

Low Noise AC/DC Plug & Play Power Supply Series 400W-900W

Xqite

400W - 900W

AC/DC Low Noise Power Supply

Ultra-high efficiency 1U size

- Low Acoustic Noise 59dBA
- 1.5V to 58V standard output voltages
- All outputs fully floating
- Extra low profile: 1U height (40mm)
- Ultra high efficiency, up to 90%
- Plug & Play Power
 - allows fast custom configuration
 - allow easy logistics
- Reduced system heat dissipation
- Few electrolytic capacitors (all long life)
- Visual LED indicators
- Series / Parallel of multiple outputs
- 5V bias standby voltage provided
- Individual output control signals



Applications include:

Audio Equipment, Test and measurement, Telecommunications

For Medical applications see Xzite

The Xqite family of low noise power supplies provides up to 900W in an extremely compact 1U x 260 x 127mm package. Boasting industry leading power density of 11W/in³ and efficiencies of up to 90%, the Xqite family employs an innovative plug & play architecture that allows users to instantly configure a custom power solution in less than 5 minutes!

Ideal for acoustic sensitive applications such as audio applications, the Xqite family provides unmatched efficiency and high power density, made possible through the combination of low loss technologies and the best field-proven technologies in planar magnetics and surface mount electronics.

The Xqite family consists of 2 powerPac models ranging in power levels from 400W to 900W. Each model may be populated with up to 6 powerMods selected from the table of powerMods shown below.

All configurations carry full safety agency approvals, UL60950, EN60950 and are CE marked.

powerMods*

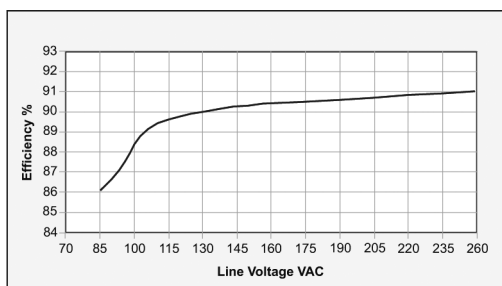
MODEL	Vmin	Vnom	Vmax	Imax	Watts*
Xg1	1.5	2.5	3.6	50A	125W
Xg2	3.2	5.0	6.0	40A	200W
Xg3	6.0	12.0	15.0	20A	240W
Xg4	12.0	24.0	30.0	10A	240W
Xg5	28.0	48.0	58.0	6A	288W
Xg7	5.0	24.0	28.0	5A	120W
Xg8	v1	5.0	24.0	3A	72W
	v2	5.0	24.0	3A	72W

powerPacs

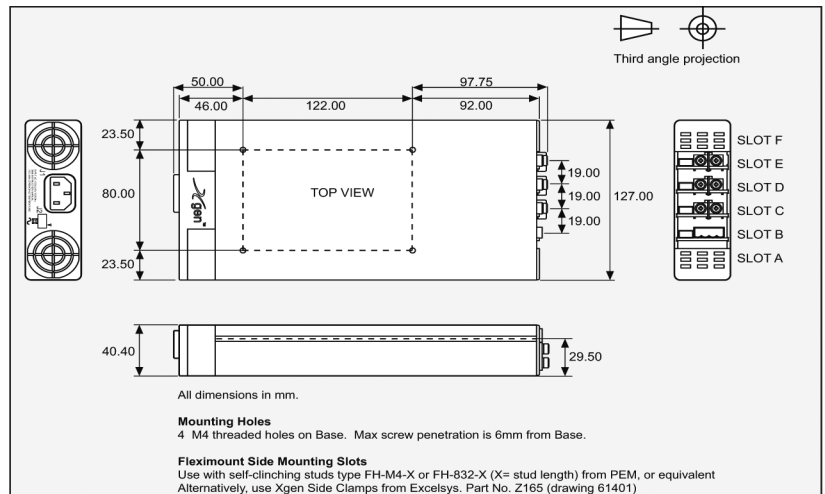
	MODEL	Watts
Xqite	XQA	400W
	XQB	900W

*see datasheet powerMods for full output module specifications powerMod ratings when used with Xqite powerPac

EFFICIENCY (typical)



MECHANICAL SPECIFICATIONS



SPECIFICATION applies to configured units consisting of powerMods modules plugged into the appropriate powerPac

INPUT					
Parameter	Conditions/Description	Min	Nom	Max	Units
Input Voltage Range	Universal Input	85		264	VAC
		120		380	VDC
Input Frequency Range		47		63	Hz
Power Rating	XQA			400	W
	XQB			900	W
Input Current	XQA	85V AC in 400W out	7.5		A
	XQB	85V AC in 600W out	11.5		A
Inrush Current	230V AC @ 25°C			25	A
Undervoltage Lockout	Shutdown	65		74	VAC
Fusing	XQA	250V	F8A HRC		
	XQB	250V	F12A HRC		
OUTPUT					
Parameter	Conditions/Description	Min	Nom	Max	Units
powerMod Power	As per powerMod table				
Output Adjustment Range	Manual: Multi-turn potentiometer. As per powerMod table				
	Electronic: See Xgen Designers' Manual				
Minimum Load			0		A
Line Regulation	For ±10% change from nominal line			±0.1	%
Load & Cross Regulation	For 25% to 75% load change			±0.2	%
Transient Response	For 25% to 75% load change	Voltage Deviation	Settling Time	10	%
				250	µs
Ripple and Noise	20MHz Bandwidth			1.0	% pk-pk
Overvoltage Protection	1st level: Vset Tracking. 2nd level: Vmax (Latching)	110		125	%
Overcurrent Protection	Straight line with hiccup activation at <30% of Vnom	110		120	%
	See powerMod datasheet and Designer's Manual for full details				
Remote Sense	Max. line drop compensation. (except Xg7, Xg8)			0.5	VDC
Overshoot				2	%
Turn-on Delay	From AC In / Enable signal			300 / 30	ms
Rise Time	Monotonic			5	ms
Hold-up Time	For nominal output voltages at full load. XQA / XQB	20 / 15			ms
Output Isolation	Output to Output / Output to Chassis	500 / 500			VDC
GENERAL					
Parameter	Conditions/Description	Min	Nom	Max	Units
Isolation Voltage	Input to Output	3000			VAC
	Input to Chassis	1500			VAC
Efficiency	230V AC, 900W @ 24V		90		%
Safety Agency Approvals	EN60950, UL60950, CSA22.2 No.950 UL File No. E181875				
Leakage Current	250V AC, 60Hz, 25°C			1.5	mA
Signals	See Xgen Series datasheet				
Bias Supply	Always ON. Current 250mA	4.9	5.0	5.1	VDC
Reliability	Failures per million hours at 25°C and full load			1.0	fpmh
	See Designers' Manual. powerPac excludes fans powerPac			0.6	fpmh
EMC					
Parameter	Standard	Level			Units
Emissions					
Conducted	EN5501 1, EN55022, FCC		Level B		
Radiated	EN5501 1, EN55022, FCC		Level B		
Harmonic Distortion	EN61000-3-2		Compliant		
Flicker and Fluctuation	EN61000-3-3		Compliant		
Immunity					
Electrostatic Discharge	EN61000-4-2		Level 4		
Radiated RFI	EN61000-4-3		Level 3		
Fast Transients - burst	EN61000-4-4		Level 4		
Input Line Surges	EN61000-4-5		Class 4		
Conducted RFI	EN61000-4-6		10		V/m
Voltage Dips	EN61000-4-1 1 (EN55024)		10		ms
ENVIRONMENTAL					
Parameter	Conditions/Description	Min	Nom	Max	Units
Operating Temperature		-20		+70	°C
Storage Temperature		-40		+85	°C
Derating	1.6% per °C above 50°C. See Designers Manual for full deratings				
Relative Humidity	Non-condensing	5		95	%RH
Acoustic Noise	Background noise 28.6dBA, Noise measured 1m from unit		59		dBA
Shock	3000 Bumps, 10G (16ms) half sine				
Vibration	1.5G	10		200	Hz

NOTES

1. This product is not intended for use as a stand alone unit and must be installed by qualified personnel.
2. The specifications contained herein are believed to be correct at time of publication and are subject to change without notice.
3. All specifications at nominal input, full load, 25°C unless otherwise stated.