Product data sheet

Specifications

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

RPF2BBD

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 DC
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	1.7 W
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	>= 0.1 Uc
minimum switching current	500 mA
Maximum switching capacity	7500 VA/700 W
Average resistance	350 Ohm at 20 °C +/- 10 %
Mechanical durability	5000000 cycles
Electrical durability	100000 cycles for resistive load

Safety reliability data	B10d = 100000
Operating rate	<= 1200 cycles/hour under load <= 18000 cycles/hour no-load
Utilisation coefficient	10 %
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
[Uimp] rated impulse withstand voltage	4 kV during 1.2/50 µs
Protection category	RT II
Pollution degree	3
Mounting support	DIN rail Panel
Operating position	Any position
Test levels	Level A group mounting
Device presentation	Complete product
Contacts material	Silver tin oxide
Shape of pin	Flat (faston type)
Product weight	0.082 kg

Environment

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

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.200 cm
Package 1 Width	3.500 cm
Package 1 Length	6.900 cm
Package 1 Weight	84.000 g
Unit Type of Package 2	BB1
Number of Units in Package 2	10
Package 2 Height	4.200 cm
Package 2 Width	14.600 cm

Package 2 Length	19.500 cm
Package 2 Weight	954.000 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	6.100 kg

Contractual warranty

Warranty	18 months

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

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**
EU RoHS Directive	**Pro-active compliance (Product out of EU RoHS legal scope)**
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**

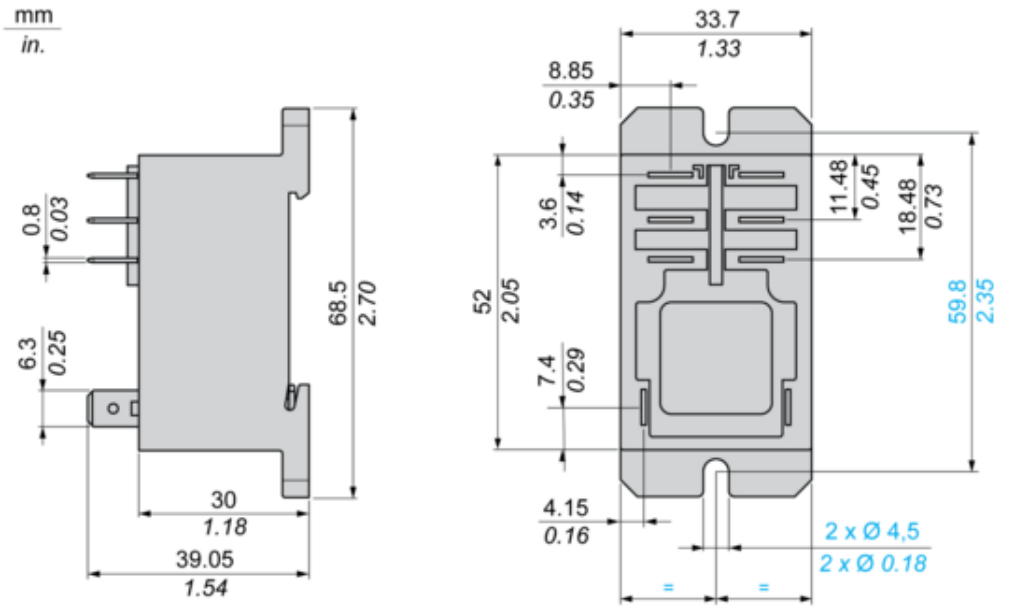
Use Again

Repack and remanufacture

End of life manual availability	**No need of specific recycling operations**
Take-back	**No**

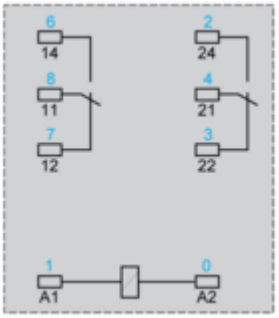
Dimensions Drawings

Dimensions



Connections and Schema

Wiring Diagram

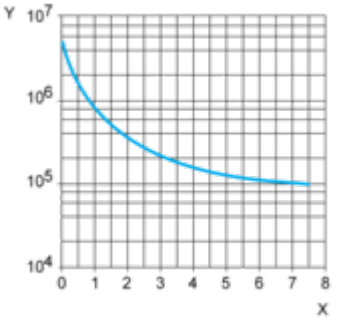


Symbols shown in blue correspond to Nema marking.

Performance Curves

Electrical Durability of Contacts

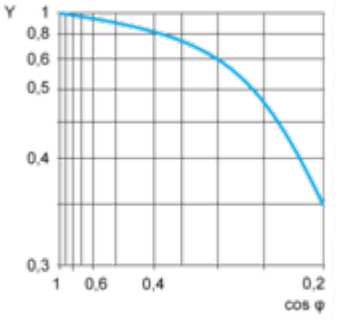
AC Resistive load



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

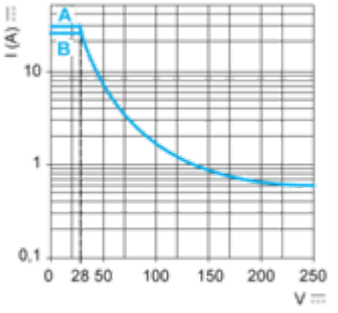
AC Reduction coefficient for inductive load (depending on power factor cos ϕ)

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.

Technical Illustration

Dimensions

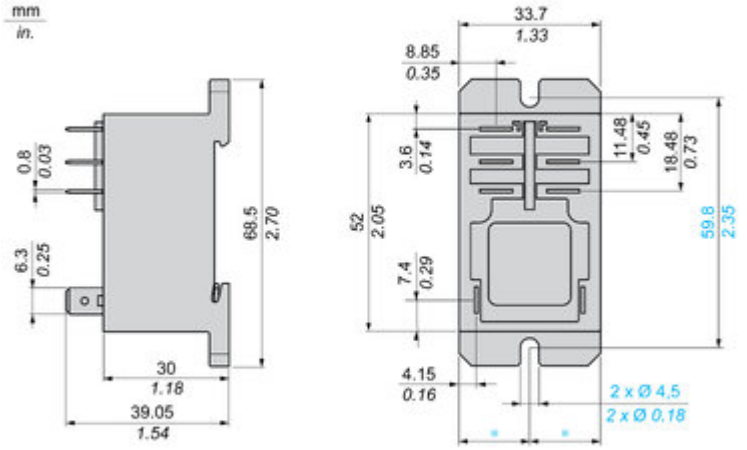
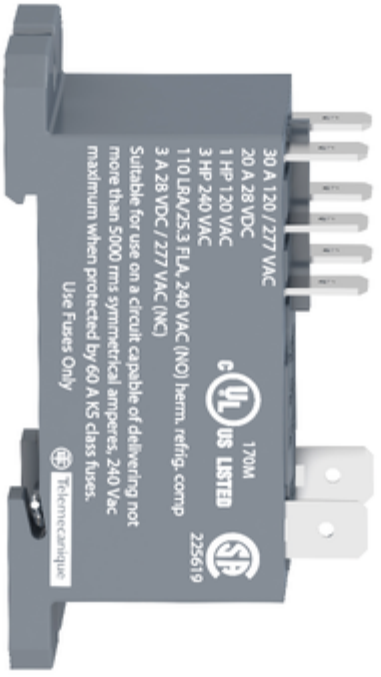


Image of product / Alternate images

Alternative


30 A 120 / 277 VAC
20 A 28 VDC
1 HP 120 VAC
3 HP 240 VAC
110 LRA/25.3 FLA, 240 VAC (NO) herm. refrig. comp
3 A 28 VDC / 277 VAC (NC)
Suitable for use on a circuit capable of delivering not more than 5000 rms symmetrical amperes, 240 Vac maximum when protected by 60 A RK5 class fuses.
Use Fuses Only
Telemecanique
170M
US LISTED
225619

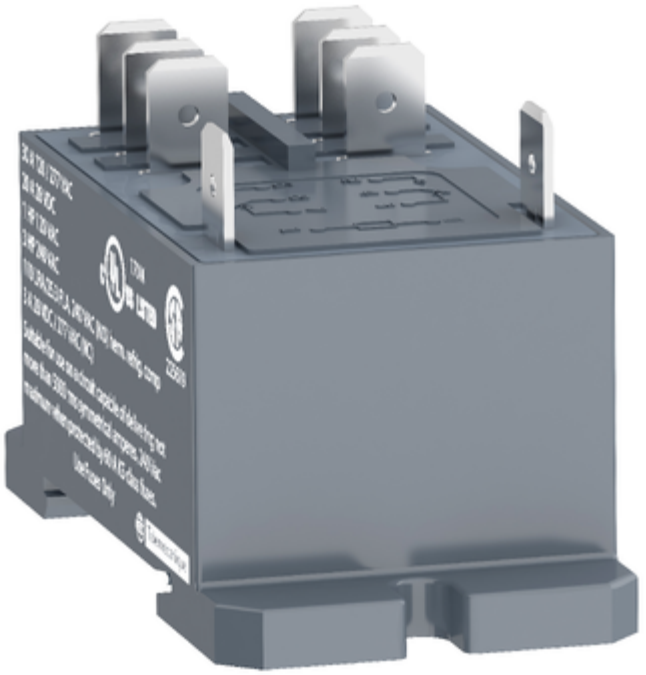


Image of product in real life situation