

NT90T



32.4×27.5×28.0

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.
- Suitable for automobile, machine, electronic equipment, air conditioner and household appliances applications.
- PC board mounting and direct insert mounting available.

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、NT90T₂

2 Load: H:30A; N:40A

3 High: NIL; Standard; L: Low profile type

4 Contact arrangement: A:1A; B:1B; C:1C

5 Enclosure: S: Wash tight; D: Dust protected;
E: Flux proof

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 Resist heat class: B:130℃; F:155℃

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 (Resistive) | 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 LoadJNO:2HP 250VAC; NC:1.5HP 250VAC TV-5 5A/280VAC(Ballast) | |
| Max. Switching Power | 1200W 7200VA(10000VA) | |
| Max. Switching Voltage | 30VDC 280VAC | Max. Switching Current:40A |
| Contact Resistance | ≤30mΩ | Item 4.12 of IEC 61810-7 |
| Operation Life | Electrical | 1×10 ⁵ Item 4.30 of IEC 61810-7 |
| | Mechanical | 1×10 ⁷ Item 4.31 of IEC 61810-7 |

Coil Parameter

| AC Coil Parameter | | | | | | | | | |
|-------------------|-------------------|-------|------------------|-------------------------|--|---|---------------|-----------------|-----------------|
| Dash numbers | Rated voltage VDC | | 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 | | | | | | | |
| 012AC | 12 | 15.6 | 166.6 | 27 | 9.0 | 3.6 | 2VA | — | — |
| 024AC | 24 | 31.2 | 83.3 | 120 | 18.0 | 7.2 | | | |
| 110AC | 110 | 143 | 18.1 | 2360 | 82.5 | 33.0 | | | |
| 120AC | 120 | 156 | 16.6 | 3040 | 90.0 | 36.0 | | | |
| 220AC | 220 | 286 | 9.1 | 13490 | 165.0 | 66.0 | | | |
| 240AC | 240 | 312 | 8.3 | 15740 | 180 | 72 | | | |
| 277AC | 277 | 360.1 | 7.2 | 20300 | 207.8 | 83.1 | | | |

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 purposes only and are not to be used as design criteria.

Coil Parameter

| DC Coil Parameter | | | | | | | | |
|-------------------|------------------|------|-----------------------------------|---|--|--------------|-----------------|-----------------|
| Dash numbers | 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. | | | | | | |
| 003-900 | 3 | 3.9 | 10 | 2.25 | 0.3 | 0.9 | ≤ 15 | ≤ 10 |
| 005-900 | 5 | 6.5 | 28 | 3.75 | 0.5 | | | |
| 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 | | | |
| 110-900 | 110 | 143 | 13445 | 82.50 | 11.0 | | | |
| 003-600 | 3 | 3.9 | 15 | 2.25 | 0.3 | 0.6 | ≤ 15 | ≤ 10 |
| 005-600 | 5 | 6.5 | 42 | 3.75 | 0.5 | | | |
| 006-600 | 6 | 7.8 | 60 | 4.50 | 0.6 | | | |
| 009-600 | 9 | 11.7 | 135 | 6.75 | 0.9 | | | |
| 012-600 | 12 | 15.6 | 240 | 9.00 | 1.2 | | | |
| 015-600 | 15 | 19.5 | 375 | 11.25 | 1.5 | | | |
| 018-600 | 18 | 23.4 | 540 | 13.50 | 1.8 | | | |
| 024-600 | 24 | 31.2 | 960 | 18.00 | 2.4 | | | |
| 048-600 | 48 | 62.4 | 3840 | 36.00 | 4.8 | | | |
| 110-600 | 110 | 143 | 20167 | 82.50 | 11.0 | | | |

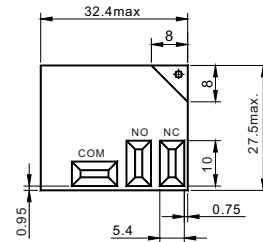
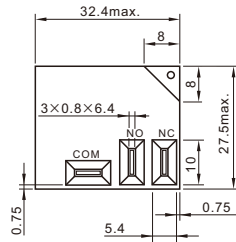
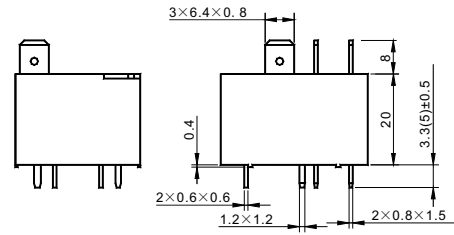
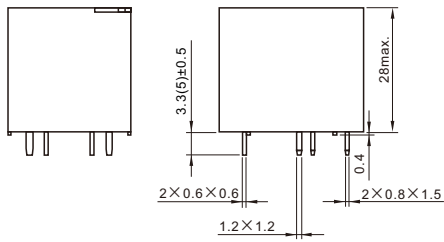
CAUTION: 1.The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.
2.Pickup and release voltage are for test purposes only and are not to be used as design criteria.

Characteristics

| | | |
|---|---------------------------------------|--|
| Insulation Resistance | 1000M Ω min (at 500VDC) | Item 4.11 of IEC 61810-7 |
| Dielectric Strength Between 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 4.10 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 |
| Mass | 31g(Low profile Type) 35g | Item 4.7 of IEC 61810-7 |

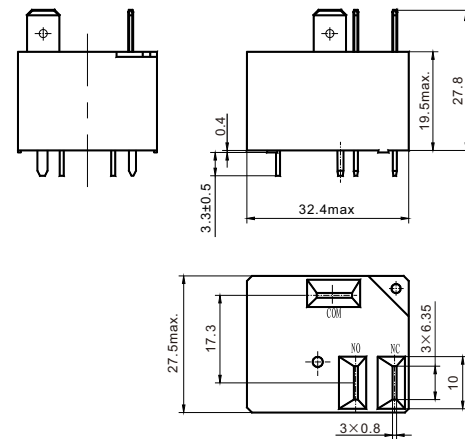
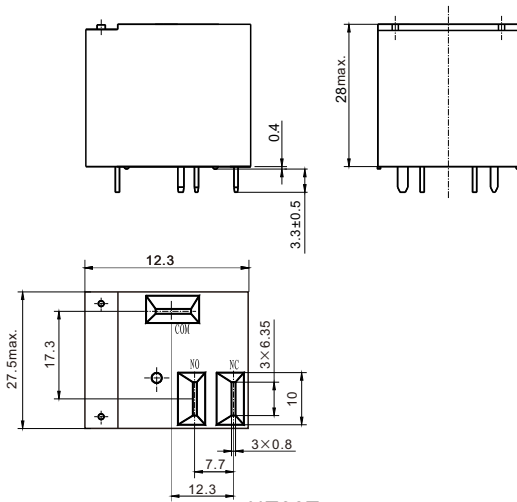
Dimensions

mm



NT90T

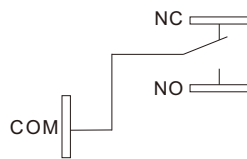
NT90TL



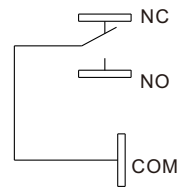
NT90T₂

NT90T₂L

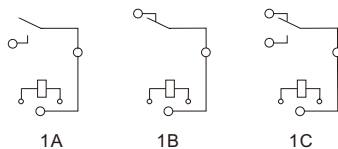
Dimensions



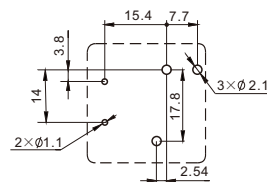
NT90T₂(Top view)



NT90T(Top view)



Mounting (Bottom view)



Wiring diagram(Bottom 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.

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 A:2HP 250VAC 1HP/16AFLA/120VAC 2HP/12AFLA/240VAC B: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 |

Reference Data

