53RV SERIES
PANEL MOUNT

Features

- Three-phase Motor Reversing solid-state relay;
- Ratings from 25A and 50A per phase @ 48-530 VAC
- Interlock Circuit Prevents Inadvertent Actuation of Both Directions
- SCR output for heavy industrial loads
- DC control
- LED input status indicator

PRODUCT SELECTION

Control Voltage	25A	50A
4-32 VDC	D53RV25C	D53RV50C

SPECIFICATIONS

Output [1]

Description	D53RV25C	D53RV50C
Operating Voltage (47-63Hz) [Vrms]	48-530	48-530
Maximum Load Current [Arms] [2]	25	50
Transient Overvoltage [Vpk]	1100	1100
Maximum Off-State Leakage Current @ Rated Voltage [mArms] [3]	6	6
Minimum Load Current [Arms]	0.1	0.1
Maximum Surge Current 50/60 Hz (16.6ms) [Apk]	475/500	710/750
1 Second Surge Current 50/60 Hz [Apk]	100	150
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.35	1.35
Maximum I^2T for Fusing (50/60 Hz, 1/2 cycle) [A^2 sec]	1139/1038	2520/2320
Thermal Resistance Junction to Case (Rjc) [°C/W]	0.26	0.25

Minimum Off-State dv/dt @ Maximum Rated Voltage [V/µsec] [4]	500	500
UL/IEC 60947 Motor Control Ratings at 120V [HP/KW] [5]	0.75/0.56	1.5/1.11
UL/IEC 60947 Motor Control Ratings at 240V [HP/KW] [5]	1/0.74	3/2.22
UL/IEC 60947 Motor Control Ratings at 380V [HP/KW] [5]	2/1.48	5/3.7
UL/IEC 60947 Motor Control Ratings at 480V [HP/KW] [5]	3/2.22	7.5/5.55

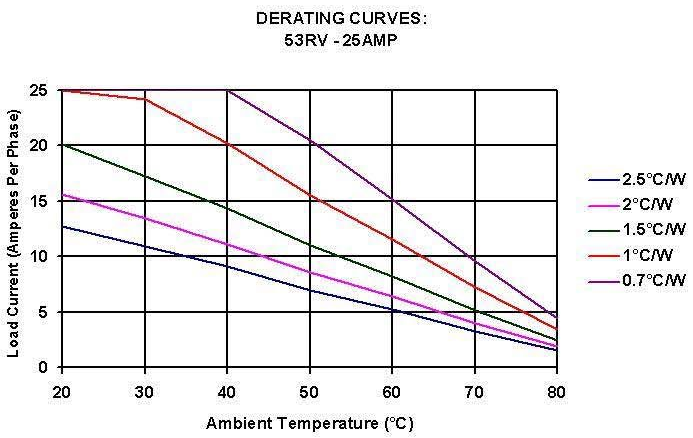
Input [(1)]

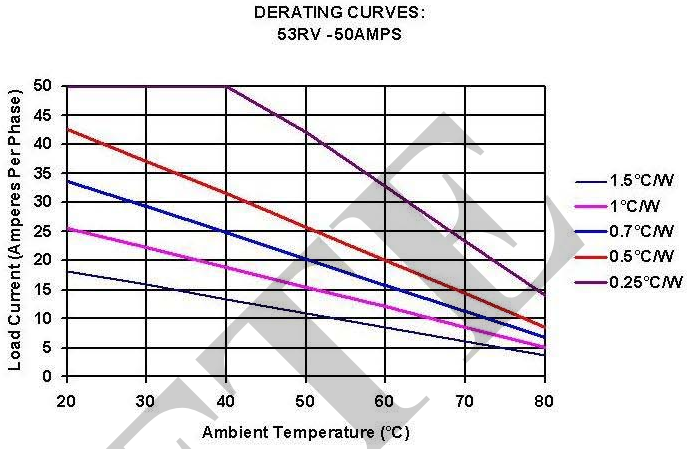
Description	Parameters
Control Voltage Range	4-32 VDC
Minimum Turn-On Voltage	4.0 VDC
Minimum Turn-Off Voltage	1.0 VDC
Minimum Input Current (for on-state)	23mA
Maximum Input Current	35mA
Input Resistance	15 mA
Maximum Turn-On Time [msec]	Current Regulated
Maximum Turn-Off Time [msec]	100
Interlocking Time [msec]	100

General [(1)]

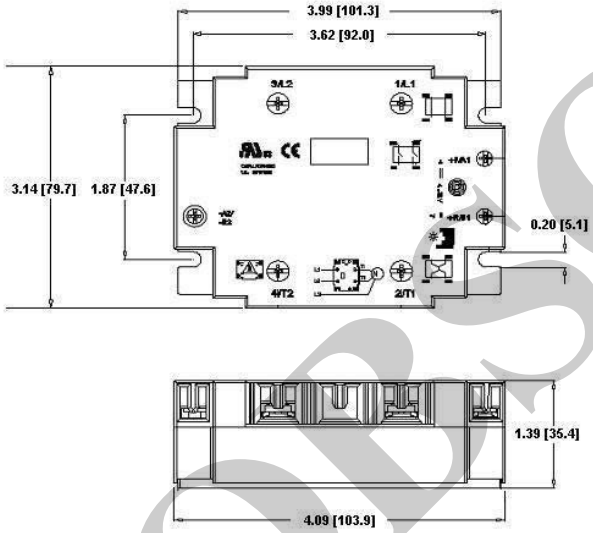
Description	Parameters
Input to Output Isolation	4000 Vrms
Input/ Output to Ground Isolation	2500 Vrms
Maximum Capacitance, Input/Output	8 pF
Ambient Operating Temperature Range	-40 to 80 °C
Ambient Storage Temperature Range	-40 to 100 °C
Weight (typical)	13.1 oz (370 g)
Housing Material	UL 94V0 (self extinguishing
Terminals	Mounted
Input Terminal Screw Torque Range (in lb/Nm)	16.8/1.9
Output Terminal Screw Torque Range (in lb/Nm)	21.2/2.4

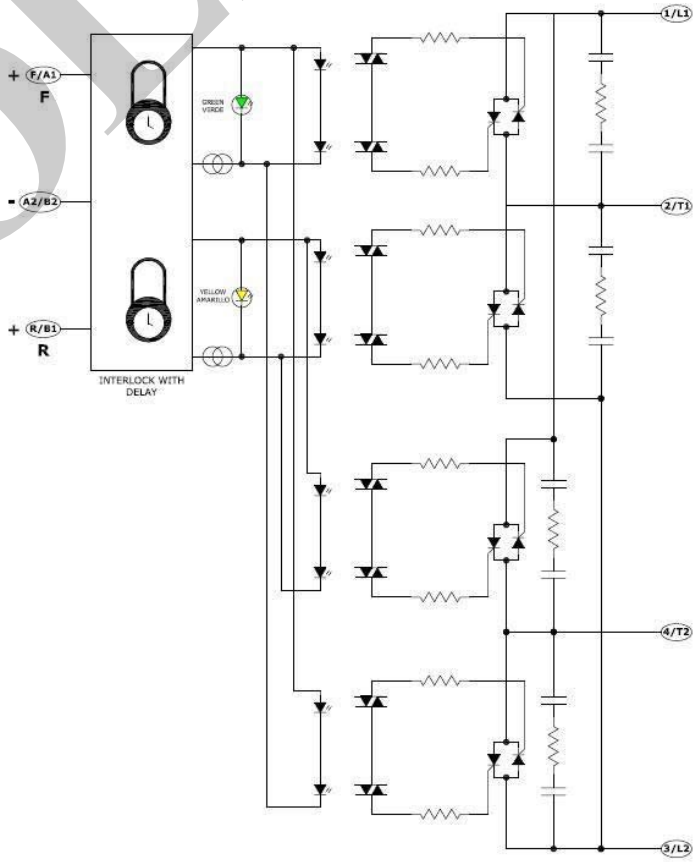
THERMAL DERATE INFORMATION





MECHANICAL SPECIFICATIONS





ORDERING OPTIONS

Example : D53RV25C-H

D	53	RV	25	C	–	H

Control Voltage

D: 4-32 VDC

Series

53

Type

RV: 3 Phase Motor Reversing SSR

Load Current/per phase

25: 25 Amps
50: 50 Amps

Cover

C: IP20

Thermal Pad

Blank: Not Included
H: Included

— Required for valid part number
☐ For options only and not required for valid part number

GENERAL NOTES

(1) All parameters at 25°C unless otherwise specified.
(2) When mounted to the proper size heat sink (see derating curves)
(3) Measured between 1/L1 and 2/T1 or 3/L2 and 4/T2
(4) Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
(5) At 40°C Ambient temperature. Resistive loads only.

AGENCY APPROVALS & CERTIFICATIONS

Designed in accordance with the requirements of IEC 62314

c UL us E79183 CE RoHS 50

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.

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

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CONTACT US

Americas
+1 (877) 502 5500
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