

# Product data sheet

Specifications



## Power relay, Harmony, 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 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	DIN rail Panel
Control circuit voltage limits	19.2...26.4 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 3 A at 277 V (AC) NC conforming to UL 3 A at 28 V (DC) NC conforming to UL 3 A at 250 V (AC) NC conforming to IEC 3 A at 28 V (DC) NC 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 170 mW 10 mA / 6 V for NC
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	170 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	UL 508 EN/IEC 61810-1 CSA C22.2 No 14
Product certifications	UL CE GOST CSA
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	Db
Number of Units in Package 1	1
Package 1 Height	4.4 cm
Package 1 Width	3.37 cm
Package 1 Length	6.85 cm
Package 1 Weight	92.5 g
Unit Type of Package 2	Gyári csomagolás
Number of Units in Package 2	10
Package 2 Height	5 cm

Package 2 Width	14.2 cm
Package 2 Length	19.9 cm
Package 2 Weight	925 g
Unit Type of Package 3	S02
Number of Units in Package 3	60
Package 3 Height	15 cm
Package 3 Width	30 cm
Package 3 Length	40 cm
Package 3 Weight	6.15 kg

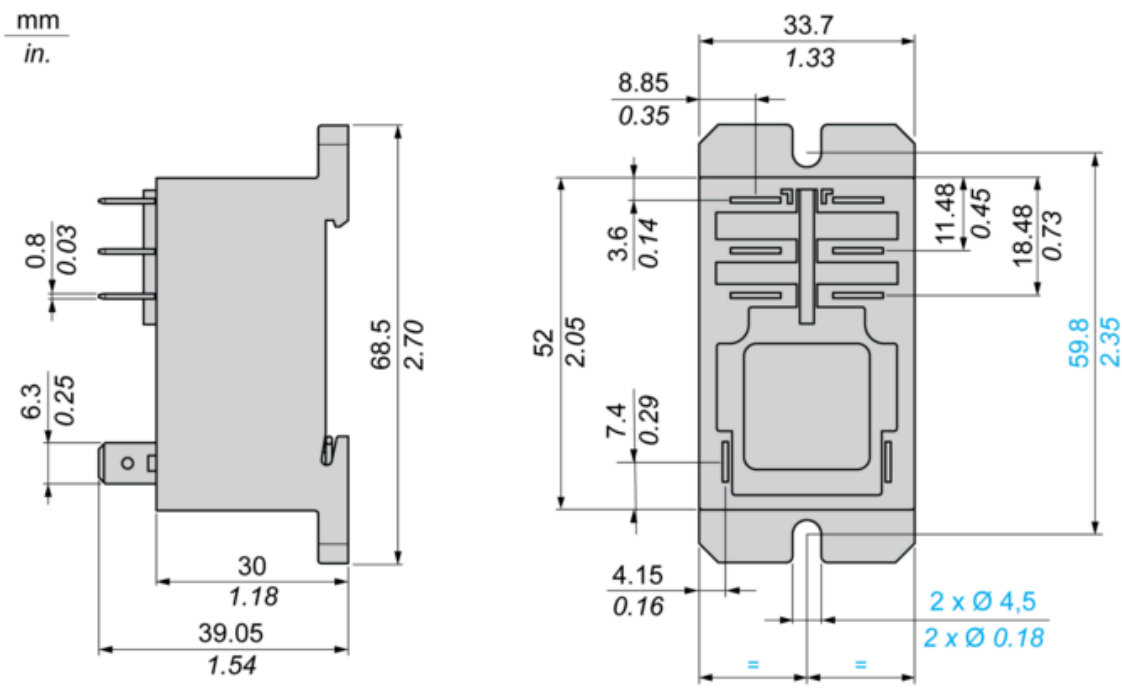
### Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a>
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

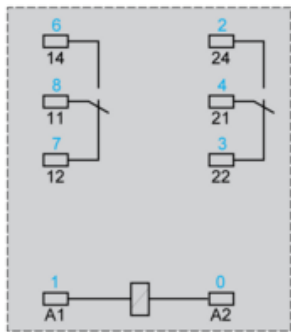
### Contractual warranty

Warranty	18 months
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Dimensions



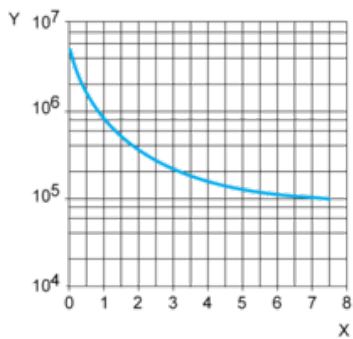
Wiring Diagram



Symbols shown in blue correspond to Nema marking.

Electrical Durability of Contacts

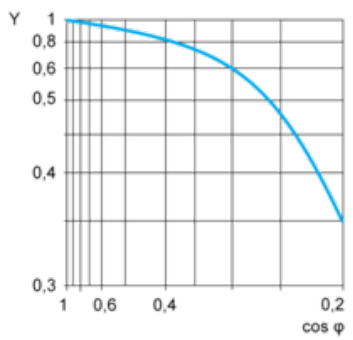
AC Resistive load



X Switching capacity (kVA)  
Y Durability (number of operating cycles)

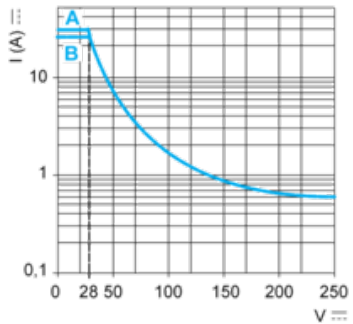
AC Reduction coefficient for inductive load (depending on power factor cos φ)

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)