

FH66NE160/100

Power Relay

Features

- Contact gap is 4.0mm
- 160A contact switching 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	100A
Contact Data	Contact arrangement		1A	
	Contact resistance(initial)		≤2mΩ(6VDC 20A)	
	Contact material		AgSnO ₂	
Rated value	Rated load(Resistance load)		Connecting 50A,carrying 160A, breaking 50A 830VAC 85℃	Connecting 30A,carrying 100A,breaking 30A 800VAC 85℃
	Max.switching voltage		830VAC	800VAC
	Max.switching current		160A	100A
	Max.switching capacity		41500VA	24000VA
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 50A carrying 160A breaking 50A 830VAC Resistive 85℃ 3×10 ⁴ ops	Connecting 30A carrying 100A breaking 30A 800VAC Resistive 85℃ 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.133g	
Construction			Flux proofed	

Note:The above datas are the initial values



Fanhar Electric Latching Relay
ISO9001、ISO14001 Certified Company

2023
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 sustaining 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 sustaining voltage.

■ ORDERING INFORMATION

FH66NE

100

-1A

1

T

F

-XXX

-DC12V

① Type

② Rated Current:100=100A 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

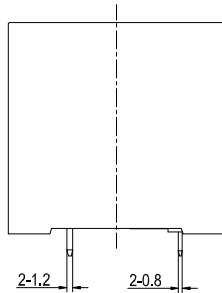
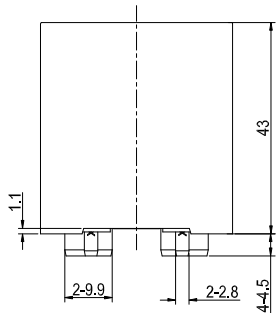
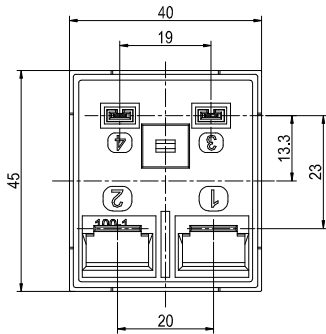
⑧ Coil specification:DC6/9/12/24/48V



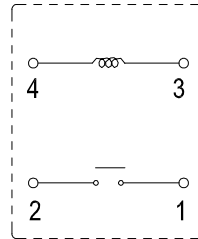
■ WIRING DIAGRAM AND PC BOARD LAYOUT(Unit:mm)

100-1A1

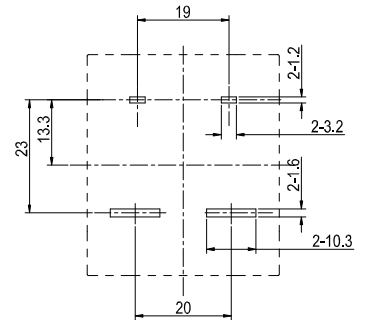
Outline Dimensions



Wiring Diagram
(Bottom view)

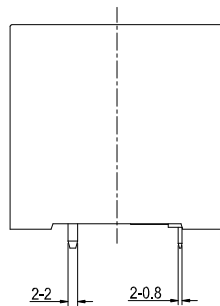
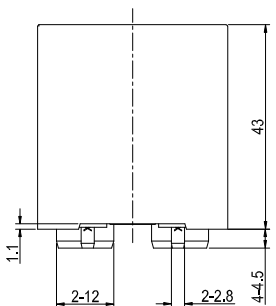
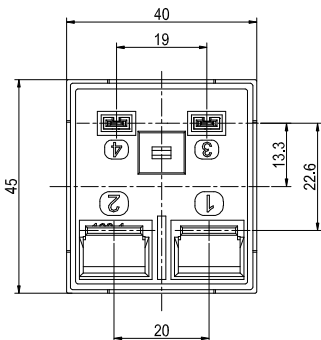


PCB Layout
(Bottom view)

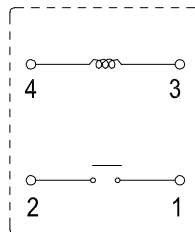


160-1A1

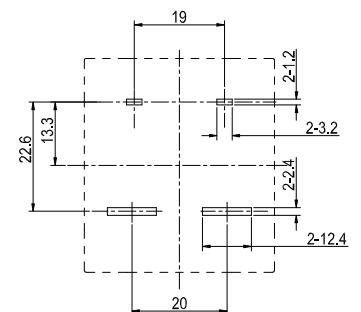
Outline Dimensions



Wiring Diagram
(Bottom view)



PCB Layout
(Bottom view)



Remark:(1)In case of no tolerance shown in outline dimension:outline dimension \leq 1mm,tolerance should be \pm 0.2mm;outline dimension $>$ 1mm and $<$ 5mm,tolerance should be \pm 0.3mm;outline dimension \geq 5mm,tolerance should be \pm 0.5mm.

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



■ SAFETY APPROVAL RATINGS

160-1A1

Approval	File No.	Approved ratings
UL/C-UL	E475405	Connecting 50A/40A carrying 160A/150A breaking 50A/40A 830/277VAC Resistive 85℃ 3×10 ⁴ ops 150A 30VDC Resistive 40℃ 3×10 ⁴ ops
TUV	R 50601543	Connecting 50A/40A carrying 160A/150A breaking 50A/40A 830/277VAC Resistive 85℃ 3×10 ⁴ ops 150A 30VDC Resistive 40℃ 3×10 ⁴ ops
CQC	CQC230024 05299	Connecting 50A/40A carrying 160A/150A breaking 50A/40A 830/277VAC Resistive 85℃ 3×10 ⁴ ops 150A 30VDC Resistive 40℃ 3×10 ⁴ ops

■ 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℃±5℃, soldering time is 3~5S;
- ③ The specification is for reference only. Specifications subject to change without notice.

