**EATS1 Series Dual-power Automatic Transfer Switch**

**Products feature and character**
- EATS1 Series intelligent dual power automatic switch is made up of two units in 3 pole and 4 pole of MCCB and auxiliary contact, alarm contact, the mechanical interlock and electrical interlock, intelligent controller and other components. It has the integral style and split type with two kinds mechanism. Integral controller is equipped with a base and executing agencies; Split type is intelligent controller or installed in the panel.
- User take the base by implementing agencies to install into the cabinet controller with about 2m cables.
- Reliable mechanical interlock between the two circuit breakers and electrical interlock device. Eliminate the two devices closing completely at the same time.
- SCM intelligent controller used to control the core hardware is simple and powerful, expansion of convenience, high reliability.
- It has a short-circuit, over load protection functions, over voltage, under voltage, loss phase automatic transfer function and intelligent alarm function.
- Automatic switching external parameters can be set freely.
- Operation of Intelligent motor protection.
- The control circuit devices with fire, fire control center to control signal into intelligent controller. Two sets circuit breaker will enter a status of breaking.
- There is a computer network interface for achieving remote control four remote telemetry functions.

**The feature and character of EATS1 series ATS**
- EATS1 series (terminal type) (economic type) - Automatic Transfer Switches, is used to the terminals to dual electrical power switching devices;
- Small in volume, simple in constitution;
- There is provide 2P-3P-4P. Easy to operation and long to use;
- Transfer switch driving by single motor, a smooth, no noise, the impact is small;
- With mechanical interlocking and electrical interlock, change over credibility, could be supply by manual or automatic operation;
- Common, spare circuit breaker rated current can be different;
- A.T.S contain connector for users wiring can reflect Breaker (open or closed) state;
- A.T.S panel show various instructions: separations instruction manual, automatic and wiring diagram and so on.

**Model and Meaning**

**EATS1 - 63**

- Pole: 3P, 4P
- Circuit Breaker Rated Current
- Design Number
- Female Gendering
- ShangHai EBASEE Electric Co., Ltd.
- CB class MIN CIRCUIT BREAKER SERIES A.T.S

**EATS1-63X, EATS1-63Y series wiring diagram**

- Use of Operates and supports:
  - Whether main power or backup power with voltage or not, all can be by manual mode operated. Under manual, put the auto- manual button to manual position, pull the handle by clockwise to end. Backup power implementation circuit breaker Qr is ON, implementation of MAIN power supply circuit breaker Qn is OFF.
  - Set the auto position, if the MAIN power is normally, ATS will transfer to Backup Power working. The Backup indication will be bright on the panel.
  - ATS has 1A of two units fuses and a electric connector, fuse as short-circuit protection in automatic working. The Backup indication will be bright on the panel.

- Fault Analysis and Removal:
  - When ATS under automatic control state, the POWER condition was changed, but the operation mechanism no action. Such as MCB can't closed-transition or open-transition then should be checked:
    1. whether the power grid are failure;
    2. whether the wiring shedding;
    3. the fuse itself whether burning. If the front point of one circuit breaker with electricity, and the connection is both Wiring well, fuses are intact, but yet can not closed-transition or open-transition. You should be asked to professionals or contact manufacturer.

**Notice to users in orders**

- When User place the order need to notice the identifying device models, specifications, dis pened breaker models, special requirements, pole number. Such as: Automatic Transfer Switch device, Self-protecting Self-energypulse, rated current of 50A, 4 pole, which is written (EATS1-63L/4P (50A).
- For users special requirements, please contact with factories and to explain well in orders indicate.
**Working principle**

When common source is normal, the functional key is at position "auto"; reserve breaker is open and common breaker is closed to protect common source for connecting with load; the common power voltage indicator is light. When the common source fails (the voltage is lower than 60% of rated voltage), the common source will transfer to reserve source automatically; the reserved source voltage indicator is ON, the reserved source working indicator is ON. After removing the failure of the common source, this switch will transfer to the common source automatically again.

**Note:** Use correct wire size for input electric connector of 2 units MCB well. Putting into the line-phase sequence to be unanimous. Three phase MCB add the neutral to be used to switch neutral N as well.
General introduction

EATS1 series automatic transfer switch is the best development of the company generation products. Mostly used to monitor the power supply circuits. When main power failure, it will change over to backup power by automatically thus completing the transformation of power system. At present, in particular suited for the important electricity power places where disallow to failure, in order to meet the needs of the scene.Automatic switch has self-input and self-recover, utility to utility, utility-generators work with a variety functions. The product applied in 220V, 50Hz, rated current from 10A to 1250A (CB class) automatically switch products.

Structure and features

EATS1 Series intelligent dual power automatic switch has made up of two units in 3 pole and 4 pole of MCCB and auxiliary contact, alarm contact, the mechanical interlocking transmission, intelligent controller and other components. It has the integral style and split type with two kinds mechanism. Integral controller is equipped with a base and executing agencies . Split type is intelligent controller installed in the panel. User take the base by implementing agencies to install into the cabinet controller with about 2m cables.

- Reliability mechanical in both integral and split type 
- SCM intelligent controller used to control the core hardware is simple and powerful, expansion of convenience, high reliability.
- It has a short circuit, over load protection functions, over voltage, under voltage, loss phase automatic transfer function and intelligent alarm function.
- Automatic switching external parameters can be set free.
- Operation of intelligent motor protection
- The control circuit devices with fire, fire control center to a control signal into intelligence controller. Two sets circuit breaker will enter a state of breaking.
- There is a computer network interface for achieving remote control four remote telemetry functions.

Product Model and Meaning

<table>
<thead>
<tr>
<th>EATS 2</th>
<th>C</th>
<th>D</th>
<th>100</th>
<th>63 / 3</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>R=Auto transfer and auto retransfer (network, network)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S=Auto transfer and non-auto retransfer (network, network)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F=netork..generator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P=netork..generator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Circuit breaker rated interruption current
Frame class
Chosen controller
A: (Standard type) only supplied with self transfer/retransfer (for integral type ATS) 
B: (Intelligent type) display source voltages, starts generators, fire protection actuation (for integral type ATS) 
C: (Intelligent type) same functions as type B controller, (for split type ATS) 
D: (Intelligent type) same functions as type B controller, with liquid crystal Chinese language display (for split type ATS) 

Circuit breaker type:
C--Chinese make circuit breaker (CM1, C45) 
N--Schneider make circuit breaker (NS, C65) 
P--ABB make circuit breaker

Design No .
1--mini circuit breaker 
2--Moulded case circuit breaker
Shanghai EBASEE Electric Co., Ltd.

CB class ATS
A new intelligent modular design

Function of the controller

A type controller

- A controller (basic type) and switch body install together, as per working voltage are normally or not decide how to work conversion

B type controller

- B type controller adopting microprocessor programmed control, linking with switchings body together cleverly, easy to operate, function is powerful, and increased C controller and D type LCD display fixture controller on the basis of the B model controller.

Function

A type controller

1. Alternative work by automatic and manual operation;
2. Monitoring the two sources, whether is loss phase, under voltage, loss voltage and such abnormal conditions, the indication show whether in located normal voltage;
3. Conversion type is Self-input and self-recover;

B type controller

1. Accurately shows two ways three phase voltage, frequency and switch state capacity in two sources;
2. Allow user allows to monitor the scene, the control center to amend the parameter of working status and transfer delay time;
4. Fire Alarm linkage-conversion to 0;
5. Manual and automatic conversion mode- alternative function;
6. Under the utility-generator model with a send off signal to generator;
7. Conversion and delay time can be set arbitrarily;
8. With a strong anti-jamming capability, suitable for the strong electromagnetic interference using in a complex environment

Electric Performance

A type controller

1. Rated working voltage: AC220V / 50Hz;
2. Transfer delay time: 0.5s;

B type controller

1. Working voltage: AC220V / 50Hz;
2. Transfer delay time: 0.5s-90s continuous adjustable;
3. Return delay time: 0.5s-90s continuous adjustable;
4. Lack voltage transfer value: 145V-210V continuous adjustable;
5. Over voltage transfer value 230V-300V continuous adjustable;
6. Transfer time: not more than 4s;
C Type and D Type Controller

- If the user requiring to conducting separated controller, choosing C or D model controller install to cabinet panel, through 2m serial data cable linked. B model controller on Switch body, all operations and display functions are all forbidding state (switch body display switches off automatically), external controller starting work, users could observed the ATS control of the switch running status through the external controller to operate when they can’t open the cabinet.

C Type Controller Character and Function
- Adopt digital and indicator to show status two state on and supply voltage and frequency.
- Through button to choose the manual transfer mode and set parameters

D Type Controller Character and Function
- Using the dot-matrix LCD screen display and show the voltage, if frequency of two sources;
- Press the key to operate by manual and set the parameters

Appearance and installation dimensions
The appearance of ATS switch body

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specification</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EATS1CC-63</td>
<td>285</td>
<td>320</td>
<td>245</td>
<td>280</td>
<td>229</td>
</tr>
<tr>
<td>EATS1CC-100</td>
<td>285</td>
<td>320</td>
<td>245</td>
<td>280</td>
<td>229</td>
</tr>
<tr>
<td>EATS1CD-100</td>
<td>285</td>
<td>320</td>
<td>245</td>
<td>280</td>
<td>229</td>
</tr>
<tr>
<td>EATS1CD-160</td>
<td>325</td>
<td>395</td>
<td>325</td>
<td>395</td>
<td>265</td>
</tr>
<tr>
<td>EATS1CD-250</td>
<td>365</td>
<td>435</td>
<td>365</td>
<td>435</td>
<td>325</td>
</tr>
<tr>
<td>EATS1CD-630</td>
<td>491</td>
<td>587</td>
<td>431</td>
<td>527</td>
<td>330</td>
</tr>
<tr>
<td>EATS1CD-800</td>
<td>524</td>
<td>640</td>
<td>464</td>
<td>580</td>
<td>330</td>
</tr>
<tr>
<td>EATS2CC-63</td>
<td>580</td>
<td>720</td>
<td>520</td>
<td>660</td>
<td>415</td>
</tr>
<tr>
<td>EATS2CC-1250</td>
<td>580</td>
<td>720</td>
<td>520</td>
<td>660</td>
<td>415</td>
</tr>
<tr>
<td>EATS2CD-100</td>
<td>524</td>
<td>640</td>
<td>464</td>
<td>580</td>
<td>330</td>
</tr>
<tr>
<td>EATS2CD-160</td>
<td>325</td>
<td>395</td>
<td>325</td>
<td>395</td>
<td>265</td>
</tr>
<tr>
<td>EATS2CD-250</td>
<td>365</td>
<td>435</td>
<td>365</td>
<td>435</td>
<td>325</td>
</tr>
<tr>
<td>EATS2CD-630</td>
<td>491</td>
<td>587</td>
<td>431</td>
<td>527</td>
<td>330</td>
</tr>
<tr>
<td>EATS2CD-800</td>
<td>524</td>
<td>640</td>
<td>464</td>
<td>580</td>
<td>330</td>
</tr>
<tr>
<td>EATS2CC-1250</td>
<td>580</td>
<td>720</td>
<td>520</td>
<td>660</td>
<td>415</td>
</tr>
</tbody>
</table>

ATS switch/body dimensions