

# Product data sheet

Specifications



power relay, Harmony  
Electromechanical Relays, DIN rail  
or panel mount relay, 30A, 2CO,  
without LED, without lockable test  
button, 24V AC

RPF2BB7

## Main

Range of product	Harmony Electromechanical Relays
Series name	RPF series
Product or component type	DIN rail/panel mount relay
Contacts type and composition	2 C/O
Relay type	Power relay
[Uc] control circuit voltage	24 V AC 50/60 Hz
status LED	Without
Control type	Without lockable test button
[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

## Complementary

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
Average consumption	4 VA at 60 Hz
CAD overall width	33.7 mm
CAD overall height	68.5 mm
CAD overall depth	39.2 mm
Compatibility code	RPF
[Ui] rated insulation voltage	250 V conforming to IEC 300 V conforming to UL
Maximum switching voltage	250 V conforming to IEC
Drop-out voltage threshold	$\geq 0.15 U_c$
minimum switching current	500 mA
Maximum switching capacity	7500 VA/700 W
Average resistance	170 Ohm at 20 °C +/- 15 %
Mechanical durability	5000000 cycles
Electrical durability	100000 cycles for resistive load

<b>Safety reliability data</b>	B10d = 100000
<b>Operating rate</b>	<= 1200 cycles/hour under load <= 18000 cycles/hour no-load
<b>Utilisation coefficient</b>	10 %
<b>Dielectric strength</b>	2000 V AC between poles with basic 4000 V AC between coil and contact with reinforced 1500 V AC between contacts with micro disconnection
<b>[Uimp] rated impulse withstand voltage</b>	4 kV during 1.2/50 µs
<b>Protection category</b>	RT II
<b>Pollution degree</b>	3
<b>Mounting support</b>	DIN rail Panel
<b>Operating position</b>	Any position
<b>Test levels</b>	Level A group mounting
<b>Device presentation</b>	Complete product
<b>Contacts material</b>	Silver tin oxide
<b>Shape of pin</b>	Flat (faston type)
<b>Net weight</b>	0.082 kg

## Environment

<b>Ambient air temperature for operation</b>	-40...55 °C
<b>IP degree of protection</b>	IP40 conforming to IEC 60529
<b>Standards</b>	UL 508 IEC 61810-1 CSA C22.2 No 14
<b>Product certifications</b>	UL CE GOST CSA
<b>Ambient air temperature for storage</b>	-40...85 °C
<b>Vibration resistance</b>	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
<b>Shock resistance</b>	10 gn for in operation 30 gn for not operating

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	3.500 cm
<b>Package 1 Width</b>	4.600 cm
<b>Package 1 Length</b>	7.000 cm
<b>Package 1 Weight</b>	88.000 g
<b>Unit Type of Package 2</b>	BB1
<b>Number of Units in Package 2</b>	10
<b>Package 2 Height</b>	5.400 cm
<b>Package 2 Width</b>	14.800 cm

Package 2 Length	20.000 cm
Package 2 Weight	957.000 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	6.292 kg

## Contractual warranty

Warranty	18 months
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## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.


[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Use Better

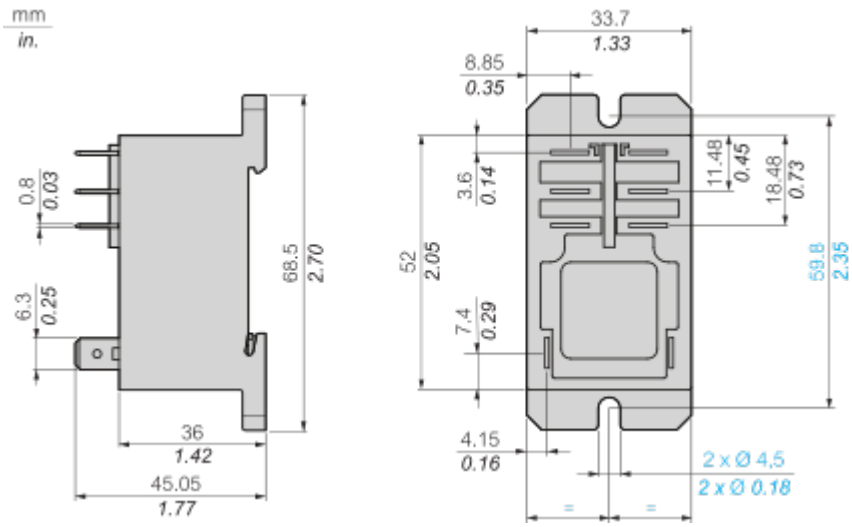
 <b>Materials and Substances</b>	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
<a href="#">EU RoHS Directive</a>	Pro-active compliance (Product out of EU RoHS legal scope)
California proposition 65	<b>WARNING:</b> This product can expose you to chemicals including: 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>

### Use Again

 <b>Repack and remanufacture</b>	
End of life manual availability	No need of specific recycling operations
Take-back	No

Dimensions Drawings

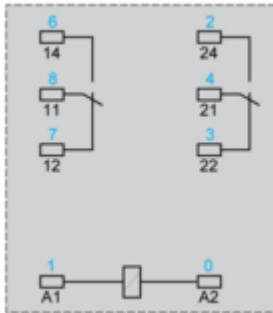
Dimensions



## Connections and Schema

### Wiring Diagram

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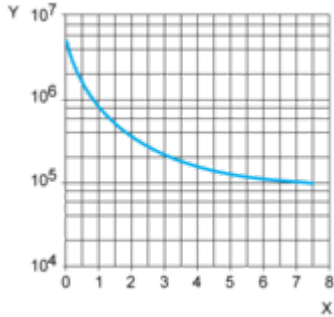
Symbols shown in blue correspond to Nema marking.

Performance Curves

Electrical Durability of Contacts

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AC Resistive load

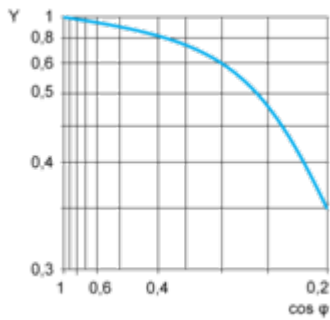


X Switching capacity (kVA)

Y Durability (number of operating cycles)

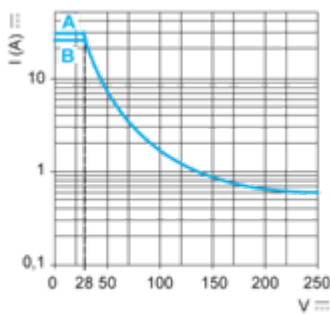
AC Reduction coefficient for inductive load (depending on power factor cos φ)

Durability (inductive load) = durability (resistive load) × 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.

Technical Illustration

Dimensions

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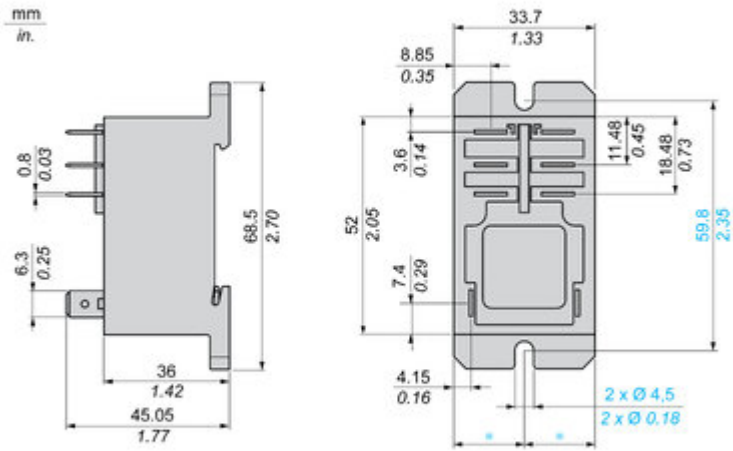


Image of product / Alternate images

Alternative

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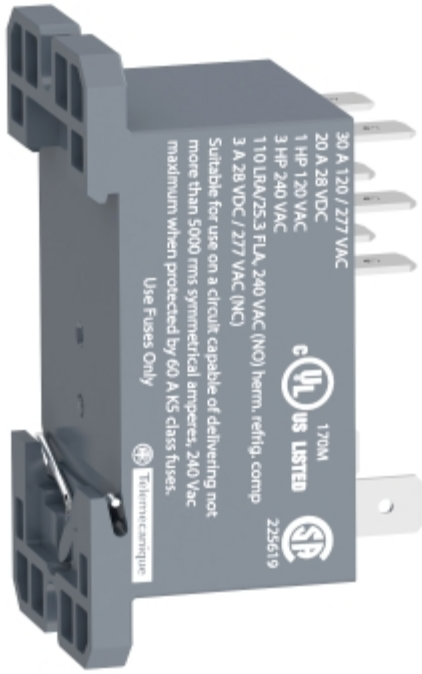




Image of product in real life situation

