

## **SINGLE PHASE SOLID STATE RELAYS – DC -AC** **SDA-330/480-..., SAA-330/480-..., SERIES**

### **Features**

- Direct control by integrated circuits.
- Normal open type.
- Optically isolated.
- Zero Voltage Turn-On, Zero Current Turn-off.
- Random voltage turn-on for inductive load.
- Built-in snubber.
- High Dielectric Strength.
- No noise feedback from output to input circuits.
- No noise due to load current switching at near zero.
- Faster switching response.
- Requires minimum actuation power.
- Chassis mount.



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

### **Type Selection Guide**

Input Control Voltage	Rated operational voltage	Rated operational current AC rms.			
		50 A	75 A	90 A	125 A
3 - 32 VDC	330 VAC rms	SDA-330-50	SDA-330-75	SDA-330-90	SDA-330-125
160 – 280 VAC	330 VAC rms	SAA-330-50	SAA-330-75	SAA-330-90	SAA-330-125
17- 80 VAC	330 VAC rms	*	*	*	*
3 - 32 VDC	480 VAC rms	SDA-480-50	SDA-480-75	SDA-480-90	SDA-480-125
160 – 280 VAC	480 VAC rms	SAA-480-50	SAA-480-75	SAA-480-90	SAA-480-125
17 – 80 VAC	480 VAC rms	*	*	*	*

\* Available on request

**K** Random/Instant turn-on: **Type Selection SDA-330-50K, SAA-480-125K.**

### **Input Specifications**

Type	SDA – 330/480 – 50/75...	SAA – 330/480 – 50/75...	*
Control Voltage	3 – 32 VDC	160 – 280 VAC	17 – 80 VAC
Control Current Range	1-30 mA	9-18 mA	
Pick-Up Voltage	3 VDC	180 VAC	
Drop Out Voltage	1 VDC	45 VAC	–
Input Resistance	Current regulator		

\* Available on request

## Output Specifications

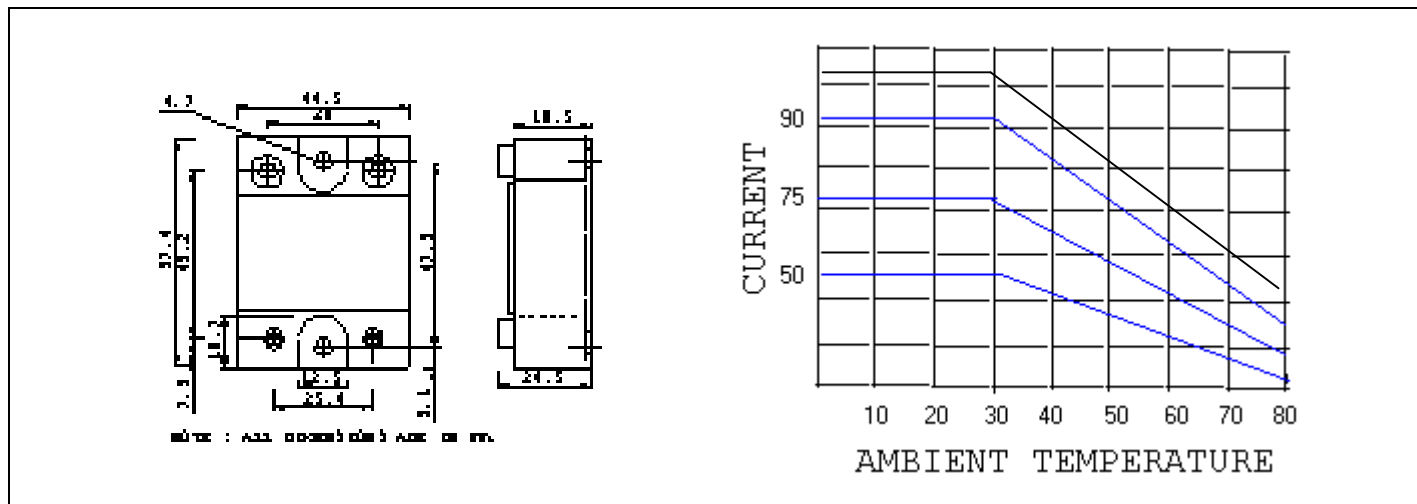
Type	SDA/SAA-330-50 SDA/SAA-480-50	SDA/SAA-330-75 SDA/SAA-480-75	SDA/SAA-330-90 SDA/SAA-480-90	SDA/SAA-330-125 SDA/SAA-480-125
Current Range with proper heat sink (IT)	<b>50 A</b>	75 A	90 A	125 A
Surge Current non-repetitive $t = 20$ secs (ITMS)	500 A	1150 A	1250 A	1350 A
Voltage Drop @ Current (VTM)	1.6 VACrms	2 VAC rms	2 VAC rms	2 VAC rms
Voltage Range (VRMS)	160-280VAC/160 – 280 VAC rms			
Over Voltage Rating (PIV) Transient Peak	800/1200 V Peak	800/1200 V Peak	800/1200 V Peak	800/1200 V Peak
Off-state leakage current @ voltage – (IDRM)	10 mA	10 mA	10 mA	10 mA
Turn-on (max) – T-ON	10 ms	10 ms	10 ms	10 ms
Turn-off (max) – T-Off	10 ms	10 ms	10 ms	10 ms
Holding current (IH)	250 mA	250 mA	250 mA	250 mA
Dv/Dt @Voltage (out)	400 V/ $\mu$ s	400 V/ $\mu$ s	500 V/ $\mu$ s	500 V/ $\mu$ s
$I^2T$ Fusing $I^2t$ (10 ms)	1250 A <sup>2</sup> S	5000 A <sup>2</sup> S	5000 A <sup>2</sup> S	5000 A <sup>2</sup> S

## General Specifications

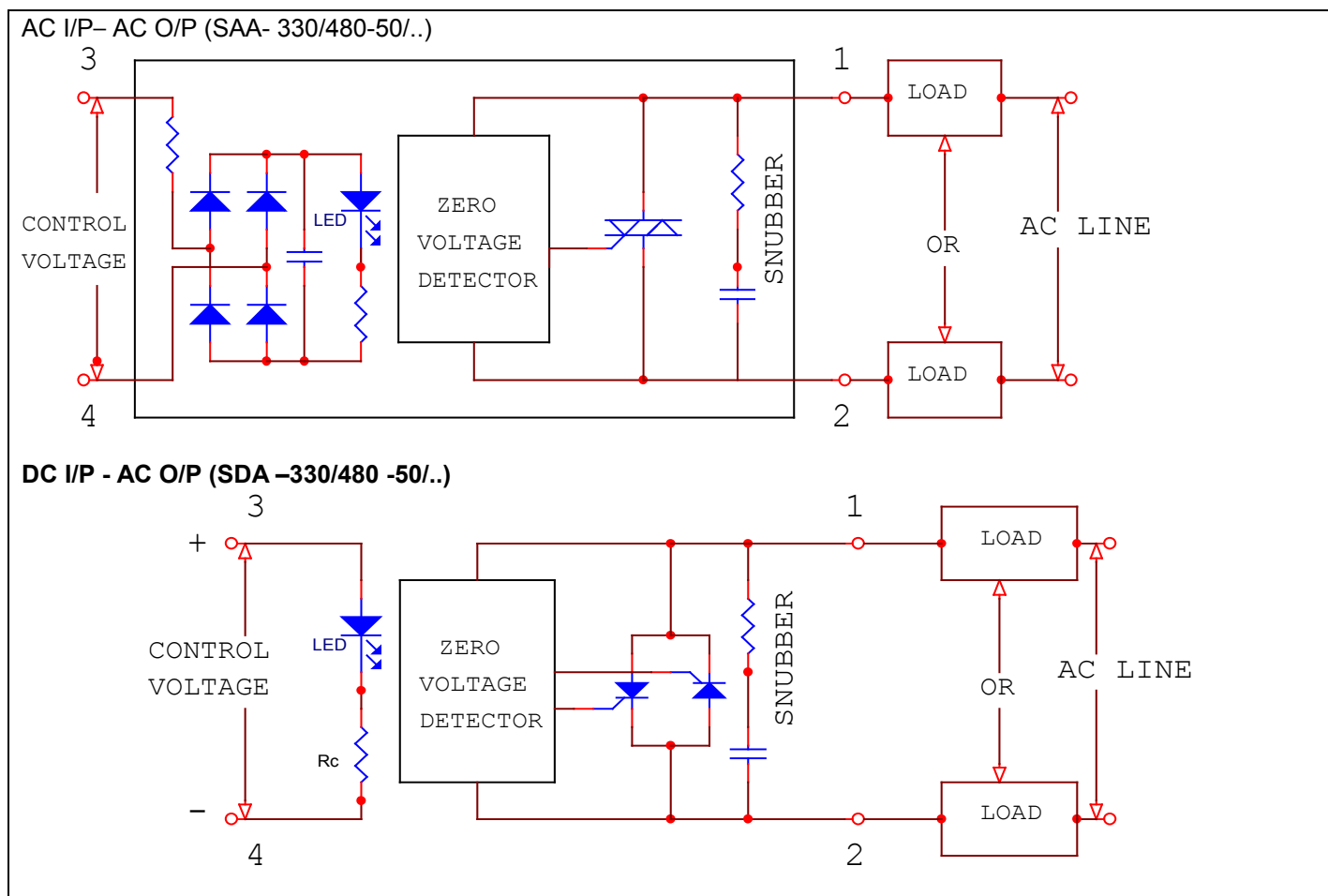
Type	SDA/SAA-330-50 SDA/SAA-480-50	SDA/SAA-330-75 SDA/SAA-480-75	SDA/SAA-330-90 SDA/SAA-480-90	SDA/SAA-330-125 SDA/SAA-480-125
Frequency Range	47 – 70 Hz	47 – 70 Hz	47 – 70 Hz	47 – 70 Hz
Dielectric Strength (Input to Output to Base)	2500 VAC –effective 4000 VAC –optional	2500 VAC –effective 4000 VAC –optional	2500 VAC –effective 4000 VAC –optional	2500 VAC –effective 4000 VAC –optional
Weight	Approx. 100 g			
Storage Temp.	– 40 °C to 100 °C			
Junction Temperature	100°C			

## Dimensions

## Characteristics curves



## Functional Block Diagram



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