

**Features**

- 10A switching capability
- The thickness of the product is 7mm , suitable for high density installation
- Provide the product meet the standards of IEC60335-1 、 IEC60730-1
- Products with operating temperature of 105℃ are available
- High sensitive type,coil power is 200mW
- UL insulation system: Class F
- Environment-friendly product (RoHS compliant)
- Outline Dimensions (20.5×7.2×15.0) mm
- Main application: Home appliance、Smart home、Electric power meter

**CHARACTERISTICS**

Specifications	Item		
Contact Data	Contact arrangement		1A
	Contact resistance(initial)		≤100mΩ (6VDC 1A)
	Contact material		AgSnO <sub>2</sub>
Rated value	Rated load(Resistance load)		5A 250VAC/30VDC 10A 250VAC
	Max.switching voltage		277VAC/30VDC
	Max.switching current		10A
	Max.switching capacity		2500VA/150W
	Min.allowing load		5VDC 100mA
Electrical performance	Insulation resistance(initial)		1000MΩ(500VDC)
	Dielectric strength (initial)	Between open contacts	1000VAC, 1min
		Between coil&contacts	4000VAC, 1min
	Impact resistance voltage		between coil and contacts:10KV (1.2×50μs)
	Operate time		≤10ms
	Release time		≤5ms
Mechanical performance	Shock resistance	Functional	98m/s <sup>2</sup>
		Destructive	980m/s <sup>2</sup>
Vibration resistance		10Hz~55Hz 1.5mm DA	
Endurance	Mechanical		5×10 <sup>6</sup> ops
	Electrical		5A 250VAC/30VDC 10A 250VAC
Operate condition	Ambient temperature		-40℃~85/105℃
	Humidity		5% to 90%
Termination			PCB
Unit weight			Approx.4g
Construction			Plastic sealed、Flux proofed

## COIL DATA(23°C)

Nominal Voltage	Pick-up Voltage VDC	Drop-out Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 3V	≤2.25	≥0.15	66.7mA	45Ω	200mW	DC 3.9V
DC 5V	≤3.75	≥0.25	40mA	125Ω		DC 6.5V
DC 6V	≤4.50	≥0.30	33.3mA	180Ω		DC 7.8V
DC 9V	≤6.75	≥0.45	22.2mA	405Ω		DC 11.7V
DC 12V	≤9.00	≥0.60	16.7mA	720Ω		DC 15.6V
DC 15V	≤11.25	≥0.75	13.3mA	1128Ω		DC 19.5V
DC 18V	≤13.50	≥0.90	11.1mA	1620Ω		DC 23.4V
DC 24V	≤18.00	≥1.20	8.3mA	2880Ω		DC 31.2V

## ORDERING INFORMATION

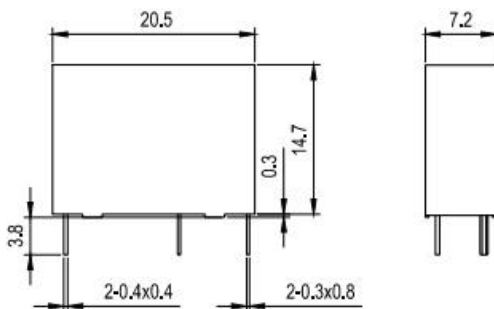
**W18 -1A S T E -XXX DC12V**

- ① Type
- ② Contact arrangement: 1A=1 open contacts
- ③ Construction(1): Nil=Flux proofed, S=Plastic sealed
- ④ Contact material :T=AgSnO<sub>2</sub>
- ⑤ Load: Nil=Standard load E=High load
- ⑥ Customer special code: numbers or letters denote customer's requirements
- ⑦ Coil specification: DC3/5/6/9/12/15/18/24V

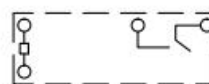
- (1) When used in clean environment(excluding H<sub>2</sub>S、SO<sub>2</sub>、NO<sub>2</sub>、dust and other pollutants), it is recommended to choose the Flux proofed type;When used in unclean environment(contain H<sub>2</sub>S、SO<sub>2</sub>、NO<sub>2</sub>、dust and other pollutants), it is recommended to choose the Plastic sealed.

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

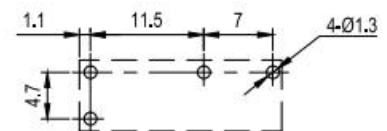
**1A** Outline Dimensions



Wiring Diagram  
(Bottom view)



PCB Layout  
(Bottom view)



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.

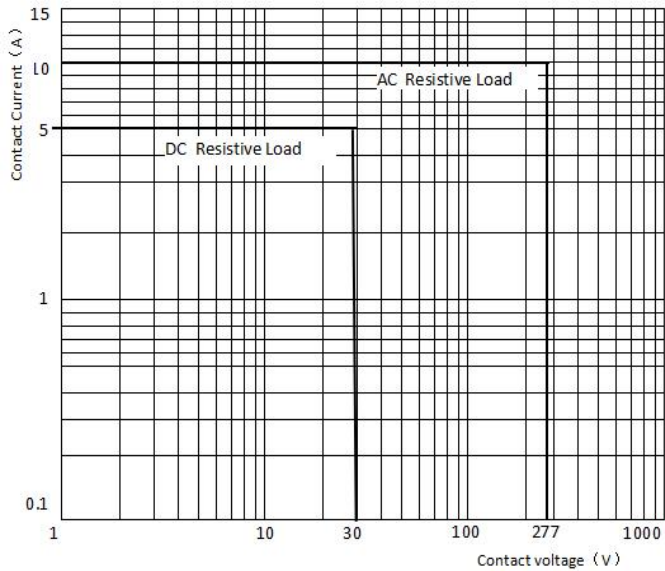
(2) The tolerance without indicating for PCB layout is always ±0.1mm.

## SAFETY APPROVAL RATINGS

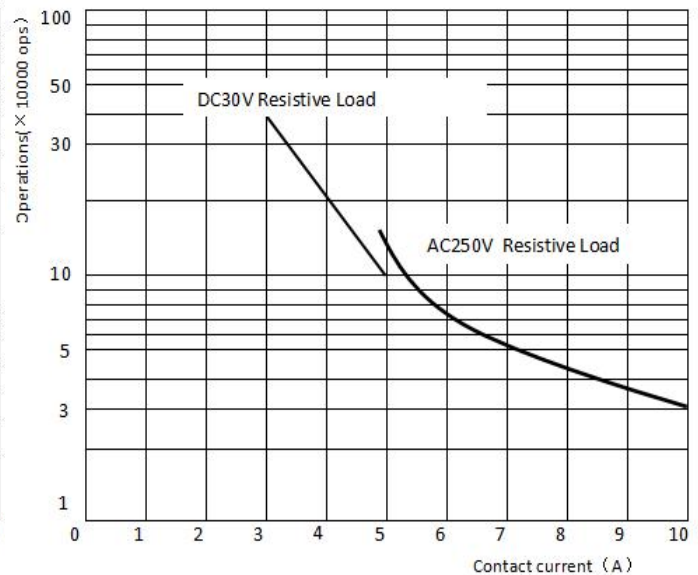
Approval	File No.	Contact arrangement	Contact material	Approved ratings	
UL/C-UL	E475405	1A(NO)	AgSnO <sub>2</sub>	5A 250/30VDC 10A/7A 250/125VAC	85°C/105°C 85°C
TUV	R 50406753	1A(NO)	AgSnO <sub>2</sub>	5A 250/30VDC 10A/7A 250/125VAC	85°C/105°C 85°C
CQC	CQC17002180326	1A(NO)	AgSnO <sub>2</sub>	5A 250/30VDC 10A/7A 250/125VAC	85°C/105°C 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.