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CERTIFICATE OF CONFORMITY

Product: Automatic Transfer Switch

Model: JUQ5 Series

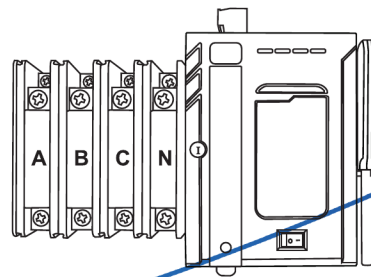
This product has passed inspection and
complies with GB/T 14048.11. Approved
for shipment.

Inspector: _____

Inspection date: _____

JUQ5 PC CLASS AUTOMATIC TRANSFER SWITCH

INSTRUCTION MANUAL



1. PRODUCT FEATURES

- This product is an independently developed original design. It features a novel and attractive structure, compact dimensions and complete functions.
- 1. PC-class ATSE designed specifically in accordance with GB/T 14048.11 and IEC/EN 60947-6-1.
 - 2. The product has obtained CCC and CE certification. Utilization category: AC-33B.
 - 3. The operating mechanism uses a pre-stored-energy opening and closing structure for rapid making and breaking. The single-pole, double-throw contact structure and large contact opening provide excellent electrical isolation. The self-adjusting moving-contact design ensures reliable contact between moving and fixed contacts and effective arc extinction. Each phase contact group is pressed by an independent spring plate, providing high contact pressure, adequate contact area, resistance to electrodynamic forces, reliable conductivity and high short-time withstand current (Icw).
 - 4. Three-phase synchronization: the three phases and neutral pole use a common shaft drive with anti-deformation correction and compensation. The synchronization deviation does not exceed 10 ms.
 - 5. The three-position structural design can provide a fire-control function and fire-control feedback to meet different application requirements.
 - 6. The user interface includes closing indicators for both power supplies. The mechanism includes a mechanical contact-position indicator, making the operating state clear. Manual operation can be used to control the three ATSE operating states.
 - 7. Three-pole products are equipped with a dedicated neutral terminal, making neutral connection more convenient, supporting a wider conductor range and improving reliability.
 - 8. The simplified integrated modular structure is compact and lightweight, saves installation space and reduces cost. Careful industrial design, detailed component design and manufacturing, and comprehensive process quality control create a new image for Wenzhou manufacturing.
 - 9. The product uses a molded-case insulating enclosure and does not require earthing of the enclosure.
 - 10. A dedicated maintenance lock provides dual electrical and mechanical protection for safer maintenance.

The product is suitable for dual-power systems at 50 Hz, rated operational voltage up to 400 V and rated current up to 630 A. It simultaneously monitors the normal supply (N) and standby supply (R) in a three-phase, four-wire network. If undervoltage occurs on any phase of the normal supply, including phase loss, the load transfers automatically from the normal supply to the standby supply; manual transfer can also be selected. When the normal supply is restored, the load automatically transfers back to the normal supply. This enables unattended substation operation. As requirements for power-supply

safety and reliability continue to increase, automatic transfer switches are increasingly used in essential locations where interruption of power is not permitted, including power systems, hospitals, postal and telecommunications facilities, fire-protection systems, hotels, banks, airports, ports, residential communities, high-rise buildings, television stations, military facilities and shopping centers.

2. MODEL DESIGNATION AND MEANING

JUQ5 - [Design No.] / [Frame] [Poles] [Rated Current] [Series]

- JUQ5 — Product model
- Design No. — Design sequence number
- Frame — Frame current - refer to the table below
- Poles — 2 = 2 poles; 3 = 3 poles; 4 = 4 poles
- Rated Current — Rated current - refer to the table below
- Series — Product-series code

3. TECHNICAL PARAMETERS

Product model	JUQ5-100	JUQ5-160
Rated current In	16, 25, 32, 40, 50, 63, 80, 100, 125 A	160, 200, 250 A
Rated operational voltage Ue	AC 220 V / AC 400 V, 50 Hz	AC 220 V / AC 400 V, 50 Hz
Rated insulation voltage Ui	1000 V	1500 V
Rated impulse withstand voltage Uimp	10,000 V	12,000 V
Number of poles	2P, 3P, 4P	2P, 3P, 4P
Utilization category	AC-33B	AC-33B
Rated limiting short-circuit current	100 kA (NT1-125, I2t 10.4 KA2s)	100 kA (NT1-250, I2t 55.7 KA2s)
Transfer operating time	0.4-0.5 s	0.4-0.5 s
Applicable standard	GB/T 14048.11	IEC/EN 60947-6-1

4. NORMAL OPERATING CONDITIONS

The ambient air temperature shall not exceed +40 deg C, and its average value over 24 hours shall not exceed +35 deg C. The lower limit of the ambient air temperature is -5 deg C. The altitude of the installation site shall not exceed 2,000 m.

The relative humidity of the air shall not exceed 50% at an ambient temperature of +40 deg C. Higher relative humidity is permitted at lower temperatures. The maximum average relative humidity in the wettest month is 90%, while the average minimum temperature in that month is +25 deg C. Condensation on the product surface caused by temperature variation shall be taken into account.

Pollution degree: 3.

Normal service and installation conditions:

- a) Installation category of the switching device: Category III.
- b) The product may be installed vertically or horizontally in a dedicated control cabinet or electrical cabinet.
- c) Degree of protection of the switching device: IP20.

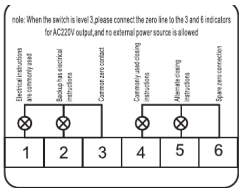
5. STRUCTURE, FUNCTIONS AND USER INTERFACE

If a deviation is detected in the normal supply, such as undervoltage or loss of voltage, the load is transferred automatically from the normal supply to the standby supply. When the normal supply returns to normal, the load is transferred automatically from the standby supply back to the normal supply.

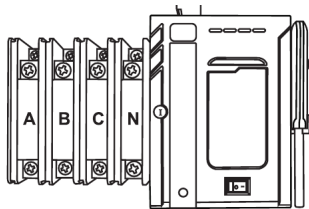
The two switching devices incorporate reliable mechanical and electrical interlocking to ensure that both sources cannot be closed simultaneously.

If the standby source is a generator, or if a potential difference exists between the neutral conductors of the two supplies during operation, a four-pole product is recommended. If automatic generator starting and stopping is required, an external HS2P intermediate relay may be used; specify this requirement when ordering.

In addition to the recommended mounting method, the mounting bracket may be rotated 90 degrees as required to obtain a more suitable installation arrangement.



Product Wiring Diagram

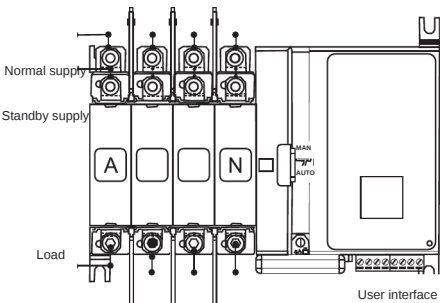


Product Outline

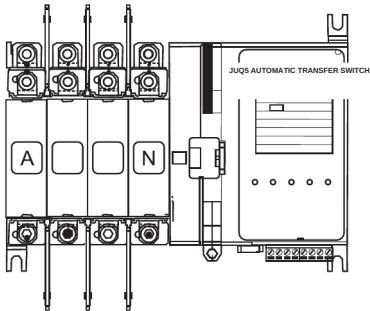
MAIN-CIRCUIT WIRING, OPERATION AND MAINTENANCE

Operating modes: automatic (automatic transfer and automatic return) and manual.

Push the manual/automatic operating cover to the right to enter manual mode. Pull the handle upward and use it to operate the normal or standby source to the open or closed position. During maintenance, use the handle to move the switch to the double-open position so that maintenance can be carried out safely. After maintenance, remove the handle and restore automatic mode; the product can then resume normal operation.

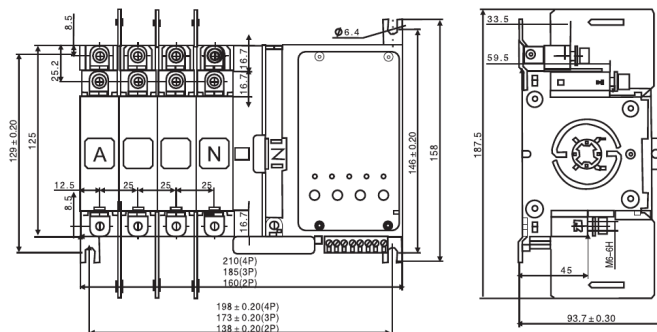


Main-Circuit Wiring

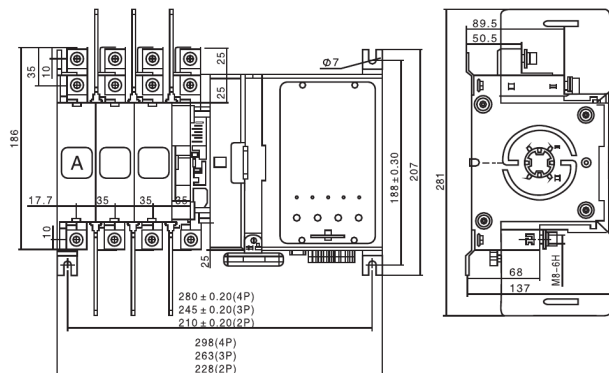


Manual Operation and Maintenance

6. JUQ5-100 OVERALL AND MOUNTING DIMENSIONS



7. JUQ5-160 OVERALL AND MOUNTING DIMENSIONS



8. SERVICE AND WARRANTY

This series is manufactured under a comprehensive quality-management system. The following terms apply to product warranty and service:

1. When the specified storage and operating conditions are satisfied, if the product is damaged or cannot operate normally because of a manufacturing-quality problem within 12 months from the date of use, provided that no more than 15 months have elapsed from the shipment date, it will be repaired free of charge or, where necessary, replaced. If the fault cannot be cleared after consulting this instruction manual, or the correct method of handling is unclear, contact the supplier or the company's after-sales service department.

After the warranty period, if normal function can be maintained after repair, repair will be chargeable. If normal operation cannot be restored, replacement will be chargeable.

2. Faults caused by the following conditions are subject to chargeable repair or replacement, even during the warranty period:

- Incorrect use, improper maintenance or unauthorized modification;
- Use exceeding the requirements of the applicable standards or beyond the product ratings and performance shown on the nameplate;
- Damage occurring during storage or transportation after purchase;
- Earthquake, fire, lightning, abnormal voltage or other disasters, including secondary damage.

PRODUCT ACCEPTANCE AND USE

Product acceptance

After receiving the JUQ5 Series automatic transfer switch, check whether the packaging is damaged. According to the purchase order, inspect the package markings and product identification, and confirm that the model, specifications and quantity meet the order requirements. Check the product accessories against the factory packing list. If any discrepancy is found, contact the supplier promptly.

Installation, operation and maintenance

Before installing or using this switch, read this instruction manual carefully to ensure correct use. Contact the after-sales service department promptly if there are any questions.

During installation, verify the product model, specification, voltage and other marked parameters. They shall comply with the technical requirements of the circuit diagram.