

## 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
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

Model	20A	30A	45A
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
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 <sup>2</sup> t (t = 10 ms) (A <sup>2</sup> 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*

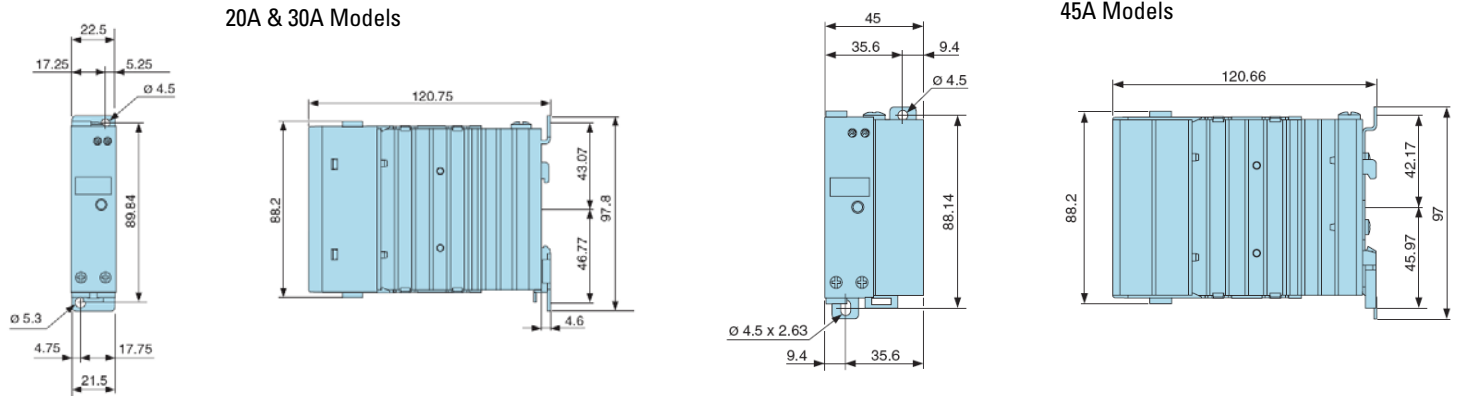
\*180-260V AC



Model	20A, 30A, 45A		
Input 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



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