

Solid State Relays with Built-in Heat Sink - RSC

- Features**
- Slim design allows for compact DIN rail or panel mounting
 - Built-in heat sink maximizes current output capability
 - Epoxy-free design & improved thermal impedance
 - Choice of 20A, 30A and 45A models
 - LED indicator
 - Finger-safe terminals
 - Zero voltage switching
 - Back-to-back SCR output
 - Direct Bond Copper (DBC) substrate construction
 - Built-in transient protection (TVS)
 - 100k-cycle UL508 endurance rating
 - UL Recognized, CSA Certified, TUV Approved, CE Marked
 - Lead free and RoHS compliant
 - EMC (Level 3) & IEC 62314 compliant



Specifications

Model		20A	30A	45A
General Characteristics	Operating temperature (°C)	-20 to +80 -20 to +60 (90-140 V AC input models)		
	Storage temperature (°C)	-40 to +100		
	Input-to-Output isolation voltage (Vrms)	4200		
	Input/Output to ground isolation voltage (Vrms)	4000		
	Operating frequency (Hz)	47 to 63		
	Housing material	UL94-V0 Self extinguishing polycarbonate		
	Heat sink material	Anodized aluminum black		
	Protection (IEC 60529) - Casing	IP20		
	Input terminal wire size (stranded and solid)	16 AWG to 24 AWG		
	Input terminal tightening torque (Nm)	0.5		
	Output terminal wire size (stranded)	8 AWG to 16 AWG		
	Output terminal wire size (solid)	10 AWG to 16 AWG		
	Output terminal tightening torque (Nm)	1.3		
	Weight (g)	225		400

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Safety Standards	Conformity to standards	IEC 62314 IEC 60947-4-3 (AC 51) IEC 60947-4-2 (AC 53a) CE compliant with LVD 73/23/EEC TUV certified per EN 60950 CSA certified per C22.2.no. 14-95 UL recognized per UL 508		
	Vibrations according to IEC/EN60068-2-6	35 mm / 10-55 Hz		
	Shock test IEC 60068-2-27	15 G / 11 ms		
	Immunity to electrostatic discharges acc. IEC/EN 61000-4-2	Level 3		
	Immunity to electrostatic fields acc. ENV 50140/204 (IEC 1000-4-3)	Level 3		
	Immunity to rapid transient bursts acc. to IEC 1000-4-4	Level 3		
	Immunity to shock waves according to IEC/EN 61000-4-5	Level 3		
	Immunity to radio frequency in common mode acc. to ENV (CEI 1000-4-6)	Level 3		
	Conducted and radiated noise for industrial environments per CISPR 11	Class A		
	Pollution	Degree 2		
	Overvoltage	Category III		

Note: LED is not an absolute indicator of power being present.

Specifications Con't

	Model	20A	30A	45A
Output Characteristics	Voltage range (Vrms max)	48-600	48-600	48-600
	Non-rep. peak voltage (Vpeak)	1100	1100	1100
	Maximum off-state leakage at Vmax and T = 25 °C (μA)	120	120	120
	Current max @ 40°C (A)	20	30	45
	Minimum current (mA)	100	100	100
	On-state voltage drop at I max (Vpeak)	1.20	1.20	1.35
	I ² t (t = 10 ms) (A ² s) (50/60 Hz)	1225/1020	2850/2350	3200/2600
	Static (off-state) dv/dt (V/μs)	500	500	500
	HP ratings at 120V	1/2	3/4	1.5
	HP ratings at 240V	1	2	3
	HP ratings at 480V	—	—	5
	Utilization category AC 51 (A)	20	30	45
	Utilization Category AC-53 (A)	6	9	10
	Max. non-rep. 1 s surge (T=25°C) (A)	100	150	160
	Max. non-rep.1-cycle surge (T=25°C) (A)	495	750	800

Part Numbers

Input Control Voltage	Output Current Rating	Part Number
4-32V DC	20A	RSCDN-20A
	30A	RSCDN-30A
	45A	RSCDN-45A
90-140V AC	20A	RSCA1N-20A
	30A	RSCA1N-30A
	45A	RSCA1N-45A
180-280V AC	20A	RSCA2N-20A
	30A	RSCA2N-30A
	45A	RSCA2N-45A*

*180-260V AC

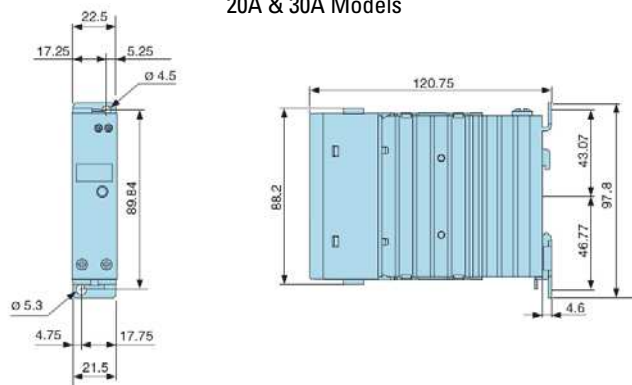


	Model	20A, 30A, 45A		
Input Specifications	Input voltage (V)	4-32V DC	90-140V AC	180-280V AC*
	Turn-off voltage (V)	1	10	10
	Max. controlled current (mA)	20	6	8
	Min. input current (mA)	16	5	6
	Turn-on time (ms)	8.33 (60Hz) / 10 (50Hz)	30	30
	Max. turn-off time (ms)	8.33 (60Hz) / 10 (50Hz)	30	30

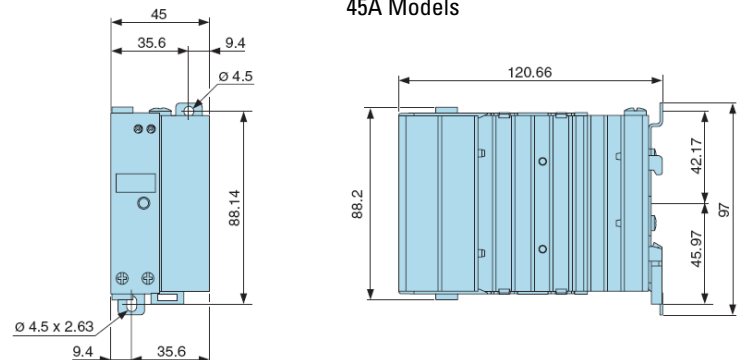
*45A model is 180-260V AC

Dimensions

20A & 30A Models



45A Models



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