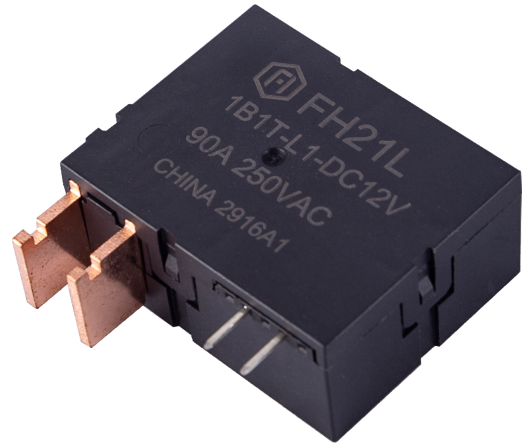


Features

- 90A switching capability
- Single coil and double coils are available
- External accessories such as manganese copper shunts and transformers can be ordered according to customer requirements
- Breakdown voltage (between contact and coil):4KV
- Meet standard of IEC62055-31:2005 UC2
- Environment-friendly product(RoHS compliant)
- Outline Dimensions:(38.1×30.0×16.5)mm
- Can be integrated design, convenient automatic installation and production
- Power frequency interference resistance, and good consistency
- Main application: smart meter, compound switch, new energy



CHARACTERISTICS

Specifications	Item			
Contact Data	Contact arrangement		1A, 1B	
	Contact resistance(initial)		≤1.0mΩ(6VDC 1A)	
	Contact material		AgSnO ₂	
Rated value	Rated load(Resistance load)		90A 250VAC	
	Max.switching voltage		277VAC	
	Max.switching current		90A	
	Max.switching capacity		22500VA	
Electrical performance	Insulation resistance(initial)		1000MΩ(500VDC)	
	Dielectric strength (Initial)	Between open contacts	2000VAC 1min	
		Between coil&contacts	4000VAC 1min	
	Closing time		≤20ms	
	Opening time		≤20ms	
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 ⁵ ops	
	Electrical	ON/OFF=1S/9S	90A 250VAC	1×10 ⁴ ops(COS φ=1)
	Electrical UC2 ⁽¹⁾	ON/OFF=10S/20S	60A 253VAC	5000ops(COS φ=1) 5000ops(COS φ=0.5) Total 10000ops
Operate condition	Ambient temperature		-40℃~85℃	
	Humidity		5%~85%RH	
Termination		PCB type+Screw type(XB)		
Unit weight		Approx.38g (Without attachment)		
Construction		Flux proofed		

Note: (1) Electrical endurance meet IEC62055-31 test requirements,do the inductive load test after the resistive load test.

COIL DATA(23°C)

Single coil latching

Nominal Voltage	Closing Voltage VDC	Opening Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 6V	≤4.50	≤4.50	0.25A	24Ω	1.5W	DC 9V
DC 9V	≤6.75	≤6.75	0.17A	54Ω		DC 13.5V
DC 12V	≤9.00	≤9.00	0.125A	96Ω		DC 18V
DC 24V	≤18.00	≤18.00	0.06A	384Ω		DC 36V

Double coils latching

Nominal Voltage	Closing Voltage VDC	Opening Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 6V	≤4.50	≤4.50	0.5/0.5A	12/12Ω	3.0W	DC 9V
DC 9V	≤6.75	≤6.75	0.33/0.33A	27/27Ω		DC 13.5V
DC 12V	≤9.00	≤9.00	0.25/0.25A	48/48Ω		DC 18V
DC 24V	≤18.00	≤18.00	0.125/0.125A	192/192Ω		DC 36V

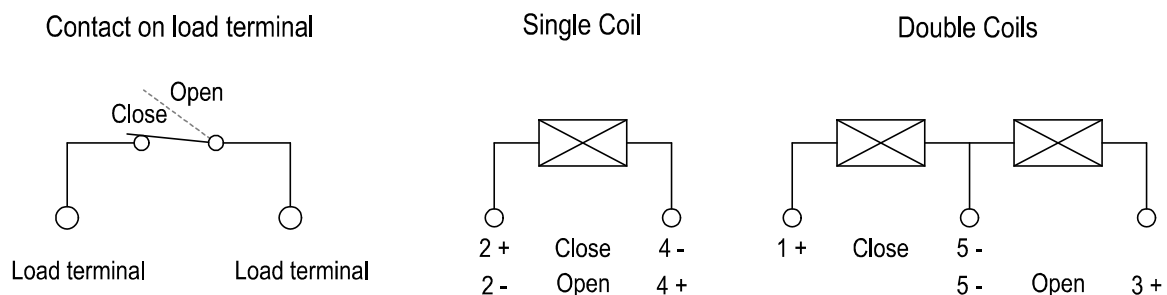
ORDERING INFORMATION

FH21L -1B 1 T -L1 R W -XXX DC6V

- ① Type
- ② Contact arrangement: 1A=1 open contacts
1B=1 close contacts
- ③ PCB mounting: 1=Type A, 2=Type B, 3=Type C,
7=Customized Accessories
- ④ Contact material: T=AgSnO₂
- ⑤ Coil type: L1=Single coil latching, L2=Double coils latching
- ⑥ Polarity: Nil=standard polarity R=reversed polarity
- ⑦ Pin state: None=Standard straight pin state, W=Curved pin state
- ⑧ Customer special code: numbers or letters denote customer's requirements
- ⑨ Coil specification: DC6/9/12/24V

WIRING DIAGRAM AND PC BOARD LAYOUT(Unit:mm)

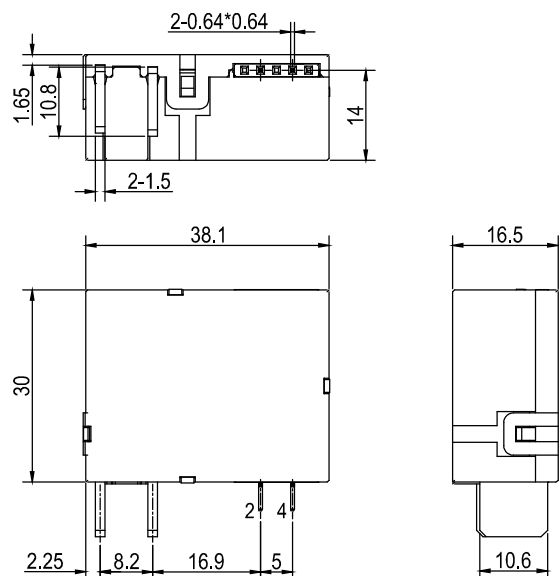
Standard polarity wiring diagram



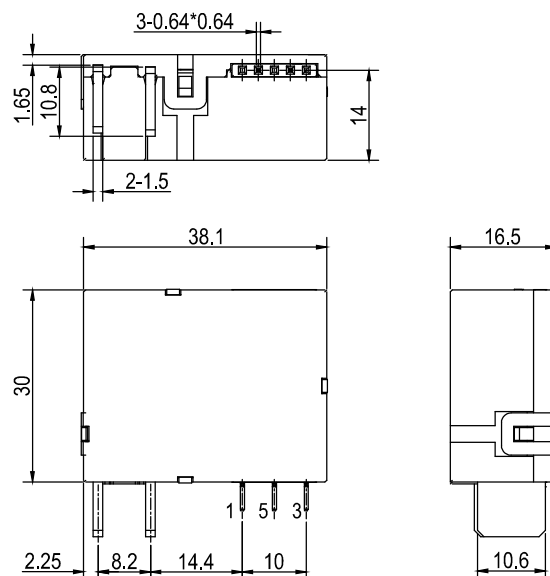
WIRING DIAGRAM AND PC BOARD LAYOUT(Unit:mm)

Outline Dimensions

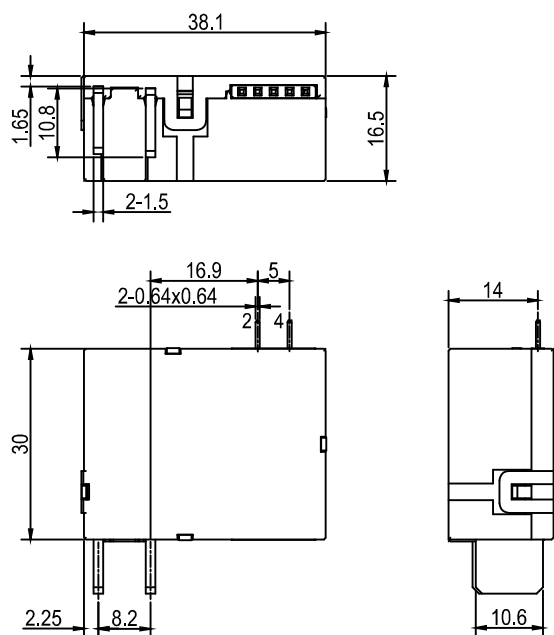
A Type Single Coil



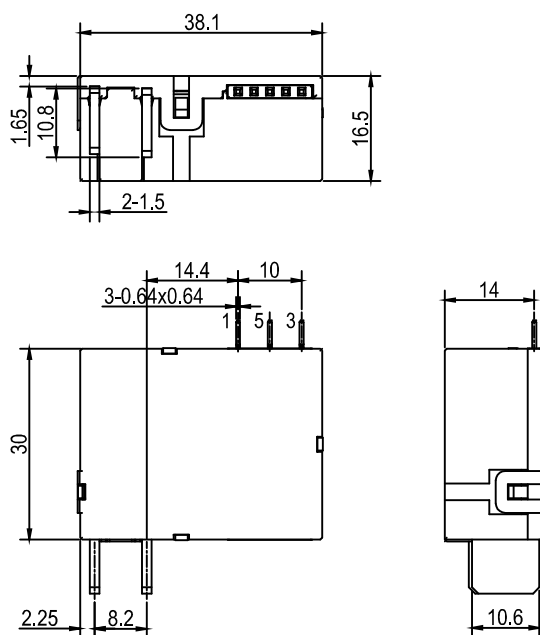
A Type Double Coils



B Type Single Coil

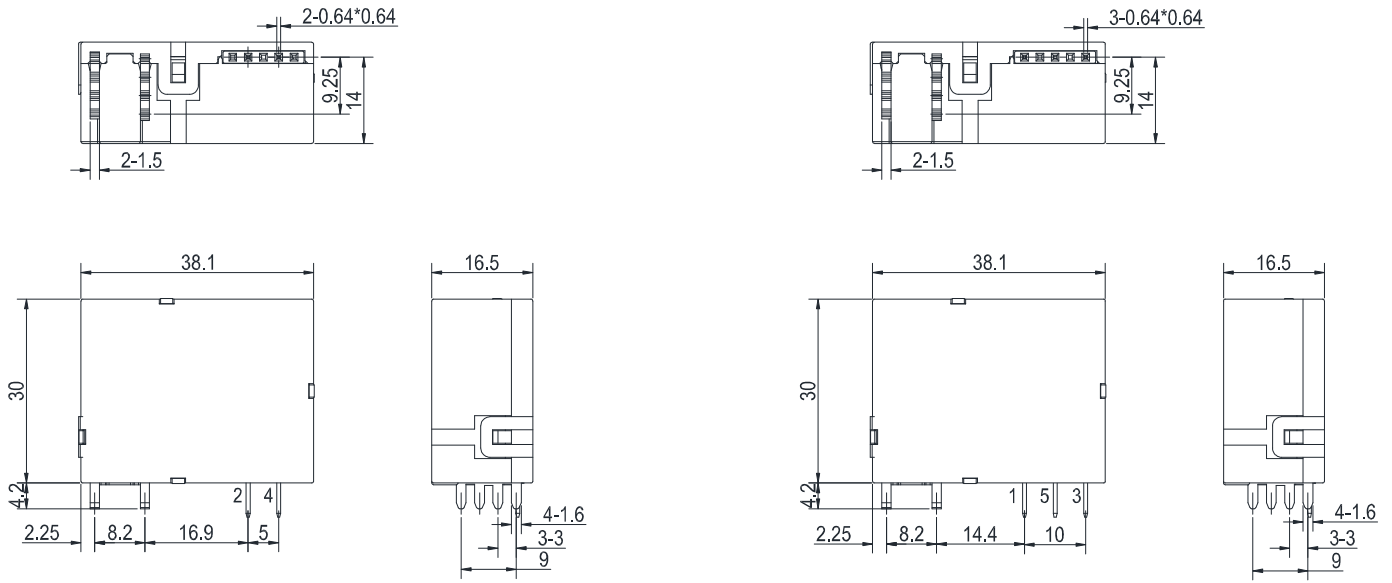


B Type Double Coils



C Type Single Coil

C Type Double Coils



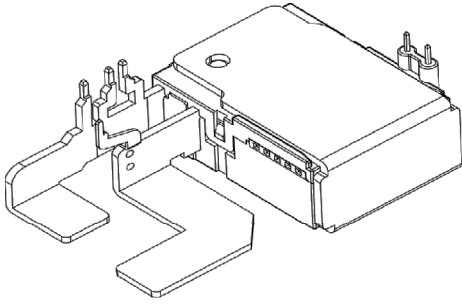
Remark:(1)In case of no tolerance shown in outline dimension:outline dimension \leq 1mm,tolerance should be \pm 0.2mm;outline dimension $>$ 1mm and $<$ 5mm,tolerance should be \pm 0.3mm;outline dimension \geq 5mm,tolerance should be \pm 0.5mm.

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

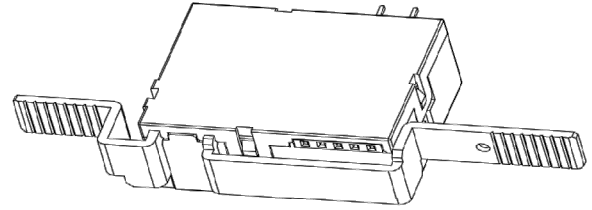


■ TYPICAL CASES

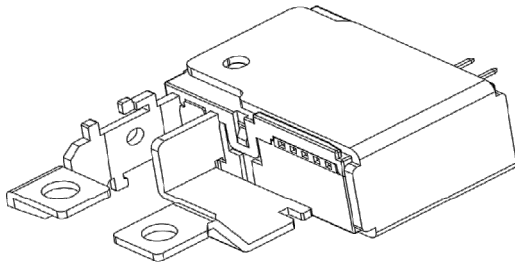
20 edition of Guonan



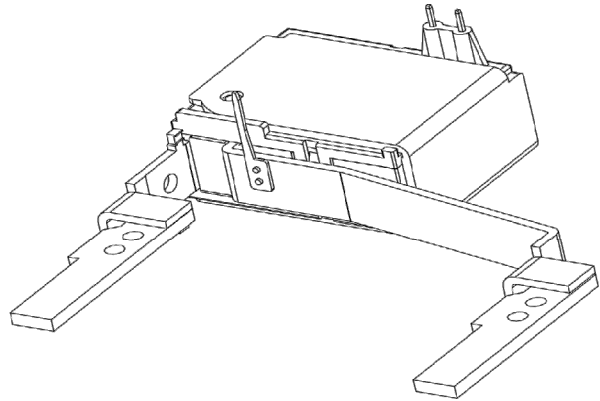
Overseas Phenotypes



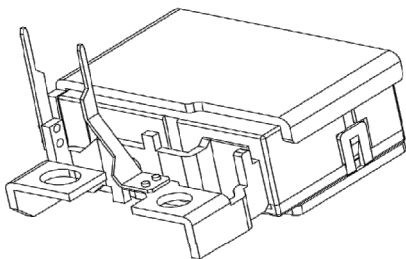
13 edition of Guonan



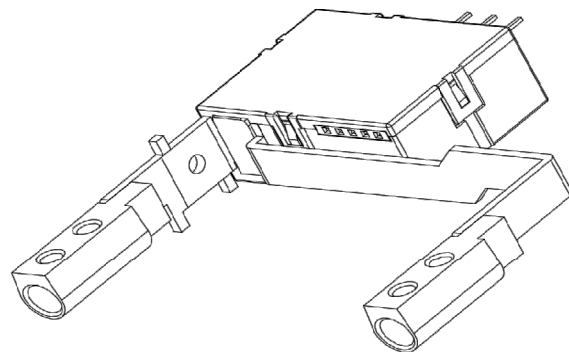
Overseas Phenotypes



13 edition of Guonan



Overseas Phenotypes



■ NOTICE

- ① For the state of latching relay as delivered, If the customer has no special requirements, we default to the closed state before delivery, but due to transportation or relay installation by shock and other factors may change the state, so please reset it to the closed or open state as needed when using;
- ② 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;
- ③ In order to maintain "opening" or "closing" status, energized voltage applied across the coil should reach the rated voltage, it is recommended that the actual driving voltage be 1~1.5 times the rated voltage, Pulse width $\geq 50\text{ms}$, and do not energize to "opening" coil and "closing" coil simultaneously, long energized time (more than 1 min) should also be avoided;
- ④ Normally the load terminals are not suitable for reflow solder, wave solder or tin solder, we suggest use spot welding. Load terminals shall be prevented from assembly stress;
- ⑤ Latching relays are customized products, the above cases are only for reference. If you have any questions, please contact Fanhar for more technical support;
- ⑥ The specification is for reference only. Specifications subject to change without notice.

