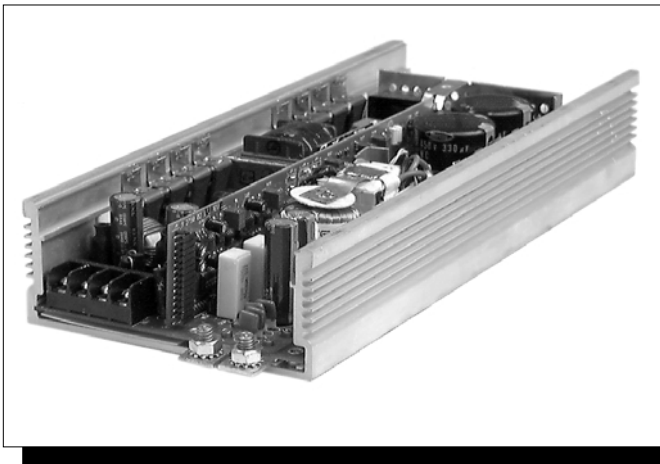


## 750 WATT AC/DC POWER SUPPLY

### KX750



#### DESCRIPTION

The KX750 is a low profile, 750 watt, power factor corrected, triple output power supply utilizing a half-bridge topology operating at 250kHz. The compact design yields a power density in excess of 6 watts per cubic inch. Universal input and power factor correction to EN61000-3-2 make the KX750 an excellent choice for product applications with worldwide markets. In addition, the KX750 carries UL, CSA and TUV approvals, and complies with FCC and VDE Class B EMI requirements. Optional active current sharing on all three outputs simplifies N+1 redundant applications. Remote sensing capability is standard on all outputs and will compensate for up to 0.7V line drop. All outputs are fully isolated, regulated, and current limited

#### FEATURES

- Active Power Factor Correction to EN61000-3-2
- 3.3V Main Output
- FCC/VDE Class B EMI Filter
- Active Current Sharing Optional
- Fully Isolated and Regulated Outputs
- Compact Size: 12" x 5" x 2"
- 75% Efficiency Typical
- $\geq 6$  Watts Per Cubic Inch
- Optional Fan Mounted On Cover
- Optional Current Sharing On All Outputs

#### AGENCY APPROVALS



Internet: <http://www.cdpowerelectronics.com>

**Power Electronics Division, United States**  
3400 E Britannia Drive, Tucson, Arizona 85706  
Phone: 800.547.2537 Fax: 520.770.9369

**Power Electronics Division, Europe**  
C&D Technologies (Power Electronics) Ltd.  
132 Shannon Industrial Estate, Shannon, Co. Clare, Ireland  
Tel: +353.61.474.133 Fax: +353.61.474.141

# Input Specifications

Parameter	Conditions	Min	Typ	Max	Units
Operating Range	47-63Hz	90		264	VAC
Inrush Current	120VAC, cold start			40	APK
	240VAC, cold start			80	APK
Efficiency	Nominal line and full load		75		%
Power Factor Correction (PFC)	Meets EN61000-3-2		0.99		

## Remote Sense

Remote Sense is provided on all outputs and will compensate for 0.7V of line drop. Remote Sense leads are protected against open, short, and reversal.

## Remote On/Off

The power supply is turned on with a TTL logic '1' (or open) signal and turned off by a switch closure or TTL logic '0' referenced to (-) sense terminal. Consult the factory for other options.

## Over Voltage Protection

Output #1: 6.25V,  $\pm 0.8$  V<sub>DC</sub>.

The power supply will latch off until AC power is cycled.

## Over Current Protection

Individual current limit on all outputs. Automatic recovery upon fault removal.

## Reverse Voltage Protection

All outputs are protected to rated load.

## Transient Response

The peak output voltage excursion on the main output will not exceed 2% and will recover within 1% in 200  $\mu$ Sec for a 25% load step change.

## Output Isolation

All outputs are fully isolated.

## Power Fail Signal

Upon AC input voltage removal, the power fail signal drops to logic zero at least 5msec before loss of DC output. Upon AC input turn-on, signal remains low until outputs are in regulation referenced to (-) sense terminal. Consult the factory for other options.

## DC Power Good Signal

Upon a  $\pm 10\%$  loss of regulation on any output, the DC Good signal drops to a logic zero referenced to (-) sense terminal. Consult the factory for other options.

## Over Temperature Protection

Internal thermal switch turns off power supply if overheating occurs and automatically restarts when temperature drops below threshold.

## Safety

UL Recognized: UL File Number 14675 (1950 & 1012)

CSA Certified: CSA File Number LR9070-154C  
(C22.2 No. 234-M90, Level 6)

TUV License Number: R9576032 (EN60950) (IEC950)

## Cooling

The unit is designed to operate with 30 CFM of airflow.

## Output Voltages and Maximum Rated Loads

MODEL NUMBER	OUTPUT #1		OUTPUT #2		OUTPUT #3	
	V <sub>OUT</sub>	I <sub>MAX</sub>	V <sub>NOM</sub>	I <sub>MAX</sub>	V <sub>NOM</sub>	I <sub>MAX</sub>
KX750-F3A	± 5V	100A	± 12V	20A	± 12V	20A
KX750-F2B	± 5V	100A	± 12V	20A		
KX750-F1C	± 5V	100A				

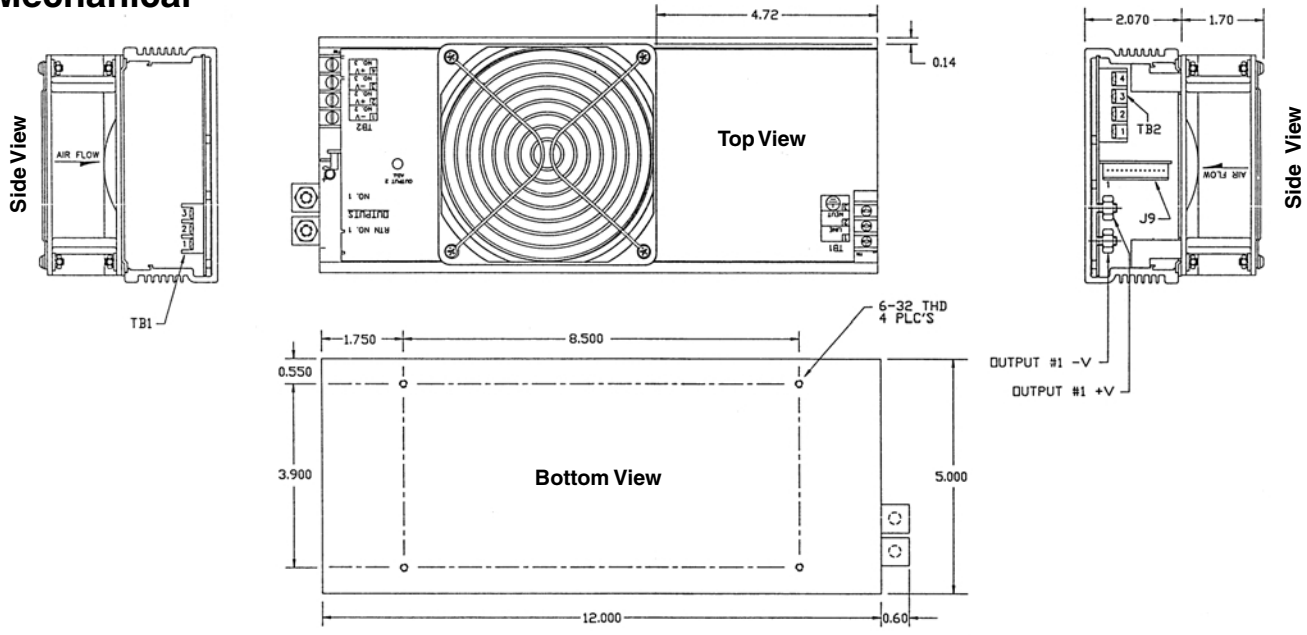
NOTE: Total power not to exceed 750 watts.

## Output Specifications

Parameter	Limits	
Regulation	<b>Main Output</b>	<b>Outputs #2 - 3</b>
Line	±0.1%	±0.2%
Load	±0.2%	±0.4%
Cross	±0.2%	±0.2%
Minimum Load		
Output #1	5.0A	
Outputs #2 & #3	1.0A	
Hold-Up Time	>20mSec at Full Load	

Parameter	Conditions	Min	Typ	Max	Units
Voltage Adjustment Range	Nominal line on all outputs		±5		%
PARD	20 MHz bandwidth			1	% P-P
Temperature					
Operating		0		50	°C
	Derates 20W/°C	50		70	°C
Storage		-20		+85	°C
Humidity Range	Non-condensing	0		95	%
Temperature Coefficient (Tc)	All outputs after half hour warm-up			± 0.02	%/°C

# Mechanical



## NOTES:

All measurements are in inches

**FAN MOUNTED ON COVER ADDS 1.70"**.

**COOLING:** The KX750 is designed to operate with 30 CFM airflow in 50°C ambient temperature.

**SHOCK AND VIBRATION:** The KX750 meets the requirements of MIL-STD-810D. (Vibration-Method 514.3 Procedure I; Shock-Method 516.3 Procedure I).

**WEIGHT:** Approximately 6 lbs.

## Pin Specifications

Terminal Block 1		Terminal Block 2	
POS	FUNCTION	POS	FUNCTION
1	AC Line	1	-V2
2	AC Neutral	2	+V2
3	Ground	3	-V3
		4	+V3

## Connector Specifications

J9 Connector Molex No. 22-08--1140	
PIN	FUNCTION
1	- Remote Sense #2
2	+ Remote Sense #2
3	Current Sense Bus #2
4	- Remote Sense #3
5	+ Remote Sense #3
6	Current Sense Bus #3
7	+ Remote Sense #1
8	- Remote Sense #1
9	Sync I/O
10	AC Power Fail Alarm
11	Status/Control Return
12	DC Power Good
13	Remote Inhibit
14	Current Sense Bus #1

Standard Options are shown, consult factory for other available options.

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