



SSRK Series

10-30A DIN Mount Solid State Relay With Paired SCR Output, Integral Heatsink

File E29244

Users should thoroughly review the technical data before selecting a product part number. It is recommended that users also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

Features

- Narrow (22.5mm), DIN mount design with integral heatsink.
- Choice of 10, 20 or 30A rms inverse-parallel connected SCR output.
- 24-240VAC and 48-660VAC output types.
- 3 - 32VDC, 4 - 32VDC or 90 - 280Vrms input control.
- 4000V rms optical isolation.
- Green LED input status indicator.
- Finger-safe (IP20) screw clamp terminals for load and control.
- Ground terminal.

Engineering Data

Form: 1 Form A (SPST-NO).

Duty: Continuous.

Isolation: 4000V rms input-to-output-to-ground.

Insulation Resistance: 10⁹ Ohms, minimum, at 500VDC.

Capacitance: 8.0 pf maximum (input to output).

Temperature Range:

Storage: -30°C to +100°C

Operating: -30°C to +80°C

Case and Mounting: Refer to outline dimension drawing.

Termination:

Load & Control: Finger safe (IP20) screw clamps accepting wire size up to #10 AWG (3 mm).

Ground: #10 screw with 5/16 in. hex/slotted head.

Installation Spacing: Minimum 0.8 in (20 mm) space between units.

Approximate Weight: 9.87 oz. (280g).

Ordering Information

Typical Part Number >

SSRK -600 A 30

1. **Basic Series:** SSRK = Slim Solid State Relay with Integral Heatsink for DIN Rail Mounting

2. **Line Voltage:** 240 = 24 - 240 VAC
600 = 48 - 660 VAC

3. **Input Type & Voltage:** A = 90 - 280 VAC
D = 3 - 32VDC for 240V / 4 - 32VDC for 600V

4. **Maximum Switching Rating / Output:** 10 = 10.0A rms
20 = 20.0A rms
30 = 30.0A rms

Our authorized distributors are more likely to maintain the following items in stock for immediate delivery.

SSRK-240A20 SSRK-240A30 SSRK-600A30
SSRK-240D20 SSRK-240D30 SSRK-600D30

Input Specifications

Parameter	Conditions	AC Control Units	DC Control Units	
			240 V	600V
Control Voltage Range VIN	@25°C	90 - 280 Vrms	3 -32 VDC	4 -32 VDC
Must Operate Voltage VIN(OP) (Min.)	@25°C	90 Vrms	3 VDC	4 VDC
Must release Voltage VIN(REL) (Min.)	@25°C	10 Vrms	1 VDC	1 VDC
Input Current Range(Typ.)	@25°C	7.5mA @ 120 Vrms, 16mA @ 240 Vrms	18mA	9.5 - 30 mA

SSRK Series (Continued)

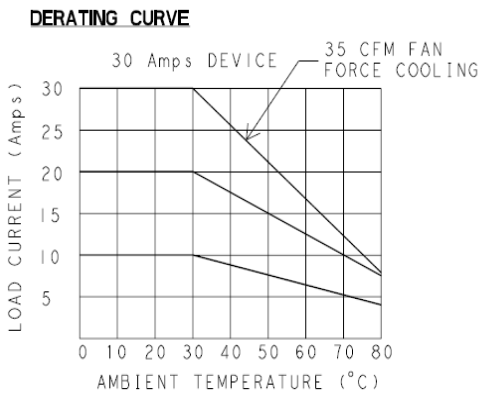
SCR Output Modules

Output Specifications (@ +25°C unless otherwise specified)

Parameter	Conditions	Nom. Line Voltage	Units	10A Rated Units	20A Rated Units	30A Rated Units
Load Voltage V_L	$f = 47 - 63\text{Hz}$	240 V model	V rms	24 - 240	24 - 240	24 - 240
		600 V model	Vdc	48 - 660	48 - 660	48 - 660
Repetitive Blocking Voltage (Min.)		240 V model	V peak	600	600	600
		600 V model	V peak	1200	1200	1200
Load Current I_L^*		240 V & 600 V model	A rms	0.15 - 10	0.15 - 20	0.15 - 30
Single Cycle Surge Current (Min.)		240 V model	A peak	83	300	800
		600 V model	A peak	300	300	800
Leakage Current (Off-State) (Max.)	$f = 60\text{Hz}$ - $V_L = 600V_{\text{rms}}$	240 V & 600 V model	mA rms	5	5	5
On-State Voltage Drop (Max.)	$I_L = \text{Max.}$	240 V model	V peak	1.8	1.8	1.8
		600 V model	V peak	1.6	1.6	1.8
Static dv / dt (Off-State) (Min.)	$V_L = \text{Max.}$	240 V model	V/ μs	200	300	500
		600 V model	V/ μs	300	300	500
Turn-On Time (Max.)	$f = 60\text{Hz}$	240 V & 600 V model	ms	10 for DC Input Models, 40 for AC Input Models		
Turn-Off Time (Max.)		240 V & 600 V model	ms	10 for DC Input Models, 80 for AC Input Models		
I^2t Rating (Max.)	$t = 8.3 \text{ms}$	240 V model	A ² s	41	510	3745
		600 V model	A ² s	510	510	3745
Load Power Factor Rating (Min.)	$I_L = \text{Min.}$	240 V & 600 V model		0.5	0.5	0.5

* See Derating curve

Electrical Characteristics (Thermal Derating Curves)



Outline Dimensions

