

Caution: For your safety, please read this manual
carefully before installation and use!

Automatic Transfer Switch Equipment

Manual Instruction



It is recommended to provide this manual to the end-user.
No.ZXCT12000GEN25021401

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1. Overview

This automatic transfer switch equipment is a specialty product developed by our company, complying with GB/T14048.11 standards, as well as the "Code for Fire Protection Design of Tall Buildings" and the "Emergency Lighting Design Guide." Components and parts have undergone rigorous aging screening, and finished products pass confirmation testing before leaving the factory, ensuring product reliability and safety.

It is suitable for power distribution systems with a rated working voltage of AC400V. In cases of power supply faults such as loss phase, overvoltage, and under-voltage, the transfer switch can quickly switch the load from the normal power to the standby power under the controller control. Users can also position the load in a neutral position if needed, disconnecting it from both the normal and standby power supplies. This product is primarily used for Level 1 and Level 2 loads as stipulated by the state, widely applicable in fire protection, post and telecommunications, hospitals, hotels, urban rail transit, high-rise buildings, industrial assembly lines, television stations, and other places requiring continuous power supply. Standby power supplies can be the grid, self-starting generator sets, battery banks, etc.

2. Product Features

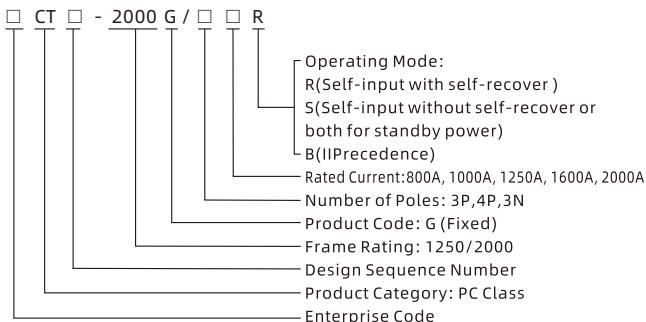
- Dedicated three-position automatic transfer switch. Upon receiving a transfer signal, it can immediately (or after a preset delay) switch from one power supply to another, or to a neutral disconnected position not connected to any power supply.
- Switchgear class: Dedicated PC class.
- Installation method: Fixed installation.
- Wiring method: Rear horizontal wiring.
- Utilization category: AC-33B.
- Rated working voltage: AC380V, AC400V, AC415V.
- Rated working current: 800A, 1000A, 1250A, 1600A, 2000A.
- Rated insulation voltage: AC1000V.
- Short-time withstand current: 25kA/60ms, 32kA/60ms, 40kA/60ms.
- Impulse withstand voltage: 12kV.
- Short-circuit current limiting: Pre-fuse protection Iq120kA.
- Number of poles: 3-pole, 4-pole
- Contact transfer time: ≤100ms.
- Transfer action time: ≥100ms with specific delay added (determined by the controller equipped).
- Operation Mode: Controller automatic/manual conversion, manual handle conversion, external control (also through PLC control, other smart controller control, button remote control, etc.).

- Auxiliary Terminal: Normal and standby power supply sides both come with a set of passive auxiliary signals (one normally open, one normally closed), with a contact capacity of 5A/AC230V.

3. Operating Environment

- Ambient air temperature: The ambient temperature ranges from -5°C to +40°C, with an average temperature not exceeding +35°C for 24 hours. Users should consult the manufacturer if the ambient air temperature exceeds +40°C or falls below -5°C.
- Maximum atmospheric humidity: At +40°C, the relative humidity does not exceed 50%, with a monthly maximum relative humidity of 90%. It tolerates the effects of maritime damp air. Higher relative humidity is permissible at lower temperatures. Special measures should be taken for condensation occasionally produced by temperature changes.
- Installation altitude: The installation site's altitude does not exceed 2000 meters. For higher altitudes, consider decreased dielectric strength and cooling effect of the air and consult the manufacturer.
- Pollution level: The environmental pollution level at the installation site is Level 3.
- Installation category: Installation Category IV.
- Installation inclination: The product is fixedly installed in the cabinet with a maximum inclination of $\pm 15^\circ$.
- Arcing distance: The arcing distance at AC400V is $\geq 60\text{mm}$.

4. Product Model and Meaning



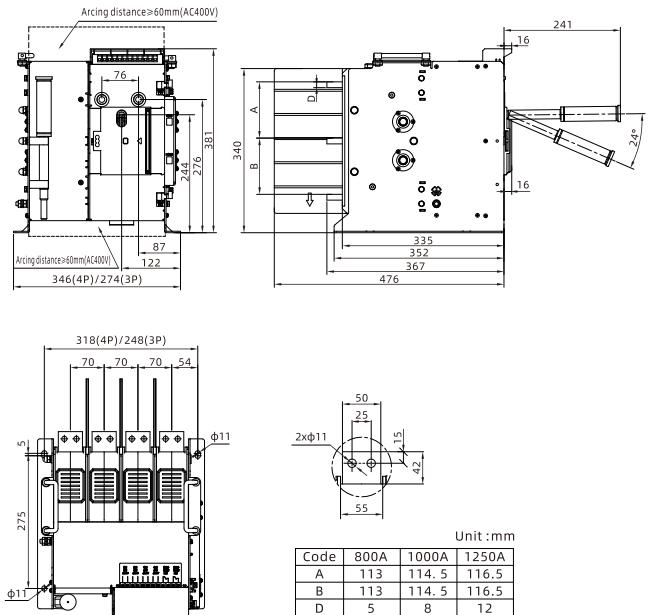
Note: The standard controller comes with grid-generator start-stop ports. Communication is optional. 3N represents neutral line overlap transfer.

5. Main Technical Parameters

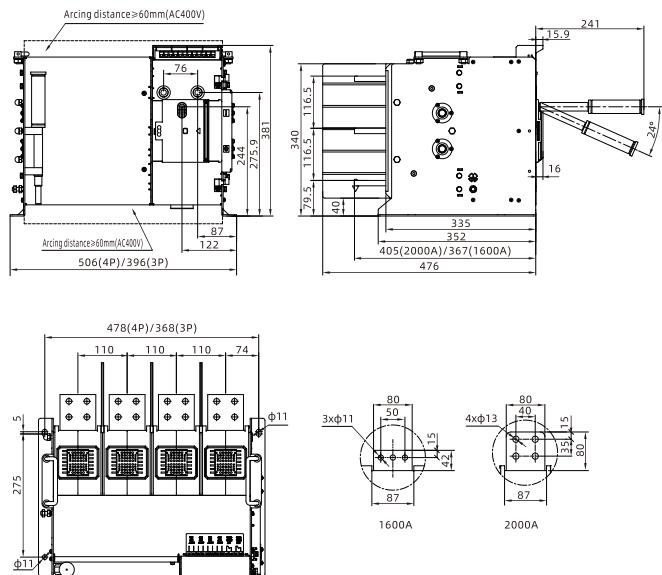
Name	Automatic Transfer Switch Equipment	Model	CT1-2000G
Product Picture			
Parameters	Item	Specifications and Data	
	Rated Operating Current	800, 1000, 1250, 1600, 2000	
	Rated Operating Voltage	AC380V, AC400V, AC415V	
	Rated Insulation Voltage	AC1000V	
	Number of Poles	3-pole, 4-pole	
	Rated Control Power Current	16A	
	Rated Impulse Withstand Voltage	12kV	
	Electrical Grade	PC	
	Working Position	I-closed, II-closed, 0-position	
	Limited Short-Circuit Current	120kA(front fuse protection)	
	Usage Category	AC-33B	
	Electrical Life	3000 times	
Usage	Mechanical Life	7000 times	
	Installation Method	Fixed	
	Wiring Method	Behind horizontal wiring	
	Control Method	Split type	
	Controller Adaptation	703N	
	Conversion Method	Handle manual, electric conversion, controller automatic conversion	
	Split Cable Connection Method	Terminal block connection	
Execution	Split Cable Length	Standard 2m cable (length customizable)	
	GB/T14048.11	3C Certificate	
Standard	IEC60947-6-1		

6. Dimensions and Installation

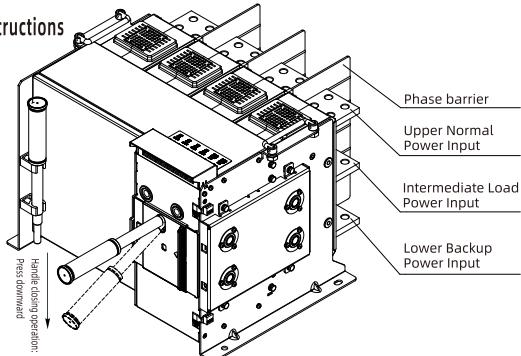
800A-1250A



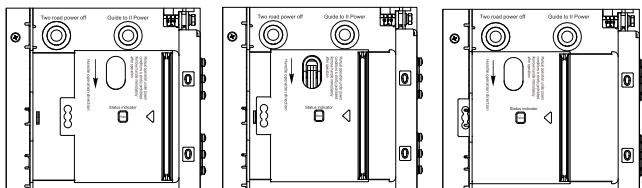
1600A-2000A



7. Operation Instructions



Introduction to Isolation Slide Plate:

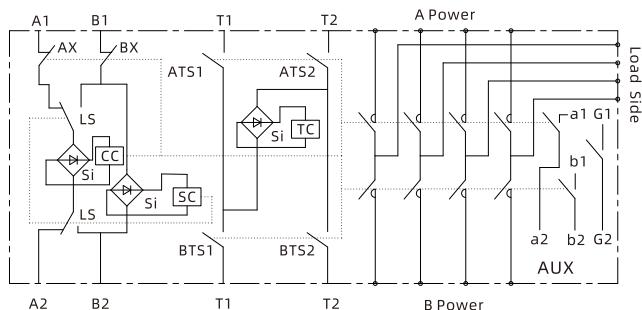


Note: Strictly no power on, manual operation is allowed only when disconnected. During maintenance, the power must be turned off. Manual handle operation must be completed by removing the handle to avoid loss, please fix it on the left side of the switch.

Operation Instructions:

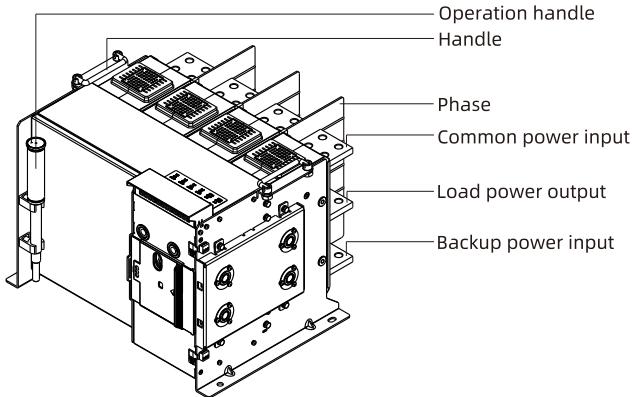
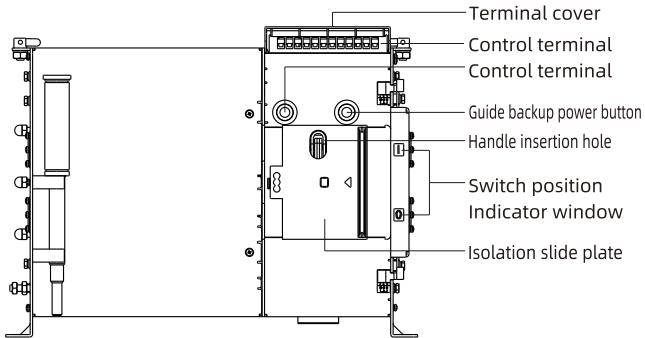
- I Common Input Method:** Press the "Two-way Power Disconnect" button to make both common and backup power sources at position O. Use the handle to press the manual shaft in the direction indicated by the arrow. There will be a noticeable contact sound, and the I common window is in the position, indicating the contact is complete.
- I Common Input Method:** Press the "Two-way Power Disconnect" button to make both common and backup power sources at position O. Use the handle to press the manual shaft in the direction indicated by the arrow. There will be a noticeable contact sound, and the I common window is in the position, indicating the contact is complete.
- Manual Two-way Power Disconnect Operation:** To ensure safety, please operate in a power-off state. Press the "Two-way Power Disconnect" button to separate both circuits (please confirm from the O/I indicator window that both switches are in the off position at O).

8. Internal Schematic Diagram



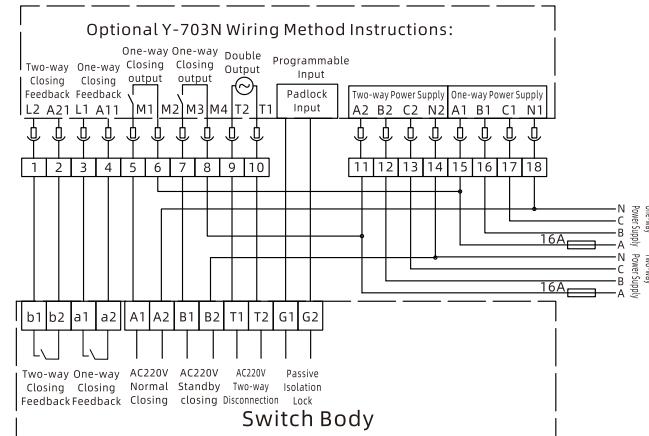
A1-A2	A Power Side Input Terminal
B1-B2	B Power Side Input Terminal
T1-T2	Two-way Power Trip Terminal
G1-G2	Manual/Padlock Signal Terminal
CC	Closing Coil
AX, BX	Control Switch
Si	Silicon Rectifier
SC	Selection Coil
LS	Selection Switch
TC	Trip Coil
ATS1, ATS2, BTS1, BTS2	Trip Control Switch
AUX	Auxiliary Switch

9. Appearance Introduction



10. Wiring Method

Optional Y-703N Wiring Method Instructions:



11. Maintenance and Storage

Manual operation methods and precautions: Maintenance and inspection must be performed by professionals and should be carried out with all external power sources disconnected. To maintain the performance of the dual power transfer switch and ensure it remains in good condition, the first maintenance inspection should be conducted within one year after installation, followed by regular maintenance at least once a year thereafter.