Product data sheet

Specifications

Interface plug-in relay, Harmony electromechanical relays, pre-assembled, 12A, 1CO, with LED, 24V DC

RSB1A120BDPV

Product availability: Stock - Normally stocked in distribution facility

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	1 C/O
Contact operation	Standard
Status LED	With
[Uc] control circuit voltage	24 V DC
Control Type	Without lockable test button
[Ithe] conventional enclosed thermal current	12 A -40…104 °F (-40…40 °C)

Complementary

Average resistance	1440 Ohm DC 20 °C +/- 10 %
[Ue] rated operational voltage	19.2...26.4 V DC
[Uimp] rated impulse withstand voltage	3.6 kV IEC 61000-4-5
[Ie] rated operational current	12 A AC-1/DC-1) NO IEC 6 A AC-1/DC-1) NC IEC
[Ui] rated insulation voltage	400 V IEC 60947
Maximum switching voltage	300 V DC IEC
Drop-out voltage threshold	>= 0.1 Uc DC
Load current	12 A 250 V AC 12 A 28 V DC
minimum switching current	10 mA
Maximum switching capacity	3000 VA AC 336 W DC
minimum switching voltage	12 V
Minimum switching capacity	120 mW 10 mA, 12 V
Operating time	20 ms operating 20 ms reset
Mechanical durability	30000000 cycles
Electrical durability	100000 cycles, 12 A at 250 V, AC-1 NO 100000 cycles, 6 A at 250 V, AC-1 NC

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Safety reliability data	B10d = 100000
Operating rate	<= 600 cycles/hour under load <= 18000 cycles/hour no-load
Average coil consumption	0.45 W DC
Contact terminal arrangement	Separate
Connections - terminals	Connector, 1 x 0.25...1 x 2.5 mm² AWG 22...AWG 14) flexible with cable end Connector, 2 x 0.25...2 x 1 mm² AWG 22...AWG 17) flexible with cable end Connector, 1 x 0.5...1 x 2.5 mm² AWG 20...AWG 14) solid without cable end Connector, 2 x 0.5...2 x 1.5 mm² AWG 20...AWG 16) solid without cable end
Torque Value	7.08 lbf.in (0.8 N.m) 7.0 lbf.in (0.8 N.m)
Protection category	RT I
Operating position	Any position
Test levels	Level A group mounting
Device presentation	Complete product
Sale per indivisible quantity	30
Contacts material	Silver alloy (AgNi)
Shape of pin	Flat (PCB type)
Product Weight	0.110 lb(US) (0.050 kg)
Compatibility code	RSB

Environment

Dielectric strength	1000 V AC between contacts 5000 V AC between coil and contact
Vibration resistance	+/- 1 mm (f= 10…55 Hz) conforming to IEC 60068-2-6
IP degree of protection	IP20 conforming to IEC 60529
Ambient air temperature for operation	-40…185 °F (-40…85 °C) DC)
Standards	IEC 61810-1 CSA C22.2 No 14 UL 508 IEC 61984
Product Certifications	CE UL CSA EAC
Ambient Air Temperature for Storage	-40…185 °F (-40…85 °C)
Shock resistance	10 gn 11 ms) not operating IEC 60068-2-27 5 gn 11 ms) in operation IEC 60068-2-27

Ordering and shipping details

Category	US10CP221127
Discount Schedule	0CP2
GTIN	3606489562687
Returnability	Yes
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE

Nbr. of units in pkg.	1
Package 1 Height	0.63 in (1.600 cm)
Package 1 Width	2.56 in (6.500 cm)
Package 1 Length	3.35 in (8.500 cm)
Package weight(Lbs)	1.693 oz (48.000 g)
Unit Type of Package 2	BB1
Number of Units in Package 2	30
Package 2 Height	3.54 in (9.000 cm)
Package 2 Width	7.17 in (18.200 cm)
Package 2 Length	10.71 in (27.200 cm)
Package 2 Weight	3.924 lb(US) (1.780 kg)
Unit Type of Package 3	S03
Number of Units in Package 3	180
Package 3 Height	11.81 in (30.000 cm)
Package 3 Width	11.81 in (30.000 cm)
Package 3 Length	15.75 in (40.000 cm)
Package 3 Weight	25.353 lb(US) (11.500 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 >

Environmental footprint

Carbon footprint (kg CO2 eq, Total Life cycle)	6
Environmental Disclosure	Product Environmental Profile

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)
REACh Regulation	REACh Declaration
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

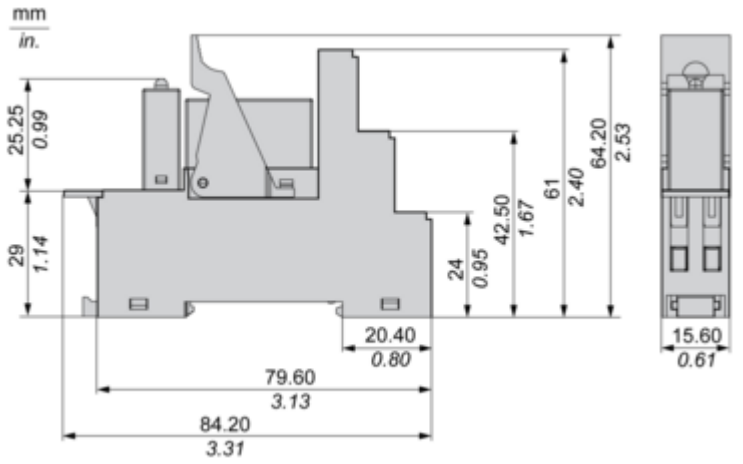
Use Again

Repack and remanufacture

Circularity Profile	No need of specific recycling operations
Take-back	No

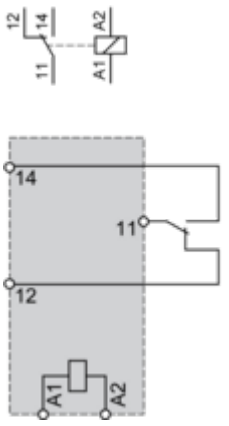
Dimensions Drawings

Dimensions



Connections and Schema

Wiring Diagram



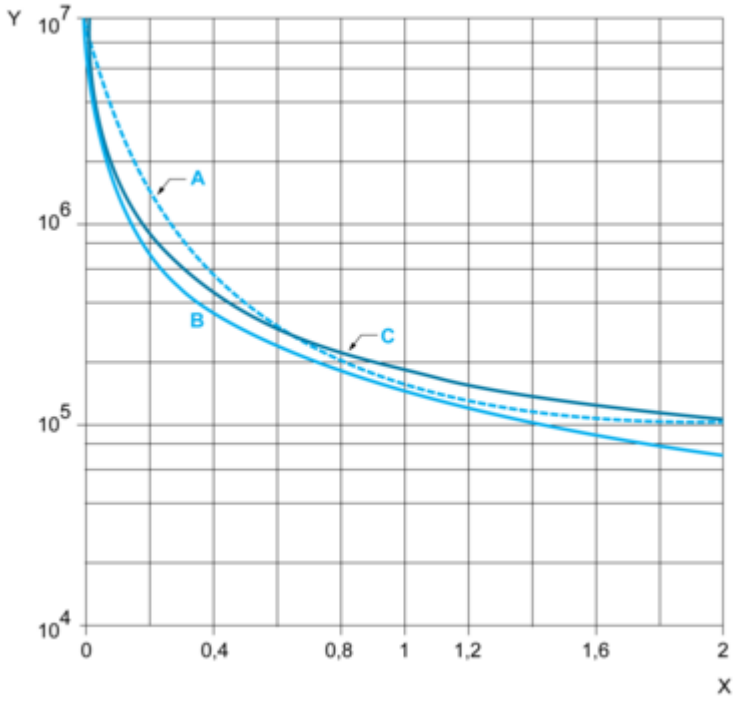
NOTE: For DC input, A1 have to be +, otherwise it would short circuit from protection module

Performance Curves

Electrical Durability of Contacts

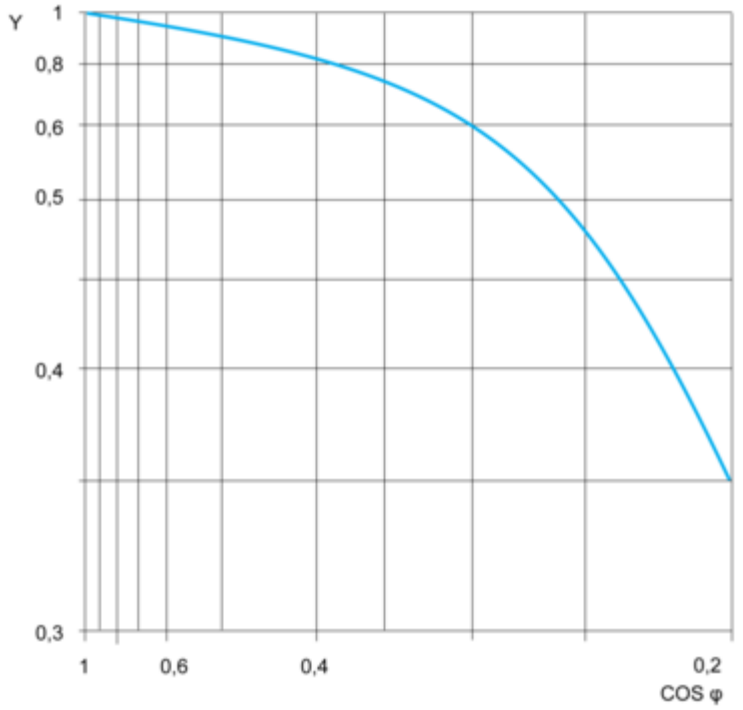
Durability (Inductive Load) = Durability (Resistive Load) x Reduction Coefficient.

Resistive AC Load



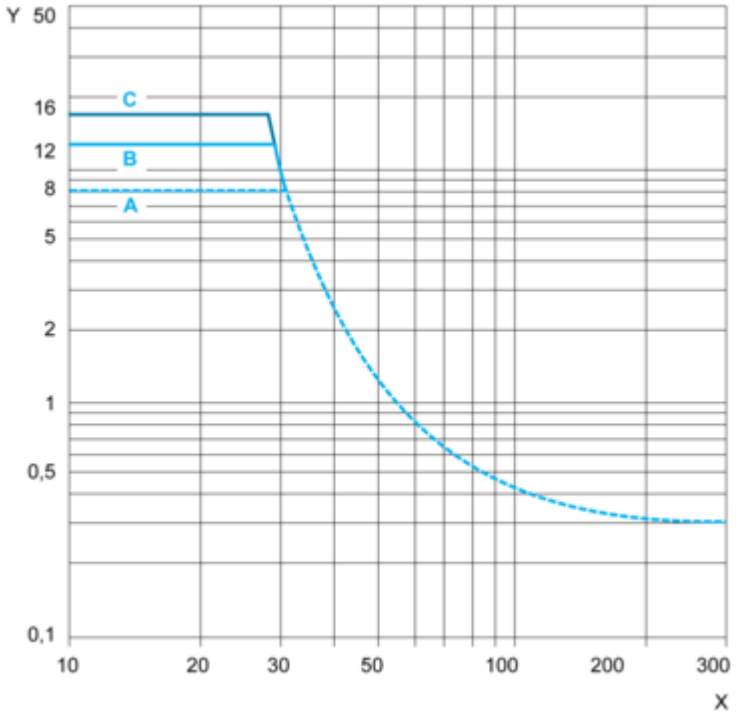
(y) Durability (Number of operating cycles)
(x) Switching capacity (kVA)
A : RSB2A080●●
B : RSB1A160●●
C : RSB1A120●●

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

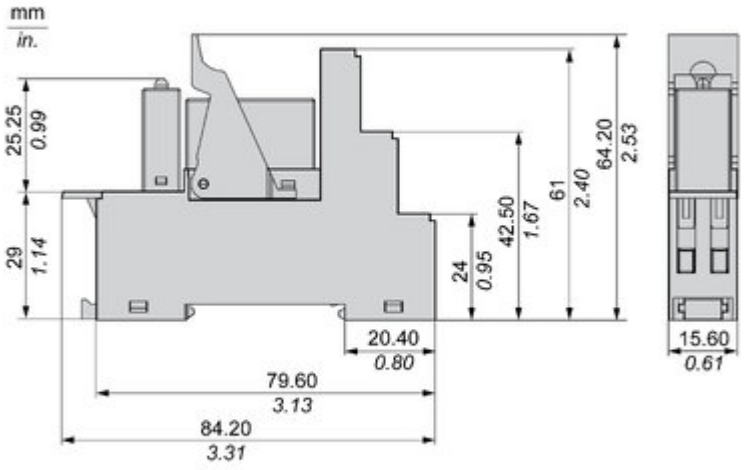
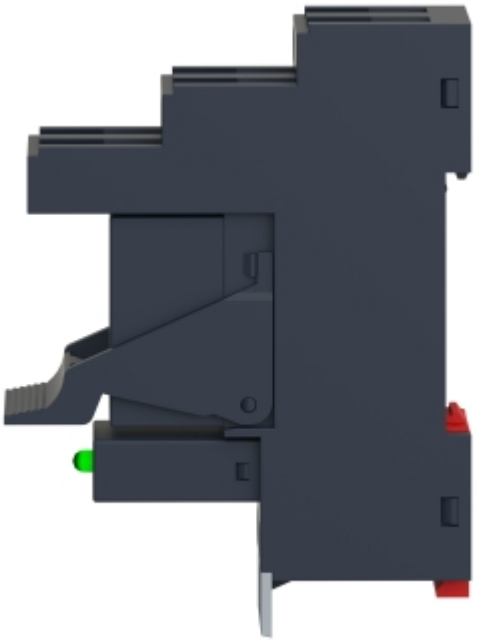
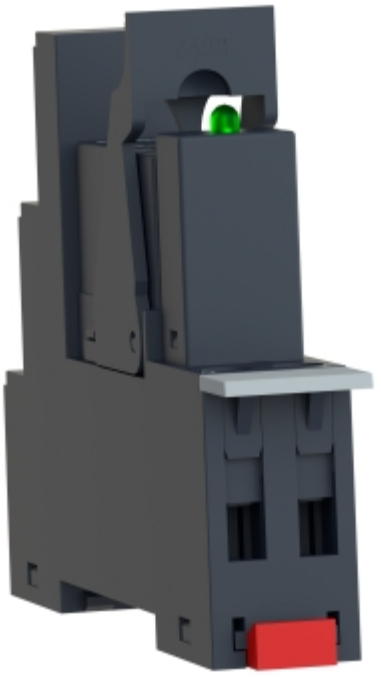
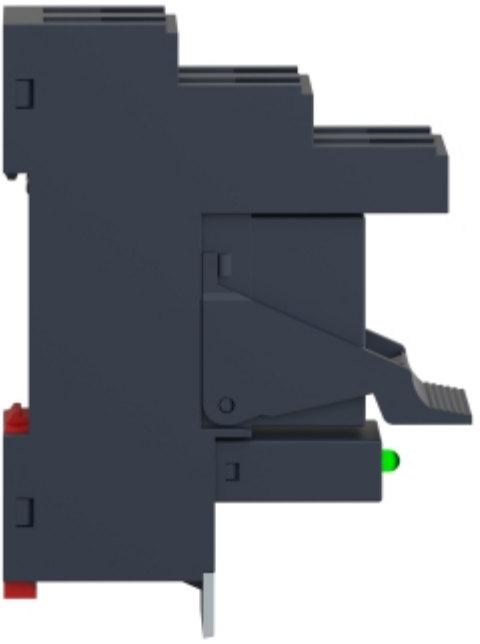


Image of product / Alternate images

Alternative








11
14
12
Schneider Electric
A2
A1

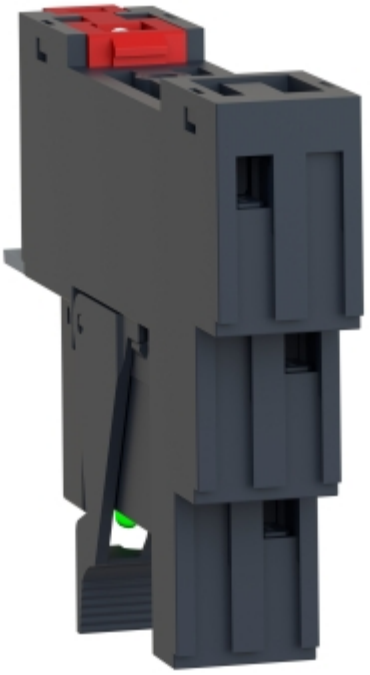


Image of product in real life situation