

RM17TE00

Zelio, 3 phase supply control relay, range 208 to 480 VAC, sequence, phase failure, phase imbalance, voltage



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 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 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
Maximum measuring cycle	150 ms measurement cycle as true rms value
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 % input and measurement circuit 3 % 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 IEC 60664-1
Insulation resistance	> 500 MOhm 500 V DC IEC 60255-5 > 500 MOhm 500 V DC IEC 60664-1

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[Ui] rated insulation voltage	400 V IEC 60664-1
Supply frequency	50/60 Hz +/- 10 %
Operating position	Any position without derating
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	5.31...8.85 lbf.in (0.6...1 N.m) IEC 60947-1
Housing material	Self-extinguishing plastic
Local signalling	Power ON LED green) Relay ON LED yellow)
Mounting support	35 mm symmetrical DIN rail EN/IEC 60715
Electrical durability	100000 cycles
Mechanical durability	30000000 cycles
Operating rate	<= 360 operations/hour full load
Utilisation category	AC-12 IEC 60947-5-1 AC-13 IEC 60947-5-1 AC-14 IEC 60947-5-1 AC-15 IEC 60947-5-1 DC-12 IEC 60947-5-1 DC-13 IEC 60947-5-1
Safety reliability data	MTTFd = 502.2 years B10d = 470000
Maximum Width	0.69 in (17.5 mm)
Net Weight	0.29 lb(US) (0.13 kg)

Environment

Electromagnetic compatibility	Emission standard for industrial environments EN/IEC 61000-6-4 Emission standard for residential, commercial and light-industrial environments EN/IEC 61000-6-3 Immunity for industrial environments 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...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
Vibration resistance	0.35 mm 5...57.6 Hz)IEC 60068-2-6 1 gn 57.6...150 Hz)IEC 60255-21-1
Shock resistance	15 gn 11 ms IEC 60255-21-1
IP degree of protection	IP20 IEC 60529 terminals) IP30 IEC 60529 casing)
Pollution degree	3 IEC 60664-1
Dielectric test voltage	2 kV AC 50 Hz, 1 min IEC 60255-5 2 kV AC 50 Hz, 1 min IEC 60664-1
Non-dissipating shock wave	4 kV IEC 60255-5 4 kV IEC 60664-1 4 kV IEC 61000-4-5

Ordering and shipping details

Category	22380 - RELAYS-MEASUREMENT (RM17-RM35)
Discount Schedule	CP2
GTIN	00785901662181
Nbr. of units in pkg.	1
Package weight(Lbs)	0.2 lb(US) (0.09 kg)
Returnability	Yes
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Package 1 Height	1.06 in (2.7 cm)
Package 1 width	3.03 in (7.7 cm)
Package 1 Length	3.78 in (9.6 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	48
Package 2 Weight	11.06 lb(US) (5.017 kg)
Package 2 Height	5.91 in (15 cm)
Package 2 width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)

Offer Sustainability

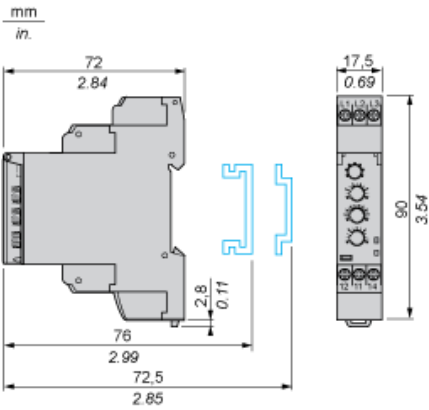
Sustainable offer status	Green Premium product
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
Environmental Disclosure	Product Environmental Profile
Circularity 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
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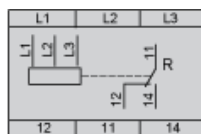
Multifunction 3-Phase Supply Control Relays

Dimensions and Mounting



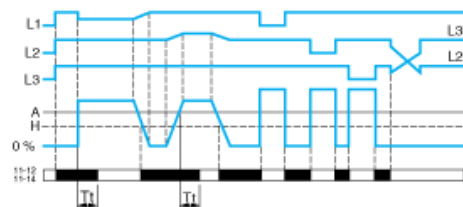
Multifunction 3-Phase Supply Control Relays

Wiring Diagram

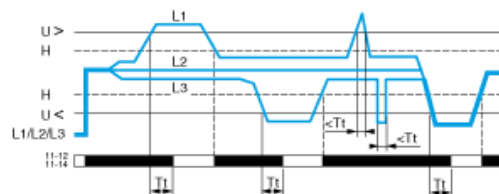


Function Diagrams

Phase Sequence Control, Phase Failure Detection ($U_{\text{measured}} < 0.7 \times \text{nominal supply voltage}$) and Asymmetry Detection



Control of Overvoltage and Undervoltage in Window Mode



Legend

A Asymmetry threshold (adjustable from 5...15% of the nominal supply voltage)

Tt 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.