



Main

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|------------------------------|---|
| 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 | RM35TF |
| Relay monitored parameters | Asymmetry Phase failure detection Phase sequence Undervoltage and overvoltage in window mode |
| Time delay type | 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

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|-----------------------------------|---|
| Reset time | <= 1500 ms at 480 V |
| 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 | 194...528 V AC, 3 phases |
| Control circuit voltage limits | - 12 % + 10 % Un |
| Power consumption in VA | 0...22 VA at 400 V AC 50 Hz |
| Voltage detection threshold | < 194 V |
| Control circuit frequency | 50...60 Hz +/- 10 % |
| Output contacts | 2 C/O |
| Nominal output current | 5 A |
| Measurement voltage limits | 176...528 V AC |
| Hysteresis | 2 % |
| Run-up delay at power-up | <= 650 ms |
| Measuring cycle | <= 140 ms measurement cycle as true rms value |
| Threshold adjustment voltage | +2...+10 % in the range 480 V AC +2...+20 % in the range 220...440 V AC -12...-2 % in the range 220 V AC 2...20 % of Un selected -20...-2 % in the range 380...480 V AC |
| Voltage range | 220...480 V phase to phase |
| Adjustment of asymmetry threshold | 5...15 % of Un selected |
| Repeat accuracy | 0.3 % time delay 0.5 % input and measurement circuit |
| Measurement error | < 1 % over the whole range with voltage variation 0.05 %/°C with temperature variation |
| 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 |
| [Uij] rated insulation voltage | 400 V conforming to IEC 60664-1 |
| Supply frequency | 50/60 Hz +/- 10 % |

The information provided in this documentation contains general descriptions and/or technical characteristics of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

| | |
|-------------------------|--|
| Operating position | Any position without |
| Connections - terminals | Screw terminals 1 x 0.5...1 x 4 mm ² - AWG 20...AWG 11, solid cable without cable end Screw terminals 2 x 0.5...2 x 2.5 mm ² - AWG 20...AWG 14, solid cable without cable end Screw terminals 1 x 0.2...1 x 2.5 mm ² - AWG 24...AWG 12, flexible cable with cable end Screw terminals 2 x 0.2...2 x 1.5 mm ² - AWG 24...AWG 16, flexible cable with cable end |
| Tightening torque | 5.31...8.85 lbf.in (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 LED yellow fault |
| Mounting support | 35 mm symmetrical DIN rail conforming to EN/IEC 60715 |
| Electrical durability | 100000 cycles |
| Mechanical durability | <= 30000000 cycles |
| Operating rate | <= 360 operations/hour under 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 = 399.5 years B10d = 360000 |
| Width | 1.38 in (35 mm) |
| Product weight | 0.29 lb(US) (0.13 kg) |

Environment

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|---------------------------------------|---|
| 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 | CSA C-Tick GL GOST UL |
| directives | 89/336/EEC - electromagnetic compatibility 73/23/EEC - low voltage directive |
| ambient air temperature for storage | -40...158 °F (-40...70 °C) |
| ambient air temperature for operation | -4...122 °F (-20...50 °C) |
| relative humidity | 95 % at 131 °F (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 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 |
| non-dissipating shock wave | 4 kV |

Offer Sustainability

| | |
|---|---|
| Green Premium product | Green Premium product |
| Compliant - since 0701 - Schneider Electric declaration of conformity | Compliant - since 0701 - Schneider Electric declaration of conformity |
| Reference not containing SVHC above the threshold | Reference not containing SVHC above the threshold |
| Available | Available |
| Available | Available |
| WARNING: This product can expose you to chemicals including: | WARNING: This product can expose you to chemicals including: |

Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm.

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For more information go to www.p65warnings.ca.gov

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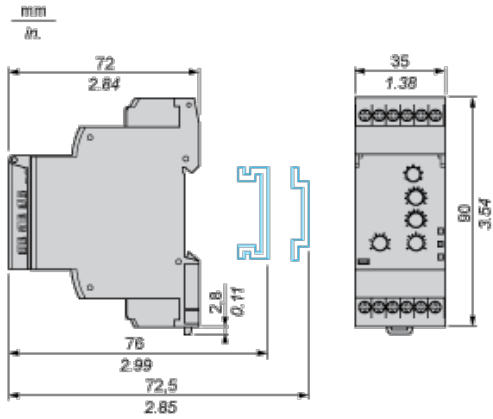
Contractual warranty

Warranty period

18 months

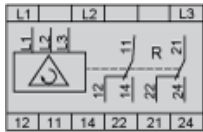
Multifunction 3-Phase Supply Control Relays

Dimensions and Mounting



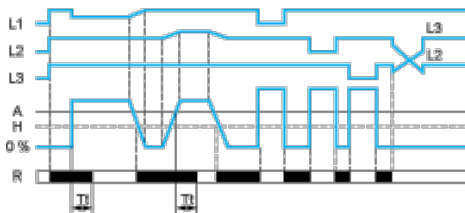
Multifunction 3-Phase Supply Control Relays

Wiring Diagram

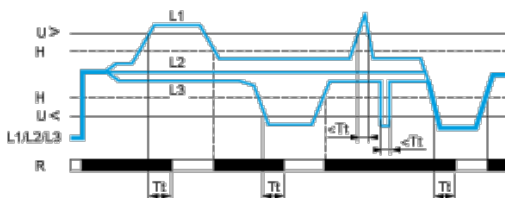


Function Diagrams

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



Control of Overvoltage and Undervoltage in Window Mode



Legend

A Asymmetry threshold

Tt Time delay after crossing of threshold

H Hysteresis

U> Overvoltage threshold

U< Undervoltage threshold

L1, L2, L3 Phases of the supply voltage monitored

R Output relay

Relay status: black color = energized.

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[RM35TF30](#)