

# Voltage monitoring relays

# U1D U1M

## Protections

- ⚡ Phase imbalance or phase loss
- ⚡ Phase sequence
- $U>$  Overvoltage
- $U<$  Undervoltage

## Single-phase voltage relay

- Minimum and maximum thresholds adjustable (two potentiometers).
- **U1D**: Tripping time delay adjustable. Instantaneous reset. Protects equipment such as digital instruments or electrical equipment from voltage variations in the network.
- **U1M**: Tripping time delay adjustable. Fixed reset delay (5 minutes). Suitable for single phase air conditioning.

**U1 D**



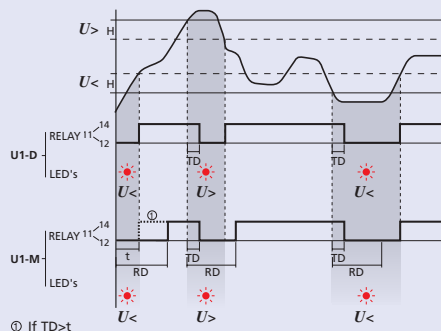
**U1 M**



| Protections       |        | $U>$ $U<$ |          |          | $U>$ $U<$ |          |          |
|-------------------|--------|-----------|----------|----------|-----------|----------|----------|
| Models            |        | U1D-24D   | U1D-115  | U1D-230  | U1M-24D   | U1M-115  | U1M-230  |
| Frequency         |        | DC        | 50/60 Hz | 50/60 Hz | DC        | 50/60 Hz | 50/60 Hz |
| Maximum threshold | V / Hz | 23-28     | 105-135  | 215-275  | 23-28     | 105-135  | 215-275  |
| Minimum threshold | V / Hz | 19-25     | 90-120   | 160-230  | 19-25     | 90-120   | 160-230  |
| Code no.          |        | 12028     | 12026    | 12027    | 12080     | 12081    | 12082    |

## Characteristics

|                                        |                                                           |
|----------------------------------------|-----------------------------------------------------------|
| Type of supply to be monitored         | Single phase                                              |
| Auxiliary supply $\pm 10\%$            | Self-powered                                              |
| Accuracy                               | $U> +4\% -1\%$ ; $U< +1\% -4\%$                           |
| Trip time delay (TD)                   | 0,1 to 6s ( $\pm 20\%$ ) for $U>$ $U<$                    |
| Reset time delay (RD)                  | <b>U1D</b> : No / <b>U1M</b> : fix 5 min.                 |
| Reset mode                             | Automatic                                                 |
| Hysteresis                             | 4% of the nominal voltage                                 |
| Signalling LED's                       | 3 LED's: ON + $U>$ + $U<$                                 |
| Output contacts                        | 1 relay with 1 change-over NO - NC                        |
| Switching power                        | $I_{th}$ : 5A; AC15 - 250V - 2A; DC13 - 30V - 2A          |
| Terminals: Max. section / Screw torque | 2,5 mm <sup>2</sup> , No. 22 - 12AWG / 20Ncm, 1.8 LB - IN |
| Power consumption                      | 3 VA (115 Vac) - 7 VA (230 Vac) - 0,7W (24 Vdc)           |
| Protection degree / weight             | IP20 / 0,11 kg                                            |
| Storage / operation temperature        | -30°C +70 °C / -15°C +60°C                                |



## Dimensions

