



## WRU-10-RAL

WRU-10-RAL, Residual current relay

Code: P24453.

- > Usefull diam.(mm): 28
- >  $I_{\Delta n}$  (A): 0,03 ... 3 A | 0,03 ... 30 A
- > Delay: 0,02...10 s, INS, SEL
- > Nr. reclosures: Programmable
- > Time between reclosures: Programmable
- > Breaking element: Contactor
- > Type of protection: Type A

### Description

Electronic residual current protection relay with self-reclosing system, with built-in 28 mm transformer, forming a single unit. Super-immunised type-A relay with high-frequency current filtering and high immunity. True root mean square (TRMS) measure. Display with LEDs and backlit display:

- Residual current reclosing / protection parameters
- Protection trip current.
- Number of reclosures
- Protection status messages, etc.

Device with three changeover contact output relays and two simple relays (all relays can be programmed). The main relay provides the protection associated with the contactor, one is for the prealarm and the other one is for interlocking once the maximum number of reclosures has been reached. It also has a voltage-free input for external tripping and rearming.

- Assembly on **DIN 46277** rail (**EN-50022**)
- Compact size: 3 modules
- Connection by pluggable terminal strips

### Application

**WRU-10 RAL** relays associated with a contactor allow automatic reclosing after tripping, thus offering the most adequate solution for street lights, ATMs, refrigerating chambers, traffic lights, etc. Their design features guarantee maximum security and electrical service continuity, avoiding unwanted tripping.



## WRU-10-RAL

Residual current relay with built-in transformer and display (type A)

Code: P24453.

### Specifications

#### AC power supply

|                 |                               |
|-----------------|-------------------------------|
| Consumption     | 4,5 VA                        |
| Frequency       | 50/60 Hz                      |
| Nominal voltage | 230 V ~ ±30 % / 110 V ~ ±10 % |

#### Mechanical characteristics

|                                  |                        |
|----------------------------------|------------------------|
| Size (mm) width x height x depth | 52.5 x 109.4 x 75 (mm) |
| Fastening                        | DIN 46277 (EN 50022)   |
| Weight (kg)                      | 0,17                   |

#### Environmental characteristics

|  |                |
|--|----------------|
| Protection class                         | IP 20          |
| Relative humidity (without condensation) | 95%            |
| Operating temperature                    | -20 ... +70 °C |

#### External reset input for tripping

|      |                             |
|------|-----------------------------|
| Type | Voltage free, not insulated |
|------|-----------------------------|

#### Standards

|                                       |                                     |
|---------------------------------------|-------------------------------------|
| Electrical safety, Maximum height (m) | 2000                                |
| Standards                             | IEC 60947-2-M, IEC 60755, IEC 62020 |

#### Other digital relay outputs

|                 |         |
|-----------------|---------|
| Nominal load    | 1250 VA |
| Nominal current | 5 A ~   |
| Nominal voltage | 250 V ~ |

#### Digital relay outputs

|                 |          |
|-----------------|----------|
| Nominal load    | 62,5 VA  |
| Nominal current | 0,25 A ~ |
| Nominal voltage | 230 V ~  |

#### Differential protection

|                                   |   |
|-----------------------------------|---|
| Type                              | Type A ultra-immunised  |
| Sensitivity ( $I_{\Delta n}$ ), A | 0,03 ... 3 / 5-10-30 (Setup)  |
| Delay time ( $t_{\Delta}$ )       | Direct setting: 0.02 ... 1 s Programmable: 3-5-10 s Inverse curve: Instantaneous or selective |



## WRU-10-RAL

Residual current relay with built-in transformer and display (type A)

Code: P24453.

### Protection

|                |   |
|----------------|---|
| LED indication | Power supply voltage Earth leakage tripping Prealarm Latching |
| Measure        | True root mean square (TRMS)                                  |

### Reclosure type

|                  |              |
|------------------|--------------|
| Reclosure number | Programmable |
| Reset time       | Programmable |
| Reclosure time   | Programmable |

### WRU-10RAL

Type A ultraimmunized residual current relay with reconnection and built-in transformers

| CODE    | TYPE            | $I_{\Delta n}$ (A)           | Breaking element |
|---------|-----------------|------------------------------|------------------|
| P24453. | WRU-10-RAL      | 0,03 ... 3 A   0,03 ... 30 A | Contactora       |
| P24457. | WRU-10-RAL0,3-1 | 0,3 ... 1 A                  | Contactora       |

Requires an residual current transformer, WGC type (not included). The breaking element to be associated must be a contactor not included. To encode other parameters, see the table at the end of the section.



## WRU-10-RAL

Residual current relay with built-in transformer and display (type A)

Code: P24453.

### Dimensions

