






29 × 12.7 × 15.8

# NT75H

 US E158859  40020063  
 10002042304

## Features

- Small size, light weight and low coil power consumption.
- 25A contact switching capacity.
- 5kV dielectric strength (between coil and contact).
- PC board mounting available.
- Product in accordance to IEC60335-1 available.
- IEC60079 compliant

## Ordering Information

**NT75H** A S 0.41 5 25 W DC12V

1 2 3 4 5 6 7 8 9

1 Part number: NT75H  
 2 Contact arrangement: A:1A; C:1C  
 3 Enclosure: S: Wash tight; Z: Flux proof  
 4 Coil power: 0.25:0.25W; 0.41:0.41W  
 5 Pin distance: 5:5mm

6 Contact current: 25:25A; NIL:20A,16A  
 7 Contact plating: Nil:Standard; G:Au plated  
 8 W: 335 compliant: Nil:Standard  
 9 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>	
Contact Rating(Resistive)	1A	1C
	0.41W: 16A,20A,25A/250VAC 0.25W: 16A/250VAC	0.41W: NO:16A,/250VAC NC:16A/250VAC 0.25W: NO:16A/250VAC NC:12A/250VAC
	Motor Load;1HP 120VAC/240VAC; TV-8	
Inrush Current	120A/20ms	
Max. Switching Power	6250VA	
Max. Switching Voltage	440VAC	Max. Switching Current:25A
Contact Resistance	≤100mΩ	Item4.12 of IEC61810-7
Operational Life	Electrical	0.41W 25A/250VAC 105°C 8 × 10 <sup>4</sup> 20A/250VAC 105°C 1 × 10 <sup>5</sup> TV-8 2.5 × 10 <sup>4</sup> 0.25W 16A/250VAC 105°C 1 × 10 <sup>5</sup> Item 4.30 of IEC 61810-7
	Mechanical	1 × 10 <sup>7</sup> Item 4.31 of IEC 61810-7

## Coil Parameter

Dash numbers	Coil voltage VDC		Coil resistance Ω ± 10%	Pick-up voltage VDC(max.) (70%of rated voltage )	Drop-out voltage VDC(min.) (10% of rated voltage)	Coil power 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			
018-410	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 $\Omega \pm 10\%$	Pick-up voltage VDC(max) (70% of rated voltage)	Drop-out voltage VDC(min) (10% of rated voltage)	Coil power 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.

## Safety Approvals

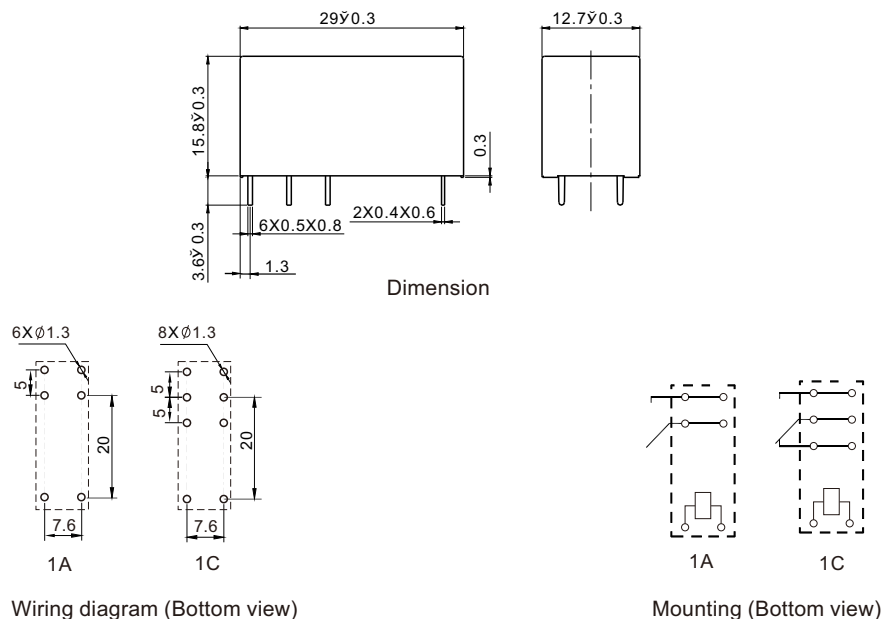
Safety approval	UL&CUR	CQC	VDE	
Load	0.41W NO:25A/250VAC 105°C 8×10 <sup>4</sup> NO:20A/250VAC 105°C 5×10 <sup>4</sup> NO:16A/250VAC 105°C 1×10 <sup>5</sup> 1HP 120VAC/240VAC 6×10 <sup>3</sup> TV-8 2.5×10 <sup>4</sup>	0.25W 16A/250VAC 105°C 1×10 <sup>5</sup>	0.41W NO:25A/250VAC 105°C 5×10 <sup>4</sup> NO:20A/250VAC 105°C 5×10 <sup>4</sup> NO:16A/250VAC 105°C 1×10 <sup>5</sup>	0.25W 16A/250VAC 105°C 1×10 <sup>5</sup>
			20A/250VAC 85°C 5×10 <sup>4</sup> 16A/250VAC 105°C 1×10 <sup>5</sup>	

## Characteristics

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 $\Omega$ s)	Item 4.10 of IEC 61810-7
Shock Resistance	Functional:98m/s <sup>2</sup> 11ms Destructive:980m/s <sup>2</sup> 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	-40°C~105°C	
Relative Humidity	5% to 85%	Item 4.16 of IEC 61810-7
Mass	14g	Item 4.7 of IEC 61810-7

## Dimensions

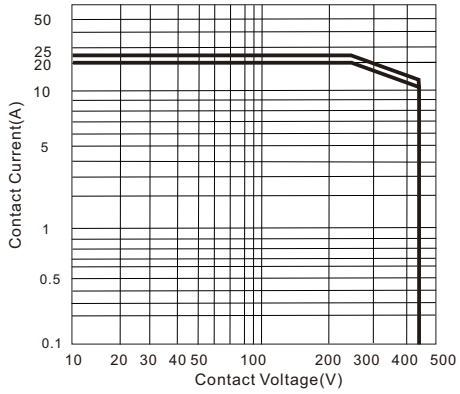
mm



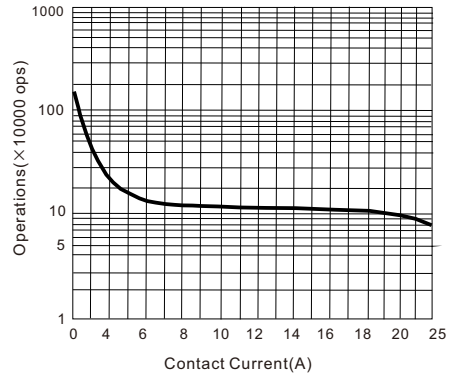
**CAUTION:** In case of no tolerance shown in outline dimension: outline dimension  $\leq 1$ mm, tolerance should be  $\pm 0.2$ mm ;  
outline dimension  $> 1$ mm and  $\leq 5$ mm, tolerance should be  $\pm 0.3$ mm; outline dimension  $> 5$ mm, tolerance should be  $\pm 0.4$ mm.

## Reference Date

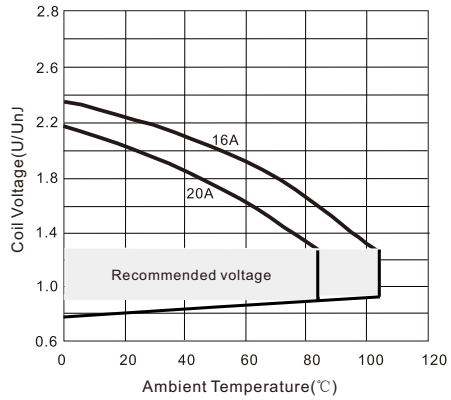
### Contact Switching Capacity



### Endurance Curve



### Coil Operating Range(JDC)



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 above range may damage the insulation of relay coil.