Product data sheet Characteristics

RSB1A120BD

Harmony, Interface plug-in relay, 12 A, 1 CO, 24 V DC





Main

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Range of product	Harmony Electromechanical Relays	- Lo
Series name	Interface relay	_ 5
Product or component type	Plug-in relay	_ o
Device short name	RSB	_ ş
Contacts type and composition	1 C/O	_ i
Contact operation	Standard	<u> </u>
[Ithe] conventional enclosed thermal current	12 A at -4040 °C	ability or
Status LED	Without	-:
Control type	Without push-button	— ii

Complementary

Shape of pin	Flat (PCB type)
Average coil resistance	1440 Ohm network: AC at 20 °C +/- 10 %
[Ue] rated operational voltage	16.836 V DC
[Ui] rated insulation voltage	400 V conforming to EN/IEC 60947
[Uimp] rated impulse withstand voltage	3.6 kV IEC 61000-4-5
Contacts material	Silver alloy (AgNi)
[le] rated operational current	12 A (AC-1/DC-1) NO conforming to IEC 6 A (AC-1/DC-1) NC conforming to IEC
Minimum switching current	10 mA
Maximum switching voltage	300 V DC conforming to IEC
Minimum switching voltage	12 V
Maximum switching capacity	3000 VA/336 W
Resistive rated load	12 A at 250 V AC 12 A at 28 V DC
Minimum switching capacity	120 mW at 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	0.014 kg	
Sale per indivisible quantity	10	
Device presentation	Complete product	

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 UL 508 EN/IEC 61810-1	
Product certifications	UL CSA EAC	
Ambient air temperature for storage	-4085 °C	
Vibration resistance	+/- 1 mm (f= 1055 Hz) conforming to EN/IEC 60068-2-6	
IP degree of protection	IP40 conforming to EN/IEC 60529	
Shock resistance	10 gn (duration = 11 ms) for not operating conforming to EN/IEC 60068-2-27 5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27	
Ambient air temperature for operation	-4085 °C (DC)	

Packing Units

Package 1 Weight	0.014 kg	
Package 1 Height	0.170 dm	
Package 1 width	3.330 dm	
Package 1 Length	0.270 dm	

Offer Sustainability

Sustainable offer status	Green Premium product	
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	
RoHS exemption information	Yes	
China RoHS Regulation	China RoHS declaration	
Environmental Disclosure	Product Environmental Profile	
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins	
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	

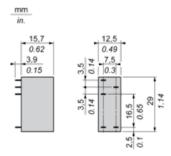
Contractual warranty

Warranty 18 months

Product data sheet Dimensions Drawings

RSB1A120BD

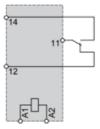
Dimensions



RSB1A120BD

Wiring Diagram





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

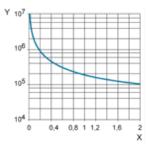
Product data sheet Performance Curves

RSB1A120BD

Electrical Durability of Contacts

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

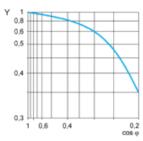
Resistive AC load



X Switching capacity (kVA)

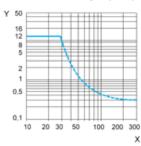
Y Durability (Number of operating cycles)

Reduction coefficient for inductive AC load (depending on power factor $\cos \phi$)



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.