

FH66NE160

Power Relay

Features

- Contact gap is 4.0mm
- 40A switching capability,160A loading current capability
- Outline Dimensions:(45X40X43)mm
- UL insulation system:Class F
- Main application: PV inverter,Inverter precharge circuit control,
Industrial control device



CHARACTERISTICS

Specifications	Item		160A
Contact Data	Contact arrangement		1A
	Contact resistance(initial)		≤2mΩ(6VDC 20A)
	Contact material		AgSnO ₂
Rated value	Rated load(Resistance load)		Connecting 40A,carrying 160A, breaking 40A 277VAC 85℃
	Max.switching voltage		830VAC
	Max.switching current		50A
	Max.switching capacity		41500VA
Electrical performance	Insulation resistance(initial)		1000MΩ(at500VDC)
	Dielectric strength (initial)	Disconnect between main contacts	2500VAC 1min(50Hz/60Hz)
		Between coil&contacts	5000VAC 1min(50Hz/60Hz)
	Operate time		≤30ms
	Release time		≤10ms
Mechanical performance	Shock resistance	Functional	98m/s ² (10g)
		Destructive	980m/s ² (100g)
	Vibration resistance		10Hz~55Hz 1.5mm DA
Endurance	Mechanical		1×10 ⁶ ops
	Electrical	ON/OFF=1S/9S	Connecting 40A carrying 160A breaking 40A 277VAC Resistive 3×10 ⁴ ops
Surge voltage (Between coil&contacts)			10KV(1.2/50 μ s)
Operate condition	Ambient temperature		-40℃~+85℃
	Humidity		5%~85%RH
Unit weight			Approx.142g
Construction			Flux proofed

Note:The above datas are the initial values



Fanhar Electric Latching Relay
ISO9001、ISO14001 Certified Company

2025
Zhejiang Fanhar Electronics Co.,Ltd

■ COIL DATA(23℃)

Nominal Voltage	Operate Voltage VDC	Release Voltage VDC	Rated Current (±10%)A	Coil Resistance (±10%)Ω	Nominal Power	Sustaining voltage	Max Voltage VDC
DC 6V	≤4.5	≥0.3	0.533	11.3	3.2W	40%-100%Un (Ambient temperature25℃) 50%-60%Un (Ambient temperature85℃)	6.6
DC 9V	≤6.75	≥0.45	0.356	25.3			9.9
DC 12V	≤9	≥0.6	0.267	45			13.2
DC 24V	≤18	≥1.2	0.133	180			26.4
DC 48V	≤36	≥2.4	0.067	720			52.8

Remark:

- 1.the coil holding voltage is the voltage applied to coil 100ms after the rated voltage;
- 2.To avoid overheating and burning,the coil can not be consistently applied to with voltage larger than maximum holding voltage.

■ ORDERING INFORMATION

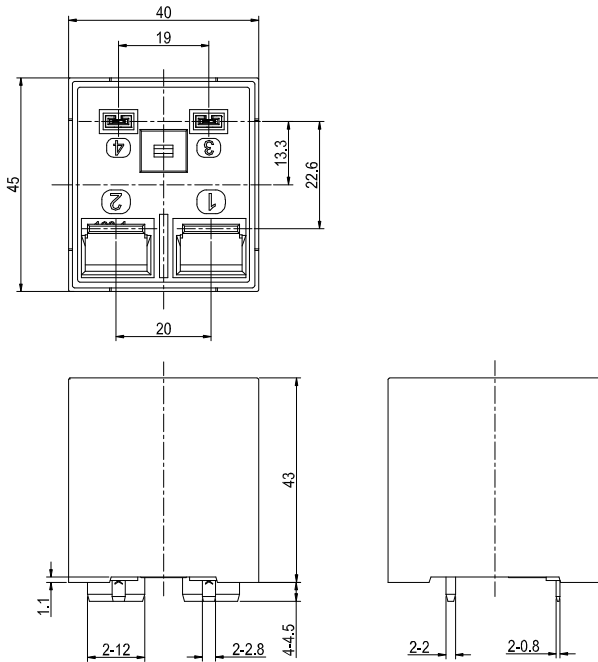
FH66NE 160 -1A 1 T F -XXX -DC12V

- ① Type
- ② Rated Current: 160=160A
- ③ Contact arrangement: 1A=1 open contacts
- ④ Terminal: 1=Standard type
- ⑤ Contact material: T=AgSnO₂
- ⑥ Insulation standard: Nil=Blank F=Class F
- ⑦ Customer special code: numbers or letters denote customer's requirements
- ⑧ Coil specification: DC6/9/12/24/48V

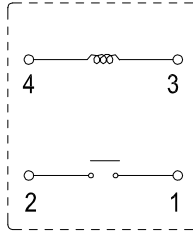


■ WIRING DIAGRAM AND PC BOARD LAYOUT(Unit:mm)

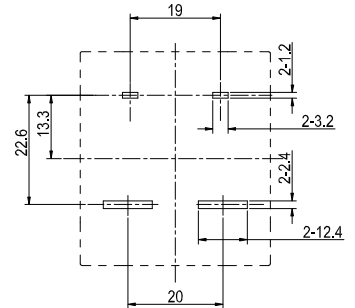
Outline Dimensions



Wiring Diagram
(Bottom view)



PCB Layout
(Bottom view)



Remark:(1)In case of no tolerance shown in outline dimension:outline dimension ≤ 1 mm,tolerance should be ± 0.2 mm;outline dimension > 1 mm and < 5 mm,tolerance should be ± 0.3 mm;outline dimension ≥ 5 mm,tolerance should be ± 0.5 mm.

(2) The tolerance without indicating for PCB layout is always ± 0.1 mm.

■ SAFETY APPROVAL RATINGS

Approval	File No.	Approved ratings
UL/C-UL	E475405	Connecting 50A/40A carrying 160A/150A breaking 50A/40A 830/277VAC Resistive 85°C 150A 30VDC Resistive 40°C
TUV	R 50601543	Connecting 50A/40A carrying 160A/150A breaking 50A/40A 830/277VAC Resistive 85°C 150A 30VDC Resistive 40°C
CQC	CQC23002405299	Connecting 50A/40A carrying 160A/150A breaking 50A/40A 830/277VAC Resistive 85°C 150A 30VDC Resistive 40°C

■ NOTICE

- ① In order to maintain the initial performance parameters of the relay, please be careful not to drop the product or be affected by external force;
- ② The soldering temperature of load extraction terminal with copper is $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$,soldering time is 3~5S;
- ③ The specification is for reference only.Specifications subject to change without notice.

