



32.4×27.5×28

NT90T (50A)

UL US E174722 R50126373

Features

- 50A contact switching capability.
- Available for DC Coil 0.9W and 1.5W. 2.7VA available for AC Coil.
- PC board mounting and QC terminals.
- 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
AC:24,110,220,240,277 |
| 2 Load: 50:50A | 6 Contact material: S: AgSnO ₂ |
| 3 Contact arrangement: A: 1A; B: 1B; C: 1C | 7 Resist heat class: F: 155°C |
| 4 Enclosure: S: Wash tight; E: Flux proof | 8 Coil power: .9:0.9W; Nil:1.5W,2.7VA |

Contact Data

Contact Arrangement	1A(SPSTNO) 1B(SPSTNC) 1C(SPDT(B-M))	
Contact Material	AgSnO ₂	
Contact Rating ¹⁾	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 280VAC	Max. Switching Current:50A
Contact Resistance	≤30mΩ	Item 4.12 of IEC 61810-7
Electrical Endurance	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 ⁴ (35A/277VAC,Resistive load,40°C,1s on 9s off) 2.5×10 ⁴ (TV-8)	Item 4.30 of IEC 61810-7
Mechanical Endurance	1×10 ⁷	Item 4.31 of IEC 61810-7

Notes: 1)Remove vent nib after soldering and cleaning.

Coil Parameter

DC Coil Parameter								
Dash numbers	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						
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.

NT90T (50A)

Coil Parameter

AC Coil Parameter									
Dash numbers	Coil voltage VAC		Rated current mA	Coil resistance $\Omega \pm 10\%$	Pick-up voltage VAC(max) (75% of rated voltage)	Drop-out voltage VAC(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	2.7	—	—
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

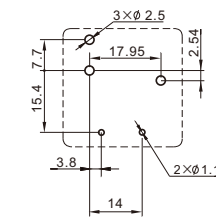
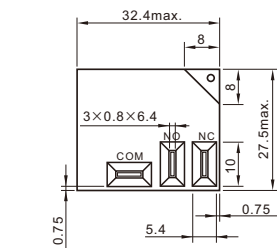
Insulation Resistance	1000M Ω min (at 500VDC)	Item 4.11 of IEC 61810-7
Dielectric Strength Between Contacts Between Contact and Coil	1500VAC 1min 2500VAC 1min	Item 4.9 of IEC 61810-7
Shock Resistance	Functional: 98m/s ² 11ms	Item 4.26 of IEC 61810-7
	Destructive: 980m/s ² 11ms	Item 4.26 of IEC 61810-7
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
Weight (Approx.)	35g	Item 4.7 of IEC 61810-7

Safety Approvals

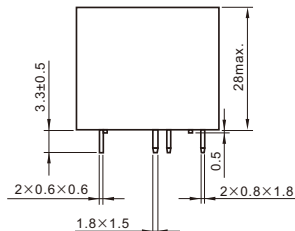
Safety approval	UL&CUR	TüV
Load	NO:50A/240VAC,277VAC 85 $^{\circ}$ C NC:35A/240VAC,277VAC 40 $^{\circ}$ C	NO:50A/240VAC 40 $^{\circ}$ C NC:35A/240VAC 40 $^{\circ}$ C

Dimensions

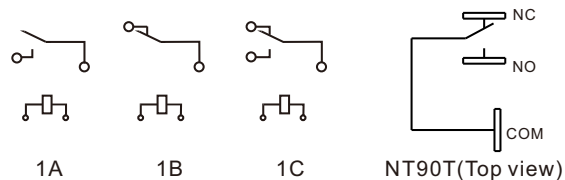
mm



Mounting(Bottom view)



Dimensions



Wiring diagram(Bottom view)

Remark: 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.