# 1.General

## Standard

- IEC 60947-6-1

## Function

- EATS7 series automatic transfer switch is a PC class infrequent change-over switch, with two-station design (commonly used for A and standby for B) suitable for AC systems with AC 50-60Hz and rated current 6A-63A. The main function is when the main power (common power supply A) fails, the ATS will automatically switch to the backup power (Backup power supply B) to continue working (switching speed <50 milliseconds), which can effectively solve the troubles caused by power outages.

# 2.Nomenclature

| EATS | 7 | - | 80 |
|---|---|---|---|
| Company code | Design code | | Frame level |

# 3.Working Conditions

- The temperature range of the operating environment is -5°C ~ +40°C, and the average temperature within 24 hours shall be lower than +35°C. And the temperature range of the storage environment is -25°C ~ +55°C, which can reach +70°C in a short time (within 24 hours).
- The altitude of the installation site should be lower than 2000m.
- The relative humidity at the installation site shall not exceed 50% when the ambient air temperature is +40°C. Higher relative humidity is possible at lower temperatures. For example: when the average minimum temperature of the wettest month is +20°C, the monthly average maximum relative humidity of that month can reach 90%. Appropriate measures should be taken to prevent condensation due to temperature changes.
- ATS can be installed vertically or horizontally in the cabinet.
- Protection grade: IP30
- Polution grade: III

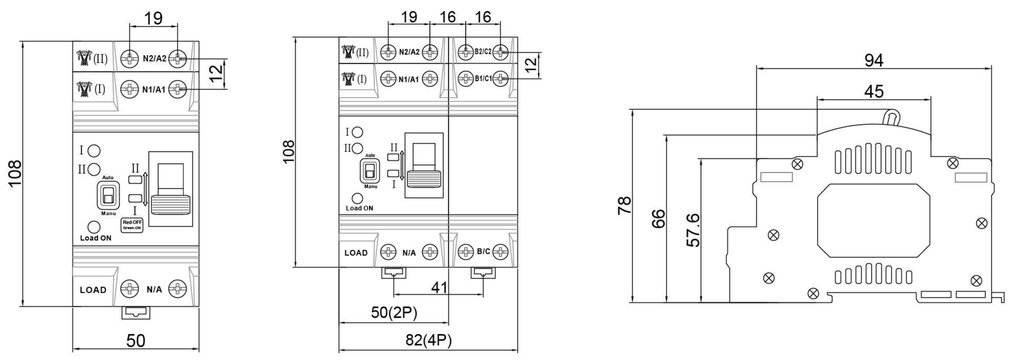




# 4.Specifications

| Item | | Specification |
|---|---|---|
| Rated operational current (Ie) | A | 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A, 80A |
| Rated insulation voltage (Ui) | V | 690V |
| Rated impulse withstand voltage (Uimp) | kV | 8kV |
| Rated operational voltage (Ue) | V | AC110V / AC220V / AC400V |
| Rated frequency | Hz | 50 / 60Hz |
| Class | | PC class (can be switched on and loaded without generating short-circuit current) |
| Pole number | P | 2P, 4P |
| Rated short-time withstand current(Icw) | kA | 5kA |
| Short-circuit protection device (fuse) | | RT16-00-80A |
| Control voltage | | Rated control voltage Us: AC220V/110V, 50/60Hz.<br>Normal working conditions: 85%Us - 110%Us.<br>You must use an inverter with a power output of at least 3000W (please use a sine wave).<br>Severe electromagnetic interference may cause malfunction. |
| Over / under voltage protection | | 220V/50Hz:<br>Undervoltage value: 175V, Recovery value: 190V.<br>Overvoltage value: 270V, Recovery value: 250V (±5V).<br>110V/50Hz:<br>Undervoltage value: 85V, Recovery value: 90V.<br>Overvoltage value: 140V, Recovery value: 135V (±5V). |
| Mechanical life | | ≥ 8000 times |
| Electrical life | | ≥ 1500 times |
| Utilization category | | AC-31B |

# 5.Dimensions



## 6.Notes

- **The input power supply must be connected in the correct phase sequence.**
  ATS can share N lines but cannot use a single circuit breaker to independently control N lines and L lines. To switch the power supply, you need to operate N lines and L lines at the same time. Otherwise, product faults may occur.
- Manual/automatic operation can ensure the opening and closing performance of the electrical operator, but in manual operation, there is no guarantee due to the different opening/closing speeds of the operators. In manual operation, there is a possibility of excessive silver alloy loss.
- Therefore, the selector switch should only be pulled to the manual position after all power has been cut off, for inspection and maintenance of the operating system and contact information.
- Normally, pull the selector switch to the electric position. When manual operation is required, pull the selector switch to the manual position. After manual operation is complete, pull the selector switch from the manual position to the automatic position.
- The dual power supply belongs to the emergency switching switch, and the switching speed and frequency should not be too high. If testing is required, the switching time should not be less than a frequency of once every minute.The dual power switch is equipped with a spring interlocking mechanism, and it is strictly prohibited for non-professionals to manually switch the switch when powered on. Incorrect operation can cause contact loss and reduce service life.

## 7.Installation

- The installation and debugging of ATS should be carried out by professionals and personnel familiar with the switchgear. Corresponding protection and preventive measures must be considered during the work.
- The wiring method of the main circuit of the switch must ensure that the leads are not subjected to any pressure or strong force.Before installation and debugging, the switch should be checked for any damage or other harmful environmental effects.At the same time, any loose wire heads that may be caused during transportation should be checked to remove dirt, especially on the surface of insulation parts.This dirt may be caused by passing through packaging materials during transportation or during storage.
- When connecting the primary circuit, attention should be paid to ensuring that the phase sequence of the two power sources is consistent.When connecting the secondary circuit, strict adherence to the wiring diagram listed in this manual should be followed, and attention should be paid to controlling the voltage level of the power supply.The switch must be installed with good grounding.Considering personal safety and the speed of switch switching, the debugging handle is only for trial use.Users should not use the debugging handle to operate under load.When debugging, the switch should be operated with a handle first. If there are no abnormalities, the manual button should be used for electric operation. After there are no abnormalities, the official operation can be carried out.