W18 POWER RELAY

Features

- 10A switching capability
- The thickness of the product is 7mm，suitable for high density installation
- Can supply the product meet the standards of IEC60335-1、IEC60730-1
- We can provide the product with ambient temperature is 105℃
- highly efficient magnetic circuit for high sensitivity：200mW
- UL insulation system：Class F
- Environmental friendly product（RoHS compliant）
- Outline Dimensions（20.4×7.0×15.0）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		$AgSnO_2$
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		5A 250VAC/30VDC 1×10^5 ops (ON/OFF=1s/9s) 10A 250VAC 3×10^4ops (ON/OFF=1s/9s）
Operate condition	Ambient temperature		-40℃～85℃
	Humidity		5% to 90%
Termination			PCB
Unit weight			Approx.4g
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 3V	≤2.25	≥0.15	66.7mA	45Ω	200mW	130%Nominal Voltage
DC 5V	≤3.75	≥0.25	40mA	125Ω		
DC 6V	≤4.50	≥0.30	33.3mA	180Ω		
DC 9V	≤6.75	≥0.45	22.2mA	405Ω		
DC 12V	≤9.00	≥0.60	16.7mA	720Ω		
DC 15V	≤11.25	≥0.75	13.3mA	1128Ω		
DC 18V	≤13.50	≥0.90	11.1mA	1620Ω		
DC 24V	≤18.00	≥1.20	8.3mA	2880Ω		

■ ORDERING INFORMATION

W18	-1A	S	T	E	-XXX	DC12V

① Type

② Contact arrangement：1A=1 open contacts

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

④ Contact material :T=$AgSnO_2$

⑤ Load：Nil=Standard load　E=High load

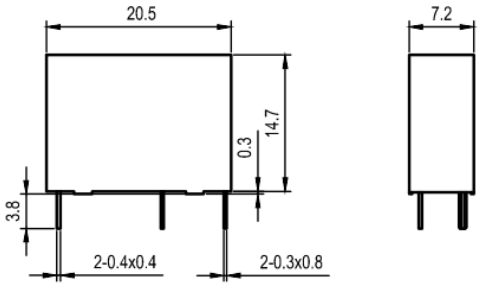
⑥ Customer special code：numbers or letters denote customer's requirements

⑦ Coil specification：DC3/5/6/9/12/15/18/24V

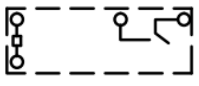
■ OUTLINE DIMENSIONS,WIRING DIAGRAM AND PC BOARD LAYOUT(Unit：mm)

1A

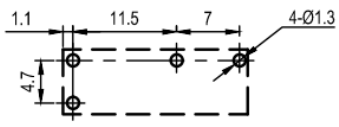
Outline Dimensions



Wiring Diagram
(Bottom view)



PCB Layout
(Bottom view)



Remark：⑴In case of no tolerance shown in outline dimension:outline dimension≤1mm,tolerance should be±0.2m;outline dimension >1mm and <5mm ， tolerance should be ±0.3mm;outline dimension≥5mm,tolerance should be ±0.5mm.

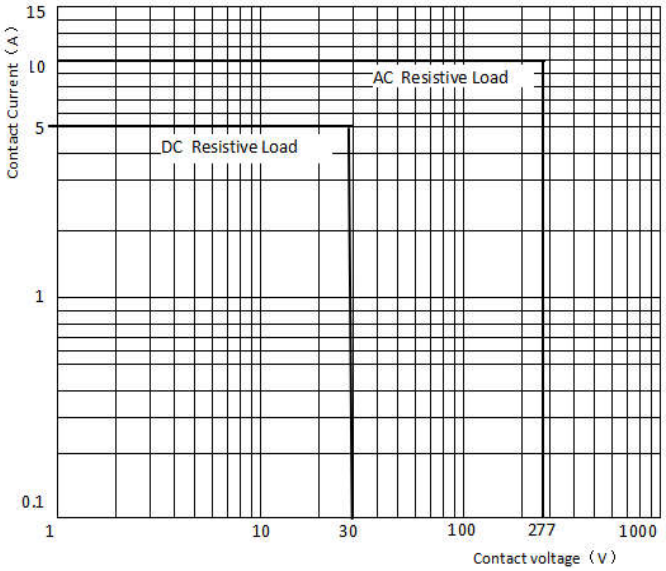
⑵ The tolerance without indicating for PCB layout is always ±0.1mm.

■ SAFETY APPROVAL RATINGS

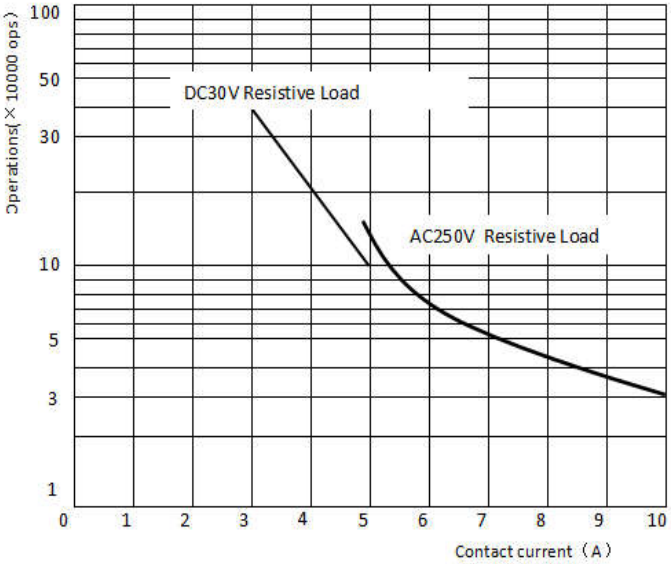
Approval	File No.	Contact arrangement	Contact material	Approved ratings		
UL/C-UL	E475405	1A(NO)	$AgSnO_2$	5A	250/30VDC	85℃/105℃
				10A/7A	250/125VAC	85℃
TUV	R 50406753	1A(NO)	$AgSnO_2$	5A	250/30VDC	85℃/105℃
				10A/7A	250/125VAC	85℃
CQC	CQC17O02180326	1A(NO)	$AgSnO_2$	5A	250/30VDC	85℃/105℃
				10A/7A	250/125VAC	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.