

FEATURES

- 2 Year Warranty
- LED Indicator for Power On
- 100% Full Load Burn-In Tested
- Cooling by Free Air Convection
- Universal AC Input / Full Range
- Fixed Switching Frequency at 35KHz
- Built-In EMI Filter, Low Ripple and Noise
- Soft-Start Circuit, Limiting AC Surge Current
- Short Circuit, Overload, and Over Voltage Protected



SPECIFICATIONS: PSQ60 Series

All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
 We reserve the right to change specifications based on technological advances.

INPUT SPECIFICATIONS	
Input Voltage Range	85 ~ 264VAC (120 ~ 370VDC)
Input Frequency	47 to 63Hz
AC Current (typical)	2A @ 115VAC 0.8A @ 230VAC
Inrush Current (typical)	Cold Start 15A @ 115VAC 30A @ 230VAC
Leakage Current	< 1mA @ 240VAC
OUTPUT SPECIFICATIONS	
Output Voltage	See Table
Output Power	See Table
Voltage Tolerance (See Note 3)	PSQ60-B: CH.1: ±2.0% CH.2: ±6.0% CH.3: ±5.0% CH.4: ±5.0% PSQ60-C: CH.1: ±2.0% CH.2: +8, -4% CH.3: ±5.0% CH.4: ±5.0% PSQ60-D: CH.1: ±2.0% CH.2: ±6.0% CH.3: +8, -4% CH.4: ±5.0%
Voltage Adjustment Range	CH.1: 4.75 ~ 5.5V
Line Regulation (See Note 4)	PSQ60-B: CH.1: ±0.5% CH.2: ±1.0% CH.3: ±0.5% CH.4: ±0.5% PSQ60-C: CH.1: ±0.5% CH.2: ±2.0% CH.3: ±0.5% CH.4: ±0.5% PSQ60-D: CH.1: ±0.5% CH.2: ±1.0% CH.3: ±2.0% CH.4: ±0.5%
Load Regulation (See Note 5)	PSQ60-B: CH.1: ±0.5% CH.2: ±4.0% CH.3: ±1.0% CH.4: ±1.0% PSQ60-C: CH.1: ±0.5% CH.2: ±4.0% CH.3: ±1.0% CH.4: ±1.0% PSQ60-D: CH.1: ±0.5% CH.2: ±4.0% CH.3: ±4.0% CH.4: ±1.0%
Output Current	See Table
Ripple & Noise (max) (See Note 2)	See Table
Setup, Rise Time	800ms, 20ms @ 230VAC 1600ms, 20ms @ 115VAC and full load
Hold Up Time (typical)	70ms @ 230VAC 15ms @ 115VAC and full load
Temperature Coefficient	±0.03%/°C (0 ~ 50°C) on +5V output
PROTECTION	
Overload Protection	105 ~ 150%/115VAC rated output power Protection Type: Hiccup mode, recovers automatically after fault condition is removed.
Over Voltage Protection	5V: 5.75 ~ 6.75VDC Protection Type: Hiccup mode, recovers automatically after fault condition is removed.
GENERAL SPECIFICATIONS	
Efficiency (typical)	See Table
Switching Frequency	35KHz
Withstand Voltage	3000VAC (Input to Output), 1500VAC (Input to FG), 500VAC (Output to FG)
Isolation Resistance	100MΩ/500DC (Input to Output, Input to FG, and Output to FG)
ENVIRONMENTAL SPECIFICATIONS	
Working Temperature	-10°C to +60°C (refer to output load derating curve)
Storage Temperature	-20°C to +85°C
Working Humidity	20 ~ 90% RH non-condensing
Storage Humidity	10 ~ 95% RH
Cooling	Free air convection
Vibration	10 ~ 500Hz, 2G 10min./1 cycle, 60min each along X, Y, Z axes.
MTBF	284,800 hours min. @ 25°C (MIL-HDBK-217F)
PHYSICAL SPECIFICATIONS	
Weight	550 grams
Dimensions	159(L) x 97(W) x 38(H) mm
Warranty	2 years
SAFETY & EMC (See Note 7)	
Safety Standards	UL60950-1, Approved
EMI Conduction & Radiation	Compliance to EN55022 (CISPR22) Class B
Harmonic Current	Compliance to EN61000-3-2,-3
EMS Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level, criteria A

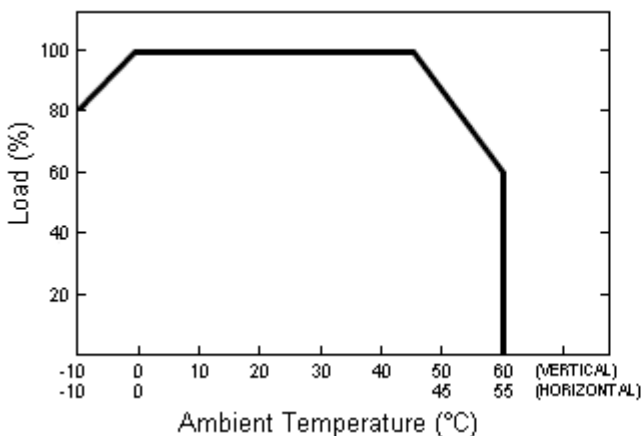
OUTPUT VOLTAGE / CURRENT RATING CHART

Model Number	Input Voltage	Output Voltage	Rated Output Current	Output Current Range	Ripple & Noise	Rated Output Power	Efficiency	
PSQ60-B	85 ~ 264VAC (120 ~ 370VDC)	CH: 1	5 VDC	5.5A	0.5 ~ 8A	100mVp-p	60W	70%
		CH: 2	12 VDC	2A	0.1 ~ 3A	120mVp-p		
		CH: 3	-5 VDC	0.5A	0 ~ 1A	100mVp-p		
		CH: 4	-12 VDC	0.5A	0 ~ 1A	120mVp-p		
PSQ60-C	85 ~ 264VAC (120 ~ 370VDC)	CH: 1	5 VDC	5.5A	0.5 ~ 8A	100mVp-p	60W	72%
		CH: 2	15 VDC	1.5A	0.1 ~ 3A	120mVp-p		
		CH: 3	-5 VDC	0.5A	0 ~ 1A	100mVp-p		
		CH: 4	-15 VDC	0.5A	0 ~ 1A	120mVp-p		
PSQ60-D	85 ~ 264VAC (120 ~ 370VDC)	CH: 1	5 VDC	4A	0.5 ~ 8A	100mVp-p	62W	75%
		CH: 2	12 VDC	1A	0.1 ~ 3A	120mVp-p		
		CH: 3	24 VDC	1A	0.1 ~ 1.5A	150mVp-p		
		CH: 4	-12 VDC	0.5A	0 ~ 1A	120mVp-p		

NOTES

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load, and 25°C ambient temperature.
2. Ripple & noise are measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
3. Tolerances include set up tolerance, line regulation, and load regulation.
4. Line Regulation is measured from low line to high line at rated load.
5. Load regulation is measured from 20% to 100% rated load and auxiliary outputs at 60% rated load.
6. Each output provides up to maximum current but total load can not exceed maximum output power.
7. The power supply is considered a component, which will be installed into final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

DERATING CURVE



STATIC CHARACTERISTICS

