



NJS3 Series  
Time Delay Relay

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# User Instruction

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## **Safety Warning**

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- ① Only professional technicians are allowed for installation and maintenance.
- ② Installation in any damp, condensed-phase environment with inflammable and explosive gas is forbidden.
- ③ When the product is being installed or maintained, the power must be switched off.
- ④ You are prohibited from touching the conductive part when the product is operating.
- ⑤ The product shall be stored, installed and used in accordance with the rated control power supply voltage and specified conditions indicated in the user instructions.

## 1 Use Purpose

NJS3 series time delay relay (hereinafter referred to as relay) is mainly used as time control component in the control circuit with AC frequency of 50Hz/60Hz, rated control power supply voltage up to 220V, for connecting and disconnecting the circuits at preset time.

## 2 Key Technical Parameters

**Table 1 Ambient Conditions**

Normal use conditions	Ambient temp.: -5°C~+40°C; average value within 24h not exceeding +35°C; altitude not exceeding 2,000m.
Atmospheric conditions	RH shall not exceed 50% when maximum temperature is +40°C; in case of lower temperature, higher RH is allowed. Measures should be taken against occasional condensation due to temperature change.
Installation category	II
Transport and storage conditions	-25°C~+55°C

**Table 2 Product Specifications and Main Technical Parameters**

Model	NJS3	NJS3-A	NJS3-B
Operating method	Interval delay	Disconnection delay	Power-on delay
Delay range	0.5min~20min	5s, 10s, 30s, 60s, 120s, 180s, 360s, 480s, 5min, 10min, 30min, 60min, 120min, 180min, 360min, 480min	
Number of contacts	Delayed 1 group NO		
Installation method	Equipment type, Rail mounting		
Setting error	Relative setting error≤10%		
Reset time	≤1s		

**Table 3 Main Circuit and Auxiliary Circuit Technical Parameters**

No.	Product specifications	NJS3, NJS3-A, NJS3-B		
1	Rated control power supply voltage $U_s(V)$ , frequency (Hz)	AC110V, AC220V, AC230V, AC240V, 50Hz/60Hz		
2	Allowable fluctuation range of rated control power supply voltage	85% $U_s$ ~110% $U_s$		
3	Agreed free air heating current $I_{th}(A)$	16		
4	Rated operating voltage $U_e(V)$	AC240V	AC415V	DC24V
5	Utilization category and rated operating current $I_e(A)$	AC-15	AC-15	DC-13
		3A	1.9A	1.1A
6	Rated insulation voltage $U_i(V)$	415V		
7	Rated impulse withstand voltage $U_{imp}(kV)$	4		
8	Enclosure protection class (if applicable)	IP20		
9	Pollution class	Class 3		
10	Type and maximum value of short circuit protection	RT36-00/16A		
11	Size of terminal tightening screw (or nut)	M3		
12	Torque of terminal tightening screw (N·m)	0.5		
13	Electrical life/mechanical life (10000 times)	10/100		

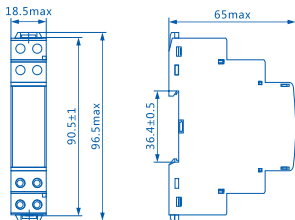
**Table 4 Immunity to Interference**

No.	Test type	Test level
1	Electrostatic discharge immunity test	8kV (air discharge)
2	RF electromagnetic field immunity test	10V/m
3	Electrical fast transient/burst immunity test	2kV/5kHz on the power supply side
4	Surge immunity test	1kV (wire to wire)

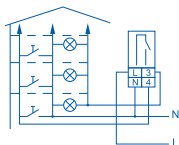
## 3 Installation

3.1 Outline and installation dimensions: see Figure 1, unit: mm.

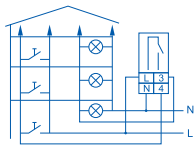
3.2 Wiring diagram: see Figure 2~ Figure 5; panel drawing: see Figure 6.



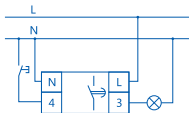
**Figure 1 Outline and installation dimensions**



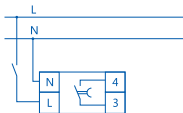
**Figure 2 Wiring method of NJS3 (3-wire)**



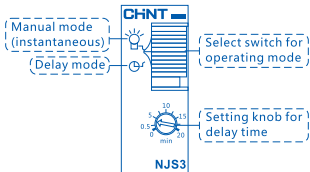
**Figure 3 Wiring method of NJS3 (4-wire)**



**Figure 4 Wiring method of NJS3-A**



**Figure 5 Wiring method of NJS3-B**



**Figure 6 Panel drawing**

Notes: The relay provides two operating modes, please select according to your application; the time scale on the relay enclosure is only for reference, it does not indicate the actual delay time of the relay, please check with delay value during operation; turning the knob during the delay process will affect the delay time, please complete the delay time setup before connecting power; please wait for at least 1s before re-applying voltage after disconnecting power, otherwise the reset can be unreliable or the delay can be inaccurate.

## **4 Maintenance**

**4.1** The terminal of the relay should be tightened on a regular basis.

**4.2** Avoid squeezing the product; the product should be stored in a well-ventilated place.

**Table 5 Fault Analysis and Troubleshooting**

Symptoms	Cause analysis	Troubleshooting method
Power is on, but the product does not function.	The power supply pin is not connected or the connection is not correct or the connection is disconnected; power is not connected or the control power supply voltage is not consistent with rated control power supply voltage.	Select power supply voltage that is consistent with product rated control power supply voltage and conduct wiring properly according to product instruction.
NJS3-A is powered-on but the relay does not function.	There is no connection between terminal 4 and N line	Conduct wiring properly according to product instruction.

## **5** **Environmental Protection**

In order to protect the environment, the product or product parts should be disposed of according to the industrial waste treatment process, or be sent to the recycling station for assortment, dismantling and recycling according to local regulations.

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**CHINT**

**QC PASS**

NJS3 Series  
Time Delay Relay  
IEC/EN 60947-5-1

JDQ Check 10

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Test date: Please see the packing

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**ZHEJIANG CHINT ELECTRICS CO., LTD.**

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# CHINT

CHINT ELECTRICS

## NJS3 Series Time Delay Relay User Instruction

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