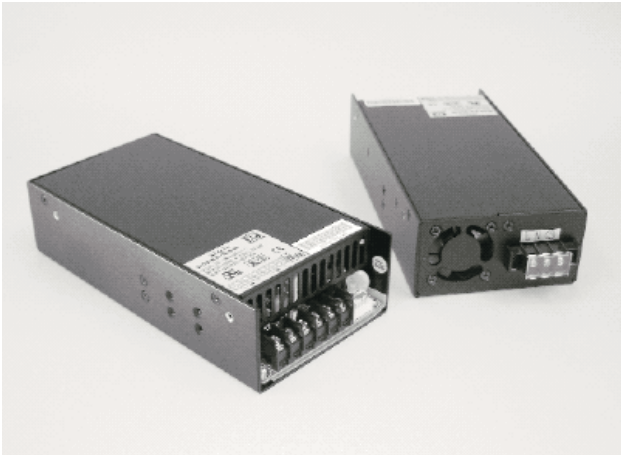


SMQ300-400 Series

300 / 400 W AC/DC Chassis Mount Power Supplies

CoolPower
Solutions



- High Power Density
- High Peak Load Rating
- DC OK
- Universal Input
- Single Outputs from 12.0 V to 54.0 V
- Battery Charging Versions

Specification

Input		General	
Input Voltage	• 90-264 VAC	Efficiency	• 80% typical
Input Frequency	• 47-63 Hz	Power Density	• 6.25 W/in ³
Power Factor	• 0.99 typical	MTBF	• 138,000 hrs per MIL-HDBK-217F
Inrush Current	• 35 A pk at 230 VAC	Switching Frequency	• Typically 60 kHz for PFC stage, 30 kHz for main converter
Input Current	• 5.00 A at 90 VAC - SMQ300 6.35 A at 90 VAC - SMQ400	Isolation Voltage	• 3000 VAC Input to Output 1500 VAC Input to Ground 500 VAC Output to Ground
Leakage Current	• <2.5 mA	Signals	• DC OK TTL HIGH within 100-500 ms LOW □1 ms before loss of regulation Mating connectors supplied
Output		Size	• 203.0 x 101.6 x 50.8 mm
Output Voltage	• 12 VDC to 54 VDC - See Table	Environmental	
Output Power	• See Tables	Operating Temperature	• 0 °C to +70 °C derate linearly from 100% load at +50°C to 50% at +70 °C
Output Voltage Adjustment	• ±10%	Cooling	• Via internal fan
Minimum Load	• No minimum load required	Relative Humidity	• 5% to 90%, non-condensing
Line & Load Regulation	• ±1%	Storage Temperature	• -20 °C to +85 °C
Ripple & Noise	• 1% - See Note 2	EMC & Safety	
Transient Response	• 5% max deviation, 500 μs recovery time to within 1% for a 50% load change	Safety Approvals	• UL60950, CSA C22.2 No 60950, EN60950, CE Mark LVD
Hold-Up Time	• 20 ms minimum at 120 VAC and 80% load	EMI/EMC	• Meets EN61000-3-2, -3, FCC Part 15 & CISPR 22 Class B conducted
Start Up Delay	• 1 s max at 120 VAC	ESD Immunity	• IEC61000-4-2, Level 2 contact, Level 3 air, PC A
Overvoltage Protection	• >130% recycle input to reset	Radiated Immunity	• IEC61000-4-3, 3 V/m, Perf Criteria A
Overcurrent Protection	• 110% to 140% with auto recovery	EFT/Burst	• IEC61000-4-4, Level 2, Perf Criteria A
Overtemperature Protection	• >85 °C ambient with auto recovery measured internally	Surge	• IEC61000-4-5, Level 3, Perf Criteria A
Remote Sense	• Compensates for up to 0.5 V drop	Conducted Immunity	• IEC61000-4-6, Level 2, Perf Criteria A
Remote On/Off	• ON = TTL Logic HIGH, or open circuit OFF = TTL Logic LOW, or short circuit	Voltage Dips	• IEC61000-4-11, 70% U _r , Perf Criteria A
		Voltage Interruptions	• IEC61000-4-11, 0% U _r , Perf Criteria A

SMQ300-400 Series

300 / 400 W AC/DC Chassis Mount Power Supplies

CoolPower
Solutions

OUTPUT VOLTAGE & CURRENT RATINGS - 300 WATT MODELS				SMQ300
Maximum Power	Output Voltage ⁽³⁾	Output Current		Model Number ⁽⁴⁾⁽⁵⁾
		Maximum	Peak ⁽¹⁾	
300 W	12.0 V	25.00 A	46.66	SMQ300PS12-C
300 W	15.0 V	20.00 A	46.66	SMQ300PS15-C
300 W	18.0 V	16.66 A	33.33	SMQ300PS18-C
300 W	24.0 V	12.50 A	23.33	SMQ300PS24-C
300 W	27.0 V	11.11 A	23.33	SMQ300PS27-C
300 W	36.0 V	8.33 A	17.07	SMQ300PS36-C
300 W	48.0 V	6.25 A	12.72	SMQ300PS48-C
300 W	54.0 V	5.55 A	12.72	SMQ300PS54-C

OUTPUT VOLTAGE & CURRENT RATINGS - 400 WATT MODELS				SMQ400
Maximum Power	Output Voltage ⁽³⁾	Output Current		Model Number ⁽⁴⁾⁽⁵⁾
		Maximum	Peak ⁽¹⁾	
400 W	12.0 V	33.33 A	46.66	SMQ400PS12-C
400 W	15.0 V	26.66 A	46.66	SMQ400PS15-C
400 W	18.0 V	22.22 A	33.33	SMQ400PS18-C
400 W	24.0 V	16.66 A	23.33	SMQ400PS24-C
400 W	27.0 V	14.81 A	23.33	SMQ400PS27-C
400 W	36.0 V	11.11 A	17.07	SMQ400PS36-C
400 W	48.0 V	8.33 A	12.72	SMQ400PS48-C
400 W	54.0 V	7.40 A	12.72	SMQ400PS54-C

Notes

- Standard models have trip & restart mode current protection with a high peak load capability. This peak can be taken for 500 μ s max.
- Ripple and noise measured using 0.1 μ F ceramic and 22 μ F electrolytic capacitor, 20 MHz bandwidth.
- Other output voltages are available, contact sales office for details.
- For optional constant current versions, (battery charging) add suffix 'B' to model number (current limit range is 95-105% of max output current).
- For optional U-channel versions without fan/cover, change SMQ prefix to SMU and delete suffix 'C' from model number.

Mechanical Details - SMQ300 & SMQ400

