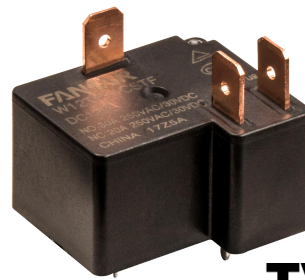


Features

- 40A switching capability
- PCB terminal and quick connector
- Breakdown voltage (between coil and contacts):4KV
- UL insulation system: Class F
- Environment-friendly product (RoHS compliant)
- Outline Dimensions: (31.6×27.2×18.8) mm
- Main application: Home appliance、 industrial control



TV-10 

CHARACTERISTICS

Specifications	Item		
Contact Data	Contact arrangement		1A、1B、1C
	Contact resistance		100mΩ(6VDC 1A)
	Contact material		AgSnO ₂
Rated value	Rated load(Resistance Load)		30A(Standards)/40A 250VAC 20A 30VDC
	Max.switching voltage		277VAC/30VDC
	Max.switching current		40A
	Max.switching capacity		10000VA/600W
	Min.allowing load		5VDC 100mA
Electrical performance	Insulation resistance(initial)		1000MΩ(500VDC)
	Dielectric strength (initial)	Between open contacts	1500VAC,1 min
		Between coil&contacts	2500VAC(Standards)/4000VAC,1 min
	Operate time		≤15ms
	Release time		≤10ms
Mechanical performance	Shock resistance	Functional	98m/s ²
		Destructive	980m/s ²
Vibration resistance		10Hz~55Hz 1.5mm DA	
Endurance	Mechanical		5×10 ⁶ min
	Electrical	40A 250VAC	2×10 ⁴ ops(ON/OFF=1s/9s)
		30A 250VAC 20A 30VDC	5×10 ⁴ ops(ON/OFF=1s/9s) 1×10 ⁵ opsON/OFF=1s/9s)
Operate condition	Ambient temperature		-40℃~85℃
	Humidity		5% to 90%
Termination			PCB
Unit weight			Approx.29g
Construction			Plastic sealed、 Flux proofed

COIL DATA(23°C)

Nominal Voltage	Pick-up Voltage VDC	Drop-out Voltage VDC	Rated Current ($\pm 10\%$)	Coil Resistance ($\pm 10\%$)	Nominal Power	Max Voltage
DC 5V	≤ 3.75	≥ 0.25	180mA	27.8 Ω	900 mW	DC 6.5V
DC 6V	≤ 4.50	≥ 0.30	150mA	40 Ω		DC 7.8V
DC 9V	≤ 6.75	≥ 0.45	100mA	90 Ω		DC 11.7V
DC 12V	≤ 9.00	≥ 0.60	75mA	160 Ω		DC 15.6V
DC 15V	≤ 11.25	≥ 0.75	60mA	250 Ω		DC 19.5V
DC 18V	≤ 13.50	≥ 0.90	50mA	360 Ω		DC 23.4V
DC 24V	≤ 18.00	≥ 1.20	37.5mA	640 Ω		DC 31.2V
DC 36V	≤ 27.00	≥ 1.80	25mA	1440 Ω		DC 46.8V
DC 48V	≤ 36.00	≥ 2.40	18.75mA	2560 Ω		DC 62.4V
DC 110V	≤ 82.50	≥ 5.50	8.19mA	13444.5 Ω		DC 143V

ORDERING INFORMATION

W12TP -1A S T F -XXX DC12V

① Type

② Contact arrangement(1): 1A=1 open contacts
1B=1 close contacts
1C=1 switched contacts

③ Construction(2): Nil=Flux proofed, S=Plastic sealed

④ Contact material: T=AgSnO₂

⑤ Insulation standard: F=Class F

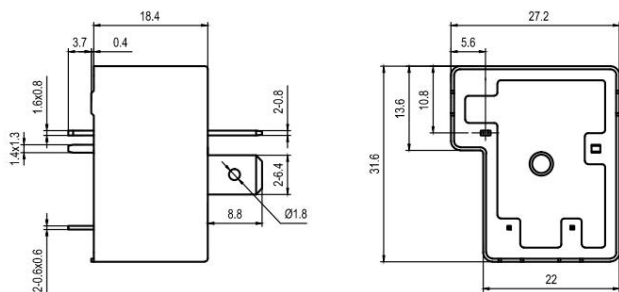
⑥ Customer special code: numbers or letters denote customer's requirements

⑦ Coil specification: DC5/6/9/12/15/18/24/36/48/110V

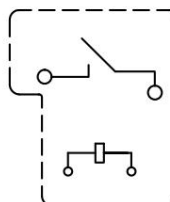
- (1) If need the contact arrangement is 1B, please contact with the salesman to ask for the outline dimensions, wiring diagram and PC board layout.
- (2) When used in clean environment(excluding H₂S、SO₂、NO₂、dust and other pollutants), it is recommended to choose the Flux proofed type; When used in unclean environment(contain H₂S、SO₂、NO₂、dust and other pollutants), it is recommended to choose the Plastic sealed.

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

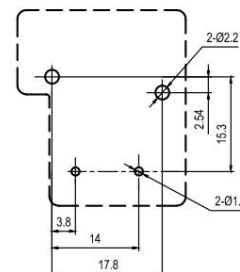
1A Outline Dimensions



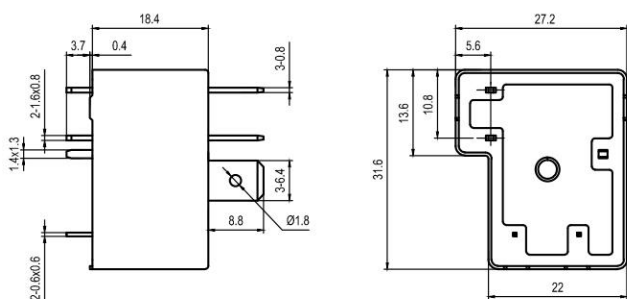
Wiring Diagram
(Bottom view)



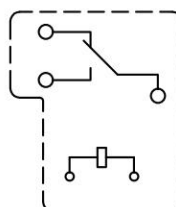
PCB Layout
(Bottom view)



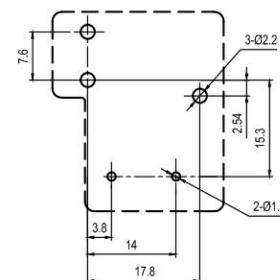
1C Outline Dimensions



Wiring Diagram
(Bottom view)



PCB Layout
(Bottom view)



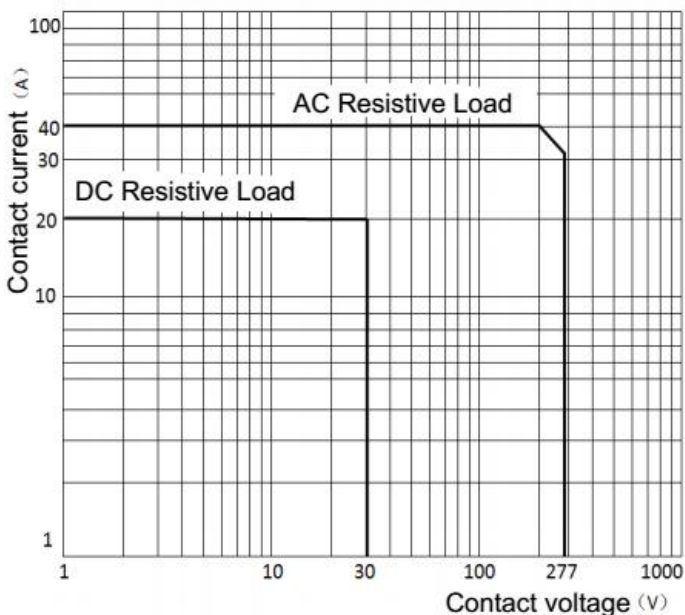
Remark: (1) In case of no tolerance shown in outline dimension: outline dimension ≤ 1 mm, tolerance should be ± 0.2 mm; outline dimension > 1 mm and < 5 mm, tolerance should be ± 0.3 mm; outline dimension ≥ 5 mm, tolerance should be ± 0.5 mm.
(2) The tolerance without indicating for PCB layout is always ± 0.1 mm.

SAFETY APPROVAL RATINGS

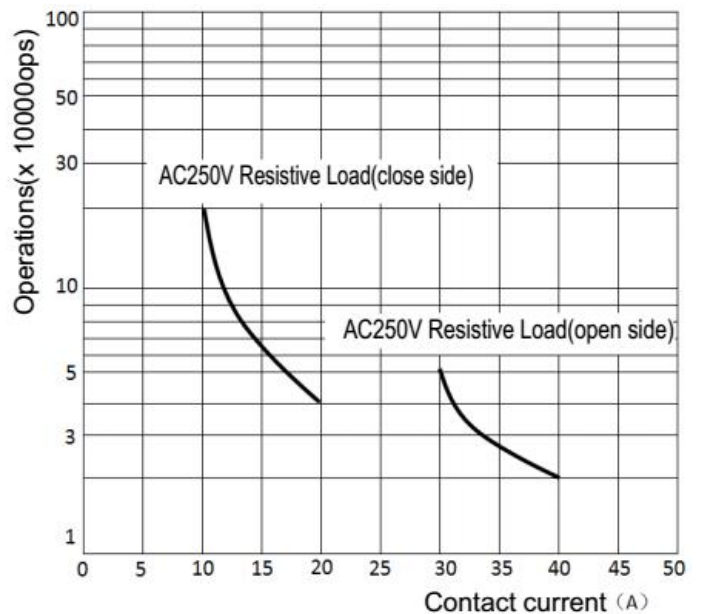
Approval	File No.	Contact arrangement	Contact material	Approved ratings		
UL/C-UL	E475405	1A、1C(NO)	AgSnO ₂	20A	30VDC	85°C
				40A	250VAC	85°C
				2HP	250VAC	85°C
		1B、1C(NC)	AgSnO ₂	20A	250VAC(PF=0.6)	85°C
				TV-10	125VAC	85°C
				20A	48VDC	85°C
TUV	R 50338930	1A(NO)	AgSnO ₂	40A	250VAC	85°C
				20A	30VDC	85°C
		1B(NC)		20A	250VAC	85°C
				15A	30VDC	85°C
		1C(NO/NC)		20A/10A	250VAC	85°C
				10A/10A	30VDC	85°C
CQC	CQC16002140939	1A、1C(NO)	AgSnO ₂	40A	250VAC	85°C
				20A	30VDC	85°C
		1B、1C(NC)		20A	250VAC	85°C
				15A	30VDC	85°C
		1C(NO/NC)		20A/10A	250VAC	85°C
				10A/10A	30VDC	85°C

PERFORMANCE CURVES

MAXIMUM SWITCHING POWER



ENDURANCE CURVE



■ NOTICE

- ① In order to maintain the initial performance parameters of the relay, please be careful not to drop the product;
- ② The specification is for reference only. Specifications subject to change without notice.