



32.5 × 27.6 × 20.5

NT90W



US E160644



R50126373



20002278697

Features

- 50A/60A switching capability.
- Contact gap: >1.8mm.
- Ideal for charger.
- Suitable for inverter, UPS charger.
- 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 Contact rating: 50:50A; 60:60A
3 Contact arrangement: A:1A; B:1B; 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: AgSnO₂
7 Contact gap: S:1.8mm; Nil: Standard gap
8 Coil power: Nil:2.25W; L:1.2W
9 Special request: W:335 compliant; Nil:Standard

Contact Data

Coil Power	1.2W	2.25W
Contact Arrangement	1A(SPSTNO) 1B(SPSTNC) 1C(SPDT(B-M))	1A(SPSTNO)
Contact Material	AgSnO ₂	AgSnO ₂
Contact Rating ¹⁾	NO:50A,60A/277VAC NC:35A/277VAC NO:35A/30VDC NC:25A/30VDC	50A/277VAC 35A/277VAC(S Gap) 35A/30VDC
Max. Switching Power	1050W 16620VA	1050W 13850VA
Max. Switching Voltage	30VDC 280VAC	
Max. Switching Current	60A	
Contact Resistance	≤30mΩ	Item 4.12 of IEC 61810-7
Electrical Endurance	1 × 10 ⁴ (60A/277VAC,Resistive load, 65℃, 1s on 9s off) 2 × 10 ⁴ (50A/277VAC,Resistive load, 65℃, 1s on 9s off) 1 × 10 ⁴ (35A/277VAC,Resistive load, 65℃, 1s on 9s off) 3 × 10 ⁴ (S Gap)(35A/277VAC,Resistive load, 85℃, 1s on 9s off)	Item 4.30 of IEC 61810-7
Mechanical Endurance	1 × 10 ⁶	Item 4.31 of IEC 61810-7

Notes: 1)The vent hole should be opened when testing enclosed relay.

Coil Parameter

Coil voltage VDC		Coil resistance Ω ± 10%	Pick-up voltage VDC(max) (75%of rated voltage)	Drop-out voltage VDC(min) (10%of rated voltage)	Coil power W	Operate time ms	Release time ms
Rated	Max.						
5	6.5	20.8	3.75	0.5	1.2	≤15	≤10
6	7.8	30	4.50	0.6			
9	11.7	67.5	6.75	0.9			
12	15.6	120	9.00	1.2			
15	19.5	187.5	11.25	1.5			
18	23.4	270	13.50	1.8			
24	31.2	480	18.00	2.4			
48	62.4	1920	36.00	4.8	2.25	≤15	≤10
12	15.6	64	9.00	1.2			
24	31.2	256	18.00	2.4			

Notes: After the energization time of 100 ms with rated voltage, the coil voltage can be reduced to 40% •• 50% of the rated voltage.

Characteristics

Characteristics		
Insulation Resistance	1000MΩ min (at 500VDC)	Item 4.11 of IEC 61810-7
Dielectric Strength Between Open Contacts Between Contact and Coil	1500VAC/2500VAC(S Gap) 1min 2500VAC/4000VAC* 1min	Item 4.9 of IEC 61810-7
Surge voltage (Between Contact and Coil)	6kV(1.2/50μs)	Item 4.10 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
Ambient Temperature	-40℃~85℃	
Relative Humidity	5% to 85%	Item 4.16 of IEC 61810-7
Weight (Approx.)	27g	Item 4.7 of IEC 61810-7

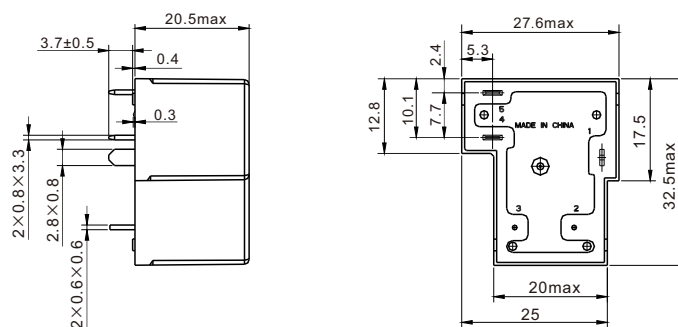
Notes:*Please contact the sales representative if 4000V is required.

Safety Approvals

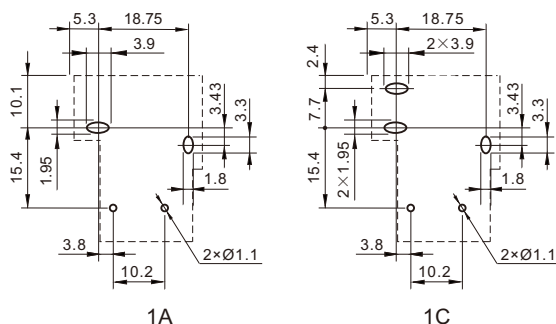
Safety approval	UL&CUR	TüV	CQC
Load	50A,60A/277VAC,250VAC 65℃ 35A/277VAC 85℃	NO:50A,60A/277VAC,250VAC NC:35A,40A/277VAC,250VAC	NO:50A,60A/277VAC,250VAC NC:35A,40A/250VAC,250VAC

Dimensions

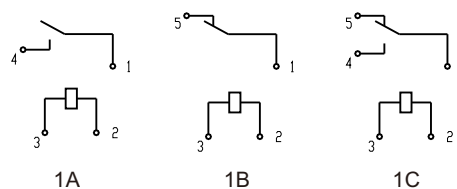
mm



Dimensions



Mounting (Bottom view)



Wiring diagram(Bottom view)

Remark: In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$;
outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $> 5\text{mm}$, tolerance should
be $\pm 0.4\text{mm}$.