Solid State Relays

SRP1–CC...E

Low EMI Noise Solid-State Relay



Description

The SRP1-CC...E series is a family of low-noise solid-state relays (SSRs) specifically optimized to reduce electromagnetic emissions (RFI), making them ideal for use in electrically noise-sensitive applications. Designed to meet EN 50081-1 standards for electromagnetic compatibility in residential, commercial, and light industrial environments, these relays ensure reliable switching while minimizing interference.

With built-in EMC suppression and high-quality components, the SRP1-CC...E relays are a solid choice for ensuring uninterrupted operation in safety-critical and comfort-sensitive systems.

- EMC-optimized design to reduce radiated and conducted emissions
- Compliant with EN 50081-1 for residential and light industrial EMC requirements
- Suitable for safety-critical environments like medical devices and fuel systems
- Enhances equipment performance in household appliances and information technology systems

Features & Benefits

FEATURES	BENEFITS
EMC-Optimized Circuit Design	Minimizes electromagnetic emissions (RFI), helping prevent disruption in nearby sensitive electronics.
Integrated EMC Suppression Components	Reduces conducted and radiated noise at the source, eliminating the need for external filters.
Clean, Interference-Free Switching	Prevents interference spikes during operation, protecting surrounding equipment and ensuring stable performance.

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

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Ordering Information

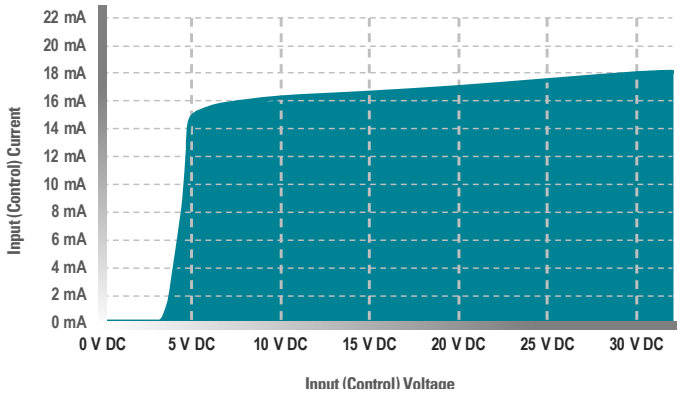
FOR HEATING CONTROL						
CATALOG #	OUTPUT MAX CURRENT	OUTPUT VOLTAGE	OUTPUT SWITCHING STYLE	OUTPUT OVERVOLTAGE PROTECTION	INPUT VOLTAGE RANGE	COMPLIANCE
SRP1-CCDZL-025TC-E	25A	240 V AC	Zero Cross	TVS[3]	6-32 V DC	cЯUus, CE, VDE
SRP1-CCDZM-050TC-E	50A	480 V AC	Zero Cross	TVS[3]	6-32 V DC	cЯUus, CE, VDE

Input/Control Specifications[1]

GENERAL DATA						
SYMBOL	PARAMETER	CONDITION	RANGE	VALUE FOR 25A VERSION	VALUE FOR 50A VERSION	UNIT
Uc	Input (Control) Voltage	-	Maximum	32	32	V DC
			Nominal	5 – 12 – 24	5 – 12 – 24	V DC
			Minimum	6	6	V DC
Urv	Reverse Voltage	-	Maximum	-32	-32	V DC
Uc on	Turn-On Voltage (Pick-up/Engage/Activation Voltage)	-	Minimum	4	4	V DC
Uc off	Turn-Off Voltage (Drop Out/Release/Deactivation Voltage)	-	Nominal	3	3	V DC
Ic	Input (Control) Current	-	Maximum	20	20	mA
			Minimum	16	16	mA
-	Input Impedance	-	Nominal	Current Regulated	Current Regulated	-
Ton	Turn-On Time	At nominal input voltage and f=50Hz	Maximum	20	20	ms
Toff	Turn-Off Time	At nominal input voltage and f=50Hz	Maximum	20	20	ms

Input Current vs Input Voltage Graphs (for power supply selection)
To ensure the Solid-State Relay (SSR) operates efficiently and reliably, it is essential to understand the relationship between input voltage and input current. The following input current graphs provide detailed information on the current consumption of our SSRs across the specified input voltage range (6-32 VDC). This data is crucial for selecting an appropriate power supply and ensuring the relay functions within its safe operating limits. Proper understanding of current consumption is vital for the optimal performance of your application.

6-32 VDC



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