

NT90 (T90)



30.5×24.2×17



32.5×27.6×20.5



40040563



US E174722



R50126373

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 H A S 12 C B 0.9
1 2 3 4 5 6 7 8 9

1 Part number: NT90
2 Terminal: R:without Pin 6; NIL:With Pin 6
3 Contact rating: H:30A; N:40A
4 Contact arrangement: A:1A; B:1B; C:1C
5 Enclosure: S:Wash tight; D:Dust protected;
E:Flux proof; O:Unenclosed

6 Coil rated voltage(V): AC:12,24,110,120,220,240,277
DC:3,5,6,9,12,15,18,24,48,110
7 Contact material: S: AgSnO₂; C:AgCdO
8 Insulation standard: B:130℃; F:155℃
9 Coil power: 0.6:0.6W; 0.9:0.9W; 2:2VA

Contact Data

Contact Arrangement	1A(SPSTNO) 1B(SPSTNC) 1C(SPDT(B-M))
Contact Material	AgSnO ₂ AgCdO
Contact Rating ¹⁾	NO:30A/240VAC,14VDC; NC:20A/240VAC;30A/14VDC NO:40A/240VAC,30VDC; NC:30A/240VAC,30VDC (0.9W) NO:30A/277VAC; NC:20A/277VAC Motor load: NO:2HP 250VAC; NC:1½HP 250VAC 5A/280VAC(Ballast) TV-5
Max. Switching Power	1200W 9600VA
Max. Switching Voltage	30VDC 280VAC
Contact Resistance	≤30mΩ
Electrical Endurance	1×10 ⁵
Mechanical Endurance	1×10 ⁷

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

Coil Parameter

AC Coil Parameter								
Coil voltage VAC		Rated current mA	Coil resistance Ω ± 10%	Pick-up voltage VAC(max) (75%of rated voltage)	Drop-out voltage VAC(min) (30%of rated voltage)	Coil power VA	Operate time ms	Release time ms
Rated	Max.							
12	15.6	166.6	27	9.0	3.6	2	—	—
24	31.2	83.3	120	18.0	7.2			
110	143	18.1	2360	82.5	33			
120	156	16.6	3040	90.0	36			
220	286	9.1	13490	165.0	66			
240	312	8.3	15740	180	72			
277	360.1	7.2	20300	207.8	83.1			

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Coil Parameter

DC Coil Parameter							
Coil voltage VDC		Coil resistance $\Omega \pm 10\%$	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.						
3	3.9	10	2.25	0.3	0.9	≤ 15	≤ 10
5	6.5	28	3.75	0.5			
6	7.8	40	4.50	0.6			
9	11.7	90	6.75	0.9			
12	15.6	160	9.00	1.2			
15	19.5	250	11.25	1.5			
18	23.4	360	13.50	1.8			
24	31.2	640	18.00	2.4			
48	62.4	2560	36.00	4.8			
110	143	13445	82.50	11.0			
3	3.9	15	2.25	0.3	0.6	≤ 15	≤ 10
5	6.5	42	3.75	0.5			
6	7.8	60	4.50	0.6			
9	11.7	135	6.75	0.9			
12	15.6	240	9.00	1.2			
15	19.5	375	11.25	1.5			
18	23.4	540	13.50	1.8			
24	31.2	960	18.00	2.4			
48	62.4	3840	36.00	4.8			
110	143	20167	82.50	11.0			

Notes: 1.The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.
2.Pick-up and release voltage are for test purposes only and are not to be used as design criteria.

Characteristics

Insulation Resistance	1000M Ω min (at 500VDC)	Item 4.11 of IEC 61810-7
Dielectric Strength Between Open Contacts Between Contact and Coil	1500VAC 1min 2500VAC 1min 4000VAC 1min (Without Pin 6)*	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℃~85℃	
Relative Humidity	5% to 85%	Item 4.16 of IEC 61810-7
Weight (Approx.)	25.7g(Unenclosed) 27g	Item 4.7 of IEC 61810-7

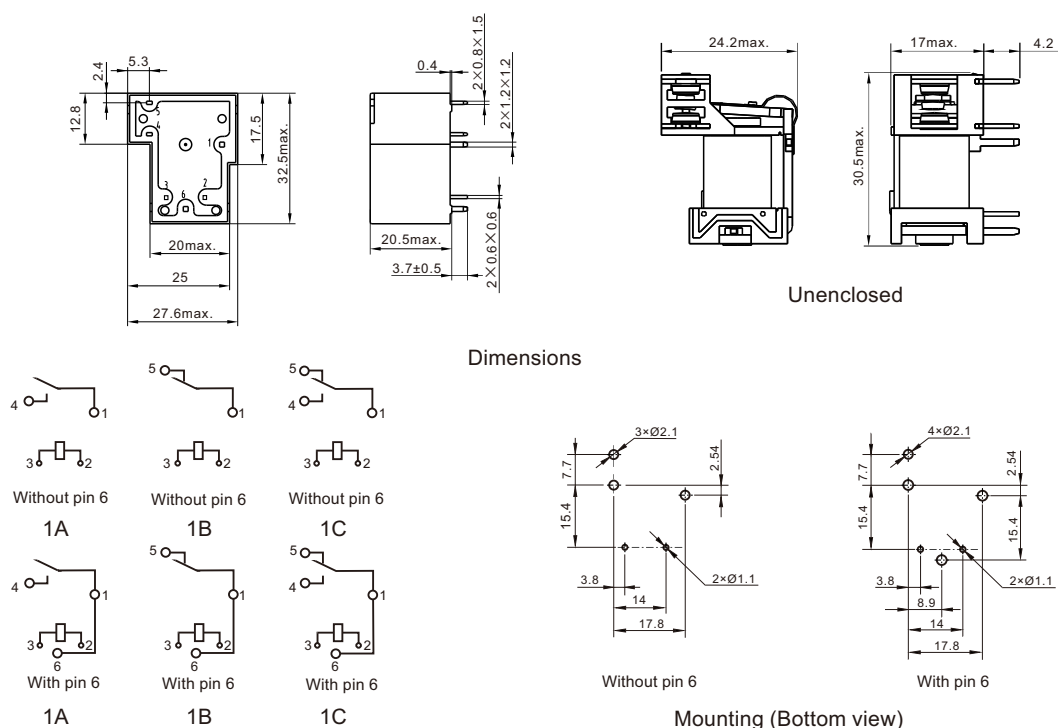
Notes:*Please contact the sales representative if 4000V is required.

Safety Approvals

Safety approval	UL&CUR	TüV	VDE
Load	NO:40A/240VAC;30A/277VAC NC:30A/240VAC,30VDC;20A/277VAC 5A/280VAC(Ballast) TV-5 NO: 2 HP 250VAC 1HP/16FLA/120VAC 2HP/12FLA/240VAC NC:1½HP 250VAC 30LRA/10FLA/120VAC 30LRA/10FLA/240VAC	NO:40A/240VAC,14VDC 30A/277VAC NC:30A/240VAC,14VDC 20A/277VAC	25A/250VAC

Dimensions

mm



Wiring diagram(Bottom view)

Remark: 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.

Reference Data

