

DRA1 SERIES | SPF AC OUTPUT

DIN RAIL MOUNT



Features

- 10mm Single Channel DIN Rail Mount SSR Assembly
- AC Ratings up to 380 VAC and 10 Amps
- 3-15 VDC, 15-32VDC, 18-36 VAC and 90-140 VAC Control
- Cage style screw terminals for easy connection
- Fits standard 35mm DIN rail
- Includes LED Status Indicator (DC Control Only)

PRODUCT SELECTION

Control Voltage	10A (Zero Voltage Turn-On)	10A (Instantaneous Turn-On)
3 - 15 VDC	DRA1-SPF240D25	DRA1-SPF240D25R
4 - 15 VDC	DRA1-MPDCD3	DRA1-SPF380D25R
15 - 32 VDC	DRA1-SPFE240D25	DRA1-SPFE240D25R
18 - 36 VAC	DRA1-SPFE240A25	
90 - 140 VAC	DRA1-SPF240A25	

SPECIFICATIONS

Output ⁽¹⁾

Description	SPF(E)240x25	SPF380x25
Operating Voltage [VAC]	12 - 280	48 - 380**
Transient Overvoltage [Vpk]	600	1200
Maximum Load Current [Arms] ⁽²⁾⁽³⁾	10	10
Minimum Load Current [Arms]	0.06	0.06
Maximum Off-State Leakage Current @ Rated Voltage [mArms]	0.1	0.1
Maximum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] ⁽⁴⁾	500	500

Output (cont.) ⁽¹⁾

Description	SPF(E)240x25	SPF380x25
Maximum 1 Cycle Surge Current (50/60 Hz) [Apk]	239 / 250	239 / 250
Maximum I²t for Fusing (50/60 Hz, ½ Cycle) [A² Sec]	285 / 260	285 / 260
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6

Input ⁽¹⁾

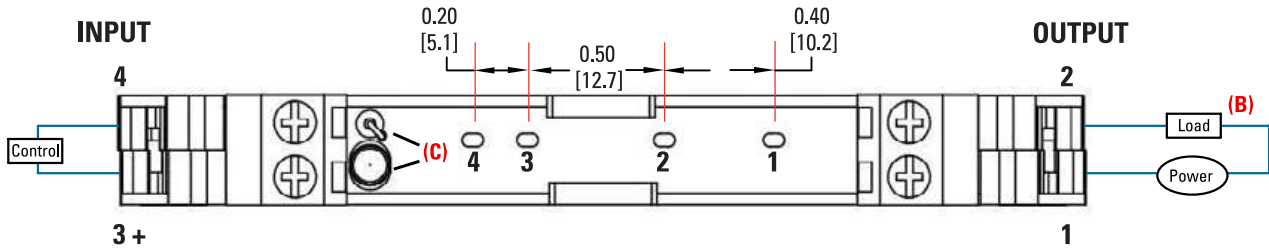
Description	SPF240D25	SPF380D/480D	SPFE240D25	SPF240A25	SPFE240A25
Control Voltage Range	3 - 15 VDC	4 - 15 VDC	15 - 32 VDC	90 - 140 VDC	18 - 36 VDC
Must Turn-On Voltage	3.0 VDC	3.0 VDC	15 VDC	90 Vrms	18 Vrms
Must Turn-Off Voltage	1.0 VDC	1.0 VDC	3.0 VDC	10 Vrms	2 Vrms
Typical Input Current	15 mA	15 mA	15 mA	10 mAdc	10 mAdc
Nominal Input Impedance	300 Ohm	240 Ohm	1500 Ohm	14.1k Ohm	2.1k Ohm
Maximum Turn-On Time [msec] ⁽⁵⁾	½ Cycle	½ Cycle	½ Cycle	10	10
Maximum Turn-Off Time [msec]	½ Cycle	½ Cycle	½ Cycle	40	40

General ⁽¹⁾

Description	Parameters
Dielectric Strength, Input/Output (50/60 Hz)	4000 Vrms
Maximum Insulation Resistance (@ 500 VDC)	10 ⁹ Ohm
Maximum Capacitance, Input/Output	8 pF
Ambient Operating Temperature Range	-40 to 80°C
Ambient Storage Temperature	-40 to 125°C
Weight (Typical)	0.32 lb oz (145.5 g)
Encapsulation	Thermally Conductive Epoxy



WIRING DIAGRAMS (A)



(A) Wiring diagram is identical for each individual section whether it is a single or four channel assembly.

(B) Load can be placed on either side of "Power"

(C) LED and Resistor not installed in AC input.

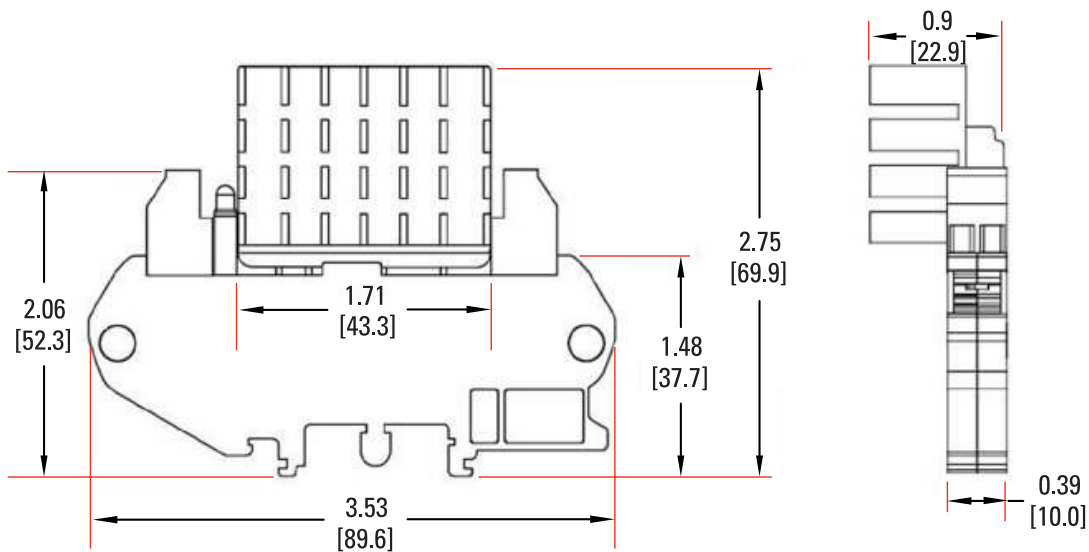
For additional information or specific questions, contact Sensata Technical Support.



MECHANICAL SPECIFICATIONS

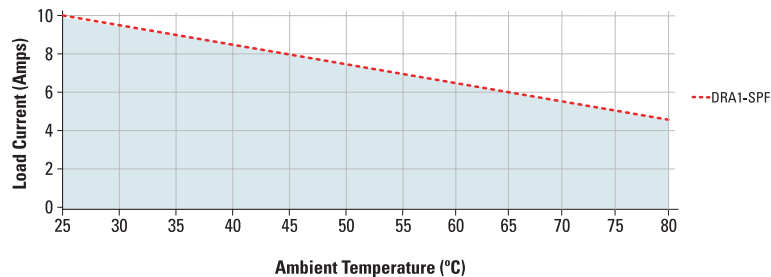
Tolerances: ± 0.02 in / 0.5 mm

All dimensions are in inches [millimeters]



THERMAL DERATE INFORMATION

DRA1-SPF Derating Curve





GENERAL NOTES

- (1) All parameters at 25 °C unless otherwise specified.
- (2) See Derating Chart on page 4.
- (3) Steady state load current exceeding 10 Amps will damage socket.
- (4) Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- (5) Turn-On Time for DC control instantaneous turn-on versions 0.1 msec.

** NOTE: Voltages in excess of 380V will damage output terminals.
For additional information or specific questions, contact Sensata Technical Support.



AGENCY APPROVALS & CERTIFICATIONS



- Designed in accordance with the requirements of IEC 62314
- UL: E116950 (Relay Only)



WARNINGS



RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow the product to cool before touching
- Follow proper mounting instructions including torque values
- Do not allow liquids or foreign objects to enter this product

Failure to follow these instructions can result in serious injury, or equipment damage.



HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power before installing or working with this equipment
- Verify all connections and replace all covers before turning on power

Failure to follow these instructions will result in death or serious injury.

Sensata Technologies, Inc. ("Sensata") data sheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products. Sensata data sheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular data sheet. Sensata may make corrections, enhancements, improvements and other changes to its data sheets or components without notice.

Buyers are authorized to use Sensata data sheets with the Sensata component(s) identified in each particular data sheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATA SHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATA SHEETS OR USE OF THE DATA SHEETS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATA SHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

CONTACT US

Americas

+1 (877) 502 5500 – Option 2
sales.crydom@sensata.com

Europe, Middle East & Africa

+44 (1202) 416170
ssr-info.eu@sensata.com

Asia Pacific

sales.isasia@list.sensata.com
China +86 (21) 2306 1500
Japan +81 (45) 277 7117
Korea +82 (31) 601 2004
India +91 (80) 67920890
Rest of Asia +886 (2) 27602006
ext 2808