



32*27.2*20mm

NB90E



R 50193486



CQC12002069367

CQC12002069368



E 361440

Product Features

- ◆ Contacts switching capability: 30A
- ◆ 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 ₂		
Contact Load Capacity	1A	1B	1C
	NO: 30A/240VAC,30VDC	20A/240VAC,30VDC	30A 240VAC,30VDC
	30A 277VAC,1HP 240VAC TV-5	20A 277VAC,1HP 240VAC TV-5	30A 277VAC,1HP 240VAC TV-5
	NC:		20A 240VAC,30VDC 20A 277VAC,1/2HP 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 ⁵	
	Machanical	10 ⁷	

宁波宝橙电子有限公司
NINGBO BAOCHENG ELECTRONICS CO., LTD.

Coil Rating

900mw						600mw					
No.	Coil Voltage		Coil Resistance Ω $\pm 10\%$	Pick up (VDC) Max. (75% of Rated Voltage)	Drop out (VDC) Min.(10% of Rated Voltage)	No.	Coil Voltage		Coil Resistance Ω $\pm 10\%$	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 Ω (500VDC)	IEC 60255-5
Dielectric Strength	Between Coil&Contact	1500VAC	IEC 60255-5
	Between Contacts	2500VAC, min; (4000VAC min, when required, without Pin #6)	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 double 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.26.0g	
Package		Sealed;Dust-proof type	

Designation

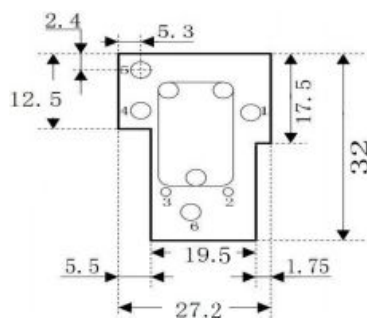
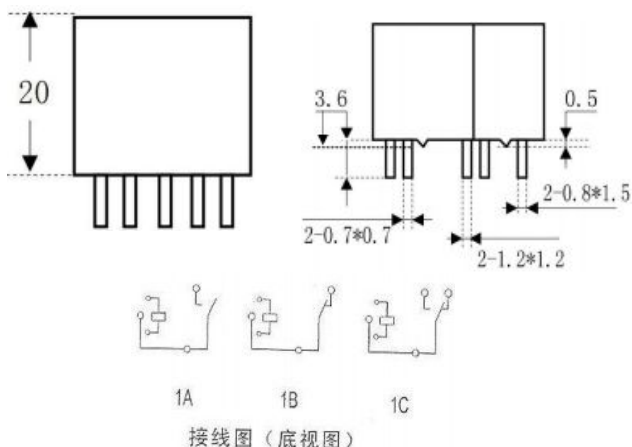
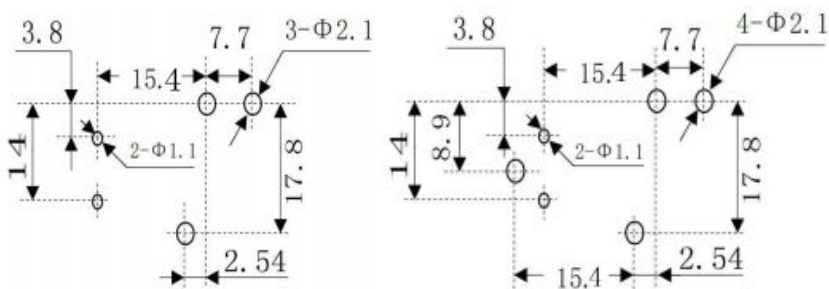
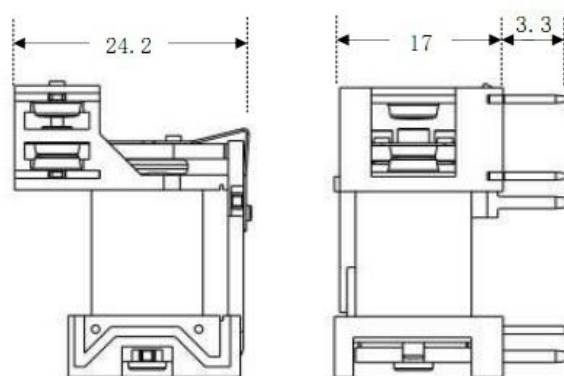
NB90E - 12S - S - A 4

1 2 3 4 5 6

- 1、 **NB90E**: 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**:AgSnO₂ **C**:AgCdO
- 5、 **A**: Contact Form: **A**:Normally Open **B**:Normally Close **C**:SPDT
- 6、 **4**: 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 H₂S、 SO₂、 NO₂、 dust contaminants), dust-proof type is recommended;
Applying under polluted environment(containing H₂S、 SO₂、 NO₂、 dust contaminants), sealed type is recommended, and please confirm during pratical 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 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 $\leq 1\text{mm}$, Tolerance $\pm 0.2\text{mm}$;
Dimensions $(1 \sim 5)\text{mm}$, Tolerance $\pm 0.3\text{mm}$; Dimensions $> 5\text{mm}$, Tolerance $\pm 0.4\text{mm}$;
(2) Tolerance in bottom view layout is $\pm 0.1\text{mm}$.

Engineering Data

