



# NB90

32\*27.2\*20MM



R 50193486



CQC12002069367

CQC12002069368



E 361440

### Product Features

- ◆ Contacts switching capability: 40A
- ◆ 2500VAC&4000VAC is available 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

### Contact Rating

Contact Form	1A、1B、1C		
Contact Material	AgCdO AgSnO <sub>2</sub>		
Contact Load Capacity	1A	1B	1C
	NO: 40A/240VAC,30VDC 40A 277VAC,1HP 240VAC TV-5	30A/240VAC,30VDC 30A 277VAC,1HP 240VAC TV-5	40A 240VAC,30VDC 40A 277VAC,1HP 240VAC TV-5
Switching Power Max.	1200W 9600VA		
	30VDC/277VAC		
Switching Voltage Max.	30VDC/277VAC		
Switching Current Max.	1A: 40A ; 1B: 30A ; 1C: 40A		
Contact Resistance Max.	50mΩ (1A , 24VDC)		
Life expectancy	Electrical	10 <sup>5</sup>	
	Machanical	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 Min; (4000VAC Min without Pin #6,when required) 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~55Hz double amplitude 1.5mm	IEC 68-2-6 test Fc
Ambient Temperature	- 40 $^{\circ}\text{C}$ ~85 $^{\circ}\text{C}$ ; - 40 $^{\circ}\text{C}$ ~105 $^{\circ}\text{C}$	
Relative Humidity	85% RH , 40 $^{\circ}\text{C}$	IEC 68-2-3 test Ca
Weight	Approx.26.0g	
Package	Sealed;Dust-proof type	

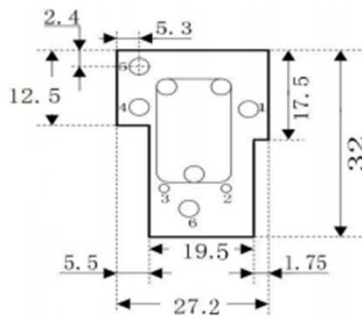
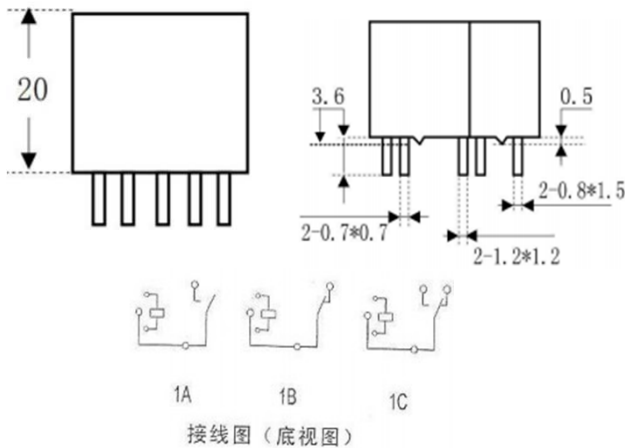
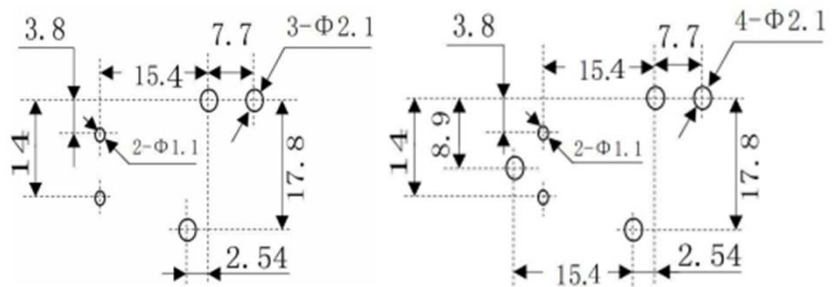
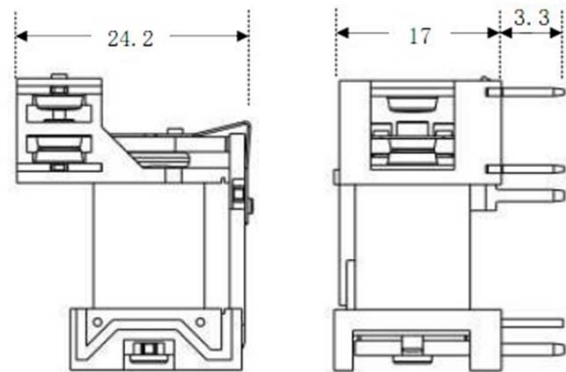
**Designation**

**NB90 - 12S - S - C 5**

<b>1</b>	<b>2 3</b>	<b>4</b>	<b>5 6</b>
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- 1、 **NB90**: Model No.(Max. contact load capacity 40A)
- 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、 **C**: Contact Form: A:Normally Open B:Normally Close C:SPDT(NO&NC)
- 6、 **5**: Pin Form: A4:Normally open(4 pins), A5:Normally open(5 pins);  
B4:Normally close(4 pins), B5:Normally colse(5 pins);  
C5:SPDT(5 pins), C6:SPDT(6 pins).

- 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 be over 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 Dimension**

**Bottom View Layout**

**Wiring Diagram  
(Bottom View)**

**Open Type**

Note (1) Tolerance is not marked on part of outline dimensions. Dimensions  $\leq 1$ mm, Tolerance  $\pm 0.2$ mm; Dimensions (1~5)mm, Tolerance  $\pm 0.3$ mm; Dimensions  $> 5$ mm, Tolerance  $\pm 0.4$ mm;  
 (2) Tolerance in bottom view layout is  $\pm 0.1$ mm.

**Engineering Data**
