

Features

- 2 sets of 40A main contact+1 set of auxiliary contact
- When the main contact sticks,Auxiliary contacts meet the safety monitoring function (According to IEC61810-3)
- Contact gap :3.6mm(main contact) 1.0mm(auxiliary contact)
Auxiliary contact:Min0.5mm(When the main contact sticks)
- Coil power is:1.88W
- UL insulation system:Class F
- Outline Dimensions:(37.2x30x40)mm
- Main applications: Inverter for solar photovoltaic power generation, AC charge spots
- The coil voltage applied to complete machine to save power loss



■ CHARACTERISTICS

Specifications	Item	Common design	With auxiliary contact
Contact Data	Contact arrangement	2A	2A+1A 、 2A+1B
	Contact resistance(initial)	Main contact Auxiliary contact	$\leq 10m\Omega$ (6VDC 20A) $\leq 100m\Omega$ (6VDC 1A)
	Contact material	Main contact	AgSnO ₂
		Auxiliary contact	/ AgNi
Rated value	Rated load (Resistance load)	Main contact	40A 277VAC
		Auxiliary contact	/ 1A 277VAC, 1A 30VDC
	Max.switching voltage	Main contact	480VAC
		Auxiliary contact	/ 277VAC,30VDC
	Max.switching current	Main contact	40A
		Auxiliary contact	/ 1A
	Max.switching capacity	Main contact	11080VA
		Auxiliary contact	/ 277VA/30W
Electrical performance	Insulation resistance(initial)	1000M Ω (500VDC)	
	Dielectric strength (Initial)	Disconnect between main contacts	2000VAC 1min(50Hz/60Hz)
		Between main contact and auxiliary contact	
		Between coil and auxiliary contact	
		Between main contact groups	5000VAC 1min(50Hz/60Hz)
		Between the coil and the main contact	
		Disconnect between auxiliary contacts	/ 1000VAC 1min(50Hz/60Hz)
	Operate time	$\leq 30ms$	
	Release time	$\leq 10ms$	



■ CHARACTERISTICS

Specifications		Item		Common design	With auxiliary contact						
Mechanical performance	Shock resistance	Functional		98m/s ² (10g)							
		Destructive		980m/s ² (100g)							
	Vibration resistance		10Hz~55Hz 1.5mm DA								
Endurance	Mechanical		5×10 ⁶ ops								
	Electrical (main contact)	ON/OFF=1S/9S	40A 277VAC	Resistive	85°C	1×10 ⁴ ops					
			80A 277VAC	Resistive	85°C	6×10 ³ ops					
			15A 480VAC	Resistive	85°C	5×10 ⁴ ops					
Operate condition	Electrical (auxiliary contact)		/	1A 30VDC Resistive 85°C		1×10 ⁵ ops					
				1A 277VAC Resistive 85°C		1×10 ⁵ ops					
Operate condition	Ambient temperature		-40°C~+85°C								
	Humidity		5%~85%RH								
Surge voltage (Between coil&contacts)			10kV(1.2/50 μs)								
Unit weight			Approx.72g								
Construction			Flux proofed								

Note: The above data are the initial values

■ COIL DATA(23°C)

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	0.31	19.1	1.88W	40%-100%Un (Ambient temperature25°C)	6.6
DC 9V	≤6.75	≥0.45	0.209	43.1		50%-60%Un (Ambient temperature85°C)	9.9
DC 12V	≤9	≥0.6	0.157	76.6			13.2
DC 24V	≤18	≥1.2	0.078	306.4			26.4
DC 48V	≤36	≥2.4	0.039	1225.5			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

FH61NE 2A T A -XXX -DC12V

① Type

② Contact arrangement:2A=2 open contacts

③ Contact material:T=AgSnO₂

④ Auxiliary switch: None = no auxiliary switch,

A= auxiliary switch normally open,

B= auxiliary switch normally closed

⑤ Customer special code:numbers or letters denote customer's requirements

⑥ Coil specification:DC6/9/12/24/48V



Fanhar Electric Latching Relay

ISO9001、ISO14001 Certified Company

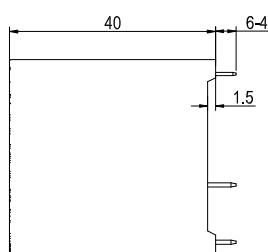
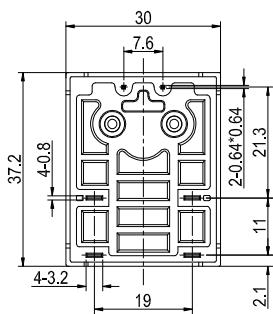
2025

Zhejiang Fanhar Electronics Co.,Ltd

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

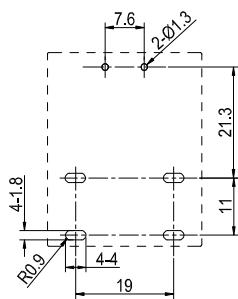
without auxiliary switch

Outline Dimensions



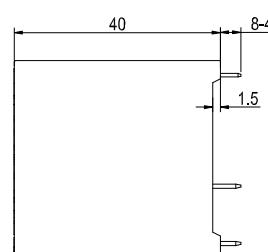
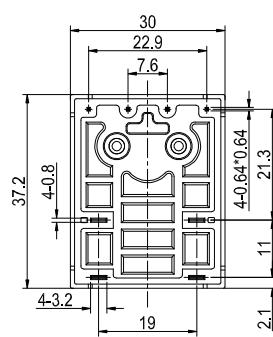
Wiring Diagram
(Bottom view)

PCB Layout
(Bottom view)



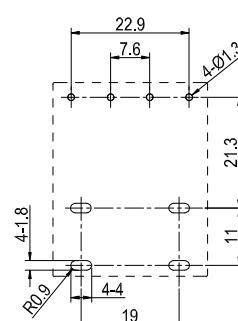
Auxiliary switch normally closed

Outline Dimensions



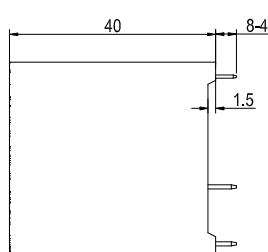
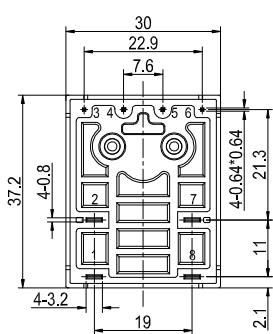
Wiring Diagram
(Bottom view)

PCB Layout
(Bottom view)



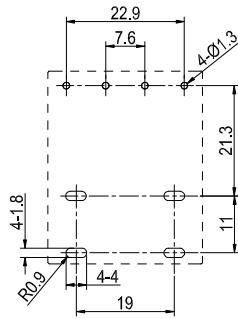
Auxiliary switch normally open

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 ± 0.2 mm;outline dimension >1mm and <5mm,tolerance should be ± 0.3 mm;outline dimension \geq 5mm,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.	Type	Approved ratings			
UL/C-UL	E475405	Main contact	40A/35A	277VAC/415VAC	Resistive 85°C	5×10^4 ops
			80A	277VAC/415VAC(contacts in parallel)	Resistive 85°C	6×10^3 ops
		Auxiliary contact	20/15A	480VAC	Resistive 85°C	5×10^4 ops
			TV-10	277VAC	85°C	2.5×10^4 ops
TUV	R 50595927	Main contact	1A	30VDC	Resistive 85°C	1×10^5 ops
			1A	277VAC/250VAC	Resistive 85°C	1×10^5 ops
		Auxiliary contact	40A/35A	277VAC/415VAC	Resistive 85°C	5×10^4 ops
			80A	277VAC/415VAC(contacts in parallel)	Resistive 85°C	6×10^3 ops
CQC	CQC23002403073	Main contact	20/15A	480VAC	Resistive 85°C	5×10^4 ops
			1A	30VDC	Resistive 85°C	1×10^5 ops
		Auxiliary contact	1A	277VAC/250VAC	Resistive 85°C	1×10^5 ops
			40A/35A	277VAC/415VAC	Resistive 85°C	5×10^4 ops
			80A	277VAC/415VAC(contacts in parallel)	Resistive 85°C	6×10^3 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 $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$, soldering time is 3~5S;
- ③ The specification is for reference only. Specifications subject to change without notice.

