Low Noise

Low Noise Power Supply

Ultra-high efficiency 1U size

patents pending

PLUG & PLAY POWER
next generation power source

FEATURES
- 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 1200W in an extremely compact 1U x 260 x 127mm package. Boasting industry leading power density of 15W/in^3 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 1200W. 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. For alternative power interfaces contact **support@excelsys.com**

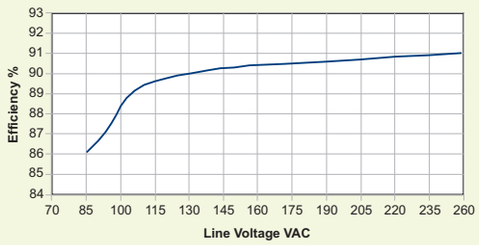
powerMods

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	28.0	3A	72W
	V2	5.0	24.0	28.0	3A	72W

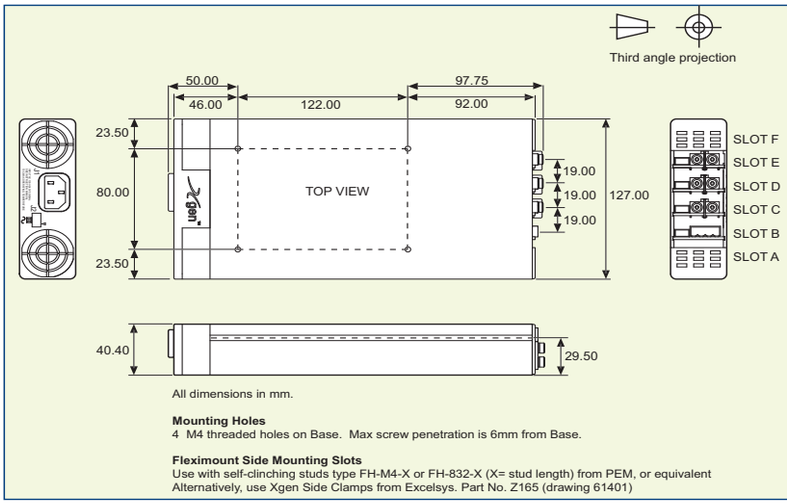
powerPacs

	MODEL	Watts
Xqite	XQA	400W
	XQB	1200W(4)

EFFICIENCY (typical)



MECHANICAL SPECIFICATIONS



All dimensions in mm.

Mounting Holes
4 M4 threaded holes on Base. Max screw penetration is 6mm from Base.

Fleximount Side Mounting Slots
Use with self-clinching studs type FH-M4-X or FH-832-X (X= stud length) from PEM, or equivalent
Alternatively, use Xgen Side Clamps from Excelsys. Part No. Z165 (drawing 61401)

Xgen Series

400W-1200W Low Noise AC/DC Plug & Play Power Supply Series

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	85 120		264 380	VAC VDC
Input Frequency Range		47		63	Hz
Power Rating XQA				400	W
XQB	Derate linearly from 1200W at 120VAC to 850W at 85VAC			1200	W
Input Current XQA	85VAC in 400W out		7.5		A
XQB	85VAC in 850W out		11.5		A
Inrush Current	230VAC @ 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			10	%
	Settling Time			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 See Designer's Manual for full details	110		120	%
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	230VAC, 1200W @ 24V		90		%
Safety Agency Approvals	EN60950, UL60950, CSA22.2 No.950 UL File No. E181875				
Leakage Current	250VAC, 60Hz, 25°C			1.5	mA
Signals	See Xgen Designer's Manual for full details				
Bias Supply	Always ON. Current 250mA	4.9	5.0	5.1	VDC
Reliability	Failures per million hours at 25°C and full load *powerMod*			0.98	fpmh
	See Designers' Manual. *powerPac* excludes fans *powerPac*			0.92	fpmh

EMC

Parameter	Standard	Level	Units
Emissions			
Conducted	EN55011, EN55022, FCC	Level B	
Radiated	EN55011, 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	EN61000-4-11 (EN55024)	10	ms

ENVIRONMENTAL

Parameter	Conditions/Description	Min	Nom	Max	Units
Operating Temperature		-20		+70	℃
Storage Temperature		-40		+85	℃
Derating	1.6% per °C above 40°C. See Xgen Designers Manual 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.
4. See Xgen Designers Manual for detailed power ratings

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