Fit Power Limited

Standard

Xlite

Slimline Power Supply

User Configurable 1U Size

patents pending

Xgen Series

PLUG & PLAY POWER
next generation power source

The Xlite family of power supplies provides up to 750W in a slimline 1U package. Providing up to 8 isolated outputs, the Xlite family is the most flexible power supply in its class and brings affordable configurable power to the 200-750W market.

The slimline product boasts unrivalled power density saving valuable system space. Combine with ultra high efficiencies, the Xlite family provides system designers with flexible instant solutions that significantly shorten and simplify system design-in time.

The Xlite family consists of 4 *powerPac* models in 200W, 400W, 600W and 750W power levels. Each *powerPac* model may be populated with up to 4 *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

FEATURES

- NEW Conformal Coating Option (note 6)
- Extra low profile: 1U height (40mm)
- All outputs fully floating
- Ultra high efficiency, up to 89%
- Plug & Play Power
  - allows fast custom configuration
- FLEXIMOUNT Flexible mounting system
- 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

- Industrial machines
- Test and measurement
- Automation equipment
- Printing
- Telecommunications

- For Medical applications see Xmite

powerMods

MODEL		Vmin Vtrim	Vmin Vpot	Vnom	Vmax	Imax	Watts
Xg1		1.0	1.5	2.5	3.6	50A	125W
Xg2		1.5	3.2	5.0	6.0	40A	200W
Xg3		4.0	6.0	12.0	15.0	20A	240W
Xg4		8.0	12.0	24.0	30.0	10A	240W
Xg5		8.0	24.0	48.0	58.0	6A	288W
Xg7		5.0	5.0	24.0	28.0	5A	120W
Xg8	V1	5.0	5.0	24.0	28.0	3A	72W
	V2	5.0	5.0	24.0	28.0	3A	72W

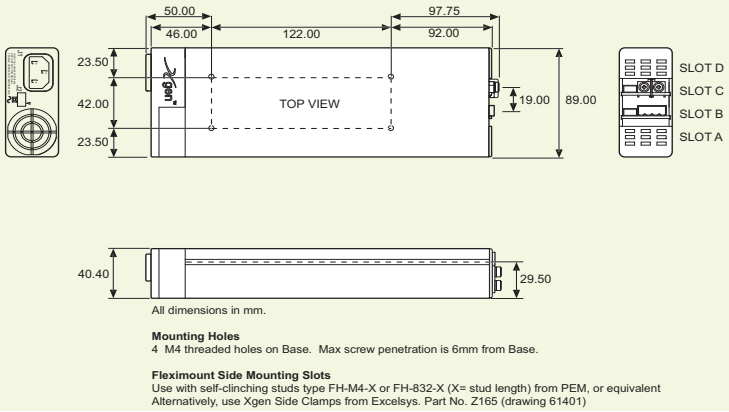
powerPacs

	MODEL	Watts
Xlite	XLA	200W
	XLB	400W
	XLC	600W
	XLD	750W

Note: Please refer to the larger version of this diagram on page 42

MECHANICAL SPECIFICATIONS

XLA, XLB, XLC

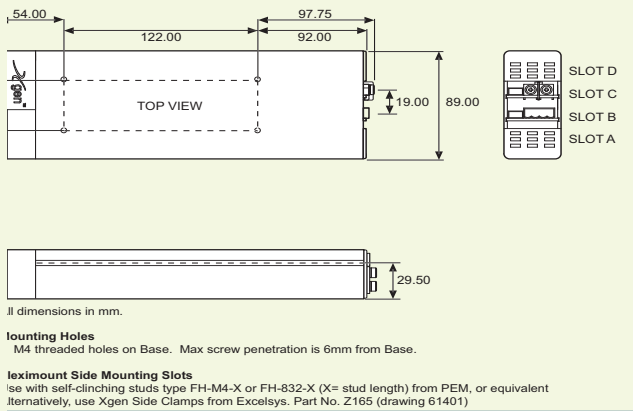


All dimensions in mm.

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)

XLD



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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 47-63Hz,Contact factory for 440Hz operation	85 120		264 380	VAC VDC
Power Rating	XLA:200W, XLB:400W, XLC:600W, XLD:750W See Xgen Designers' Manual for line voltage deratings				
Input Current XLA	85VAC in 200W out		4.0		A
XLB	85VAC in 400W out		6.0		A
XLC	85VAC in 400W out		7.5		A
XLD	85VAC in 525W out		7.5		A
Inrush Current	230VAC @ 25°C			50	A
Undervoltage Lockout	Shutdown	65		74	VAC
Fusing XLA	250V 5 x 20mm		F5A HRC		
XLB	250V 5 x 20mm		F6.3A HRC		
XLC, XLD	250V 5 x 20mm		F8A 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 Regulation	For 25% to 75% load change			±0.2	%
Cross Regulation				±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 Xgen Designers' 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 XLA, XLB, XLC			600 / 30	ms
	From AC In / Enable signal XLD			1000/30	ms
Rise Time	Monotonic			5	ms
Hold-up Time	For nominal output voltages at full load XLA, XLB, XLC/XLD	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	4000			VAC
	Input to Chassis	1500			VAC
Efficiency	230VAC, 750W @ 24V		89		%
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 Series datasheet				
Bias Supply	Always ON. Current 250mA	4.8	5.0	5.2	VDC
Reliability	Failures per million hours at 25°C and full load *powerMod*			0.98	fpmh
	See Xgen 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	°C
Storage Temperature		-40		+85	°C
Derating	See Xgen Designers' Manual for full temperature deratings				
	(Section 12, pages 37-38)				
Relative Humidity	Non-condensing	5		95	%RH
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. XLD: 800W peak for 1s; Duty cycle 7%. powerMod output power must not exceed normal ratings.
5. When powering inductive or capacitive loads, it is recommended to use a blocking diode on the output.
6. Conformal Coating Option: Consult factory for details.