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Notes: 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
The power indicator does not light up after the relay is powered-on.	The power supply pin is not connected or the connection is not correct or the 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.
Power is on, but the relay cannot function normally.	The relay control wiring is not correct or disconnected; the preset delay value is not correct; the control power supply voltage is outside the fluctuation range.	Select power supply voltage that is consistent with product rated control power supply voltage and conduct wiring properly according to product instruction.

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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.

CHNT

QC PASS

NJS5 Series
Time Delay Relay
IEC/EN 60947-5-1

JDQ Check 10

Test date: Please see the packing

ZHEJIANG CHINT ELECTRICS CO.,LTD.

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NJS5 Series
Time Delay Relay
User Instruction

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NJS5 Series
Time Delay Relay

User Instruction

Standard: IEC/EN 60947-5-1

Safety Warning

- Only professional technicians are allowed for installation and maintenance.
- Installation in any damp, condensed-phase environment with inflammable and explosive gas is forbidden.
- When the product is being installed or maintained, the power must be switched off.
- You are prohibited from touching the conductive part when the product is operating.
- 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

NJS5 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 400V and DC rated control power supply voltage up to 24V for connecting and disconnecting the circuit 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	NJS5-A	NJS5-B	NJS5-Y	NJS5-M1	NJS5-M2
Operation method	Power-on delay	Interval delay	Star/delta start delay	Power-on delay (multi-stage)	Multi-delay mode (multi-stage)
Number of contacts	Delay 1 change-over sets	Delayed 2 groups NO		Delay 1 change-over sets	
Installation method	Equipment type,Rail mounting				
Setting error	Relative setting error≤10%				
Reset time	≤1s				

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Table 2 (continued)					
Model	NJS5-A	NJS5-B	NJS5-Y	NJS5-M1	NJS5-M2
Delay range	0.5s~5s	0.1s~1s	0.1s~1s	0.1s~1s	0.1s~1s
	1s~10s	1s~10s	1s~10s	1s~10s	1s~10s
	3s~30s	0.1min~1min	0.1min~1min	0.1min~1min	0.1min~1min
	6s~60s	1min~10min	1min~10min	1min~10min	1min~10min
	0.2min~2min	0.1h~1h	0.1h~1h	0.1h~1h	0.1h~1h
	0.3min~3min	1h~10h	1h~10h	1h~10h	1h~10h
	0.5min~5min	0.1d~1d	0.1d~1d	0.1d~1d	0.1d~1d
	1min~10min	1d~10d	1d~10d	1d~10d	1d~10d
	2min~20min	(multi-stage)	(multi-stage)	(multi-stage)	(multi-stage)

Table 3 Main Circuit and Auxiliary Circuit Technical Parameters

No.	Product model	NJS5-A	NJS5-B	NJS5-Y	NJS5-M1	NJS5-M2
1	Rated control power supply voltage $U_s(V)$, frequency (Hz)	AC220V, AC380V, 50Hz/60Hz	AC380V, 50Hz/60Hz	AC36V, AC110V, AC220V, AC230V, AC240V, AC380V, AC400V, 50Hz/60Hz, DC24V	AC110V, AC220V, AC230V, AC240V, AC380V, AC400V, 50Hz/60Hz, DC24V	AC110V, AC220V, AC230V, AC240V, AC380V, AC400V, 50Hz/60Hz, DC24V
2	Allowable fluctuation range of rated control power supply voltage	85% U_s ~110% U_s				
3	Agreed free air heating current Ith (A)	5				
4	Rated operating voltage $U_e(V)$	AC240V	AC415V	DC220V		
5	Utilization category and rated operating current Ie(A)	AC-15	AC-15	DC-13		
		0.75A	0.47A	0.27A		
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				

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Table 3 (continued)						
No.	Product model	NJS5-A	NJS5-B	NJS5-Y	NJS5-M1	NJS5-M2
10	Type and maximum value of short circuit protection	RT36-00/6A				
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)	3/100			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.

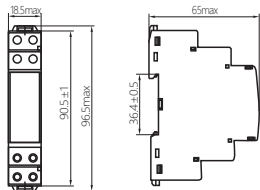


Figure 1 Outline and installation dimensions

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3.2 Panel drawing: see Figure 2~ Figure 5; wiring diagram: see Figure 6~ Figure 9; operation time sequence chart: see Figure 10~ Figure 20.

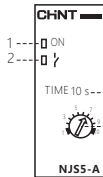


Figure 2 NJS5-A panel drawing

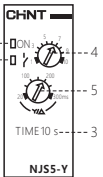


Figure 3 NJS5-Y panel drawing

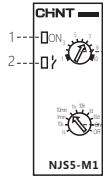


Figure 4 NJS5-M1 panel drawing

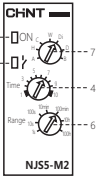


Figure 5 NJS5-M2 panel drawing

- Power indicator (red LED)
- Operating indicator (green LED)
- Delay range
- Delay time t adjustment
- Star-delta conversion time t ' adjustment (20ms~300ms)
- Delay range and ON / OFF setup
- Delay function adjustment (NJS5-M2 delay type: A, H, C, W, Di, D, B , see Figure 14~ Figure 20 for details)

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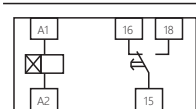


Figure 6
Wiring method of NJS5-A/NJS5-M1

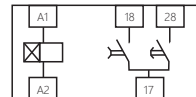


Figure 7
Wiring method of NJS5-B

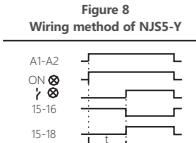


Figure 8
Wiring method of NJS5-Y

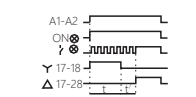


Figure 9
Wiring method of NJS5-M2

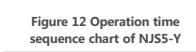


Figure 10 Operation time sequence chart of NJS5-A



Figure 11 Operation time sequence chart of NJS5-B

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