



32\*27.2\*28mm



32\*27.2\*20.5mm

# NB902E



R 50193486


CQC12002069367  
CQC12002069368


E 361440

## Product Features

- ◆ Contacts switching capability: 30A
- ◆ 2500VAC for dielectric strength between contact and coil
- ◆ Coil insulation grade Class F
- ◆ Contacts forms NO,NC&SPDT
- ◆ Dust-proof&Sealed type
- ◆ Complies with RoHS-Directive
- ◆ Dimensions: 32\*27.2\*28 mm & 32\*27.2\*20.5 mm

## Contact Rating

|                         |                                                       |                                                   |                                                     |
|-------------------------|-------------------------------------------------------|---------------------------------------------------|-----------------------------------------------------|
| Contact Form            | 1A、1B、1C                                              |                                                   |                                                     |
| Contact Material        | AgCdO AgSnO <sub>2</sub>                              |                                                   |                                                     |
| Contact Load Capacity   | 1A                                                    | 1B                                                | 1C                                                  |
|                         | NO: 30A/240VAC,30VDC<br>30A 277VAC,1HP<br>240VAC TV-5 | 20A/240VAC,30VDC<br>20A 277VAC,1HP<br>240VAC TV-5 | 30A/240VAC,30VDC<br>30A 277VAC,1HP<br>240VAC TV-5   |
|                         | NC:                                                   |                                                   | 20A/240VAC,30VDC<br>20A 277VAC,1/2HP<br>240VAC TV-5 |
| Switching Power Max.    | 900W 7200VA                                           |                                                   |                                                     |
| Switching Voltage Max.  | 30VDC/277VAC                                          |                                                   |                                                     |
| Switching Current Max.  | 1A: 30A ; 1B: 20A; 1C: 30A                            |                                                   |                                                     |
| Contact Resistance Max. | 50mΩ (1A , 24VDC)                                     |                                                   |                                                     |
| Life expectancy         | Electrical                                            | 10 <sup>5</sup>                                   |                                                     |
|                         | Mechanical                                            | 10 <sup>7</sup>                                   |                                                     |

**Coil Rating**

| 900mw |              |      |                                   |                                           |                                           | 600mw |              |      |                                   |                                           |                                           |
|-------|--------------|------|-----------------------------------|-------------------------------------------|-------------------------------------------|-------|--------------|------|-----------------------------------|-------------------------------------------|-------------------------------------------|
| No.   | Coil Voltage |      | Coil Resistance $\Omega \pm 10\%$ | Pick up (VDC) Max. (75% of Rated Voltage) | Drop out (VDC) Min.(10% of Rated Voltage) | No.   | Coil Voltage |      | Coil Resistance $\Omega \pm 10\%$ | Pick up (VDC) Max. (75% of Rated Voltage) | Drop out (VDC) Min.(10% of Rated Voltage) |
|       | Rated        | Max. |                                   |                                           |                                           |       | Rated        | Max. |                                   |                                           |                                           |
| 005   | 5            | 6.5  | 28                                | 3.75                                      | 0.5                                       | 003   | 3            | 3.9  | 15                                | 2.25                                      | 0.3                                       |
| 006   | 6            | 7.8  | 40                                | 4.50                                      | 0.6                                       | 005   | 5            | 6.5  | 42                                | 3.75                                      | 0.5                                       |
| 009   | 9            | 11.7 | 90                                | 6.75                                      | 0.9                                       | 006   | 6            | 7.8  | 60                                | 4.50                                      | 0.6                                       |
| 012   | 12           | 15.6 | 160                               | 9.00                                      | 1.2                                       | 009   | 9            | 11.7 | 135                               | 6.75                                      | 0.9                                       |
| 015   | 15           | 19.5 | 250                               | 10.25                                     | 1.5                                       | 012   | 12           | 15.6 | 240                               | 9.00                                      | 1.2                                       |
| 018   | 18           | 23.4 | 360                               | 13.50                                     | 1.8                                       | 015   | 15           | 19.5 | 375                               | 10.25                                     | 1.5                                       |
| 024   | 24           | 31.2 | 640                               | 18.00                                     | 2.4                                       | 018   | 18           | 23.4 | 540                               | 13.50                                     | 1.8                                       |
| 048   | 48           | 62.4 | 2560                              | 36.00                                     | 4.8                                       | 024   | 24           | 31.2 | 960                               | 18.00                                     | 2.4                                       |
| 110   | 110          | 143  | 13445                             | 82.50                                     | 11                                        | 048   | 48           | 62.4 | 3840                              | 36.00                                     | 4.8                                       |

**Technical Rating**

|                       |                      |                                                                                                    |                     |
|-----------------------|----------------------|----------------------------------------------------------------------------------------------------|---------------------|
| Insulation Resistance |                      | Min.1000M $\Omega$ (500VDC)                                                                        | IEC 60255-5         |
| Dielectric Strength   | Between Contacts     | 1500VAC                                                                                            | IEC 60255-5         |
|                       | Between Coil&Contact | 2500VAC                                                                                            | IEC 60255-5         |
| Operate Time          |                      | $\leq 15\text{ms}$                                                                                 |                     |
| Release Time          |                      | $\leq 10\text{ms}$                                                                                 |                     |
| Shock Resistance      |                      | Operation extremes 10G    Damage limits 100G                                                       | IEC 68-2-27 test Ea |
| Vibration Resistance  |                      | 10Hz $\sim$ 55Hz amplitude 1.5mm                                                                   | IEC 68-2-6 test Fc  |
| Ambient Temperature   |                      | - 40 $^{\circ}\text{C} \sim 85^{\circ}\text{C}$ ; - 40 $^{\circ}\text{C} \sim 105^{\circ}\text{C}$ |                     |
| Relative Humidity     |                      | 85% RH , 40 $^{\circ}\text{C}$                                                                     | IEC 68-2-3 test Ca  |
| Weight                |                      | Approx.30g                                                                                         |                     |
| Package               |                      | Sealed;Dust-proof type                                                                             |                     |

**Designation**

**NB902E - 12S - S - A**

|   |   |   |   |   |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

- 1、**NB902E**: Model No.(Max. contact load capacity 30A)
- 2、**12**: Coil Rated Voltage:5V,6V,9V,12V,15V,18V,24V,48V,110V(DC)
- 3、**S**: Package: S:Sealed D:Dust-proof
- 4、**S**: Contact Material: S:AgSnO<sub>2</sub> : C:AgCdO
- 5、**A**: Contact Form: A:Normally Open B:Normally Close C:SPDT(Normally Open&Close)

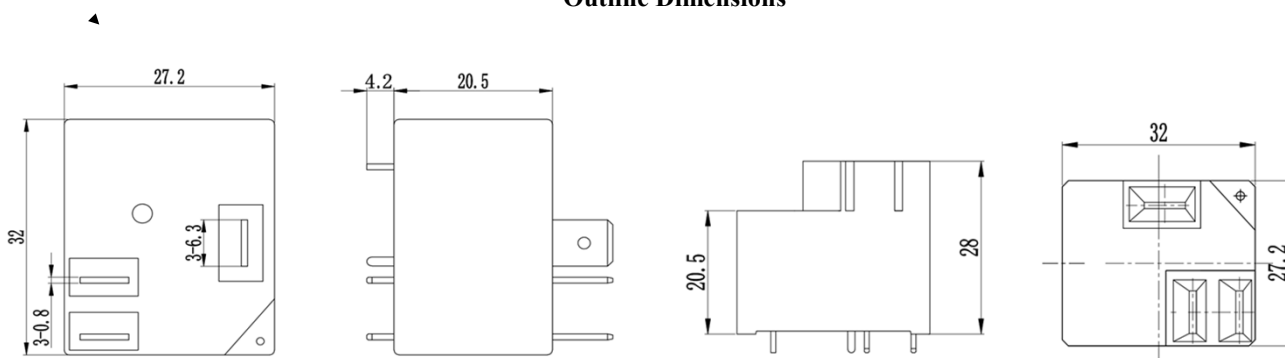
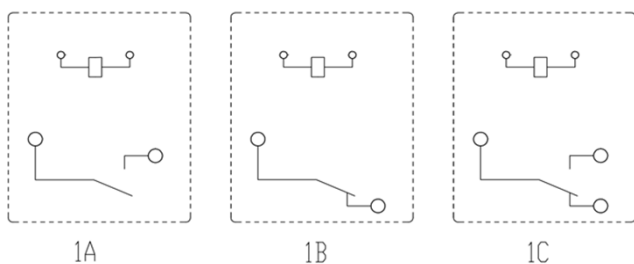


Please specify Tall Profile or Low Profile for NB902E series relays.

**Note:**(1) Applying under clean environment(excluding H<sub>2</sub>S、SO<sub>2</sub>、NO<sub>2</sub>、dust contaminants), dust-proof type is recommended;

Applying under polluted environment(containing H<sub>2</sub>S、SO<sub>2</sub>、NO<sub>2</sub>、dust contaminants), sealed type is recommended, and please confirm during practical applying;

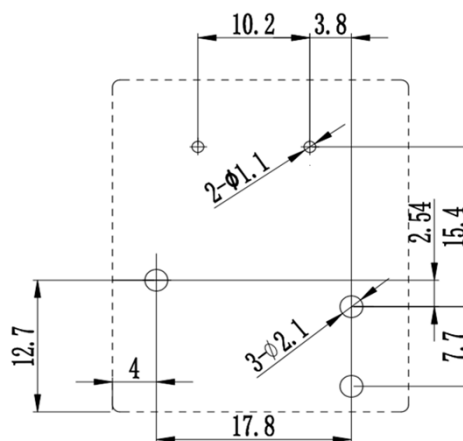
- (2) When installed on PCB,and entire washing is needed,please notice us before order, so as to provide proper items;
- (3) If dielectric strength between coil&contacts have to overs 2500VAC, please notice us before order, so as to provide proper items;
- (4) Avoid applying under strong magnetic or shock extremes,or technical rating will change.

**Dimensions**
**Outline Dimensions**

**NB902E Low Profile**
**NB902E Tall Profile**


1A

1B

1C

**Wiring Diagram(Bottom View)**

**Bottom View Layout**

Note:1.Unit mm

2.Dimensions for reference only.

**Engineering Data**
