



Medically Approved

Ultra-high efficiency 1U size

patents pending



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

**FEATURES**

- UL2601-1 3rd Edition Approved
- Less than 300µA leakage current
- 4000VAC isolation
- 1340W with 1450W peak power
- Extra low profile: 1U height (40mm)
- Ultra high efficiency up to 90%
- Plug & Play Power
  - allows fast custom configuration
- Reduced system heat dissipation
- Few electrolytic capacitors (all long life)
- 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 1340W in an extremely compact 1U 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 5 *powerPacs* ranging in power levels from 400W to 1450W peak and 7 *powerMods* 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 17W/in3 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**

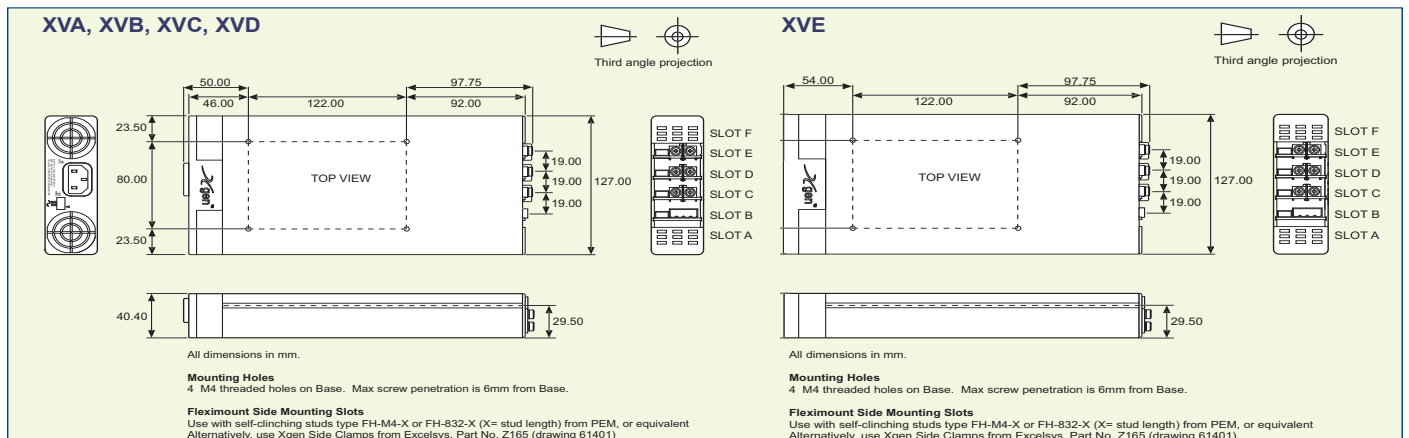
MODEL	V <sub>trim</sub>	V <sub>pot</sub>	V <sub>nom</sub>	V <sub>max</sub>	I <sub>max</sub>	Watts	
Xg1	1.0	1.5	2.5	3.6	50A	125W	
Xg2	1.5	3.2	5.0	6.0	40A	200W	
Xg3	4.0	6.0	12.0	15.0	20A	240W	
Xg4	8.0	12.0	24.0	30.0	10A	240W	
Xg5	8.0	24.0	48.0	58.0	6A	288W	
Xg7	5.0	5.0	24.0	28.0	5A	120W	
Xg8	V1	5.0	5.0	24.0	28.0	3A	72W
	V2	5.0	5.0	24.0	28.0	3A	72W

**powerPacs**

	MODEL	Watts
Xvite	XVA	400W
	XVB	700W
	XVC	1000W
	XVD	1200W
	XVE	1340W

**MECHANICAL SPECIFICATIONS**

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



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

INPUT						
Parameter	Conditions/Description	Min	Nom	Max	Units	
<b>Input Voltage Range</b>	Universal Input 47-63Hz. Contact factory for 440Hz operation	85		264	VAC	
		120		380	VDC	
<b>Power Rating</b>	XVA:400W, XVB:700W, XVC:1000W, XVD:1200W, XVE:1340W See Xgen Designers' Manual for line voltage deratings					
<b>Input Current</b>	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	
	XVE 85VAC in 1000W out		14.0		A	
<b>Inrush Current</b>	230VAC @ 25°C			25	A	
<b>Undervoltage Lockout</b>	Shutdown	65		74	VAC	
<b>Fusing</b>	XVA 250V		F8A HRC			
	XVB 250V		F10A HRC			
	XVC, XVD 250V		F12A HRC			
	XVE 250V		F15A HRC			

OUTPUT						
Parameter	Conditions/Description	Min	Nom	Max	Units	
<b>powerMod Power</b>	As per powerMod table					
<b>Output Adjustment Range</b>	Manual: Multi-turn potentiometer. As per powerMod table Electronic: See Xgen Designers' Manual					
<b>Minimum Load</b>			0		A	
<b>Line Regulation</b>	For ±10% change from nominal line			±0.1	%	
<b>Load &amp; Cross Regulation</b>	For 25% to 75% load change			±0.2	%	
<b>Transient Response</b>	For 25% to 75% load change Voltage Deviation Settling Time			10	%	
				250	µs	
<b>Ripple and Noise</b>	20MHz Bandwidth			1.0	% pk-pk	
<b>Overvoltage Protection</b>	Two-level. 1st level: Vset Tracking. 2nd level: Vmax (Latching)	110		125	%	
<b>Overcurrent Protection</b>	Straight line with hiccup activation at <30% of Vnom See Xgen Designers' Manual for full details	110		120	%	
<b>Remote Sense</b>	Max. line drop compensation. (except Xg7, Xg8)			0.5	VDC	
<b>Overshoot</b>				2	%	
<b>Turn-on Delay</b>	From AC In / Enable signal XVA, XVB, XVC, XVD From AC In / Enable signal XVE			600 / 30	ms	
				700 / 30	ms	
<b>Rise Time</b>	Monotonic			5	ms	
<b>Hold-up Time</b>	For nominal output voltages at full load. XVA,XVB,XVC / XVD,XVE	20 / 15			ms	
<b>Output Isolation</b>	Output to Output / Output to Chassis	500 / 500			VDC	

GENERAL						
Parameter	Conditions/Description	Min	Nom	Max	Units	
<b>Isolation Voltage</b>	Input to Output Input to Chassis	4000 1500			VAC VAC	
<b>Efficiency</b>	230VAC, 1340W @ 24V		90		%	
<b>Safety Agency Approvals</b>	EN60601-1, UL2601-1, CSA601-1 UL File No. E230761					
<b>Earth Leakage Current</b>	250VAC, 60Hz, 25°C See Xgen Series datasheet			300	µA	
<b>Bias Supply</b>	Always ON. Current 250mA (30mA for XVE)	4.8	5.0	5.5	VDC	
<b>Reliability</b>	Failures per million hours at 25°C and full load See Designers' Manual. powerPac excludes fans		powerMod powerPac	0.98 0.92	fpmh fpmh	

EMC						
Parameter	Standard	Level			Units	
<b>Emissions</b>						
<b>Conducted</b>	EN55011, EN55022, FCC		Level B			
<b>Radiated</b>	EN55011, EN55022, FCC		Level B			
<b>Harmonic Distortion</b>	EN61000-3-2		Compliant			
<b>Flicker and Fluctuation</b>	EN61000-3-3		Compliant			
<b>Immunity</b>						
<b>Electrostatic Discharge</b>	EN61000-4-2		Level 4			
<b>Radiated RFI</b>	EN61000-4-3		Level 3			
<b>Fast Transients - burst</b>	EN61000-4-4		Level 4			
<b>Input Line Surges</b>	EN61000-4-5		Class 4			
<b>Conducted RFI</b>	EN61000-4-6		10		V/m	
<b>Voltage Dips</b>	EN61000-4-11 (EN55024)		10		ms	

ENVIRONMENTAL						
Parameter	Conditions/Description	Min	Nom	Max	Units	
<b>Operating Temperature</b>		-20		+70	°C	
<b>Storage Temperature</b>		-40		+85	°C	
<b>Derating</b>	See Xgen Designers' Manual for full temperature deratings (Section 12, pages 37-38)					
<b>Relative Humidity</b>	Non-condensing	5		95	%RH	
<b>Shock</b>	3000 Bumps, 10G (16ms) half sine					
<b>Vibration</b>	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. XVE: 1450W peak for 10s; Duty cycle 8%. 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.