1. Scope of application

ATO-GCQ2 series double power automatic transfer switch (ATS) is suitable for supply power system of AC 50Hz/60Hz, rated working voltage 230V/400V, rated working current below 83A. Two loop of power sources can be switched according to the requirements. The product has overload, short circuit protection function, and also has the function of output closing signal. It is especially suitable for the lighting circuit in the office buildings, shopping malls, banks, hospitals, high-rise buildings and other places where the power cannot be off for a long time. The product meets the standard GB/T14048.11.

2. Model and its meaning

- Circuit breaker pole number (2P, 3P, 4P)
- Shell frame level
- Double power automatic transfer switch (Q1 series)

3. Normal working conditions and installation conditions

1. The altitude of the installation site shall not exceed 2000m.
2. The upper limit of ambient air temperature is no more than 40\degree C, and the average of ambient temperature for 24 hours is no more than +35\degree C; the lower (mid) is not lower than -5\degree C.
3. The atmospheric relative humidity is no less than 50% at the ambient temperature +40\degree C, and a higher humidity is allowable but it should take into account the condensation producing on the surface of the product with the change of temperature.
4. No explosive or hazard medium, and no corrosive gas and dust to damage the insulation of the ATS.
5. No significant shaking, impact or vibration.

4. Structure and working principle

1. Dual power automatic transfer switch is mainly composed of two miniature circuit breaker, motor, controller and mechanical rotating device. The switch has 3 operation positions for user’s choice: common-used power supply (R) ON, dual power OFF (manual operation), standby power supply (N) ON.
2. When the ATS is in the state of automatic rotation control, the controller makes a logical judgment for the detected result and send an instruction to drive the operating mechanism opening or closing, to ensure safe and reliable power supply to the load.
3. For 3-Pole ATS, it must connect the neutral lines of common power supply and standby power supply to the corresponding terminals respectively. Otherwise, the ATS cannot be automatically switched.
4. Do not flip the handle when the ATS is in automatic mode.
5. The signal feedback terminals can be selected to connect or not by user.

5. Important technical parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated input voltage</td>
<td>AC 220V/400V</td>
</tr>
<tr>
<td>Rated current</td>
<td>63A</td>
</tr>
<tr>
<td>Conduction current capacity</td>
<td>63A</td>
</tr>
<tr>
<td>Insulation test voltage</td>
<td>50Hz 1000V</td>
</tr>
<tr>
<td>Insulation test duration</td>
<td>1min</td>
</tr>
<tr>
<td>Insulation test condition</td>
<td>+20\degree C, 85%RH</td>
</tr>
</tbody>
</table>

6. Wiring instructions

- The wiring diagram is shown on the left and right of this instruction near the terminals.
- Please wire it according to the instruction near the terminals.
- Do not reversely connect the neutral line (null line) and live line (phase line).

7. Dimensions and installation dimensions

<table>
<thead>
<tr>
<th>Product Model</th>
<th>Shape Size (mm)</th>
<th>Installation Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GCQ2-43/3P</td>
<td>L 150 W 137 H 118</td>
<td>Width 128 Depth 122</td>
</tr>
<tr>
<td>GCQ2-43/3P</td>
<td>L 185 W 137 H 118</td>
<td>Width 165 Depth 122</td>
</tr>
<tr>
<td>GCQ2-43/4P</td>
<td>L 220 W 137 H 118</td>
<td>Width 196 Depth 122</td>
</tr>
</tbody>
</table>

8. Notes on Orders

1. Product name, model specification and quantity.
2. If you have special installation conditions or sites, please provide the relevant technical information with our company to make further discussion.

9. Warranty and after-sales service

This product is guaranteed for twelve months from the date of production (whichever date is specified on the product). However, the warranty is invalid in the following cases:
1. After the quality control department of the company investigated, it was found that the use of the product does not meet the requirements or the actual use of the product does not conform to the industrial conditions.
2. The procedures of the return of the product is inconsistent with the above. When returning the product, it must provide a valid description of failure.
3. Earthquake, fire, abnormal voltage, other natural disasters and other reasons.
4. Self-disassemble or modify the product and improper maintenance.

Before installing and using the product, please read the product manual in detail and keep it properly.

100% attention: Focusing every process, pursuing perfection; 100 quality: Achieve the perfect in quality by avoiding the shortcoming! 100% service: Your satisfaction is our biggest wish! 100% brand: To become the first brand of national electrical industry!

Any questions, please contact us:
>>> Email: sales@ato.com
>>> Phone: +1-800-585-1519
>>> Website: www.ato.com