

MH Series High Voltage Mercury Reed Relays

High voltage Mercury Reed Relay

1 Features

- ◆ High-power mercury reed relay, dielectric strength up to 10KVDC
- ◆ High carry current capability
- ◆ High insulation resistance, up to $10^{12}\Omega$
- ◆ Low contact resistance, long-life hermetically sealed contacts
- ◆ External magnetic and electrostatic shielding
- ◆ Custom designs available, RoHS compliant

2 Performance Data

Parameter	Unit	MH□-1A8K	MH□-1A10K
Contact rating	W	100	
Max. switching voltage (Max DC/Peak AC)	V	5000	
Max. switching current (Max DC/Peak AC)	A	5.0	
Max. carry current	A	10.0	
Contact resistance	mΩ	100	
Dielectric strength			
Between open contacts	V	8000	10000
Between contacts and coil	V	8000	10000
Between contacts and shield case	V	8000	10000
Insulation resistance	Ω	10^{12}	
Operate time	ms	7.0	
Release time	ms	5.0	
Vibration (0~2000Hz)	G	20	
Shock (11 ms, 1/2 sine wave)	G	50	
Operating temperature	°C	-20~+70	
Storage temperature	°C	-35~+105	
Expected life	Ops	5×10^7 (at 500VDC, 100mA)	
Dimensions	/	See dimension drawings	

3 Coil Data

Model	Rated voltage (VDC)	Pick-up voltage (VDC)	Drop-out voltage (VDC)	Max. voltage (VDC)	Coil resistance
MH□-1A□	5	4	0.8	6.5	50
	12	9	1.2	16	200
	24	18	2.4	29	800

Coil resistance unit: $\pm 10\%$ Ω at 20°C

4 Part Number Code

Code format: MH □ - □ □ -(XXX)

Positions: ① ② ③ ④ ⑤

Code	Item	Description
①	Series	MH
②	Coil voltage	05: 5VDC, 12: 12VDC, 24: 24VDC
③	Contact form	1A: 1 Form A
④	Voltage rating	8K: 8000V, 10K: 10000V
⑤	Special characteristic number	Per customer requirements

5 Cautions for Use

- Do not install the relay where it is directly exposed to rain, in strong magnetic fields, or near objects with heat radiation.
- Switching inductive or capacitive loads may generate peak voltage or current; a protection circuit is recommended, otherwise the relay may be damaged.
- Avoid excessive packing density during use, as this may affect the electrical characteristics of the relay.
- Excessive mechanical shock may cause relay malfunction.
- For wave soldering: max. temperature 260°C, max. 5 s.

6 Disclaimer

This document is for customer reference only. Specifications are subject to change due to product improvements without prior notice. The final specifications of each product are subject to the Product Commitment and approved samples.

Performance requirements vary by application. Customers should select the appropriate product based on actual operating conditions. If in doubt, please contact us.

Document version: V2.0 English | SHR AUTOSENSOR TECH LIMITED | www.reed-relay.com