



JSZ3 Series
Time Delay Relay

User Instruction



Safety Warning

- 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.
- ⑥ The products shall be properly wired in strict accordance with the wiring diagram.

1 Use Purpose

JSZ3 series time delay relay ("relay" in short) is mainly used as time control component in the control circuit with AC frequency of 50Hz/60Hz, rated control supply voltage up to 380V and DC rated control 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 3 Main Circuit and Auxiliary Circuit Technical Parameters

| No. | Product model | JSZ3A-, JSZ3C-, JSZ3F, JSZ3F-2Z, JSZ3K, JSZ3Y, JSZ3R |
|-----|--|---|
| 1 | Rated control supply voltage Us (V), fr (Hz) | AC36V, AC110V, AC127V, AC220V, AC240V, AC380V, 50Hz/60Hz; DC24V |
| 2 | Allowable fluctuation range of rated control power supply voltage | 85%Us~110%Us |
| 3 | Agreed free air heating current Ith (A) | 5 |
| 4 | Rated operating voltage Ue(V) | AC240V AC415V DC220V |
| 5 | Use type under rated operating voltage and rated operating current Ie(A) | AC-15 AC-15 DC-13 0.75A 0.47A 0.27A |
| 6 | Rated insulation voltage Ui (V) | 415V |
| 7 | Rated impulse withstand voltage Uimp (kV) | 4 |
| 8 | Enclosure protection class (if applicable) | IP20 |
| 9 | Pollution class | Class 3 |
| 10 | Type and maximum value of short circuit protection | RT36-00/6A |
| 11 | Electrical life / mechanical life (10,000 times) | 10/100 |

Table 2 Specifications and Main Technical Parameters

| Model | JSZ3A- | JSZ3C- | JSZ3F | JSZ3F-2Z | JSZ3K | JSZ3Y | JSZ3R | | | | |
|--------------------|--|---|--|--------------------------------|---|------------------------|--------------------------|--|--|--|--|
| Delay type | Multi-span | | Single-span | | | | | | | | |
| Mounting type | Equipment type, panel type, Din-rail | | | | | | | | | | |
| Indication form | Indicator | | | | | | | | | | |
| Operation method | Power-on delay | | | Power-off delay | Disconnection delay | Star/delta start delay | Shutting (cycling) delay | | | | |
| Delay range | A: 0.05s~0.5s/5s/30s/3min B: 0.1s~1s/10s/60s/6min C: 0.5s~5s/50s/5min/30min D: 1s~10s/100s/10min/60min | E: 5s~60s/10min/60min/6h F: 0.25min~2min/20min/2h/12h G: 0.5min~4min/40min/4h/24h | 0.1s~1s 0.5s~5s 1s~10s 2.5s~30s | 5s~60s 10s~120s 15s~180s | 0.5s~6s/60s 1s~10s/10min 2.5s~30s/30min 5s~60s/60min | | | | | | |
| | The actual maximum delay value is no less than 90% of the nominal delay value and no greater than 110% of the nominal delay value. The minimum delay value is no greater than 10%±50ms of the nominal delay value. | | | | | | | | | | |
| Reset time | ≤1s | | | | | | | | | | |
| Number of contacts | Delay 2 change-over sets | Delay 1 change-over sets; Instantaneous 1 change-over sets | Delay 1 change-over sets | Delay 2 change-over sets | Delay 1 change-over sets | | | | | | |

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 Overall, installation size: see Fig 1~Fig 4, unit: mm.

3.2 Wiring diagram: see Figure 5~Figure 11, work sequence diagram: see Figure 12.

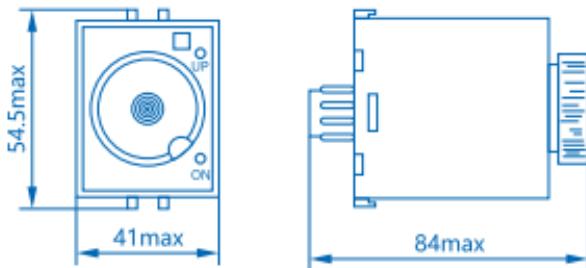


Figure 1 Overall Size of JSZ3A-, C-, F, K, Y

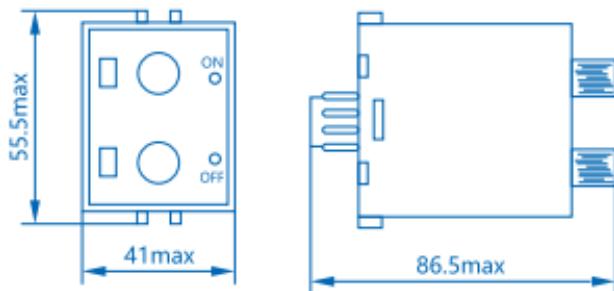


Figure 2 Overall Size of JSZ3R

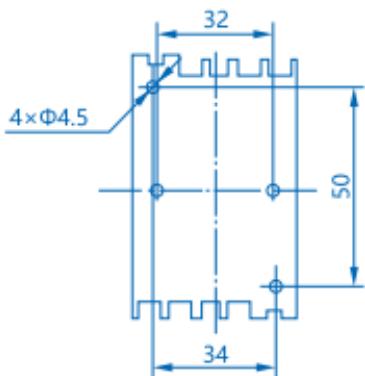


Figure 3 Hole Size of Molded Case Mounting

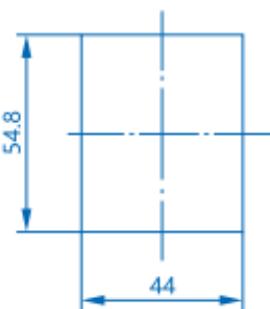


Figure 4 Hole Size of Panel Mounting

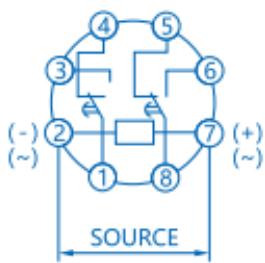


Figure 5 wiring diagram of JSZ3A-

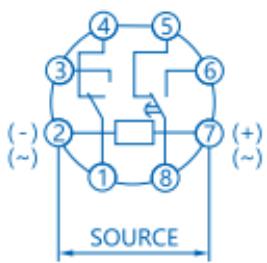


Figure 6 wiring diagram of JSZ3C-

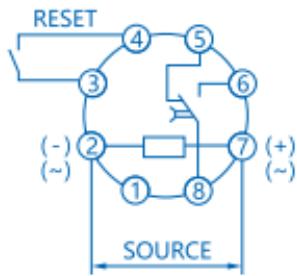


Figure 7 wiring diagram of JSZ3F

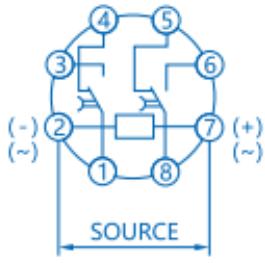


Figure 8 wiring diagram of JSZ3F-2Z

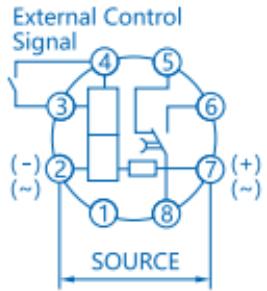


Figure 9 wiring diagram of JSZ3K

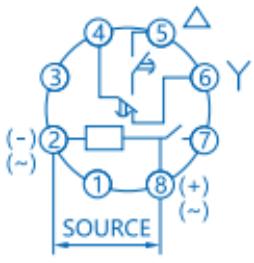


Figure 10 wiring diagram of JSZ3Y

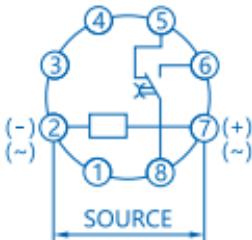
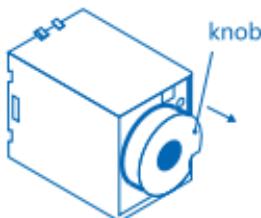


Figure 11 wiring diagram of JSZ3R

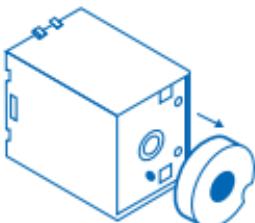
| | |
|---|-------------------------------|
| JSZ3A- | JSZ3C- |
| Source (2-7) | Source (2-7) |
| Delay NO (1-3) (8-6) | Delay NO (8-6) |
| Delay NC (1-4) (8-5) | Delay NC (8-5) |
| JSZ3F | Instantaneous No (1-3) |
| Source (2-7) | Instantaneous NC (1-4) |
| Reset signal (3-4) | |
| Delay NO (8-6) | |
| Delay NC (8-5) | |
| JSZ3Y | JSZ3K |
| Source (2-8) | Source (2-7) |
| Instantaneous NO (7-8) | External control signal (3-4) |
| Delay Y (4-6) | Delay NO (8-6) |
| △ (4-5) | Delay NC (8-5) |
| Star/delta change-over time: *t' = 40+30 ms | |
| JSZ3R | |
| Source (2-7) | |
| Delay NO (8-6) | |
| Delay NC (8-5) | |
| ON | |
| OFF | |

Figure 12 Work sequence diagram

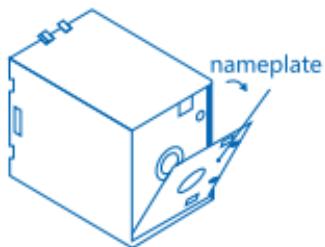
3.3 Product delay range selection and setting (take JSZ3A-B with delay range 1s as an example).



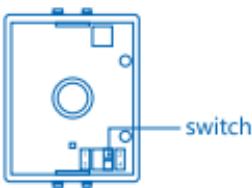
1) Turn the knob clockwise to the maximum extent



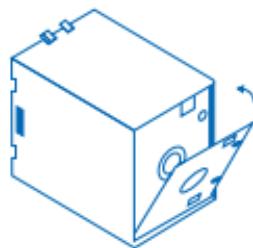
2) Pull off the transparent knob



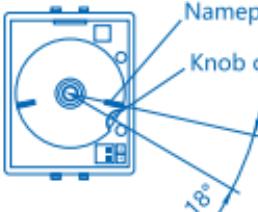
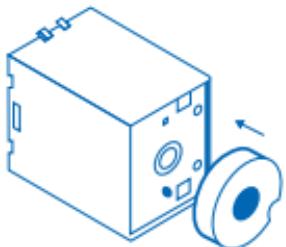
3) Take off two nameplates



4) Turn the time frame switch to the corresponding position (2,4) according to the time setting on the left side of the product.



5) Mount the nameplate, and place the side with 1s as the maximum scale to the outside



6) Put on the transparent knob, the small notch on the knob should form a 18° angle against the maximum scale value on the nameplate.

Notes:

- 1) The relay together with CZS08X-E base can realize molded case or rail mounting, when the base is installed and used, it must be aligned with the foot position, and the plug boss on the relay should be aligned with the groove of the base; and can realize panel mounting with FM8858 or FM8858X;
- 2) The nameplate of the relay gives the schematic scale for reference only and cannot represent the actual delay time. When using the relay, please check the delay value;
- 3) For power-off delay relay with nominal delay value no more than 1min, the shortest power-on time shall be no less than 2s; if the nominal delay value is greater than 1min, the shortest power-on time shall be no less than 5s;
- 4) For power-off delay relay, the shortest control signal input time shall be no less than 50ms;
- 5) The power-off delay time relay with ex-factory reset may change into a motion state during transportation and installation due to impact, therefore, remember to power on the relay on before use.

4 Maintenance

- 4.1 The terminal of the protector should be tightened on a regular basis.
- 4.2 In case of squeezing the product, the product should be stored in a well-ventilated place.
- 4.3 For equipment that may cause material economic losses or personal safety, safety measures such as secondary circuit protection should be taken.

Table 5 Fault Analysis and Troubleshooting

| Symptoms | Cause analysis | Troubleshooting method |
|--------------------------|--|--|
| The indicator is not on. | Check if the wire is securely connected with the terminal, and the terminal of the power end is correctly wired. | Wire the product securely according to the product manual. |

Table 5 (continue)

| Symptoms | Cause analysis | Troubleshooting method |
|---|---|--|
| The relay does not change over at the delayed period of time. | Check if the wiring of the relay is correct, or if the input 07 voltage is too low. | Wire the product securely according to the product manual; confirm if the input voltage is equal to the rated control supply voltage of the product. |

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.

CHiNT

QC PASS

JSZ3 Series
Time Delay Relay
IEC/EN 60947-5-1

JDQ Check 10

Test date: Please see the packing

ZHEJIANG CHINT ELECTRICS CO., LTD.

JSZ3 Series
Time Delay Relay
User Instruction



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Zhejiang Chint Electrics Co., Ltd.

Add: No.1, CHINT Road, CHINT Industrial Zone, North Baixiang,
Yueqing, Zhejiang 325603, P.R.China

E-mail: global-sales@chint.com

Website: <http://en.chint.com>

