

# THREE PHASE TYPE SOLID STATE RELAY ESR6 SERIES



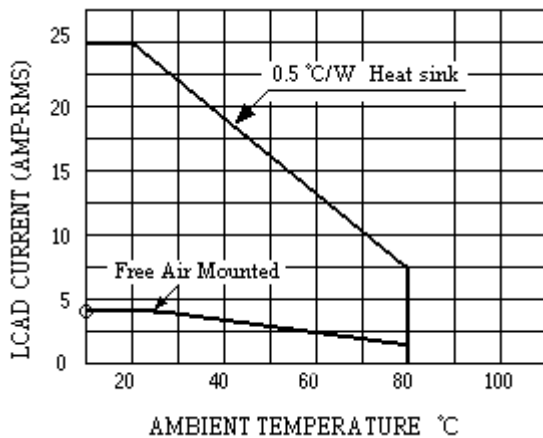
## FEATURES

- Optically isolated.
- Output snubber circuit included.
- High surge rating allows.
- No arc.
- Noiseless.
- Low consumption inputs.
- Zero current switch-off.

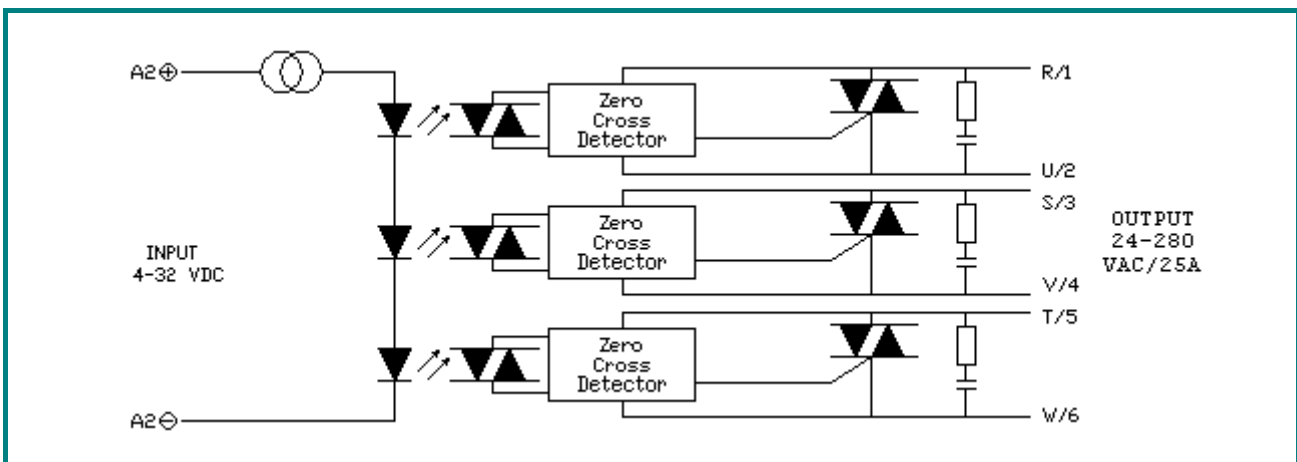
## APPLICATIONS

- Household appliance
- Temperature control system
- Industrial automatic control
- Lighting system
- Office appliances
- Factory appliances

## TEMPERATURE DERATING CHART



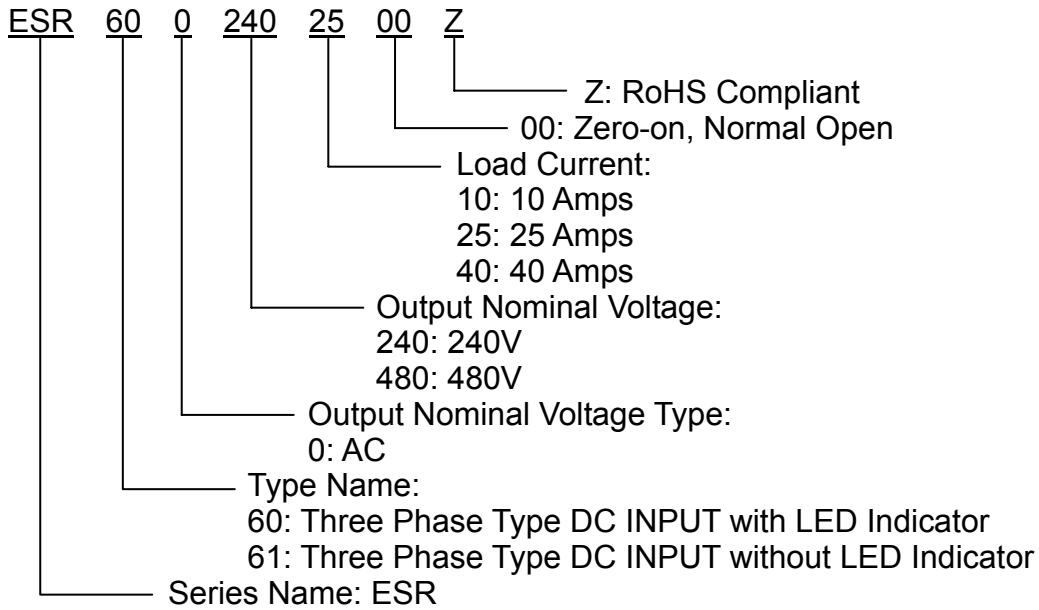
## EQUIVALENT CIRCUIT DIAGRAM



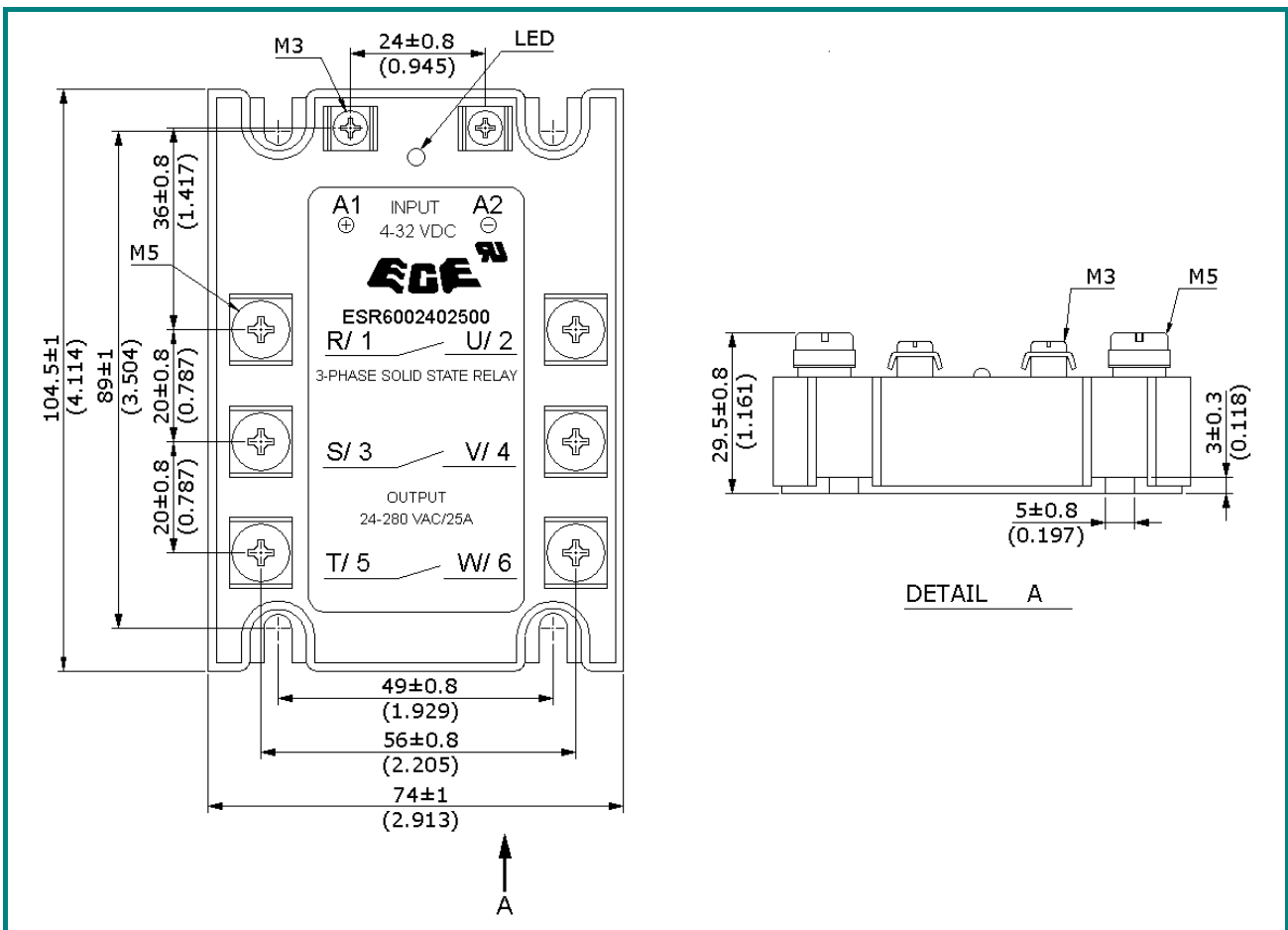


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and You Always Relax!**

## ■ PART NUMBERING SYSTEM



## ■ DIMENSIONS





**■ SPECIFICATIONS ..... (DC INPUT CONTROL)**

◆ 240V

Description \ Type	ESR600			ESR610		
	2401000	2402500	2404000	2401000	2402500	2404000
<b>■ Input Circuit</b>						
LED Indicate	YES			NO		
Control Voltage Range	4-32 VDC					
Control Current	30mA Max.					
Min. Turn-off Voltage	3.8 VDC					
<b>■ Output Circuit</b>						
Max. Load Current	10A (rms)	25A (rms)	40A (rms)	10A (rms)	25A (rms)	40A (rms)
Nominal load Voltage (VAC)	240					
Load Voltage Range (VAC)	24-240					
Non-Repetitive Max. Peak Voltage (VAC)	600					
Non-Repetitive Max. Peak Current	125A	260A	315A	125A	260A	315A
Max. Off-state Leakage Current	1mA	7mA	7mA	1mA	7mA	7mA
Max. On-state Voltage Drop	1.6V	1.6V	1.8V	1.6V	1.6V	1.8V
Min. Load Current	50mA	100mA	100mA	50mA	100mA	100mA
Max. Off-state Slew Rated (dv/dt)	250V/μs					
Operating Frequency Range	47Hz ~ 63Hz					
<b>■ General Characteristics</b>						
Zero-on or Random-on	Z					
Max. Turn-on Time (60Hz)	8.3ms					
Max. Turn-off Time (60Hz)	8.3ms					
Insulation Resistance	DC 500V 10 <sup>9</sup> Ω Min. (Between Input & Output, Input / Output & Case)					
Dielectric Strength	3.5K VAC (Between Input & Output)					
Capacitance (Input to Output)	15pF Max. (Between Input & Output)					
Operating Temperature	-20°C ~ +80°C					
Storage Temperature	-40°C ~ +100°C					
Heat Sink	1.5°C/W(10A), 0.5°C/W(25A), 0.3°C/W(40A)					



**■ SPECIFICATIONS ..... (DC INPUT CONTROL)**

◆ 480V

Description	Type	ESR600			ESR610		
		4801000	4802500	4804000	4801000	4802500	4804000
<b>■ Input Circuit</b>							
LED Indicate		YES			NO		
Control Voltage Range		4-32 VDC					
Control Current		30mA Max.					
Min. Turn-off Voltage		3.8 VDC					
<b>■ Output Circuit</b>							
Max. Load Current		10A (rms)	25A (rms)	40A (rms)	10A (rms)	25A (rms)	40A (rms)
Nominal load Voltage (VAC)		440					
Load Voltage Range (VAC)		48-480					
Non-Repetitive Max. Peak Voltage (VAC)		800					
Non-Repetitive Max. Peak Current		200A	250A	400A	200A	250A	400A
Max. Off-state Leakage Current		2mA	1mA	1mA	2mA	1mA	1mA
Max. On-state Voltage Drop		1.6V	1.6V	1.8V	1.6V	1.6V	1.8V
Min. Load Current		70mA	120mA	100mA	70mA	120mA	100mA
Max. Off-state Slew Rated (dv/dt)		700V/μs	700V/μs	900V/μs	700V/μs	700V/μs	900V/μs
Operating Frequency Range		47Hz ~ 63Hz					
<b>■ General Characteristics</b>							
Zero-on or Random-on		Z					
Max. Turn-on Time (60Hz)		8.3ms					
Max. Turn-off Time (60Hz)		8.3ms					
Insulation Resistance		DC 500V 10 <sup>9</sup> Ω Min. (Between Input & Output, Input / Output & Case)					
Dielectric Strength		3.5K VAC (Between Input & Output)					
Capacitance (Input to Output)		15pF Max. (Between Input & Output)					
Operating Temperature		-20°C ~ +80°C					
Storage Temperature		-40°C ~ +100°C					
Heat Sink		1.5°C/W(10A), 0.5°C/W(25A), 0.3°C/W(40A)					