NJB1-YW Floatless Relay

1. General

NJB1-YW Floatless Relay is applicable for water level automatic control in industrial facilities & equipments, civil water tower, high cistern, underground conservation pool, etc.

The control of automaitic water supply or drainage may be achieved by a simgle operation of the function switch without modifying the user's connectiong conditons.

This product is not applicable for water level control of flammable and explosive liquid, such as oil, chemical liquid, etc.

2. Type designation

N JB 1 - YW/□

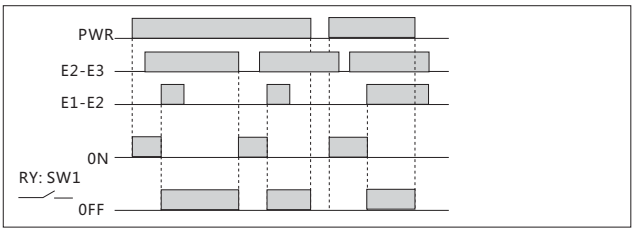
- Rated voltage of control power supply
- Function code: floatless relay
- Design sequence No.
- Relay
- Company code

3. Technical data

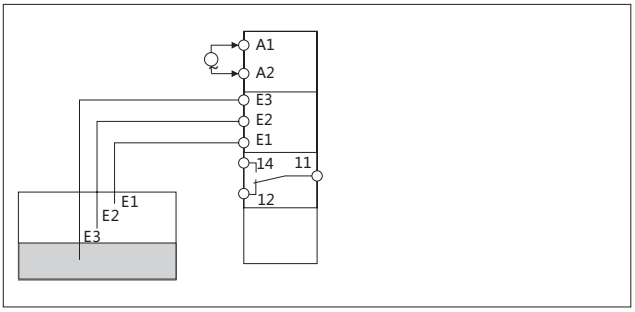
Type	NJB1-YW
Operating mode	Continuous operating
Contact number	1 Switching
Contact capacity	Ue/Ie:AC-15 220V/0.75A,380V/0.47A;Ith:3A
Operating voltage	AC 50Hz/60Hz 36V, 110V, 220V, 380V, (other voltage may be custom made)
Voltage between electrodes	DC12V
Power consumption	Max value about 3VA
Operation resistance	5kΩ~100kΩ(adjustable)
Resetting resistance	250kΩmax
Response time	0.1s~10s(adjustable)
Cable length	Max length 100m
Indication mode	Green LED: power supply indication; red LED:relay operation indication
Ambient temperature	-5℃~+40℃
Installation mode	Equipment or Track Type

4. Operating time-sequence diagram and wiring diagram

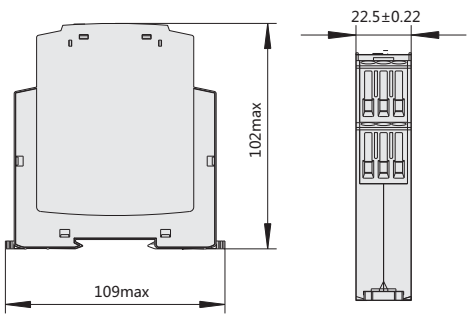
NJB1-YW operation time-sequence diagram



NJB1-YW wiring diagram



5. Overall and mounting dimensions (mm)



NJB1-X Relay (Three-Phase Unbalance, Phase Sequence, Phase Failure Protection)

1. General

NJB1-X relay (hereinafter called relay) are applied in AC380V~480V control circuits at a frequency of 50Hz as protection elements of phase sequence, phase failuire and phase unbalance,making or breaking circuits.The relay with the true effective value of three phase AC voltatage provides more reliable operating protection. The products meet the requirements of standard IEC 60947-5-1.

2. Type designation

N JB 1 - □/□

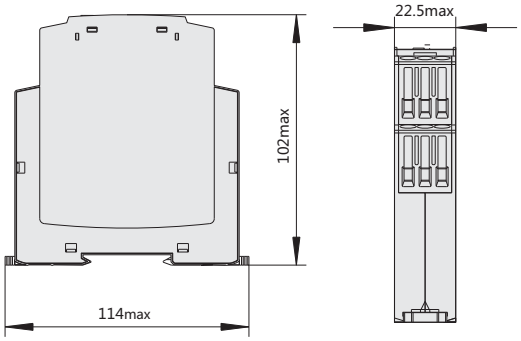
- Rated control supply voltage
- Function code: X: Unbalance, Phase Sequence, Phase Fall Protection.
- Design S. N.
- Relay
- Enterprise code

3. Technical data

Type	NJB1-X
Operating voltage	Three-phase, three-line mode: 380, 400, 415, 480VAC Three-phase, four-line mode: 220, 230, 240, 277VAC
Three-phase unbalance Operation	Unbalance rate: 2%~22%
Unbalance Operation time	(0.1~30)s adjustable
Contact number	1 Switching
Contact capacity	Ue/Ie:AC-15 240V/0.75A,415V/0.47A;Ith:3A
Indication mode	Power supply: green LED, delay output: yellow LED, alarm indication: red LED
Ambient temperature	-5℃~+40℃
Installation mode	Equipment type or track type

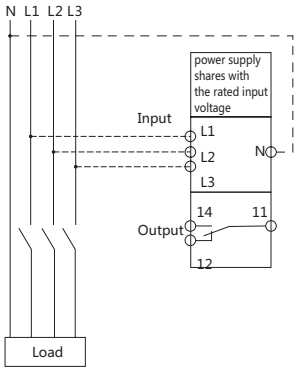
4. Overall and mounting dimensions (mm)

NJB1-X



5. Wiring diagram

NJB1-X



NJB1-X1 Relay (Three Phase Sequence, Phase Failure Protection)

1. General

NJB1-X1 relay (phase sequence, phase failure protection) is used as an phase sequence and phase failure protection device in control circuits with an AC voltage of 200V~500V and a frequency of 50Hz to make and break the circuit. It cannot monitor the phase failure of motor load.

2. Type designation

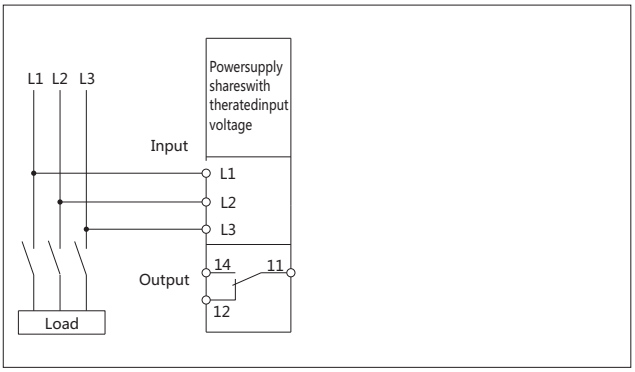
N JB 1 - X1

- Function code: X1: phase sequence, phase failure relay
- Design sequence No.
- Protection and monitoring relay
- Company code

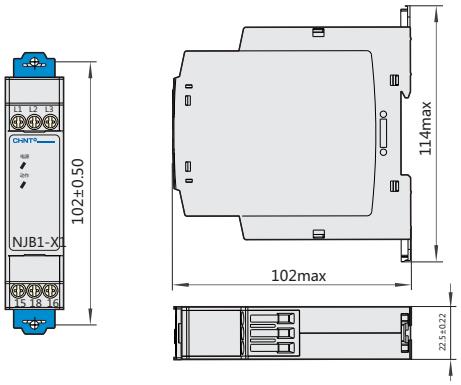
3. Operating conditions

3.1 Rated operational voltage: 200V AC~500V AC
3.2 Operation time: phase sequence, phase failure ≤ 0.1s
3.3 Contact capacity: Ue/Ie: AC-15 220V/0.75A, 380V/0.47A; Ith: 3A
3.4 Mounting type: rail type, installation type
3.5 Power consumption: ≤3VA
3.6 Note: In normal operation, the NO contact of the relay is closed, the operation indicator is on.

4. Wiring diagram



5. Overall and mounting dimensions (mm)



NJB1-Y Single-Phase Voltage Relay

1. General

NJB1-Y single phase voltage relays (hereinafter the relay for short) are applied in AC 220V, 110V, 24V, frequency 50Hz (or 60Hz) and DC 24V control circuits as single phase over-voltage protection or under-voltage protection and indication elements, making or breaking circuits as intended operating values and time.

The product are in compliance with requirements of standard IEC 60947-5-1

2. Type designation

N JB 1 - Y /□□

- Rated voltage of control power supply
- Voltage specification (see table 1)
- Function code
  Y: voltage monitoring
- Design sequence No.
- Relay
- Company code

Design Consequence number

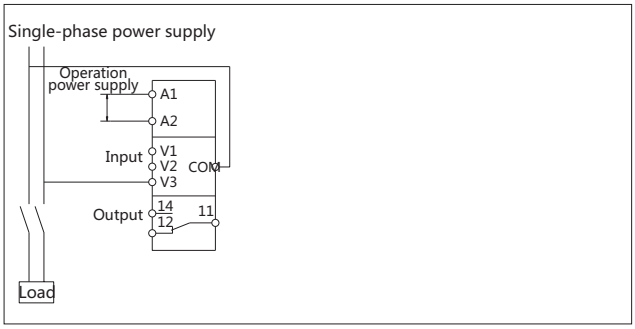
Model	Rated operation power supply	Rated input voltage
NJB1-Y1	DC24V	V1: COM AC/DC 6mV~60mV V2: COM AC/DC 10mV~100mV V3: COM AC/DC 30mV~300mV
	AC24V	
	AC110V	
	AC220V	
NJB1-Y2	DC24V	V1: COM AC/DC 1V~10V V2: COM AC/DC 3V~30V V3: COM AC/DC 15V~150V
	AC24V	
	AC110V	
	AC220V	
NJB1-Y3	DC24V	V1: COM AC/DC 20V~200V V2: COM AC/DC 30V~300V V3: COM AC/DC 60V~600V
	AC24V	
	AC110V	
	AC220V	

3. Technical data

Type	NJB1-Y
Protection mode	Over-voltage protection, under-voltage protection
Operating voltage	DC24V; AC220V, AC110V, AC24V, 50Hz
Operation Setting Range	10%~100% of max rated input value
Operation time	0.1s~30s adjustable
Repeating precision	±10% of operation value
Time error	±10% of set value
Input frequency	40Hz~500Hz
Contact number	1 Switching
Contact capacity	Ue/Ie:AC-15 220V/0.75A,120V/1.5A;Ith:3A
Mechanical Endurance	$\leqslant 1\times10^6$ times
Electrical Endurance	Making 50,000times, breaking 30,000times
Installation mode	Track and Bolts

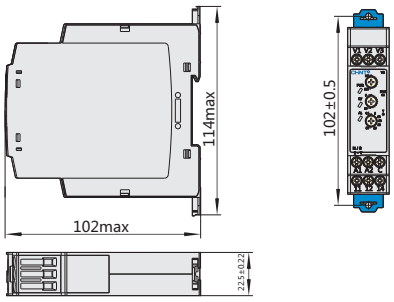
4. Wiring diagram

NJB1-Y



5. Overall and mounting dimensions (mm)

NJB1-Y



NJB1-S Time Delay Relay

1. General

NJB1-S series time relay is suitable for being as the time control and indicator elements in the control circuit with the AC frequency of 50Hz/60Hz, rated control supply voltage to 380V and DC control supply voltage to 24V, to connect or break off the circuit at a predetermined time.
NJBI-S time-delay relay is used in controlling circuit as time delay element to make or break circuit according to preset time.

2. Type designation

N JB 1 - □/□

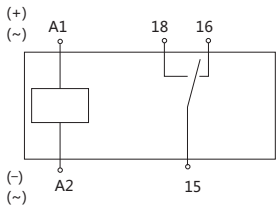
- Rated supply voltage
- Feature code: S: Time-delay relay
- Design sequence No.
- relay
- Company code

3. Technical data

Type	NJB1-S
Operation mode	Delayed ON operation/Interval operation/Recycle operation
Contact number	Delay 1 Switching
Contact capacity	Ue/Ie:AC-15 220V/0.75A,380V/0.47A,Ith:3A
Operating voltage	AC220V AC380V 50Hz/60Hz DC24V (other size may be custom made)
Electrical Endurance	1×10^5
Mechanical Endurance	1×10^6
Delay precision	5%
Ambient temperature	-5℃~+40℃
Installation mode	Track mouning
Delay range	Code name: 2,5,10,20,50,100,120 (time unit: s/min/h, optional) Range: 0.2~2,0.5~5,1~10,2~20,5~50,10~100,12~120 Note: delay range and time unit may be selected through selection switch

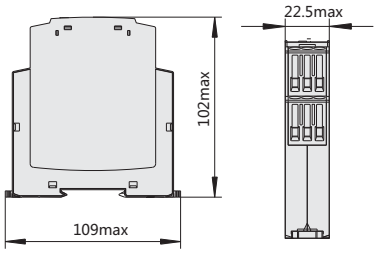
4. Wiring diagram

NJB1-S wiring diagram

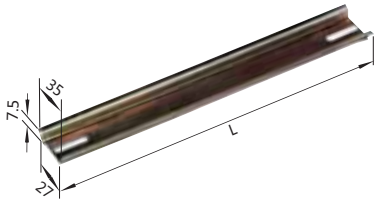


5. Overall and mounting dimensions (mm)

NJB1-S



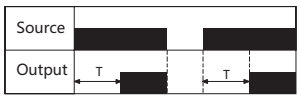
NJB1-S



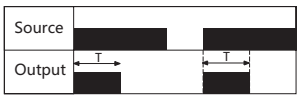
Use TH35-7.5 steel mounting rail for Installation

6. Timing-sequence diagram

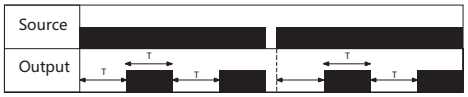
Mode 1: Delayed ON operation



Mode 2: Interval operation



Mode 3: Symmetrical recycling OFF cycle first



Mode 4: Symmetrical recycling ON cycle first