

SSR DC Polarity-Reversing Solid State Relay

PRODUCT MANUAL

Striving for the Bright Future of Precision Optoelectronic Measurement.

01 Product Functions

The SSR DC polarity-reversing solid state relay employs the latest generation MOSFET technology and is specifically designed for high-frequency forward/reverse voltage output control. It features ultra-low on-resistance, built-in overvoltage protection, and excellent thermal management characteristics, making it ideal for DC motor control applications in semiconductor equipment, precision instruments, and automated control systems.



SSR DC Polarity- Reversing Solid State Relay Product Image (product functions may be iterated)

02 Product Features

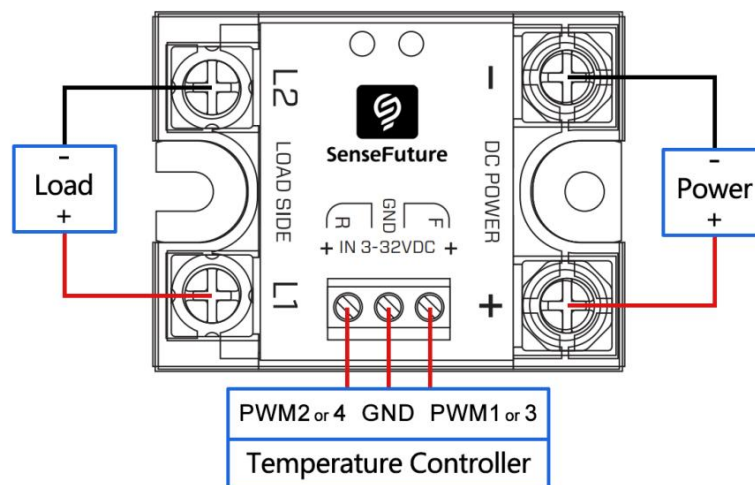
- Adopts the latest-generation MOSFET technology for stable and reliable performance.
- Ultra-low on-resistance and ultra-low output leakage current.
- Built-in transient overvoltage protection on both input and output sides.
- Copper electrode structure for higher current-carrying capacity and larger contact area.
- DBC (Direct Bonded Copper) substrate with seamless soldering technology – high thermal conductivity and excellent specific heat capacity.
- Multiple full inspections on all components and finished products before and after potting, plus 100% burn-in testing under load.

03 Specifications

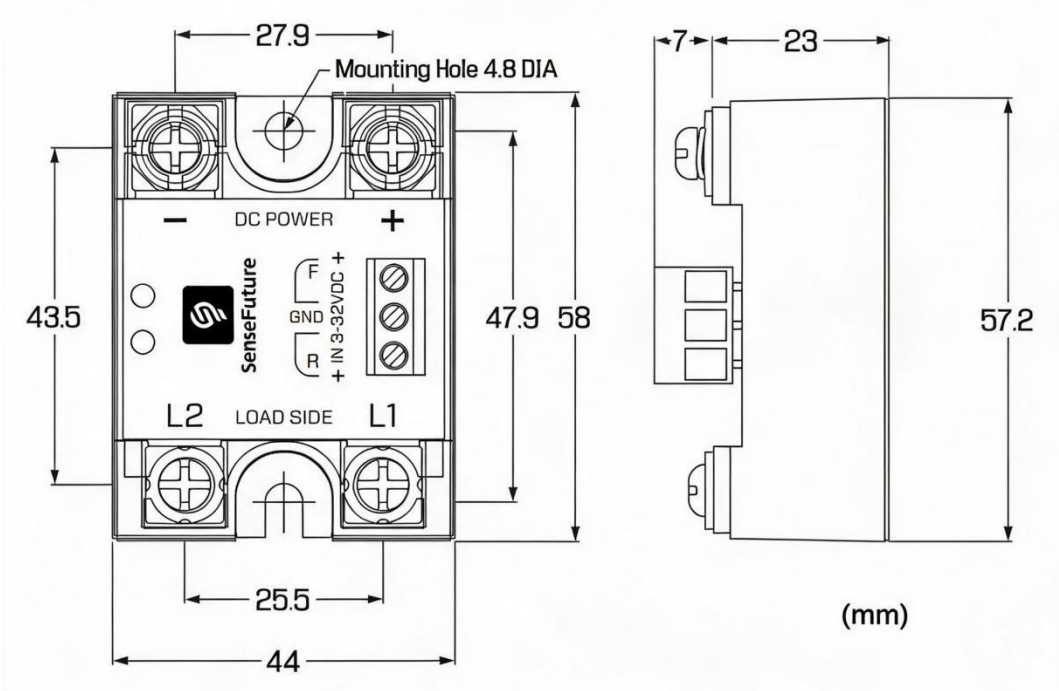
Parameter	Model		
	RLDCR24V50A	RLDCR24V100A	RLDCR60V40A
Load Voltage (Inductive)	0-24V		0-60V
Load Current	50A	100A	40A

Control Voltage	4-32VDC	
Peak Voltage	60V	160V
Control Current	17-23mA	
On- State Resistance	$1 \div \text{Load Current } (\Omega)$	
Off- State Leakage Current	$\leq 0.1\text{mA}$	
Turn-On Time	0.08ms	
Turn-Off Time	0.2ms	
Isolation Voltage (Input-to- Output)	$\geq 4000\text{V}$	
Insulation Voltage (Input/Output-to- Ground)	$\geq 2500\text{V}$	
Operation Indicator	Two- color LED	
Operating Temperature	$-40\sim+80^{\circ}\text{C}$	
Dimensions	$58 \times 44 \times 30(\text{mm})$	
Mounting Method	Panel mount, M4	
Cooling method (I =actual current, I_{rated} =rated current)	No heatsink: $I < 25\%I_{rated}$ Heatsink: $25\%I_{rated} \leq I < 50\%I_{rated}$ Heatsink + fan: $I \geq 50\%I_{rated}$	
Weight	$\approx 120\text{g}$	

04 Wiring Diagram



05 Outline Dimensions



Version Change Log

Version	Change description	Change date	Reviewed by
1.0.0	Initial version	2026/8/19	YJH/WYR

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**Original Aspiration Shapes the Future;
Innovation Creates Value;
Sharing Brings People Together;**

**We look forward to win-win
cooperation with you!**