RM17TE00
multifunction control relay RM17-TE - range
183..528 V AC

Main
Range of product Zelio Control
Product or component type Modular measurement and control relays
Relay type Multifunction control relay
Product specific application For 3-phase supply
Relay name RM17TE
Relay monitored parameters Undervoltage and overvoltage in window mode
Asymmetry
Phase sequence
Phase failure detection
Time delay Adjustable 0.1...10 s, +/- 10 % of the full scale value
Switching capacity in VA 1250 VA
Measurement range 208..480 V voltage AC

Complementary
Reset time 1500 ms time delay
Maximum switching voltage 250 V AC
  250 V DC
Minimum switching current 10 mA at 5 V DC
Maximum switching current 5 A AC
  5 A DC
Supply voltage limits 183…528 V AC
Control circuit voltage limits - 12 % + 10 % Un
Power consumption in VA 0…22 VA at 400 V AC 50 Hz
Control circuit frequency 50...60 Hz +/- 10 %
Output contacts 1 C/O
Nominal output current 5 A
Measurement voltage limits 183…528 V AC
Hysteresis 2 %
Delay at power up 650 ms
<table>
<thead>
<tr>
<th><strong>Maximum measuring cycle</strong></th>
<th>150 ms measurement cycle as true rms value</th>
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| **Threshold adjustment voltage** | -2...-17 % in the range 220 V AC  
+2...+17 % in the range 480 V AC  
-2...-12 % in the range 208 V AC  
2...20 % of Un selected |
| **Voltage range** | 208...480 V phase to phase |
| **Adjustment of asymmetry threshold** | 5...15 % of Un selected |
| **Repeat accuracy** | 0.5 % for input and measurement circuit  
3 % for time delay |
| **Measurement error** | < 0.05 %/°C with temperature variation  
< 1 % over the whole range with voltage variation |
| **Phase failure sensitivity** | 0.7 Un |
| **Response time** | < 200 ms (in the event of a fault) |
| **Marking** | CE |
| **Overvoltage category** | III conforming to IEC 60664-1 |
| **Insulation resistance** | > 500 MOhm at 500 V DC conforming to IEC 60255-5  
> 500 MOhm at 500 V DC conforming to IEC 60664-1 |
| **[Ui] rated insulation voltage** | 400 V conforming to IEC 60664-1 |
| **Supply frequency** | 50/60 Hz +/- 10 % |
| **Operating position** | Any position without |
| **Connections - terminals** | Screw terminals, 1 x 0.5...1 x 4 mm² (AWG 20...AWG 11) solid without cable end  
Screw terminals, 2 x 0.5...2 x 2.5 mm² (AWG 20...AWG 14) solid without cable end  
Screw terminals, 1 x 0.2...1 x 2.5 mm² (AWG 24...AWG 12) flexible with cable end  
Screw terminals, 2 x 0.2...2 x 1.5 mm² (AWG 24...AWG 16) flexible with cable end |
| **Tightening torque** | 0.6...1 N.m conforming to IEC 60947-1 |
| **Housing material** | Self-extinguishing plastic |
| **Local signalling** | LED (green)power ON:  
LED (yellow)relay ON: |
| **Mounting support** | 35 mm symmetrical DIN rail conforming to EN/IEC 60715 |
| **Electrical durability** | 1000000 cycles |
| **Operating rate** | <= 360 operations/hour full load |
| **Utilisation category** | AC-12 conforming to IEC 60947-5-1  
AC-13 conforming to IEC 60947-5-1  
AC-14 conforming to IEC 60947-5-1  
AC-15 conforming to IEC 60947-5-1  
DC-12 conforming to IEC 60947-5-1  
DC-13 conforming to IEC 60947-5-1 |
| **Safety reliability data** | MTTFd = 502.2 years  
B10d = 470000 |
| **Width** | 17.5 mm |
| **Net weight** | 0.13 kg |

**Environment**

| **Electromagnetic compatibility** | Emission standard for industrial environments conforming to EN/IEC 61000-6-4  
Emission standard for residential, commercial and light-industrial environments conforming to EN/IEC 61000-6-3  
Immunity for industrial environments conforming to EN/IEC 61000-6-2 |
| **Standards** | EN/IEC 60255-1 |
| **Product certifications** | GOST  
C-Tick  
CSA  
UL  
GL |
| **Directives** | 89/336/EEC - electromagnetic compatibility  
73/23/EEC - low voltage directive |
| **Ambient air temperature for storage** | -40...70 °C |
| **Ambient air temperature for operation** | -20...50 °C |
| **Relative humidity** | 95 % at 55 °C conforming to IEC 60068-2-30 |
| **Vibration resistance** | 0.35 mm (f= 5...57.6 Hz) conforming to IEC 60068-2-6 |
1 gn (f= 57.6…150 Hz) conforming to IEC 60255-21-1

**Shock resistance**
15 gn for 11 ms conforming to IEC 60255-21-1

**IP degree of protection**
IP20 (terminals) conforming to IEC 60529
IP30 (casing) conforming to IEC 60529

**Pollution degree**
3 conforming to IEC 60664-1

**Dielectric test voltage**
2 kV, 1 min AC 50 Hz conforming to IEC 60255-5
2 kV, 1 min AC 50 Hz conforming to IEC 60664-1

**Non-dissipating shock wave**
4 kV conforming to IEC 60255-5
4 kV conforming to IEC 60664-1
4 kV conforming to IEC 61000-4-5

### Offer Sustainability

- **Sustainable offer status**: Green Premium product
- **REACH Regulation**: REACH Declaration
- **EU RoHS Directive**: Pro-active compliance (Product out of EU RoHS legal scope)
  - EU RoHS Declaration
- **Mercury free**: Yes
- **RoHS exemption information**: Yes
- **China RoHS Regulation**: China RoHS declaration
- **Environmental Disclosure**: Product Environmental Profile
- **Circularity Profile**: End of Life Information

**WEEE**
The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

### Contractual warranty

**Warranty**: 18 months
Multifunction 3-Phase Supply Control Relays

Dimensions and Mounting

[Diagram showing dimensions in millimeters]
Multifunction 3-Phase Supply Control Relays

Wiring Diagram
Function Diagrams

Phase Sequence Control, Phase Failure Detection (U measured < 0.7 x nominal supply voltage) and Asymmetry Detection

Control of Overvoltage and Undervoltage in Window Mode

Legend
A Asymmetry threshold (adjustable from 5...15% of the nominal supply voltage)
T1 Time delay after crossing of threshold (adjustable on front panel)
H Hysteresis
U> Overvoltage threshold
U< Undervoltage threshold
L1, L2, L3 Phases of the supply voltage monitored
11-12, 11-14 Output relay connections (refer to Connections and Schema)
Relay status: black color = energized.