



#### Features

- DIN mount design with integral heatsink.
- Choice of 45, 55 or 65A rms inverse-parallel connected SCR output.
- 48 660VAC output.
- 4 -32VDC or 90 140Vrms input control.
- 4,000V rms optical isolation.
- Green LED input status indicator.
- Finger-safe (IP20) screw clamp terminals for load and control.
- Ground terminal.

## **SSRM** series

# 45-65A DIN Mount Solid State Relay With Paired SCR Output, Integral Heatsink

**c %** us 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 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:

**Control:** Finger safe (IP20) screw clamps accepting wire size up to #12 AWG (2.5 mm). **Load:** Finger safe (IP20) screw clamps accepting

wire size up to #8 AWG (3.8 mm).

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

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

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Approximate Weight: 16.9 oz. (479 g).

#### **Ordering Information**

Sample Part Number ► SSRM

Integral Heatsink for DIN Rail Mounting

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

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

3. Input Type & Voltage: A = 90 - 140 VAC

D = 4 - 32VDC

**4. Maximum Switching Rating/Output:** 45 = 45.0 A rms

55 = 55.0 A rms65 = 65.0 A rms

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

SSRM-600A45 SSRM-600A55 SSRM-600A65 SSRM-600D45 SSRM-600D55 SSRM-600D65

#### **Input Specifications**

Parameter	Conditions	AC Control Units	DC Control Units
Control Voltage Range V <sub>IN</sub>	@ 25°C	90 - 140 Vrms	4.0 - 32 VDC
Reverse Voltage V <sub>IN</sub> (Max.)	@ 25°C	_	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 (Typ.)	@ 25°C	15 mA @ 120 Vrms	14 mA @ 5 VDC
Input Current (Max.)	@ 25°C	_	30 mA

Issued 4-09 www.tycoelectronics.com

Dimensions are in inches over (millimeters) unless otherwise specified.

Dimensions are shown for reference purposes only. Specifications and availability subject to change. USA: 1-800-522-6752 Canada: 1-905-470-4425 Mexico: 01-800-733-8926 C. America: 52-55-1106-0803

South America: 55-11-2103-6000 Hong Kong: 852-2735-1628 Japan: 81-44-844-8013 UK: 44-8706-080208

55



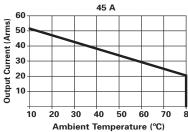
#### SSRM Series Solid State Relays

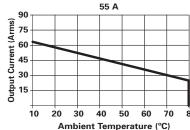
#### Output Specifications (@ 25° C, unless otherwise specified)

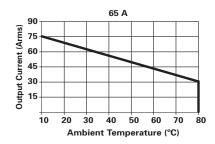
Parameter	Conditions	Units	45A Rated Units	55A Rated Units	65A Rated Units
Load Voltage Range V <sub>L</sub>	f = 47 - 63 Hz.	V rms	48 - 660	48 - 660	48 - 660
Repetitive Blocking Voltage (Min.)		V peak	±1200	±1200	±1200
Load Current Range I <sub>L</sub> *		A rms	0.15 - 45.0	0.25 - 55.0	0.25 - 65.0
Single Cycle Surge Current (Min.)		A peak	625	1,000	1,200
Leakage Current (Off-State) (Max.)	$f = 60 \text{ Hz. } V_L = 600 \text{Vrms}$	mA rms	1.0	1.0	1.0
Thermal Resistance Junction to Case R <sub>θ J–C</sub> (Max.)		°C/W	0.63	0.31	0.28
On-State Voltage Drop (Max.)	I <sub>L</sub> = Max.	V peak	1.7	1.7	1.7
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.	1,620	4,150	6,000
Load Power Factor Rating (Min.)	I <sub>L</sub> = Max.		0.5	0.5	0.5

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

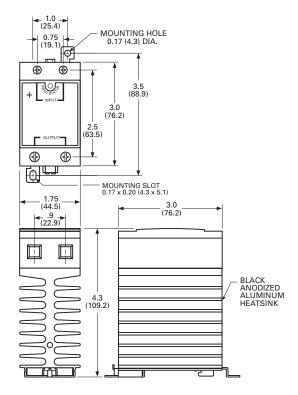
#### **Electrical Characteristics (Thermal Derating Curves)**



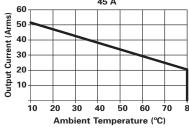


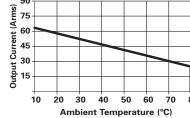


#### **Outline Dimensions**



Recommended Torque Range for Terminal Screws: Control: 5 - 6 in lb (0.6 - 0.7 Nm). Output: 10 - 15 in lb (1.1 - 1.7 Nm).





### Disclaimer

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