

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:(20.5×7.2×14.7)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 ₂
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 ²
		Destructive	980m/s ²
	Vibration resistance		10Hz~55Hz 1.5mm DA
Endurance	Mechanical		5×10 ⁶ ops
	Electrical(Room temperature)		5A 250VAC/30VDC 1×10 ⁵ ops (ON/OFF=1s/9s) 10A 250VAC 2×10 ⁴ ops (ON/OFF=1s/9s)
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℃)

Nominal Voltage	Operate Voltage VDC	Release 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

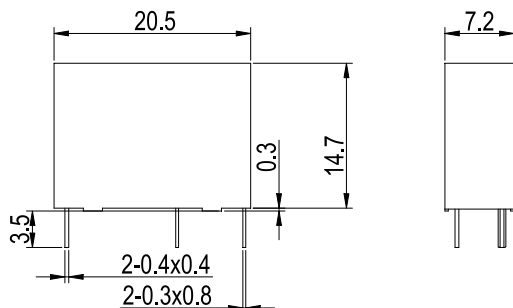
- ① Type
- ② Contact arrangement: 1A=1 open contacts
- ③ Construction(1): Nil=Flux proofed, S=Plastic sealed
- ④ Contact material : T=AgSnO₂
- ⑤ Load: Nil=Standard load E=High load(10A)
- ⑥ Customer special code: numbers or letters denote customer's requirements, For example: G product stands for gold plated contacts
- ⑦ Coil specification: DC3/5/6/9/12/15/18/24V

- (1) 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.

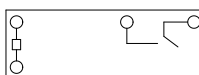
■ OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT(Unit:mm)

1A

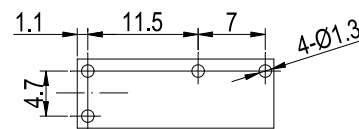
Outline Dimensions



Wiring Diagram
(Bottom view)



PCB Layout
(Bottom view)



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.

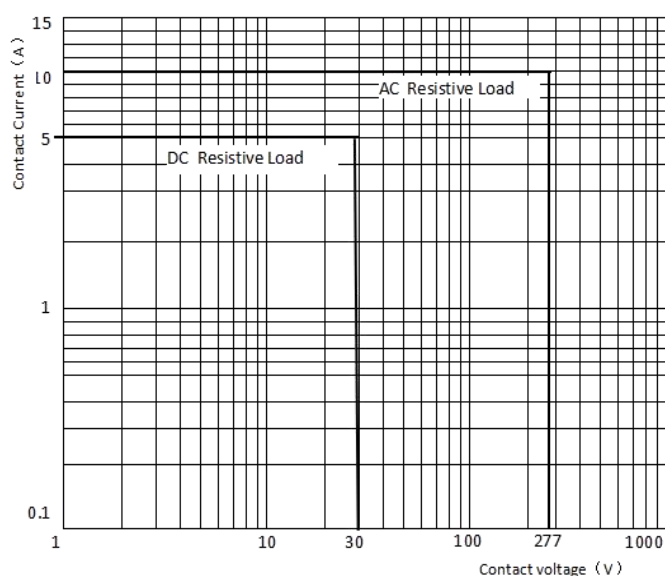
(2) The tolerance without indicating for PCB layout is always ±0.1mm.

SAFETY APPROVAL RATINGS

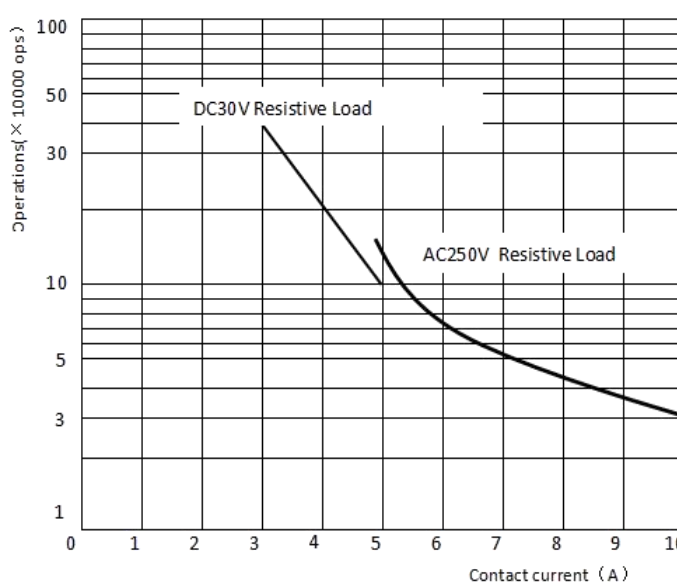
Approval	File No.	Contact arrangement	Contact material	Approved ratings		
UL/C-UL	E475405	1A(NO)	AgSnO ₂	5A	250/30VDC	85°C/105°C
				10A/7A	250/125VAC	85°C
TUV	R 50406753	1A(NO)	AgSnO ₂	5A	250/30VDC	85°C/105°C
				10A/7A	250/125VAC	85°C
CQC	CQC17002180326	1A(NO)	AgSnO ₂	5A	250/30VDC	85°C/105°C
				10A/7A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