# Product datasheet Characteristics

## **RM17TE00**

# multifunction control relay RM17-TE - range 183..528 V AC





#### Main

IVIAIII		
Range of product	Harmony Control Relays	
Product or component type	3-phase control relay	
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 0.110 s, +/- 10 % of the full scale value	
Switching capacity in VA	1250 VA	
Measurement range	208480 V voltage AC	
Contacts type and composition	1 C/O	
[Uc] control circuit voltage	208480 V	

#### Complementary

Reset time	1500 ms time delay	4
Maximum switching voltage	250 V AC 250 V DC	d. A. A. A
Minimum switching current	10 mA at 5 V DC	
Maximum switching current	5 A AC 5 A DC	dr.
Supply voltage limits	183528 V AC	2
Control circuit voltage limits	- 12 % + 10 % Un	<u>.</u> 
Power consumption in VA	022 VA at 400 V AC 50 Hz	in the state of th
Control circuit frequency	5060 Hz +/- 10 %	
Output contacts	1 C/O	
Nominal output current	5 A	

Measurement voltage limits	183528 V AC
Hysteresis	2 %
Delay at power up	650 ms
Maximum measuring cycle	150 ms measurement cycle as true rms value
Threshold adjustment voltage	-217 % in the range 220 V AC +2+17 % in the range 480 V AC -212 % in the range 208 V AC 220 % of Un selected
Voltage range	208480 V phase to phase
Adjustment of asymmetry threshold	515 % of Un selected
Repeat accuracy	0.5 % for input and measurement circuit 3 % for 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 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 derating
Connections - terminals	Screw terminals, 1 x 0.51 x 4 mm <sup>2</sup> (AWG 20AWG 11) solid without cable end Screw terminals, 2 x 0.52 x 2.5 mm <sup>2</sup> (AWG 20AWG 14) solid without cable end Screw terminals, 1 x 0.21 x 2.5 mm <sup>2</sup> (AWG 24AWG 12) flexible with cable end Screw terminals, 2 x 0.22 x 1.5 mm <sup>2</sup> (AWG 24AWG 16) flexible with cable end
Tightening torque	0.61 N.m conforming to IEC 60947-1
Housing material	Self-extinguishing plastic
Local signalling	LED (green) for power ON LED (yellow) for relay ON
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 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 = 502.2 years B10d = 470000
Width	17.5 mm
Net 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	GOST C-Tick CSA UL GL
Directives	89/336/EEC - electromagnetic compatibility 73/23/EEC - low voltage directive
Ambient air temperature for storage	-4070 °C

Ambient air temperature for operation	-2050 °C
Relative humidity	95 % at 55 °C conforming to IEC 60068-2-30
Vibration resistance	0.35 mm (f= 557.6 Hz) conforming to IEC 60068-2-6 1 gn (f= 57.6150 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 conforming to IEC 60255-5 2 kV, 1 min AC 50 Hz conforming to IEC 60664-1
Non-dissipating shock wave	4 kV conforming to IEC 60255-5 4 kV conforming to IEC 60664-1 4 kV conforming to IEC 61000-4-5

### Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	89 g
Package 1 Height	2.7 cm
Package 1 width	7.7 cm
Package 1 Length	9.6 cm
Unit Type of Package 2	S02
Number of Units in Package 2	48
Package 2 Weight	5.017 kg
Package 2 Height	15 cm
Package 2 width	30 cm
Package 2 Length	40 cm

### Offer Sustainability

Sustainable offer status	Green Premium product	
REACh Regulation	REACh Declaration	
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	

#### Contractual warranty

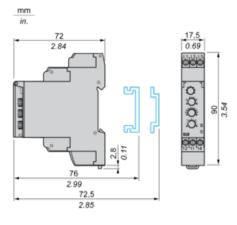
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Warranty		12 months

# Product datasheet Dimensions Drawings

# **RM17TE00**

### Multifunction 3-Phase Supply Control Relays

### **Dimensions and Mounting**

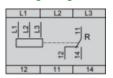


# Product datasheet Connections and Schema

# **RM17TE00**

### Multifunction 3-Phase Supply Control Relays

#### Wiring Diagram

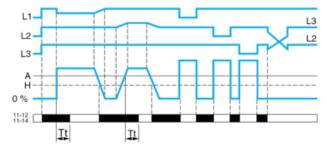


# Product datasheet Technical Description

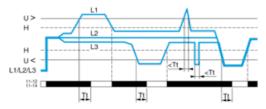
## **RM17TE00**

#### **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 (adjustble 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.