



NB90

32*27.2*20mm



R 50579571

R 50518098



CQC21002325143



E 361440

FEATURES

- ◆ Contacts switching capability: 50A
- ◆ Dielectric strength between contact and coil:4000VAC; between contacts:4000VAC, Gap=1.5mm
- ◆ Applicable to new energy EV charging piles, water heater, floor heating etc.
- ◆ Environmental friendly product(RoHS compliant)
- ◆ Coil insulation grade Class F

CONTACT DATA

Contact Form	1A
Contact Material	AgSnO ₂
Contact Load Capacity	1A NO: 50A 240VAC 30VDC 50A 277VAC 2HP 240VAC TV-15
Switching Power Max.	13850VA
Switching Voltage Max.	277VAC
Switching Current Max.	50A
Contact Resistance Max.	20mΩ (1A , 24VDC)
Electrical Endurance	5*10 ⁴ ops (40A 240VAC, at 55°C, Resistive load 1s on 9s off)
	10*10 ⁴ ops (32A 277VAC, at 55°C, Resistive load 1s on 9s off)
Mechanical Endurance	10 ⁷ ops

COIL DATA
at 23°C

Coil Power 1.2W					
No.	Nominal Voltage VDC	Max. Voltage VDC	Coil Resistance $\Omega \pm 10\%$	Pick-up Voltage VDC Max.	Drop-out Voltage VDC Min.
012	12	13.2	120	9.6	0.6

SAFETY APPROVAL RATINGS

CQC	TUV	UL
50A 240VAC 30VDC	50A 240VAC 30VDC	50A 277VAC, 2HP 240VAC, TV-15

Notes: 1) All values unspecified are at room temperature.

2) Only typical loads are listed above. Other load specifications can be available upon request.

CHARACTERISTICS

Insulation Resistance	1000M Ω	IEC 60255-5-7
Dielectric Strength	Between open contacts	4000VAC /min.
	Between coil&contacts	4000VAC /min.
Operate Time (at nomi. volt.)	15ms max.	
Release Time (at nomi. volt.)	10ms max.	
Withstand Short-circuit Current	3000A 1850A (Short circuit time 3ms)	
Withstand Short-circuit Voltage	6.2KV (wave 1.2/50 us)	
Shock Resistance Current	192A (2S)	
Shock Resistance	Functional 98m/s ² ; Destructive 980m/s ²	IEC 68-2-27 test Ea
Vibration Resistance	10Hz to 55Hz 1.5mm DA	IEC 68-2-6 test Fc
Ambient Temperature	- 55°C to 85°C	
Relative Humidity	85% RH at 40°C	IEC 68-2-3 test Ca
Unit Weight	Approx. 30g	
Construction	Flux proofed	

ORDERING INFORMATION

NB90 - 12 S - S - A X
1 2 3 4 5 6

- 1、 **NB90**: Model No.
- 2、 **12**: Coil Nominal Voltage:5V,6V,9V,12V,15V,18V,24V,48V,110V(DC)
- 3、 **S**: Construction: S:flux proofed
- 4、 **S**: Contact Material: S:AgSnO₂
- 5、 **A**: Contact Form: C (NO&NC) **A**: Contact Form: A (NO); **B**: Contact Form:B(NC)
- 6、 **X**: Customer special code D109V: Load pin size: 2.8mm, contact gap:1.5mm.

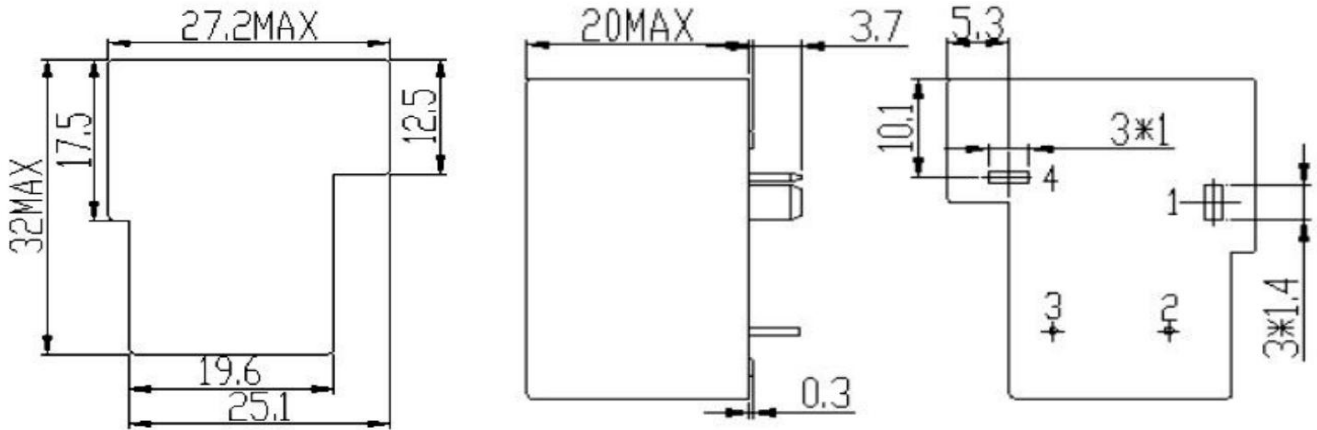
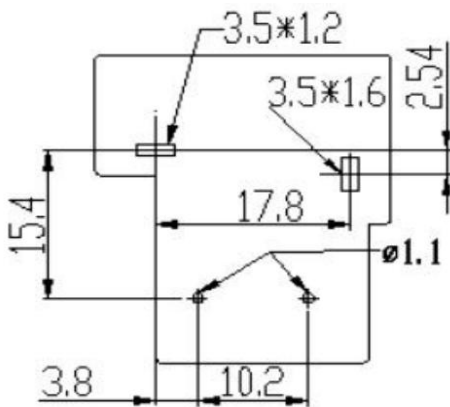
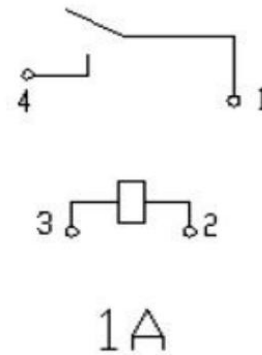
Note: (1) Dust-proof type is recommended to clean environment; Sealed type is recommended to polluted environment (containing H₂S、 SO₂、 NO₂、 dust contaminants). Please test & confirm during actual use.

(2) If need to entire wash after installed in the PCB, please notice us before order, so as to provide proper model;

(3) Avoid being used under strong magnetic or shock extremes, or technical data will change.

OUTLINE DIMENSIONS, WIRING DIAGRAM, PCB LAYOUT

Unit:mm

OUTLINE DIMENSIONS

PCB Layout

Wiring Diagram


Note:(1) In case of no tolerance shown in outline dimension: outline dimension \leq 1mm, Tolerance \pm 0.2mm;
 outline dimension (1~5)mm, tolerance \pm 0.3mm; outline dimension $>$ 5mm, tolerance \pm 0.4mm;
 (2) The tolerance without indicating for PCB layout is \pm 0.1mm.

CHARACTERISTIC CURVES
