32.5 ×27.6 ×20.5

NT90W

c UL us E160644 R50126373

CQC 20002278697

Features

- 50A/60A switching capability.
- Contact gap： 1.8mm.
- Ideal for charger.
- Applicable to inverter used for photovoltaic power generation systems.
- Product in accordance to IEC 60335-1 available.

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；60:60A
3 Contact arrangement：A:1A；C:1C
4 Enclosure：S: Wash tight ； E: Flux proof

5 Coil rated voltage(V)： DC:5,6,9,12,15,18,24,48
6 Contact material：S: $AgSnO_2$
7 Contact gap：S:1.8mm; Nil: Standard gap
8 Coil power：Nill:2.25W; L:1.2W
9 W:335 compliant； Nil:Standard

Contact Data

Contact Power		1.2W	2.25W
Contact Arrangement		1A（SPSTNO） 1C(SPDT(B-M))	1A(SPSTNO)
Contact Material		$AgSnO_2$	$AgSnO_2$
Contact Rating (Resistive)		NO:50A,60A/277VAC NC:35A/277VAC	50A/277VAC 35A/277VAC(S Gap) 40A/30VDC
Max. Switching Power		14400VA	1200W 13850VA
Max. Switching Voltage		280VAC	30VDC 280VAC
Max. Switching Current		60A	
Contact Resistance		≤ 30mΩ	Item 4.12 of IEC 61810-7
Operation Life	Electrical	1×10^4 (60A/277VAC,Resistive load, 40℃, 1s on 9s off) 3×10^4 (50A/277VAC,Resistive load, 40℃, 1s on 9s off) Item 4.30 of IEC 61810-7 5×10^4 (35A/277VAC,Resistive load, 85℃, 1s on 9s off)	
	Mechanical	1×10^6	Item 4.31 of IEC 61810-7

Coil Parameter

Dash numbers	Rated voltage VDC		Coil resistance Ω ±10%	Pick-up voltage V(max) (75%of rated voltage)	Drop-out voltage V(min) (10%of rated voltage)	Coil power W	Operate time ms	Release time ms
	Rated	Max						
005-1200	5	6.5	20.8	3.75	0.5	1.2	≤15	≤10
006-1200	6	7.8	30	4.50	0.6			
009-1200	9	11.7	67.5	6.75	0.9			
012-1200	12	15.6	120	9.00	1.2			
015-1200	15	19.5	187.5	10.25	1.5			
018-1200	18	23.4	270	13.50	1.8			
024-1200	24	31.2	480	18.00	2.4			
048-1200	48	62.4	1920	36.00	4.8			
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 voltage can be reduced to 40% • • 50% of the rated voltage.

Characteristics

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/s^2	Item 4.26 of IEC 61810-7
	Destructive: 980m/s^2	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(1.2/50μs)	Item 4.10 of IEC 61810-7
Ambient Temperature	-40℃~85℃	
Relative Humidity	5% to 85%	Item 4.16 of IEC 61810-7
Mass	27g	Item 4.7 of IEC 61810-7

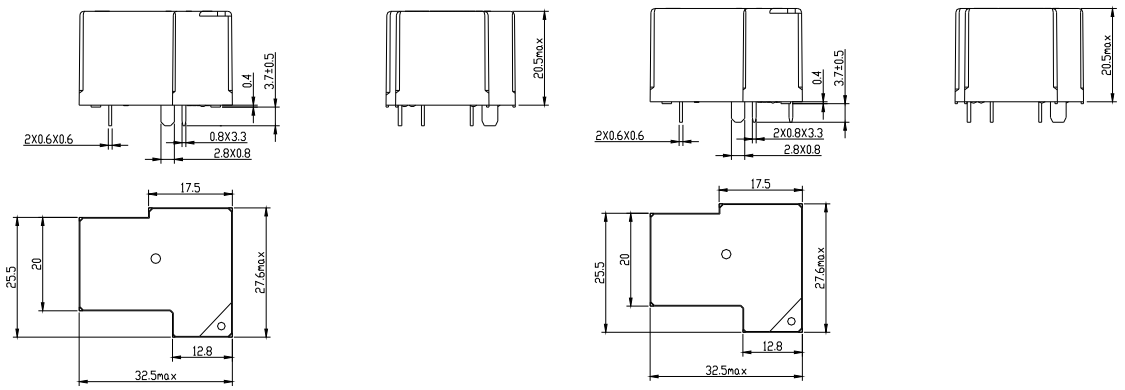
* Please contact the sales representative if 4000V is required.

Safety Approvals

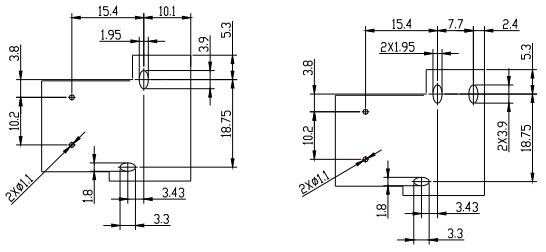
Safety approval	UL&CUR	TüV	CQC
Load	50A/277VAC 40℃ 35A/277VAC 85℃	35A,40A,50A/277VAC 35A,40A,50A/250VAC	50A/277VAC 40A/277VAC,250VAC 35A/277VAC,250VAC

Dimensions

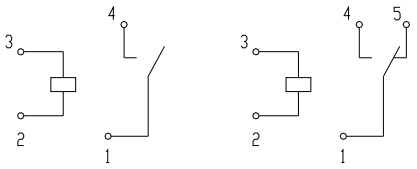
mm



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.