



#### **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.

## **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.

#### **Engineering Data**

Form: 1 Form A (SPST-NO).

Duty: Continuous.

Isolation: 4,000V rms input-to-output-to-ground.

Insulation Resistance: 109 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/slottted head.

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

Approximate Weight: 9.9 oz. (284 g).

#### **Ordering Information**

Sample Part Number	<b>•</b>	SSRK	-600	Α	30
1. Basic Series: SSRK = Slim Solid State Relay with Integral Heatsink for DIN Rail Mounting					
<b>2. Line Voltage:</b> 600 = 48 - 660 VAC					

3. Input Type & Voltage: A = 90 - 280 VACD = 4 - 32 VDC

**4. Maximum Switching Rating/Output:** 10 = 10.0A rms

20 = 20.0 A rms30 = 30.0 A 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 <sub>IN</sub>	@ 25°C	90 - 280 Vrms	4.0 - 32 VDC
Must Operate Voltage V <sub>IN(OP)</sub> (Min.)	@ 25°C	90 Vrms	4.0 VDC
Must Release Voltage V <sub>IN(REL)</sub> (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

1



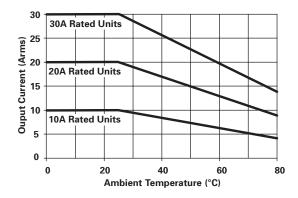
#### SSRK Series Solid State Relays

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

Parameter	Conditions	Units	10A Rated Units	20A Rated Units	30A Rated Units	
Load Voltage Range V <sub>L</sub>	f = 47-63 Hz.	V rms	48-660	48-660	48-660	
Repetitive Blocking Voltage (Min.)		V peak	±1200	±1200	±1200	
Load Current Range I *		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.)	$f = 60 \text{ Hz. } V_L = 600 \text{Vrms}$	mA rms	1.0	1.0	1.0	
On-State Voltage Drop (Max.)	I <sub>L</sub> = Max.	V peak	1.6	1.6	1.6	
Static dv/dt (Off-State) (Min.)	V <sub>L</sub> = Max.	V/µs	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 <sup>2</sup> t Rating (Max.)	t = 8.3 ms	A <sup>2</sup> Sec.	60	260	1,620	
Load Power Factor Rating (Min,)	I <sub>L</sub> = Max.		0.5	0.5	0.5	

<sup>\*</sup>See Thermal Derating Curves.

#### **Electrical Characteristics (Thermal Derating Curves)**



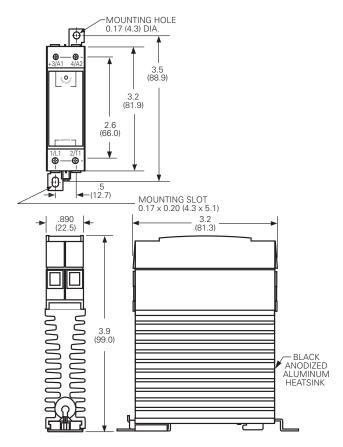
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The dimensions in this catalog are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult Tyco Electronics for the latest dimensions and design specifications.

#### **Outline Dimensions**



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

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