Solid State Relay

SV Series Single Phase AC Output

ALTRAN MAGNETICS

- Zero Crossing or Random-on Switching
- Ratings from 10□75A @ 24-660VAC
- SCR Output
- DC or AC Input
- With Integrated Heatsink
- LED Indication
- Built-in RC Snubber Circuit
- On Panel or 35mm Rail(DIN EN50022)

Product Description

SV Series is an industrial solid state relay with an integrated heatsink, width at 30mm or 50mm. With din-rail clips, can be mounted on 35mm din-rail or be screwed on the panel. The product offers four control voltage specifications: 4 ~ 32VDC or 90~280VAC, the load voltage is 24 ~ 280VAC,24 ~ 530VAC and 24 ~ 660VAC, load current 10A, 20A,30A,40A, 50A, and 75A.

Product Selection

ASR	—	SV	480	D	30	Z	W	-L	M
	Packing - : Bulk Packing A-Z	SV Series	Load Voltage 240:240VAC 480:480VAC 600:600VAC	Control Voltage Type D:DC Control A:AC Control	Load Current 10:10Amp 20:20Amp 30:30Amp 40:40Amp 50:50Amp 75:75Amp	Switching Mode Z: Zero Crossing R: Random-on	Control Voltage W: 4-32VDC Y: 90-280VAC	LED Indication Blank: Without L: With LED	Overvoltage Protection Blank: Without M:MOV T:TVS

Technical Specification

INPUT CIRCUIT		
Control Voltage Range	AC Control	90-280VAC
	DC Control	4-32VDC
Must Turn-on Voltage	AC Control	90VAC
	DC Control	4VDC
Must Turn-off Voltage	AC Control	15VAC
	DC Control	1VDC
Maximum Input Current	DC Input Zero-crossing	25mA@280VAC
	DC Input Random-on	25mA@32VDC
	AC Input	25mA@280VAC

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OUTPUT CIRCUIT		
Load Voltage	240V	24-280VAC
	480V	24-530VAC
	600V	24 -660VAC
Maximum Turn-on Time	DC Input Random-on	1ms
	DC Input Zero-crossing	10ms
	AC Input	40ms
Maximum Turn-off Time	AC Control	40ms
	DC Control	10ms
Maximum Surge Current (@10ms)	10A	200A
	20A	300A
	30A	500A
	40A	600A
	50A	650A
	75V	750A
Maximum I2t For Fusing [@10ms]	10A	$200A^2S$
	20A	$450A^2S$
	30A	$1250A^2S$
	40A	$1800A^2S$
	50A	$2112A^2S$
	75V	2812A2S
Transient Overvoltage	240V	600Vpk
	480V	1200Vpk
	600V	1600Vpk
Maximum Off-state Leakage Current [@ Rated Voltage]		10mA
Maximum On-state Voltage Drop [@ Rated Current]	Typical	1.25Vrms
	Max.	1.6Vrms
Minimum Off-state dv/dt [@ Maximum Rated Voltage]		500V/μs

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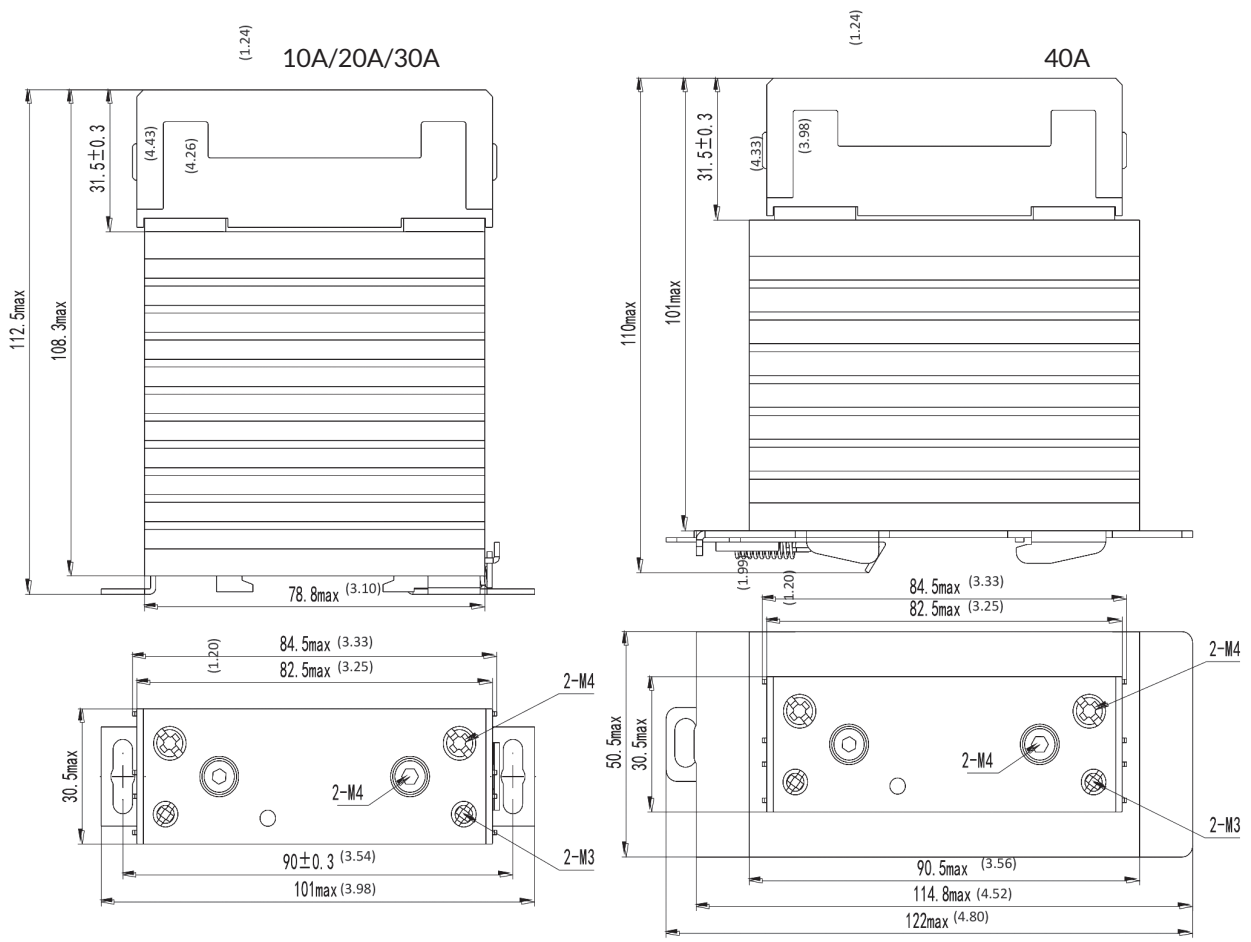
GENERAL INFORMATION		
Dielectric Strength [50/60Hz]	Input/Output	4000Vrms
	Input,Output/Base	2500Vrms
Minimum Insulation Resistance (@500VDC)		1000MΩ
Min.power factor		0.5
Ambient Operating Temperature Range		-30˚C - +80˚C
Ambient Storage Temperature Range		-30˚C - +100˚C
Weight [Typical]	10A/20A/30A	355g
	40A	540g
	75A	1062g

Application Note:

Suitable for temperature chamber, injection molding machine, packaging machine and etc.



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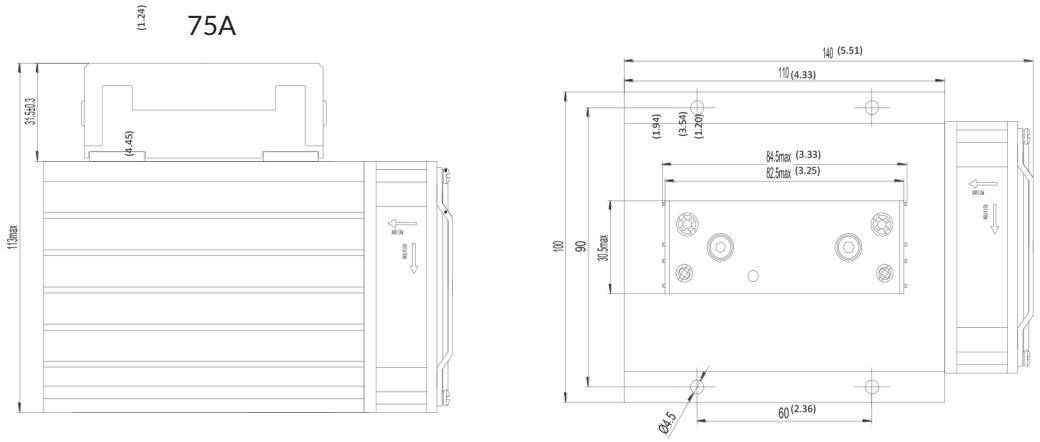
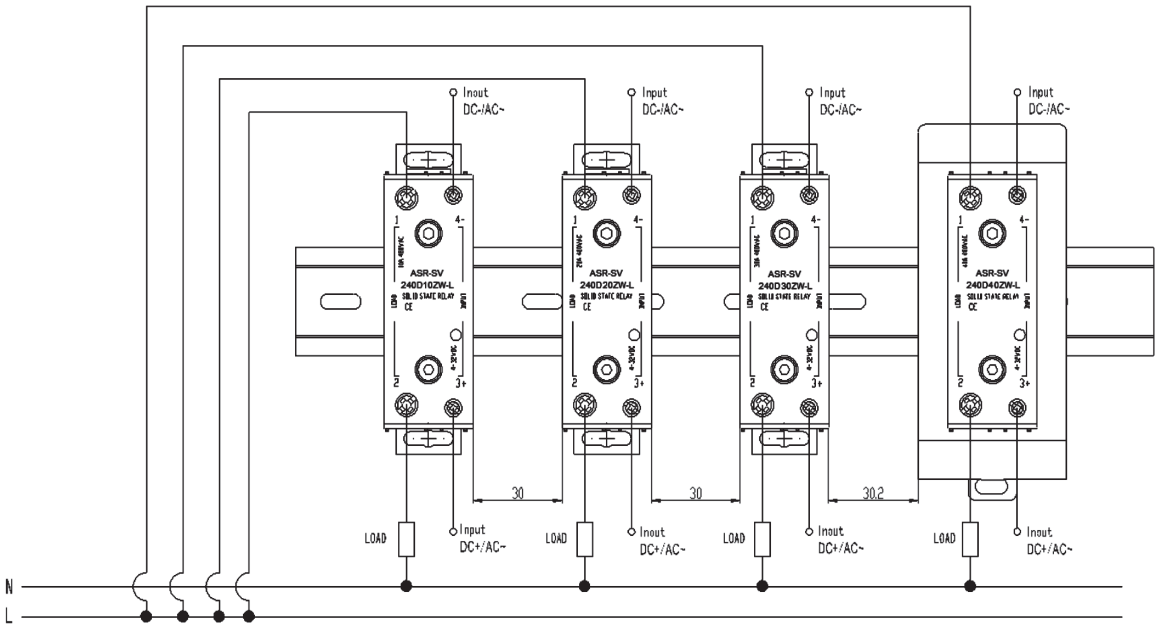
75A



Connection Example:

When mounting relays side by side please see recommended minimum spacing below.

Please screw tight when assembling the SSR to your machine, just in case the heat generated.



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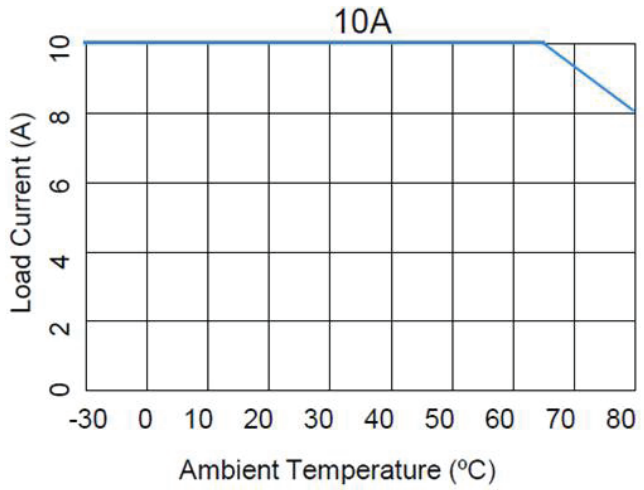
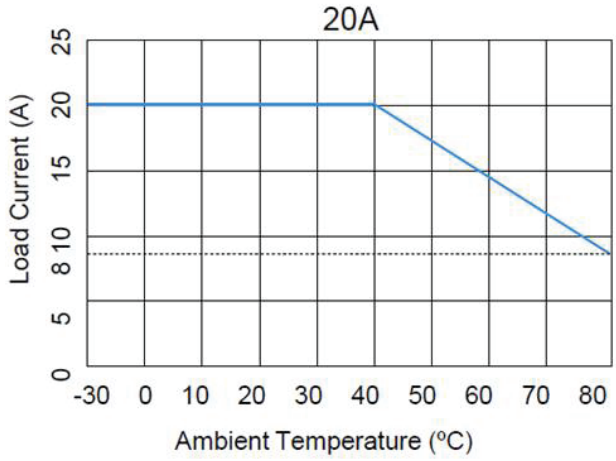
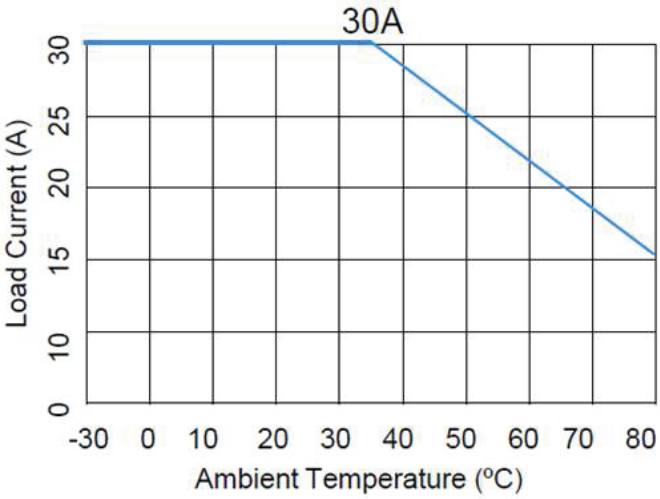
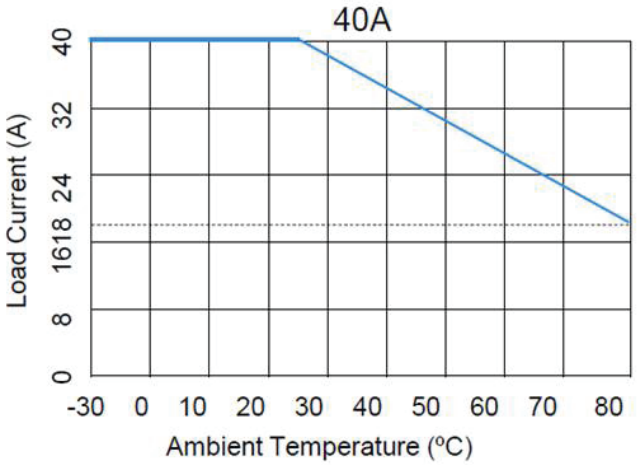
Thermal Curve









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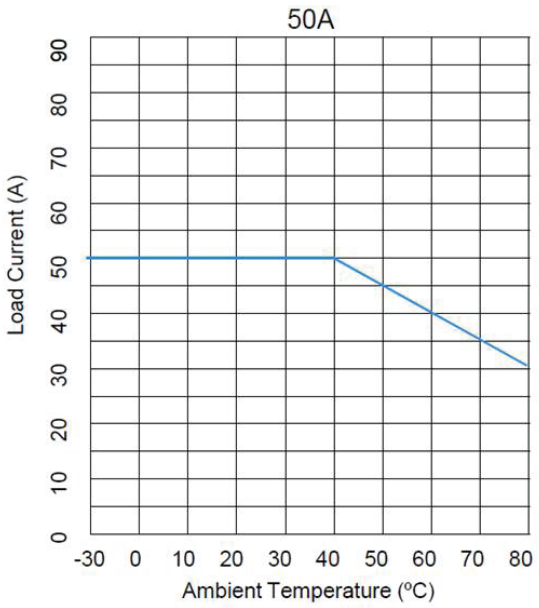

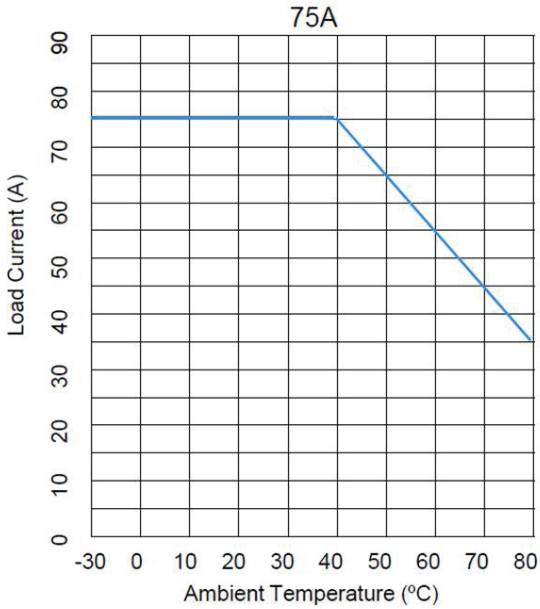

Attentions:

1. When ambient temperature is above 25□, the maximum load current decreases. See thermal derating curve.
2. When connecting wiring to SSR please ensure screws are torqued down to the specs below.
3. Please use a suitable screwdriver to mount the relay, please refer to the following requirements:

	INPUT TERMINAL(3, 4)	LOAD TERMINAL(1, 2)	
Recommended Torque	0.6N-m	1N-m	
	5.31 in-lb	8.85 in-lb	
Stripping length	7mm (0.28in)	10mm (0.39in)	
Optional wire	Single core cable	1x0.5~2.5mm^2	1x1.5~6mm^2
		1x20 to 12 AWG	1x14 to 10 AWG
	Multi-core cable (with ferrule)	1x0.5~2.5mm^2	1x1.5~10mm^2
		1x20 to 12 AWG	1x14 to 10 AWG
	Use copper nose connection Input:W=6.5mm (0.26in) max Output: W=11.5mm (0.45in) max		

Product Certification

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