FH63NE

Power Relay

Features

- 120A contact switching capability
- Coil power is 4.8W
- Contact gap is 3.0mm
- UL insulation system:Class F
- Outline Dimensions:(71x43x24.6)mm
- Main application: Power supply、Photovoltaic new energy

■ CHARACTERISTICS

Specifications	Item		
Contact Data	Contact arrangement		1A
	Contact resistance(initial)		≤10mΩ(6VDC 20A)
	Contact material		$AgSnO_2$
Rated value	Rated load(Resistance load)		120A 415VAC 120A 30VDC
	Max.switching voltage		415VAC/30VDC
	Max.switching current		120A
	Max.switching capacity		49800VA/3600W
Electrical performance	Insulation resistance(initial)		1000MΩ(500VDC)
	Dielectric strength (initial)	Between open contacts	2000VAC 1min（50Hz/60Hz）
		Between coil&contacts	5000VAC 1min（50Hz/60Hz）
	Operate time		≤30ms
	Release time		≤15ms
Mechanical performance	Shock resistance	Functional	98m/s²(10g)
		Destructive	980m/s²(100g)
	Vibration resistance		10Hz~55Hz 1.5mm DA
Endurance	Mechanical		1×10^5ops
	Electrical	ON/OFF=1S/9S	120A 415VAC Resistive 85℃ 1×10^4ops
Operate condition	Ambient temperature		-40℃~+85℃
	Humidity		5%~85%RH
Surge voltage (Between coil&contacts)			10kV(1.2/50μs)
Surge current			400A/350VDC/4ms
Unit weight			Approx.175g
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	0.8	7.5	4.8W	40%-100%Un (Ambient temperature23℃) 50%-60%Un (Ambient temperature85℃)	6.6
DC 9V	≤6.75	≥0.45	0.533	16.9			9.9
DC 12V	≤9.00	≥0.6	0.4	30			13.2
DC 24V	≤18.00	≥1.2	0.2	120			26.4

Remark:(1)The coil sustaining voltage applied to coil 100ms after the rated voltage.

(2)To avoid overheating and buring,the coil can not be consistently applied to with voltage larger than maximum sustaining voltage.

■ ORDERING INFORMATION

FH63NE 1A 1 T F -XXX -DC12V

① Type

② Contact arrangement:1A=1 open contacts

③ PCB mounting:1=Type A

④ Contact material:T=$AgSnO_2$

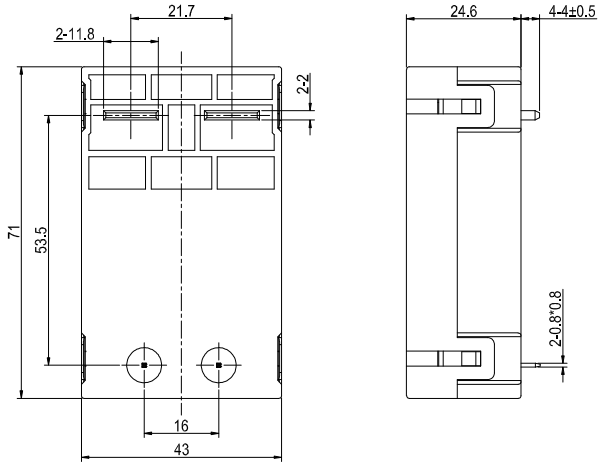
⑤ Insulation standard:Nil=Blank F=Class F

⑥ Customer special code:numbers or letters denote customer's requirements

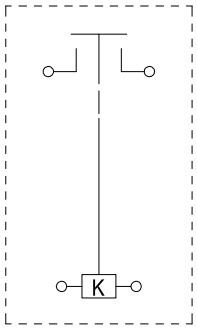
⑦ Coil specification:DC6/9/12/24V

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

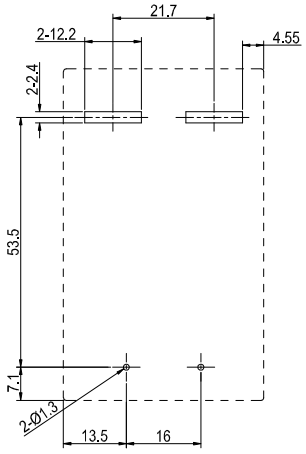
Outline Dimensions



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	120A	277VAC /288VAC /305VAC /415VAC	Resistive	85℃	1×10^4ops
		5HP	250VAC		85℃	1×10^4ops
		TV-20	120/240VAC		85℃	2.5×10^4ops
		120A	30VDC		85℃	5×10^4ops
TUV	R 50602583	120A	277VAC /288VAC /305VAC /415VAC	Resistive	85 ℃	1×10^4ops
		120A	30VDC		85 ℃	5×10^4ops
CQC	CQC23002405300	120A	277VAC /288VAC /305VAC /415VAC	Resistive	85 ℃	1×10^4ops
		120A	30VDC		85 ℃	5×10^4ops

■ 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 Relays are customized products,the above cases are only for reference. If you have any questions, please contact fanhar for more technical support;

④ The specification is for reference only.Specifications subject to change without notice.