



Slimline Power Supply

User Configurable 1U Size



PLUG & PLAY POWER next generation power solution

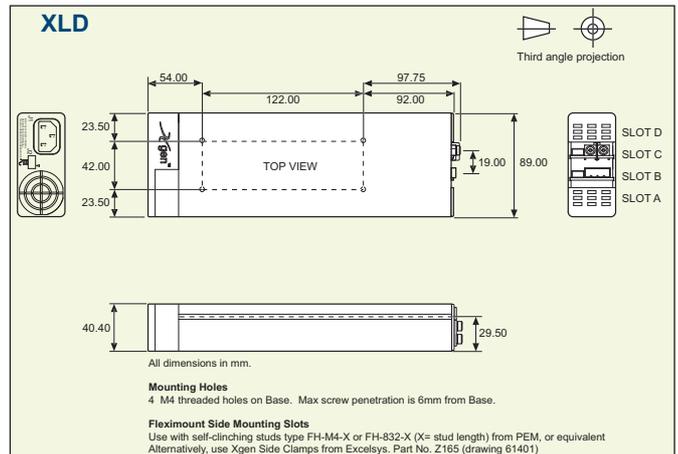
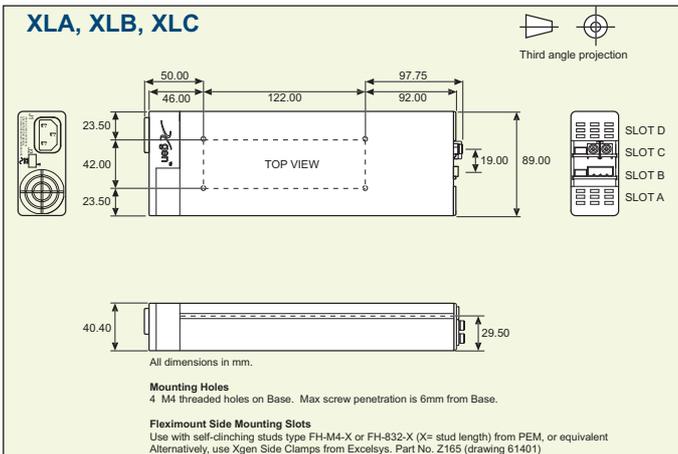
FEATURES & OPTIONS

- Ultra high efficiency, up to 89%
- Extra low profile: 1U height (40mm)
- Plug & Play Power - allows fast custom configuration
- Individual output control signals
- All outputs fully floating
- Series / Parallel of multiple outputs
- Few electrolytic capacitors (all long life)
- Visual LED indicators
- 5V bias standby voltage provided
- SEMI F47 Compliant
- Standard Xgen product options include: Conformal Coating, Low Acoustic Noise, Low Leakage Current, Extra Ruggedisation, Connector, Cabling & Mounting options, Thermal Signals and Reverse Fans. See Section 4.10 for more information

APPLICATIONS INCLUDE

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

MECHANICAL SPECIFICATIONS



Note: See diagrams on pages 34-37

The XL family of power supplies provides up to 750W in a slimline 1U package. Providing up to 8 isolated outputs, the XL 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. Combined with ultra high efficiencies, the XL family provides system designers with flexible instant solutions that significantly shorten design-in time and simplify integration.

The XL 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.

powerMods

MODEL	Vmin	Vnom	Vmax	Imax	Watts
	Vtrim	Vpot			
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	28	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
XLA	200W
XLB	400W
XLC	600W
XLD	750W

SPECIFICATION applies to configured units consisting of *powerMods* inserted into the appropriate *powerPac*

Input Voltage Range		Universal Input 47-440Hz	85 120	264 380	VAC VDC	
Power Rating		XLA:200W, XLB:400W, XLC:600W, XLD:750W See Section 4.11 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 <i>powerMod</i> table					
Output Adjustment Range	Manual: Multi-turn potentiometer. As per <i>powerMod</i> table Electronic: See Section 4.6					
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 Settling Time				10 250	% µs
Ripple and Noise	20MHz 100mV or 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 Section 4.6		110		120	%
Remote Sense	Max. line drop compensation. (except Xg7, Xg8)				0.5	VDC
Overshoot					2	%
Turn-on Delay	From AC In and Global Enable / powerMod Enable XLA, XLB, XLC From AC In and Global Enable / powerMod Enable XLD				700 / 6 1000 / 6	ms 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		3000			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 Section 4.9					
Bias Supply	Always on. Current 250mA. 500mA option available		4.8	5.0	5.2	VDC
Reliability	Failures per million hours at 40°C and full load <i>powerMod</i> See Section 4.12. <i>powerPac</i> excludes fans <i>powerPac</i>				0.958 0.92	fpmh fpmh
EMC						
Parameter	Standard		Level		Units	
Emissions						
Conducted	EN55011, EN55022, FCC			Level B		
Radiated	EN55011, EN55022, FCC			Level B		
Harmonic Distortion	EN61000-3-2 Class A			Compliant		
Flicker & Fluctuation	EN61000-3-3			Compliant		
Immunity						
Electrostatic Discharge	EN61000-4-2			Level 2		
Radiated Immunity	EN61000-4-3			Level 3		
Fast Transients-Burst	EN61000-4-4 Level 3					
Input Line Surges	EN61000-4-5			Level 3		
Conducted Immunity	EN61000-4-6			Level 3		
Voltage Dips	EN61000-4-11, SEMI F47 compliant. See note 8.			Compliant		
ENVIRONMENTAL						
Parameter	Conditions/Description		Min	Nom	Max	Units
Operating Temperature			-20		+70	°C
Storage Temperature			-40		+85	°C
Derating	See Section 4.11 for full temperature deratings					
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: See Sections 3.1 and 4.10 for details.
7. For section references above go to the Xgen Designers Manual.
8. SEMI F47 compliant at input voltages >160VAC. Consult Excelsys for details.