## Product data sheet Characteristics

## RSB1A120E7

Harmony, Interface plug-in relay, 12 A, 1 CO, 48 V AC





#### 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
[Ithe] conventional enclosed thermal current	12 A at -4040 °C
Status LED	Without
Control type	Without push-button

Complementary

Shape of pin	Flat (PCB type)
Average coil resistance	1540 Ohm network: AC at 20 °C +/- 10 %
[Ue] rated operational voltage	38.472 V AC 50/60 Hz
[Ui] rated insulation voltage	400 V conforming to EN/IEC 60947
[Uimp] rated impulse withstand voltage	IEC 61000-4-5 3.6 kV
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	10000000 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	0.75 VA AC
Drop-out voltage threshold	>= 0.15 Uc AC
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	EN/IEC 61810-1	
	UL 508	
	CSA C22.2 No 14	
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	-4070 °C (AC)	

## 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	<sup>™</sup> REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
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

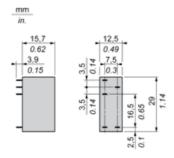
#### Contractual warranty

Warranty	18 months	

# Product data sheet Dimensions Drawings

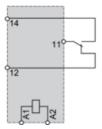
## RSB1A120E7

#### **Dimensions**



#### Wiring Diagram



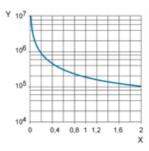


NOTE: For DC input, A1 have to be +, otherwise it would short circuit from protection module

#### **Electrical Durability of Contacts**

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

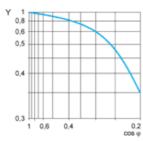
Resistive AC load



X Switching capacity (kVA)

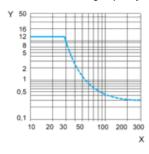
Y Durability (Number of operating cycles)

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.