

○ Single Module A Type BI-Directional 10kA RCBO

Description

The WRT1 range of RCBOs combines Type A and Type AC RCD protection in a single, compact device. Each RCBO provides both residual current and overload protection, ensuring comprehensive circuit safety. Designed to detect and respond to AC and pulsating DC residual currents, the WRT1 range is ideal for a wide variety of domestic and commercial applications.

Switched Live and Neutral

The WRT range of RCBOs features a switched neutral as standard, ensuring complete isolation of faulty or damaged circuits by disconnecting both live and neutral conductors. This design provides the highest level of circuit protection available.

Using WRT RCBOs guarantees that healthy circuits remain in service, while only the affected circuit is disconnected — enhancing safety and minimising inconvenience in the event of a fault. With the switched neutral built in, there is no need to disconnect live or neutral conductors during insulation testing, saving both time and costs during installation and maintenance.

Bi-Connect terminal

The innovative bi-connect terminal offers maximum installation flexibility, supporting both cable or pin busbar connections in the cage

Bi-Directional

The WRT1 RCBO is engineered for bi-directional performance, providing reliable protection for modern photovoltaic (PV) and electric vehicle (EV) applications.

For ease of installation, the device features clear "IN," "OUT," and "LOAD" markings that indicate the direction of power flow, helping ensure safe and correct connections. Power supplies should never be connected to the load or output terminals.

| Part No. | Description |
|-------------|--|
| WRT106-030B | A-Type single mod 1P+N 6Amp B Curve 30mA High Immunity RCBO |
| WRT110-030B | A-Type single mod 1P+N 10Amp B Curve 30mA High Immunity RCBO |
| WRT116-030B | A-Type single mod 1P+N 16Amp B Curve 30mA High Immunity RCBO |
| WRT120-030B | A-Type single mod 1P+N 20Amp B Curve 30mA High Immunity RCBO |
| WRT125-030B | A-Type single mod 1P+N 25Amp B Curve 30mA High Immunity RCBO |
| WRT132-030B | A-Type single mod 1P+N 32Amp B Curve 30mA High Immunity RCBO |
| WRT140-030B | A-Type single mod 1P+N 40Amp B Curve 30mA High Immunity RCBO |
| WRT150-030B | A-Type single mod 1P+N 50Amp B Curve 30mA High Immunity RCBO |
| WRT106-030C | A-Type single mod 1P+N 6Amp C Curve 30mA High Immunity RCBO |
| WRT110-030C | A-Type single mod 1P+N 10Amp C Curve 30mA High Immunity RCBO |
| WRT116-030C | A-Type single mod 1P+N 16Amp C Curve 30mA High Immunity RCBO |
| WRT120-030C | A-Type single mod 1P+N 20Amp C Curve 30mA High Immunity RCBO |
| WRT125-030C | A-Type single mod 1P+N 25Amp C Curve 30mA High Immunity RCBO |
| WRT132-030C | A-Type single mod 1P+N 32Amp C Curve 30mA High Immunity RCBO |
| WRT140-030C | A-Type single mod 1P+N 40Amp C Curve 30mA High Immunity RCBO |
| WRT150-030C | A-Type single mod 1P+N 50Amp C Curve 30mA High Immunity RCBO |



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|---------------------|--|-------------------------------------|
| | Standard | IEC61009-1 , EN61009-1 |
| Electrical features | Rated current I_n (A) | 2,4, 6, 10, 16, 20, 25, 32, 40 |
| | Type | Electronic |
| | Type (wave form of the earth leakage sensed) | A Type |
| | Poles | 1P+N(Switched Live and Neutral) |
| | Rated voltage U_e (V) | 230 |
| | Rated sensitivity $I_{\Delta n}$ | 30mA |
| | Insulation voltage U_i (V) | 500 |
| | Rated frequency | 50/60Hz |
| | Rated breaking capacity | 10kA |
| | Rated residual making and breaking capacity $I_{\Delta m}$ (A) | 3000 |
| | Rated impulse withstand voltage(1.2/50) U_{imp} (V) | 4000 |
| | Break time under $I_{\Delta n}$ (s) | ≤ 0.1 |
| | Dielectric test voltage at ind. Freq. for 1 min (kV) | 2 |
| | Pollution degree | 2 |
| | Thermo-magnetic release characteristic | B, C |
| Mechanical features | Electrical life | 2, 000 |
| | Mechanical life | 10, 000 |
| | Contact position indicator | Yes |
| | Protection degree | IP20 |
| | Reference temperature for setting of thermal element($^{\circ}\text{C}$) | 30 |
| | Ambient temperature (with daily average $\leq 35^{\circ}\text{C}$) | -5...+40 |
| | Storage temperature ($^{\circ}\text{C}$) | -25...+70 |
| Installation | Terminal connection type | Cable/U-type busbar/Pin-type busbar |
| | Terminal size top for cable | 10mm ² |
| | Terminal size bottom for cable | 16mm ² / 18-8 AWG |
| | Terminal size top/bottom for Busbar | 10mm ² / 18-8 AWG |
| | Tightening torque | 2.5 N*m / 22 In-lbs. |
| | Mounting | On DIN rail EN 60715 (35mm) |
| | Connection | From bottom |

Temperature derating

The maximum permissible current in a circuit breaker depends on the ambient temperature where the circuit breaker is placed. Ambient temperature is the temperature inside the enclosure or switchboard in which the circuit breakers are installed. The reference temperature is 30°C Ambient temperature: -5°C ~+40°C .

| Temperature | -10°C | 0°C | 10°C | 20°C | 30°C | 40°C | 50°C | 60°C |
|---|-------|-------|-------|-------|-------|-------|-------|-------|
| Temperature compensation coefficient of rated current | 1. 20 | 1. 15 | 1. 10 | 1. 05 | 1. 00 | 0. 95 | 0. 90 | 0. 85 |