

## Excellent Integrated System Limited

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[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)



**AC/DC Power Supply**  
 Ultra-high efficiency 1U size



patents pending  
 CE c RU US

Standard

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

**FEATURES**

- 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**

- Industrial machines
- Test and measurement
- Automation equipment
- Printing
- Telecommunications
- For Medical applications see Xvite

The Xcite family of power supplies provides up to an incredible 1200W in an extremely compact 1U x 260 x 127mm package. Boasting industry leading power density of 15W/in<sup>3</sup> and efficiencies of up to 90%, the Xcite family employs an innovative plug & play architecture that allows users to instantly configure a custom power solution in less than 5 minutes!

Ultra high efficiencies and high power density are made possible through the combination of low loss technologies and the best field-proven technologies in planar magnetics and surface mount electronics. Significantly increased efficiency reduces system thermal load by more than 50%.

The Xcite family consists of 4 *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](mailto:support@excelsys.com)

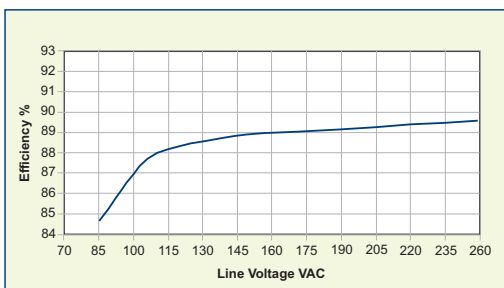
**powerMods**

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	3A	72W
	v2	5.0	24.0	3A	72W

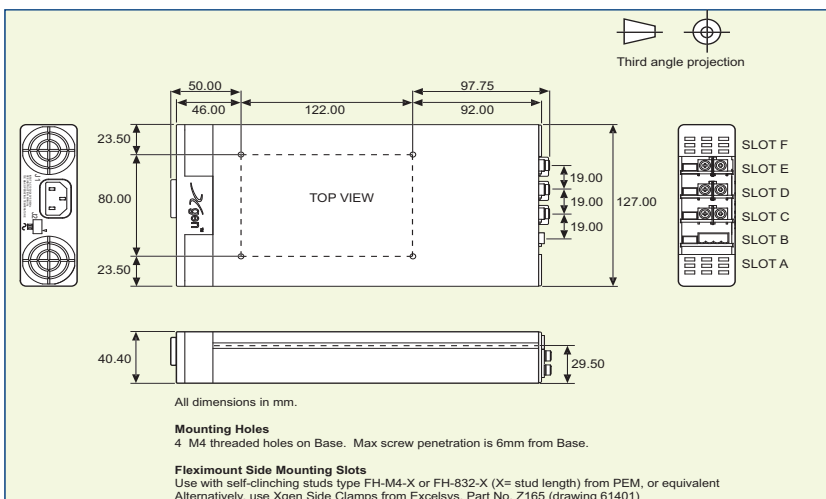
**powerPacs**

	MODEL	Watts
Xcite	XCA	400W
	XCB	700W
	XCC	1000W
	XCD	1200W

**EFFICIENCY (typical)**



**MECHANICAL SPECIFICATIONS**



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

Standard

**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	85 120		264 380	VAC VDC
<b>Input Frequency Range</b>		47		63	Hz
<b>Power Rating</b>				400 700 1000 1200	W W W W
XCA	Derate linearly from 1000W at 100VAC to 850W at 85VAC Derate linearly from 1200W at 120VAC to 850W at 85VAC				
XCB					
XCC					
XCD					
<b>Input Current</b>			7.5 9.5 11.5		A A A
XCA	85VAC in 400W out				
XCB	85VAC in 700W out				
XCC, XCD	85VAC in 850W out				
<b>Inrush Current</b>	230VAC @ 25°C			25	A
<b>Undervoltage Lockout</b>	Shutdown	65		74	VAC
<b>Fusing</b>			F8A HRC F10A HRC F12A HRC		
XCA	250V				
XCB	250V				
XCC, XCD	250V				

OUTPUT					
Parameter	Conditions/Description	Min	Nom	Max	Units
<b>powerMod Power</b>	As per <i>powerMod</i> table				
<b>Output Adjustment Range</b>	Manual: Multi-turn potentiometer. As per <i>powerMod</i> 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>	1st level: Vset Tracking. 2nd level: Vmax (Latching)	110		125	%
<b>Overcurrent Protection</b>	Straight line with hiccup activation at <30% of Vnom See Designer's 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			300 / 30	ms
<b>Rise Time</b>	Monotonic			5	ms
<b>Hold-up Time</b>	For nominal output voltages at full load. XCA,XCB,XCC / XCD	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	3000 1500			VAC VAC
<b>Efficiency</b>	230VAC, 1200W @ 24V		90		%
<b>Safety Agency Approvals</b>	EN60950, UL60950, CSA22.2 No.950 UL File No. E181875				
<b>Leakage Current</b>	250VAC, 60Hz, 25°C			1.5	mA
<b>Signals</b>	See Xgen Series datasheet				
<b>Bias Supply</b>	Always ON. Current 250mA	4.9	5.0	5.1	VDC
<b>Reliability</b>	Failures per million hours at 25°C and full load See Designers' Manual. <i>powerPac</i> excludes fans			1.0 0.6	fpmh fpmh
<i>powerMod</i>					
<i>powerPac</i>					

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>	1.6% per °C above 40°C. See Designers Manual for full deratings				
<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**
- This product is not intended for use as a stand alone unit and must be installed by qualified personnel.
  - The specifications contained herein are believed to be correct at time of publication and are subject to change without notice.
  - All specifications at nominal input, full load, 25°C unless otherwise stated.

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