Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

UNGMUQDD SSR-10DA

UNGMUQDD SSR-10DA Solid State Relay User Manual

Model: SSR-10DA

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of the UNGMUQDD SSR-10DA Solid State Relay. Please read this manual thoroughly before using the product to ensure safe and efficient operation.

The Solid State Relay (SSR) is an electronic switching device that switches states when an external voltage is applied across its control terminals. It offers advantages such as long life, high reliability, fast switching, and silent operation compared to traditional electromechanical relays.

2. Product Overview



Figure 1: UNGMUQDD SSR-10DA Solid State Relay

This image displays the UNGMUQDD SSR-10DA Solid State Relay. The relay features output terminals labeled '1' and '2' for 24-480VAC, 50/60Hz, and a 10A rating. The control input terminals are labeled '3' and '4' for 3-32VDC. The device is marked with 'SOLID STATE RELAY (PRE-CONDITIONED)', 'ZGT-10 DA', 'CE', and 'MADE IN CHINA'.

The SSR-10DA is designed for DC control of AC loads. It features a plastic cover for protection and is suitable for various industrial and general-purpose applications.

3. Setup and Installation

Proper setup is crucial for the safe and effective operation of the Solid State Relay. Follow these steps carefully:

1. **Choose the Correct Control Mode:**

   The SSR-10DA is a **DC Control AC** type relay (DA). Ensure your control signal is DC and your load is AC. Other common modes include:

   - **AA** - AC Control AC
   - **DD** - DC Control DC

- **VA** - Control and Adjust

2. **Determine the Correct Current Type:**

   Calculate the required current rating for your SSR using the formula: *Current of Equipment / Ratio = Current of SSR*.

   The ratio depends on the type of your loading equipment:

   - Resistive load: 70%
   - Inductive load: 20%
   - Capacitive load: 10%

   For example, for a 10A resistive load, you would need an SSR with a rating of 10A / 0.70 = approximately 14.3A. The SSR-10DA is rated for 10A, so ensure your load current is within its safe operating limits after applying the ratio.

3. **Install a Suitable Heat Sink:**

   Solid State Relays generate significant heat during operation. To prolong the life of your SSR, it is essential to install an appropriate heat sink. If the load current exceeds 60A, a cooling fan is also recommended in addition to the heat sink. Our heat sinks typically include two screws for installation.

4. **Wiring Connections:**

   Connect the DC control signal (3-32VDC) to the control terminals (3 and 4). Connect the AC load (24-480VAC) to the output terminals (1 and 2). Ensure all connections are secure and correctly polarized where applicable.

4. Operation

Once properly installed and wired, the SSR-10DA operates by switching the AC load when a DC control voltage is applied to its input terminals. When the control voltage is present, the relay turns ON, allowing current to flow through the load. When the control voltage is removed, the relay turns OFF, interrupting the current.

- **Control Voltage:** The SSR-10DA requires a DC control voltage between 3V and 32V to activate.
- **Load Voltage:** The relay can switch AC loads with voltages ranging from 24V to 480V.
- **Current Rating:** The maximum continuous current for this model is 10A. Always ensure your load current, adjusted by the load ratio, does not exceed this rating.

5. Maintenance

Solid State Relays are generally low-maintenance devices due to their lack of moving parts. However, regular checks can ensure optimal performance and longevity:

- **Heat Sink Inspection:** Periodically check the heat sink for dust accumulation. Clean it gently to ensure proper heat dissipation.
- **Temperature Monitoring:** Ensure the operating environment temperature remains within the specified limits. Excessive heat can degrade performance and shorten the lifespan of the SSR.
- **Connection Integrity:** Verify that all wiring connections remain tight and free from corrosion. Loose connections can lead to overheating or intermittent operation.
- **Visual Inspection:** Inspect the relay for any signs of physical damage, discoloration, or burning, which may indicate an issue.

6. Troubleshooting

If you encounter issues with your SSR-10DA, consider the following common troubleshooting steps:

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
SSR does not turn ON (Load not activating)	• No control voltage or incorrect voltage level. • Incorrect wiring of control or load terminals. • SSR is damaged.	• Verify control voltage (3-32VDC) is present and correct. • Check all wiring connections against the diagram. • Test the SSR with a known good control signal and load. Replace if faulty.
SSR does not turn OFF (Load remains active)	• Control voltage not removed or stuck ON. • SSR is damaged (shorted). • Leakage current through the load.	• Ensure control voltage drops to 0V when OFF. • Replace the SSR. • Consider adding a snubber circuit or a small bleed resistor across the load if leakage current is an issue.
SSR overheats	• Insufficient heat sink. • Overcurrent condition (load current too high). • Poor thermal contact between SSR and heat sink.	• Ensure a properly sized heat sink is used. • Verify load current is within SSR limits (consider load ratio). • Apply thermal paste and ensure secure mounting to the heat sink.

7. Specifications

Feature	Specification
Model	SSR-10DA
Control Mode	DC Control AC (DA)
Control Voltage	3-32VDC
Load Voltage	24-480VAC
Rated Load Current	10A
Frequency	50/60Hz
Protection Feature	Sealed
Usage	General Purpose
Certification	CE
Dimensions (Approx.)	1.18 x 0.79 x 0.39 inches
Weight (Approx.)	3.49 ounces

8. Warranty and Support

For information regarding warranty coverage and technical support, please refer to the product packaging or contact the retailer/manufacturer directly. Keep your purchase receipt as proof of purchase.
Manufacturer: UNGMUQDD

© 2026 UNGMUQDD. All rights reserved.
This manual is subject to change without notice.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

https://manuals.plus/asin/B0DJSZV1DB

More documents and user manuals: **https://manuals.plus/**