



32.4×27.5×28

NT90TP (50A)

UL E174722

R50126373

Features

- 50A contact switching capability.
- Available for DC Coil 0.9W and 1.5W.
- 2.7VA available for AC Coil.
- Suitable for automobile, machine, electronic equipment, air conditioner and household appliances applications.

Ordering Information

NT90T 50 A S 24 S F .9
 1 2 3 4 5 6 7 8

1 Part number: NT90T	5 Coil rated voltage(V): DC:5,6,9,12,15,18,24,48
2 Load: 50:50A	AC:24,110,220,240,277
3 Contact arrangement: A:1A; C:1C	6 Contact material: S: AgSnO ₂
4 Enclosure: S: Wash tight ¹⁾ ; E: Flux proof	7 Resist heat class: F: 155°C
	8 Coil power: .9:0.9W; Nil:1.5W,2.7VA

1)Wash tight plastic case with knock off nib.

Contact Data

Contact Arrangement	1A(SPSTNO) 1C(SPDT(B-M))	
Contact Material	AgSnO ₂	
Contact Rating ²⁾ (Resistive)	NO:50A/240VAC; NC:35A/240VAC; NO:35A/30VDC; NC:25A/30VDC Motor Load: 2HP 250VAC TV-8	
Max. Switching Power	1050W 12000VA	
Max. Switching Voltage	30VDC 277VAC	Max. Switching Current:50A
Contact Resistance	≤30mΩ	Item 4.12 of IEC 61810-7
Operation Life	Electrical	3×10 ⁴ (50A/277VAC,Resistive load,40°C,1s on 9s off) 6×10 ³ (50A/277VAC,Resistive load,85°C,1s on 9s off) 3×10 ³ (35A/277VAC,Resistive load,40°C,1s on 9s off) 2.5×10 ¹ (TV-8)
	Mechanical	1×10 ⁷
		Item 4.30 of IEC 61810-7
		Item 4.31 of IEC 61810-7

2)Remove vent nib after soldering and cleaning.

Coil Parameter

DC 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						
005-900	5	6.5	28	3.75	0.5	0.9	≤15	≤10
006-900	6	7.8	40	4.50	0.6			
009-900	9	11.7	90	6.75	0.9			
012-900	12	15.6	160	9.00	1.2			
015-900	15	19.5	250	11.25	1.5			
018-900	18	23.4	360	13.50	1.8			
024-900	24	31.2	640	18.00	2.4			
048-900	48	62.4	2560	36.00	4.8			
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	11.25	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			

CAUTION: 1.The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.

2.Pickup and release voltage are for test purpose only and are not to be used as design criteria.

NT90TP(50A)

Coil Parameter

AC Coil Parameter									
Dash numbers	Coil voltage VAC		Rated current mA	Coil resistance $\Omega \pm 10\%$	Pick-up voltage V(max) (75% of rated voltage)	Drop-out voltage V(min) (10% of rated voltage)	Coil power VA	Operate time ms	Release time ms
	Rated	Max							
024AC-2700	24	28.8	112.5	96	18	7.2	2.7VA	—	—
110AC-2700	110	132	22.5	2320	82.5	33			
220AC-2700	220	264	12.3	9500	165	66			
240AC-2700	240	288	11.3	11600	180	72			
277AC-2700	277	332	9.7	15600	208	83			

Characteristics

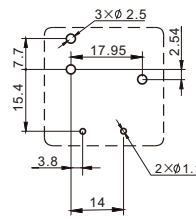
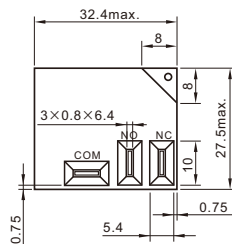
Insulation Resistance	1000M Ω min (at 500VDC)	Item 4.11 of IEC 61810-7
Dielectric Strength Between Contacts Between Contact and Coil	50Hz 1500V 50Hz 2500V	Item 4.9 of IEC 61810-7 Item 4.9 of IEC 61810-7
Shock Resistance	Functional: 98m/s ² 11ms	Item 4.26 of IEC 61810-7
	Destructive: 980m/s ² 11ms	Item 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	-55 $^{\circ}$ C~85 $^{\circ}$ C	
Relative Humidity	5% to 85%	Item 4.16 of IEC 61810-7
Mass	35g	Item 4.7 of IEC 61810-7

Safety Approvals

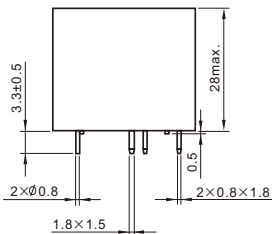
Safety approval	UL&CUR	TÜV
Load	NO:50A/240VAC,277VAC 85 $^{\circ}$ C NC:35A/240VAC,277VAC 40 $^{\circ}$ C	NO:50A/240VAC 40 $^{\circ}$ C NC:35A/240VAC 40 $^{\circ}$ C

Dimensions

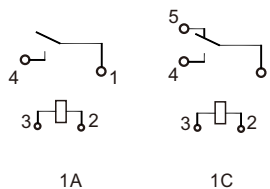
mm



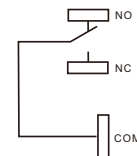
Wiring diagram(Top view)



Dimensions



Wiring diagram(Bottom view)



NT90T(Top view)

CAUTION: 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 ± 0.4 mm.