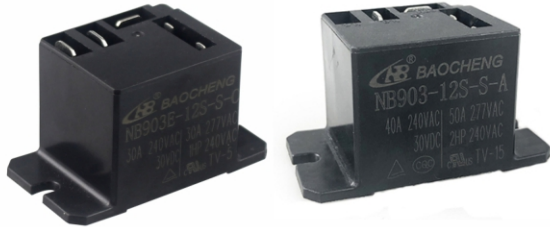


NB903E/NB903



Product Features

- ◆ High contact load switching capability
- ◆ Dielectric strength between contact and coil 2500VAC
- ◆ Coil insulation Class F
- ◆ Contact form 1A, 1B, 1C available
- ◆ Sealed type
- ◆ Environmental friendly product
- ◆ Outline dimensions: 50.2*27*28mm & 50.2*27*20mm

UL E361440



12002069367
12002069368



R 50193486

Ordering Information

	NB903	E	-12	S	-S	-C	L	T-105℃	Φ3.1	X
Model No.										
E: Contact Load Max.30A type Nil: Contact Load Max.40A type										
Nominal Coil Voltage: 5,6,9,12,15,18,24,48,110V(DC)										
Construction: S:Sealed Type										
Contact Material: AgSnO ₂										
Contact Form: A: Normally Open B: Normally Closed C: Normally Open&Close										
L: Low Profile(H:20mm) Nil:Tall Profile(H:28mm)										
T-105℃: Ambient Temperature Max.105℃ Nil:Ambient Temperature Max.85℃										
Φ3.1: Quick Terminal Hole Dia.3.1mm Nil:Quick Terminal Hole Dia.1.6mm										
Customer Special Code										

- Notes:**(1)We recommend flux tight types for a clean environment(free from contaminations like H₂S,SO₂,NO₂,dust,etc.).We suggest to choose plastic sealed types and validate it in real application for an unclean environment(with contaminations like H₂S,SO₂,NO₂,dust,etc.).
- (2)Contact is recommended for suitable condition and specifications if water cleaning for surface process is involved in assembling relays on PCB.
- (3)Contact is recommended for requirement if dielectric strength between contact and coil exceed 2500VAC.
- (4)Avoid using relays under strong magnetic or shock conditions, or technical ratings will change.

Contact Rating

Contact Form		1A,1B,1C	
Contact Material		Ag Alloy	
Contact Rating		NB903	NB903E
		40A 240VAC/30VDC 40A 277VAC 1.5HP 1HP 240VAC TV-5 TV-15	30A/20A 240VAC/30VDC 30A 277VAC 1HP 1/2HP 240VAC TV-5
Switching Power Max.		1200W 11000VA	
Switching Voltage Max.		30VDC/277VAC	
Switching Current Max.		40A	
Contact Resistance		≤50mΩ (1A , 24VDC)	
Endurance	Electrical	40A:5*10 ⁴ 30A:10 ⁵	
	Mechanical	10 ⁷	

Safety Approval Rating

Approval	CQC	TÜV	UL
Load Rating	30A/40A 240VAC 30VDC	30A/40A 240VAC 30VDC	30A/40A 277VAC 1.5HP 1HP 1/2HP 240VAC TV-5 TV-15

Coil Rating

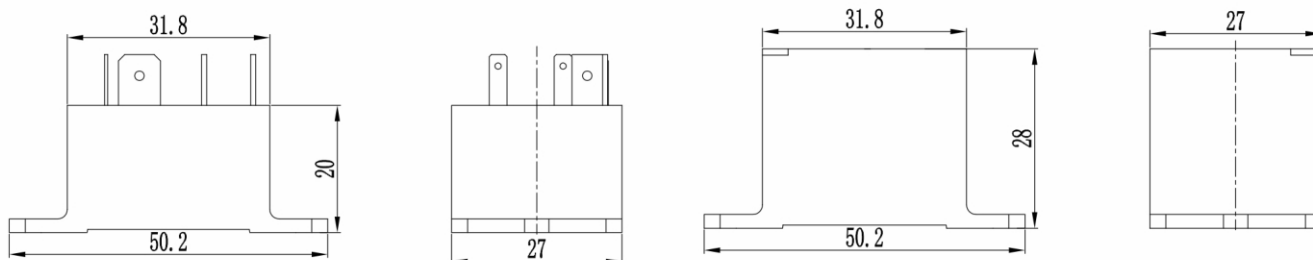
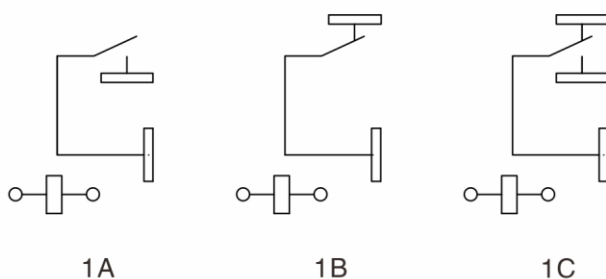
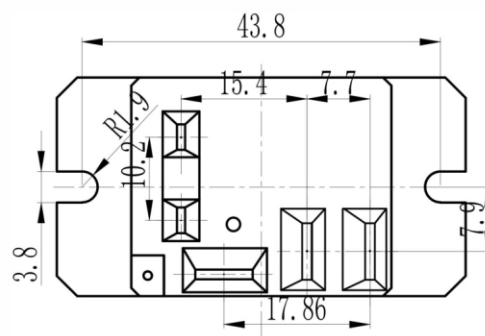
900mW					
No.	Coil Voltage (VDC)		Coil Resistance R(1 ± 10%) Ω	Pick up Max.(VDC) (75% of Nominal Voltage)	Drop out Min.(VDC) (10% of Nominal Voltage)
	Nominal	Max.			
005-900	5	6.5	28	3.75	0.5
006-900	6	7.8	40	4.50	0.6
009-900	9	11.7	90	6.75	0.9
012-900	12	15.6	160	9.00	1.2
015-900	15	19.5	250	10.25	1.5
018-900	18	23.4	360	13.50	1.8
024-900	24	31.2	640	18.00	2.4
048-900	48	62.4	2560	36.00	4.8
110-900	110	143	13445	82.50	11

Coil Rating

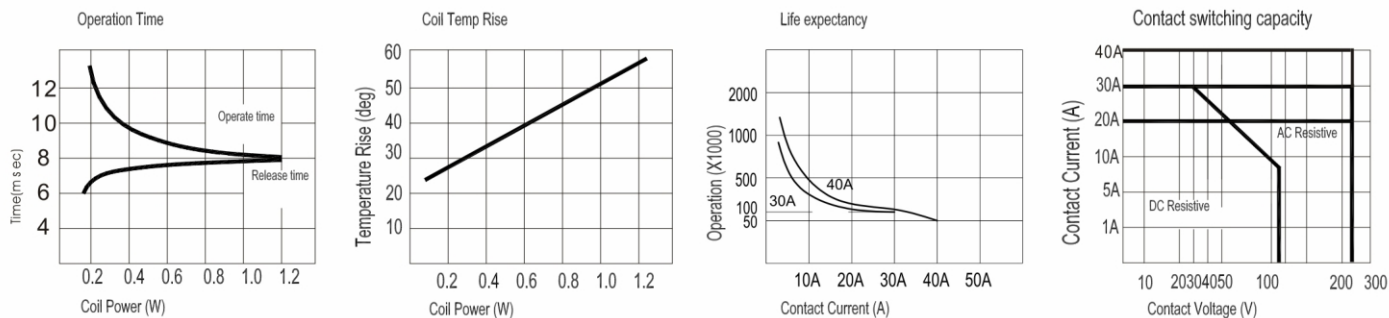
600mW					
No.	Coil Voltage (VDC)		Coil Resistance R(1 ± 10%) Ω	Pick up Max.(VDC) (75% of Nominal Voltage)	Drop out Min.(VDC) (10% of Nominal Voltage)
	Nominal	Max.			
003-600	3	3.9	15	2.25	0.3
005-600	5	6.5	42	3.75	0.5
006-600	6	7.8	60	4.50	0.6
009-600	9	11.7	135	6.75	0.9
012-600	12	15.6	240	9.00	1.2
015-600	15	19.5	375	10.25	1.5
018-600	18	23.4	540	13.50	1.8
024-600	24	31.2	960	18.00	2.4
048-600	48	62.4	3840	36.00	4.8

Technical Rating

Insulation Resistance		1000M Ω (500VDC)	Item 7 of IEC 60255-5
Dielectric Strength	Between Open Contacts	1500VAC,50/60Hz 1min	Item 6 of IEC 60255-5
	Between Coil&Contact	2500VAC,50/60Hz 1min	Item 6 of IEC 60255-5
Operate Time		≤ 15ms	
Release Time		≤ 10ms	
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		-55℃ ~ 85℃; -55℃ ~ 105℃	
Relative Humidity		85%RH,40℃	IEC 68-2-3 Test Ca
Weight		34.0g	
Construction		Sealed Type	

Outline Dimensions, Wiring Diagram And PCB Layout
Unit:mm
Outline Dimensions

Wiring Diagram(Bottom View)

PCB Layout (Top View)


Remarks: (1) In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $> 5\text{mm}$, tolerance should be $\pm 0.4\text{mm}$.
 (2) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

Engineering Data


Note: Specification and dimensions in this catalogue are for reference only and subject to change without notice.