

CERTIFICATE OF COMPLIANCE

Certificate Number E29244
Report Reference E29244-20090127
Issue Date 2022-JUNE-28

Issued to: TYCO ELECTRONICS CORP
2901 Fulling Mill Rd
Middletown, PA 17057 United States

This certificate confirms that representative samples of Switches, Industrial Control - Component
See Addendum Page for Models

Have been investigated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

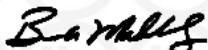
Standard(s) for Safety: UL508 - Industrial Control Equipment
CSA C22.2 No. 14 - Industrial Control Equipment

Additional Information: See the UL Online Certifications Directory at <https://iq.ulprospector.com> for additional information.

This *Certificate of Compliance* does not provide authorization to apply the UL Recognized Component Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>



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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Open types, for use in industrial applications, Model(s) SSRA-240D2, SSRA-240D2R.

Solid state relays, for use in industrial control applications, Model(s) SSRF-240D25, SSRF-480D25, SSRF-240D25R, SSRF-480D25R, SSRM-600D45, SSRM-600D55, SSRM-600D65, SSRM-600A45, SSRM-600A55, SSRM-600A65.



Bruce Mahrenholz, Director North American Certification Program

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Certificate Number: 0811921-5

Date: 2022-09-30

UL CONDITIONS OF ACCEPTABILITY

Company Name: TYCO Electronics Corp

File-CCN: E29244- NRNT2, NRNT8

Product Description: Solid State Relays

Models: SSRA-240D2, SSRA-240D2R

Conditions Of Acceptability:

1. These devices should be used within their Recognized ratings as specified below.
2. These devices should be mounted in the intended manner within an enclosure having adequate strength and thickness and with acceptable spacings being provided.
3. The printed wiring board terminals are to be factory wired only and the suitability of the connection (including spacings between factory connectors) shall be determined.
4. The optical isolator which isolates the load and the control circuitry is rated 2500 Vac.
5. The epoxy powder coating and printed wiring boards are rated minimum 105°C.

Ratings:

Type	Rated Voltage	Control Voltage	Max Load
SSRA-240D2	12 - 280 V ac	4-10 V dc	2.0 A @ 50°C, General Use
SSRA-240D2R	12 - 280 V ac	4-10 V dc	0.8 A @ 80°C, General Use

(Continued on Next Page)



Certificate Number: 0811921-5

Date: 2022-09-30

Nomenclature:

Typical Part Number: SSRA-240 D 2 R
 1 2 3 4 5

1. Basic Series: SSRA = Miniature SIP Solid State Relay
2. Line Voltage: 240 - 12-280 VAC
3. Input Type & Voltage: D = 4-10 VDC
4. Maximum Switching Rating/Output: 2 = 2.0A rms
5. Options: Blank = Zero voltage turn-on
 R = Random voltage turn-on



Certificate Number: 1012941-11

Date: 2022-09-30

UL CONDITIONS OF ACCEPTABILITY

Company Name: TYCO Electronics Corp

File-CCN: E29244- NRNT2, NRNT8

Product Description: Component - Industrial Control Switches

Models: SSRF-240D25, SSRF-480D25, SSRF-240D25R, SSRF-480D25R

Conditions Of Acceptability:

1. These devices should be mounted in the intended manner and the enclosure should have adequate strength and thickness with acceptable spacings being provided.
2. The printed wiring board terminals are to be factory wired only and the suitability of the connection (including spacings between factory connectors) shall be determined.
3. The suitability of the isolation between the load and control circuit should be determined in the end use. The photo isolator is rated at minimum 5000 V ac between the loading and control circuits.
4. These devices have been evaluated for use in a surrounding air temperature (SAT) of 40°C.
5. When these devices are operated under 25 A load, they must be forced-air cooled. The forced-air cooling conditions shall be such that the case near load terminals does not exceed a temperature of 85°C. Consideration should be given to performing a Temperature Test in the end-use product.

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Certificate Number: 1012941-11

Date: 2022-09-30

Ratings:

Control:

Models SSRF-240D25, SSRF-240D25R: 3-15 V dc, 15 mA

Models SSRF-480D25, SSRF-480D25R: 4-13 V dc, 15 mA

Load:

0.06-25 A, resistive, Forced Air Cooled

0.06-10 A, resistive, Convection Cooled

Operating Voltage, Vrms	Voltage Range, Vrms
240	12-280
480	48-660

Nomenclature:

Typical Part Number: SSRF-240 D 25 R
1 2 3 4 5

1. Basic Series: SSRF = SIP Solid State Relay With Integral Heatsink
2. Line Voltage: 240 = 12 - 280 VAC
480 = 48 - 660 VAC
3. Input Type & Voltage: D = 3 - 15VDC (240V output types) or 4 - 15VDC (480V output types)
4. Maximum Switching Rating/Output: 25 = 25.0A rms (with forced air cooling)
5. Options: Blank = Zero voltage turn-on
R = Random voltage turn-on



Certificate Number: 0211991-23

Date: 2022-09-30

UL CONDITIONS OF ACCEPTABILITY

Company Name: TYCO Electronics Corp

File-CCN: E29244- NRNT2, NRNT8

Product Description: Component - Solid State Relays

Models: SSRM-600D45, SSRM-600D55, SSRM-600D65, SSRM-600A45, SSRM-600A55, SSRM-600A65

Conditions Of Acceptability:

1. These devices should be used within their Recognized ratings as specified on the next page. The ratings specified depend on temperatures in the end-use not exceeding those indicated on the derating curves.
2. Open type devices should be mounted in enclosures having adequate strength and thickness in the intended manner and with acceptable spacings being provided.
3. The clamp type terminals are to be factory wired only and the suitability of the connection should be determined in the final installation. The Load Terminals are suitable for No. 6 AWG wire maximum, torque 15 ft.-lbs. Minimum 75°C wire is needed for these terminals, except for 65A rated devices need minimum 105°C wire.
4. These were tested mounted to an integral aluminum heat sink, 3/8 in. thick, 3 by 1 3/4 by 3 in. overall, provided with the fins vertically positioned. The test record should be reviewed to determine if tests need to be repeated, if another heat sink is used in the end use product.
5. Models SSRM-600D45 and SSRM-600A45 were tested at 25°C with forced air cooling of minimum 67 CFM, mounted one foot from the Heat Sink, at rated maximum current of 35 A and 45 A. Use with the forced air cooling is allowed at the above currents.
7. These devices marked with 60950 have been judged on the basis of the required spacings from the Standard for Information Technology Equipment, UL 1950, Third Edition, Tables 3 and 5, Pollution Degree 2 for Basic Insulation. These devices may also be used between TNV and SELV circuits as defined by UL 1950, Annex V and Clause 6.2.1.1, Limits.

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Certificate Number: 0211991-23

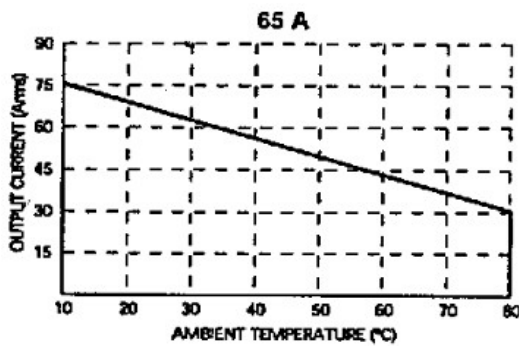
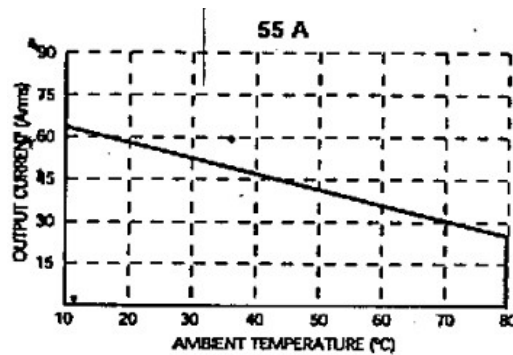
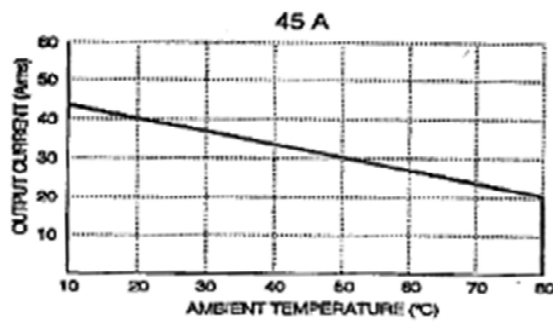
Date: 2022-09-30

Ratings:

Models	Input Voltage	Output Voltage	Current
SSRM-600D45	3-32 V dc	48-660 V ac	See derating curve
SSRM-600D55	3-32 V dc	48-660 V ac	See derating curve
SSRM-600D65	3-32 V dc	48-660 V ac	See derating curve
SSRM-600A45	90-140 V ac	48-660 V ac	34 A, 25 C, @ 40 C
SSRM-600A55	90-140 V ac	48-660 V ac	55 A, 25 C, @ 40 C
SSRM-600A65	90-140 V ac	48-660 V ac	65 A, 25 C, @ 40 C

All models have a 4000 V isolation capability.

Derating Curves:



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Certificate Number: 0211991-23

Date: 2022-09-30

Nomenclature:

Typical Part Number: SSRM-600 A 55
1 2 3 4

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 - 140VAC
D = 4 - 32VDC
4. Maximum Switching Rating/Output: 45 = 45.0A rms
55 = 55.0A rms
65 = 65.0A rms