Product data sheet

Specifications



Harmony, 3 phase supply control relay, range 220 to 480 VAC, sequence, phase failure, phase imbalance, voltage

RM35TF30

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 Phase sequence Phase failure detection Asymmetry
Control Type	Without test button
Contacts type and composition	2 C/O
[Uc] control circuit voltage	220...480 V
Product Specific Application	For 3-phase supply

Complementary

[Us] rated supply voltage	, self-powered
Supply voltage limits	194…528 V AC, 3 phase
Supply frequency	50/60 Hz +/- 10 %
Power consumption in VA	0…22 VA 400 V AC 50 Hz
Measurement range	220...480 V AC
Measurement voltage limits	176…528 V AC
Voltage detection threshold	< 194 V
Maximum measuring cycle	140 ms measurement cycle as true rms value
Threshold adjustment voltage	2...20 % of Un selected -12...-2 % in the range 220 V AC +2...+10 % in the range 480 V AC
Hysteresis	2 %
Adjustment of asymmetry threshold	5...15 % of Un selected
Measurement error	< 1 % over the whole range with voltage variation 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	< 200 ms (in the event of a fault)

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

Output contacts	2 C/O
nominal output current	5 A
Maximum switching voltage	250 V AC
Switching capacity in VA	1250 VA
Minimum switching current	10 mA 5 V DC
Maximum switching current	5 A AC 5 A DC
Electrical durability	100000 cycles
Mechanical durability	30000000 cycles
Control circuit voltage limits	- 12 % + 10 % Un
Control circuit frequency	50...60 Hz +/- 10 %

Environment

Electromagnetic compatibility	Emission standard for industrial environments conforming to IEC 61000-6-4 Emission standard for residential, commercial and light-industrial environments conforming to IEC 61000-6-3 Immunity for industrial environments conforming to IEC 61000-6-2
Standards	IEC 60255-1
Product Certifications	GL UL CSA GOST C-tick
Marking	CE
Directives	89/336/EEC - electromagnetic compatibility 73/23/EEC - low voltage directive
Ambient Air Temperature for Storage	-40…158 °F (-40…70 °C) -40…158 °F (-40…70 °C)
Ambient air temperature for operation	-4…122 °F (-20…50 °C)
Relative humidity	95 % 131 °F (55 °C) IEC 60068-2-30
IP degree of protection	IP20 IEC 60529 terminals) IP30 IEC 60529 casing)
Pollution degree	3 IEC 60664-1
Overvoltage category	III conforming to IEC 60664-1
Dielectric test voltage	2 kV AC 50 Hz, 1 min
Insulation resistance	> 500 MOhm 500 V DC IEC 60255-5
[Ui] rated insulation voltage	400 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 Screw terminals, 2 x 0.5...2 x 2.5 mm² 20 AWG...14 AWG) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm² 24 AWG...12 AWG) flexible with cable end Screw terminals, 2 x 0.2...2 x 1.5 mm² 24 AWG...16 AWG) flexible with cable end
Tightening torque	5.3…8.9 lbf.in (0.6…1 N.m) IEC 60947-1
Housing material	Polycarbonate
Local signalling	LED (green) for power ON LED (yellow) for relay ON LED (yellow) for fault
Mounting support	35 mm symmetrical DIN rail conforming to IEC 60715

Reliability data	MTTFd = 399.5 years B10d = 360000
Height	3.5 in (90 mm) 3.5 in (88.9 mm)
Width	1.4 in (35 mm) 1.4 in (35.6 mm)
Depth	2.8 in (72 mm) 2.8 in (71.1 mm)
Net Weight	0.26 lb(US) (0.12 kg) 0.26 lb(US) (0.12 kg)

Ordering and shipping details

Category	US10CP222380
Discount Schedule	0CP2
GTIN	3389119405263
Returnability	Yes
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	1.890 in (4.800 cm)
Package 1 Width	3.071 in (7.800 cm)
Package 1 Length	3.819 in (9.700 cm)
Package weight(Lbs)	4.621 oz (131.000 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	15.587 lb(US) (7.070 kg)
Unit Type of Package 3	P06
Number of Units in Package 3	384
Package 3 Height	29.528 in (75.000 cm)
Package 3 Width	23.622 in (60.000 cm)
Package 3 Length	31.496 in (80.000 cm)
Package 3 Weight	141.369 lb(US) (64.124 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	**95 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**3 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]	**93 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0.1 kg CO2 eq.**
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**
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

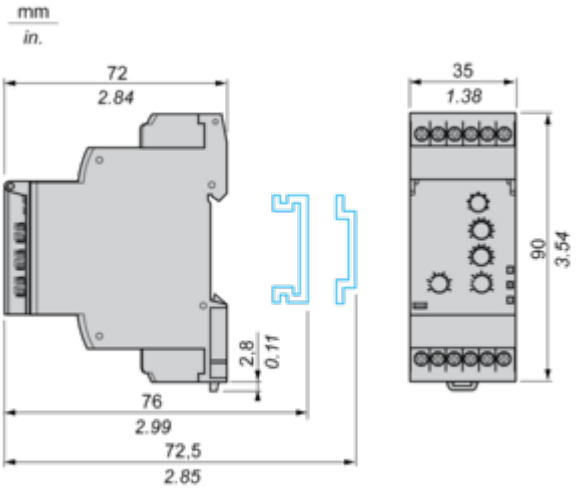
Repack and remanufacture

Recyclability potential, in %	**8**
Circularity Profile	End of Life Information
Take-back	**No**

Dimensions Drawings

Multifunction 3-Phase Supply Control Relays

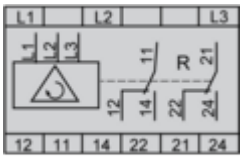
Dimensions and Mounting



Connections and Schema

Multifunction 3-Phase Supply Control Relays

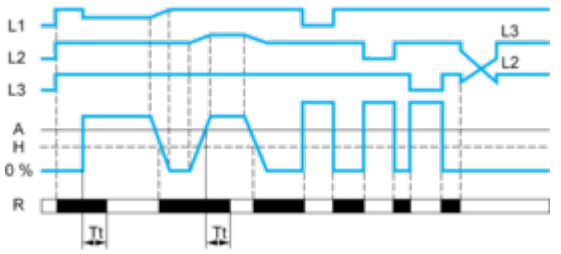
Wiring Diagram



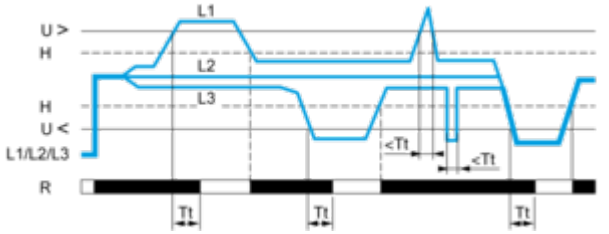
Technical Description

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






CAUTION
EQUIPMENT OPERATION HAZARD
Install 100 mA fast-acting fuse Class CC/gG on L1 or L3 before use
Failure to follow this instruction can result in injury or equipment damage


RM35TF30
Use copper conductors only
Telemecanique