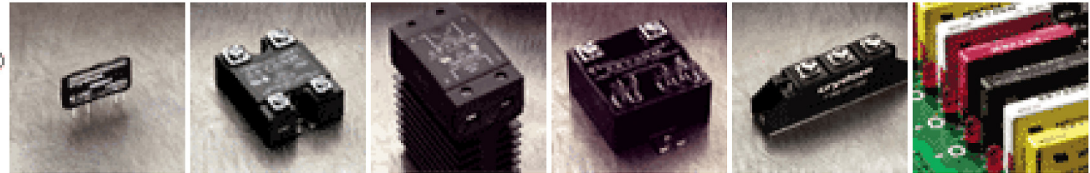




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Solid State Relays - Panel Mount: 53TP



Features

SCR output • 25-50Amp • 48-530 Vrms • 3 Phase • Status indicator LED • AC/DC control • Ideal for 3-phase loads in a Delta or Wye configuration where only one control signal is required.

Product	INPUT SPECIFICATIONS		OUTPUT SPECIFICATIONS		
	Control Voltage Range	Load Current	Switching Voltage Type	Turn On	Load Voltage Range
D53DP25D	3-32 Volts DC	0.05-25 Amps RMS	AC	Zero cross	48-530 Volts RMS
D53DP25D-10	3-32 Volts DC	0.05-25 Amps RMS	AC	Random	48-530 Volts RMS
D53DP50D	3-32 Volts DC	0.05-50 Amps RMS	AC	Zero cross	48-530 Volts RMS
D53DP50D-10	3-32 Volts DC	0.05-50 Amps RMS	AC	Random	48-530 Volts RMS
D53TP25D	3-32 Volts DC	0.05-25 Amps RMS	AC	Zero cross	48-530 Volts RMS
D53TP25D-10	3-32 Volts DC	0.05-25 Amps RMS	AC	Random	48-530 Volts RMS
D53TP50D	3-32 Volts DC	0.05-50 Amps RMS	AC	Zero cross	48-530 Volts RMS

D53TP50D-10	3-32 Volts DC	0.05-50 Amps RMS	AC	Random	48-530 Volts RMS
A53DP25D	90-280 Volts RMS	0.05-25 Amps RMS	AC	Zero cross	48-530 Volts RMS
A53DP25D-10	90-280 Volts RMS	0.05-25 Amps RMS	AC	Random	48-530 Volts RMS
A53DP50D	90-280 Volts RMS	0.05-50 Amps RMS	AC	Zero cross	48-530 Volts RMS
A53DP50D-10	90-280 Volts RMS	0.05-50 Amps RMS	AC	Random	48-530 Volts RMS
A53TP25D	90-280 Volts RMS	0.05-25 Amps RMS	AC	Zero cross	48-530 Volts RMS
A53TP25D-10	90-280 Volts RMS	0.05-25 Amps RMS	AC	Random	48-530 Volts RMS
A53TP50D	90-280 Volts RMS	0.05-50 Amps RMS	AC	Zero cross	48-530 Volts RMS
A53TP50D-10	90-280 Volts RMS	0.05-50 Amps RMS	AC	Random	48-530 Volts RMS

- **SCR Output**
- **LED Status Indicator**
- **Protective Cover Available (Part No. KS300)**
- **Panel Mount**
- **Integrated Overvoltage Protection by Automatic Self Turn-On (Suffix P)**

Three-phase solid state relays switch up to 530 Vrms directly to loads such as motors, transformers, heating elements, etc. Available with either AC or DC input (coil) control in zero-voltage or random turn-on switching versions.

Manufactured in Crydom's ISO 9001 Certified facility for optimum product performance and reliability.

OUTPUT SPECIFICATIONS ^①	MODEL NUMBERS	D53TP25D	D53TP50D	A53TP25D	A53TP50D
Operating Voltage (47-63 Hz) [Vrms]		48-530	48-530	48-530	48-530
Load Current Range ^③ [Arms]		.05-25	.05-50	.05-25	.05-50
Transient Overvoltage [Vpk]		1200	1200	1200	1200
Max. Surge Current, (16.6ms) [Apk]		250	625	250	625
Max. On-State Voltage Drop @ Rated Current [Vpk]		1.6	1.6	1.6	1.6
Thermal Resistance Junction to Case (R _{θJC}) [°C/W]		1.02	.63	1.02	.63
Maximum I ² t for Fusing, (8.3 msec.) [A ² sec]		260	1620	260	1620
Max. Off-State Leakage Current @ Rated Voltage [mArms]		10	10	10	10
Min. Off-State dv/dt @ Max. Rated Voltage [V/μsec] ^②		500	500	500	500
Max. Turn-On Time ^④		1/2 Cycle	1/2 Cycle	10.0 msec	10.0 msec
Max. Turn-Off Time		1/2 Cycle	1/2 Cycle	40.0 msec	40.0 msec
Power Factor (Min.) with Max. Load		0.5	0.5	0.5	0.5

INPUT SPECIFICATIONS ^①	DC CONTROL	AC CONTROL
Control Voltage Range	3-32 Vdc	90-280 Vrms (60Hz)
Max. Turn-On Voltage	3.0 Vdc	90 Vrms
Min. Turn-Off Voltage	1.0 Vdc	10 Vrms
Nominal Input Impedance	450 Ohms	54.8k Ohms
Typical Input Current	10mA @ 5 Vdc	2.2mA @ 120 Vrms, 4.4mA @ 240 Vrms

GENERAL NOTES

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- ① All parameters at 25°C and per section unless otherwise specified.
 ② Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
 ③ Heat sinking required, for derating curves see page 2.
 ④ Turn-on time for random turn-on versions is 0.02 msec (DC Control Models).



GENERAL SPECIFICATIONS

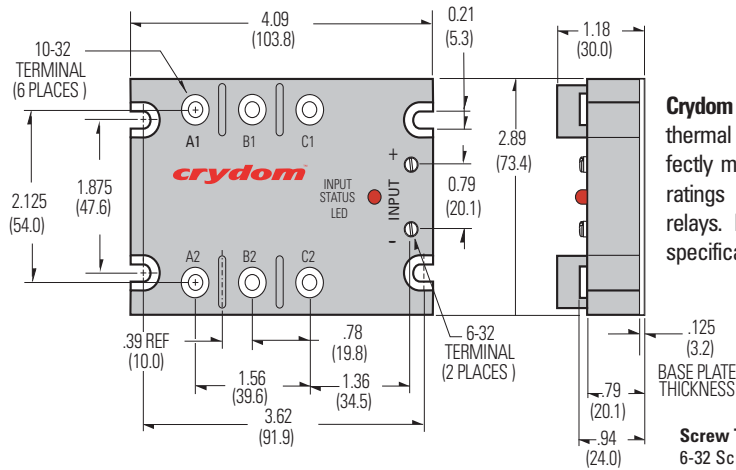
Dielectric Strength 50/60Hz Input/Output/Base	4000 Vrms
Insulation Resistance (Min.) @ 500 Vdc	10 ⁹ Ohm
Max. Capacitance Input/Output	8 pF
Ambient Operating Temperature Range	-40 to 80°C
Ambient Storage Temperature Range	-40 to 125°C

MECHANICAL SPECIFICATIONS

Weight: (typical)	10.3 oz. (315g)
Encapsulation:	Thermally Conductive Epoxy
Terminals:	Screws and Saddle Clamps Furnished

AVAILABLE OPTIONS

- 10** Non-Zero Cross, Instantaneous Turn-On
Example: **D53TP50D-10**
- DP** 2 Controlled, 1 Linked (A1-A2)
Example: **D53DP50D**
- P** Internal Overvoltage Protection. Relay Will Self Trigger Between 900-1200 Vpk. Not Suitable For Capacitive Loads.
Example: **D53TP50DP**
- H** Heat Transfer Pad (Attached)
Example: **D53TP50DH**

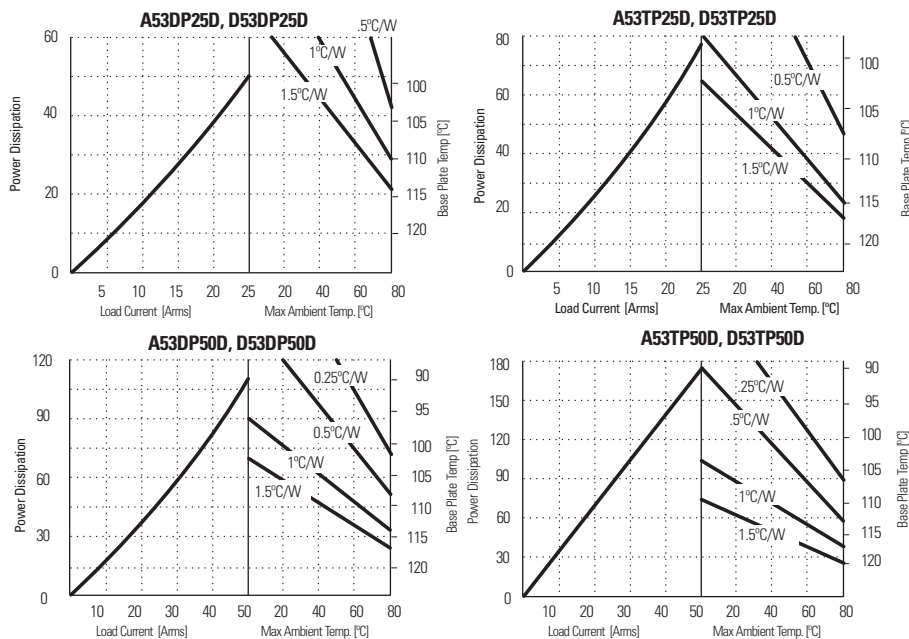


Crydom Heat Sinks offer excellent thermal management and are perfectly matched to the load current ratings of Crydom panel mount relays. Request Crydom's Heat Sink specification sheet for all the details.

Screw Torque Requirements:
6-32 Screws - 10 in. lbs. (1.1Nm),
8-32 and 10-32 Screws - 20 in. lbs. (2.2Nm)
(Screws dry without grease.)

All dimensions are in inches (millimeters)

CURRENT DERATING CURVES



APPROVALS

UL E116950
CSA LR81689
VDE 5941 UG



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