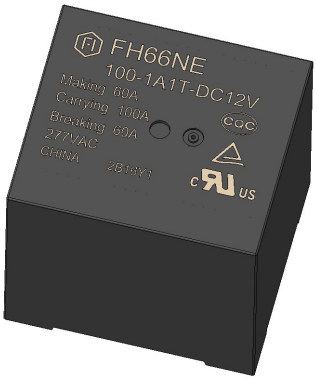
# FH66NE100

**Power Relay**




### Features

- Contact gap is 4.0mm
- 60A switching capability,100A 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 | | 100A |
|---|---|---|---|
| Contact Data | Contact arrangement | | 1A |
| | Contact resistance(initial) | | ≤5mΩ(6VDC 20A) |
| | Contact material | | $AgSnO_2$ |
| Rated value | Rated load(Resistance load) | | Connecting 60A,carrying 100A,breaking 60A 277VAC 85℃ |
| | Max.switching voltage | | 800VAC |
| | Max.switching current | | 100A |
| | Max.switching capacity | | 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 | | $1\times10^6$ops |
| | Electrical | ON/OFF=1S/9S | Connecting 60A carrying 100A breaking 60A 277VAC Resistive $3\times10^4$ ops |
| Surge voltage (Between coil&contacts) | | | 10KV(1.2/50 μs) |
| Operate condition | Ambient temperature | | -40℃~+85℃ |
| | Humidity | | 5%~85%RH |
| Unit weight | | | Approx.136g |
| Construction | | | Flux proofed |

Note:The above datas are the initial values

## ■ 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 100 -1A 1 T F -XXX -DC12V**

① Type

② Rated Current: 100=100A

③ Contact arrangement:1A=1 open contacts

④ Terminal: 1=Standard type

⑤ Contact material:T=$AgSnO_2$

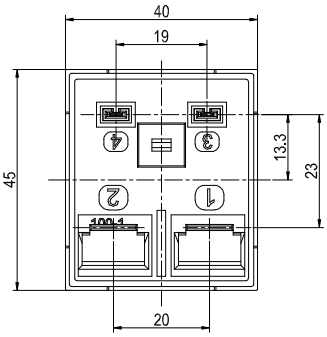
⑥ Insulation standard:Nil=Blank F=Class F

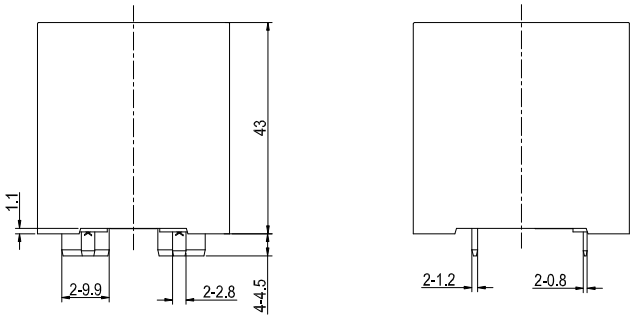
⑦ Customer special code:numbers or letters denote customer's requirements

⑧ Coil specification:DC6/9/12/24/48V

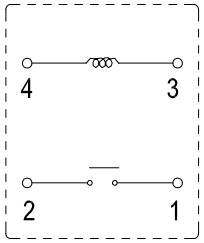
## ■ WIRING DIAGRAM AND PC BOARD LAYOUT(Unit:mm)

Outline Dimensions

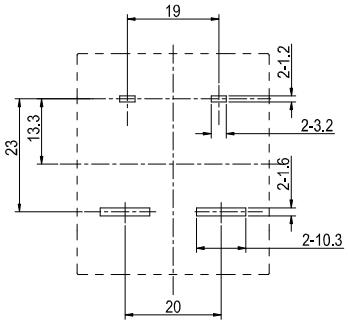



Wiring Diagram
(Bottom view)




PCB Layout
(Bottom view)




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

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

## ■ SAFETY APPROVAL RATINGS

| Approval | File No. | Approved ratings | | | | | |
|---|---|---|---|---|---|---|---|
| UL/C-UL | E475405 | Connecting 60/50A/40A | carrying 100A | breaking 60/50A/40A | 277VAC | Resistive | 85℃ |
| | | Connecting 30A | carrying 100A | breaking 30A | 800VAC | Resistive | 85℃ |
| | | 800A 80VDC | | | | Resistive | 40℃ |
| TUV | R 50601543 | Connecting 60A | carrying 100A | breaking 60A | 277VAC | Resistive | 85℃ |
| | | Connecting 30A | carrying 100A | breaking 30A | 800VAC | Resistive | 85℃ |
| CQC | CQC23002405299 | Connecting 60/50A/40A | carrying 100A | breaking 60/50A/40A | 277VAC | Resistive | 85℃ |
| | | Connecting 30A | carrying 100A | breaking 30A | 800VAC | Resistive | 85℃ |

## ■ 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.