



### Galvenā

Produkta sērija	Harmony Control Relays
Relay type	Control relay
Produkta vai sastāvdaļas veids	3-phase control relay
Tīkla fāžu skaits	3 fāzes
Relay name	RM22TR
Relay monitored parameters	Overvoltage and undervoltage detection Phase sequence Phase failure detection
Time delay type	Adjustable 0.1...30 s, +/- 10 % of the full scale value Tt- time delay upon fault
Switching capacity in VA	2000 VA
Measurement range	380...480 V voltage AC
Kontaktligzdas tips	2 C/O

### Papildinošs

Reset time	1500 ms at maximum voltage
Maximum switching voltage	250 V AC
Minimum switching current	10 mA 5 V DC
Maximum switching current	8 A AC
[Us] rated supply voltage	AC/DC
Supply voltage limits	304...576 V AC
Operating limits	- 20 % + 20 % Un
Power consumption in VA	15 VA 480 V AC 60 Hz
Voltage detection threshold	< 100 V AC
Supply voltage frequency	50...60 Hz +/- 10 %
Output contacts	2 C/O
Nominal output current	8 A
Setting accuracy of the switching threshold	+/- 10 % of the full scale
Switching threshold drift	<= 0.05 % per degree centigrade depending permissible ambient air temperature <= 1 % within the supply voltage range
Setting accuracy of time delay	10 P
Time delay drift	<= 0.05 % per degree centigrade depending permissible ambient air temperature <= 1 % within the supply voltage range
Hysteresis	2 % fixed selectable
Run-up delay at power-up	650 ms
Maximum measuring cycle	150 ms measurement cycle as true rms value
Threshold adjustment voltage	2...20 % of Un selected
Voltage range	380...480 V phase to phase
Repeat accuracy	+/- 0.5 % input and measurement circuit +/- 3 % time delay
Measurement error	< 1 % over the whole range with voltage variation < 0.05 %/°C with temperature variation
Response time	<= 300 ms
Overvoltage category	III IEC 60664-1 III UL 508
Insulation resistance	> 100 MOhm 500 V DC IEC 60255-27
Montāžas pozīcija	Any position

Connections - terminals	Skrūvju spaiļes, 2 x 0.5...2 x 2.5 mm <sup>2</sup> AWG 20...AWG 14) ciets without cable end Skrūvju spaiļes, 2 x 0.2...2 x 1.5 mm <sup>2</sup> AWG 24...AWG 16) elastīgs with cable end Skrūvju spaiļes, 1 x 0.5...1 x 3.3 mm <sup>2</sup> AWG 20...AWG 12) ciets without cable end Skrūvju spaiļes, 1 x 0.2...1 x 2.5 mm <sup>2</sup> AWG 24...AWG 14) elastīgs with cable end
Tightening torque	0,6...1 N.m IEC 60947-1
Korpusa materiāls	Self-extinguishing plastic
Statusa gaismas diode	LED (dzeltens) relay ON LED (zaļš) barošana IESLĒGTA
Montāžas stiprinājums	35 mm DIN sliede atbilst IEC 60715
Elektriskā izturība	100000 cikli
Mehāniskā izturība	10000000 cikli
Utilisation category	AC-15 IEC 60947-5-1 DC-13 IEC 60947-5-1 AC-1 IEC 60947-4-1 DC-1 IEC 60947-4-1
[Un] rated nominal voltage	, self-powered
Safety reliability data	MTTFd = 388.1 years B10d = 350000
Kontaktligzdas materiāls	Cadmium free
Vadības veids	With test button
Platums	22,5 mm
Neto svars	0,09 kg

## Vide

Immunity to microbreaks	10 ms
Electromagnetic compatibility	Immunity for residential, commercial and light-industrial environments conforming to IEC 61000-6-1 Immunity for industrial environments conforming to IEC 61000-6-2 Emission standard for residential, commercial and light-industrial environments conforming to IEC 61000-6-3 Emission standard for industrial environments conforming to IEC 61000-6-4 Electrostatic discharge - test level: 6 kV level 3 (contact discharge) conforming to IEC 61000-4-2 Electrostatic discharge - test level: 8 kV level 3 (air discharge) conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test - test level: 10 V/m level 3 conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test - test level: 4 kV level 4 (direct) conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test - test level: 2 kV level 4 (capacitive coupling) conforming to IEC 61000-4-4 Surge immunity test - test level: 4 kV level 4 (common mode) conforming to IEC 61000-4-5 Surge immunity test - test level: 2 kV level 4 (differential mode) conforming to IEC 61000-4-5 Conducted and radiated emissions class B group 1 conforming to CISPR 11 Conducted and radiated emissions class B conforming to CISPR 22
Standarti	IEC 60255-1
Produkta sertifikācija	GL[RETURN]CSA[RETURN]RCM[RETURN]CE[RETURN]EAC[RETURN]CCC[RETURN]UL
Apkārtējā gaisa temperatūra uzglabāšanai	-40...70 °C
Ambient air temperature for operation	-20...50 °C 60 Hz -20...60 °C 50 Hz AC/DC
Relative humidity	93...97 % 25...55 °C IEC 60068-2-30
Vibration resistance	0.075 mm 10...58,1 Hz) not in operation IEC 60068-2-6 1 gn 10...58,1 Hz) not in operation IEC 60068-2-6 0.035 mm 58,1...150 Hz) in operation IEC 60068-2-6 0.5 gn 58,1...150 Hz) in operation IEC 60068-2-6
Shock resistance	15 gn 11 ms) not in operation IEC 60068-2-27 5 gn 11 ms) in operation IEC 60068-2-27
IP degree of protection	IP20 IEC&nbsp;60529 terminals) IP40 IEC&nbsp;60529 housing) IP50 IEC&nbsp;60529 front panel)
Pollution degree	3 IEC 60664-1 3 UL 508
Dielectric test voltage	2,5 kV AC 50 Hz, 1 min IEC 60255-27

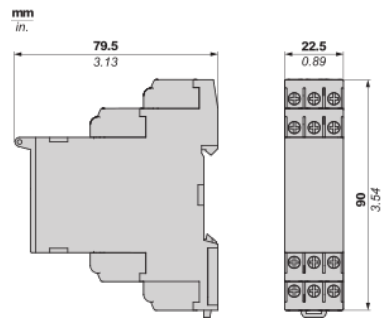
## Iepakojšanas vienības

Pirmā iepakojuma vienības tips	PCE
Vienību skaits 1. iepakojumā	1
1. iepakojuma augstums	2,6 cm
1. iepakojuma platums	8,2 cm
1. iepakojuma garums	9,5 cm
1. iepakojuma svars	104,0 g
Otrā iepakojuma vienības tips	S02
Vienību skaits 2. iepakojumā	40
2. iepakojuma augstums	15,0 cm
2. iepakojuma platums	30,0 cm
2. iepakojuma garums	40,0 cm
2. iepakojuma svars	4,535 kg
Trešā iepakojuma vienības tips	P06
Vienību skaits 3. iepakojumā	640
3. iepakojuma augstums	75,0 cm
3. iepakojuma platums	60,0 cm
3. iepakojuma garums	80,0 cm
3. iepakojuma svars	81,06 kg

## Piedāvājiēt ilgtspēju

Ilgspējīgs piedāvājuma statuss	Green Premium izstrādājums
REACH regula	<a href="#">REACH Deklarācija</a>
ES RoHS direktīva	Proaktīva atbilstība (uz izstrādājumu neattiecas ES RoHS juridiskās saistības)
Nesatur dzīvsudrabu	Jā
Ķīnas RoHS regula	<a href="#">Ķīnas RoHS Deklarācija</a>
Informācija par RoHS izņēmumiem	<a href="#">Jā</a>
Vides informācijas publiskošana	<a href="#">Produkta Ietekme Uz Vidi</a>
Cirkularitātes profils	<a href="#">Informācija Par Eksploatācijas Izbeigšanu</a>

Dimensions



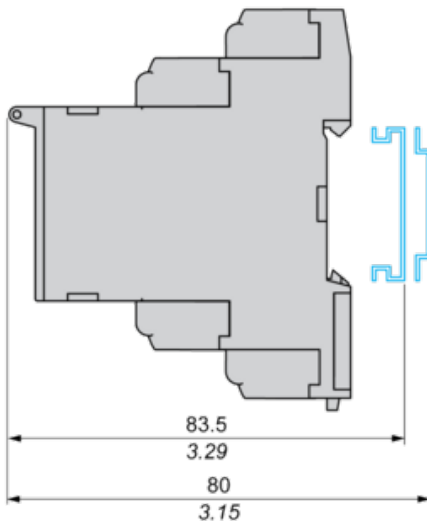
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Mounting and Clearance

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Rail Mounting

mm  
in.



## 3-Phase Voltage Control Relay

### Wiring Diagram



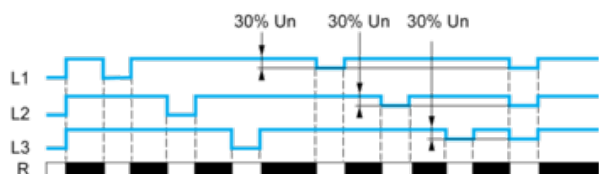
L1,L2,L3 : Supply to be monitored

11-14,12 : 1st C/O contact of output relay

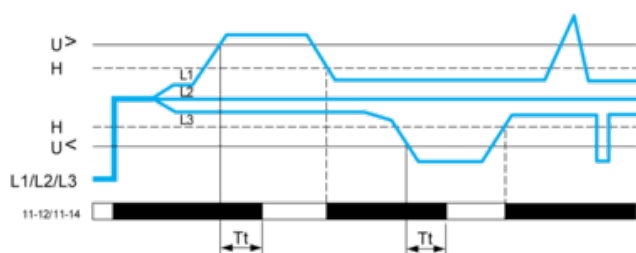
21-24,22 : 2nd C/O contact of output relay

Function Diagrams

Phase Failure Detection (U measured < 0.7 x nominal supply voltage)



Control of Overvoltage and Undervoltage



Legend

Un Nominal supply voltage

R Output relay

Tt Overvoltage and undervoltage threshold delay (adjustable on front panel from 0.3 to 30 s)

H Hysteresis

U> Overvoltage threshold

U< Undervoltage threshold

L1, L2, L3 Phases of the supply voltage monitored

11-12, 11-14 R1 output relay connections

Relay status: black color = energized.