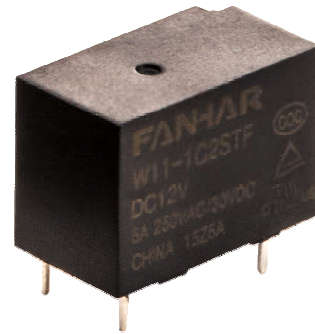


Features

- 10A switching capability
- Contact arrangement: 1A、1C
- Can supply the product of highly efficient magnetic circuit for high sensitivity: 200mW
- Dielectric strength 5KV (between coil and contacts)
- Creepage distance and air distance are greater than 10mm
- We can provide the product with ambient temperature is 105°C
- UL insulation system: Class F
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (18.6×10.3×13.2) mm
- Main application: Home appliance、Smart home、electric power meter



TV-5



CHARACTERISTICS

Specifications	Item		
Contact Data	Contact arrangement		1A、1B、1C
	Contact resistance(initial)		≤100mΩ(6VDC 1A)
	Contact material		AgNi、AgSnO ₂
Rated value	Rated load(Resistance load)		5A 250VAC/30VDC 10A 125VAC 10A 250VAC/30VDC
	Max.switching voltage		277VAC/30VDC
	Max.switching current		10A
	Max.switching capacity		2500VA/300W
	Min.allowing load		5VDC 100mA
Electrical performance	Insulation resistance(initial)		1000MΩ(500VDC)
	Dielectric strength (initial)	Between open contacts	1000VAC,1 min
		Between coil&contacts	4000VAC,1 min
	Operate time		≤10ms
	Release time		≤5ms
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 ⁷ ops
	Electrical	3A 250VAC(PF=0.6)	1×10 ⁵ ops(ON/OFF=1s/9s)
		5A 250VAC/30VDC	1×10 ⁵ ops(ON/OFF=1s/9s)
		10A 250VAC/30VDC	5×10 ⁴ ops(ON/OFF=1s/9s)
Operate condition	Ambient temperature		-40°C~85°C
	Humidity		5% to 90%
Termination			PCB
Unit weight			Approx.5g
Construction			Plastic sealed、Flux proofed

COIL DATA(23°C)

Standard Type

Nominal Voltage	Pick-up Voltage VDC	Drop-out Voltage VDC	Rated Current ($\pm 10\%$)	Coil Resistance ($\pm 10\%$)	Nominal Power	Max Voltage
DC 3V	≤ 2.25	≥ 0.15	150mA	20 Ω	450mW	130%Nominal Voltage
DC 5V	≤ 3.75	≥ 0.25	90 mA	55.5 Ω		
DC 6V	≤ 4.50	≥ 0.30	75 mA	80 Ω		
DC 9V	≤ 6.75	≥ 0.45	50 mA	180 Ω		
DC 12V	≤ 9.00	≥ 0.60	37.5 mA	320 Ω		
DC 15V	≤ 11.25	≥ 0.75	30 mA	500 Ω		
DC 18V	≤ 13.50	≥ 0.90	25 mA	720 Ω		
DC 24V	≤ 18.00	≥ 1.20	18.8 mA	1280 Ω	500mW	
DC 48V	≤ 36.00	≥ 2.40	10.4 mA	4608 Ω		

Sensitive Type

Nominal Voltage	Pick-up Voltage VDC	Drop-out Voltage VDC	Rated Current ($\pm 10\%$)	Coil Resistance ($\pm 10\%$)	Nominal Power	Max Voltage
DC 3V	≤ 2.4	≥ 0.15	66.7mA	45 Ω	200mW	130%Nominal Voltage
DC 5V	≤ 4.0	≥ 0.25	40 mA	125 Ω		
DC 6V	≤ 4.8	≥ 0.30	33.3mA	180 Ω		
DC 9V	≤ 7.2	≥ 0.45	22.2 mA	405 Ω		
DC 12V	≤ 9.6	≥ 0.60	16.7mA	720 Ω		
DC 15V	≤ 12.0	≥ 0.75	13.3 mA	1128 Ω		
DC 18V	≤ 14.4	≥ 0.90	11.1 mA	1620 Ω		
DC 24V	≤ 19.2	≥ 1.20	8.3 mA	2880 Ω		

ORDERING INFORMATION

W11 -1A 1 S T L E -XXX DC12V

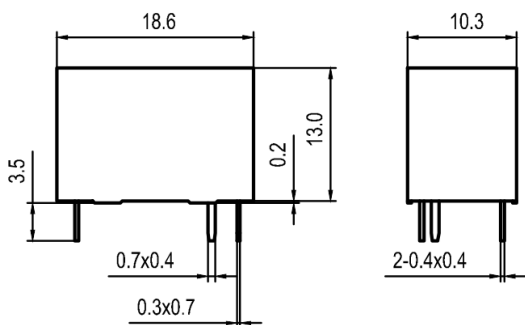
- ① Type
- ② Contact arrangement(1): 1A=1 open contacts、1B=1close contacts、1C=1 switched contacts
- ③ PCB mounting: 1=type 1、2=type 2、3=type 3、4=type 4
- ④ Construction: Nil=Flux proofed, S=Plastic sealed
- ⑤ Contact material(2): Nil=AgNi、T=AgSnO₂
- ⑥ Coil power: Nil=Standard、L=Sensitive
- ⑦ Load: Nil=Standard load E=High load(10A)
- ⑧ Customer special code: numbers or letters denote customer's requirements
- ⑨ Coil specification:DC3/5/6/9/12/15/18/24/48V

Notes: (1) If need the contact arrangement is 1B,please contact with the salesman to ask for the outline dimensions, wiring diagram and PC board layout.

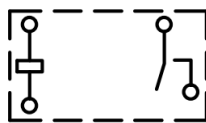
(2) Due to the high surge current of relay connection,we propose to use AgSnO₂ contacts.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT (Unit: mm)

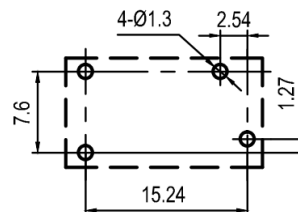
1A1 Outline Dimensions



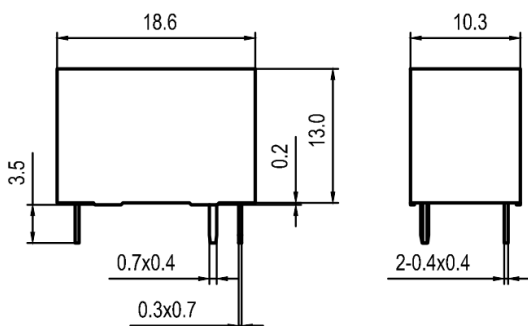
Wiring Diagram
(Bottom view)



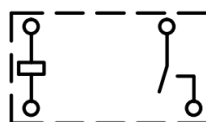
PCB Layout
(Bottom view)



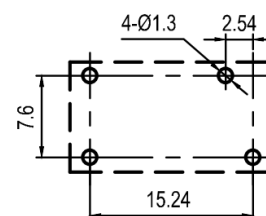
1A2 Outline Dimensions



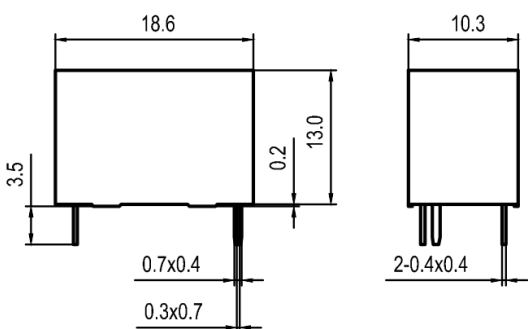
Wiring Diagram
(Bottom view)



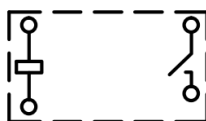
PCB Layout
(Bottom view)



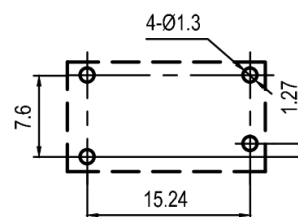
1A3 Outline Dimensions



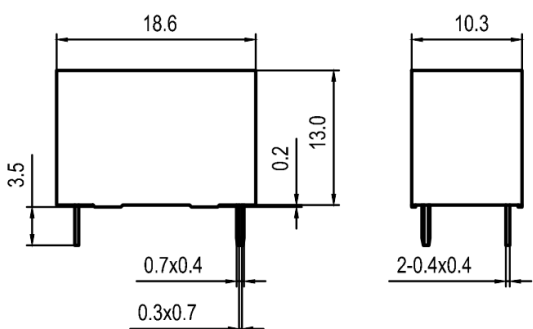
Wiring Diagram
(Bottom view)



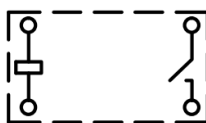
PCB Layout
(Bottom view)



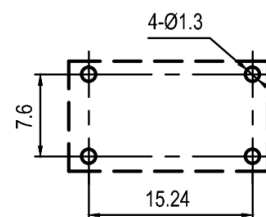
1A4 Outline Dimensions



Wiring Diagram
(Bottom view)

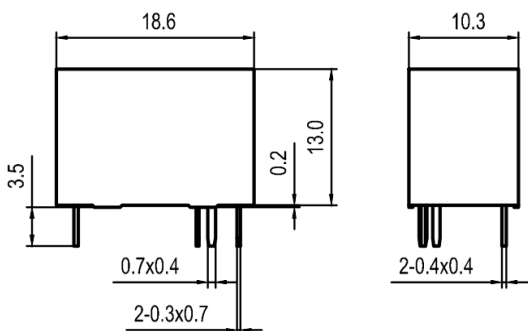


PCB Layout
(Bottom view)

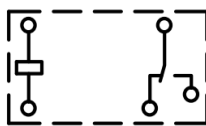


OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT (Unit: mm)

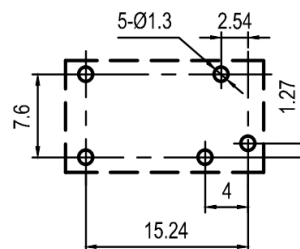
1C1 Outline Dimensions



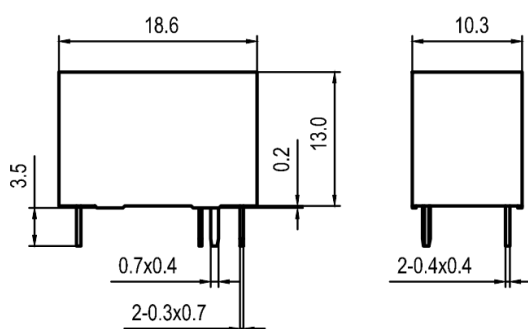
Wiring Diagram (Bottom view)



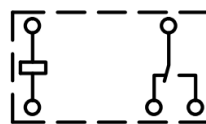
PCB Layout (Bottom view)



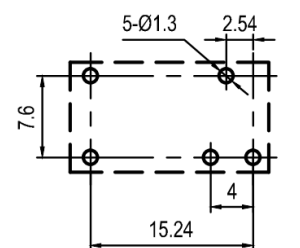
1C2 Outline Dimensions



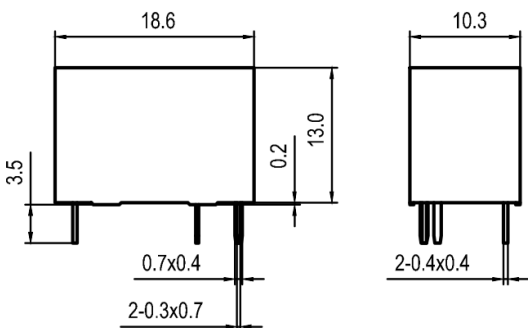
Wiring Diagram (Bottom view)



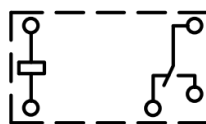
PCB Layout (Bottom view)



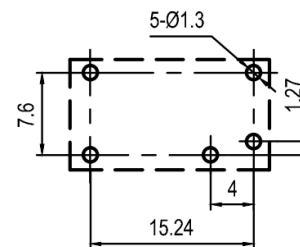
1C3 Outline Dimensions



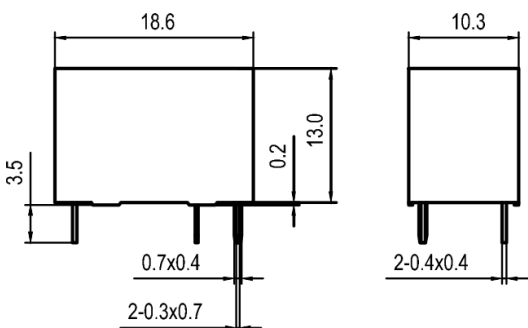
Wiring Diagram (Bottom view)



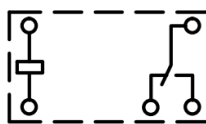
PCB Layout (Bottom view)



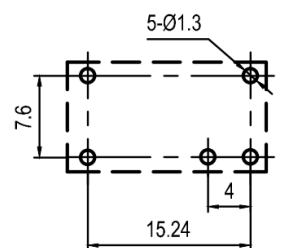
1C4 Outline Dimensions



Wiring Diagram (Bottom view)



PCB Layout (Bottom view)



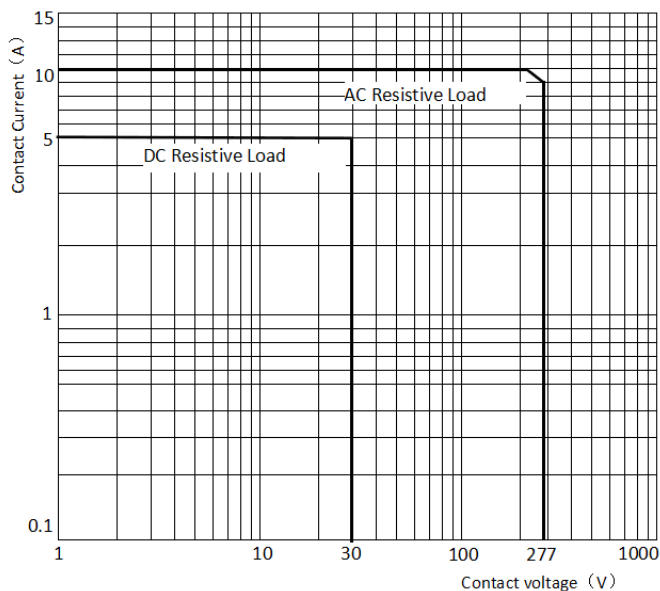
Remark: (1) In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $> 1\text{mm}$ and $< 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $\geq 5\text{mm}$, tolerance should be $\pm 0.5\text{mm}$.
 (2) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

SAFETY APPROVAL RATINGS

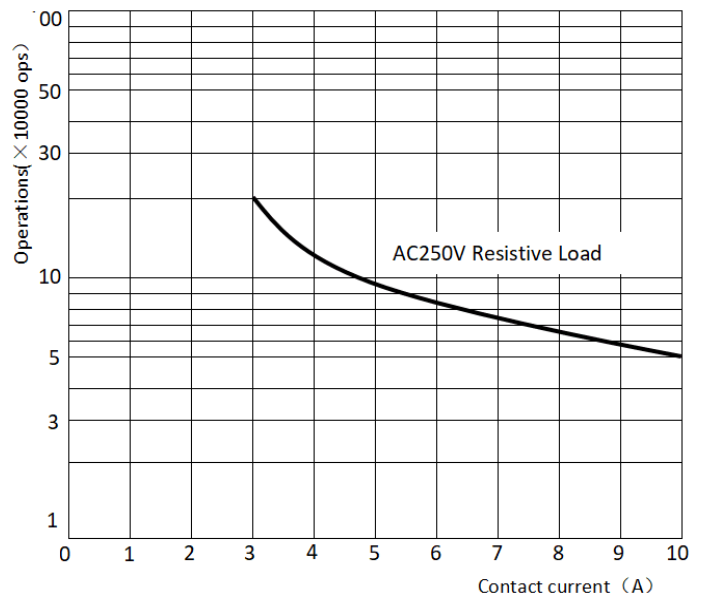
Approval	File No.	Contact arrangement	Contact material	Approved ratings		
UL/C-UL	E475405	1A、1C (NO)	AgNi、AgSnO ₂	10A	250/125VAC/30VDC	85°C
				1/4HP	250VAC	85°C
		1B、1C (NC)	AgSnO ₂	3A	250VAC (PF=0.6)	85°C
				TV-5	125VAC	85°C
TUV	R 50332879	1A、1C (NO)	AgNi、AgSnO ₂	1000W	250VAC(Tungsten)	85°C
				5A	250VAC/30VDC	105°C
		1B、1C (NC)		5A	250VAC/30VDC	85°C
CQC	CQC16002154624	1A、1C (NO)	AgNi、AgSnO ₂	5A	250VAC/30VDC	85°C
				5A	250VAC/30VDC	105°C
		1B、1C (NC)		5A	250VAC/30VDC	85°C

PERFORMANCE CURVES

MAXIMUM SWITCHING POWER



ENDURANCE CURVE



NOTICE

- ① If the relay needs to be cleaned or used in bad environment(e.g:dust or organic gas),we recommend plastic sealed type.
- ② The specification is for reference only,specifications subject to change without notice.