Product data sheet
Characteristics

RM22JA31MR
current control relay, Harmony Control Relays, 4mA...1 A, 2CO, 24...240V AC DC



Main

Range of product	Harmony Control Relays
Relay type	Current control relay
Product or component type	Current control relay
Relay name	RM22JA
Relay monitored parameters	Overcurrent or undercurrent detection Overcurrent or undercurrent in window mode
Control type	With test button
Contacts type and composition	2 C/O

Complementary

[Us] rated supply voltage	24...240 V AC/DC 50/60 Hz, non self-powered
Supply voltage limits	20.4…264 V AC/DC
Maximum power consumption in VA	3.5 VA
Maximum power consumption in W	1.5 W DC
Measurement range	4 mA...1 A current AC/DC 50/60 Hz
Maximum measuring cycle	100 Ms measurement cycle as true rms value
Hysteresis	5…50 % adjustable of threshold setting 3 % fixed of full scale for window mode
Setting accuracy of the switching threshold	+/- 10 % of the full scale
Repeat accuracy	+/- 0.5 % for input and measurement circuit +/- 0.2 % for time delay
Measurement error	< 1 % over the whole range with voltage variation 0.05 %/°C with temperature variation
Time delay type	Adjustable 0.1...30 s, +/- 10 % of the full scale value Tt- time delay upon fault
Setting accuracy of time delay	10 %
Reset time	1500 Ms at maximum voltage
Response time	<= 500 ms
Run-up delay at power-up	300 Ms
Output contacts	2 C/O
Nominal output current	8 A
Maximum switching voltage	250 V AC
Switching capacity in VA	2000 VA
Minimum switching current	10 MA at 5 V DC
Maximum switching current	8 A AC
Electrical durability	100000 Cycles
Mechanical durability	10000000 Cycles
Control circuit voltage limits	- 15 % + 10 % Un

Resistance across terminals	2.5 Ohm at E1-M terminals 0.5 Ohm at E2-M terminals 0.1 Ohm at E3-M terminals
Threshold setting	10...100 %
Insulation	Between supply and measurement
Contacts material	Cadmium free

Environment

Electromagnetic compatibility	Immunity for residential, commercial and light-industrial environments conforming to IEC 61000-6- Immunity for industrial environments conforming to IEC 61000-6-2 Emission standard for residential, commercial and light-industrial environments conforming to IEC Emission standard for industrial environments conforming to IEC 61000-6-4 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
Standards	IEC 60255-1
Product certifications	CSA[RETURN]CE[RETURN]EAC[RETURN]CCC[RETURN]GL[RETURN]RCM[RETURN]UL
Ambient air temperature for storage	-40…70 °C -40…70 °C
Ambient air temperature for operation	-20…50 °C at 60 Hz -20…60 °C at 50 Hz
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 (duration = 11 ms) for not in operation conforming to IEC 60068-2-27 5 gn (duration = 11 ms) for in operation conforming to IEC 60068-2-27
IP degree of protection	IP20 (terminals) conforming to IEC 60529 IP40 (housing) conforming to IEC 60529 IP50 (front panel) conforming to IEC 60529
Pollution degree	3 conforming to IEC 60664-1
Overvoltage category	III conforming to IEC 60664-1
Dielectric test voltage	2.5 KV, 1 min AC 50 Hz conforming to IEC 60255-27
Insulation resistance	> 100 MOhm at 500 V DC conforming to IEC 60255-27
Connections - terminals	Screw terminals, 2 x 0.5...2 x 2.5 mm² (20 AWG...14 AWG) solid without cable end Screw terminals, 2 x 0.2...2 x 1.5 mm² (24 AWG...16 AWG) flexible with cable end Screw terminals, 1 x 0.5...1 x 3.3 mm² (20 AWG...12 AWG) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm² (24 AWG...14 AWG) flexible with cable end
Tightening torque	0.6…1 N.M conforming to IEC 60947-1
Housing material	Polycarbonate
Local signalling	LED (yellow) for relay ON LED (green) for power ON
Mounting support	35 mm DIN rail conforming to IEC 60715
Safety reliability data	MTTFd = 296.8 years B10d = 270000
Height	90 Mm 88.9 Mm
Width	22.5 Mm 22.9 Mm
Depth	73 Mm 73.7 Mm
Net weight	0.11 Kg 0.11 Kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.6 Cm
Package 1 Width	8.2 Cm
Package 1 Length	9.5 Cm
Package 1 Weight	121.0 G
Unit Type of Package 2	S02
Number of Units in Package 2	40

Package 2 Height	15 Cm
Package 2 Width	30 Cm
Package 2 Length	40 Cm
Package 2 Weight	5.297 Kg
Unit Type of Package 3	P06
Number of Units in Package 3	640
Package 3 Height	50.0 Cm
Package 3 Width	80.0 Cm
Package 3 Length	60.0 Cm
Package 3 Weight	92.58 Kg

Offer Sustainability

Recyclability potential, in %	18
Total lifecycle Carbon footprint	44 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	2.779826432024163
Carbon footprint of the manufacturing phase [A1 to A3]	3 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.09392744528575005
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.0008695699160779772
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	40.75904111642341
Carbon footprint of the use phase [B2, B3, B4, B6]	41 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	0.3231292184488894
Carbon footprint of the end-of-life phase [C1 to C4]	0.3 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	44
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	5e3fdf99-611b-4d07-ad17-6eba84ab488b
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, w
End of life manual availability	End Of Life Information
Take-back	No

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised