



# SSRK series

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

File E29244

File LR246041

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 confirm 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.
- 48 - 660VAC output.
- 4 -32VDC or 90 - 280Vrms input control.
- 4,000V 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:** 4,000V rms input-to-output-to-ground.

**Insulation Resistance:** 10<sup>9</sup> Ohms, minimum, at 500VDC.

**Capacitance:** 8.0 pf maximum (input to output).

**Temperature Range:**

**Storage:** -40°C to +125°C

**Operating:** -40°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:** 9.9 oz. (284 g).

### Ordering Information

Sample Part Number ▶

**SSRK -600 A 30**

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

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

**3. Input Type & Voltage:** A = 90 - 280VAC  
D = 4 - 32VDC

**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-600A10      SSRK-600A20      SSRK-600A30  
SSRK-600D10      SSRK-600D20      SSRK-600D30

### Input Specifications

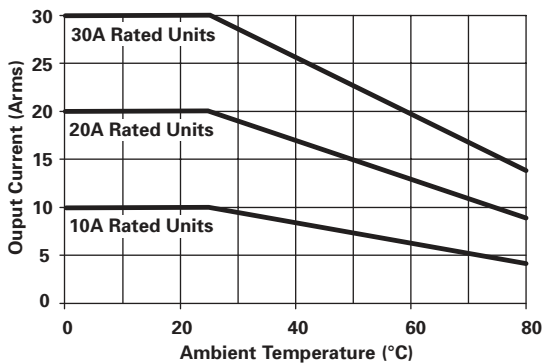
Parameter	Conditions	AC Control Units	DC Control Units
Control Voltage Range $V_{IN}$	@ 25°C	90 - 280 Vrms	4.0 - 32 VDC
Must Operate Voltage $V_{IN(OP)}$ (Min.)	@ 25°C	90 Vrms	4.0 VDC
Must Release Voltage $V_{IN(REL)}$ (Min.)	@ 25°C	10 Vrms	1.0 VDC
Input Current Range (Typ.)	@ 25°C	2 mA @ 120 Vrms, 4 mA @ 240 Vrms	8 - 12 mA

**Output Specifications (@ 25° C, unless otherwise specified)**

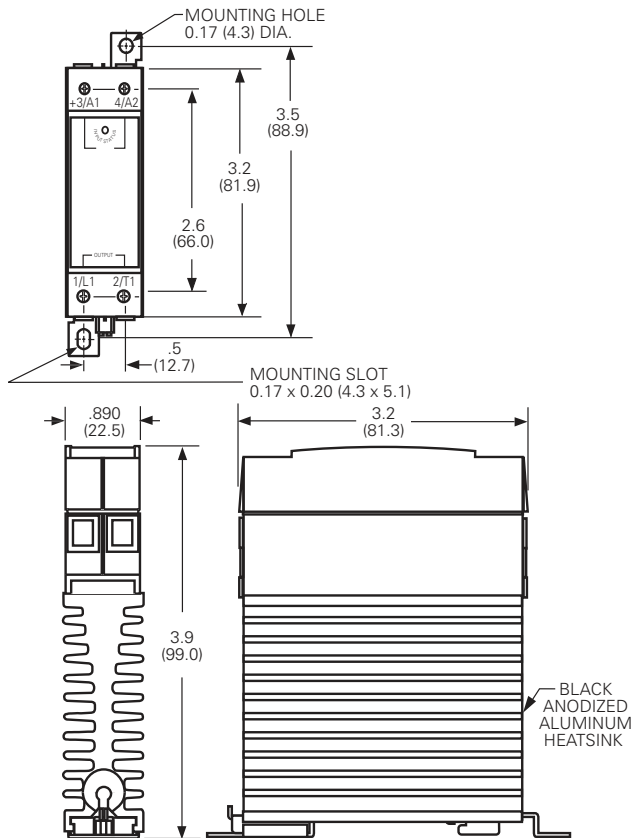
Parameter	Conditions	Units	10A Rated Units	20A Rated Units	30A Rated Units
Load Voltage Range $V_L$	$f = 47-63$ Hz.	V rms	48-660	48-660	48-660
Repetitive Blocking Voltage (Min.)		V peak	$\pm 1200$	$\pm 1200$	$\pm 1200$
Load Current Range $I_L^*$		A rms	0.15 - 10.0	0.15 - 20.0	0.15 - 30.0
Single Cycle Surge Current (Min.)		A peak	120	250	625
Leakage Current (Off-State) (Max.)	$f = 60$ Hz. $V_L = 600$ Vrms	mA rms	1.0	1.0	1.0
On-State Voltage Drop (Max.)	$I_L = \text{Max.}$	V peak	1.6	1.6	1.6
Static dv/dt (Off-State) (Min.)	$V_L = \text{Max.}$	V/ $\mu$ s	500	500	500
Turn-On Time (Max.)	$f = 60$ Hz.	ms	8.3 for DC Input Models, 10.0 for AC Input Models		
Turn-Off Time (Max.)	$f = 60$ Hz.	ms	8.3 for DC Input Models, 40.0 for AC Input Models		
$I^2 t$ Rating (Max.)	$t = 8.3$ ms	A <sup>2</sup> Sec.	60	260	1,620
Load Power Factor Rating (Min.)	$I_L = \text{Max.}$		0.5	0.5	0.5

\*See Thermal Derating Curves.

**Electrical Characteristics (Thermal Derating Curves)**



**Outline Dimensions**



Recommended Torque Range for Terminal Screws: 5 - 6 in lb (0.6 - 0.7 Nm).

**Disclaimer**

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The dimensions in this catalog are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult Tyco Electronics for the latest dimensions and design specifications.