



Medical

**Medically Approved**  
Ultra-high efficiency 1U size

patents pending



**PLUG & PLAY POWER**  
next generation power source

**FEATURES**

- UL2601-1 and EN60601-1 approved
- Less than 300µA leakage current
- 4000VAC isolation
- 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**

- Clinical diagnostic equipment
- Medical lasers
- Dialysis equipment
- For Standard applications see Xcite

The Xvite family of medically approved power supplies provides up to an incredible 1200W in an extremely compact 1U x 260 x 127mm package. Providing up to 12 isolated DC outputs, the Xvite family employs innovative plug & play architecture allowing users to instantly configure a custom power solution in less than 5 minutes!

The Xvite family consists of 4 *powerPacs* ranging in power levels from 400W to 1200W and 7 *powerMod* DC output modules. Simply select the appropriate *powerPac* and up to 6 *powerMods* from the tables below to complete your custom power supply.

The Xvite family boasts an industry leading power density of 15W/in<sup>3</sup> and ultra-high efficiencies (up to 90%). The significant system space savings and reduced heat dissipation radically simplify system design.

All configurations carry full safety agency approvals including UL2601-1 and EN60601-1 and are CE marked. For alternative power interfaces contact [support@excelsys.com](mailto:support@excelsys.com)

**powerMods**

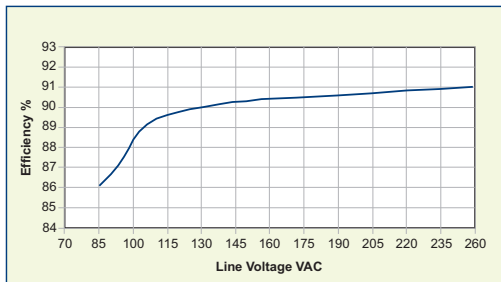
MODEL	Vmin	Vnom	Vmax	I <sub>max</sub>	Watts*	
Xg1	1.5	2.5	3.6	50A	125W	
Xg2	3.2	5.0	6.0	40A	200W	
Xg3	6.0	12.0	15.0	20A	240W	
Xg4	12.0	24.0	30.0	10A	240W	
Xg5	28.0	48.0	58.0	6A	288W	
Xg7	5.0	24.0	28.0	5A	120W	
Xg8	v1	5.0	24.0	28.0	3A	72W
	v2	5.0	24.0	28.0	3A	72W

**powerPacs**

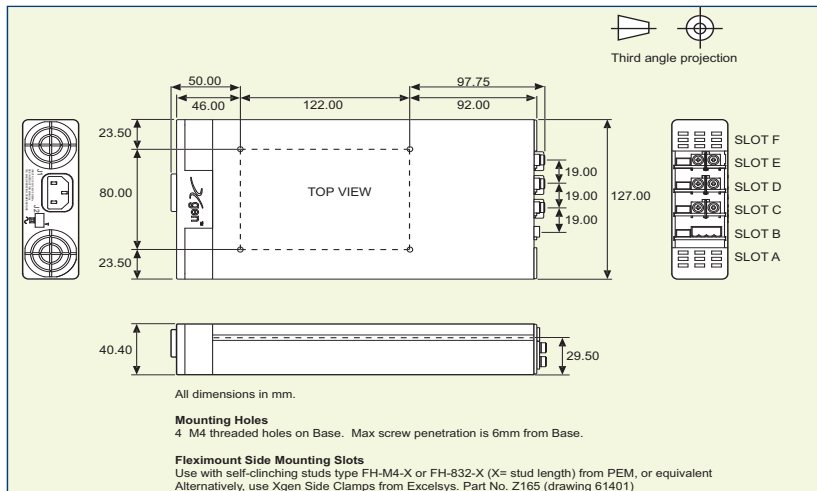
	MODEL	Watts
Xvite	XVA	400W
	XVB	700W
	XVC	1000W
	XVD	1200W

\*see datasheet *powerMods* for full output module specifications  
*powerMod* ratings when used with X<sub>vite</sub> *powerPac*

**EFFICIENCY (typical)**



**MECHANICAL SPECIFICATIONS**



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

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

Medical

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	XVA			400	W
	XVB			700	W
	XVC	Derate linearly from 1000W at 100VAC to 850W at 85VAC		1000	W
	XVD	Derate linearly from 1200W at 120VAC to 850W at 85VAC		1200	W
Input Current	XVA	85VAC in 400W out	7.5		A
	XVB	85VAC in 700W out	9.5		A
	XVC, XVD	85VAC in 850W out	11.5		A
Inrush Current	230VAC @ 25°C			20	A
Undervoltage Lockout	Shutdown	70		78	VAC
Fusing	XVA	250V		F8A HRC	
	XVB	250V		F10A HRC	
	XVC, XVD	250V		F12A HRC	

OUTPUT					
Parameter	Conditions/Description	Min	Nom	Max	Units
<i>powerMod</i> Power	As per <i>powerMod</i> table				
Output Adjustment Range	Manual: Multi-turn potentiometer. As per <i>powerMod</i> 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	Two-level. 1st level: Vset Tracking. 2nd level: Vmax (Latching)	110		125	%
Overcurrent Protection	Straight line with hiccup activation at <30% of Vnom See <i>powerMod</i> datasheet and 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. XCA,XCB,XCC / XCD	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, 1200W @ 24V		90		%
Safety Agency Approvals	EN60601-1, UL2601-1, CSA601-1 UL File No. E230761				
Earth Leakage Current	250VAC, 60Hz, 25°C			300	µA
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. <i>powerPac</i> excludes fans			0.6	fpmh

EMC					
Parameter	Standard	Level	Units		
<b>Emissions</b>					
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			
<b>Immunity</b>					
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	Full Load up to 50%. See derating below	-20		+70	°C
Storage Temperature		-40		+85	°C
Derating	2.5% per °C above 50°C				
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.

Doc. 40039 rev. 03 12/06



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