# Product data sheet

Specifications



## 3 phase control relay, Harmony Control Relays, 480 to 690V AC, phase sequence, phase failure, phase imbalance, UV and OV

RM35TF36

**Product availability: Stock - Normally stocked in distribution facility**

## Main

| | |
|---|---|
| **Range of Product** | Harmony Control Relays |
| **Relay Type** | Multifunction control relay |
| **Product or Component Type** | 3-phase control relay |
| **Relay name** | RM35TF |
| **Relay monitored parameters** | Undervoltage and overvoltage in window mode<br>Phase sequence<br>Phase failure detection<br>Asymmetry |
| **Control Type** | Without test button |
| **Contacts type and composition** | 2 C/O |
| **[Uc] control circuit voltage** | 480...690 V |
| **Product Specific Application** | For 3-phase supply |

## Complementary

| | |
|---|---|
| **[Us] rated supply voltage** | 480...690 V AC, self-powered |
| **Supply voltage limits** | 384…828 V AC, 3 phase |
| **Supply frequency** | 50/60 Hz +/- 5 % |
| **Power consumption in VA** | 0…22 VA 690 V AC 50 Hz<br>0…26 VA 690 V AC 60 Hz |
| **Measurement range** | 480...690 V AC |
| **Measurement voltage limits** | 384…828 V AC |
| **Voltage detection threshold** | < 300 V |
| **Maximum measuring cycle** | 140 ms measurement cycle as true rms value |
| **Threshold adjustment voltage** | -20...+20 % in the range 480...690 V AC |
| **Hysteresis** | 2 % fixed |
| **Adjustment of asymmetry threshold** | 5...15 % of Un selected |
| **Measurement error** | < 1 % over the whole range with voltage variation<br>0.05 %/°C with temperature variation |
| **Time delay type** | Adjustable 0.1...10 s, +/- 10 % of the full scale value Tt- time delay upon fault |
| **Setting accuracy of time delay** | 10 % |
| **Reset time** | 1500 ms at 480 V |
| **Response time** | < 300 ms (in the event of a fault) |
| **Output contacts** | 2 C/O |

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: 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

| | |
|---|---|
| **nominal output current** | 5 A |
| **Maximum switching voltage** | 250 V AC |
| **Switching capacity in VA** | 1250 VA |
| **Minimum switching current** | 10 mA 12 V DC |
| **Maximum switching current** | 5 A AC<br>5 A DC |
| **Electrical durability** | 100000 cycles |
| **Mechanical durability** | 30000000 cycles |
| **Control circuit voltage limits** | - 20 % + 20 % Un |
| **Control circuit frequency** | 50...60 Hz +/- 5 % |
| **Tightening torque** | 5.3...8.8 lb.in<br>0.6...1 N.m |

## Environment

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|---|---|
| **Electromagnetic compatibility** | Emission standard for industrial environments conforming to IEC 61000-6-4<br>Emission standard for residential, commercial and light-industrial environments conforming to IEC 61000-6-3<br>Immunity for industrial environments conforming to IEC 61000-6-2 |
| **Standards** | EN/IEC 60255-1 |
| **Product Certifications** | DNV-GL<br>UL<br>CSA<br>RCM<br>CCC<br>CE<br>UKCA |
| **Marking** | WEEE<br>China RoHS<br>ROHS |
| **Ambient Air Temperature for Storage** | -40…158 °F (-40…70 °C)<br>-40…158 °F (-40…70 °C) |
| **Ambient air temperature for operation** | -4…140 °F (-20…60 °C) |
| **Relative humidity** | 93…97 % 77…131 °F (25…55 °C) IEC 60068-2-30 |
| **IP degree of protection** | IP20 IEC 60529 terminals)<br>IP30 IEC 60529 casing)<br>IP50 IEC 60529 front panel) |
| **Pollution degree** | 3 IEC 60664-1 |
| **Overvoltage category** | III conforming to IEC 60664-1 |
| **Dielectric test voltage** | 2.3 kV AC 50/60 Hz, 1 min IEC 60255-27 |
| **[Uimp] rated impulse withstand voltage** | 6 kV IEC 60664-1 |
| **Insulation resistance** | > 100 MOhm 500 V DC IEC 60255-27 |
| **[Ui] rated insulation voltage** | 600 V IEC 60664-1 |
| **Operating position** | Any position without derating |
| **Connections - terminals** | Screw terminals, 1 x 0.5...1 x 4 mm² 20 AWG...11 AWG) solid without cable end<br>Screw terminals, 2 x 0.5...2 x 2.5 mm² 20 AWG...14 AWG) solid without cable end<br>Screw terminals, 1 x 0.2...1 x 2.5 mm² 24 AWG...12 AWG) flexible with cable end<br>Screw terminals, 2 x 0.2...2 x 1.5 mm² 24 AWG...16 AWG) flexible with cable end |
| **Housing material** | Polycarbonate |
| **Local signalling** | LED (green) for power ON<br>LED (yellow) for relay ON<br>LED (yellow) for fault |

| | |
|---|---|
| **Mounting support** | 35 mm symmetrical DIN rail conforming to IEC 60715 |
| **Height** | 3.5 in (90 mm)<br>3.5 in (88.9 mm) |
| **Width** | 1.4 in (35 mm)<br>1.4 in (35.6 mm) |
| **Depth** | 2.8 in (72 mm)<br>2.8 in (71.1 mm) |
| **Net Weight** | 0.26 lb(US) (0.12 kg)<br>0.26 lb(US) (0.12 kg) |

## Ordering and shipping details

| | |
|---|---|
| **Category** | US10CP221122 |
| **Discount Schedule** | 0CP2 |
| **GTIN** | 3606487344667 |
| **Returnability** | Yes |
| **Country of origin** | ID |

## Packing Units

| | |
|---|---|
| **Unit Type of Package 1** | PCE |
| **Nbr. of units in pkg.** | 1 |
| **Package 1 Height** | 1.850 in (4.700 cm) |
| **Package 1 Width** | 3.150 in (8.000 cm) |
| **Package 1 Length** | 3.819 in (9.700 cm) |
| **Package weight(Lbs)** | 4.938 oz (140.000 g) |
| **Unit Type of Package 2** | S03 |
| **Number of Units in Package 2** | 48 |
| **Package 2 Height** | 11.811 in (30.000 cm) |
| **Package 2 Width** | 11.811 in (30.000 cm) |
| **Package 2 Length** | 15.748 in (40.000 cm) |
| **Package 2 Weight** | 16.458 lb(US) (7.465 kg) |

## Contractual warranty

| | |
|---|---|
| **Warranty (in months)** | 18 |

## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

### Environmental footprint

| | |
|---|---|
| Total lifecycle Carbon footprint | **69 kg CO2 eq.** |
| Carbon footprint of the manufacturing phase [A1 to A3] | **10 kg CO2 eq.** |
| Carbon footprint of the distribution phase [A4] | **0 kg CO2 eq.** |
| Carbon footprint of the installation phase [A5] | **0 kg CO2 eq.** |
| Carbon footprint of the use phase [B2, B3, B4, B6] | **59 kg CO2 eq.** |
| Carbon footprint of the end-of-life phase [C1 to C4] | **0.3 kg CO2 eq.** |
| Environmental Disclosure | **Product Environmental Profile** |

## Use Better

### Materials and Substances

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|---|---|
| EU RoHS Directive | **Compliant By Exemption** |
| REACh Regulation | **Reference contains Substances of Very High Concern above the threshold** |
| California proposition 65 | **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. For more information go to www.P65Warnings.ca.gov** |

## Use Again

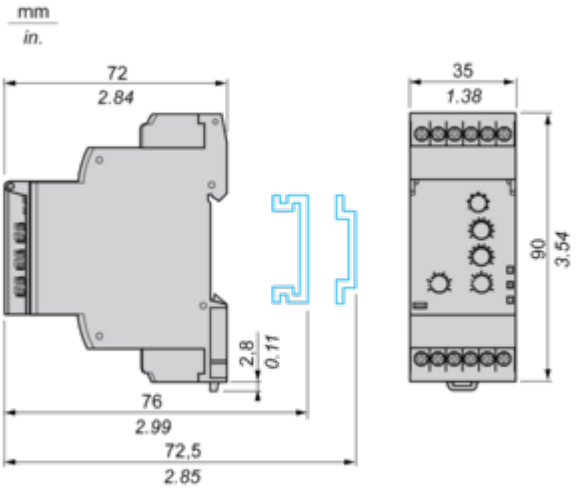
### Repack and remanufacture

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|---|---|
| Recyclability potential, in % | **8** |
| Circularity Profile | **End of Life Information** |
| Take-back | **No** |
| WEEE Label | **The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.** |

Dimensions Drawings

## Multifunction 3-Phase Supply Control Relays

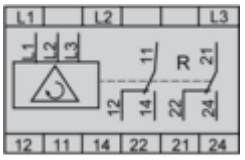
### Dimensions and Mounting



Connections and Schema

## Multifunction 3-Phase Supply Control Relays

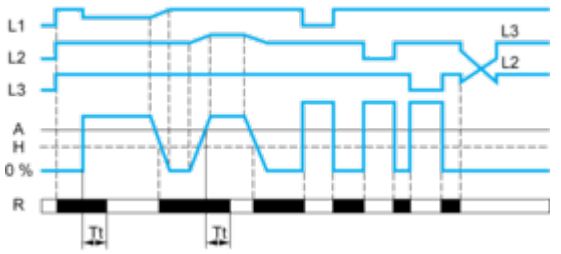
### Wiring Diagram



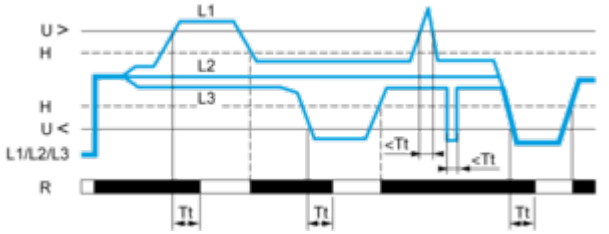
Technical Description

## 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

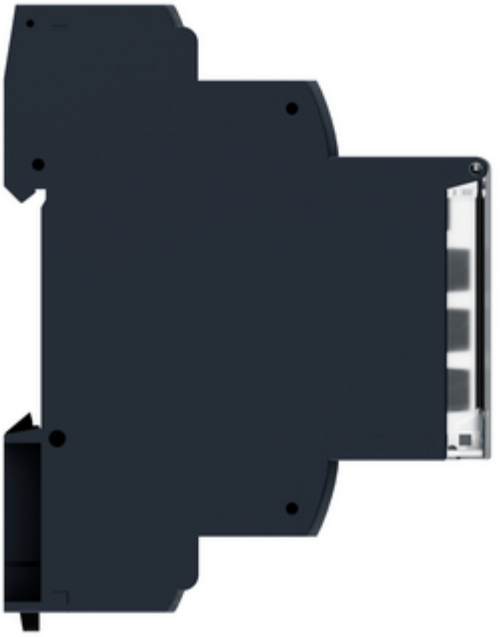
**A** Asymmetry thershold
**Tt** Time delay after crossing of threshold
**H** Hysteresis
**U>** Overvoltage threshold
**U<** Undervoltage threshold
**L1, L2, L3** Phases of the supply voltage monitored
**R** Output relay
**Relay status:** black color = energized.

Image of product / Alternate images

**Alternative**

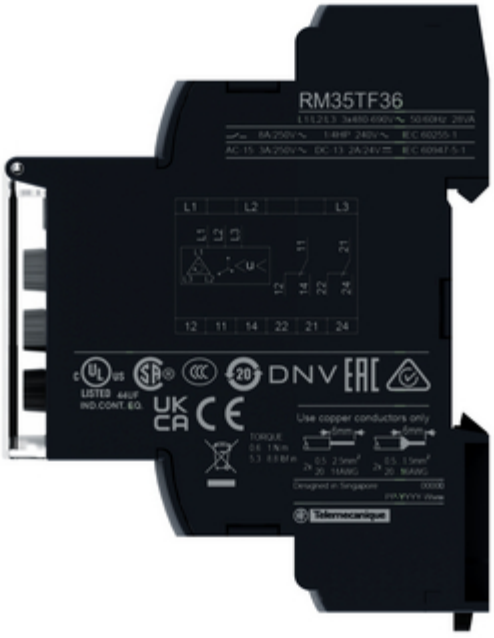







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