



## 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



### OUTPUT SPECIFICATIONS <sup>1</sup>

Description	D53RV25C	D53RV50C
Operating Voltage (47-63Hz) [Vrms]	48-530	48-530
Maximum Load Current [Arms] <sup>2</sup>	25	50
Transient Overvoltage [Vpk]	1100	1100
Maximum Off-State Leakage Current @ Rated Voltage [mA <sub>Arms</sub> ] <sup>3</sup>	6	6
Minimum Load Current [Arms]	0.1	0.1
Maximum Surge Current 50/60 Hz (16.6ms) [A <sub>pk</sub> ]	475/500	710/750
1 Second Surge Current 50/60 Hz [A <sub>pk</sub> ]	100	150
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.35	1.35
Maximum I <sup>2</sup> T for Fusing (50/60 Hz, 1/2 cycle) [A <sup>2</sup> sec]	1139/1038	2520/2320
Thermal Resistance Junction to Case (R <sub>jc</sub> ) [°C/W]	0.26	0.25
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] <sup>4</sup>	500	500
UL/IEC 60947 Motor Control Ratings at 120V [HP/KW] <sup>5</sup>	0.75/0.56	1.5/1.11
UL/IEC 60947 Motor Control Ratings at 240V [HP/KW] <sup>5</sup>	1/0.74	3/2.22
UL/IEC 60947 Motor Control Ratings at 380V [HP/KW] <sup>5</sup>	2/1.48	5/3.7
UL/IEC 60947 Motor Control Ratings at 480V [HP/KW] <sup>5</sup>	3/2.22	7.5/5.55



## INPUT SPECIFICATIONS <sup>1</sup>

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



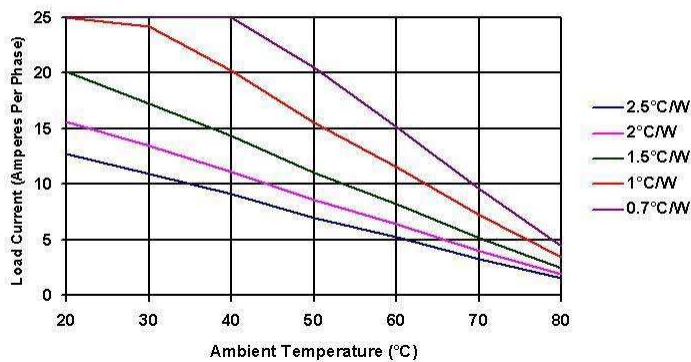
## GENERAL SPECIFICATIONS

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

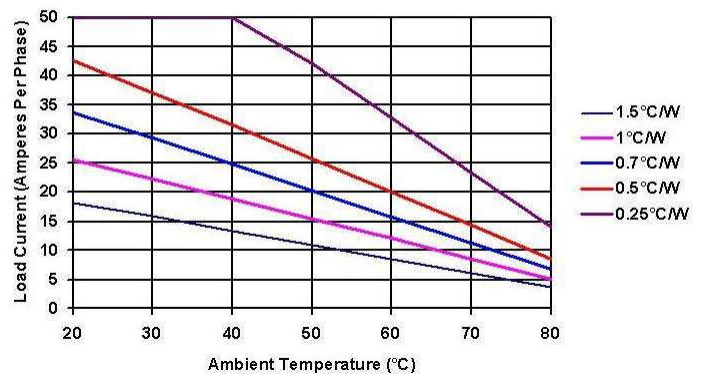


## THERMAL DERATE INFORMATION

DERATING CURVES:  
53RV - 25AMP

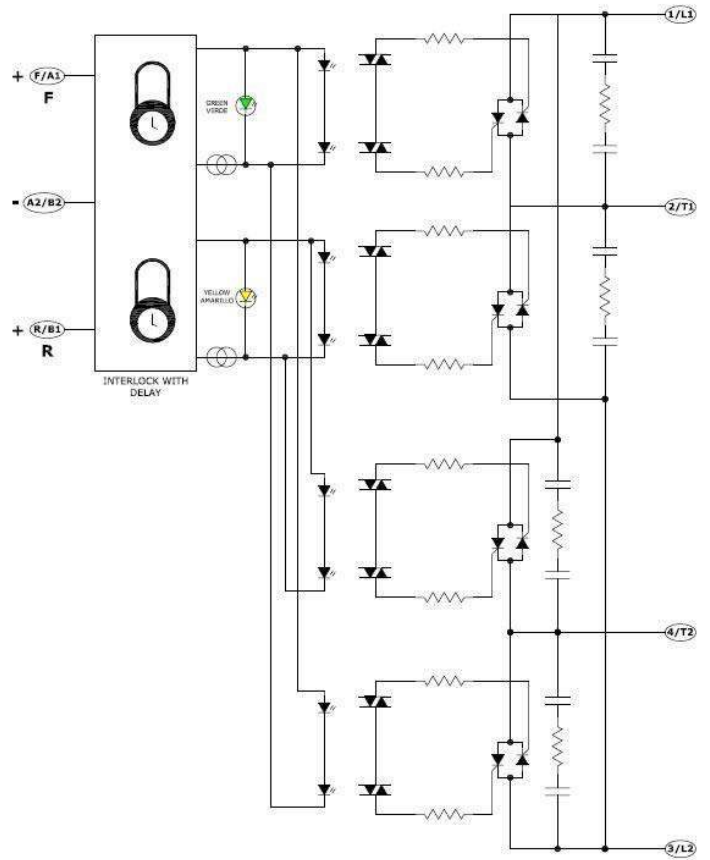
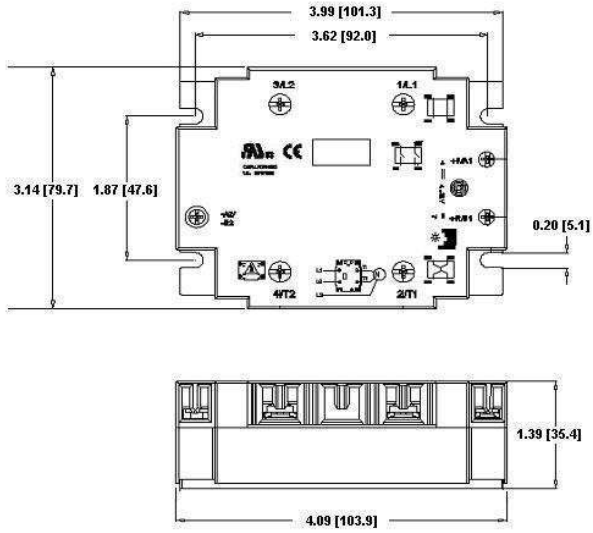


DERATING CURVES:  
53RV - 50AMPS





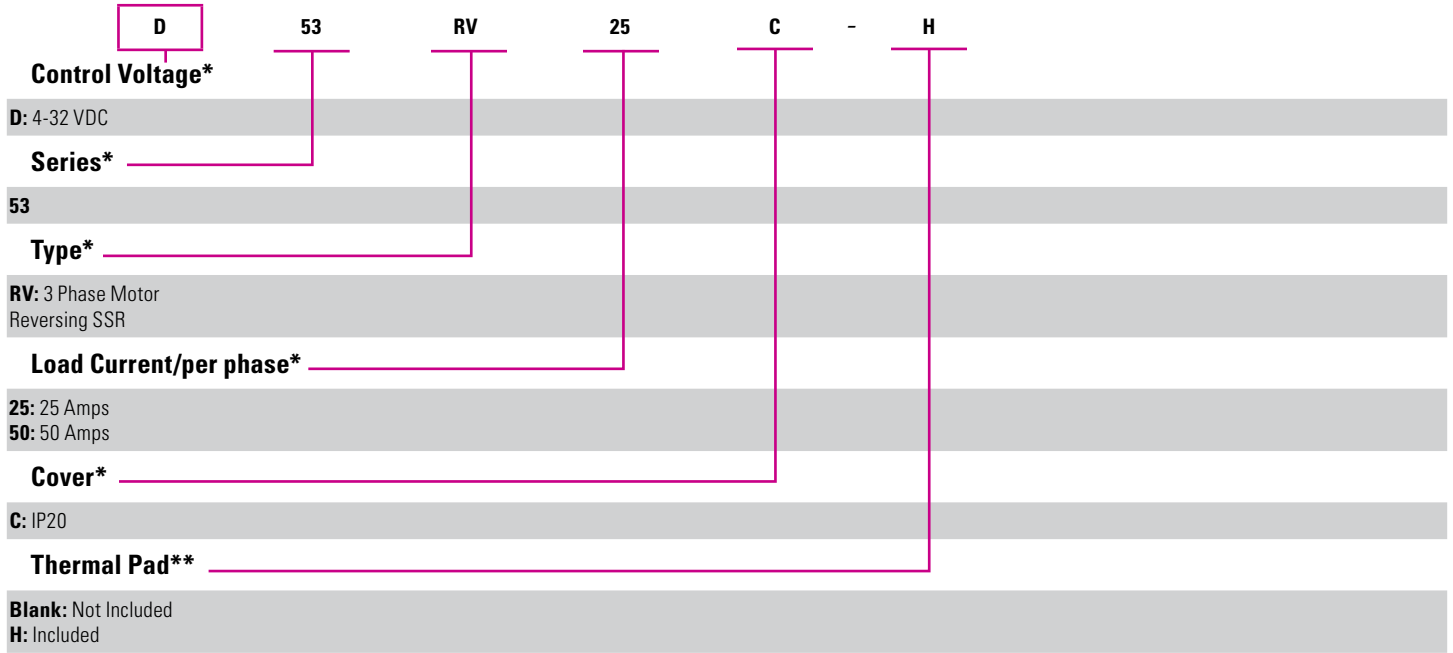
# MECHANICAL SPECIFICATIONS





# AVAILABLE OPTIONS

Example : D53RV25C-H



\*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



## 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.**

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