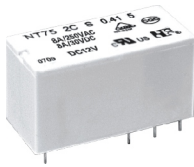


# NT75



29 × 12.7 × 15.8

UL US E158859

40020063 CEC 10002042304

## Features

- Small size, lightweight. Low coil consumption.
- Switching capacity up to 20A.
- PC board mounting.
- Suitable for household electrical appliances, automation system, electrical equipment, instrument, meter telecommunication facilities and remote control facilities.
- Product in accordance to IEC60335-1 available.

## Ordering Information

**NT75** 1C S 0.41 3.5 N G 12 DC12V W

1 2 3 4 5 6 7 8 9 10

1 Part number: NT75  
 2 Contact arrangement:  
 1A:1A; A2:1A2; 1C:1C; C2:1C2; 2A:2A; 2C:2C  
 3 Enclosure: S: Wash tight ; Z: Flux proof  
 4 Coil power: 0.25:0.25W; 0.41:0.41W;  
 0.53:0.53W (2A:10A/250VAC,30VDC)  
 5 Pole-distance: 3.5:3.5mm; 5:5.0mm  
 6 Contact material: NIL:AgSnO<sub>2</sub>; N:AgNi

7 Contact plating: Nil:Standard; G:Au plated  
 8 Contact rating:  
 1A,1C:12A,16A/250VAC,30VDC  
 2A,2C(0.41W):NO:8A/277VAC,30VDC  
 NC:8A/277VAC,30VDC  
 2A(0.53W):10A/250VAC,30VDC  
 9 Coil rated voltage(V): DC:5,6,9,12,24,48,110  
 10 W: 335 compliant; Nil:Standard

## Contact Data

|                            |   |  |
|----------------------------|---|--|
| Contact Arrangement        | 1A、1A2(SPSTNO) 1C、1C2(SPDT(B-M)) 2A(DPSTNO) 2C(DPDT(B-M))   |  |
| Contact Material           | AgSnO <sub>2</sub> AgNi   |  |
| Contact Rating (Resistive) | 1A,1C:12A,16A/250VAC,30VDC (Rushing current 80A)<br>2A,2C(0.41W):NO:8A/277VAC,30VDC; NC:8A/277VAC,30VDC<br>2A(0.53W):10A/250VAC,30VDC |  |
| Max. Switching Power       | 1C:480W 4000VA 2C:300W 2500VA   |  |
| Max. Switching Voltage     | 125VDC 440VAC   | Max. Switching Current:20A   |
| Contact Resistance         | ≤100mΩ  | Item 4.12 of IEC 61810-7   |
| Operational Life           | Electrical  | 1 × 10 <sup>5</sup><br>5 × 10 <sup>4</sup> (10A/250VAC 85℃)<br>1 × 10 <sup>5</sup> (10A/30VDC 85℃)<br>Item 4.30 of IEC 61810-7 |
|                            | Mechanical  | 1 × 10 <sup>7</sup><br>Item 4.31 of IEC 61810-7  |

**CAUTION:** 1. For the intermediate current(10mA/6VDC~100mA/28VDC), it only applies to the room temperature.  
 2. For gold plated version, the min. Switching current and min. Switching voltage is 50mA/6VDC; for non gold plated version (standard type), the min. switching current and min. switching voltage is 100mA/6VDC.

## 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. |                         |   |  |              |                 |                 |
| 005-250      | 5                | 6.5  | 100                     | 3.5   | 0.5  | 0.25         | ≤15             | ≤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  |              |                 |                 |
| 024-250      | 24               | 31.2 | 2304                    | 16.8  | 2.4  |              |                 |                 |
| 048-250      | 48               | 62.4 | 9216                    | 33.6  | 4.8  |              |                 |                 |
| 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  |              |                 |                 |
| 024-410      | 24               | 31.2 | 1405                    | 16.8  | 2.4  |              |                 |                 |
| 048-410      | 48               | 62.4 | 5620                    | 33.6  | 4.8  |              |                 |                 |
| 110-410      | 110              | 143  | 29512 ± 15%             | 77  | 11.0   |              |                 |                 |

### 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. |                                   |   |  |              |                 |                 |
| 005-530      | 5                | 6.5  | 47.1                              | 3.5   | 0.5  | 0.53         | $\leq 15$       | $\leq 8$        |
| 006-530      | 6                | 7.8  | 67.9                              | 4.2   | 0.6  |              |                 |                 |
| 009-530      | 9                | 11.7 | 152.8                             | 6.3   | 0.9  |              |                 |                 |
| 012-530      | 12               | 15.6 | 271.7                             | 8.4   | 1.2  |              |                 |                 |
| 024-530      | 24               | 31.2 | 1086.8                            | 16.8  | 2.4  |              |                 |                 |
| 048-530      | 48               | 62.4 | 4347.2                            | 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.

### Characteristics

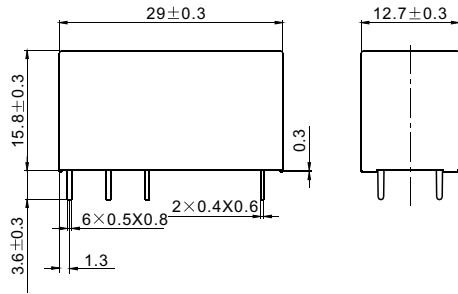
|   |                                  |  |
|---|----------------------------------|--|
| Insulation Resistance   | 1000M $\Omega$ min (at 500VDC)   | Item 4.11 of IEC 61810-7                           |
| Dielectric Strength<br>Between Contacts<br>Between Contact and Coil | 50Hz 1000V<br>50Hz 5000V         | Item 4.9 of IEC 61810-7<br>Item 4.9 of IEC 61810-7 |
| Shock Resistance  | 98m/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 $^{\circ}$ C~85 $^{\circ}$ C |  |
| Relative Humidity   | 5% to 85%                        | Item 4.16 of IEC 61810-7                           |
| Mass  | 12.5g 13.2g                      | Item 4.7 of IEC 61810-7                            |

### Safety Approvals

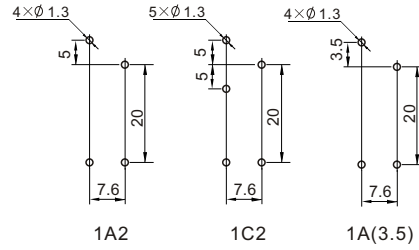
| Safety approval | UL&CUR  | VDE                                 | CQC   |
|-----------------|---|-------------------------------------|---|
| Load            | 1A,1C:12A,16A/250VAC;<br>12A/30VDC(1C)<br>2A,2C:8A/277VAC,30VDC<br>2A(0.53W):10A/250VAC,30VDC | 1A,1C:16A/250VAC<br>2A,2C:8A/250VAC | 1A,1C:<br>16A/250VAC<br>2A,2C:<br>8A/250VAC |

## Dimensions

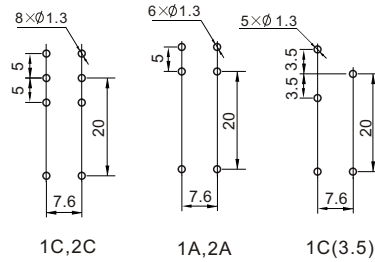
mm



Dimension

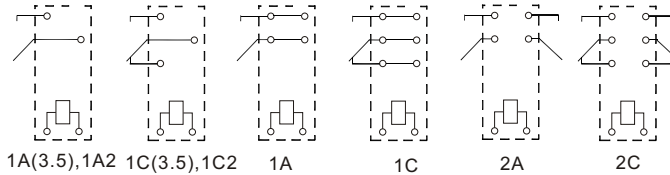


1A2 1C2 1A(3.5)



1C,2C 1A,2A 1C(3.5)

Mounting (Bottom view)

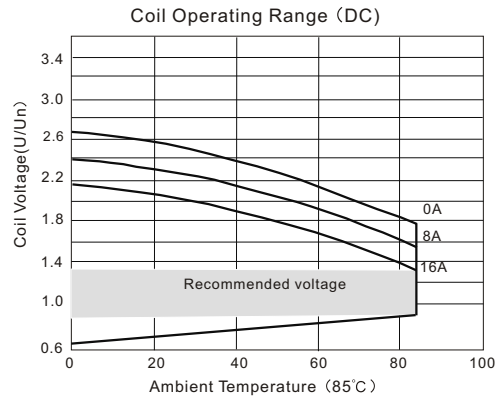
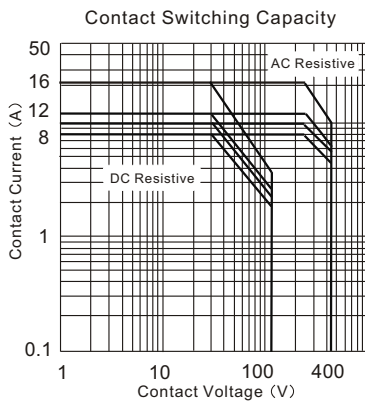


1A(3.5),1A2 1C(3.5),1C2 1A 1C 2A 2C

Wiring diagram(Bottom view)

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

## Reference Data



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 the relay coil.