**Product data sheet**

**RM22TR33**

three-Phase Voltage control relay 380…480 Vac, 2 C/O

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**Main**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range of product</td>
<td>Zelio Control</td>
</tr>
<tr>
<td>Product or component type</td>
<td>Modular measurement and control relays</td>
</tr>
<tr>
<td>Relay type</td>
<td>Control relay</td>
</tr>
<tr>
<td>Network number of phases</td>
<td>3 phases</td>
</tr>
<tr>
<td>Relay name</td>
<td>RM22TR</td>
</tr>
<tr>
<td>Relay monitored parameters</td>
<td>Phase failure detection</td>
</tr>
<tr>
<td></td>
<td>Overvoltage and undervoltage detection</td>
</tr>
<tr>
<td></td>
<td>Phase sequence</td>
</tr>
<tr>
<td>Time delay type</td>
<td>Adjustable 0.1…30 s, +/- 10 % of the full scale value on crossing the threshold Tt</td>
</tr>
<tr>
<td>Switching capacity in VA</td>
<td>2000 VA</td>
</tr>
<tr>
<td>Measurement range</td>
<td>380…480 V voltage AC</td>
</tr>
</tbody>
</table>

**Complementary**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reset time</td>
<td>&lt;= 1500 ms at maximum voltage</td>
</tr>
<tr>
<td>Maximum switching voltage</td>
<td>250 V AC</td>
</tr>
<tr>
<td>Minimum switching current</td>
<td>10 mA at 5 V DC</td>
</tr>
<tr>
<td>Maximum switching current</td>
<td>8 A AC</td>
</tr>
<tr>
<td>[Us] rated supply voltage</td>
<td>380…480 V AC</td>
</tr>
<tr>
<td>Supply voltage limits</td>
<td>304…576 V AC</td>
</tr>
<tr>
<td>Operating limits</td>
<td>- 20 % + 20 % Un</td>
</tr>
<tr>
<td>Power consumption in VA</td>
<td>15 VA at 480 V AC 60 Hz</td>
</tr>
<tr>
<td>Voltage detection threshold</td>
<td>&lt; 100 V AC</td>
</tr>
<tr>
<td>Supply voltage frequency</td>
<td>50…60 Hz +/- 10 %</td>
</tr>
<tr>
<td>Output contacts</td>
<td>2 C/O</td>
</tr>
<tr>
<td>Nominal output current</td>
<td>8 A</td>
</tr>
<tr>
<td>Setting accuracy of the switching threshold</td>
<td>+/- 10 % of the full scale</td>
</tr>
<tr>
<td>Switching threshold drift</td>
<td>&lt;= 0.05 % per degree centigrade depending permissible ambient air temperature</td>
</tr>
</tbody>
</table>

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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.

Jul 8, 2019
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 of selectable

Run-up delay at power-up: <= 650 ms

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: < 0.05 %/°C with temperature variation
< 1 % over the whole range with voltage variation

Response time: <= 300 ms

Overvoltage category: III conforming to UL 508
III conforming to IEC 60664-1

Insulation resistance: > 100 MOhm at 500 V DC conforming to IEC 60255-27

Mounting position: Any position

Connections - terminals:
Screw terminals 2 x 0.5...2 x 2.5 mm² - AWG 20...AWG 14, solid cable without cable end
Screw terminals 2 x 0.2...2 x 1.5 mm² - AWG 24...AWG 16, flexible cable with cable end
Screw terminals 1 x 0.5...1 x 3.3 mm² - AWG 20...AWG 12, solid cable without cable end
Screw terminals 1 x 0.2...1 x 2.5 mm² - AWG 24...AWG 14, flexible cable with cable end

Tightening torque: 0.6...1 N.m conforming to IEC 60947-1

Housing material: Self-extinguishing plastic

Status LED:
LED yellow for relay ON
LED green for power ON

Mounting support: 35 mm DIN rail conforming to EN/IEC 60715

Electrical durability: 100000 cycles

Mechanical durability: 1000000 cycles

Utilisation category:
AC-1 conforming to IEC 60947-4-1
DC-1 conforming to IEC 60947-4-1
AC-15 conforming to IEC 60947-5-1
DC-13 conforming to IEC 60947-5-1

Safety reliability data:
B10d = 350000
MTTFd = 388.1 years

Contacts material: Cadmium free

Width: 22.5 mm

Product weight: 0.09 kg

Environment

Immunity to microbreaks: <= 10 ms

Electromagnetic compatibility:
Conducted and radiated emissions class B conforming to CISPR 22
Immunity for residential, commercial and light-industrial environments conforming to EN/IEC 61000-6-1
Electrostatic discharge 6 kV level 3 contact discharge conforming to IEC 61000-4-2
Electrostatic discharge 8 kV level 3 air discharge conforming to IEC 61000-4-2
Radiated radio-frequency electromagnetic field immunity test 10 V/m level 3 conforming to IEC 61000-4-3
Electrical fast transient/burst immunity test 4 kV level 4 direct conforming to IEC 61000-4-4
Electrical fast transient/burst immunity test 2 kV level 4 capacitive coupling conforming to IEC 61000-4-4
Surge immunity test 4 kV level 4 common mode conforming to IEC 61000-4-5
Surge immunity test 2 kV level 4 differential mode conforming to IEC 61000-4-5
Conducted and radiated emissions class B group 1 conforming to CISPR 11
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:
China RoHS
UL
CSA
<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient air temperature for storage</td>
<td>-40...70 °C</td>
</tr>
</tbody>
</table>
| Ambient air temperature for operation           | -20...50 °C at 60 Hz  
-20...60 °C at 50 Hz AC/DC                                           |
| Relative humidity                               | 93...97 % at 25...55 °C conforming to IEC 60068-2-30                   |
| Vibration resistance                            | 0.075 mm (f = 10...58.1 Hz) (not in operation) conforming to IEC 60068-2-6  
1 gn (f = 10...58.1 Hz) (not in operation) conforming to IEC 60068-2-6  
0.035 mm (f = 58.1...150 Hz) (in operation) conforming to IEC 60068-2-6  
0.5 gn (f = 58.1...150 Hz) (in operation) conforming to IEC 60068-2-6 |
| Shock resistance                                | 15 gn for 11 ms (not in operation) conforming to IEC 60068-2-27       
5 gn for 11 ms (in operation) conforming to IEC 60068-2-27              |
| IP degree of protection                         | IP20 on terminals conforming to IEC 60529                             
IP40 on housing conforming to IEC 60529                                
IP50 on front panel conforming to IEC 60529                            |
| Pollution degree                                | 3 conforming to IEC 60664-1                                           
3 conforming to UL 508                                                  |
| Dielectric test voltage                         | 2.5 kV for 1 min AC 50 Hz conforming to IEC 60255-27                  |

**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