

PUBLIC PRODUCT DATASHEET

EVI-50 High voltage DC Relay

High Voltage DC Contactor EVI-50 Epoxy Series is part of the High Voltage DC Contactor range from SHR MiRelay. This English public datasheet has been rebuilt under the current SHR AUTOSENSOR TECH LIMITED identity for customer selection, sample purchase and RFQ support.

Product Family High Voltage DC Contactor	Model High Voltage DC Contactor EVI-50 Epoxy Series	Purchase Path Sample order or RFQ confirmation
Manufacturer SHR AUTOSENSOR TECH LIMITED	Website www.reed-relay.com	Sales Contact sales@reed-relay.com
Contact Form 1 Form A	Rated Load 50	Contact Resistance ≤1@20A
Insulation Resistance reaches 1000MΩ(1000VDC)	Release Time 10Max.	Operating Temperature deg C -40-+85

Key Features

- Special Epoxy seal, No arc leakage, protection class IP68
- Compact structure, low noise
- The mixed gas mainly filled with hydrogen can prevent the contact from oxidation and burning
- 50A 85 deg C long time current carrying capacity
- The insulation resistance reaches 1000MΩ(1000VDC)
- an
- d meets the requirements of IEC60664-1

Technical Specifications

Parameter	Value
Contact Form	1 Form A
Rated Load	50
Contact Resistance	≤1@20A
Insulation Resistance	reaches 1000MΩ(1000VDC)
Release Time	10Max.
Operating Temperature	deg C -40-+85
Mechanical Durability	3×10 ⁵
Electrical Endurance	2)

Specification Notes

EVI-50 High voltage DC Relay

1 Product Features

Special Epoxy seal, No arc leakage, protection class IP68

Compact structure, low noise

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50A 85 deg C long time current carrying capacity

The insulation resistance reaches 1000MΩ(1000VDC)

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2 Performance Data

Contact Form / 1 Form A

Contact Rated Load A 50

Mechanical Durability Ops 3×10⁵

Max. Switching Voltage VDC 1000

Max. Breaking Current / 500A(320V DC) 1 times

Current Tolerance 1) / 80A: 10min; 120A: 1min; 500A: 1s

Contact Resistance mΩ ≤1 @20A

Operating Time (at rated voltage) ms 30Max.

Release Time (at rated voltage) ms 10Max.

Insulation Resistance MΩ 1000 (1000VDC)

Dielectric

Withstand

Voltage

Between Open Contacts / 3000VAC 50 Hz/60 Hz

Between Contacts and Coil / 3000VAC 50 Hz/60 Hz

Electrical Endurance 2)

50A 450VDC (DC-1) Ops 1.5×10⁴

50A 750VDC (DC-1) Ops 5×10³

Impact

Stability / 196m/s²

Strength / 490 m/s²

Vibration / 10Hz-500Hz 49 m/s²

Operating Temp deg C -40--+85

Fumidity / 5%-85%RH

Form Of Load Outlet / Internal Thread/External Thread

Weight g 190

Outline Dimensions / Reference outline drawing

Remark: 1) please refer to the attached figure "tolerance curve". 2) The on-off ratio is 0.6s: 5.4s. Please note that if the coil parallel diode is used, the release time of the relay will be greatly prolonged and the service life will be reduced.

SHR SENSOR & RELAY

sales@reed-relay.com

3 Coil Parameters

Nominal Voltage(Us) 12V DC 24V DC 48V DC

Operating Voltage Range ±20%Us ±20%Us ±20%Us

Pickup Voltage 9Vmax 18Vmax 36Vmax

Dropout Voltage (1-5)V (2-9)V (4-18)V

Coil Power 5.5W 6W 6W

4 Example of order marking

EV I-50 A■750 -12 C F 5 (XXX)

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

① Product Model: EV

② Product Type: I: Epoxy Sealed Type

③ Series Code: 50: 50A

④ Contact form: A: 1 Form A

⑤ Load Voltage: Blank: 450VDC; 750: 750VDC

⑥ Nominal coil voltage: 12: 12VDC; 24: 24VDC.....

⑦ Coil Lead-out Mode: Blank: None – Stripped Wires; C: Connector

⑧ With Auxiliary Contact Or Not: Blank: Without; F: With Normally Open Auxiliary Contacts

⑨ Form Of Load Outlet: 4: Internal Thread; 5: External Thread

Ordering & Engineering Support

For production projects, confirm coil voltage, contact form, switching voltage/current, load type, operating environment, target quantity and required approvals before release. Contact sales@reed-relay.com or +86 137 6157 1029 for datasheet confirmation, sample availability and cross-reference support.

Address: Room 311, No. 18 Hangchuan Road, Pudong New District, Shanghai, China

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