Product data sheet

Specifications

Power relay, Harmony, DIN rail or panel mount relay, 30A, 2NO, 230V AC

RPF2AP7

Main

Range of product	Harmony Electromechanical Relays
Series name	Power
Product or component type	DIN rail/panel mount relay
Device short name	RPF
Contacts type and composition	2 NO
[Uc] control circuit voltage	230 V AC 50/60 Hz
Control type	Without lockable test button
Shape of pin	Flat
Contacts material	Silver tin oxide
[Ithe] conventional enclosed thermal current	25 A at -40…55 °C relays side by side without a gap 30 A at -40…55 °C 13 mm gap between two relays
Resistive rated load	25 A at 28 V DC 30 A at 250 V AC
Utilisation coefficient	10 %

Complementary

Mounting support	Panel DIN rail
Control circuit voltage limits	184...253 V
[Ie] rated operational current	30 A at 277 V (AC) NO conforming to UL 20 A at 28 V (DC) NO conforming to UL 30 A at 250 V (AC) NO conforming to IEC 25 A at 28 V (DC) NO conforming to IEC
[Ui] rated insulation voltage	250 V conforming to IEC 300 V conforming to UL
[Uimp] rated impulse withstand voltage	4 kV during 1.2/50 µs
Maximum switching voltage	250 V conforming to IEC
Maximum switching capacity	7500 VA/700 W
Minimum recommended switching capacity	6000 mW 500 mA / 12 V for NO
Operating rate	<= 1200 cycles/hour under load <= 18000 cycles/hour no-load
Mechanical durability	5000000 cycles

Electrical durability	100000 cycles for resistive load
Average coil consumption	4 VA at 60 Hz
Drop-out voltage threshold	>= 0.15 Uc
Operate time	25 ms
Release time	25 ms
Average resistance	15600 Ohm at 20 °C +/- 15 %
Safety reliability data	B10d = 100000
Protection category	RT II
Test levels	Level A group mounting
Operating position	Any position
CAD overall width	33.7 mm
CAD overall height	68.5 mm
CAD overall depth	39.2 mm
Net weight	0.082 kg
Device presentation	Complete product

Environment

Dielectric strength	2000 V AC between poles with basic 4000 V AC between coil and contact with reinforced 1500 V AC between contacts with micro disconnection
Standards	CSA C22.2 No 14 EN/IEC 61810-1 UL 508
Product certifications	CSA CE GOST UL
Ambient air temperature for storage	-40…85 °C
Ambient air temperature for operation	-40…55 °C
Vibration resistance	3 gn, amplitude = +/- 1 mm (f = 10…150 Hz)5 cycles in operation 10 gn, amplitude = +/- 1 mm (f = 10…150 Hz)5 cycles not operating
IP degree of protection	IP40 conforming to EN/IEC 60529
Shock resistance	10 gn for in operation 30 gn for not operating
Pollution degree	3

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.500 cm
Package 1 Width	4.200 cm
Package 1 Length	6.900 cm
Package 1 Weight	80.000 g
Unit Type of Package 2	BB1
Number of Units in Package 2	10
Package 2 Height	4.500 cm
Package 2 Width	14.500 cm

Package 2 Length	20.000 cm
Package 2 Weight	870.000 g
Unit Type of Package 3	S02
Number of Units in Package 3	60
Package 3 Height	15.000 cm
Package 3 Width	30.000 cm
Package 3 Length	40.000 cm
Package 3 Weight	5.872 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	China RoHS declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
California proposition 65	WARNING: This product can expose you to chemicals including: Nickel compounds, which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Contractual warranty

Warranty	18 months

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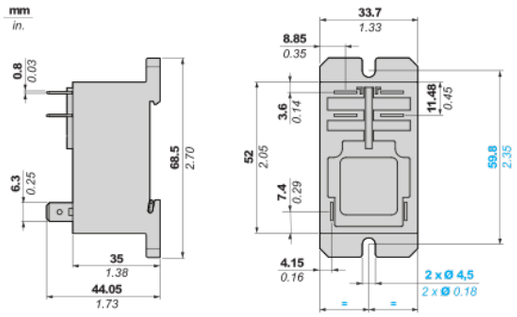
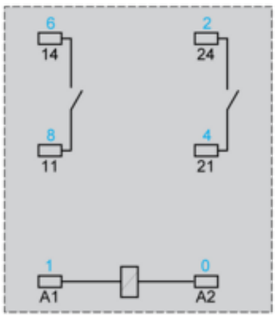
Dimensions Drawings

Dimensions



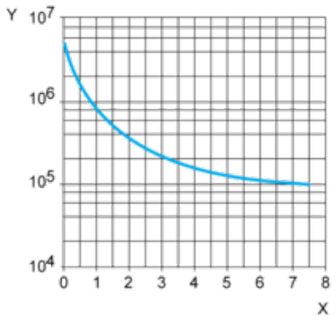
Wiring Diagram



Symbols shown in blue correspond to Nema marking.

Electrical Durability of Contacts

AC Resistive load

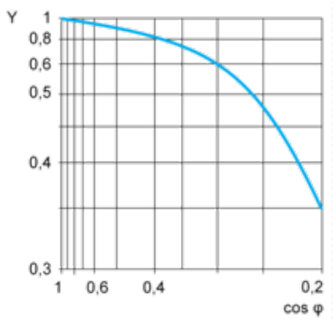


X Switching capacity (kVA)

Y Durability (number of operating cycles)

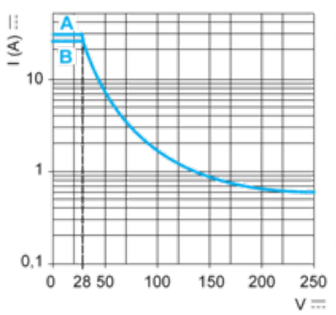
AC Reduction coefficient for inductive load (depending on power factor cos ϕ)

Durability (inductive load) = durability (resistive load) x reduction coefficient.



Y reduction coefficient

Maximum switching capacity on DC resistive load



A 30 A

B 25 A

Note : These are typical curves, actual durability depends on load, environment, duty cycle, etc.

Recommended replacement(s)