

# Data Sheet for TDURCCB

Range: 2P and 4P RCCB from 25A to 100A, suitable for 50Hz or 60Hz

Reference: **TDURCCB**

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Data Sheet for TDURCCB



## 1 Description

The residual current circuit breakers (RCCB) have only one function: interruption of earth leakage current. There is no thermal or magnetic protection so an RCCB must be protected by an upstream protective device. This protection is normally specified in local electrical installation regulations.

## 2 Range Overview

TDURCCB are distinct from Terasaki's other residual current protective devices in the following ways:

- TD3RCCB is suitable for operation only on 50Hz systems
- TDURCBO includes overcurrent protection
- TD3RCBO is suitable for operation only on 50Hz systems
- TD3 AOB is an add-on block providing residual protection when coupled to an MCB. It is suitable for operation only on 50Hz systems
- TemBreak 2 CBRs (circuit breakers with residual current protection) are moulded case circuit breakers with integrated residual current protection, suitable for use on 50Hz and 60Hz systems
- ELR are a range of residual current relays which rely on a power supply and a circuit breaker or switch with a tripping coil for protection.

### 2.1 Ratings and Types

Types	Ampere Ratings	Poles	Sensitivity
AC, A, Ai, S	25A, 40A, 63A, 80A, 100A	2P, 4P	30mA, 100mA, 300mA

### 2.2 Manufacturing date format on the product and packaging:

Example: 19012017 (19<sup>th</sup> of January 2017)

### 2.3 Packaging label example



- Black letters on white label

### 2.4 Packaging

RCCB will be individually packed.

### 3 Technical characteristics

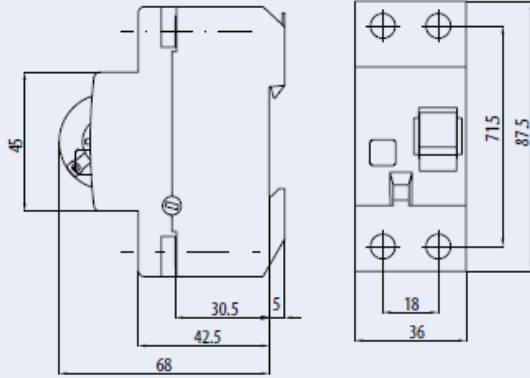
#### 3.1 Technical Characteristics 2-pole

Type	Instantenous	Ai type	S type
<b>Electrical</b>			
Rated voltage $U_n$	240V AC	240V AC	240V AC
Rated current $I_n$	25, 40, 63,100A	25, 40, 63A	40, 63A
Rated frequency $f_n$	50/60Hz	50/60Hz	50/60Hz
Rated Insulation voltage $U_i$	440V	440V	440V
Peak withstand current	-	3kA (8/20ms) surge current proof	5kA (8/20ms) surge current proof
Electrical isolation	> 4mm contact space	> 4mm contact space	> 4mm contact space
Rated residual operating current $I_{\Delta n}$	0.03; 0.1 & 0.3A	0.03 & 0.3A	0.3A
Rated conditional short-circuit current $I_{cn}$	10kA	10kA	10kA
Rated making and breaking capacity $I_m$	800A	800A	630A
Maximum back-up fuse	100A gG	100A gG	100A gG
Isolation class	B	B	B
Standard	IEC/EN 61008	IEC/EN 61008, OVE E 8601	IEC/EN 61008
Mechanical endurance (op. c.)	> 4000	> 4000	> 4000
Electrical endurance (op. c.)	> 2000	> 2000	> 2000
<b>Mechanical</b>			
Frame size	45mm	45mm	45mm
Device height	68mm (DIN rail acc to EN60715)	68mm (DIN rail acc to EN60715)	68mm (DIN rail acc to EN60715)
Device width	36mm (2 x Module units 18mm)	36mm (2 x Module units 18mm)	36mm (2 x Module units 18mm)
Degree of protection	IP20	IP20	IP20
Upper and lower terminals	open mounted/lift terminals	open mounted/lift terminals	open mounted/lift terminals
Terminal capacity	1-25mm <sup>2</sup> (100A 1-35mm <sup>2</sup> )	1-25mm <sup>2</sup>	1-25mm <sup>2</sup>
Terminal screw	M5 (Pozidrive PZ2)	M5 (Pozidrive PZ2)	M5 (Pozidrive PZ2)
Terminal torque	3Nm	3Nm	3Nm
Busbar thickness	0.8 - 2 mm	0.8 - 2 mm	0.8 - 2 mm
Operating temeprature	-25°C ... +55°C	-25°C ... +55°C	-25°C ... +55°C
Storage and transport temperature	-40°C ... +70°C	-40°C ... +70°C	-40°C ... +70°C
Resistance to climatic conditions	IEC/EN 61008	IEC/EN 61008	IEC/EN 61008
Contact position indicator	mechanical red/green	mechanical red/green	mechanical red/green
Supply possibility	Top or bottom	Top or bottom	Top or bottom
Mounting position	any	any	any

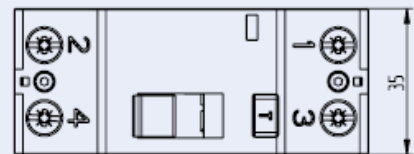
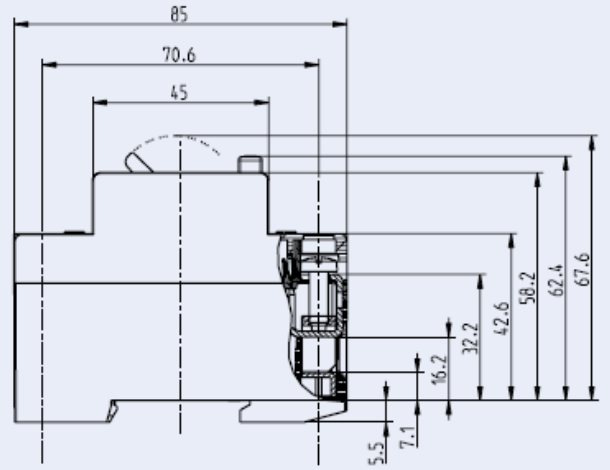
### 3.2 Technical characteristics 4-pole

Type	Instantenous	AI type	S type
<b>Electrical</b>			
Rated voltage $U_n$	415V AC	415V AC	415V AC
Rated current $I_n$	25, 40, 63, 80, 100A	40	40
Rated frequency $f_n$	50/60Hz	50/60Hz	50/60Hz
Rated Insulation voltage $U_i$	440V	440V	440V
Peak withstand current	-	3kA (8/20ms) surge current proof	5kA (8/20ms) surge current proof
Electrical isolation	> 4mm contact space	> 4mm contact space	> 4mm contact space
Rated residual operating current $I_{\Delta n}$	0.03; 0.1 & 0.3A	0.03; 0.1 & 0.3A	0.1 & 0.3A
Rated conditional short-circuit current $I_{cn}$	10kA	10kA	10kA
Rated making and breaking capacity $I_m$	800A	800A	630A
Maximum back-up fuse	100A gG	100A gG	100A gG
Isolation class	B	B	B
Standard	IEC/EN 61008	IEC/EN 61008, OVE E 8601	IEC/EN 61008
Mechanical endurance (op. c.)	> 4000	> 4000	> 4000
Electrical endurance (op. c.)	> 2000	> 2000	> 2000
<b>Mechanical</b>			
Frame size	45mm	45mm	45mm
Device height	68mm (DIN rail acc to EN60715)	68mm (DIN rail acc to EN60715)	68mm (DIN rail acc to EN60715)
Device width	72mm (4 x Module units 18mm)	72mm (4 x Module units 18mm)	72mm (4 x Module units 18mm)
Degree of protection	IP20	IP20	IP20
Upper and lower terminals	open mounted/lift terminals	open mounted/lift terminals	open mounted/lift terminals
Terminal capacity	1-25mm <sup>2</sup> (100A - 1-35mm <sup>2</sup> )	1-25mm <sup>2</sup>	1-25mm <sup>2</sup>
Terminal screw	M5 (Pozidrive PZ2)	M5 (Pozidrive PZ2)	M5 (Pozidrive PZ2)
Terminal torque	3Nm	3Nm	3Nm
Busbar thickness	0.8 - 2 mm	0.8 - 2 mm	0.8 - 2 mm
Operating temeprature	-25°C ... +55°C	-25°C ... +55°C	-25°C ... +55°C
Storage and transport temperature	-40°C ... +70°C	-40°C ... +70°C	-40°C ... +70°C
Resistance to climatic conditions	IEC/EN 61008	IEC/EN 61008	IEC/EN 61008
Contact position indicator	mechanical red/green	mechanical red/green	mechanical red/green
Supply possibility	Top or bottom	Top or bottom	Top or bottom
Mounting position	any	any	any

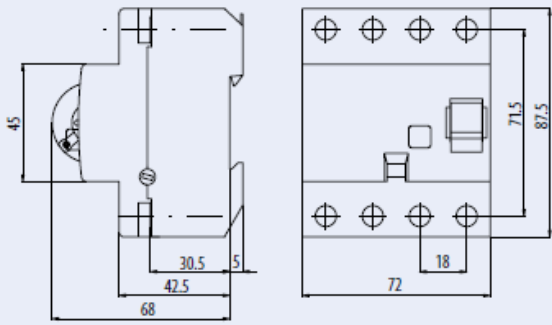
**4 Dimensions**



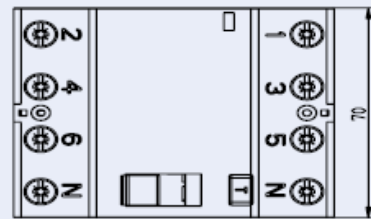
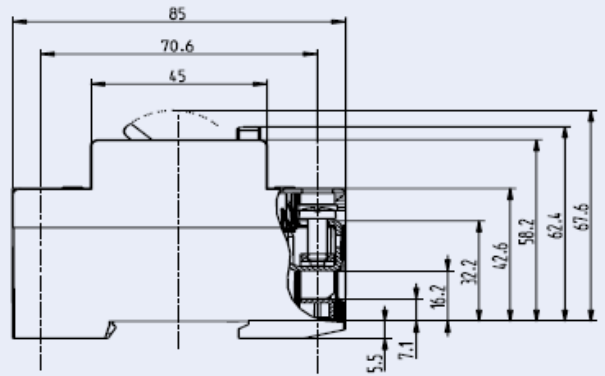
**25-63A RCCB**



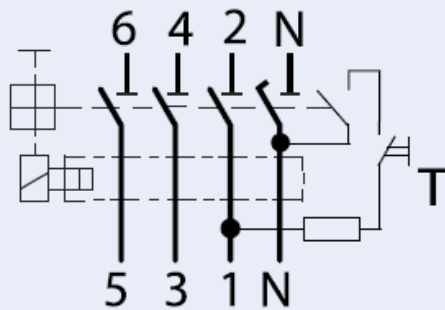
**100A RCCB**



**25 -80A RCCB**




**100A RCCB**



**25-80A**



## 5 Standards

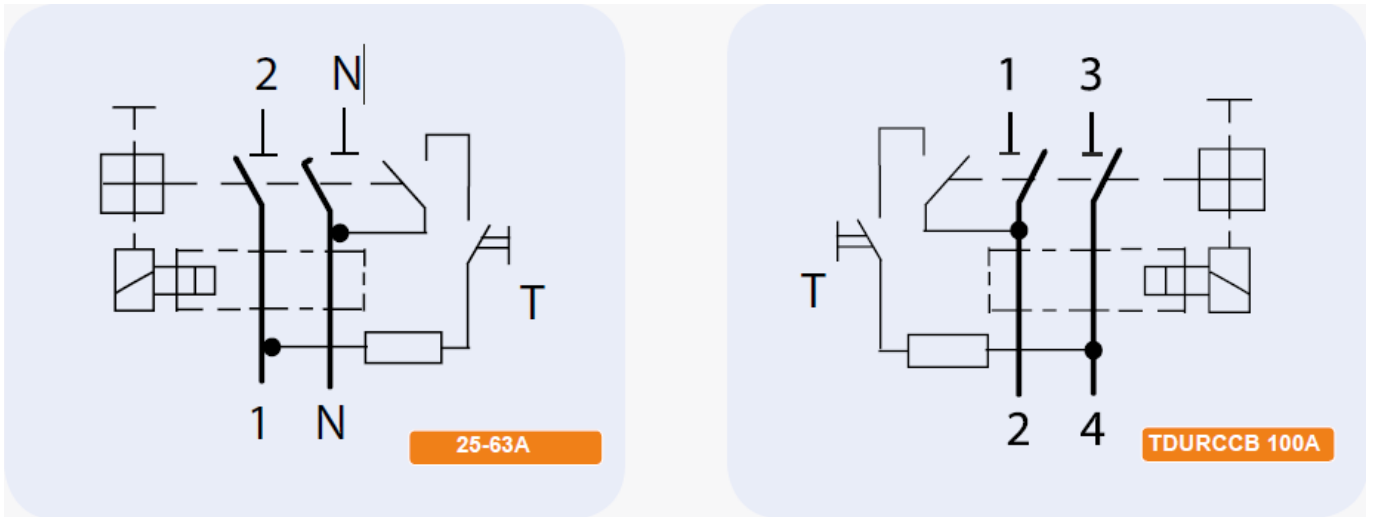
 Marking on the products

### 5.1 Product conformity

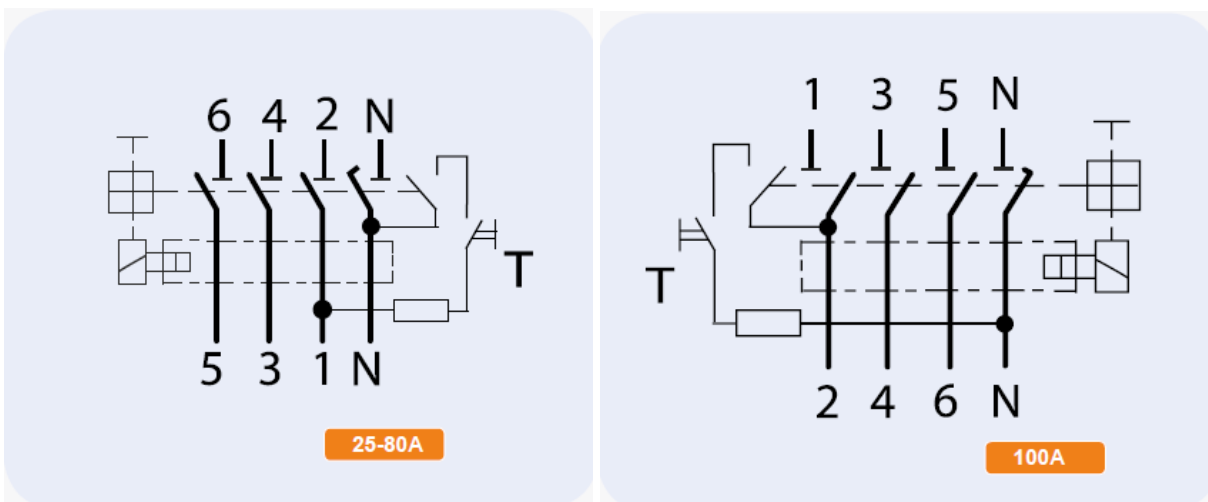
TDURCCBs are approved IEC/EN 61008-1

## 6 Installation

### Connection Diagram 2-pole



### Connection Diagram 4-pole



## 7 Accessories

An optional side-mounted auxiliary switch indicates the position of the main contacts.

Technical data :

Rated current $I_n$	6 A (230 V AC), AC 12,
Rated current $I_n$	1 A (110 V DC), DC 12
Conditional short-circuit current	1 kA with fuse-link 20 A
Mounting position	any
Standards	EN 62019

Dimensions

