ATS 100 Controller
User Manual

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Introduction

ATS 100, automatic transfer switch controller, is a sophisticated module with high quality-price ratio. ATS 100 bring the power transfer control into a revolution. Simple operation interface never occur apply trouble. ATS 100 is same with GTR-1X design idea. Both have high compatibility at the view of mechanism and operation that makes the standby power control into integral control. The advantages are: easy and adjustable setup, clarified and understanding alarm, simple and coherent mode selection. All realize the idea of friendly programming control.

Panel Description

Panel Lamp:

- Lights on present Utility power is normal
- Lights on present ATS’s contactor has switched to the Utility point
- Lights on present the ATS point of Load is normal
- Lights on present ATS’s contactor has switched to the Gen-set point
- Gen-set start running normally

Mode Description:

- **TEST** In test mode, controller simulate Utility irregular and switch the power of the Gen-set into the load.

- **AUTO** In auto mode, controller detects the utility failure and order the procedure of the Gen-set power supply when received the ATS signal from outside.

- **OFF** In off mode, controller stops the detection of the outside ATS signal, and relative control of ATS time delay.
Back Panel

Terminal wiring Description

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Code</th>
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<tbody>
<tr>
<td>1</td>
<td>Battery + Input</td>
<td>B+</td>
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<tr>
<td>2</td>
<td>Battery - Input</td>
<td>B-</td>
</tr>
<tr>
<td>3</td>
<td>Utility switch-in control signal output</td>
<td>Utility Close</td>
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<tr>
<td>4</td>
<td>Utility switch-in control signal output</td>
<td>Utility Close</td>
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<td>5</td>
<td>Gen-set switch-in control signal output</td>
<td>Gen-set Close</td>
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<td>6</td>
<td>Gen-set switch-in control signal output</td>
<td>Gen-set Close</td>
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<tr>
<td>7</td>
<td>ATS output signal detection input</td>
<td>B-</td>
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<tr>
<td>8</td>
<td>ATS output signal detection input</td>
<td>Start ATS</td>
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<tr>
<td>9</td>
<td>Gen-set switch-in control signal Input</td>
<td>Gen-set C.B.</td>
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<tr>
<td>10</td>
<td>Gen-set switch-in control signal Input</td>
<td>Utility C.B.</td>
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<td>11</td>
<td>Utility AC Volt Input</td>
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<td>12</td>
<td>Utility AC Volt Input</td>
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<td>13</td>
<td>Load AC Volt Input</td>
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<td>14</td>
<td>Load AC Volt Input</td>
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<td>Gen-set AC Volt Input</td>
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<tr>
<td>16</td>
<td>Gen-set AC Volt Input</td>
<td>Gen-set AC Detect</td>
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</table>
Automatic Transfer Switch (A.T.S)
Automatic Transfer Switch (A.T.S) is a device which switch the load to backup power when the utility failure. After utility recovery, the switch turns the load back to utility.

Time Delay Normal to Emergency (TDNE):
The time delay which switch utility power to Gen-set power for the load. The time delay assures the stability of Gen-set power supply.

Time Delay Engine to Start (TDES):
The time delays of engine start that avoid the transient interrupt of utility or utility voltage instability. The TDES timer will account from detecting the utility failure. If the power of utility recovers in the counting of timer, the TDES timer reset itself.

Time Delay Emergency to Normal (TDEN):
The time delay of the switching from Gen-set to Utility assures the stability of utility power supply and avoids frequently switching due to the transient recover. Timer reset itself from the recover of utility power.

Time Delay Engine Cool-down (TDEC):
Use in the switching to the power supply of utility. Engine cools down in un-load state and timer start accounting from the power supply of utility.
Specification

- **DC Power**: 5~36 DCV
- **Power Consumption**: Max. 5 W
- **Input Voltage**: 50~60 Hz, Input AC volt range: 160~280VAC
- **Relay Output**: Gen-set start output relay: 7A
  Utility switch-in output relay: 7A
  Gen-set switch-in output relay: 7A
- **Working Temperature Range**: -30 °C ~ 70 °C
- **Dimension(W * H * D)**: 72mm × 72 mm × 58 mm
- **Punch Size(W * H)**: 68 mm × 68 mm
- **Weight**: 177g
Monicon International Co., Ltd

ATS 100

Dimension

![Dimension Diagram](image-url)
Wiring – With BTS

Magnetic Contactor Type Wiring Diagram (Set Dip-sw2 to ON position)

MCCB Type Wiring Diagram (Set Dip-sw2 to OFF position)
One Coil Double Throw Typical Wiring Diagram (Set Dip-sw2 to ON position)

Two Coils Double Throw Typical Wiring Diagram (Set Dip-sw2 to ON position)