

Features

- 50A contact switching capability
- Breakdown voltage(between coil and contacts):4KV
- UL insulation system:Class F
- Environmental friendly product(RoHS compliant)
- Outline Dimensions:(31.8×28.8×19.3)mm
- Main application:Electric vehicles and charging piles, photovoltaic new energy



CHARACTERISTICS

Specifications	Item			
Contact Data	Contact arrangement		1A, 1C	
	Contact resistance(initial)		50mΩ(6VDC 1A)	
	Contact material		AgSnO ₂	
Rated value	Rated load(Resistance load)		NO: 60A 277/250VAC 50A 277/250VAC 40A 277/250VAC NC:20A 277/250VAC	
	Max.switching voltage		277VAC	
	Max.switching current		50A	
	Max.switching capacity		13850VA	
	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 Type)/4000VAC,1min	
	Operate time		≤20ms	
	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 ops	
	Electrical(Room temperature)		NO:60A 277/250VAC	1×10 ⁴ ops (ON/OFF=1s/9s)
			50A 277/250VAC	2×10 ⁴ ops (ON/OFF=1s/9s)
			40A 277/250VAC	3×10 ⁴ ops (ON/OFF=1s/9s)
			NC:20A 277/250VAC	2×10 ⁴ ops (ON/OFF=1s/9s)
Operate condition	Ambient temperature		-40℃~85℃	
	Humidity		5% to 90%	
Termination			PCB	
Unit weight			Approx.30g	
Construction			Plastic sealed,Flux proofed	

■ COIL DATA(23°C)

■ Standard Type

Nominal Voltage	Operate Voltage VDC	Release Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 5V	≤3.75	≥0.25	240.0mA	20.8Ω	1.2W	DC 6.5V
DC 12V	≤9.00	≥0.60	100.0mA	120.0Ω		DC 15.6V
DC 24V	≤18.00	≥1.20	50.0mA	480.0Ω		DC 31.2V
DC 48V	≤36.00	≥2.40	25.0mA	1920.0Ω		DC 62.4V
DC 110V	≤82.50	≥5.50	10.9mA	10083.3Ω		DC 143V

■ Sensitive Type

Nominal Voltage	Operate Voltage VDC	Release Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 5V	≤3.75	≥0.25	180mA	27.8Ω	0.9W	DC 6.5V
DC 12V	≤9.00	≥0.60	75mA	160Ω		DC 15.6V
DC 24V	≤18.00	≥1.20	37.5mA	640Ω		DC 31.2V
DC 48V	≤36.00	≥2.40	18.75mA	2560Ω		DC 62.4V
DC 110V	≤82.50	≥5.50	8.19mA	13444.5Ω		DC 143V

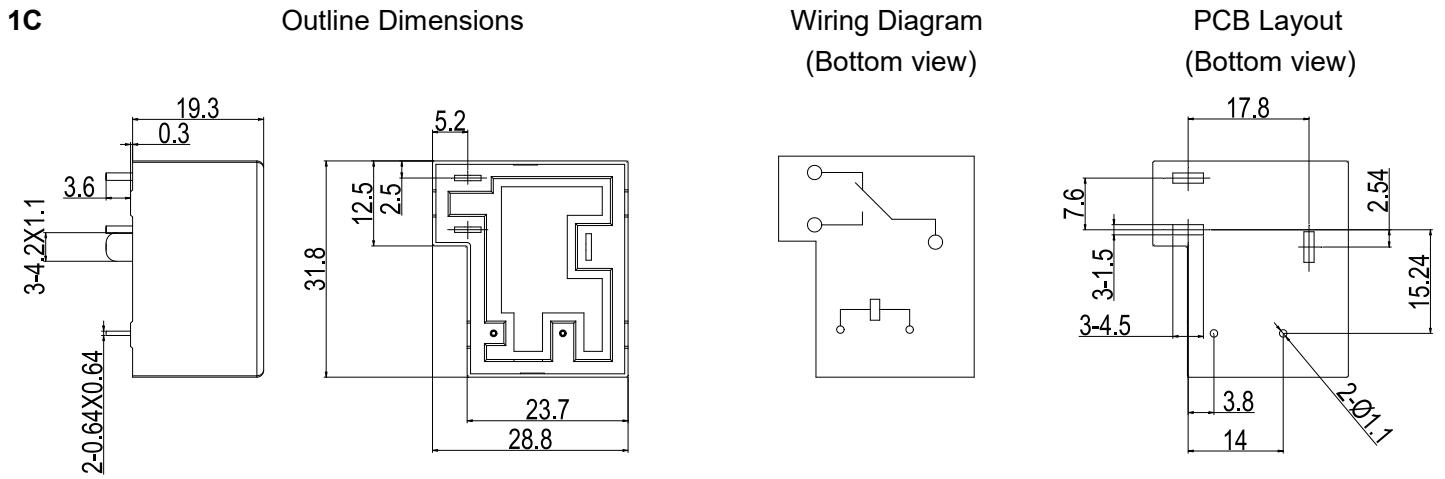
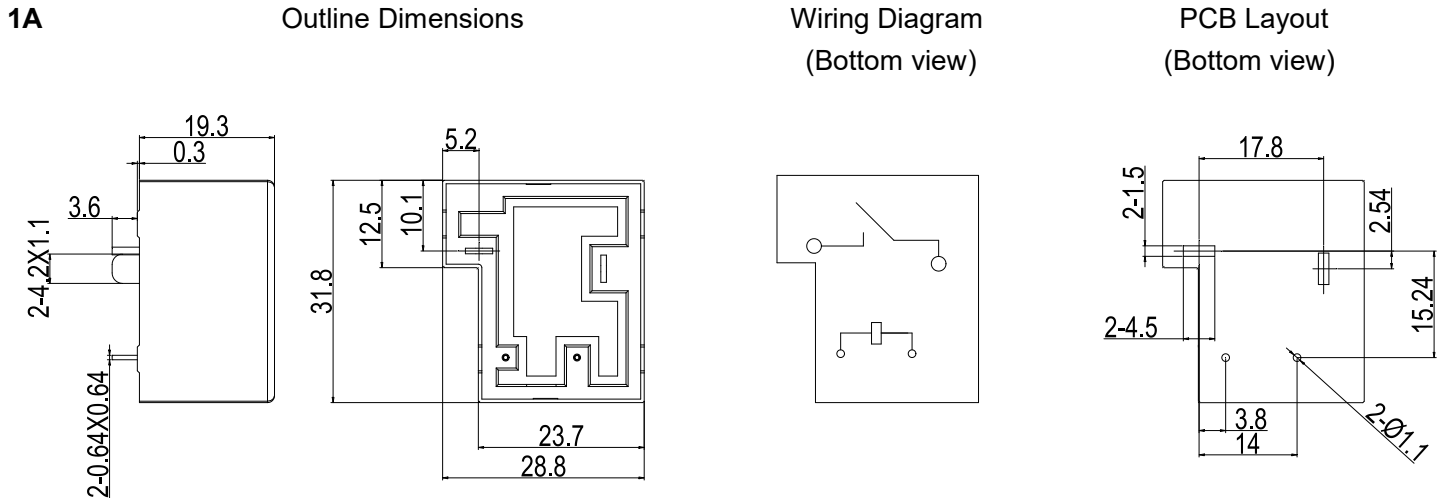
■ ORDERING INFORMATION

W12T-50 -1A S T L F -XXX DC12V

- ① Type
- ② Contact arrangement:1A=1 open contacts,
1C=1 switched contacts
- ③ Construction(1):Nil=Flux proofed,S=Plastic sealed
- ④ Contact material:T=AgSnO₂
- ⑤ Coil power:Nil=Standard, L=Sensitive
- ⑥ Insulation system:F=Class F
- ⑦ Customer special code:numbers or letters denote customer's requirements
- ⑧ Coil specification:DC5/12/24/48/110V

- (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)



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(NO)	AgSnO ₂	NO: 40/30A 277/250VAC 85°C 50A 277/250VAC 65°C 60A 277/250VAC 45°C NC: 20A 277/250VAC 85°C
TUV	R 50616155	1A(NO)	AgSnO ₂	NO: 40/30A 277/250VAC 85°C 50A 277/250VAC 65°C 60A 277/250VAC 45°C NC: 20A 277/250VAC 85°C
CQC	CQC16002140939	1A(NO)	AgSnO ₂	NO: 40/30A 277/250VAC 85°C 50A 277/250VAC 65°C 60A 277/250VAC 45°C NC: 20A 277/250VAC 85°C

■ 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.