

# Product data sheet

Specifications



interface pre assembled plug in relay with socket, Harmony Electromechanical Relays, 8A, 2CO, with LED, without lockable test button, screw, 24V DC

RSB2A080BDPV

## Main

Range of product	Harmony Electromechanical Relays
Series name	RSB series
Product or component type	Pre-assembled plug-in relay with socket
Relay type	Interface relay
Contacts type and composition	2 C/O
Contact operation	Standard
status LED	With
[Uc] control circuit voltage	230 V DC
control type	Without lockable test button
[Ithe] conventional enclosed thermal current	8 A at -40...40 °C

## Complementary

Average resistance	1440 Ohm network: DC at 20 °C +/- 15 %
[Ue] rated operational voltage	19.2...26.4 V DC
[Uimp] rated impulse withstand voltage	3.6 kV conforming to IEC 61000-4-5
[Ie] rated operational current	4 A (AC-1/DC-1) NC conforming to IEC 8 A (AC-1/DC-1) NO conforming to IEC
[Ui] rated insulation voltage	400 V conforming to IEC 60947
Maximum switching voltage	300 V DC conforming to IEC
Drop-out voltage threshold	$\geq 0.1 U_c$ DC
Load current	8 A at 250 V AC 8 A at 28 V DC
minimum switching current	10 mA
Maximum switching capacity	2000 VA AC 224 W DC
minimum switching voltage	12 V
Minimum switching capacity	120 mW at 10 mA, 12 V
Operating time	20 ms operating 20 ms reset
Mechanical durability	30000000 cycles
Electrical durability	100000 cycles, 8 A at 250 V, AC-1 NO 100000 cycles, 4 A at 250 V, AC-1 NC
Safety reliability data	B10d = 100000

<b>Operating rate</b>	<= 600 cycles/hour under load <= 18000 cycles/hour no-load
<b>Average coil consumption</b>	0.45 W DC
<b>Contact terminal arrangement</b>	Separate
<b>Connections - terminals</b>	Connector, 1 x 0.25...1 x 2.5 mm <sup>2</sup> (AWG 22...AWG 14) flexible with cable end Connector, 2 x 0.25...2 x 1 mm <sup>2</sup> (AWG 22...AWG 17) flexible with cable end Connector, 1 x 0.5...1 x 2.5 mm <sup>2</sup> (AWG 20...AWG 14) solid without cable end Connector, 2 x 0.5...2 x 1.5 mm <sup>2</sup> (AWG 20...AWG 16) solid without cable end
<b>torque value</b>	0.8 N.m 0.8 N.m
<b>Protection category</b>	RT I
<b>Operating position</b>	Any position
<b>Test levels</b>	Level A group mounting
<b>Device presentation</b>	Complete product
<b>Sale per indivisible quantity</b>	30
<b>Contacts material</b>	Silver alloy (AgNi)
<b>Shape of pin</b>	Flat (PCB type)
<b>Net weight</b>	0.057 kg
<b>Compatibility code</b>	RSB

## Environment

<b>Dielectric strength</b>	1000 V AC between contacts 2500 V AC between poles 5000 V AC between coil and contact
<b>Vibration resistance</b>	+/- 1 mm (f= 10...55 Hz) conforming to IEC 60068-2-6
<b>IP degree of protection</b>	IP20 conforming to IEC 60529
<b>Ambient air temperature for operation</b>	-40...85 °C (DC)
<b>Standards</b>	IEC 61810-1 CSA C22.2 No 14 UL 508 IEC 61984
<b>Product certifications</b>	CE UL CSA EAC
<b>Ambient air temperature for storage</b>	-40...85 °C
<b>Shock resistance</b>	10 gn (duration = 11 ms) for not operating conforming to IEC 60068-2-27 5 gn (duration = 11 ms) for in operation conforming to IEC 60068-2-27

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	8.420 cm
<b>Package 1 Width</b>	1.560 cm
<b>Package 1 Length</b>	6.420 cm
<b>Package 1 Weight</b>	55.000 g
<b>Unit Type of Package 2</b>	BB1
<b>Number of Units in Package 2</b>	30

<b>Package 2 Height</b>	8.500 cm
<b>Package 2 Width</b>	18.300 cm
<b>Package 2 Length</b>	27.000 cm
<b>Package 2 Weight</b>	1.982 kg
<b>Unit Type of Package 3</b>	S03
<b>Number of Units in Package 3</b>	180
<b>Package 3 Height</b>	30.000 cm
<b>Package 3 Width</b>	30.000 cm
<b>Package 3 Length</b>	40.000 cm
<b>Package 3 Weight</b>	12.861 kg

## **Contractual warranty**

<b>Warranty</b>	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 >](#)

### Environmental footprint

Total lifecycle Carbon footprint	10
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Environmental Disclosure	<a href="#">Product Environmental Profile</a>
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## Use Better

### Materials and Substances

Packaging made with recycled cardboard	Yes
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Packaging without single use plastic	Yes
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<a href="#">EU RoHS Directive</a>	Pro-active compliance (Product out of EU RoHS legal scope)
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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>
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## Use Again

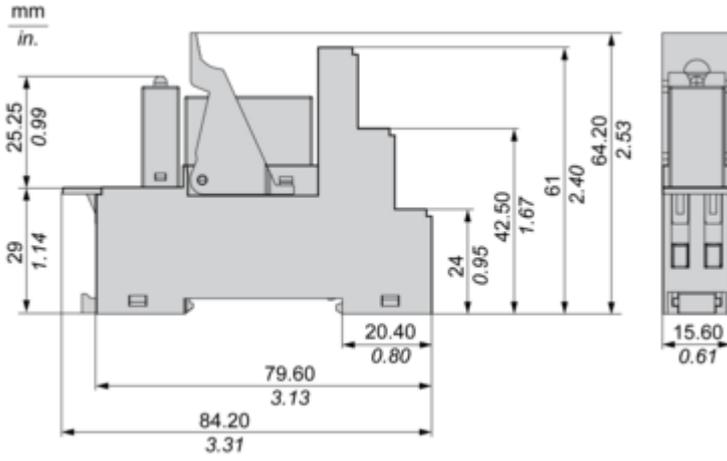
### Repack and remanufacture

Take-back	No
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Dimensions Drawings

Dimensions

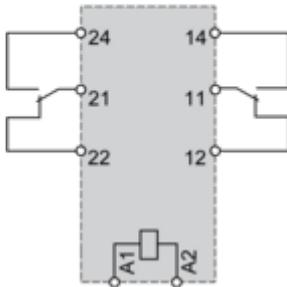
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Connections and Schema

Wiring Diagram

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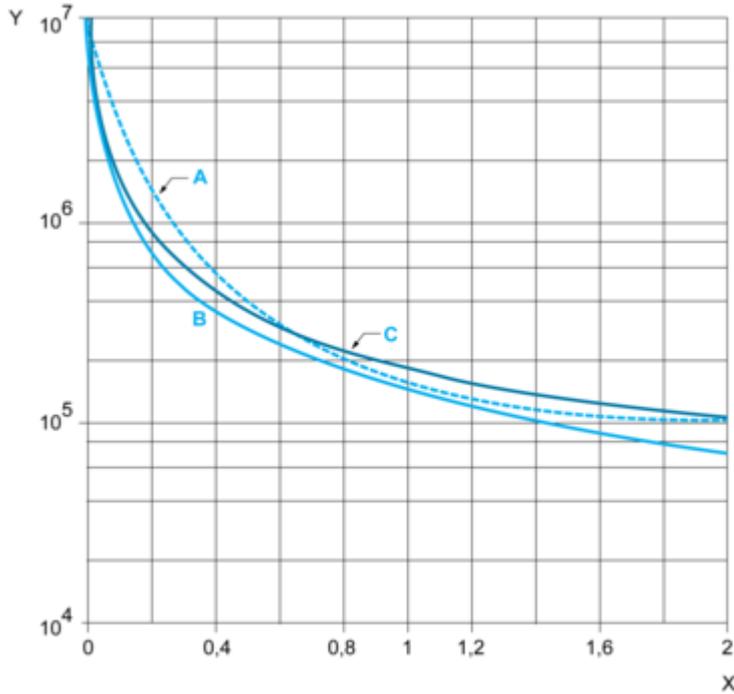


**NOTE:** For DC input, A1 have to be +, otherwise it would short circuit from protection module

Performance Curves

Electrical Durability of Contacts

Durability (Inductive Load) = Durability (Resistive Load) x Reduction Coefficient.  
Resistive AC Load



(y) Durability (Number of operating cycles)

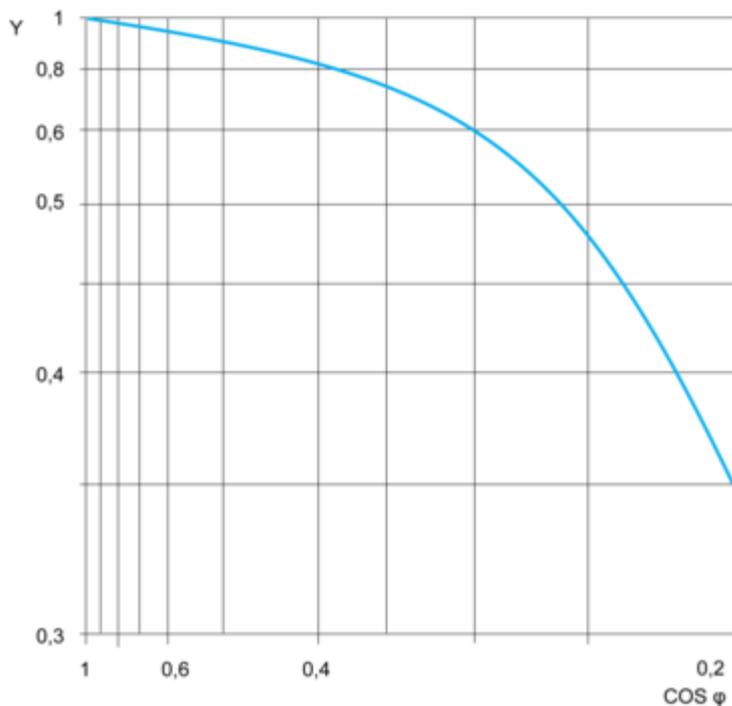
(x) Switching capacity (kVA)

A : RSB2A080●●

B : RSB1A160●●

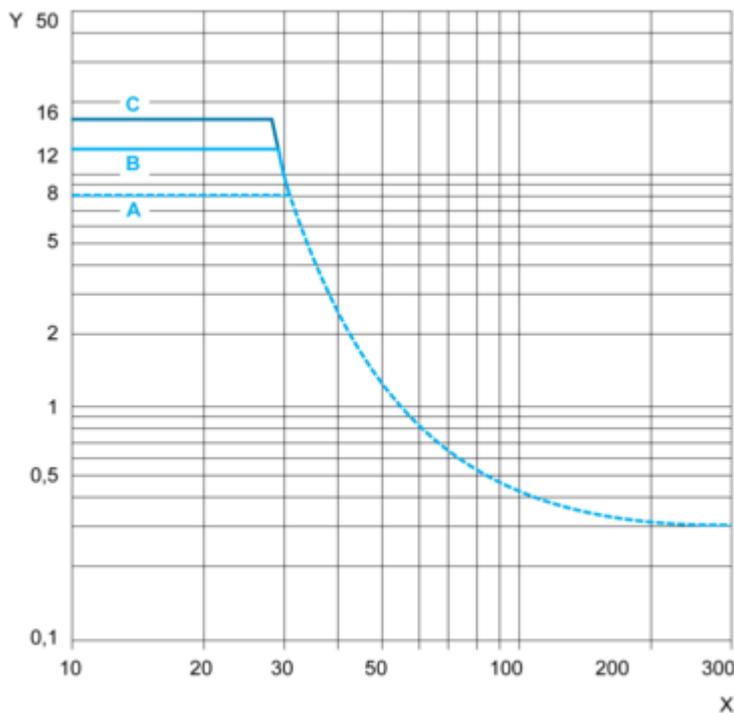
C : RSB1A120●●

Reduction Coefficient for Inductive AC Load (Depending on Power Factor cos φ)



(y) Reduction coefficient (A)

**Maximum Switching Capacity on Resistive DC Load**



(y) Current DC

(x) Voltage DC

A : RSB2A080●●

B : RSB1A160●●

C : RSB1A120●●

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



Technical Illustration

Dimensions

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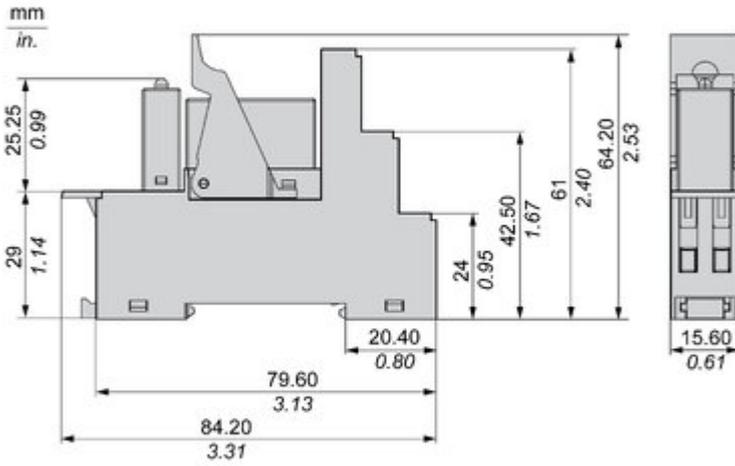
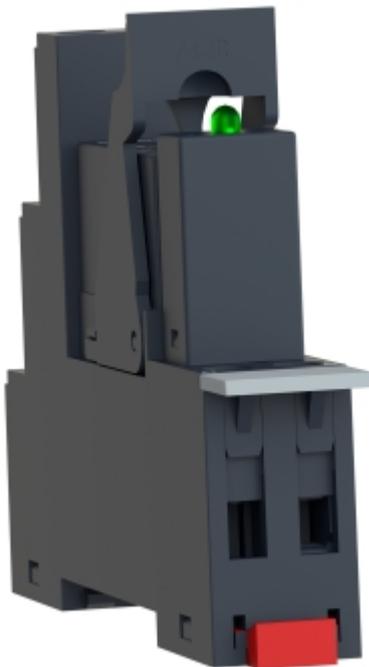
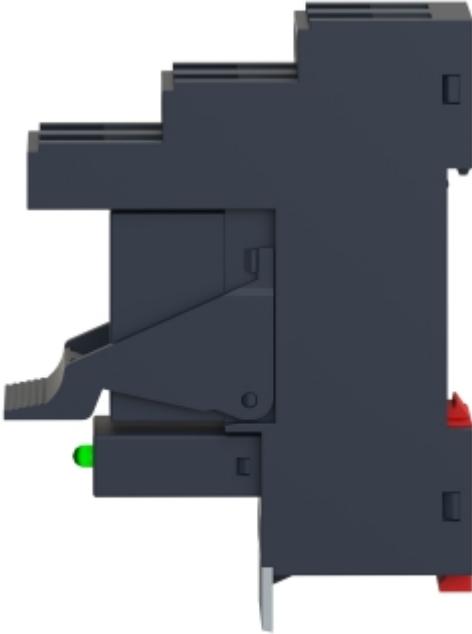
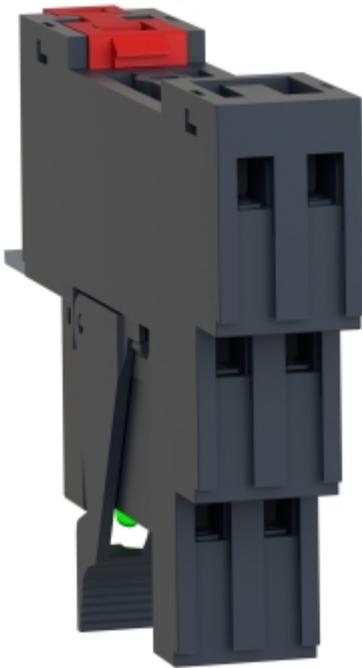


Image of product / Alternate images

Alternative

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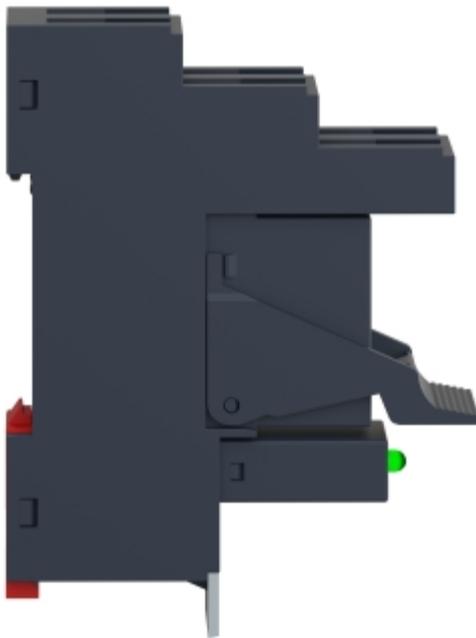


Image of product in real life situation

