




32.5 × 27.6 × 20.5

# NT90L(30/40A)

 us E174722

## Features

- Single and double coils magnet latching relay available.
- Switching capacity up to 40A.
- Energy saving and environmental friendly product.

## Ordering Information

**NT90L 30 C S 24 - 0.9 D**

1 2 3 4 5 6 7

- |  |  |
|--|--|
| <p>1 Part number: NT90L<br/>                 2 Load: 30A,40A/277VAC,28VDC (Resistive load)<br/>                 5000W 240VAC (Incandescent Lamp)<br/>                 5A/280VAC (Electronic ballast)<br/>                 2HP 250VAC (Motor load)<br/>                 3 Contact arrangement: A:1A; B:1B; C:1C</p> | <p>4 Enclosure: S: Sealed type; E: Covered; N:Open<br/>                 5 Coil rated voltage(V): 5,12,24,48<br/>                 6 Coil power consumption: 0.9:0.9W<br/>                 7 Coil : NIL:Single coil; D: Double coils</p> |
|--|--|

## Contact Data

Contact Arrangement	1A (SPSTNO) 1B(SPSTNC) 1C(SPDT(B-M))	
Contact Material	AgSnO <sub>2</sub>	
Contact Rating (Resistive)	30A/277VAC,28VDC 5 10 <sup>4</sup> ; 40A/277VAC, 28VDC 2 10 <sup>4</sup> OPS (Resistive load) ; 5000W 240VAC 3 10 <sup>4</sup> OPS (Incandescent Lamp) ; 5A/280VAC 6000 OPS (Electronic ballast) ; 2HP 250VAC 2 10 <sup>4</sup> OPS (Motor load)	
Max. Switching Power	1200W 12000VA	
Max. Switching Voltage	110VDC 300VAC Max. Switching Current:40A	
Contact Resistance	≤ 20mΩ Item 4.12 of IEC 61810-7	
Operation life	Electrical	See contact rating Item 4.30 of IEC 61810-7
	Mechanical	10 <sup>5</sup> Item 4.31 of IEC 61810-7

## Coil Parameter

Single Coil Parameter								
Dash numbers	Rated voltage VDC	Coil resistance Ω ±10%	Switching voltage VDC (80%of rated voltage)	Operating voltage range VDC	Plus magnitude ms	Coil power	Operate Time ms	Reset Time ms
005-900	5	28	4.0	5~6				
012-900	12	160	9.6	12~14.4	≥50	0.9W	≤15	≤15
024-900	24	640	19.2	24~28.8				
048-900	48	2560	38.4	48~57.6				

# NT90L(30A/40A)

Double Coil Parameter								
Dash numbers	Rated voltage VDC	Coil resistance 10%	Switching voltage VDC (<80%of rated voltage)	Operating voltage range VDC	Plus magnitude ms	Coil power W	Operate Time ms	Reset Time ms
005-1800	5	2x14	4.0	5~6				
012-1800	12	2x80	9.6	12~14.4	≥50	2X1.8W	≤15	≤15
024-1800	24	2x320	19.2	24~28.8				
048-1800	48	2x1280	38.4	48~57.6				

**CAUTION:** 1.When latching relays are installed in equipment, the latch and reset coil should not be powered simultaneously. Coil should not be pulsed with less than the nominal coil voltage and pulse width should be a minimum of three times the specified operate time of the relay. If these conditions are not followed, it is possible for the relay to in be the magnetically neutral position .  
2.Switching voltage is for test purpose only and are no to be used as design criteria.

## Safety approvals

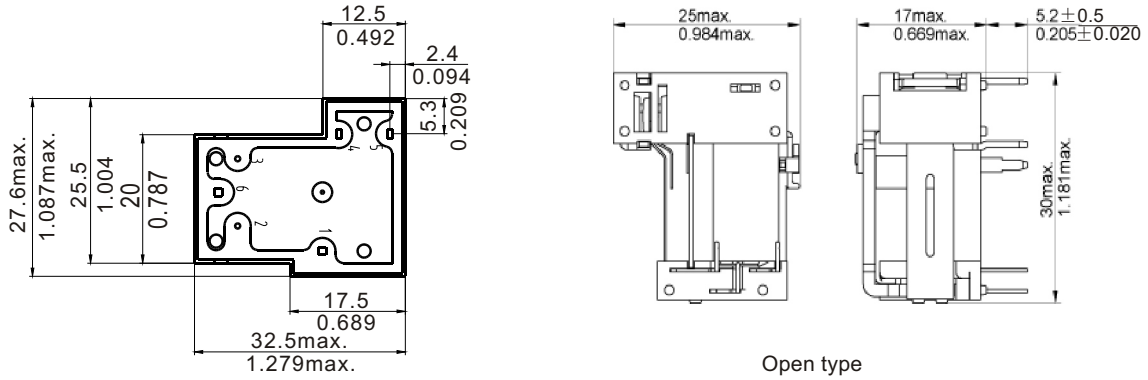
Safety approval	UL&CUR	CQC
Load	30A 40A/277VAC	30A 40A/277VAC

## Operation condition

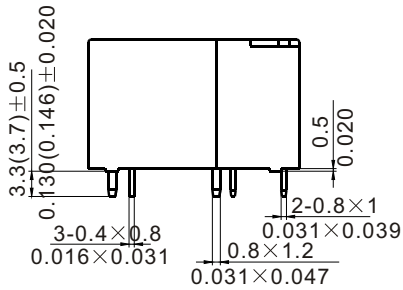
Insulation Resistance	1000MΩ min (at 500VDC)	Item 7 of IEC 60255-5
Dielectric Strength		
Between contacts	50Hz 1500V 1min	Item 6 of IEC 60255-5
Between contact and coil	50Hz 2500V 4000V 1min	Item 6 of IEC 60255-5
Shock resistance	200m/s <sup>2</sup> 11ms	IEC 60068-2-27 Test Ea
Vibration resistance	10Hz~55Hz double amplitude 1.5mm	IEC 60068-2-6 Test Fc
Terminals strength	10N	IEC 60068-2-21 Test Ua1
Solderability	235°C±2°C 3s±0.5s	IEC 60068-2-20 Test Ta method 1
Ambient Temperature	-40°C~85°C	
Relative Humidity	85% (at 40°C)	IEC 60068-2-3 Test Ca
Mass	27g(Open type) 31g	

## Dimensions

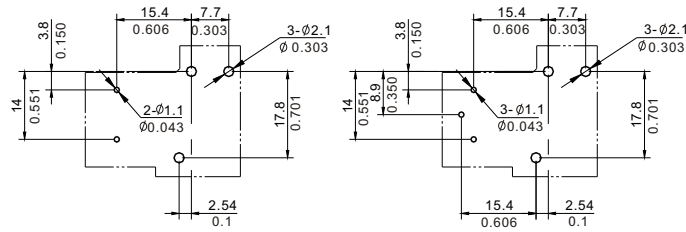
mm /inch



Open type

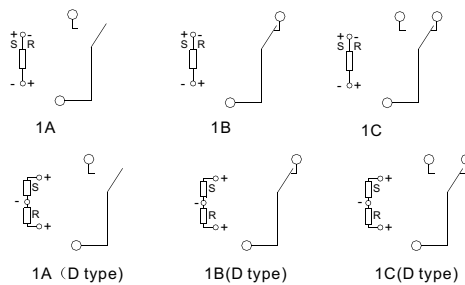


Dimensions



D type

Mounting (Bottom view)



S:Set R:Reset

Wiring diagram(Bottom view)

NOTES 1).Dimensions are in millimeters.

2).Inch equivalents are given for general information only.

3).Relays shall have plus (+) or plus (-) and minus signs placed on the circuit diagram as shown.