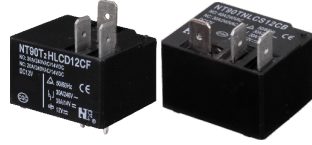


NT90T



32.4×27.5×28



32.4×27.5×20

UL US E160644 R50126373
CQC 13002098872

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 and QC terminals.
- Suitable for automobile, machine, electronic equipment, air conditioner and household appliances applications.

Ordering Information

NT90T H L A S 12 C B 0.9
1 2 3 4 5 6 7 8 9

1 Part number: NT90T、NT90T ₂	6 Coil rated voltage(V): AC:12,24,110,120,220,240,277
2 Contact rating: H:30A; N:40A	DC:3,5,6,9,12,15,18,24,48,110
3 High: NIL:Standard; L:Low profile type	7 Contact material: S: AgSnO ₂ ; C:AgCdO
4 Contact arrangement: A:1A; B:1B; C:1C	8 Insulation standard: B:130℃; F:155℃
5 Enclosure: S:Wash tight; D:Dust protected; E:Flux proof	9 Coil power: 0.6:0.6W; 0.9:0.9W; 2:2VA

Contact Data

Contact Arrangement	1A(SPSTBNO) 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 Max. Switching Current:40A
Contact Resistance	≤30mΩ Item 4.12 of IEC 61810-7
Electrical Endurance	1×10 ⁵ Item 4.30 of IEC 61810-7
Mechanical Endurance	1×10 ⁷ Item 4.31 of IEC 61810-7

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	3.6	2	—	—
24	31.2	83.3	120	18	7.2			
110	143	18.1	2360	82.5	33			
120	156	16.6	3040	90	36			
220	286	9.1	13490	165	66			
240	312	8.3	15740	180	72			
277	360.1	7.2	20300	207.8	83.1			

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 drop-out voltage are for test purposes only and are not to be used as design criteria.

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 drop-out voltage are for test purposes only and are not to be used as design criteria.

Characteristics

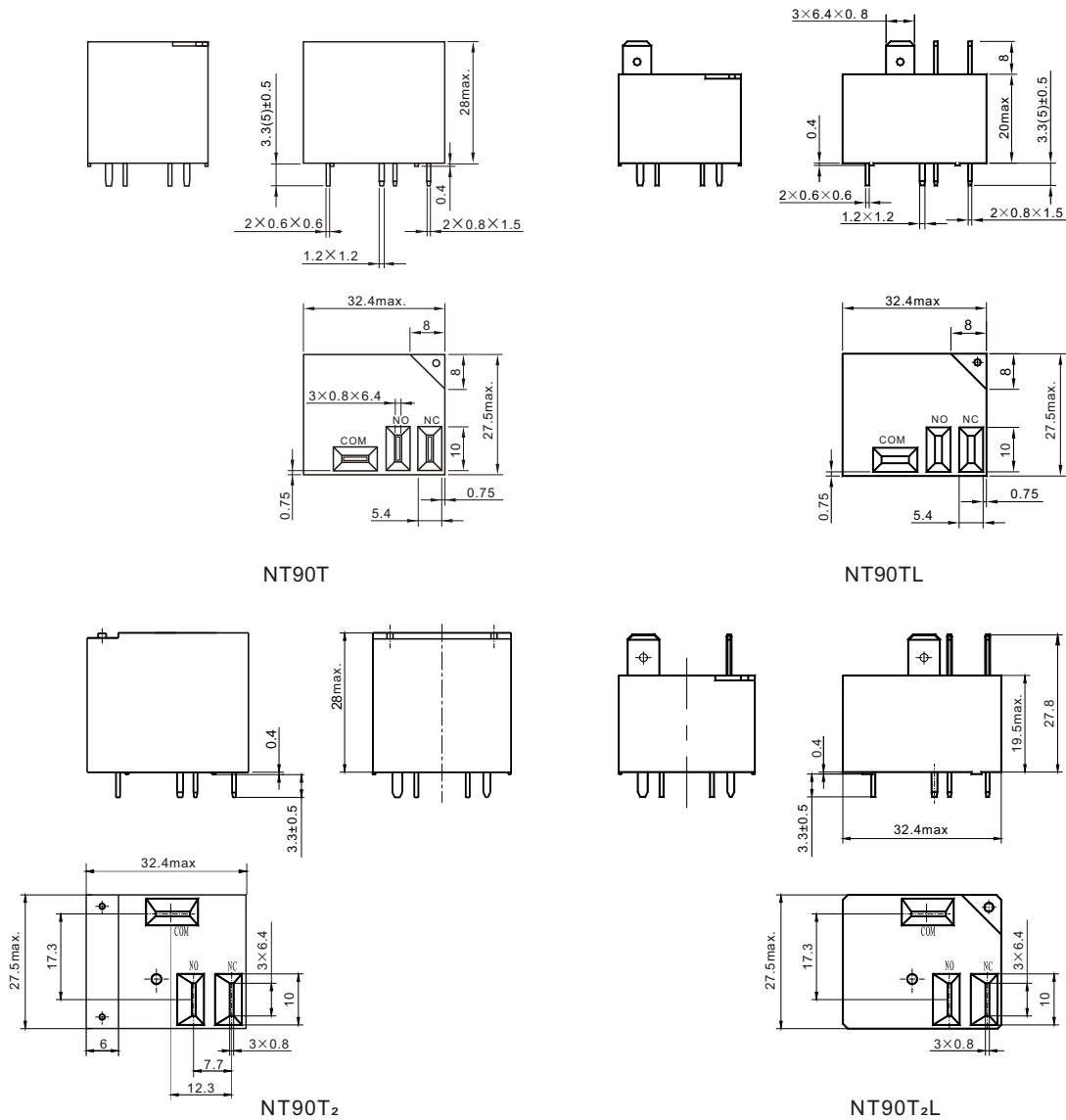
Insulation Resistance	1000M Ω min (at 500VDC)	Item 4.11 of IEC 61810-7
Dielectric Strength Between Open Contacts Between Contact and Coil	1500VAC 1min 2500VAC 1min	Item 4.9 of IEC 61810-7
Shock Resistance	Functional: 98m/s ² 11ms	Item 4.26 of IEC 61810-7
	Destructive: 980m/s ² 11ms	Item 4.26 of IEC 61810-7
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.)	31g(Low profile Type) 35g	Item 4.7 of IEC 61810-7

Safety Approvals

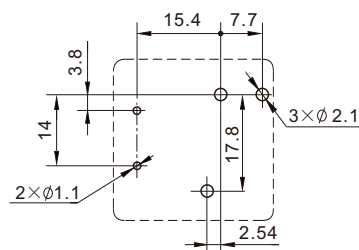
Safety approval	UL&CUR	TüV	CQC
Load	NO:40A/240VAC; 30A/277VAC NC: 30A/240VAC,30VDC ;20A/277VAC Ballast:5A/280VAC TV-5 HP:NO: 2HP 250VAC 1HP/16FLA/120VAC 2HP/12FLA/240VAC NC:1½HP 250VAC 30LRA/10AFLA/120VAC 30LRA/10AFLA/240VAC	NO:40A/240VAC ,14VDC 30A/277VAC NC:30A/240VAC ,14VDC 20A/277VAC	NO:40A/240VAC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

Dimensions

mm



Dimensions

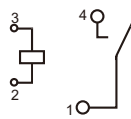


Mounting (Bottom view)

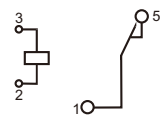
Remark: In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $> 5\text{mm}$, tolerance should be $\pm 0.4\text{mm}$.

Dimensions

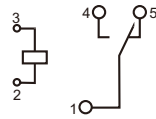
mm



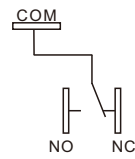
1A



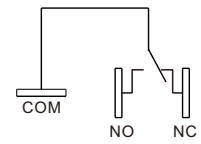
1B



1C



NT90T₂(Top view)



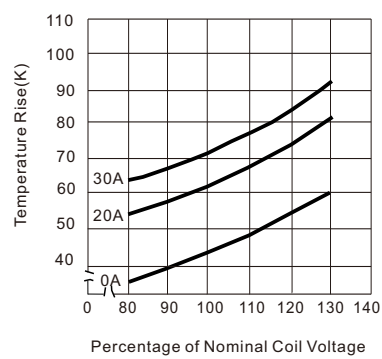
NT90T(Top view)

Wiring diagram(Bottom view)

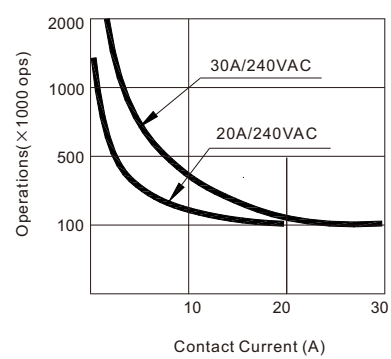
Remark: In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $> 5\text{mm}$, tolerance should be $\pm 0.4\text{mm}$.

Reference Data

Coil Temperature Rise



Endurance Curve



Contact Switching Capacity

