

# KAL96546WF3

KAL Series Single Phase AC Output

## Product Description

- ◆ Zero Crossing or Random-on Switching
- ◆ SCR Output
- ◆ DC or AC Input
- ◆ Load Current: 10A, 20A, 30A, 40A, 50A, 75A
- ◆ Dielectric Strength: 4000Vrms
- ◆ Built-in RC Snubber Circuit
- ◆ With Integrated Heatsink, Width 30mm  
(for 10A-30A), 50mm (for 40A) or 105 mm(50A, 75A)
- ◆ 35mm Rail DIN(EN50022)
- ◆ LED Indicator
- ◆ RoHS Compliant



## Ordering Information

KAL							(XXX)
KAL Series <sup>(1)</sup>	Load Voltage 240: 240VAC 480: 480VAC 600: 600VAC	D: DC Control A: AC Control	Load Current 10:10Amp 20:20Amp 30:30Amp 40:40Amp 50:50Amp 75:75Amp	Switching Mode Blank: Zero Crossing R: Random-on	L: LED	M: MOV T: TVS (Optional)	Customized Code

Certification	Test Standard
UL	UL508
CE	C22.2 No. 14-13

		10A	20A	30A	40A	50A	75A
A:90-280VAC	600	KSV600A10-L	KSV600A20-L	KSV600A30-L	KSV600A40-L	KSV600A50-L	KSV600A75-L
		KSV600A10-LM	KSV600A20-LM	KSV600A30-LM	KSV600A40-LM	KSV600A50-LM	KSV600A75-LM
		KSV600A10-LT	KSV600A20-LT	KSV600A30-LT	KSV600A40-LT	KSV600A50-LT	KSV600A75-LT
		KSV600A10R-L	KSV600A20R-L	KSV600A30R-L	KSV600A40R-L	KSV600A50R-L	KSV600A75R-L
		KSV600A10R-LM	KSV600A20R-LM	KSV600A30R-LM	KSV600A40R-LM	KSV600A50R-LM	KSV600A75R-LM
		KSV600A10R-LT	KSV600A20R-LT	KSV600A30R-LT	KSV600A40R-LT	KSV600A50R-LT	KSV600A75R-LT

**General Specifications**

**Input Specifications (Ta=25°C)**

Control Voltage Range	DC Control	4-32VDC
	AC Control	90-280VAC
Must Turn-on Voltage	DC Control	4VDC
	AC Control	90VAC
Must Turn-off Voltage	DC Control	1VDC
	AC Control	15VAC
Maximum Input Current	25mA	

**Output Specifications (Ta=25°C)**

Load Voltage Range	240VAC	24-280VAC
	480VAC	24-530VAC
	600VAC	24-660VAC
Maximum Turn-on Time	DC Control Random-on	1ms
	DC Control Zero Crossing	10ms
	AC Control	40ms
Maximum Turn-off Time	DC Control	10ms
	AC Control	40ms
Maximum Surge Current (@10ms)	10A	200A
	20A	300A
	30A	500A
	40A	600A
	50A	650A
	75A	750A
Maximum I <sup>2</sup> t for Fusing (@10ms)	10A	200A <sup>2</sup> s
	20A	450A <sup>2</sup> s
	30A	1250A <sup>2</sup> s
	40A	1800A <sup>2</sup> s
	50A	2112A <sup>2</sup> s
	75A	2812A <sup>2</sup> s
Maximum Transient Overvoltage	240VAC	600Vpk
	480VAC	1200Vpk
	600VAC	1600Vpk
Maximum Off-State Leakage Current@Rated Load Voltage	10mA	
Maximum On-State Voltage Drop@Rated Current	1.6Vrms	
Minimum Off-State dv/dt@Maximum Rated Voltage	500V/μs	

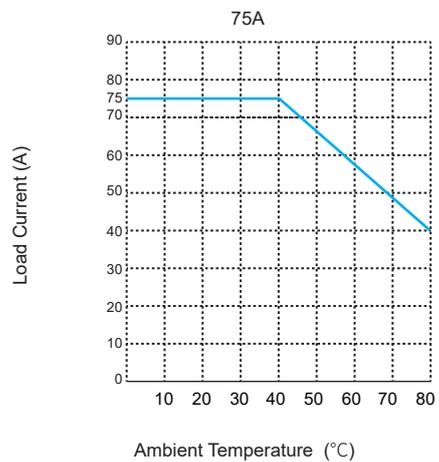
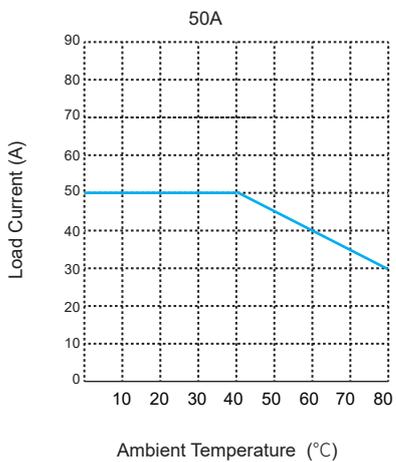
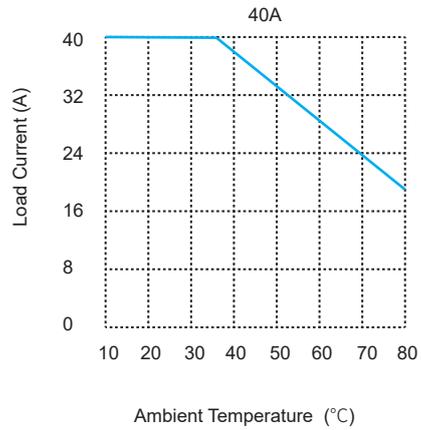
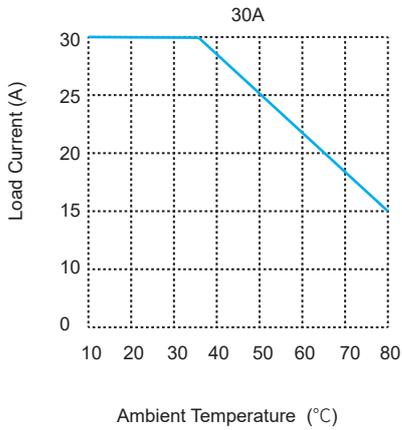
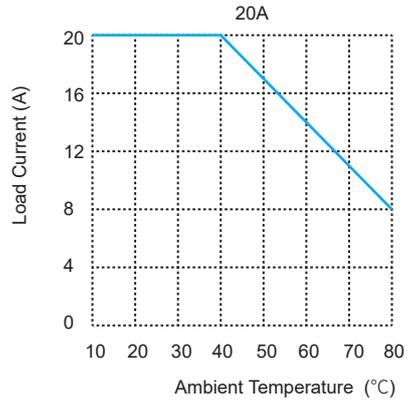
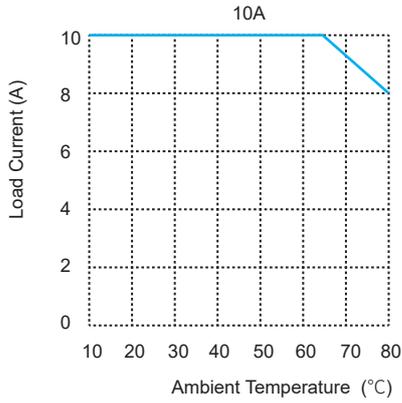
**Dielectric Strength (50/60Hz)**

Minimum Insulation Resistance (@500VDC)	Input/Output	4000Vrms
Minimum Power Factor (at Maximum load)	Input, output/Base	2500Vrms
Minimum Insulation Resistance (@500VDC)	1000MΩ	
Minimum Power Factor (at Maximum load)	0.5	
Ambient Temperature Range	-30°C ~ +80°C	
Storage Temperature Range	-30°C ~ +100°C	
Weight (Typical)	10A/20A/30A	355g
	40A	540g
	50A	1030g
	75A	1062g

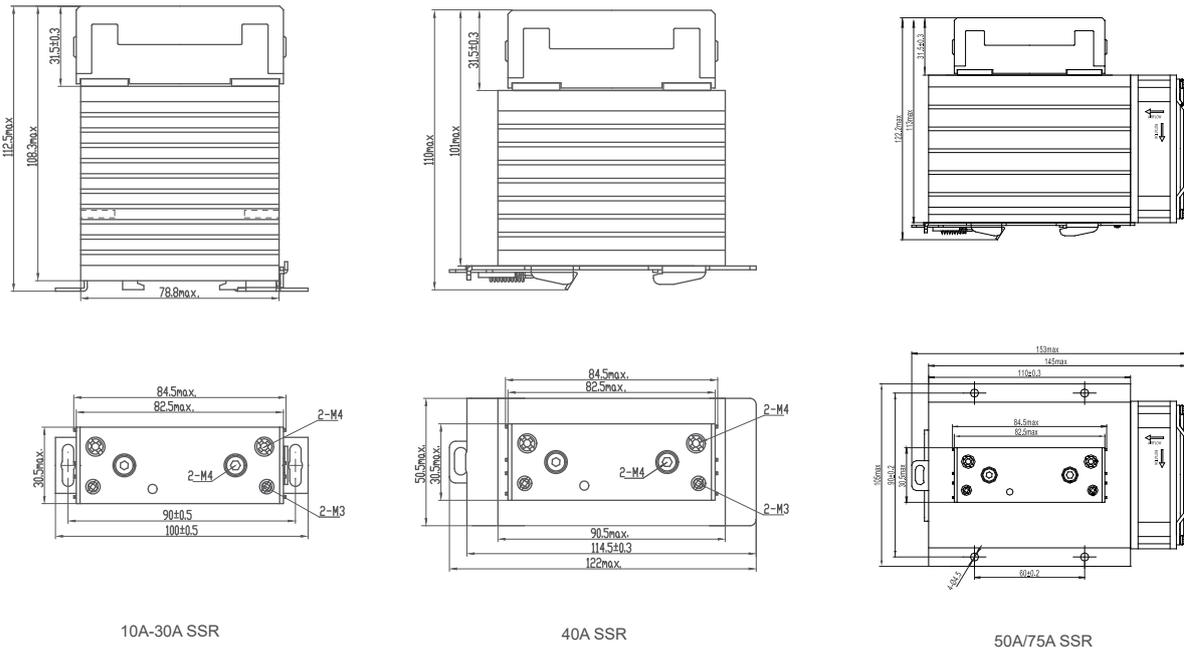
Applications

Suitable for Temperature Chamber, Injection Molding Machine, Packaging Machine, and etc.

Thermal Derating Curve

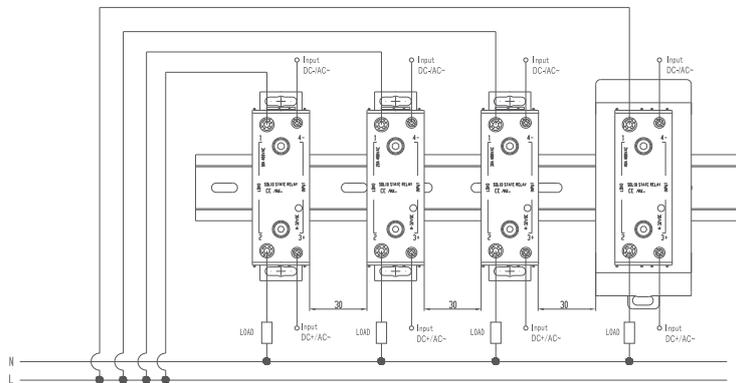


Outline Dimensions



Connection Example

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



General Notes

1. When the operation temperature is high, please consider the derating as per the thermal 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
Stripping Length		7mm	10mm
Optional Wire	Single Core Cable	1x0.5~2.5mm <sup>2</sup> 2x0.5~1mm <sup>2</sup>	2x1.5~6mm <sup>2</sup>
	Multi-core Cable (with ferrule)	1x0.5~2.5mm <sup>2</sup> 2x0.5~1mm <sup>2</sup>	1x1.5~10mm <sup>2</sup> 2x1.5~6mm <sup>2</sup>