HFE10-L MINIATURE HIGH POWER LATCHING RELAY

c UL us
File No.:E134517

VDE
File No.:40035869



Features

- 20A switching capability
- The relay can stand short circuit SCCR 5000A peak current for 10ms
- Meet IEC60669-2-1
- Max. inrush current 500A/2ms
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (39.0 x 15.0 x 29.3)mm

CONTACT DATA

Contact arrangement	1A, 1B
Contact resistance	1.5mΩ max.(at 1A 6VDC)
Contact material	$AgSnO_2$
Contact rating (1)	277VAC 20A,1 x 10^5 OPS (Resistive) 30VDC 20A,1 x 10^5 OPS (Resistive) 250VAC 60A,3 x 10^4 OPS (General purpose) 250VAC 5000W,3 x 10^4 OPS (Incandescent lamp) 277VAC 20A,3 x 10^4 OPS (Standard ballast) 277VAC 16A,3 x 10^4 OPS (Electronic ballast)
Max. switching voltage	440VAC
Max. switching current	60A
Max. switching power	15000VA
Max. continuous current	40A
Mechanical endurance	1 x 10^6OPS
Electrical endurance	See rated load

(1) Conform to EN60947-4-1(VDE0660-102),EN60669-1(VDE0632-1), EN60669-2-1, (VDE0632-1) lamp load request.

SAFETY APPROVAL RATINGS

UL/CUL	1A,1B	General purpose：250VAC,60A Standard ballast：277VAC,20A Electronic ballast：277VAC,16A Incandescent lamp：250VAC,5000W
VDE	1A,1B	Resistive load：277VAC 20A Fluorescent lamp (uncompensated): 250VAC 20A Fluorescent lamp (parallel compensated): 250VAC 20A Incandescent lamp:250VAC,5000W AC-1 AC-3

Notes: Above certification is just listed partial typical load which for this product, if you wanna to know more detailed information, please kindly contact with us.

COIL

Coil power	Single coil latching: Approx. 1.5W Double coils latching: Approx. 3.0W

CHARACTERISTICS

Insulation resistance		1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	4000VAC 1min
	Between open contacts	1500VAC 1min
Creepage distance (input to output)		12mm
Operate time (at nomi. volt.)		15ms max.
Release time (at nomi. volt.)		15ms max.
Max. operate frequency		20cycles/min
Shock resistance	Functional	98m/s^2
	Destructive	980m/s^2
Vibration resistance		10Hz to 55Hz 1.5mm DA
Humidity		5% to 85% RH
Ambient temperature		-40˚C to 85˚C
Termination		PCB
Unit weight		Approx. 32g
Construction		Plastic sealed

Notes: The data shown above are initial values.

COIL DATA

at 23˚C

Nominal Voltage VDC	Set / Reset Voltage VDC max.	Pulse Duration ms min.	Coil Resistance x (1±10%) Ω	
6	4.8	50	Single coil latching	22
9	7.2	50		54
12	9.6	50		100
15	12	50		150
24	19.2	50		360
48	38.4	50		1600
6	4.8	50	Double coils latching	11+11
9	7.2	50		27+27
12	12	50		50 +50
15	9.6	50		75 + 75
24	19.2	50		180 +180
48	38.4	50		800 +800

ORDERING INFORMATION

	HFE10	-L/	12	-D	T	-L2	-R	(XXX)
Type								
Version	L: Products series code							
Coil voltage	6, 9, 12, 15, 24, 48VDC							
Contact form [1]	**D:** 1 Form B **H:** 1 Form A							
Contact material	**T:** $AgSnO_2$							
Sort	**L1:** Single coil latching		**L2:** Double coils latching					
Polarity	**R:** Negative polarity		**Nil:** Positive polarity					
Special code [2]	**XXX:** Customer special requirement		**Nil:** Standard					

Notes: 1) H means that relay is on the "reset" status when delivery; D means that relay is on the "set" status when delivery.If no speical required by customer,we will keep the relay on the "set" status when delivery.

2) The customer special requirement express as special code after evaluating by Hongfa.

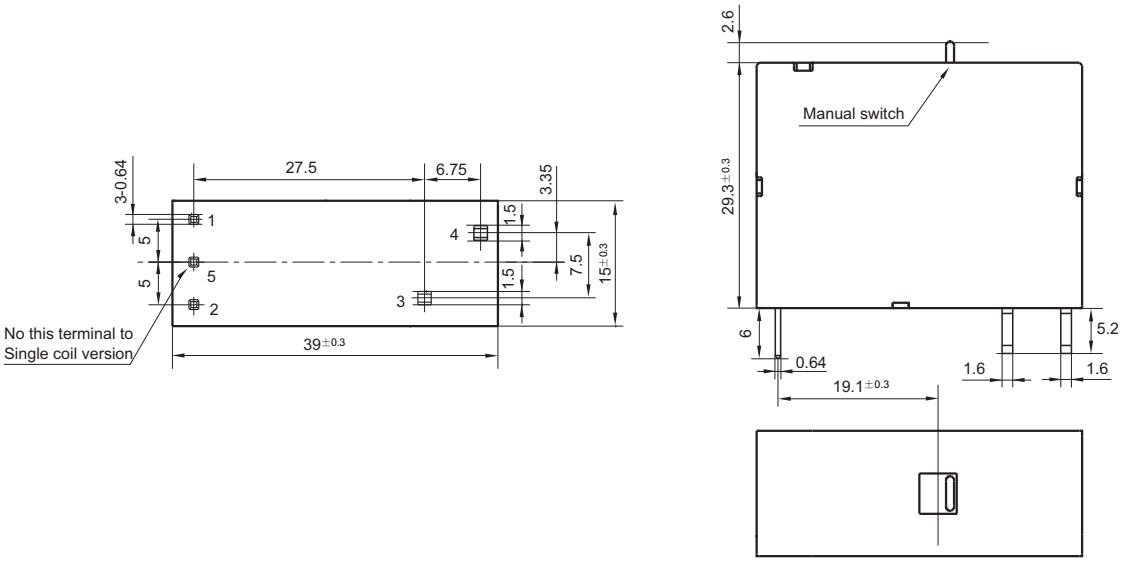
Notice

1. When choose the relay with PCB termination, the recommended welding temperature range and duration is 240°C~260°C, 2s~5s; Please do not use the reflow welding method, if the reflow is really required, please contact our technicals; the normal recommeded wave soldering temperature is 250°C within 2s.
2. Relay is on the “reset” or "set" status when being released from stock, with the consideration of shock risen from transit and relay mounting, relay would be changed to “set” or "reset" status, therefore, when application (connecting the power supply), please reset the relay to “set” or “reset” status on request.
3. In order to maintain “set” or “reset” status, energized voltage to coil should reach the rated voltage, impulse width should be 5 times more than “set” or “reset” time. Do not energize voltage to “set” coil and “reset” coil simultaneously. And also long energized time (more than 1 min) should be avoided.
4. Relays are made with dust proof structure, So no longer than 6 months' storage time is recommended for this kind of relay, and please pay attention to the storage environment. To ensure contact reliability, we will keep contact status be closed when delivery if no special required by customer.

OUTLINE DIMENSIONS AND WIRING DIAGRAM

Unit: mm

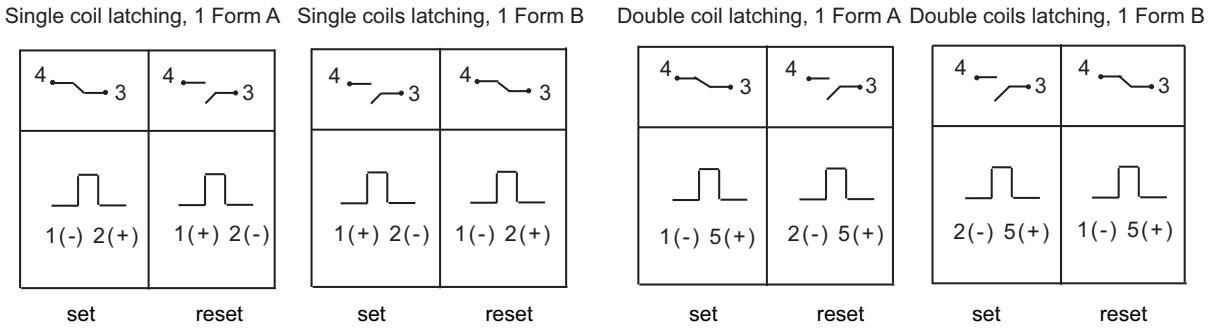
Outline Dimensions



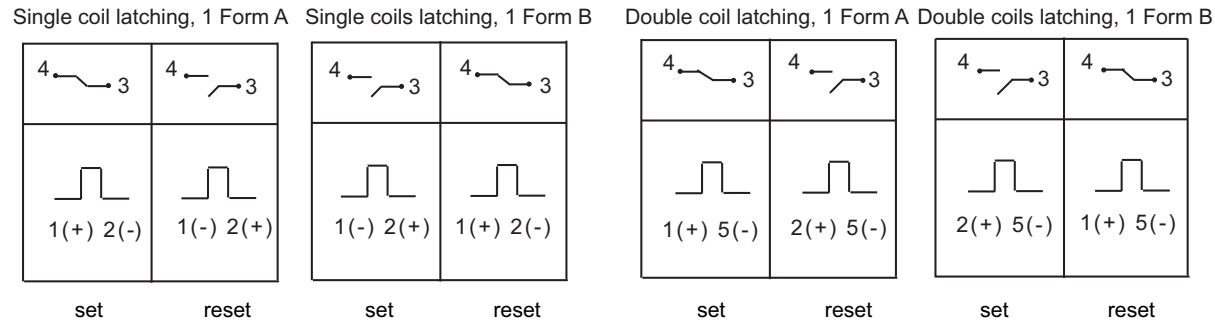
Remark: In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.

Wiring Diagram

Positive polarity



Negative polarity



Disclaimer

The specification is for reference only. See to "Terminology and Guidelines" for more information. Specifications subject to change without notice. We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query, please contact Hongfa for the technical service. However, it is the user's responsibility to determine which product should be used only.

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