



Series 53TP

25-50Amp • 240/480 Vac • 3 PHASE

- **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.

MODEL NUMBERS	D53TP25D	D53TP50D	A53TP25D	A53TP50D
OUTPUT SPECIFICATIONS ①				
Operating Voltage (47-63 Hz) [Vrms]	48-530	48-530	48-530	48-530
Load Current Range③ [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

©2001 CRYDOM CORP, Specifications subject to change without notice.

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).

For recommended applications and more information contact:

USA: Sales Support (877) 502-5500 **Tech Support** (877) 702-7700 **FAX** (619) 710-8540
Crydom Corp, 2320 Paseo de las Americas, Ste. 201, San Diego, CA 92154

Email: sales@crydom.com **WEB SITE:** <http://www.crydom.com>

UK: +44 (0)1202 365070 • **FAX** +44 (0)1202 365090 Crydom International Ltd., 7 Cobham Road, Ferndown Industrial Estate, Ferndown, Dorset BH21 7PE, **Email:** intsales@crydom.com.

GERMANY: +49 (0)180 3000 506





Series 53TP

25-50Amp • 240/480 Vac • 3 PHASE

GENERAL SPECIFICATIONS

Dielectric Strength 50/60Hz Input/Output/Base 4000 Vrms

Insulation Resistance (Min.) @ 500 Vdc 10⁹ 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

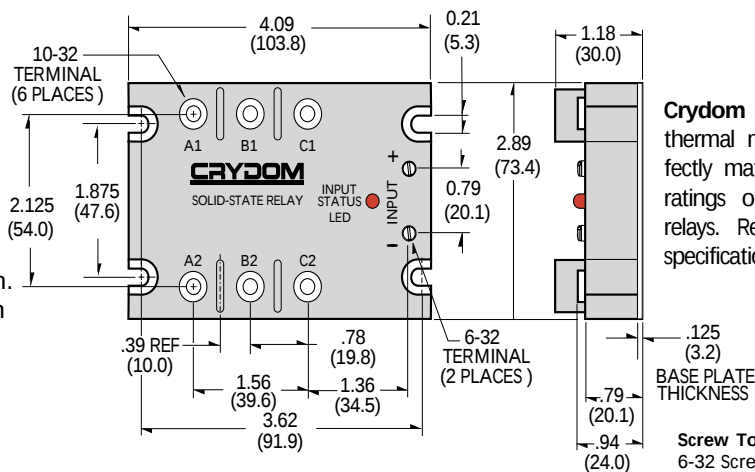
AVAILABLE OPTIONS

-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 Trasfer Pad (Attached)
Example: **D53TP50DH**



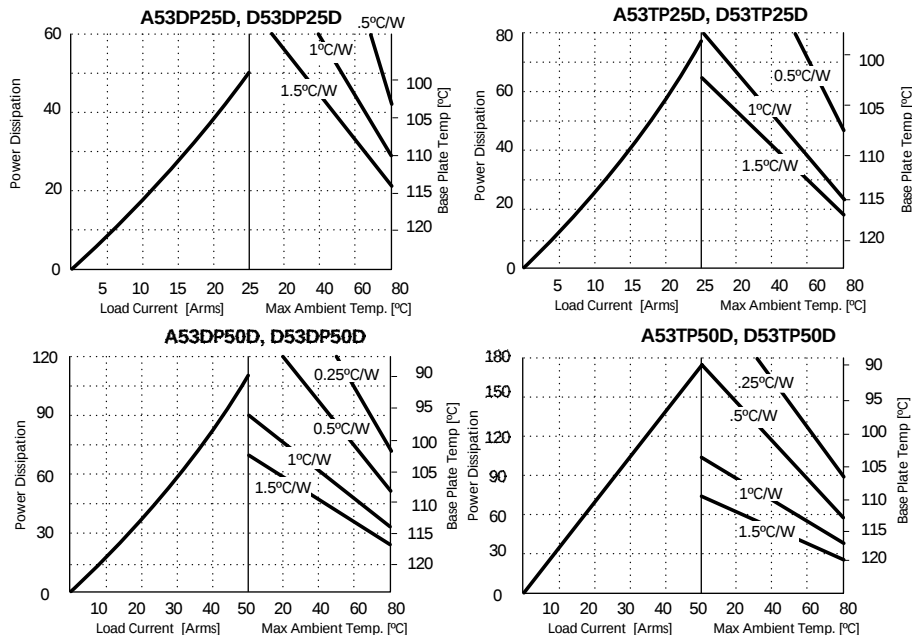
All dimensions are in inches (millimeters)

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.,
8-32 and 10-32 Screws - 20in. lbs.
(Screws dry without grease.)

CURRENT DERATING CURVES



©2001 CRYDOM CORP, Specifications subject to change without notice.

APPROVALS

UL E116950
CSA LR81689
VDE 5941 UG



FastFax Document No.161
SERIES53TP
Rev. 072903
PAGE 2 OF 2

For recommended applications and more information contact:

USA: Sales Support (877) 502-5500 **Tech Support** (877) 702-7700 **FAX** (619) 710-8540

Crydom Corp, 2320 Paseo de las Americas, Ste. 201, San Diego, CA 92154

Email: sales@crydom.com **WEB SITE:** http://www.crydom.com

UK: +44 (0)1202 365070 • **FAX** +44 (0)1202 365090 Crydom International Ltd., 7 Cobham Road, Ferndown Industrial Estate, Ferndown, Dorset BH21 7PE, **Email:** intsales@crydom.com.

GERMANY: +49 (0)180 3000 506

