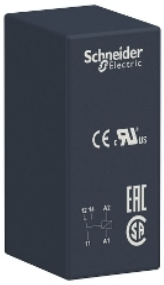
Product data sheet
Characteristics

RSB1A120FD
interface plug-in relay, Harmony electromechanical relays, 12A, 1CO, 110V DC



Main

Range of Product	Harmony Electromechanical Relays
Series name	Interface relay
Product or Component Type	Plug-in relay
Device short name	RSB
Contacts type and composition	1 C/O
Contact operation	Standard
[Uc] control circuit voltage	110 V DC
[Ithe] conventional enclosed thermal current	12 A -40…104 °F (-40…40 °C)
Status LED	Without
Control Type	Without push-button

Complementary

Shape of pin	Flat (PCB type)
Average coil resistance	30250 Ohm AC 20 °C +/- 10 %
[Ue] rated operational voltage	77...165 V DC
[Ui] rated insulation voltage	400 V IEC 60947
[Uimp] rated impulse withstand voltage	3.6 kV IEC 61000-4-5
Contacts material	Silver alloy (AgNi)
[Ie] rated operational current	12 A AC-1/DC-1) NO IEC 6 A AC-1/DC-1) NC IEC
Minimum switching current	10 mA
Maximum switching voltage	300 V DC IEC
Minimum switching voltage	12 V
Maximum switching capacity	3000 VA/336 W
Resistive rated load	12 A 250 V AC 12 A 28 V DC
Minimum switching capacity	120 mW 10 mA, 12 V
Operating rate	<= 600 cycles/hour under load <= 18000 cycles/hour no-load
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
Operating time	20 ms operating 20 ms reset
Average coil consumption	0.45 W DC
Drop-out voltage threshold	>= 0.1 Uc DC
Safety reliability data	B10d = 100000
Protection category	RT I
Test levels	Level A group mounting
Operating position	Any position
Net Weight	0.031 lb(US) (0.014 kg)
Sale per indivisible quantity	10
Device presentation	Complete product

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein.
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.
It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof.
Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Environment

Dielectric strength	1000 V AC between contacts 2500 V AC between poles 5000 V AC between coil and contact
Standards	CSA C22.2 No 14 IEC 61810-1 UL 508
Product Certifications	EAC[RETURN]UL[RETURN]CSA
Ambient Air Temperature for Storage	-40…185 °F (-40…85 °C)
Vibration resistance	+/- 1 mm 10…55 Hz)IEC 60068-2-6
IP degree of protection	IP40 conforming to IEC 60529
Shock resistance	10 gn 11 ms) not operating IEC 60068-2-27 5 gn 11 ms) in operation IEC 60068-2-27
Ambient air temperature for operation	-40…185 °F (-40…85 °C) DC)

Ordering and shipping details

Category	US10CP221127
Discount Schedule	0CP2
GTIN	3389110254181
Returnability	No
Country of origin	AT

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	0.8 in (2.1 cm)
Package 1 Width	1.0 in (2.5 cm)
Package 1 Length	12.2 in (31.1 cm)
Package 1 Weight	0.5 oz (15 g)
Unit Type of Package 2	BB1
Number of Units in Package 2	10
Package 2 Height	0.8 in (2.1 cm)
Package 2 Width	1.0 in (2.5 cm)
Package 2 Length	12.2 in (31.1 cm)
Package 2 Weight	5.7 oz (162 g)
Unit Type of Package 3	S01
Number of Units in Package 3	350
Package 3 Height	5.9 in (15 cm)
Package 3 Width	5.9 in (15 cm)
Package 3 Length	15.7 in (40 cm)
Package 3 Weight	13.049 lb(US) (5.919 kg)

Offer Sustainability

Sustainable offer status	Green Premium product
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
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration

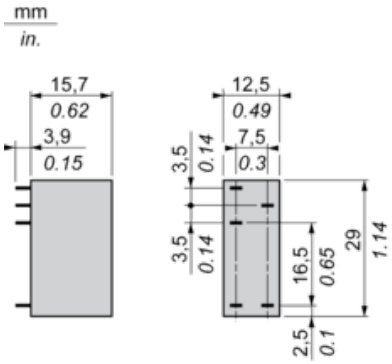
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	No need of specific recycling operations
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Contractual warranty

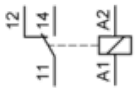
Warranty	18 months

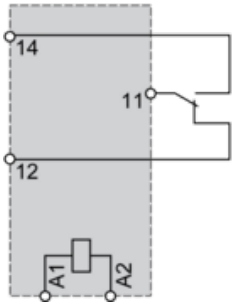
RSB1A120FD

Dimensions



Wiring Diagram





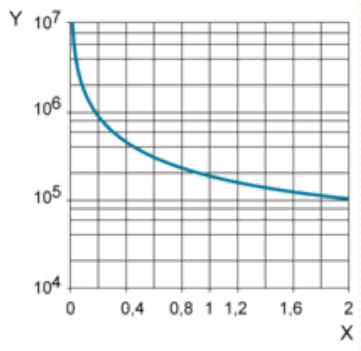
NOTE: For DC input, A1 have to be +, otherwise it would short circuit from protection module

RSB1A120FD

Electrical Durability of Contacts

Durability (inductive load) = durability (resistive load) x reduction coefficient.

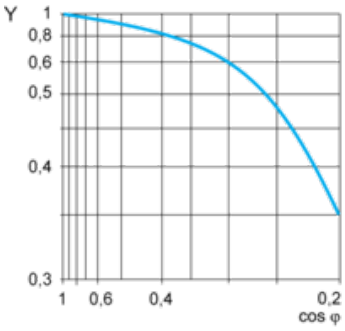
Resistive AC load



X Switching capacity (kVA)

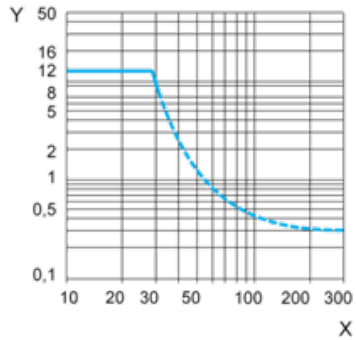
Y Durability (Number of operating cycles)

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



Y Reduction coefficient (A)

Maximum switching capacity on resistive DC load



X Voltage DC

Y Current DC

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