Features

- 40A switching capability
- Breakdown voltage：5KV（between contact and coil）
- Can supply the product meet the standards of IEC60335-1
- UL insulation system：Class F
- Environmental friendly product（RoHS compliant）
- Outline Dimensions：(31.6×27.2×18.8）mm
- Main application：Industrial Control、Photovoltaic&New Energy

TV-10

■ 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)		30A（Standard）)/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,1min
		Between coil&contacts	2500VAC(Standard)/4000VAC,1min
	Operate time		≤15ms
	Release time		≤10ms
Mechanical performance	Shock resistance	Functional	98m/s^2(10G)
		Destructive	980m/s^2(100G)
	Vibration resistance		10Hz～55Hz 1.5mm DA
Endurance	Mechanical		5×10^6ops
	Electrical		40A 250VAC 2×10^4ops ON/OFF=1s/9s) 30A 250VAC 5×10^4ops (ON/OFF=1s/9s) 20A 30VDC 1×10^5ops (ON/OFF=1s/9s)
Operate condition	Ambient temperature		-40℃～85℃
	Humidity		5% to 90%
Termination			PCB
Unit weight			Approx.27g
Construction			Plastic sealed、Flux proofed

■ COIL DATA(23℃)

Nominal Voltage	Pick-up Voltage VDC	Drop-out Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 5V	≤3.75	≥0.25	180 mA	27.8Ω	900 mW	130%Nominal Voltage
DC 6V	≤4.50	≥0.30	150mA	40Ω		
DC 9V	≤6.75	≥0.45	100mA	90Ω		
DC 12V	≤9.00	≥0.60	75mA	160Ω		
DC 15V	≤11.25	≥0.75	60mA	250Ω		
DC 18V	≤13.50	≥0.90	50mA	360Ω		
DC 24V	≤18.00	≥1.20	37.5mA	640Ω		
DC 36V	≤27.00	≥1.80	25mA	1440Ω		
DC 48V	≤36.00	≥2.40	18.75mA	2560Ω		
DC 110V	≤82.50	≥5.50	8.19mA	13444.5Ω		

■ ORDERING INFORMATION

W12	-1A	S	T	F	-XXX	DC12V

① Type

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

③ Construction：Nil=Flux proofed，S=Plastic sealed

④ Contact material(2)：Nil=AgNi、T=$AgSnO_2$

⑤ insulation system：F=Class F

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

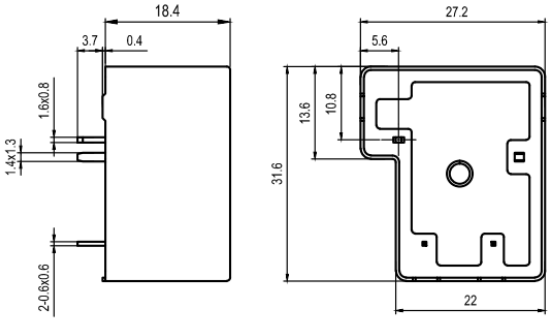
⑦ Coil specification：DC5/6/9/12/15/18/24/36/48/110V

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.

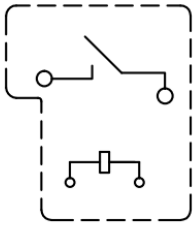
(2) Due to the high surge current of relay connection,we propose to use $AgSnO_2$ contacts.

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

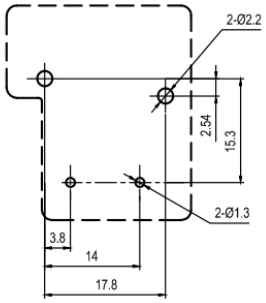
1A Outline Dimensions



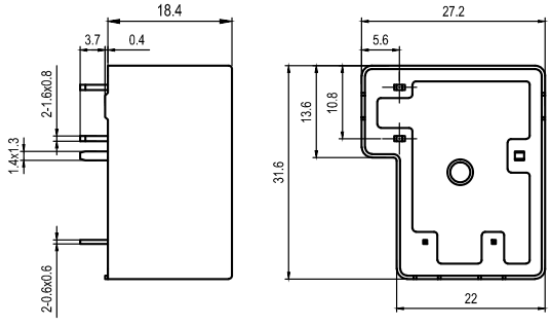
Wiring Diagram (Bottom view)



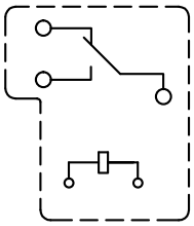
PCB Layout (Bottom view)



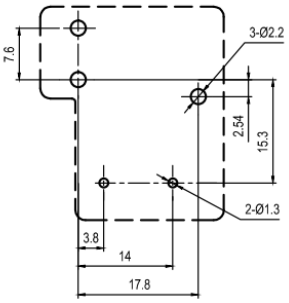
1C Outline Dimensions



Wiring Diagram (Bottom view)



PCB Layout (Bottom view)



Remark:(1)In case of no tolerance shown in outline dimension:outline dimension≤1mm,tolerance should be±0.2mm;outline dimension >1mm and <5mm,tolerance should be ±0.3mm;outline dimension≥5mm,tolerance should be ±0.5mm.

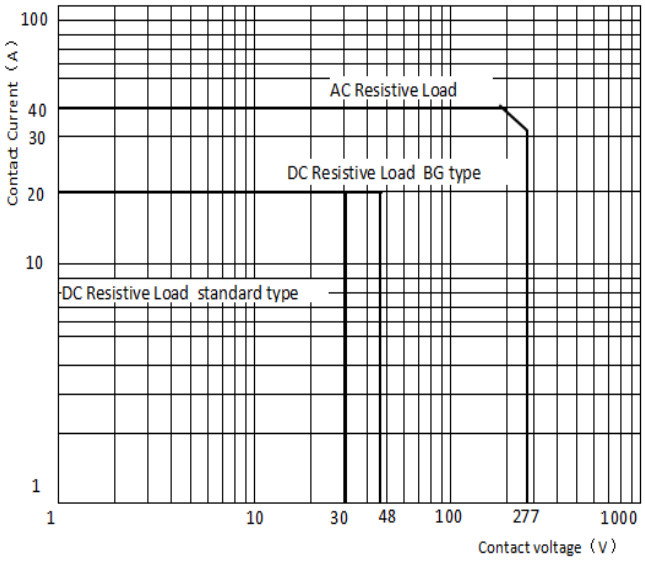
(2) The tolerance without indicating for PCB layout is always ±0.1mm.

■ SAFETY APPROVAL RATINGS

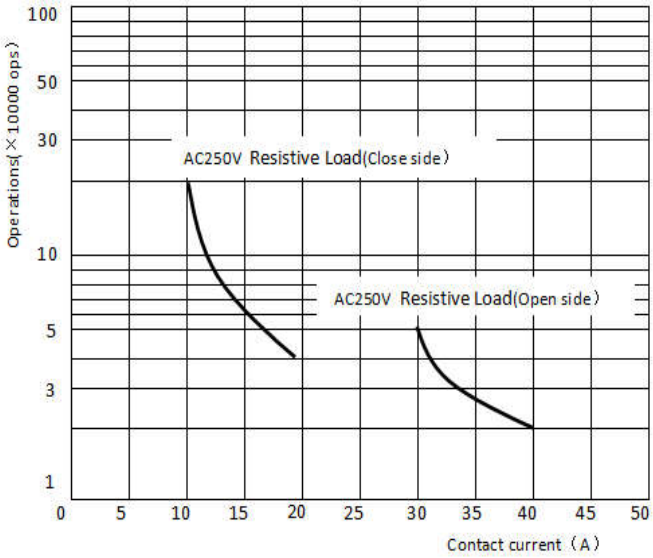
Approval	File No.	Contact arrangement	Contact material	Approved ratings
UL/C-UL	E475405	1A、1C(NO)	AgNi、$AgSnO_2$	20A 30VDC 85℃ 40A/30A 250VAC 85℃ 2HP 250VAC 85℃ 20A 250VAC(PF=0.6) 85℃
			$AgSnO_2$	TV-10 125VAC 85℃ 20A 48VDC 85℃
		1B、1C(NC)	AgNi、$AgSnO_2$	15A 30VDC 85℃ 20A 250VAC 85℃ 1HP 125VAC 85℃
TUV	R 50338930	1A(NO)	AgNi、$AgSnO_2$	40A 250VAC 85℃ 20A 30VDC 85℃
		1B(NC)		20A 250VAC 85℃ 15A 30VDC 85℃
		1C(NO/NC)		20A/10A 250VAC 85℃ 10A/10A 30VDC 85℃
CQC	CQC16002140939	1A、1C(NO)	AgNi、$AgSnO_2$	40A 250VAC 85℃ 20A 30VDC 85℃
		1B、1C(NC)		20A 250VAC 85℃ 15A 30VDC 85℃
		1C(NO/NC)		20A/10A 250VAC 85℃ 10A/10A 30VDC 85℃

■ 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.