

# RSR1 SERIES

## FEATURES

- Zero voltage turn-on, zero current turn-off (minimize EMI/FRI)
- Input LED indicator
- Output snubber circuit protection
- TTL and CMOS compatible
- High dv/dt and high blocking voltage



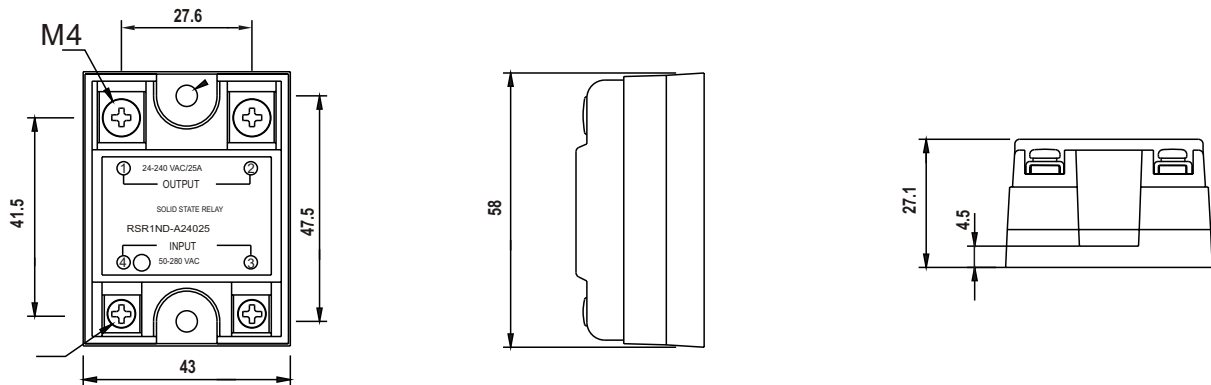
UL FILE NO.: E126167  
CUL FILE NO.: E126167

## ORDERING INFORMATION

RSR    1    N    D    —    A    240    25        
           1           2           3           3-1           4           5           6           7

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| <ol style="list-style-type: none"> <li>1. Series Name</li> <li>2. Type Name</li> <li>3. N : With LED Indicate<br/>Nil : Without LED Indicate</li> <li>3-1D : DC In Put Control<br/>A : AC In Put Control</li> <li>4. Out Put Nominal Voltage Type :<br/>A : AC ; D : DC</li> </ol> | <ol style="list-style-type: none"> <li>5. Out Put Nominal Voltage :<br/>120 : 120V ; 240 : 240V ; 480 : 480V</li> <li>6. Load Current :<br/>10 : 10 Amps.<br/>25 : 25 Amps.<br/>40 : 40 Amps.</li> <li>7. Nil : Zero-on, Normal Open<br/>R : Random-on, Normal Open</li> </ol> |
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## DIMENSIONS



## INPUT CIRCUIT

Control Voltage Range	DC 4 - 32 V		AC 50-280 V
Control Current	15mA Max.	120mA Max.	15mA Max.
Min. Turn-off Voltage	1.5 VDC		40 VAC
Input Impedance	2.0K $\Omega$ Min.	270 $\Omega$ Min.	106K $\Omega$ Min.

## OUTPUT CIRCUIT

Max. Load Current (rms)	10A	25A	40A	15A	25A	40A	10A	25A	40A	
Nominal Load Voltage (VAC)	120		240		440			120		240
Load Voltage Range (VAC)	24-140		24-280		48 - 480			24-140		24-280
Non-Repetitive Max. Peak Voltage (VAC)	400		600		800			400		600
Non-Repetitive Max. Peak Current	125A	260A	315A	200A	250A	400A	125A	260A	315A	
Max. Off-state Leakage Current	1mA	7mA		2mA	1mA		1mA		7mA	
Max. Off-state Voltage Drop(V)	1.6		1.8	1.6		1.8	1.6		1.8	
Min. Load Current(mA)	50		100	70		120	50		100	
Max. Off-state Slew Rate(dv/dt)	250V/ $\mu$ s			700V/ $\mu$ s			900V/ $\mu$ s	250V/ $\mu$ s		
Operating Frequency Range	47 Hz ~ 63 Hz									

## GENERAL CHARACTERISTICS

Zero-on	Zero-on	
Max. Turn-on Time (60Hz)	8.3 ms	10ms
Max. Turn-off Time (60Hz)	8.3 ms	20ms
Insulation Resistance	DC 500V 1,000 M $\Omega$ Min.(Between Input & Output, Input/Output & Case)	
Dielectric Strength	3.5K VAC(Between Input & Output)	
Capacitance(Input to Output)	15pF Max.(Between Input & Output)	
Operation Temperature	-20 $^{\circ}$ C~+ 80 $^{\circ}$ C	-20 $^{\circ}$ C~+ 75 $^{\circ}$ C
Storage Temperature	-40 $^{\circ}$ C~+ 100 $^{\circ}$ C	
Heatsink(Max. Load current)	3.5 $^{\circ}$ C/W	2.1 $^{\circ}$ C/W

## FEATURES

- Zero voltage turn-on, zero current turn-off (minimize EMI/FRI)
- Input LED indicator
- Built-in snubber network
- Low input power consumption, TTL and CMOS compatible
- High dv/dt and high blocking voltage

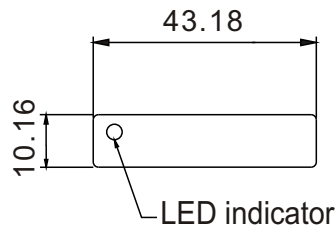
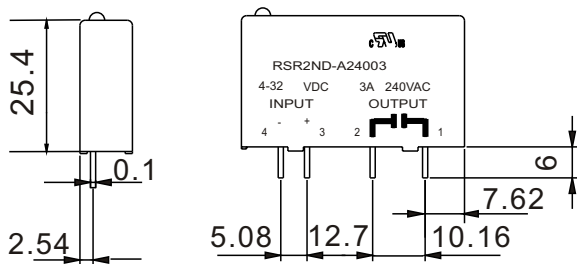


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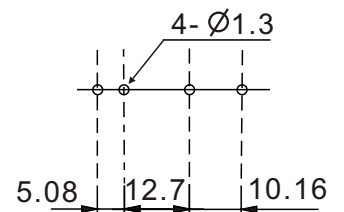
RSR    2    N    D    —    A    240    03            
 1        2        3        3-1        4        5        6        7

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## DIMENSIONS



P.C.B LAYOUT  
(BOTTOM VIEW)



## INPUT CIRCUIT

Control Voltage Range	DC 4 - 32 V
Control Current	15mA Max.
Min. Turn-off Voltage	1.5 VDC
Input Impedance	2.0K $\Omega$ Min.

## OUTPUT CIRCUIT

Load Type	AC		DC
Max. Load Current (rms)	3A		
Nominal Load Voltage (VAC)	120	240	60
Load Voltage Range (VAC)	24-140	24-280	3-60
Non-Repetitive Max. Peak Voltage (VAC)	400	600	60
Non-Repetitive Max. Peak Current	80A		5A
Max. Off-state Leakage Current	5mA		1.0mA
Max. Off-state Voltage Drop(V)	1.5V		
Min. Load Current(mA)	50mA		10mA
Max. Off-state Slew Rate(dv/dt)	100V/ $\mu$ s		—
Operating Frequency Range	47 Hz ~ 63 Hz		—

## GENERAL CHARACTERISTICS

Zero-on	Zero-on	
Max. Turn-on Time (60Hz)	8.3 ms	50 $\mu$ s
Max. Turn-off Time (60Hz)	8.3 ms	100 $\mu$ s
Insulation Resistance	DC 500V 1,00 M $\Omega$ Min.(Between Input & Output, Input/Output & Case)	
Dielectric Strength	2.5K VAC(Between Input & Output)	
Capacitance(Input to Output)	10pF Max.(Between Input & Output)	
Operation Temperature	-20 $^{\circ}$ C ~+ 85 $^{\circ}$ C	-20 $^{\circ}$ C ~+ 80 $^{\circ}$ C
Storage Temperature	-40 $^{\circ}$ C ~+ 100 $^{\circ}$ C	