

# HF8509 HIGH POWER LATCHING RELAY



File No.:CH0013854-99

### Features

- 60 A switching capabilities
- 4KV dielectric coil to contacts
- Heavy load up to 15000VA
- SPST configurations

### CONTACT DATA

Contact Arrangement	1A		
Initial Contact Resistance	50mΩ (at 1A 24VDC)		
Contact Material	AgCdO		
Contact Rating (Res. Load)	60A 250VAC	50A 250VAC	40A 250VAC
	5000 OPS	10000 OPS	100000 OPS
Max. switching voltage	250VAC		
Max. switching current	60A		
Max. switching power	15000VA		
Mechanical life	1 x 10 <sup>6</sup> OPS		
Electrical life	1 x 10 <sup>6</sup> OPS		

### COIL

Coil power	Single Coil: 1.0W	Double Coil: 2.0W
------------	-------------------	-------------------

### COIL DATA

Nominal Voltage VDC	Pick-up Voltage VDC(max.)	Pulse Duration ms (min.)	Coil Resistance Ω	
5	3.5	50	Single Coil	24
6	4.2	50		35
9	6.3	50		80
12	8.4	50		145
24	16.8	50		575
48	33.6	50		2270
5	3.5	50	Double Coil	2 x 12
6	4.2	50		2 x 17.5
9	6.3	50		2 x 40
12	8.4	50		2 x 72
24	16.8	50		2 x 285
48	33.6	50		2 x 1135

Notes:When requiring other nominal voltage, special order allowed.

### CHARACTERISTICS

Initial Insulation Resistance		1000MΩ, 500 VDC
Dielectric Strength	Between coil and Contacts	4000VAC, 1min.
	Between open contacts	1500VAC, 1min.
Creepage Distance		8mm
Operate time (at nomi. Volt.)		20ms
Release time (at nomi. Volt.)		20ms
Shock Resistance	Functional	98m/s <sup>2</sup>
	Destructive	980m/s <sup>2</sup>
Vibration Resistance		DA:1.5mm, 10 to 55Hz
Humidity		98%, +40°C
Ambient temperature		-40°C to +70°C
Termination		PCB & QC
Unit weight		Approx. 33g
Construction		Sealed & Dust Cover

## ORDERING INFORMATION

HF8509-1 / 012

S

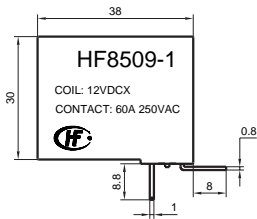
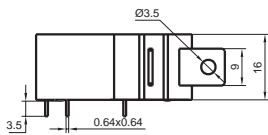
**Type** HF8509-1: Single Coil  
HF8509-2: Single Coil HF8509-3: Double Coil

**Coil voltage** 5, 6, 9, 12, 24, 48VDC

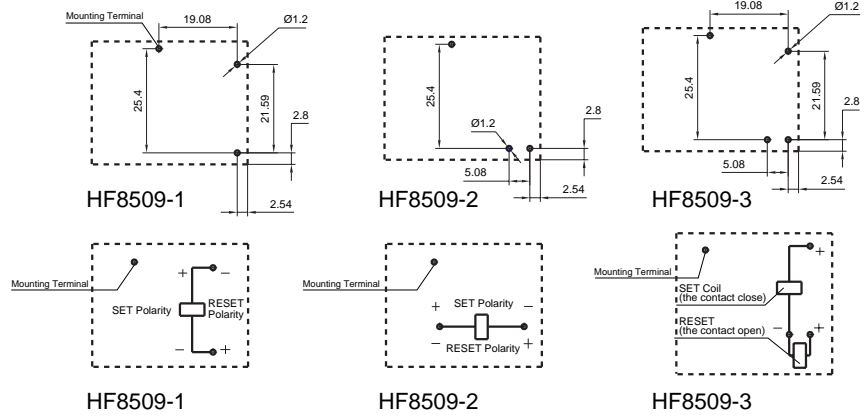
**Structure** Nil: Unsealed S: Sealed

## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

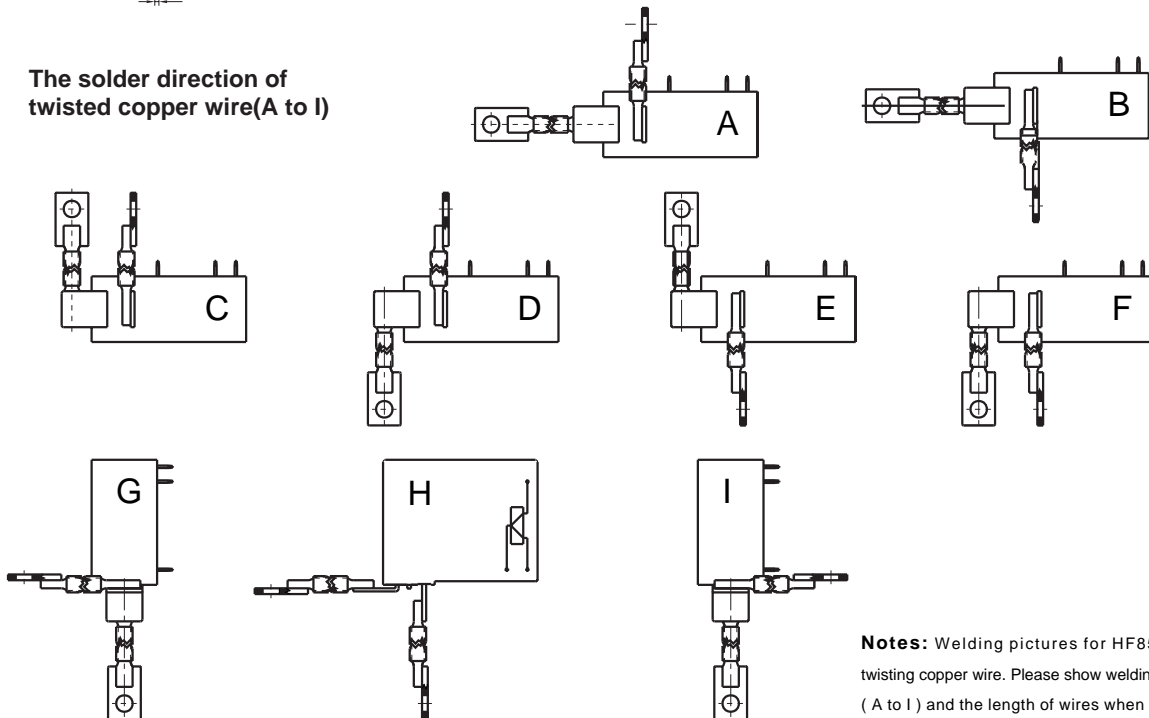
### Outline Dimensions



### PCB layout



### The solder direction of twisted copper wire (A to I)



**Notes:** Welding pictures for HF8509 with twisting copper wire. Please show welding style (A to I) and the length of wires when ordering. Please mark the length of each wire from left to right if the length is different.