



32.5 × 27.6 × 20.5

# NT90 (50A)

 US E174722

## Features

- Small size, light weight.
- Low coil power consumption, heavy contact load.
- Strong anti-shock and anti-vibration, high reliability, long life.
- PC board mounting.
- Suitable for automobile, machine, electronic equipment, air conditioner and household appliances applications.

## Ordering Information

**NT90 R 50 C E 12 S B**  
 1 2 3 4 5 6 7 8

1 Part number: NT90(T90)	6 Coil rated voltage(V): DC:5,6,9,12,15,18,24,48
2 Terminal:R:without Pin 6; Nil:with Pin 6	7 Contact material: S: AgSnO <sub>2</sub>
3 Load: 50: 50A	8 Resist heatclass: B:130℃; F:155℃
4 Contact arrangement: A:1A;B:1B ;C:1C	
5 Enclosure: S: Wash tight relay; E: Flux proofrelay	

## Contact Data

Contact Arrangement	1A (SPSTNO) 1B(SPSTNC) 1C(SPDT(B-M))	
Contact Material	AgSnO <sub>2</sub>	
Contact Rating (resistive)	1A:50A/240VAC;1B:35A/240VAC; 1C:NO:50A/240VAC; NC:35A/240VAC Motor load: NO:2HP 250VAC Lamp load: TV-5	
Max. Switching Power	12000VA	
Max. Switching Voltage	277VAC	Max. Switching Current:50A
Contact Resistance	≤ 30mΩ	Item 4.12 of IEC 61810-7
Operation life	Electrical	2 × 10 <sup>4</sup> Item 4.30 of IEC 61810-7
	Mechanical	10 <sup>7</sup> 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						
005-1500	5	6.5	16.7	3.75	0.5	1.5	≤15	≤10
006-1500	6	7.8	24	4.50	0.6			
009-1500	9	11.7	54	6.75	0.9			
012-1500	12	15.6	96	9.00	1.2			
015-1500	15	19.5	150	10.25	1.5			
018-1500	18	23.4	216	13.50	1.8			
024-1500	24	31.2	384	18.00	2.4			
048-1500	48	62.4	1536	36.00	4.8			

## Operation condition

Insulation Resistance		1000M $\Omega$ min (at 500VDC)	Item 7 of IEC 60255-5
Dielectric Strength			
Between contacts		50Hz 1500V	Item 6 of IEC 60255-5
Between contact and coil		50Hz 2500V 4000V*	Item 6 of IEC 60255-5
Shock resistance	Functional	100m/s <sup>2</sup> 11ms	Item 4.26 of IEC 61810-7
	Destructive	1000m/s <sup>2</sup> 11ms	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°C~85°C	
Relative Humidity		85% (at 40°C)	Item 4.16 of IEC 61810-7
Mass		27g(Open type) 30g	Item 4.7 of IEC 61810-7

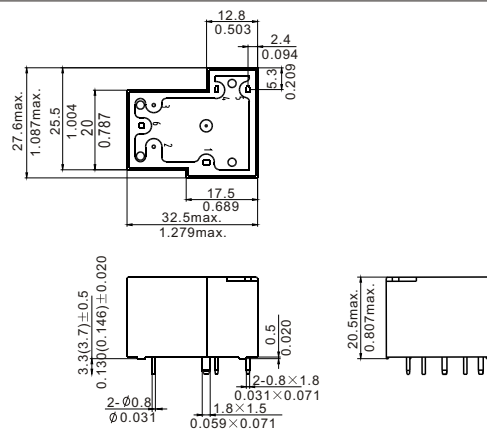
\* Without Pin 6 ,Dielectric strength between coil and contact :4000VAC is the option.

## Safety approvals

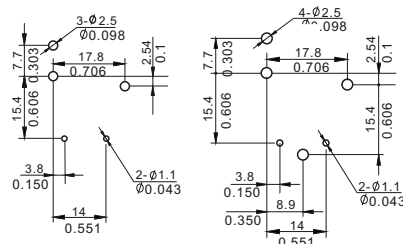
Safety approval	UL&CUR	CQC
Load	NO: 50A/240VAC NC: 35A/240VAC	NO:50A/240VAC NC:35A/240VAC

## Dimensions

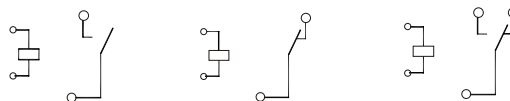
mm /inch



Dimensions



Mounting (Bottom view)



1A

1B

1C

Wiring diagram(Bottom view)

NOTES 1).Dimensions are in millimeters.

2).Inch equivalents are given for general information only.