

# Solid State Voltage Regulator SSR VD, 0-10VDC/0-250VAC

## Product codes:

Reference: AM7960

EAN13: -

UPC: 85364190



## Product features:

Voltage: 0-10 V DC

Output voltage: 0-250 V AC

Waterproof grade: IP22

Insulation resistance: 1000 M $\Omega$

Dielectric strength: 2500 V AC

## Product attributes:

Max. switched current: 10 A, 25 A, 40 A,  
60 A, 80 A, 100 A, 120 A

## Product description:

The solid-state power regulator is designed to control the power of an AC load using a 0–10 VDC analog control signal. It is used for proportional output regulation in electrical distribution systems and equipment where contactless switching or smooth control of a power circuit is required.

## Technical Specifications

- Device type: Solid-state power regulator
  - Control input: 0–10 VDC
  - Output for VD25 version: 0–250 VAC
  - Rated current depending on the selected variant: 10 A, 25 A, 40 A, 60 A, 80 A, 100 A, 120 A
  - Dielectric strength: 2500 Vrms
  - Insulation resistance: 1000 M $\Omega$
  - Ambient operating temperature range: -30 to +75 °C
  - Ambient storage temperature range: -30 to +110 °C
  - Housing material: ABS
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- Base material: Aluminum
- Humidity according to IEC60068-2-78: 93%, non-condensing
- Lifespan at 40 °C ambient temperature: 4,704,120 hours
- Lifespan at 60 °C ambient temperature: 2,549,160 hours
- Load current with heatsink: 5 to 84 A depending on the 10 to 120 A model
- Load current without heatsink: 4 to 9 A MAX.
- Inrush current: 50 to 1000 A depending on the 10 to 120 A model
- Terminal connection for power circuit and control input
- Terminal markings on the regulator body: 1, 2, 3, 4

### **Functions and Features**

- Contactless solid-state power output control without mechanical contacts.
- Proportional AC output regulation using an analog input signal.
- Galvanic isolation between the control and power sections, expressed by a dielectric strength of 2500 Vrms.
- Aluminum base ensures heat dissipation from the power section of the regulator.
- Design with mounting holes for secure attachment to a surface or heatsink.
- Terminals allow the connection of wires for both the power circuit and the control signal.
- Operating temperature range allows use in electrical equipment operating in standard industrial environments.

### **Ideal For**

- Power regulation of AC loads in electrical equipment.
- Applications with analog control using a 0–10 VDC signal.
- Heating systems and resistive loads requiring power regulation.
- Industrial switchboards, control units, and automation systems.
- Replacing mechanical switching where solid-state control without moving contacts is required.

### **Package Contents**

- 1× Solid-state power regulator in the selected current variant

### **Why Choose This Product**

- Allows direct control of the AC power output with a 0–10 VDC analog signal.
  - Offers current variants from 10 A to 120 A for various application power requirements.
  - Solid-state design reduces wear on the switching component caused by mechanical contact.
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- Technical parameters include the specified insulation strength, insulation resistance, temperature range, and non-condensing moisture resistance.
- Design with an aluminum base supports heat dissipation when mounted on a suitable heatsink.

### **Installation and Operation Instructions**

- Installation and wiring must be performed by a person with appropriate electrical qualifications.
- Before wiring, verify that the current variant of the regulator matches the current and characteristics of the connected load.
- During operation with higher load currents, ensure adequate heat dissipation through the aluminum base and a suitable heatsink.
- Install the regulator on a non-flammable and mechanically stable surface.
- Ensure correct connection of power and control terminals according to the markings on the regulator body.
- Do not connect the 0-10 VDC control circuit to the power terminals.

### **Safety Warnings**

- The device operates with AC voltage up to 250 VAC, which poses a risk of electric shock.
- Always disconnect the power supply to both the power and control circuits before installation, maintenance, or wiring changes.
- Incorrect wiring leads to the risk of short circuits, overheating, damage to the regulator, or damage to the connected load.
- Inadequate cooling may cause the power section of the regulator to overheat.
- Do not exceed the rated current of the selected variant.
- Do not use the regulator in environments with condensing humidity.
- The product is not intended to be installed while live.

### **Product gallery:**



