



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

-600

Α

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.

Approximate Weight: 16.9 oz. (479 g).

Ordering Information

Sample Part Number

SSRM

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 rms

65 = 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 _{IN} | @ 25°C | 90 - 140 Vrms | 4.0 - 32 VDC |
| Reverse Voltage V _{IN} (Max.) | @ 25°C | _ | 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 (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



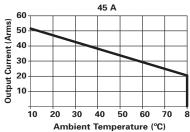
SSRM Series Solid State Relays

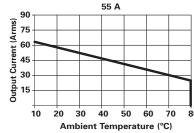
Output Specifications (@ 25° C, unless otherwise specified)

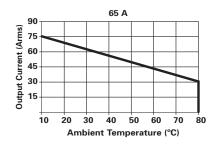
| Parameter | Conditions | Units | 45A Rated Units | 55A Rated Units | 65A Rated Units |
|---|---|---------------------|---|-----------------|-----------------|
| Load Voltage Range V_L | f = 47 - 63 Hz. | V rms | 48 - 660 | 48 - 660 | 48 - 660 |
| Repetitive Blocking Voltage (Min.) | | V peak | ±1200 | ±1200 | ±1200 |
| Load Current Range I _L * | | 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 _{0 J–C} (Max.) | | °C/W | 0.63 | 0.31 | 0.28 |
| On-State Voltage Drop (Max.) | I _L = Max. | V peak | 1.7 | 1.7 | 1.7 |
| Static dv/dt (Off-State) (Min.) | V _L = 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 ² t Rating (Max.) | t = 8.3 ms | A ² Sec. | 1,620 | 4,150 | 6,000 |
| Load Power Factor Rating (Min.) | I _L = Max. | | 0.5 | 0.5 | 0.5 |

^{*}See Thermal Derating Curves.

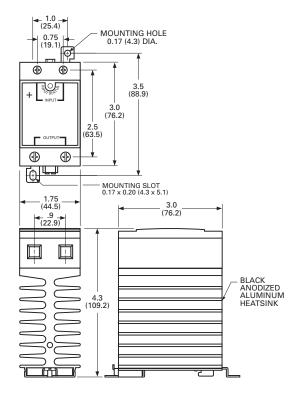
Electrical Characteristics (Thermal Derating Curves)



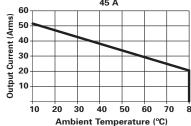




Outline Dimensions



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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