Product data sheet Characteristics

RSB1A160BDS

Interface plug-in relay, 16 A, 1 CO, 24 V DC, with socket





Main

| Within | | 22 |
|--|---------------------|-----------|
| Range of product | Harmony Relay | ° for |
| Series name | Interface relay | - duct- |
| Product or component type | Plug-in relay | - Dro |
| Device short name | RSB | - the |
| Contacts type and composition | 1 C/O | - C vilic |
| Contact operation | Standard | - ai |
| [Uc] control circuit voltage | 24 V DC | - Lo |
| [Ithe] conventional enclosed thermal current | 16 A at -4040 °C | litabil |
| Status LED | Without | _ uiuim |
| Control type | Without push-button | later |
| | | |

Complementary

| Main | | |
|--|---|---------------------------------------|
| Range of product | Harmony Relay | |
| 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 | 24 V DC | |
| [Ithe] conventional enclosed thermal current | 16 A at -4040 °C | |
| Status LED | Without | |
| Control type | Without push-button | |
| | | |
| Complementer | | |
| Complementary Shape of pin | Flat | |
| · · · | 1440 Ohm network: DC at 20 °C +/- 10 % | |
| Average coil resistance | | |
| [Ue] rated operational voltage | 19.226.4 V DC | |
| [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 (Ag/Ni) | |
| [le] rated operational current | 16 A (AC-1/DC-1) NO conforming to IEC 8 A (AC-1/DC-1) NC conforming to IEC | |
| Minimum switching current | 5 mA | |
| Maximum switching voltage | 300 V DC 400 V AC | |
| Minimum switching voltage | 5 V | |
| Maximum switching capacity | 4000 VA AC 448 W DC | |
| Resistive rated load | 16 A at 250 V AC | |
| 28 Eab 2021 | | |



| | 16 A at 28 V DC | |
|-------------------------------|---|--|
| Minimum switching capacity | 300 mW 5 mA | |
| Operating rate | <= 600 cycles/hour under load <= 72000 cycles/hour no-load | |
| Mechanical durability | 3000000 cycles | |
| Electrical durability | 100000 cycles, 16 A 250 V, AC-1 NO 100000 cycles, 8 A 250 V, AC-1 NC | |
| Operating time | 4 ms between coil de-energisation and making of the Off-delay contact 9 ms between coil energisation and making of the On-delay contact | |
| Marking | CE | |
| Average coil consumption | 0.45 W DC | |
| Drop-out voltage threshold | >= 0.1 Uc DC | |
| Safety reliability data | B10d = 100000 | |
| Protection category | RT I | |
| Operating position | Any position | |
| 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 CSA C22.2 No 14 UL 508 | |
| Product certifications | CSA GOST UL | |
| Ambient air temperature for storage | -40185 °F (-4085 °C) | |
| Vibration resistance | +/- 1 mm (f= 1055 Hz) conforming to EN/IEC 60068-2-6 | |
| IP degree of protection | IP40 EN/IEC 60529 | |
| Shock resistance | 10 gn 11 ms) not operating 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) -4085 °C (DC) | |
| | | |

Packing Units

| Package 3 width Package 3 Length | 11.81 in (30 cm) 15.75 in (40 cm) |
|----------------------------------|--------------------------------------|
| Package 3 Height | 5.91 in (15 cm) |
| Package 3 Weight | 8.85 lb(US) (4.015 kg) |
| Number of Units in Package 3 | 60 |
| Unit Type of Package 3 | S02 |
| Package 2 Length | 13.39 in (34 cm) |
| Package 2 width | 4.06 in (10.3 cm) |
| Package 2 Height | 2.95 in (7.5 cm) |
| Package 2 Weight | 2.89 lb(US) (1.31 kg) |
| Number of Units in Package 2 | 20 |
| Unit Type of Package 2 | BB1 |
| Package 1 Length | 13.39 in (34 cm) |
| Package 1 width | 3.94 in (10 cm) |
| Package 1 Height | 3.15 in (8 cm) |
| Package 1 Weight | 2.29 oz (65 g) |
| Number of Units in Package 1 | 1 |
| Unit Type of Package 1 | PCE |

Offer Sustainability Sustainable offer status Green Premium product REACh free of SVHC Yes 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

Contractual warranty

Warranty 18 months

Product data sheet Dimensions Drawings

RSB1A160BDS

Dimensions

Relay Complete with Socket



(1) Relays(2) Socket

Product data sheet Connections and Schema

RSB1A160BDS

Wiring Diagram



(1) Terminals 11 and 21,14 and 24,12 and 22 must be linked for this referencesNOTE: For DC input, A1 have to be +, otherwise it would short circuit from protection module

RSB1A160BDS

Electrical Durability of Contacts

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



X Y Switching capacity (kVA)

Durability (Number of operating cycles)

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



Reduction coefficient (A) Υ

Maximum switching capacity on resistive DC load



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