

NF90T



32.4×27.5×28.0



32.4×27.5×20



 03001003xxx

 E160xxx

 R50126xxx

Features

- Small size, light weight.
- Insulation system class F for 155°C
- 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

NF90T **100** **E** **24** **S** **L** **A** **XXXX**
 1 2 3 4 5 6 7 8

- | | | | |
|----------------------|--|-------------------|---|
| 1. Type: | NF90T = 30A Version
NF90TH = 40A Version | 6. Cover type: | Nil = Standard;
L = Low profile |
| 2. Configuration: | 100 = 1NO (1A)
001 = 1CO (1C) | 7. Terminal type: | Nil = Standard
A = Alternative |
| 3. Contact material: | E = Ag alloy | 8. Special code: | XXXX = Letters and/or numbers for custom special design |
| 4. Coil code: | 5 = 5VDC; 6 = 6VDC; 9 = 9VDC;
12 = 12VDC; 24 = 24VDC; 48 = 48VDC; | | |
| 5. Protection: | Nil = Dust cover
S = Sealed type | | |

Contact Data

Contact Arrangement	1A (SPSTB NO) 1C (SPDT(B-M))
Contact Material	Ag alloy
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 load: NO:2HP 250VAC; NC:1.5HP 250VAC Lamp load: TV-5 5A/280VAC(Ballast)
Max. Switching Power	1200W 7200VA (10000VA)
Max. Switching Voltage	110VDC 300VAC Max. Switching Current:40A
Contact Resistance or Voltage drop	<30mΩ Item 4.12 of IEC 61810-7
Operation Life	Electrical 10 ⁵ Item 4.30 of IEC 61810-7
	Mechanical 10 ⁷ Item 4.31 of IEC 61810-7

Coil Parameter

DC Coil Parameter

Dash numbers	Coil voltage V		Coil resistance Ω ±10%	Pick up voltage VDC(max) (75% of rated voltage)	Release 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			
024-900	24	31.2	640	18.00	2.4			
048-900	48	62.4	2560	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 purposes only and are not to be used as design criteria.

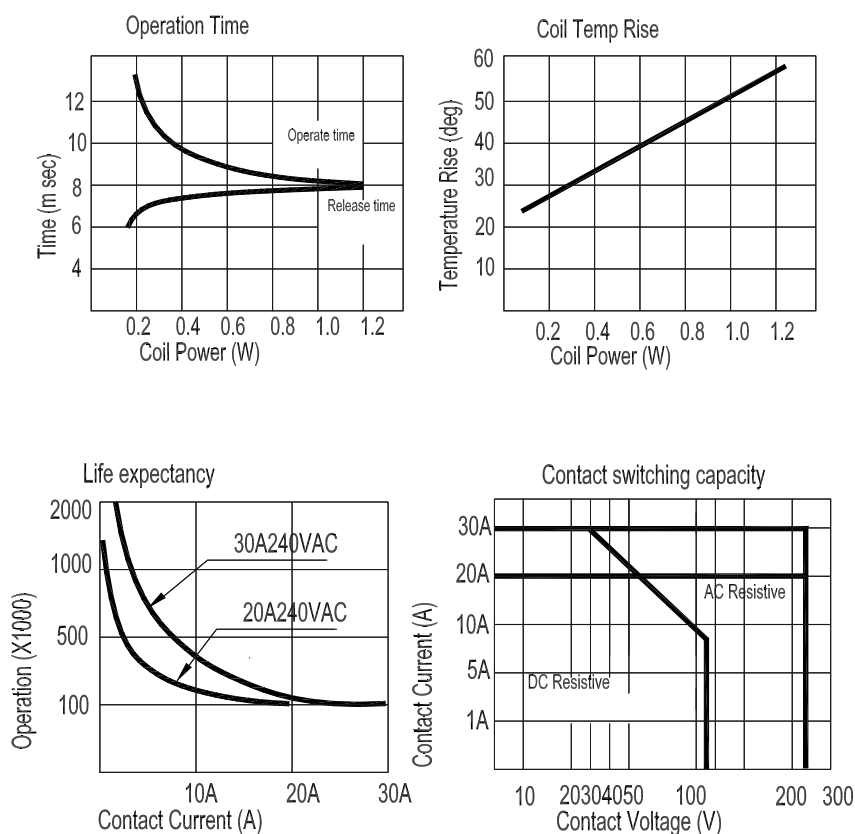
Operation condition

Insulation Resistance	1000M Ω min (at 500VDC)	Item 7 of IEC 60255-5
Dielectric Strength	50Hz 1500V	Item 6 of IEC 60255-5
Between contacts	50Hz 2500V	Item 6 of IEC 60255-5
Between contact and coil		
Shock resistance	200m/s ² 11ms	IEC 68-2-27 Test Ea
Vibration resistance	10Hz~55Hz double amplitude 1.5mm	IEC 68-2-6 Test Fc
Terminals strength	10N	IEC 68-2-21 Test Ua1&Ua2
Solderability	235 $^{\circ}$ C $\pm$ 2 $^{\circ}$ C 3s $\pm$ 0.5s	IEC 68-2-20 Test Ta method 1
Ambient Temperature	-55 $^{\circ}$ C~100 $^{\circ}$ C -55 $^{\circ}$ C~125 $^{\circ}$ C	
Relative Humidity	85% (at 40 $^{\circ}$ C)	IEC 68-2-3 Test Ca
Mass	31g (Low profile type) 35g	

Safety approvals

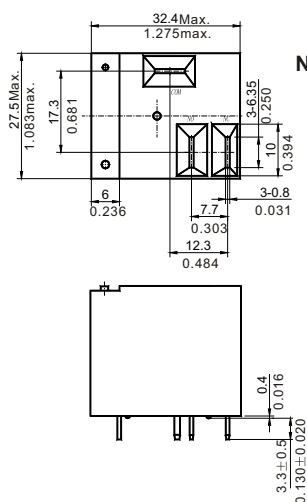
Safety approval	UL&CUR(Pending)	TÜV (Pending)	CQC(Pending)
Load	NO:40A/240VAC 30A/277VAC NC: 30A/240VAC,30VDC 20A/277VAC Ballast:5A/280VAC TV-5 HP:A 2 HP 250VAC 1HP/16AFLA/120VAC 2HP/12AFLA/240VAC B 1 $\frac{1}{2}$ HP 250VAC 30LRA/10AFLA/120VAC 30LRA/10AFLA/240VAC	NO:40A/240VAC 14VDC 30A/277VAC NC:30A/240VAC 14VDC 20A/277VAC	NO:30A/240VAC NC:20A/240VAC

Reference Data

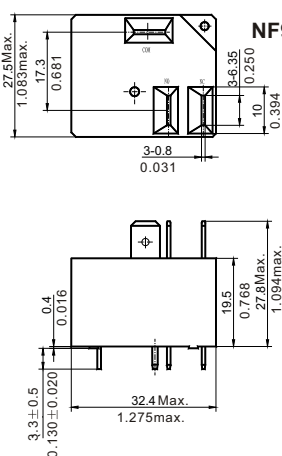


Dimensions

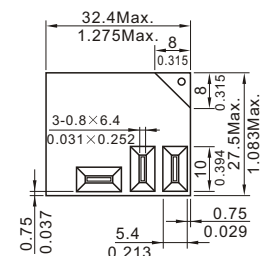
mm /inch



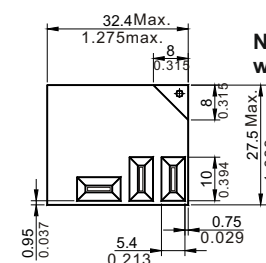
NF90T



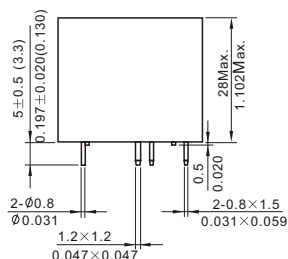
NF90T Low profile



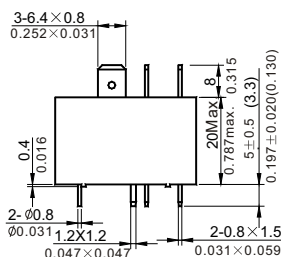
NF90T alternative terminal



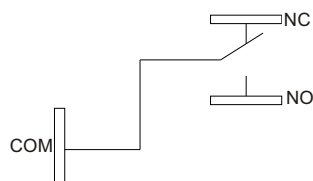
NF90T alternative terminal with low profile cover



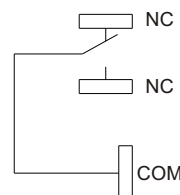
NF90T



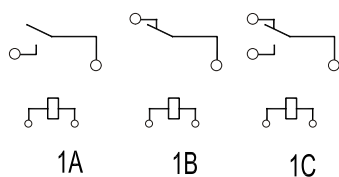
NF90T alternative terminal



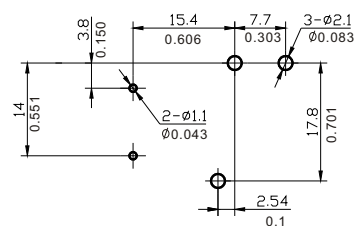
Wiring diagram(Top view)



NF90T alternative terminal



Wiring diagram(Bottom view)



Mounting (Bottom view)

- NOTES 1).Dimensions are in millimeters.
2).Inch equivalents are given for general information only.

Disclaimer

All technical performance data apply to the relay as such, specific conditions of the individual application are not considered. Please always check the suitability of the relay for your intended purpose. We do not assume any responsibility or liability for not complying herewith. We recommend to complete our questionnaire and to request our technical service. Any responsibility for the application of the product remains with the customer only. All specifications are subject to change without notification. All rights of NF Forward GmbH & NF Forward USA Inc. are reserved.