32.5 ×27.6 ×20.5

NT90W

c UL us E160644

Features

- Applicable to inverter used for photovoltaic power generation systems.
- Contact gap >1.8mm.
- 50A switching capability.
- Product in accordance to IEC 60335 available.
- Ideal for charger.

Ordering Information

NT90W	50	A	S	12	S	S	L	W
1	2	3	4	5	6	7	8	9

1 Part number：NT90W
2 Load：50：50A
3 Contact arrangement：A:1A
4 Enclosure：S: Wash tight relay；E: Flux proof relay
5 Coil rated voltage(V): DC:12,24
6 Contact material：S: $AgSnO_2$
7 Contact gap: S:1.8mm; Nil: Standard gap
8 Coil power: Nill:2.25W; L:1.5W
9 W:335 compliant; Nil:Standard

Contact Data

Contact Power		1.5W	2.25W
Contact Arrangement		1A（SPSTNO）	1A（SPSTNO）
Contact Material		$AgSnO_2$	$AgSnO_2$
Contact Rating (Resistive)		50A/277VAC	50A/277VAC 35A/277VAC(S Gap) 40A/30VDC
Max. Switching Power		13850VA	1200W 13850VA
Max. Switching Voltage		277VAC	30VDC 277VAC
Max. Switching Current		50A	
Contact Resistance		≤ 30mΩ	Item 4.12 of IEC 61810-7
Operation Life	Electrical	1×10^4 (35A/277VAC 105℃) 1×10^4 (50A/277VAC 85℃) 2×10^4 (50A/277VAC 40℃) 6×10^4 (35A/240VAC 40℃)	Item 4.30 of IEC 61810-7
	Mechanical	1×10^6	Item 4.31 of IEC 61810-7

Coil Parameter

DC Coil Parameter

Dash numbers	Rated voltage V		Coil resistance Ω ±10%	Pick up voltage V(max) (75%of rated voltage)	Release voltage V(min) (10%of rated voltage)	Coil power W	Operate Time ms	Release Time ms
	Rated	Max						
012-1500	12	15.6	96	9.00	1.2	1.5	≤15	≤10
024-1500	24	31.2	384	18.00	2.4			
012-2250	12	15.6	64	9.00	1.2	2.25	≤15	≤10
024-2250	24	31.2	256	18.00	2.4			

After the energization time of 100 ms with rated voltage the coil requires a reduction of the coil voltage to 40% • • 50%.

Operation condition

Insulation Resistance		1000MΩ min (at 500VDC)	Item 4.11 of IEC 61810-7
Dielectric Strength Between Contacts Between Contact and Coil		 50Hz 1500V 2500V(S Gap) 50Hz 2500V 4000V *	 Item 4.9 of IEC 61810-7 Item 4.9 of IEC 61810-7
Shock Resistance	Functional	98m/s²	Item 4.26 of IEC 61810-7
	Destructive	980m/s²	Item 4.26 of IEC 61810-7
Vibration Resistance		10Hz~55Hz Double amplitude 1.5mm	Item 4.28 of IEC 61810-7
Terminals Strength		10N	Item 4.24 of IEC 61810-7
Surge Voltage (Between Coil & Contacts)		6kV(1.2/50 μs)	Item 4.10 of IEC 61810-7
Ambient Temperature		-40℃~85℃	
Relative Humidity		85% (at 40℃)	Item 4.16 of IEC 61810-7
Mass		27g	Item 4.7 of IEC 61810-7

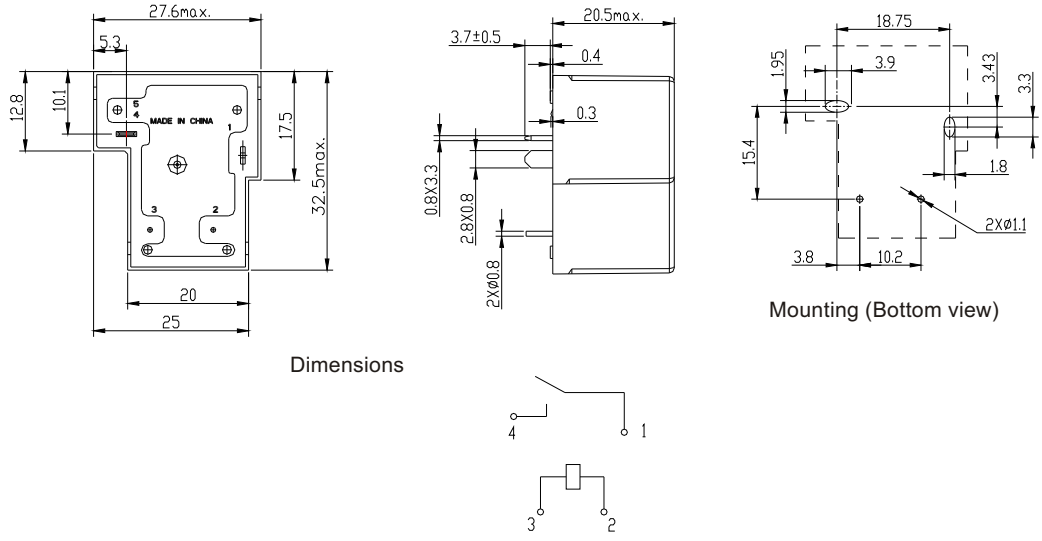
* Please contact the sales representative if 4000V is required.

Safety approvals

Safety approval	UL&CUR
Load	50A/277VAC 40℃ 35A/277VAC 85℃

Dimensions

mm



Dimensions

Mounting (Bottom view)

Wiring diagram(Bottom view)

CAUTION: 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 ±0.4mm.

Reference Data