



29×12.7×15.8

# NT75H

c  us E169380

## Features

- Small size, lightweight and low coil power consumption.
- 20A contactswitching capacity.
- 5kV dielectric strength (between coil and contact).
- The parts with IEC 60335-1 compliance is available.
- UL/CUL and VDE certifications available.
- PC board mounting available.

## Ordering Information

**NT75H A S 0.41 5 N G DC12V**

1 2 3 4 5 6 7 8

1 Part number:NT75H  
2 Contact arrangement:A:1A; C:1C  
3 Enclosure :S: Wash tight relay; Z: Flux proof relay

4 Coil power consumption: 0.25:0.25W;0.41:0.41W  
5 Pin distance:3.5:3.5mm; 5:5mm  
6 Contact material: NIL:AgSnO<sub>2</sub>; N:AgNi; C:AgCdO  
7 Contact plating: Nil:Standard; G:Gold plated  
8 Coil rated voltage(V): DC: 5,6,9,12,18,24,48

## Contact Data

Contact Arrangement	1A (SPSTNO) 1C (SPDT(B-M))		
Contact Material	AgSnO <sub>2</sub> AgNi		
Contact Rating	<table border="0"> <tr> <td style="vertical-align: top;"> <p>1A 0.41W Resistive: 20A/250VAC(5mm) 16A/250VAC(5mm) 12A/250VAC(3.5mm) Motor load: 1HP 120VAC/240VAC 1A 0.25W Resistive: 16A/250VAC(5mm) 12A/250VAC(3.5mm) Surge load: TV-8</p> </td> <td style="vertical-align: top;"> <p>1C 0.41W Resistive: NO: 20A/250VAC(5mm) NO:12A/250VAC(5mm) Resistive: NO:12A/250VAC(3.5mm) NO:12A/250VAC(3.5mm) 1C 0.25W Resistive: NO:16A/250VAC(5mm) NC:12A/250VAC (5mm) NO:12A/250VAC(3.5mm) NC:12A/250VAC (3.5mm)</p> </td> </tr> </table>	<p>1A 0.41W Resistive: 20A/250VAC(5mm) 16A/250VAC(5mm) 12A/250VAC(3.5mm) Motor load: 1HP 120VAC/240VAC 1A 0.25W Resistive: 16A/250VAC(5mm) 12A/250VAC(3.5mm) Surge load: TV-8</p>	<p>1C 0.41W Resistive: NO: 20A/250VAC(5mm) NO:12A/250VAC(5mm) Resistive: NO:12A/250VAC(3.5mm) NO:12A/250VAC(3.5mm) 1C 0.25W Resistive: NO:16A/250VAC(5mm) NC:12A/250VAC (5mm) NO:12A/250VAC(3.5mm) NC:12A/250VAC (3.5mm)</p>
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Inrush Current	120A/20ms		
Max. Switching Power	4000VA		
Max. Switching Voltage	440VAC Max. Switching Current:20A		
Contact Resistance	≤100mΩ Item4.12 of IEC61810-7		
Operational Life	<p>Electrical</p> <p>0.41W 5×10<sup>4</sup> (20A/250VAC ,阻性负载,105℃) 1×10<sup>5</sup>(16A/250VAC,阻性负载,105℃) 2.5×10<sup>4</sup>( TV-8 ) Item 4.30 of IEC 61810-7 0.25W 1×10<sup>5</sup> (16A/250VAC ,阻性负载,85℃) 1×10<sup>5</sup>(12A/250VAC,阻性负载,105℃)</p>		
	<p>Mechanical</p> <p>1×10<sup>7</sup> Item 4.31 of IEC 61810-7</p>		

## Coil Parameter

Dash numbers	Coil voltage VDC		Coil resistance Ω ±10%	Pick-up voltage VDC(max.) (70%of rated voltage )	Release voltage VDC(min.) (10% of rated voltage)	Coil power consumption W	Operate Time ms	Release Time ms
	Rated	Max.						
005-410	5	6.5	61	3.5	0.5	0.41	≤15	≤8
006-410	6	7.8	88	4.2	0.6			
009-410	9	11.7	198	6.3	0.9			
012-410	12	15.6	351	8.4	1.2			
012-410	18	23.4	790	12.6	1.8			
024-410	24	31.2	1405	16.8	2.4			
048-410	48	62.4	5620	33.6	4.8			

## Coil Parameter

Dash numbers	Coil voltage VDC		Coil resistance $\Omega \pm 10\%$	Pickup voltage VDC(max) (70% of rated voltage)	Release voltage VDC(min) (10% of rated voltage)	Coil power consumption W	Operate Time ms	Release Time ms
	Rated	Max.						
005-250	5	6.5	100	3.5	0.5	0.25	$\leq 15$	$\leq 8$
006-250	6	7.8	144	4.2	0.6			
009-250	9	11.7	324	6.3	0.9			
012-250	12	15.6	576	8.4	1.2			
018-250	18	23.4	1296	12.6	1.8			
024-250	24	31.2	2304	16.8	2.4			
048-250	48	62.4	9216	33.6	4.8			

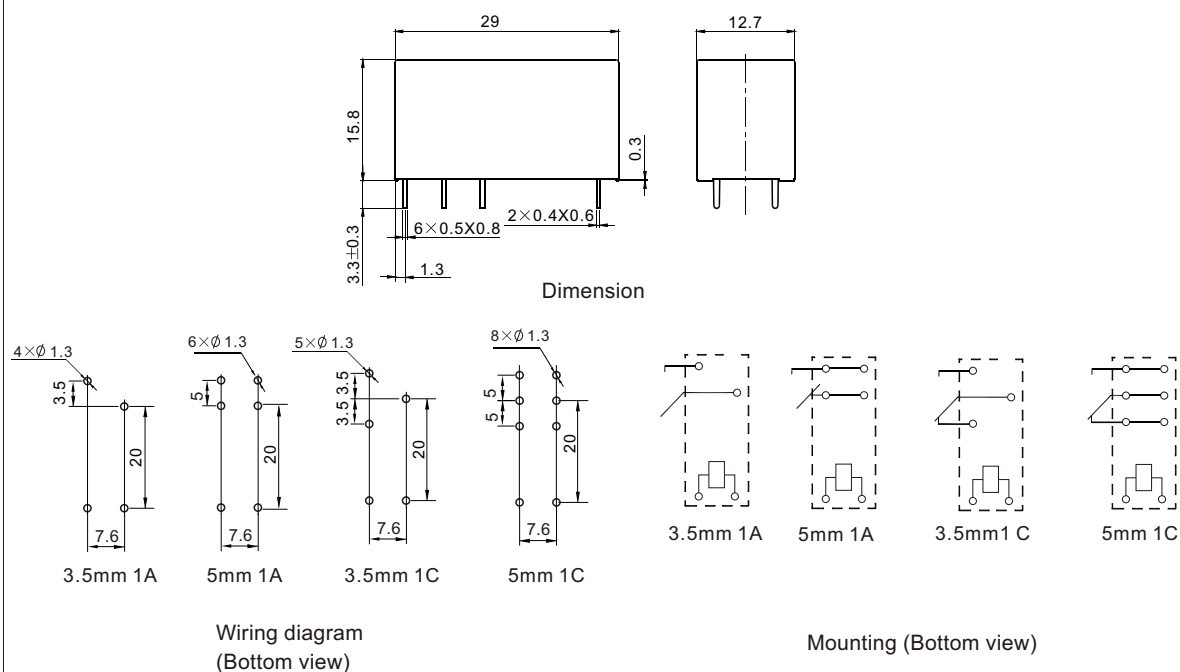
**CAUTION:** 1.The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.  
2.Pickup and release voltage are for test purposes only and are not to be used as design criteria.

## Operation condition

Insulation Resistance	1000M $\Omega$ min (at 500VDC)	Item 4.11 of IEC 61810-7
Dielectric Strength Between open Contacts Between Contact and Coil	50Hz 1000V 50Hz 5000V	Item 4.9 of IEC 61810-7 Item 4.9 of IEC 61810-7
Surge Voltage (Between Coil and Contact)	10kV (1.2/50 $\mu$ s)	Item 4.10 of IEC 61810-7
Shock Resistance	Functional:98m/s <sup>2</sup> 11ms	Item 4.26 of IEC 61810-7
	Destructive:980m/s <sup>2</sup> 11ms	
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	-40°C~105°C	
Relative Humidity	85% (at 40°C)	Item 4.16 of IEC 61810-7
Mass	13g 14g	Item 4.7 of IEC 61810-7

## Dimensions

mm

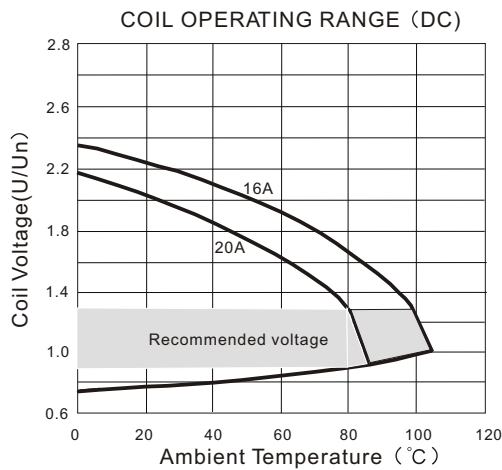
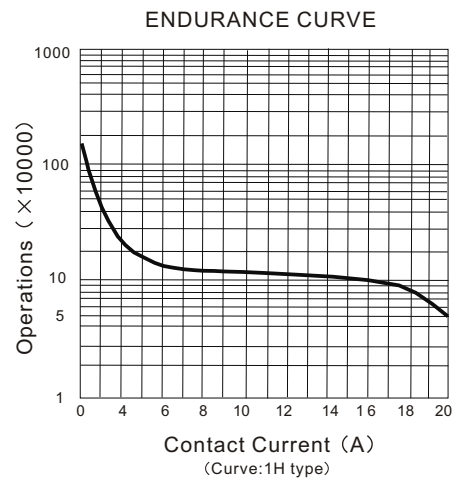
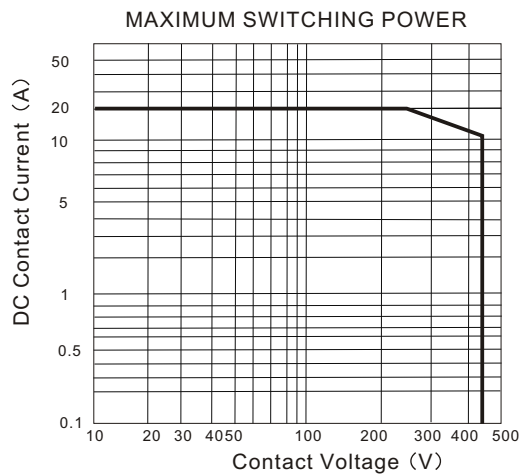


**CAUTION:** In case of no tolerance shown in outline dimension: outline dimension  $\leq 1$ mm, tolerance should be  $\pm 0.2$ mm; outline dimension  $> 1$ mm and  $\leq 5$ mm, tolerance should be  $\pm 0.3$ mm; outline dimension  $> 5$ mm, tolerance should be  $\pm 0.4$ mm.

## Safety approvals

Safety approval	UL&CUR
Load	20A/250VAC 105°C 16A/250VAC 105°C 1HP 120VAC/240VAC TV-8 120VAC

## Reference Date



Notes: The use of a relay with an energising voltage other than the rated coil voltage may lead to reduced electrical life. An energising voltage over the abver range may damage the insulation of relay coil.