



Wall Industries, Inc.

PSAQC60 Series
For PCB Mount
60 Watt Single Output
AC/DC Switching Power Supply

FEATURES

- Trimmable Output of $\pm 10\%$
- Single Output of 5VDC to 24VDC
- Switching Power Module for PCB Mount
- Universal Input of 90-264VAC for Worldwide Use
- Short Circuit, Over Power, and Over Voltage Protection



SPECIFICATIONS: PSAQC60 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	90 ~ 264VAC or 120 ~ 370VDC
Input Frequency	47 to 63Hz
Input Current (Full Load)	2A max @ 115VAC / 1A max @ 230VAC
Inrush Current (<2ms)	20A max @ 115VAC / 40A max @ 230VAC
Leakage Current	3.5mA max

OUTPUT SPECIFICATIONS

Output Voltage	See Table
Output Power Range	60 Watts max.
Voltage Accuracy	$\pm 2\%$
Trim	$\pm 10\%$
Line Regulation (LL – HL)	$\pm 1\%$ typical
Load Regulation (5% to 100%)	$\pm 1\%$ typical
Output Current	See Table
Minimum Load	0%
Ripple & Noise	75mVp-p max.
Maximum Capacitive Load	470 - 23,000 μ F depending on model
Hold-Up Time	18ms min.
Temperature Coefficient	$\pm 0.02\%/^{\circ}\text{C}$

PROTECTION

Over Power Protection	Auto recovery
Over Voltage Protection	Zener diode clamp
Short Circuit Protection	Auto recovery

GENERAL SPECIFICATIONS

Switching Frequency	133KHz
Efficiency	See Table
Isolation Voltage (Input to Output)	3000VAC
Isolation Voltage (Input to Field Ground)	1500VAC
Isolation Voltage (Output to Field Ground)	500VAC

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-25°C to +70°C (with derating)
Storage Temperature	-40°C to +85°C
Humidity	95% RH
Cooling	Free air convection
MTBF	> 130,000 hours @ 25°C (MIL-HDBK-217F)

PHYSICAL SPECIFICATIONS

Weight	420g
Dimensions	4.25(L) x 2.24(W) x 1.34(H) inches (108.0(L) x 57.0(W) x 34.0(H) mm) (Tolerance $\pm 0.5\text{mm}$)

SAFETY & EMC

Agency Approvals	CE, UL
EMI (Conducted & Radiated Emission)	EN 55022 class B
EMS (Noise Immunity)	EN 55024

OUTPUT VOLTAGE / CURRENT RATING CHART

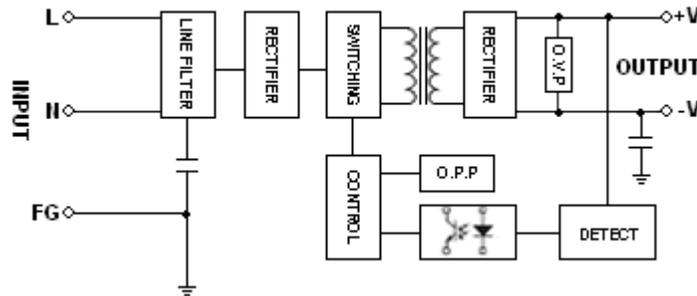
Model Number	Input Voltage	Output Voltage	Output Current	Output Power	Efficiency
PSAQC60-5S	90 - 264VAC (120 - 370VDC)	5 VDC	10A	50W	73%
PSAQC60-12S	90 - 264VAC (120 - 370VDC)	12 VDC	5A	60W	80%
PSAQC60-15S	90 - 264VAC (120 - 370VDC)	15 VDC	4A	60W	80%
PSAQC60-24S	90 - 264VAC (120 - 370VDC)	24 VDC	2.5A	60W	80%

NOTES

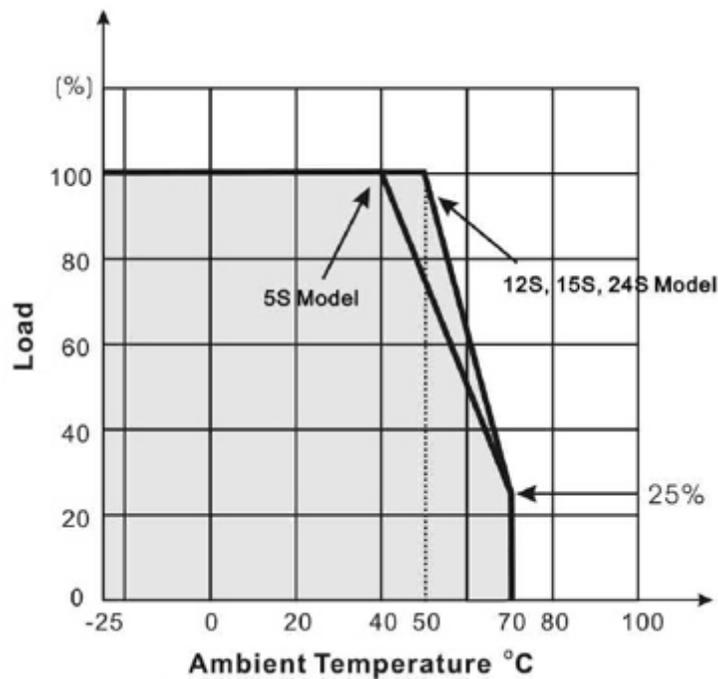
1. All specifications valid at nominal voltage, full load and +25°C after warm-up time unless otherwise stated.
2. Ripple and noise measured with 0.1uF 50V // 47uF 50V ceramic capacitors across output.

BLOCK DIAGRAM

Single Output



DERATING CURVE

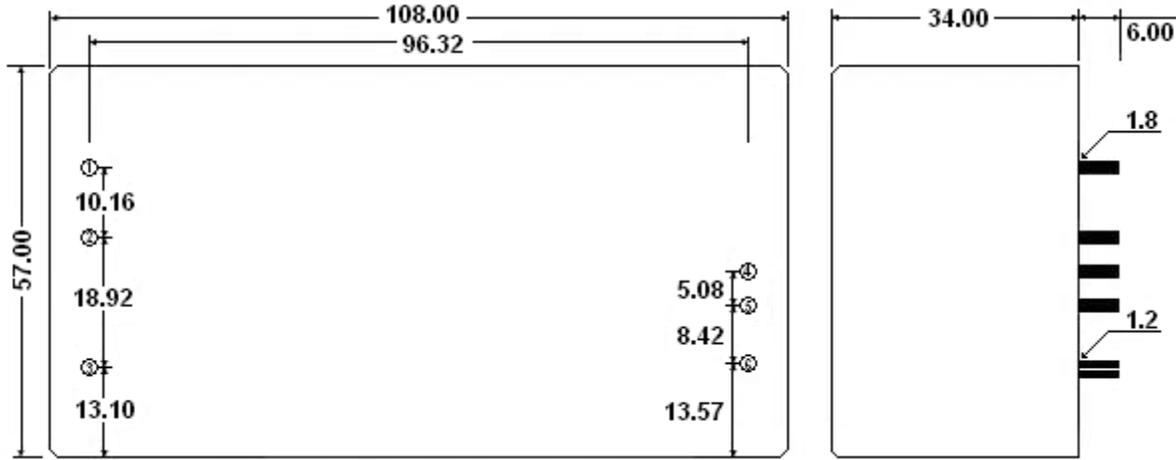




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MECHANICAL DRAWING



PIN CONNECTIONS	
PIN #	SINGLE
1	AC IN (N)
2	AC IN (L)
3	FG
4	+DC OUT
5	-DC OUT
6	TRIM