

## Series Xgen

**AC/DC next generation power source  
Lowest Profile (1U), Highest Efficiency  
400W/ 600W/ 700W/ 900W/ 1000W/ 1200W**

Up to 1200W multi-output power in 1U (40,4mm)  
1.5V to 58V standard output voltages  
All outputs fully floating  
Plug & Play power module architecture  
allows fast custom configurations  
facilitates rapid prototyping  
simplifies logistics  
Ultra-high efficiency up to 90%  
Series / Parallel of multiple outputs  
Visual LED indicators



patents pending



Applications include:

Industrial machines, Test and measurement, Automation equipment, Telecommunications, Medical equipment, Laboratory and Diagnostic equipment, Audio and broadcast, Linear and rotary motion, 19" systems

The Xgen series brings OEM power supplies to a new paradigm, combining technical excellence with logistics simplicity to fully resolve all the concerns regularly expressed by users of multiple-output power supplies. Xgen continues providing an instant, no compromise power solution for any application where a unique set of voltage and current requirements is needed.

### EFFICIENCY

Too much heat generated in your OEM equipment?

Difficult to maintain your equipment at the right temperature?

Xgen has industry-unrivaled efficiency, exceeding 90% !! This means that less than half of the amount of waste heat is created in comparison to conventional multiple output power sources with efficiencies of 80% and lower. It also guarantees increased reliability. Now, that's a cool power supply!

### SPACE

Not enough space available in your OEM equipment?

Is space at a premium, making design and manufacture difficult and compromised?

Xgen has industry-unrivaled power density for a full functionality ac/dc power supply, at 15W/in<sup>3</sup>. Check it out! You can get 1200W of multiple-output power source in 1U rack space - Xgen dimension: 40.4mm! It's so compact, you'll hardly notice it, once installed, and it leaves plenty more space for your other components and general accessibility.

Now, that's a discreet power supply!

### CUSTOM POWER

Need a custom power supply in a hurry?

Xgen is a true Plug & Play multiple-output power supply. Any one of more than 30 million configurations can be assembled anywhere, in under 5 minutes, from standard, volume-produced modules. This is the new-paradigm: a custom power supply available in 5 minutes from standard parts.

Now, that's a new paradigm power supply!

### STANDARD APPROVALS

Worried about meeting all relevant standards - EMC, Safety, etc?

Xgen series models are fully compliant with all relevant standards. Xcite, Xlite, Xhite and Xqite models meet the requirements of EN60950, UL60950, CSA22.2, EN61000-3-x and EN61000-4-x. Additionally Xvite and Xmite models meet the requirements of EN60601-1 and UL2601 for medical applications.

Now, that's a re-assuring power supply!

### COST-EFFECTIVE

Looking for a cost-effective long term solution for all your power supply requirements?

Xgen is configured from standard component parts that are manufactured in volume in a world class manufacturing facility.

This allows Excelsys to provide you with all the benefits of Xgen at a world class competitive price. Call Excelsys or one of our distributors and find out for yourself.

Now, that's an excellent value power supply!

## Xgen FLEXIBILITY

### Voltage Adjustment - Local

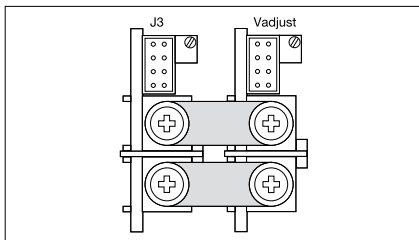
The multi-turn potentiometer that adjusts each output within the specified range may be accessed via the output panel of the power supply. Clockwise rotation increases output voltage. Resolution is approximately 5% of nominal voltage ( $V_{nom}$ ) per turn.

### Voltage Adjustment - Remote (resistive / electronic)

The output voltage may be adjusted or trimmed by means of an external resistor or potentiometer network connected to the Vtrim pin. Linear Electronic programming is also possible and may be implemented according to the formula  $V_{out} = K V_{control}$ . See Xgen series Designers' Manual for full details.

### Paralleling

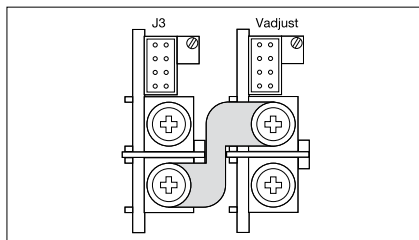
To achieve increased current capacity, simply parallel outputs using the standard parallel links. Excelsys 'wireless' sharing ensures that current hogging is not possible.



Standard parallel links can be supplied. To order, please use part number XP1.

### Seriesing

To achieve increased output voltages, simply series outputs using standard series links, paying attention to the requirements to maintain SELV levels if required in your system.



Standard serial links can be supplied. To order, please use part number XS1.

### Remote Sensing

When the load is remote from the power supply, the remote sense pins may be used to compensate for drops in the power leads. Where the power cabling contributes significant dynamic impedance, see Xgen series Designers' Manual.

### Bias Voltage

A SELV isolated 5V (always on) bias voltage rated at 250mA is provided on J2 to facilitate miscellaneous control functions.

### Current Limit Adjustment

The output current limit setting may be adjusted (downwards only) by means of an external resistor connection to the I trim pin.

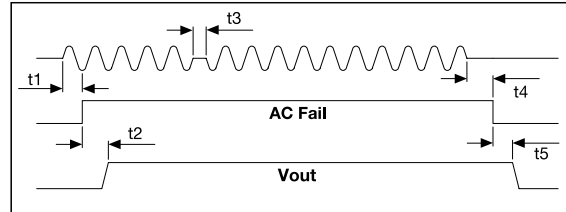
### Inhibit/Enable

Inhibiting may be implemented either globally or on a per module basis (powerPac or powerMod inhibiting). Reverse logic (Enabling) may also be implemented, see Xgen series Designers' Manual.

## Xgen SIGNALS

### AC Fail

Open collector signal indicating that the input voltage has failed or is less than 80Vac. This signal changes state giving 5mS of warning before loss of output regulation. See Xgen series Designers' Manual for full specifications.

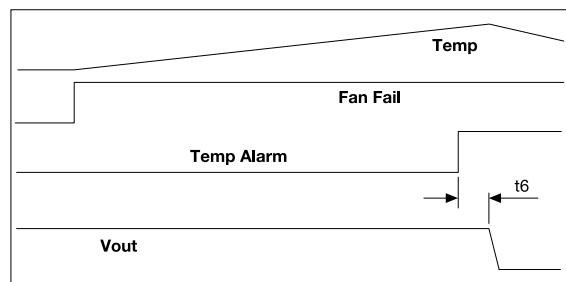


### Temperature Alarm (Option 01)

Open collector signal indicating excessive powerPac temperatures due to fan failure or operation beyond ratings. This signal is activated at least 10ms prior to system shutdown.

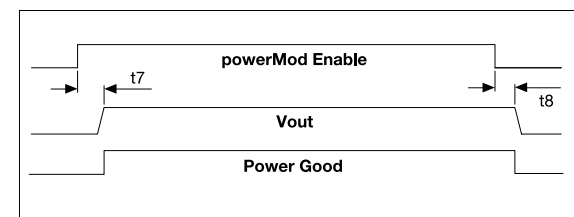
### Fan Fail (Option 01)

Open collector signal indicating that at least one of the system fans have failed. This does not cause system shutdown.



### Power Good

Opto-isolated output signal indicates that the powerMod is operating correctly and output voltage is within normal band. Opto transistor ON = Good.



### Indication LEDs

Each powerMod has a visual indicator to identify that it is operating within normal ratings. Very useful for system diagnosis.

### Output Signals Connector Pinout

Pin	J3 (Xg1-Xg5)	J3 (Xg7)	J3 (Xg8)
1	+sense	not used	-pg (V2)
2	-sense	not used	+pg (V2)
3	V trim	not used	inhibit (V2)
4	I trim	common	common (V2)
5	+inhibit/enable	-pg	-pg (V1)
6	-inhibit/enable	+pg	+pg (V1)
7	+power good	inhibit	inhibit (V1)
8	-power good	common	common (V1)

J3 powerMod Signals Mating Connector:  
Housing: Molex p/n 51110 or equivalent  
Crimp Terminal: Molex p/n 50394

# AC/DC Einbaunetzgeräte

The Xgen series power supplies combine feature-laden front-ends (powerPacs) with slide-in output converters (powerMods). The plug-together architecture facilitates 'instant' custom power solutions with industry leading 15W/in<sup>2</sup> power density and up to 90% conversion efficiency.

## powerPacs (6slot package, 127mm wide), General Application

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

## powerPacs (4slot package, 89mm wide), General Application

Family	MODEL	Watts
Xlite	XLA	200W
	XLB	400W
	XLC	600W

## powerMods (for use with all powerPac models)

MODEL	Vmin	Vnom	Vmax	Imax	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	5.0	24.0	28.0	3A	72W
	5.0	24.0	28.0	3A	72W

## Standard Features

Input Voltage: 85V to 264Vac 47 to 63Hz  
 Outputs: 6 slots (up to 12 outputs)  
 Full power output to 50°C; half power to 70°C  
 Low inrush current  
 Integral Field Replaceable fan  
 Conducted EMI meets EN 55022 Level B  
 AC Fail status signal  
 Output Sequencing capability  
 Global shutdown capability  
 Overcurrent protection standard on all outputs  
 Overvoltage protection on all *powerMod outputs*  
 Overtemperature limiting on all *powerMods*  
 Safety Agency Approvals: CE Mark, UL, CSA  
 DC OK (Power Good) status signal  
 Wide output voltage adjustment range

## powerPacs (6slot package, 127mm wide), Medical Application

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

## powerPacs (6slot package, 127mm wide), High Temperature Application

	Family	MODEL	Watts
HT	Xhite	XHA	400W
		XHB	600W

## powerPacs (6slot package, 127mm wide), Low Acoustic Noise Application

	Family	MODEL	Watts
QT	Xqite	XQA	400W
		XQB	900W

## powerPacs (4slot package, 89mm wide), Low Acoustic Noise Application

	Family	MODEL	Watts
QT	Xkite	XKA	200W
		XKB	400W

The Xhite family is designed specifically for extended temperature applications fully specified from -20oC to +70oC with no derating ! The Xqite and Xkite family is designed specifically for acoustic sensitive applications.

## powerPacs (4slot package, 89mm wide), Medical Application

	Family	MODEL	Watts
Med	Xmite	XMA	200W
		XMB	400W
		XMC	600W

## powerPacs (6slot package, 127mm wide), Medical Low Acoustic Application

	Family	MODEL	Watts
QT	Xzite	XZA	400W
		XZB	900W

## powerPacs (4slot package, 89mm wide), Medical Low Acoustic Application

	Family	MODEL	Watts
Med	Xrite	XRA	200W
		XRB	400W

## How to Order

Configured Units may be specified and ordered using the part numbering system shown opposite. For example, part number XVC123400-01 specifies the following 1000W medical power supply.

- 2.5V @ 50A 5V @ 40A 12V @ 20A 24V @ 10A
- Thermal signals suite fitted to powerPac

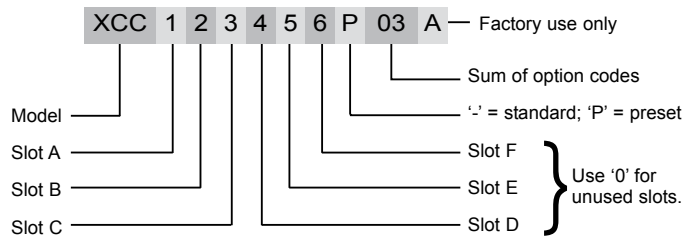
**Accessories** may be ordered directly using the part numbers shown.

Part	Part No.	Note that unused slots should be fitted with appropriate slot covers.
Left Slot Cover	XB1	
Inner Slot Cover	XB2	
Right Slot Cover	XB3	
Series Link	XS1	
Parallel Link	XP1	
Housing and Crimperterminals	X723	

powerPacs may be ordered directly using the model number shown in the tables followed by the appropriate option code suffix. E.g. XVB-01 is the part number for 700W powerPac with medical approval and thermal signals.

powerMods may be ordered directly using the model numbers shown in the powerMod table. E.g. Xg2 is the part number for a 5V 40A module.

powerKits consist of application specific powerPacs and a selection of powerMods packaged in a convenient carry case. Particularly useful for systems designers. See powerKit datasheet.



### Xgen Option Codes

- 01 Thermal Signals
- 02 Reverse Fan (not available on 1200W models)

### Preset Units

Units are shipped with nominal output voltages unless presetting is specified. Zentro can preset units to your exact requirements, through use of appropriate parallel and series links and through voltage adjustment to specific preset levels.