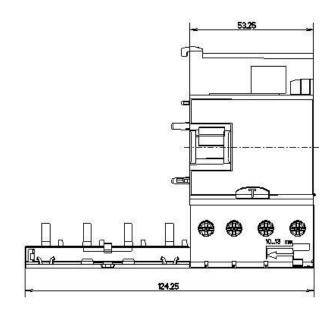


VERSIONS 2 POLES 63 A





VERSIONS 4 POLES 63A

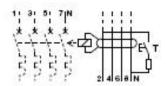


5 Standards:

The combination of AOB and MCB constitutes a residual current device in compliance with EN 61009-1.

6 Installation

• Diagram connection:



• Tightening torque:

| | 63A |
|--------|--------|
| Torque | 3.5 Nm |

Connection capacity

Flexible conductor: 6mm² (25A) et 16mm² (40 et 63A) Rigid conductor: 10mm² (25A) et 25mm² (40 et 63A)

Type of screw head : pozidrive PZ 2
 Mounting : On DIN rail EN 50.022-35

Supply: Supplied by upper terminals of the MCB

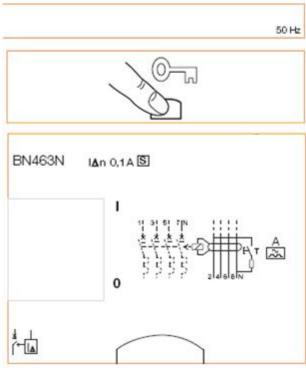
• Type of cable : Only copper cables are suitable

6.1 Product marking

- References and technical data on the product in grey colour (Terasaki grey) = tampoprint TERASAKI logo: in blue color.



Example of existing Terasaki marking:



2. Packaging

RCCB will be single packed in neutral packaging. Over packaging is a brown box without any brand.

3. Certificates

Terasaki is requested to provide identity and conformity declarations (Test Reports and Certificates)

• Current Terasaki Approvals logo on the product:





6.2 General information

Locking kit: possible on MCB

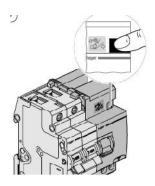
• Earth leakage fault indicator: Yellow printing on the AOB handle



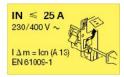
Lock per appendix G of the standard EN 61009-1 :

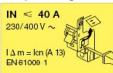
Annex G of the EN 61009-1 standard says that it shall not be possible to assemble an MCB of a given rated current with an AOB of a lower maximum. Moreover after the assembly of the MCB, the set has to be locked by pressing with the screwdriver on the grey bolt (see picture)

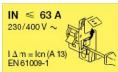




Side stickers depending on rated current :







4. Packaging label

We use a specific white label printed with TERASAKI logo (6U0328) and information:

- Black letters on white label

All the labels will be printed using the Terasaki standard size label from ITEM database.

Languages on the packaging labels:

English

Spanish





7 Range and logistic data

| | | | Hating | internal reference | PRESTURBENT OFFE ENGLISH | Lack quantity | larké Henyt | Pack4 width | 'ank≉ height | l'ark≠ weigl t | (werpatk# kangJ | Overnark≢ ULiw | Overpack≇ Leigh. | (wematk weight |
|-----|----|----------|--------|--------------------|-----------------------------|------------------|----------------|-------------|-----------------|-------------------|--------------------|-------------------|---------------------|-------------------|
| AOB | 2P | 300mA AC | 63 | | Afolon block at 61A H mail | 1 | ኅ | 111 | 4 | 19: ,1175 | 15-7 | 310 | 211 | 5,24kg |
| | 1P | 30mA AC | 63 | | Ada-ar blod: 4F 63A 30 HA | 1 | 75 | 130 | 110 | 380,97g | 307 | 303 | 210 | 5,39kg |
| | 4P | 300mA AC | 63 | | Add-on blod: 1F 63A | 1 | .75 | _30 | 110 | 300,07g | 357 | 303 | 210 | 5.01kg |

4.1. Reference System of Terasaki

The Terasaki range for AOB will be

| Poles | Sensitivity and type | Rating | | |
|-------|----------------------|--------|--|--|
| 2P | 300mA AC | 63 | | |
| 4P | 30mA AC | 63 | | |
| 4P | 300mA AC | 63 | | |