

Product data sheet

Specifications



power relay, Harmony
electromechanical relays, DIN rail or
panel mount relay, 30A, 2CO, 24V
AC

RPF2BB7

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 C/O
[Uc] control circuit voltage	24 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 -40...131 °F (-40...55 °C) relays side by side without a gap 30 A -40...131 °F (-40...55 °C) 13 mm gap between two relays
Resistive rated load	25 A 28 V DC 30 A 250 V AC
Utilisation coefficient	10 %

Complementary

Mounting support	DIN rail Panel
Control circuit voltage limits	19.2...26.4 V
[Ie] rated operational current	30 A 277 V AC) NO UL 20 A 28 V DC) NO UL 30 A 250 V AC) NO IEC 25 A 28 V DC) NO IEC 3 A 277 V AC) NC UL 3 A 28 V DC) NC UL 3 A 250 V AC) NC IEC 3 A 28 V DC) NC IEC
[Ui] rated insulation voltage	250 V IEC 300 V UL
[Uimp] rated impulse withstand voltage	4 kV 1.2/50 µs
Maximum switching voltage	250 V IEC
Maximum switching capacity	7500 VA/700 W
Minimum recommended switching capacity	6000 mW 500 mA / 12 V NO 170 mW 10 mA / 6 V NC
Operating rate	<= 1200 cycles/hour under load <= 18000 cycles/hour no-load

Mechanical durability	5000000 cycles
Electrical durability	100000 cycles resistive
Average coil consumption	4 VA 60 Hz
Drop-out voltage threshold	>= 0.15 Uc
Operate time	25 ms
Release time	25 ms
Average resistance	170 Ohm 68 °F (20 °C) +/- 15 %
Safety reliability data	B10d = 100000
Protection category	RT II
Test levels	Level A
Operating position	Any position
CAD overall width	1.33 in (33.7 mm)
CAD overall height	2.70 in (68.5 mm)
CAD overall depth	1.54 in (39.2 mm)
Net weight	0.18 lb(US) (0.082 kg)
Device presentation	Complete product

Environment

Dielectric strength	2000 V AC between poles basic 4000 V AC between coil and contact reinforced 1500 V AC between contacts micro disconnection
Standards	UL 508 EN/IEC 61810-1 CSA C22.2 No 14
Product certifications	UL CE GOST CSA
Ambient air temperature for storage	-40...185 °F (-40...85 °C)
Ambient air temperature for operation	-40...131 °F (-40...55 °C)
Vibration resistance	3 gn +/- 1 mm 10...150 Hz)5 cycles in operation 10 gn +/- 1 mm 10...150 Hz)5 cycles not operating
IP degree of protection	IP40 EN/IEC 60529
Shock resistance	10 gn in operation 30 gn not operating
Pollution degree	3

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	1.73 in (4.4 cm)
Package 1 Width	1.33 in (3.37 cm)
Package 1 Length	2.70 in (6.85 cm)
Package 1 Weight	3.26 oz (92.5 g)
Unit Type of Package 2	BB1
Number of Units in Package 2	10
Package 2 Height	1.97 in (5 cm)

Package 2 Width	5.59 in (14.2 cm)
Package 2 Length	7.83 in (19.9 cm)
Package 2 Weight	32.63 oz (925 g)
Unit Type of Package 3	S02
Number of Units in Package 3	60
Package 3 Height	5.91 in (15 cm)
Package 3 Width	11.81 in (30 cm)
Package 3 Length	15.75 in (40 cm)
Package 3 Weight	13.56 lb(US) (6.15 kg)

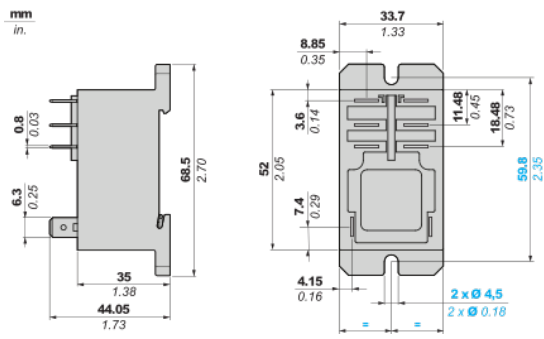
Offer Sustainability

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
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

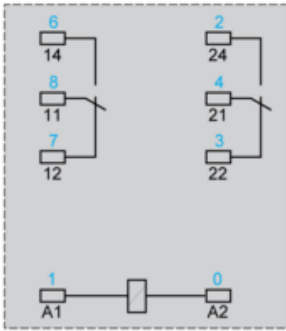
Contractual warranty

Warranty	18 months
----------	-----------

Dimensions



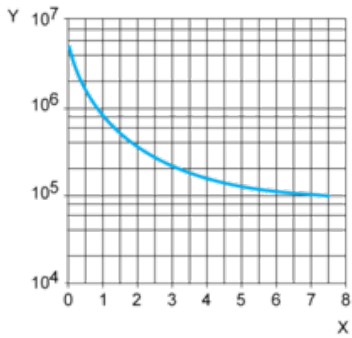
Wiring Diagram



Symbols shown in blue correspond to Nema marking.

Electrical Durability of Contacts

AC Resistive load

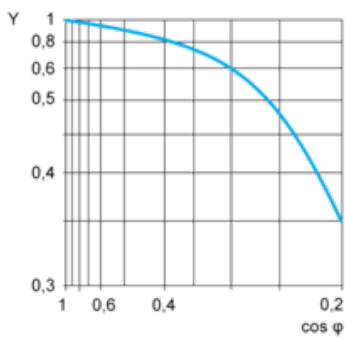


X Switching capacity (kVA)

Y Durability (number of operating cycles)

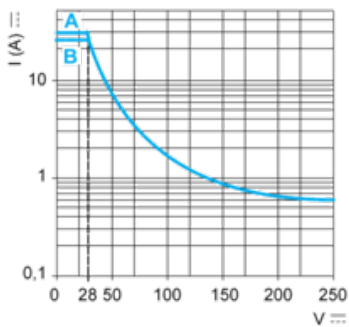
AC Reduction coefficient for inductive load (depending on power factor cos φ)

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)