# Hi-Rel COTS AC/DC Plug & Play Power Supply 400W-1000W



# **Ruggedised COTS AC/DC Power Supply**

# Ultra-high efficiency 1U size

# PLUG & PLAY POWER

next generation power source

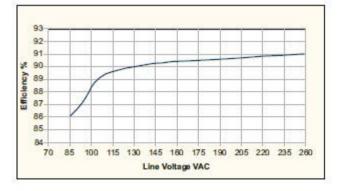
## **FEATURES**

- MIL-STD-810G: Shock & Vibration
- MIL-STD-461F: EMC
- Conformal Coated & Ruggedised as standard
- Operating temperature range of -55 to 70 ℃
- 47-440Hz input frequency
- Anti-Vibration Compound
- 1V to 53V standard output voltages
- · All outputs fully floating
- Extra low profile: 1U height (40mm)
- Ultra high efficiency, up to 91%
- Plug & Play Power
- allows fast custom configuration
- Outputs completely field configurable with option to factory fix
- Series / Parallel outputs for higher voltages and currents
- Parallel powerpacs for higher power
- OVP, OTP, OCP as standard
- 5V/250mA bias standby voltage provided
- Individual output control
- 3 Year Warranty

## **APPLICATIONS INCLUDE**

- Harsh Industrial Electronics
- Radar (Naval, Ground Based)
- Communications
- Test & Measurement

#### **EFFICIENCY** (typical)



The XF family of power supplies provides up to an incredible 1000W in an extremely compact 1U x 268 x 127mm package. Employing an innovative plug & play architecture the XF family brings unprecedented flexibility that allows users to instantly configure a custom power solution in less than 5 minutes.

Designed for use in harsh operating environments, the XF family is conformal coated and ruggedised to withstand extremes in shock and vibration as well as operation over a wide temperature range of -55 to 70 °C. Applications include Harsh Industrial, Test and Measurement, Communications, Fixed and Mobile Radar and Military Electronics which require COTS solutions.

All configurations carry full safety agency approvals, including UL60950 and EN60950 and are fully characterised for EMC according to MIL-STD-461F. All configurations meet the MIL-STD-810G standard for shock and vibration. EMC characterisation, Shock and Vibration and Thermal Stress reports are available.

For further details please contact support@excelsys.com.

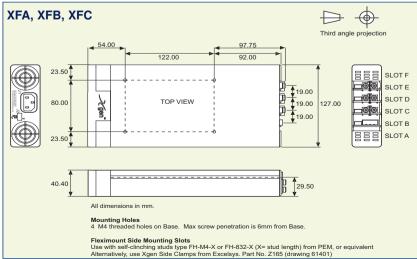
powerMods							
MODEL	Vtrim	Vmin	Vnom	Vmax	Imax	Watts	
Xg1C	1.0	1.5	2.5	3.6	50A	125W	
Xg2C	1.5	3.2	5.0	6.0	40A	200W	
Xg3C	4.0	6.0	12.0	15.0	20A	240W	
Xg4C	8.0	12.0	24.0	28.0	10A	240W	
Xg5C	8.0	24.0	48.0	53.0	6A	288W	
Xg7C	5.0	5.0	24.0	28.0	5A	120W	
Xg8Cv1 V2	5.0 5.0	5.0 5.0	24.0 24.0	28.0 28.0	2.5A 2.5A	60W 60W	

#### powerPacs

s			
	<u>ه</u> م	XFA	400W
V	Hi-Re COTS	XFB	700W
V		XFC	1000W

Conformal Coated *powerMods*, Xg1C to Xg8C, MUST be used with XF *powerpacs*.

#### **MECHANICAL SPECIFICATIONS**



# Hi-Rel COTS AC/DC Plug & Play Power Supply 400W-1000W

# **Hi-Rel COTS**

INPUT

Parameter	Conditions/Decription		NOM	мах	Unit
Input Voltage Range	Universal Input 47 - 63Hz.	85		264	VAC
	Input: 390 - 440Hz.	90		120	VAC
Power Rating	XFA			400	W
	XFB			700	W
	XFC			1000	W
Input Current XFA	85VAC in 400W out		7.5		A
XFB	85VAC in 700W out		9.5		A
XFC	85VAC in 765W out		11.5	05	A
Inrush Current	230VAC @ 25°C	CE.		25 74	A VAC
Undervoltage Lockout Fusing XFA	Shutdown 250V	65	F8A HRC	/4	VAC
XFB	250V 250V		FIOA HRC		
XFC	250V		F12A HRC		
OUTPUT					
Parameter	Conditions/Description	Min	Nom	Мах	Unit
powerMod Power	As per <i>powerMod</i> table		Nom	max	
Output Adjustment Range	Manual or Electronic				-
output Aujustinent hunge	As per powerMod Table				
Minimum Load			0		Α
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			10	%
-	Settling Time			250	μs
Ripple and Noise	20MHz Bandwidth100mv or 1.0% pk-pk				
Overvoltage Protection	Two-Level: 1st Level: Vset Tracking. 2nd Level: Vmax (Latching)	110	130	150	%
Overcurrent Protection	Straight line with hiccup activation at <30% of Vnom	110		120	%
Remote Sense	Max. line drop compensation. (except Xg7, Xg8)			0.5	VDC
Overshoot				2	%
Turn-on Delay	From AC In / Enable signal			600 / 30	ms
Rise Time	Monotonic			5	ms
Hold-up Time	For nominal output voltages at full load. Output to Output / Output to Chassis	20			ms
Output Isolation		500 / 500			VDC
GENERAL					
Parameter	Conditions/Description			Max	Unit
Isolation Voltage	Primary to Secondary	3000			VAC
	Input to Chassis	1500			VAC
Efficiency	230VAC, 1000W @ 24V		91		%
Safety Agency Approvals	EN60950, UL60950, CSA22.2 No.950 UL File No. E181875				
Earth Leakage Current	230VAC, 50Hz, 25℃		91		%
Bias Supply	Always ON. Current 250mA	4.8	5.0	5.5	VDC
Reliability	Telcordia SR-332 at 25°C and full load powerMod			1020	kh
	Telcordia SR-332 at 25°C and full load <i>powerPac</i> (excludes fans)			1057	kh
	MIL-STD-217F at 25°C and full load powerMod			86 77	kh
EMO				86 77	kh kh
	MIL-STD-217F at 25°C and full load powerMod MIL-STD-217F at 25°C and full load powerPac (excludes fans)				kh
Parameter	MIL-STD-217F at 25°C and full load powerMod		Level		
Parameter Emissions	MIL-STD-217F at 25°C and full load powerMod MIL-STD-217F at 25°C and full load powerPac (excludes fans) Standard				kh
Parameter Emissions Conducted (note 5)	MIL-STD-217F at 25°C and full load powerMod MIL-STD-217F at 25°C and full load powerPac (excludes fans) Standard EN55011, EN55022, FCC: Level B		Compliant		kh
Parameter Emissions Conducted (note 5) Radiated (note 5)	MIL-STD-217F at 25°C and full load powerMod MIL-STD-217F at 25°C and full load powerPac (excludes fans) Standard EN55011, EN55022, FCC: Level B EN55011, EN55022, FCC: Level B		Compliant Compliant		kh
Parameter Emissions Conducted (note 5) Radiated (note 5) Harmonic Distortion	MIL-STD-217F at 25°C and full load powerMod MIL-STD-217F at 25°C and full load powerPac (excludes fans) Standard EN55011, EN55022, FCC: Level B EN55011, EN55022, FCC: Level B EN61000-3-2 Class A & MIL-STD-1399 SECTION 300A		Compliant Compliant Compliant		kh
Parameter Emissions Conducted (note 5) Radiated (note 5) Harmonic Distortion Flicker and Fluctuation	MIL-STD-217F at 25°C and full load powerMod MIL-STD-217F at 25°C and full load powerPac (excludes fans) Standard EN55011, EN55022, FCC: Level B EN55011, EN55022, FCC: Level B		Compliant Compliant		kh
Parameter Emissions Conducted (note 5) Radiated (note 5) Harmonic Distortion Flicker and Fluctuation Immunity	MIL-STD-217F at 25°C and full load powerMod MIL-STD-217F at 25°C and full load powerPac (excludes fans) Standard EN55011, EN55022, FCC: Level B EN55011, EN55022, FCC: Level B EN61000-3-2 Class A & MIL-STD-1399 SECTION 300A EN61000-3-3		Compliant Compliant Compliant Compliant		kh
Parameter Emissions Conducted (note 5) Radiated (note 5) Harmonic Distortion Flicker and Fluctuation Immunity Electrostatic Discharge	MIL-STD-217F at 25°C and full load powerMod MIL-STD-217F at 25°C and full load powerPac (excludes fans) Standard EN55011, EN55022, FCC: Level B EN55011, EN55022, FCC: Level B EN61000-3-2 Class A & MIL-STD-1399 SECTION 300A EN61000-3-3 EN61000-4-2: Level 2		Compliant Compliant Compliant Compliant Compliant		kh
Parameter Emissions Conducted (note 5) Radiated (note 5) Harmonic Distortion Flicker and Fluctuation Immunity Electrostatic Discharge Radiated RFI	MIL-STD-217F at 25°C and full load powerMod MIL-STD-217F at 25°C and full load powerPac (excludes fans) Standard EN55011, EN55022, FCC: Level B EN61000-3-2 Class A & MIL-STD-1399 SECTION 300A EN61000-3-3 EN61000-4-2: Level 2 EN61000-4-4: Level 3 & MIL-STD-461F		Compliant Compliant Compliant Compliant Compliant Compliant		kh
Parameter Emissions Conducted (note 5) Radiated (note 5) Harmonic Distortion Flicker and Fluctuation Immunity Electrostatic Discharge Radiated RFI Fast Transients - burst	MIL-STD-217F at 25°C and full load powerMod MIL-STD-217F at 25°C and full load powerPac (excludes fans) Standard EN55011, EN55022, FCC: Level B EN55011, EN55022, FCC: Level B EN61000-3-2 Class A & MIL-STD-1399 SECTION 300A EN61000-3-3 EN61000-4-2: Level 2 EN61000-4-4: Level 3 & MIL-STD-461F EN61000-4-4: Level 3		Compliant Compliant Compliant Compliant Compliant Compliant Compliant		kh
Parameter Emissions Conducted (note 5) Radiated (note 5) Harmonic Distortion Flicker and Fluctuation Immunity Electrostatic Discharge Radiated RFI Fast Transients - burst Input Line Surges	MIL-STD-217F at 25°C and full load powerMod MIL-STD-217F at 25°C and full load powerPac (excludes fans) Standard EN55011, EN55022, FCC: Level B EN55011, EN55022, FCC: Level B EN61000-3-2 Class A & MIL-STD-1399 SECTION 300A EN61000-4-2: Level 2 EN61000-4-4: Level 2 EN61000-4-4: Level 3 & MIL-STD-461F EN61000-4-4: Level 3 EN61000-4-5: Level 3 & MIL-STD-1399		Compliant Compliant Compliant Compliant Compliant Compliant		kh
Parameter Emissions Conducted (note 5) Radiated (note 5) Harmonic Distortion Flicker and Fluctuation Immunity Electrostatic Discharge Radiated RFI Fast Transients - burst Input Line Surges Conducted RFI	MIL-STD-217F at 25°C and full load powerMod MIL-STD-217F at 25°C and full load powerPac (excludes fans) Standard EN55011, EN55022, FCC: Level B EN55011, EN55022, FCC: Level B EN61000-3-2 Class A & MIL-STD-1399 SECTION 300A EN61000-3-3 EN61000-4-2: Level 2 EN61000-4-4: Level 3 & MIL-STD-461F EN61000-4-4: Level 3		Compliant Compliant Compliant Compliant Compliant Compliant Compliant		kh
Parameter Emissions Conducted (note 5) Radiated (note 5) Harmonic Distortion Flicker and Fluctuation Immunity Electrostatic Discharge Radiated RFI Fast Transients - burst Input Line Surges Conducted RFI Voltage Dips	MIL-STD-217F at 25°C and full load powerMod MIL-STD-217F at 25°C and full load powerPac (excludes fans) Standard EN55011, EN55022, FCC: Level B EN55011, EN55022, FCC: Level B EN61000-3-2 Class A & MIL-STD-1399 SECTION 300A EN61000-3-3 EN61000-4-2: Level 2 EN61000-4-4: Level 3 & MIL-STD-461F EN61000-4-4: Level 3 & MIL-STD-1399 EN61000-4-5: Level 3 & MIL-STD-1399 EN61000-4-6: Level 3 & MIL-STD-1399		Compliant Compliant Compliant Compliant Compliant Compliant Compliant Compliant		kh
Parameter Emissions Conducted (note 5) Radiated (note 5) Harmonic Distortion Flicker and Fluctuation Immunity Electrostatic Discharge Radiated RFI Fast Transients - burst Input Line Surges Conducted RFI Voltage Dips ENVIRONMENTAL	MIL-STD-217F       at 25°C and full load       powerMod         MIL-STD-217F       at 25°C and full load       powerPac (excludes fans)         Standard       Standard         EN55011, EN55022, FCC: Level B       EN61000-3-2 Class A & MIL-STD-1399 SECTION 300A         EN61000-3-2 Class A & MIL-STD-461F       EN61000-4-2: Level 2         EN61000-4-4: Level 3 & MIL-STD-461F       EN61000-4-5: Level 3 & MIL-STD-1399         EN61000-4-5: Level 3 & MIL-STD-1399       EN61000-4-6: Level 3 & MIL-STD-461F		Compliant Compliant Compliant Compliant Compliant Compliant Compliant Compliant Compliant		kh Unit
Parameter Emissions Conducted (note 5) Radiated (note 5) Harmonic Distortion Flicker and Fluctuation Immunity Electrostatic Discharge Radiated RFI Fast Transients - burst Input Line Surges Conducted RFI Voltage Dips ENVIRONMENTAL Parameter	MIL-STD-217F at 25°C and full load powerMod MIL-STD-217F at 25°C and full load powerPac (excludes fans) Standard EN55011, EN55022, FCC: Level B EN55011, EN55022, FCC: Level B EN61000-3-2 Class A & MIL-STD-1399 SECTION 300A EN61000-3-3 EN61000-4-2: Level 2 EN61000-4-4: Level 3 & MIL-STD-461F EN61000-4-4: Level 3 & MIL-STD-1399 EN61000-4-5: Level 3 & MIL-STD-1399 EN61000-4-6: Level 3 & MIL-STD-1399	Min	Compliant Compliant Compliant Compliant Compliant Compliant Compliant Compliant	77	kh Unit
Parameter Emissions Conducted (note 5) Radiated (note 5) Harmonic Distortion Flicker and Fluctuation Immunity Electrostatic Discharge Radiated RFI Fast Transients - burst Input Line Surges Conducted RFI Voltage Dips ENVIRONMENTAL Parameter Operating Temperature	MIL-STD-217F       at 25°C and full load       powerMod         MIL-STD-217F       at 25°C and full load       powerPac (excludes fans)         Standard       Standard         EN55011, EN55022, FCC: Level B       EN61000-3-2 Class A & MIL-STD-1399 SECTION 300A         EN61000-3-2 Class A & MIL-STD-461F       EN61000-4-2: Level 2         EN61000-4-4: Level 3 & MIL-STD-461F       EN61000-4-5: Level 3 & MIL-STD-1399         EN61000-4-5: Level 3 & MIL-STD-1399       EN61000-4-6: Level 3 & MIL-STD-461F	-55	Compliant Compliant Compliant Compliant Compliant Compliant Compliant Compliant Compliant	77 	kh Unit Unit
Parameter Emissions Conducted (note 5) Radiated (note 5) Harmonic Distortion Flicker and Fluctuation Immunity Electrostatic Discharge Radiated RFI Fast Transients - burst Input Line Surges Conducted RFI Voltage Dips ENVIRONMENTAL Parameter Operating Temperature Storage Temperature	MIL-STD-217F       at 25°C and full load       powerMod         MIL-STD-217F       at 25°C and full load       powerPac (excludes fans)         Standard       EN55011, EN55022, FCC: Level B         EN55011, EN55022, FCC: Level B       EN61000-3-2 Class A & MIL-STD-1399 SECTION 300A         EN61000-3-2 Class A & MIL-STD-461F         EN61000-4-2: Level 2         EN61000-4-4: Level 3 & MIL-STD-461F         EN61000-4-5: Level 3 & MIL-STD-1399         EN61000-4-6: Level 3 & MIL-STD-461F         EN61000-4-11 & MIL-STD-704         Conditions/Description		Compliant Compliant Compliant Compliant Compliant Compliant Compliant Compliant Compliant	77	kh Unit Unit
Parameter Emissions Conducted (note 5) Radiated (note 5) Harmonic Distortion Flicker and Fluctuation Immunity Electrostatic Discharge Radiated RFI Fast Transients - burst Input Line Surges Conducted RFI Voltage Dips ENVIRONMENTAL Parameter Operating Temperature Storage Temperature Derating	MIL-STD-217F       at 25°C and full load       powerMod         MIL-STD-217F       at 25°C and full load       powerPac (excludes fans)         Standard       Standard         EN55011, EN55022, FCC: Level B       EN61000-3-2 Class A & MIL-STD-1399 SECTION 300A         EN61000-3-2 Class A & MIL-STD-461F       EN61000-4-2: Level 2         EN61000-4-4: Level 3 & MIL-STD-461F       EN61000-4-5: Level 3 & MIL-STD-1399         EN61000-4-5: Level 3 & MIL-STD-1399       EN61000-4-6: Level 3 & MIL-STD-461F	-55	Compliant Compliant Compliant Compliant Compliant Compliant Compliant Compliant Compliant Nom	77 	kh Unit
Parameter Emissions Conducted (note 5) Radiated (note 5) Harmonic Distortion Flicker and Fluctuation Immunity Electrostatic Discharge Radiated RFI Fast Transients - burst Input Line Surges Conducted RFI Voltage Dips ENVIRONMENTAL Parameter Operating Temperature Storage Temperature Derating Acoustic Noise	MIL-STD-217F       at 25°C and full load       powerMod powerPac (excludes fans)         Standard       Standard         EN55011, EN55022, FCC: Level B       EN55011, EN55022, FCC: Level B         EN61000-3-2 Class A & MIL-STD-1399 SECTION 300A       EN61000-3-3         EN61000-4-2: Level 2       EN61000-4-2: Level 3 & MIL-STD-461F         EN61000-4-4: Level 3 & MIL-STD-1399       EN61000-4-6: Level 3 & MIL-STD-1399         EN61000-4-6: Level 3 & MIL-STD-1399       EN61000-4-6: Level 3 & MIL-STD-1399         EN61000-4-11 & MIL-STD-704       Conditions/Description         Contact Excelsys for full temperature deratings       Contact Excelsys for full temperature deratings	-55 -55	Compliant Compliant Compliant Compliant Compliant Compliant Compliant Compliant Compliant	77 Max +70 +75	kh Unit Unit Unit Unit C C
Emissions Conducted (note 5) Radiated (note 5) Harmonic Distortion Flicker and Fluctuation Immunity Electrostatic Discharge Radiated RFI Fast Transients - burst Input Line Surges Conducted RFI Voltage Dips ENVIRONMENTAL Parameter Operating Temperature Storage Temperature Derating Acoustic Noise Relative Humidity	MIL-STD-217F       at 25°C and full load       powerMod         MIL-STD-217F       at 25°C and full load       powerPac (excludes fans)         Standard       EN55011, EN55022, FCC: Level B         EN55011, EN55022, FCC: Level B       EN61000-3-2 Class A & MIL-STD-1399 SECTION 300A         EN61000-3-2 Class A & MIL-STD-461F         EN61000-4-2: Level 2         EN61000-4-2: Level 3 & MIL-STD-461F         EN61000-4-5: Level 3 & MIL-STD-1399         EN61000-4-6: Level 3 & MIL-STD-1399         EN61000-4-11 & MIL-STD-704         Conditions/Description         Non-condensing	-55	Compliant Compliant Compliant Compliant Compliant Compliant Compliant Compliant Compliant Nom	77 	kh Unit
Parameter Emissions Conducted (note 5) Radiated (note 5) Harmonic Distortion Flicker and Fluctuation Immunity Electrostatic Discharge Radiated RFI Fast Transients - burst Input Line Surges Conducted RFI Voltage Dips ENVIRONMENTAL Parameter Operating Temperature Storage Temperature Derating Acoustic Noise	MIL-STD-217F       at 25°C and full load       powerMod powerPac (excludes fans)         Standard       Standard         EN55011, EN55022, FCC: Level B       EN55011, EN55022, FCC: Level B         EN61000-3-2 Class A & MIL-STD-1399 SECTION 300A       EN61000-3-3         EN61000-4-2: Level 2       EN61000-4-2: Level 3 & MIL-STD-461F         EN61000-4-4: Level 3 & MIL-STD-1399       EN61000-4-6: Level 3 & MIL-STD-1399         EN61000-4-6: Level 3 & MIL-STD-1399       EN61000-4-6: Level 3 & MIL-STD-1399         EN61000-4-11 & MIL-STD-704       Conditions/Description         Contact Excelsys for full temperature deratings       Contact Excelsys for full temperature deratings	-55 -55	Compliant Compliant Compliant Compliant Compliant Compliant Compliant Compliant Compliant Nom	77 Max +70 +75	kh Unit Unit Unit Unit C C

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

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. When powering inductive or capacitive loads, it is recommended to use a blocking diode on the output.

Europe/Asia

5. Conformal Coated powerMods, Xg1C to Xg8C, MUST be used with XF powerpacs.

6.. An external filter is required to meet the conducted and radiated emissions requirements for MIL-STD-461F. For further details contact support@excelsys.com.



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#### 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 (Vnom) per turn. Certain applications may require military grade potentiometer or fixed resistors - consult Excelsys for details.

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

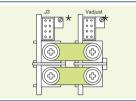
The output voltage may be adjusted or trimmed by means of an external resistor or potentiometer network connected to the Vtrim pin. Linear Electronic programming is also possible and may be implemented according to the formula Vout = K Vcontrol.

#### **Parallel Connection**

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

- 1. Switch on IShare switch to ON on powerMods.
- 2. Connect Negative parallel link.
- Adjust output voltages of powerMods to within 5mV of each other.

4. Connect Positive Parallel Link.

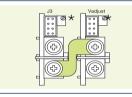


Parallel Links available to order. Part Number XP1

\*Certain applications may require military grade potentiometer or fixed resistors - consult Excelsys for details.

#### **Series Connection**

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.



Series Links available to order. Part Number XS1

\*Certain applications may require military grade potentiometer or fixed resistors - consult Excelsys for details.

#### **Remote Sensing**

When the load is remote from the power supply, the remote sense pins may be used to compensate for dynamic impedance effects caused by the power cabling.

#### **Bias Voltage**

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

#### **Current Limit Adjustment**

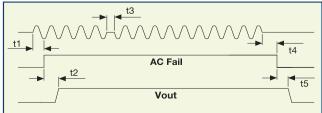
The output current limit setting may be adjusted (downwards only) by means of an external resistor connection to the I trim pin.

#### 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.

#### 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.

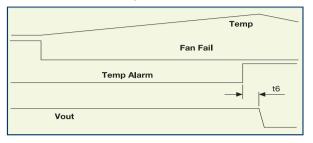


#### Temperature Alarm (Option 01)

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.

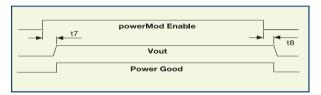
#### Fan Fail (Option 01)

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.



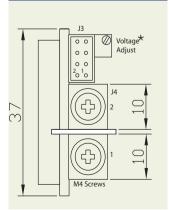
#### Indication LED's

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

#### Signal Connector Pinout

Pin	J2 (powerPac)	J3 ( <i>powerMod)</i> Type A	J3 ( <i>powerMod)</i> Type B
1	common	+sense	+pg (V2)
2	+5V bias	-sense	-pg (V2)
3		V trim	inhibit (V2)
4	ac fail	l trim	common (V2)
5	fan fail	+inhibit/enable	+pg (V1)
6	global enable	-inhibit/enable	-pg (V1)
7	temp alarm	+power good	inhibit (V1)
8	global inhibit	-power good	common (V1)

#### Signal Connector Pinout TYPE A Xg1-Xg7



J4 Connector : M4 Screw J3 Connector Mating Connector Housing: Locking Molex 51110-0860 Non Locking Molex 51110-0850 Crimp Termnal: Molex p/n 50394

\*Certain applications may require military grade potentiometer or fixed resistors - consult Excelsys for details.

## TYPE B : Xg8

13

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20 <sup>1</sup>0

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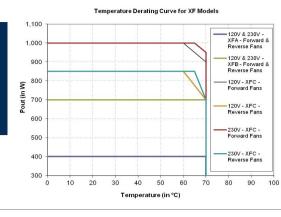
🖉 V1 Adjust

V2 Adjust

J4Connector : Camden 9200/4A J3 Connector Mating Connector Housing: Locking Molex 51110-0860 Non Locking Molex 51110-0850 Crimp Termnal: Molex p/n 50394

\*Certain applications may require military grade potentiometer or fixed resistors - consult Excelsys for details.

## **XF Series Derating Curves**



#### powerMods (for use with all powerPac models)

MODEL	Vr	min	Vnom	Vmax	Imax	Watts
	Vtrim	Vpot *				
Xg1C	1.0	1.5	2.5	3.6	50A	125W
Xg2C	1.5	3.2	5.0	6.0	40A	200W
Xg3C	4.0	6.0	12.0	15.0	20A	240W
Xg4C	8.0	12.0	24.0	28.0	10A	240W
Xg5C	8.0	24.0	48.0	53.0	6A	288W
Xg7C	5.0	5.0	24.0	28.0	5A	120W
Xg8Cv1	5.0	5.0	24.0	28.0	2.5A	60W
V2	5.0	5.0	24.0	28.0	2.5A	60W

\*Certain applications may require military grade potentiometer or fixed resistors - consult Excelsys for details

# Part Numbering

Configured Units may be specified and ordered using the part numbering system shown opposite. For example, part number XFC123420S01 specifies the following 1000W power supply.

•	XFCS01	powerPac	1000W	powerPac
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•	Xg1C	2.5V	@	50A	powerMod

- Xg2C
  - 5V @ 40A powerMod 12V @ 20A powerMod
- Xg3C Xg4C 24V @ 10A powerMod
- Xg2C
- 5V @ 40A powerMod

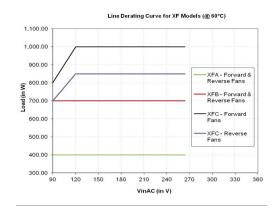
#### Accessories

PowerMods can be parallel connected for higher current and series connected for higher voltages. Configured units will have parallel and series links fitted as required.

## **Powerpac Connector Options**

The default AC input connector is IEC however Xgen can also be supplied with a 3-wire input cable.

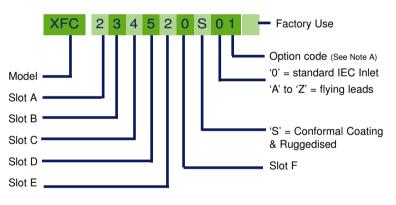
# **XF Series Derating Curves**



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

	MODEL	Watts
	XFA	400W
ХF	XFB	700W
	XFC	1000W

Conformal Coated powerMods, Xg1C to Xg8C, MUST be used with XF powerpacs



Note A: Option Codes 1= Standard Model (with Thermal Signals)

3= Reverse Fan 5= Low Leakage Current 7= Low Leakage Current & Reverse Fan







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