High-Endurance Solid-State Relays (SRP1-CR, SRP1-CB)

Problem/Solution

In industrial and commercial settings, unexpected relay failures can lead to costly downtime and safety hazards. The SRP1 SSRs addresses this issue with a design focused on reliability and longevity, even in the most challenging environments.

Technical resources:

SRP1- CR Series Page

SRP1-CR Datasheet

SRP1- CB Series Page

SRP1-CB Datasheet

Benefits

- Broad Application Spectrum: Engineered to accommodate a diverse range of applications and load types, offering flexibility and utility in various engineering projects.

Features

- Higher Current Ratings: Now available in 75 A and 90 A versions, enabling the control of larger loads and expanding suitability for demanding industrial and commercial applications.
- Integrated Protection & Installation Features: Incorporates IP20 finger-safe protection and overvoltage TVS protection, along with a pre-attached thermal pad, facilitating straightforward and secure installation.

Markets/Applications

- Cooking ovens & hot drinks dispensers
- Theatrical, public & traffic lighting control
- Air handlers and other HVAC equipment
- Plastic & packaging machinery
- Industrial ovens & electronics production equipment
- Heating and motion control in industrial automation

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Low-Profile Solid-State Relays (SRP1-KC)

Problem/Solution

In foodservice equipment and other compact control panels, limited space often complicates installation and maintenance. The SRP1-KC Relays solve this challenge with a slim, low-profile housing, Faston terminals for quick wiring, and integrated protection to ensure reliable performance in space-constrained environments.

Technical resources:

Series Page

Datasheet

Benefits

- Compact, Low-Profile Design : Perfect fit for shallow panels and equipment with limited space, especially in foodservice and light industrial applications.

Features

- Faston Terminals for Power and Control: Simplifies installation and maintenance with tool-free wiring, reducing downtime and installer effort.
- Integrated Varistor Protection: Helps absorb voltage spikes, extending the lifespan of the relay and improving reliability in unstable power environments.

Markets/Applications

- Compact foodservice equipment such as hot plates, fryers, and beverage dispensers.
- Low-clearance electrical panels in OEM systems.
- HVAC zone controls and small-scale heating systems.
- Plastic sealing or packaging equipment with space constraints.
- Commercial kitchen appliances requiring quick installation and service.

4-Pole Solid-State Relays (SRP4-CC)

Problem/Solution

When multiple AC loads need to be controlled, traditional setups with several relays can consume valuable panel space and complicate wiring. The SRP4-CC Relays solve this by integrating four independent SSRs in one compact package, combining rugged SCR outputs with quick-connect terminals for a reliable, space-saving solution in industrial environments.

Technical resources:

Series Page

Datasheet

Benefits

- Compact 4-Pole Design: Saves panel space and reduces wiring complexity by combining four independent relays in one unit. Ideal for OEMs and integrators working with limited enclosure space.

Features

- Zero Cross Switching: Reduces electrical noise and minimizes voltage spikes during switching, enhancing overall system stability.
- Compliance with International Standards (cЯUus, CE, UKCA) : Ensures that the Solid-State Relay (SSR) has undergone rigorous testing, providing enhanced safety and product quality.

Markets/Applications

- Multi-zone temperature control in industrial ovens.
- Heating element control in commercial cooking and steam generation equipment.
- Sterilization systems with independent heating circuits.
- Fuel pipeline heat tracing in extreme ambient environments.
- Space-constrained electrical panels in OEM heating applications.

Low Emissions Solid-State Relays (SRP1-CC…E)

Problem/Solution

In residential, commercial, and light industrial environments, excessive electromagnetic emissions can interfere with sensitive equipment and compromise system reliability. The SRP1-CC…E Relays address this by integrating EMC suppression into their design, ensuring compliance with EN 50081-1 while delivering low-noise, reliable switching for sensitive applications.

Technical resources:

Series Page

Datasheet

Benefits

- EMC-Optimized Circuit Design: Minimizes electromagnetic emissions (RFI), helping prevent disruption in nearby sensitive electronics.

Features

- Integrated EMC Suppression Components: Reduces conducted and radiated noise at the source, eliminating the need for external filters.
- Smooth, Low-Noise Switching Behavior: Prevents interference spikes during operation, protecting surrounding equipment and ensuring stable performance.

Markets/Applications

- Medical equipment
- Fueling systems and vehicle power control
- Household appliances
- IT equipment and consumer electronics
- Commercial systems requiring reduced EMC emission
- Electrical box disconnect applications in regulated environments

High-Voltage DC Solid-State Relays (SRP1-CC…DH)

Problem/Solution

Switching high-power DC loads can be challenging, especially when voltages reach into the kilovolt range and reliability is critical for energy and transportation systems. The SRP1-CC…DH Relays solve this by offering IGBT- and MOSFET-based models capable of handling up to 1700 VDC and 70 A, with built-in diode protection to ensure safe, dependable operation under demanding conditions.

Technical resources:

Series Page

Datasheet

Benefits

- High Voltage Capability (up to 1700 VDC peak): Suitable for demanding applications in renewable energy, rail systems, and DC infrastructure.

Features

- Output Technology: IGBT or MOSFET: IGBT models deliver efficient high-voltage switching; MOSFET model offers fast switching and better transient handling.
- Wide Control Voltage Input (5–32 VDC): Simplifies integration with most control systems, including PLCs and industrial controllers.

Markets/Applications

- Battery disconnect and DC switching in solar, marine, and backup power systems.
- High-voltage heating in rail and transportation HVAC systems and industrial environments.
- DC motors, braking systems, and inductive loads in industrial automation.
- Power conversion equipment: UPS, solar inverters, active rectifiers.
- Energy storage and smart grid DC systems.

