Product datasheet
Characteristics

RM35TF30
multifunction phase control relay RM35-T - range 194..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	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	194...528 V AC

Complementary

Reset time	<= 1500 ms for 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	<= 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
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 % for time delay 0.5 % for 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
[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 cable without cable end Screw terminals 2 x 0.5...2 x 2.5 mm² - AWG 20...AWG 14, solid cable without cable end Screw terminals 1 x 0.2...1 x 2.5 mm² - AWG 24...AWG 12, flexible cable with cable end Screw terminals 2 x 0.2...2 x 1.5 mm² - AWG 24...AWG 16, flexible cable with cable end
Tightening torque	0.6...1 N.m conforming to IEC 60947-1
Housing material	Self-extinguishing plastic
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 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	35 mm
Product 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	CSA C-Tick GL GOST UL
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
non-dissipating shock wave	4 kV

Offer Sustainability

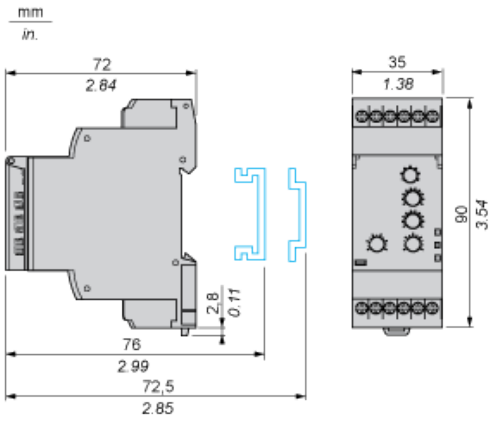
Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0701 - Schneider Electric declaration of conformity
REACh	Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Available

Contractual warranty

Warranty period	18 months

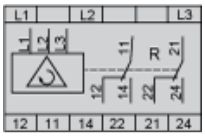
Multifunction 3-Phase Supply Control Relays

Dimensions and Mounting



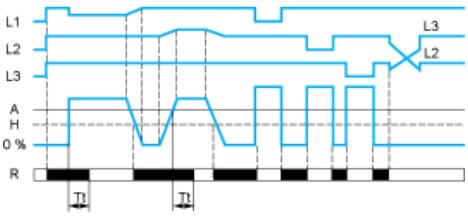
Multifunction 3-Phase Supply Control Relays

Wiring Diagram

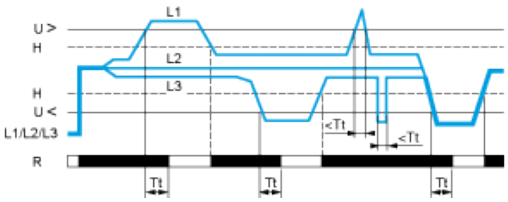


Function Diagrams

Phase Sequence Control, Phase Failure Detection (U measured < 0.7 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.