

FEATURES

- Industry Standard 2"x5"x10" Package
- 500W Power at 0-50°C
- Active Power Factor Correction
- Efficiency up to 75%
- Power Fail Warning Signal
- 80A Main Output
- Remote Sense on Main Output
- Remote Inhibit Control
- Class B conducted EMI Performance
- Global 90-264VAC Input
- Active Current Sharing on Output V1
- RoHS Compliant

DESCRIPTION

The PX500 is a family of 500W, multiple-output power supplies developed for a broad range of applications. All outputs are fully isolated and regulated for either positive or negative ground reference. The outputs can also be connected in series to develop higher voltages or in parallel to develop higher currents.

The two-switch forward topology used in the PX500 supplies has been field-proven for high reliability. The mag-amp post-regulators used on the auxiliary outputs will support high peak currents.

With a global input of 90-264VAC, safety agency approvals to UL1950, CSA C22.2 No. 234-M90, and EN60950, EMI compliance to Class B FCC Part 15, the PX500 was designed with globally-deployed product applications in mind.

The PX500 is available in various output voltage/current configurations and with various cover options. Additional features include remote sense compensation, a power fail warning signal, as well as output inhibit. Several models of the PX500 are also available with RoHS compliance.



SELECTION GUIDE

Model Number	Output 1	Output 2	Output 3	Output 4	RoHS COMPLIANT 2002/95/EC
PX500U3ABFHPPHM	5V@80A	12V@12A	12V@12A	--	NA
PX500U3BBFHPPHM	5V@80A	15V@12A	15V@12A	--	NA
PX500U4CBFHPPHM	5V@80A	12V@12A	12V@12A	5V@4A	NA
PX500U4CBFHPPHMC	5V@80A	12V@12A	12V@12A	5V@4A	Yes
PX500U4EBFHPPHM	5V@80A	12V@12A	12V@12A	12V@4A	NA
PX500U4HBFHPPHM	5V@80A	12V@12A	12V@12A	5.2V@10A	NA
PX500U4HBFHPPHMC	5V@80A	12V@12A	12V@12A	5.2V@10A	Yes
PX500U4HBVHPPHM	5V@80A	12V@12A	12V@12A	5.2V@10A	NA
PX500U4HBVHPPHMC	5V@80A	12V@12A	12V@12A	5.2V@10A	Yes
PX500U4LBFHPPHM	5V@80A	12V@12A	12V@12A	3.3V@10A	NA
PX500U4LBFHPPHMC	5V@80A	12V@12A	12V@12A	3.3V@10A	Yes

OBSOLETE PRODUCT
Contact Factory for Replacement Model

Parameter	Conditions	Min	Typ	Max	Units
Input Operating Voltage		90		264	Vac
Input Frequency		47		63	Hz
Input Current				7.0	Arms
Power Factor			0.99		
Inrush Current	240Vac			70	A _{pk}
	120Vac			30	A _{pk}

OUTPUT CHARACTERISTICS

Parameter	Conditions	Min	Typ	Max	Units
Output Power	All line & environmental			500	W
Temperature Coefficient	After 30min warm up			0.02	%/°C
Voltage Regulation	Line	-0.1		+0.1	%Vo
	Load	-0.5		+0.5	%Vo
	Cross	-0.1		+0.1	%Vo
Minimum Load	V1	4			A
Minimum Load	V2, V3, V4	0			A
PAR (Vo)	20MHz bandwidth			1	%Vnom
Output Voltage Adjustment	All outputs	-5		+5	%Vnom
Transient Excursion (Vo)	25% load step, 1A/μsec max slew	-3		+3	%Vo
Transient Recovery (Vo)	25% load step, 1A/μsec max slew			400	μsec
Output Holdup Time	Full load, low line		20		msec
Isolation, Pri-Sec		3			kVac
Isolation, Pri-Chassis		1.5			kVac
Isolation, Sec-Chassis		500			Vac
Current Share Tolerance	Output V1; Io>25%			10	%
Remote Sense Comp. (Vo)				1000	mV

GENERAL CHARACTERISTICS					
Parameter	Conditions	Min	Typ	Max	Units
Efficiency	Full load, 240Vac		70	75	%
Switching Frequency	PFC Converter		100		kHz
MTBF	Mil-HDBK-217E	113			khrs
Weight	Unpackaged		4		lbs

PROTECTION					
Parameter	Conditions/Response	Inception			
		Min	Nom	Max	Units
Output OverVoltage Protection	V1; Latching; cycle AC input to re-start	6.0	6.5	7.0	V
Output Overload Protection	All outputs; individual current limit; automatic recovery		120		%Io
Output Power Limit			550		W
Thermal Shutdown	Automatic Recovery		100		°C
Input Protection	Internal line fuse; Littlefuse 312010 or equivalent			10	A

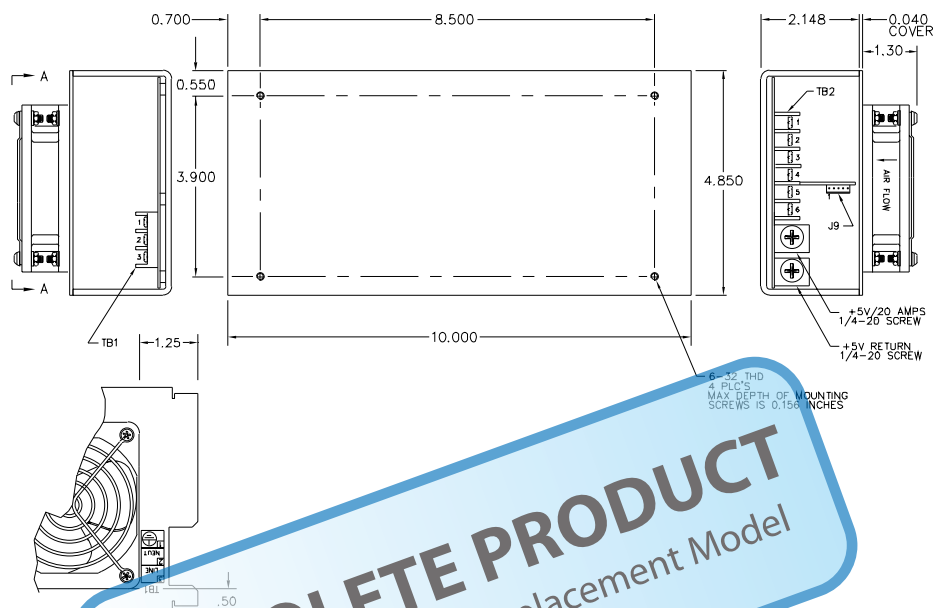
ENVIRONMENTAL CHARACTERISTICS					
Parameter	Conditions	Min	Typ	Max	Units
Ambient Operating Temperature	De-rate output power linearly above 50°C to 250W at 70°C	0	+50	+70	°C
Ambient Storage Temperature		-20		+85	°C
Operating Humidity	Non-condensing	10		90	%
Storage Humidity	Non-condensing	5		90	%
Altitude	Operating: De-rate operating ambient temperature by 2C° per 1000ft above 5000ft.	-200		10000	ft
	Storage	-200		50000	ft

ELECTROMAGNETIC COMPATIBILITY (EMC)	
Characteristic	Compliance
Input Current Harmonics	EN61000-3-2, Class A
Conducted Emissions	CFR Title 47, Part 15, Sub-part B, Class B (when the cover option is employed) EN55022, Class A

CERTIFICATIONS	
Agency/Characteristic	Standard
UL	UL1950 & UL1012 (File Number E14675)
CSA	CSA 22.2 No. 234-M90, Level 6 (File Number LR 9070-154C)
TUV	EN60950 (License Number R9576030)
CE	LVD Directive; self-certified
RoHS	EN Directive 2002/95/EC; self-certified (see selection guide table on page 1 for compliance)
SELV	Self-certified
Vibration	MIL-STD-810D, Method 514.3, Procedure I; self-certified
Shock	MIL-STD-810D, Method 516.3, Procedure I; self-certified

MECHANICAL DIMENSIONS

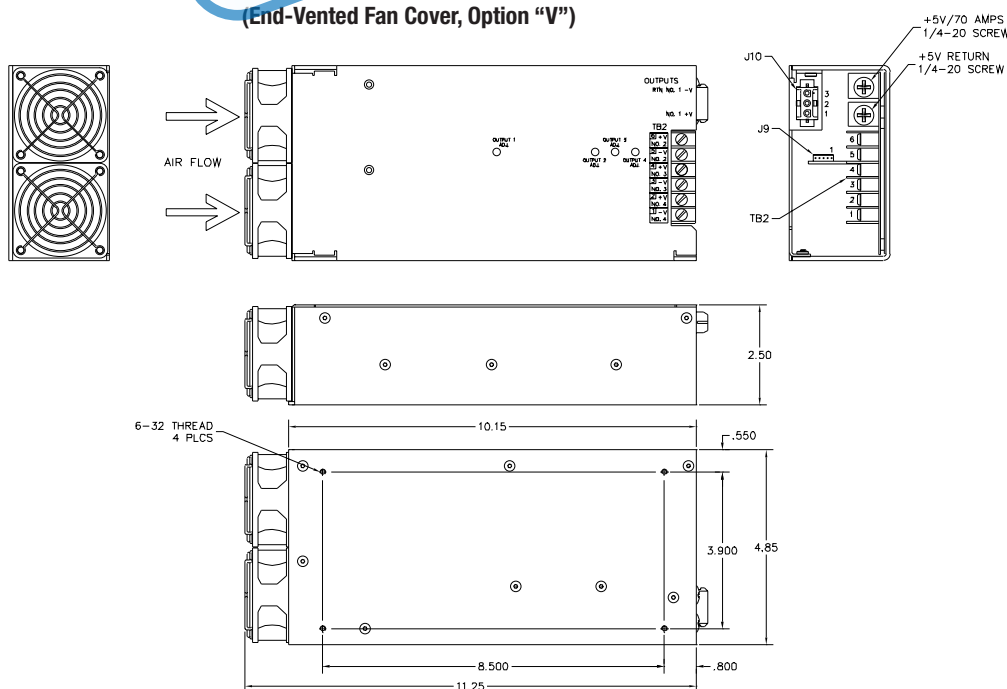
(Top-Mounted Fan Cover, Option "F")



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MECHANICAL DIMENSIONS

(End-Vented Fan Cover, Option "V")



MODEL NUMBERING	
PX	Product Family
500	Maximum continuous output power in Watts
U	U-Channel chassis
x	Number of outputs (3 or 4)
x	Output voltage & current configuration (see Selection Guide table on page 1 for details)
B	Conducted emissions compliance level
x	Cover Options (F, V)
H	Remote Inhibit/Enable Logic (Logic 1 enables output)
P	Power Factor Corrected
H	Power Fail Warning Logic (Logic 1 indicates AC applied)
M	Active current sharing on Main output (V1)

SAFETY AGENCY RATINGS	
Input Voltage	120/240Vac
Input Current	8A-4A

CONNECTIONS		
INPUT (Terminal Block TB1)	Ref	
TB1-1	Chassis Ground	G
TB1-2	Input Neutral	N
TB1-3	Input Line	L
OUTPUT (Terminal Block TB2)	Ref	
TB2-1	Output 4 Return	-V4
TB2-2	Output 4	+V4
TB2-3	Output 3 Return	-V3
TB2-4	Output 3	+V3
TB2-5	Output 2 Return	-V2
TB2-6	Output 2	+V2
CONTROL (Molex PN 22-28-1050)	Ref	
J1-1	Remote Sense +	S-
J1-2	Remote Sense -	S+
J1-3	V1 Current Share	CS
J1-4	Remote Inhibit	RI
J1-5	AC Power Fail Warning	PFW

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C&D Technologies
3400 E Britannia Drive, Tucson,
Arizona 85706, USA

Tel: +1 (800) 547-2537
Fax: +1 (520) 741-4598
email: pedmktg@cdtechno.com

C&D Technologies
11 Cabot Boulevard, Mansfield,
MA 02048-1151, USA

Tel: +1 (508) 339-3000
Fax: +1 (800) 233-2765
email: sales@cdtechno.com

C&D Technologies (NCL) Ltd
Tanners Drive, Blakelands North
Milton Keynes MK14 5BU, UK

Tel: +44 (0)1908 615232
Fax: +44 (0)1908 617545
email: info@cdtechno-ncl.com