

# N68F



28.5×10.1×12.5

 us E169380

## Features

- Slim type and small occupying area can offer high density P.C.B. technique.
- Employment of suitable plastic materials to be applied to high temperature and various chemical solution.
- Dielectric strength 5000V.
- Creepage distance >8mm.

## Ordering Information

**N68F** **C** **S** **8** **DC12V** **F**  
 1 2 3 4 5 6

1 Part number: N68F

2 Contact arrangement: A:1A;C:1C

3 Enclosure: S:Wash tight ;  
Z:Flux proof

4 Contact current: 8A

5 Coil rated voltage(V): DC:5,6,12,18,24,48

6 Resist heat class: B:130°C; F:155°C

## Contact Data

|                            |            |                            |                            |
|----------------------------|------------|----------------------------|----------------------------|
| Contact Arrangement        |            | 1A (SPSTNO) 1C (SPDT(B-M)) |                            |
| Contact Material           |            | AgSnO <sub>2</sub> AgNi    |                            |
| Contact Rating (Resistive) |            | 8A/250VAC,30VDC            |                            |
| Max. Switching Power       |            | 300W 2500VA                |                            |
| Max. Switching Voltage     |            | 125VDC 380VAC              | Max. Switching Current:10A |
| Contact Resistance         |            | ≤100mΩ                     | Item 4.12 of IEC 61810-7   |
| Operational Life           | Electrical | 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   |

**CAUTION:** 1.For the intermediate current, 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) (75%of rated voltage ) | Drop-out voltage VDC (min) (10% of rated voltage) | Coil power W | Operate time ms | Release time ms |
|--------------|------------------|------|-------------------------|--|---|--------------|-----------------|-----------------|
|              | Rated            | Max  |                         |  |   |              |                 |                 |
| 005-220      | 5                | 6.5  | 114                     | 3.75   | 0.5   | 0.22         | ≤7              | ≤3              |
| 006-220      | 6                | 7.8  | 164                     | 4.5  | 0.6   |              |                 |                 |
| 012-220      | 12               | 15.6 | 655                     | 9.0  | 1.2   |              |                 |                 |
| 018-220      | 18               | 23.4 | 1473                    | 13.5   | 1.8   |              |                 |                 |
| 024-220      | 24               | 31.2 | 2618                    | 18.0   | 2.4   |              |                 |                 |
| 048-250      | 48               | 62.4 | 9216                    | 36.0   | 4.8   | 0.25         | ≤7              | ≤3              |

**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.

3.Unless otherwise stated, the rated coil voltage specified in coil parameter table shall be used for all tests and its application to the relay.

## Characteristics

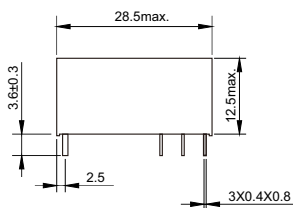
|   |   |  |
|---|---|--|
| Insulation Resistance   | 1000M $\Omega$ min (at 500VDC)  | Item 4.11 of IEC 61810-7                           |
| Dielectric Strength<br>Between Contacts<br>Between Contact and Coil | 50Hz 1000V<br>50Hz 5000V  | Item 4.9 of IEC 61810-7<br>Item 4.9 of IEC 61810-7 |
| Shock Resistance  | Functional: 98m/s <sup>2</sup> 11ms<br>Destructive: 980m/s <sup>2</sup> 6ms | Item 4.26 of IEC 61810-7                           |
| Vibration Resistance  | 10Hz~500Hz Double amplitude 1.5mm 200m/s <sup>2</sup>                       | 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  | 8.2g  | Item 4.7 of IEC 61810-7                            |

## Safety Approvals

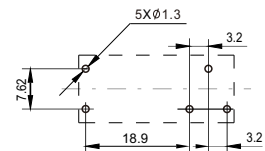
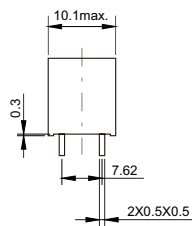
|                 |                 |
|-----------------|-----------------|
| Safety approval | UL & CUR        |
| Load            | 8A/250VAC,30VDC |

## Dimensions

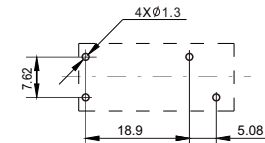
mm



Dimensions



1C



1A

Mounting (Bottom view)



1A

1C

Wiring diagram  
(Bottom view)

**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 Data

