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THREE PHASE SOLID STATE RELAY S3PD-4-..,S3PA-4-.. Series

Features

- Direct control by integrated circuits.
- Normal open type.
- Optically isolated.
- Zero Voltage turn-on, Zero Current Turn-Off.
- Built-in snubber.
- High Dielectric Strength.
- 4000 Volt Isolation.
- No noise feedback from output to input circuits.
- No noise due to load current switching at near zero point.
- Faster switching response.
- Requires minimum actuation power.

(J: Zero voltage turn-on; K: Random turn-on)

Casing A (10 to 40 Amps)



Casing B (50 to 90 Amps)



Type Selection Guide

Input Control Voltage	Rated operation al Voltage	Rated operational current AC rms.						
		10 amps	16 amps	25 amps	40 amps	50 amps	75 amps	90 amps
3.5 – 32 VDC	440V ACrms	S3PD – 4 – 10	S3PD – 4 – 16	S3PD – 4 – 25	S3PD – 4 – 40	S3PD – 4 – 50	S3PD – 4 – 75	S3PD – 4 – 90
75 – 280 VAC	440V ACrms	S3PA – 4 – 10	S3PA – 4 – 16	S3PA – 4 – 25	S3PA – 4 – 40	S3PA – 4 – 50	S3PA – 4 – 75	S3PA – 4 – 90
17– 80 VAC	440V ACrms	*	*	*	*	*	*	*

* Available on request

Input Specifications

TYPE	S3PD – 4 – 10/16/ ..	S3PA – 4 – 10/16/ ..	*
Control Voltage range	3.5 – 32 VDC	75 – 280 VAC	17 – 80 VAC
Control current range	8-80 mA	8-80 mA	*
Pick-up voltage	4 VDC	4 VDC	*
Drop-out voltage	1 VDC	1 VDC	*
Input resistance	Current Regulation		

* Available on request

Output Specifications

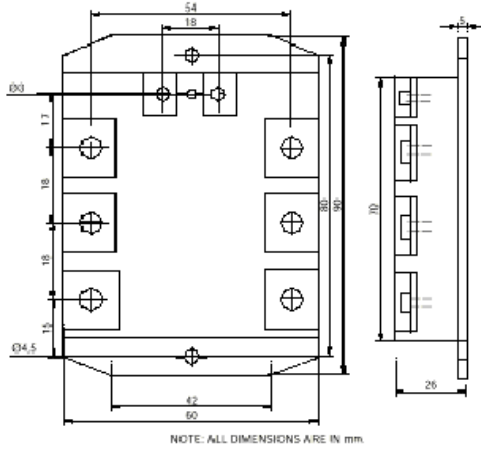
TYPE	S3PD-4-10 S3PA-4-10	S3PD-4-16 S3PA-4-16	S3PD-4-25 S3PA-4-25	S3PD-4-40 S3PA-4-40	S3PD-4-50 S3PA-4-50	S3PD-4-75 S3PA-4-75	S3PD-4-90 S3PA-4-90
Current range with proper Heatsink (IT)	10 A	16 A	25 A	40 A	50 A	75 A	90 A
Repetitive peak off state voltage (VDRM)	600-1200 Vpk	600-1200 Vpk	600-1200 Vpk	600-1200 Vpk	600-1200 Vpk	600-1200 Vpk	600-1200 Vpk
Voltage Drop @ Rated Current (VTM)	1.6 VACrms	1.6 VACrms	1.8 VACrms	1.8 VACrms	2.0 VACrms	2.0 VACrms	2.0 VACrms
Load Voltage Range	25 – 480 VACrms						
Surge Current (I) non-Repetitive t=20msecs. (ITMS)	120 A	180 A	400 A	500 A	500 A	1150 A	1150 A
Off-state leakage current @ Voltage (IDRM)	<10 mA	<10 mA	<10 mA	<10 mA	<10 mA	<10 mA	<10 mA
Holding current (IH)	250 mA	250 mA	250 mA	250 mA	250 mA	250 mA	250 mA
Turn-on (max.)	10 ms	10 ms	10 ms	10 ms	10 ms	10 ms	10 ms
Turn-off (max.)	10 ms	10 ms	10 ms	10 ms	10 ms	10 ms	10 ms
Dv/Dt @ Voltage	200 V/ μ s	200 V/ μ s	500 V/ μ s	1000 V/ μ s	1000 V/ μ s	1000 V/ μ s	1000 V/ μ s
I 2 T Fusing (10 ms.)	72 A ² S	130 A ² S	500 A ² S	600 A ² S	1250 A ² S	5000 A ² S	5000 A ² S

General Specifications

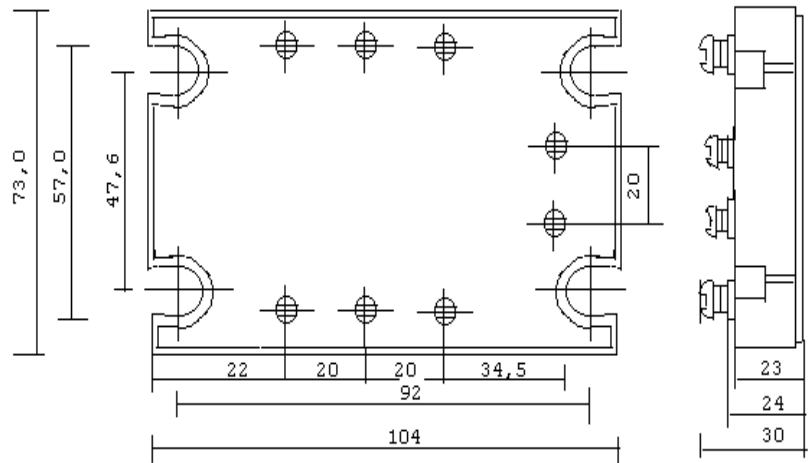
Frequency Range	47 – 70 Hz
Dielectric Strength (Input to Output to Base)	4000 Vrms
Weight	Approx. 300 g
Storage Temp.	- 40 °C to 100 °C
Junction Temp.	100 °C

Dimensions

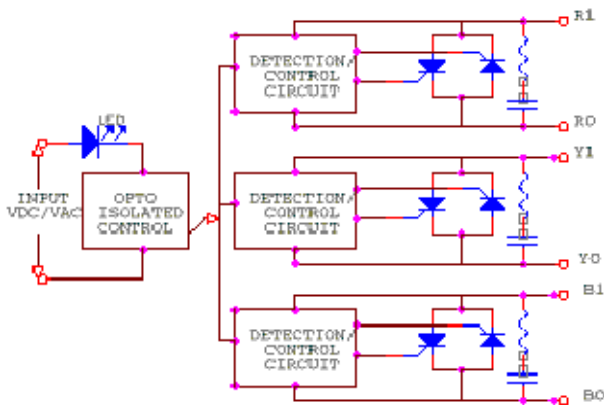
Chasing A (10 to 40 Amps)



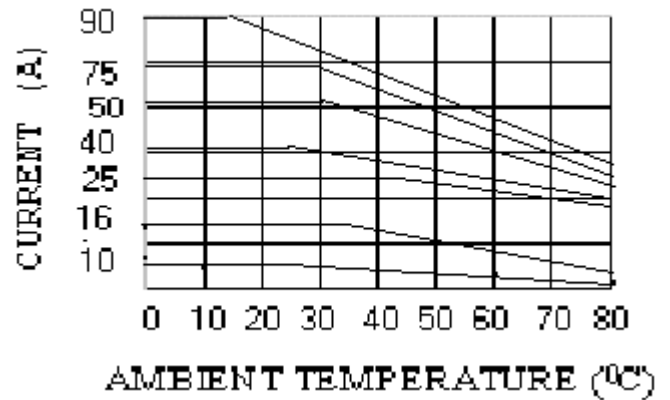
Chasing B (40 to 90 Amps)



Function Block Diagram



Derating Curves



SATRONIX (INDIA) Pvt.Ltd.

OFFICE: 412, Laxmi Plaza, Laxmi Indl. Est., Link Rd, Andheri (W), Mumbai- 400 053,INDIA
 Works:Unit No. 1,Electronic Sadan 1/Unit No.12, Electronic Sadan 3,Bhosari MIDC, PUNE -411026,INDIA

Tele: 91(020) 27122758 Cell No. 91(020) 31076215 FAX: 91(020) 27129518

Email: satronix@bom3.vsnl.net.in