

RAM Technologies

PFC600PCX 600 WATT MEDICAL GRADE POWER SUPPLY



The PFC600PCX is the latest generation ATX/EPS12V power supply and is designed to meet both the ATX12V and EPS12V server standard.

The high efficiency design is an affordable solution for powering the most critical medical applications. Standard features include low noise dual Smart Fan Technology and optional interface to our Ultra capacitor or SLA based UPS modules.

MADE IN THE USA

Specifications

Input

Input Voltage Range:	100 to 250 VAC +/-10%
Supply overvoltage:	Cat Two <300V
Input current:	7.5 A MAX
Frequency:	50/60 HZ
Inrush Current:	45A Cold @ 264 VAC
Efficiency:	75% to 80% TYP.
PFC Correction:	Active > .95
Leakage Current:	< 250uA @ 264 VAC 60HZ
Input Fuses:	2X 8A 250V Line & Neutral

Output

Max output power:	550W cont. 600WP see note 5
Hold-up Time:	>40ms @ full load
Overvoltage Protection:	+15% of set voltage
Thermal Protection:	Auto Recovery/ cycle pwr. on
Minimum Loading:	None
Cross regulation:	<0.5%
Line Regulation:	<0.05%
Load Regulation:	<1% +/- cable factor
AC turn on time:	< 2 sec

Output Voltage (+/-3%)	+12V	+5V	+3.3V	-12	+5Vsb
Output current max.	45.8A/ 50A	24A	24A	0.5A	3.0A/3.5A
Ripple mV P-P	100	50	50	100	50

1. Max output from +5V & +3.3V= 140 Watts. When loading the +5 & +3.3V, multiply total load by 1.2 and subtract from 550/600W.
2. Over current for +12V reset is accomplished by cycling power on signal
3. Over current for +5V, +3.3V, -12V, & +5Vsb auto resetting
4. Derate output 5W/volt input from 100 vac to 90 vac
5. 12s every 10 min.

Environmental

Operational Temperature:	0 to 50°C
Storage Temperature:	-40 to 80°C
Operational Humidity:	0 to 95%NC
Storage Humidity:	0 to 95%NC
Operational Altitude:	-500 to 9840 FT
Storage Altitude:	-500 to 40,000 FT
Pollution Degree Class:	Two

Reliability

MTBF (demonstrated):	> 500,000 hours
Expected Life:	>8 years when use as specified

EMC Compliance

EN61000-4-2 ESD level3
EN61000-4-3 RF susceptibility 3v/m
EN61000-4-4 EFT level3
EN61000-4-5 Surge Level3
EN61000-3-2 Harmonics
EN61000-3-3 Flicker
EN61000-4-11 Voltage Dips, Short Interruptions
EN55011 Conducted and radiated emissions

STANDARDS Compliance

Desktop Platform Form Factors:	REV 1.1 March 07
EPS12V:	REV 2.92
IEC/ ES60601-1	2 nd & 3 rd edition
RoHS compliant	UL file E191947 ISO9001:2008
Lead free RoHS and REACH compliant	
Patient Protection:	Two MOPP
ECCN#	EAR99


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PFC600PCX MEDICAL GRADE POWER SUPPLY

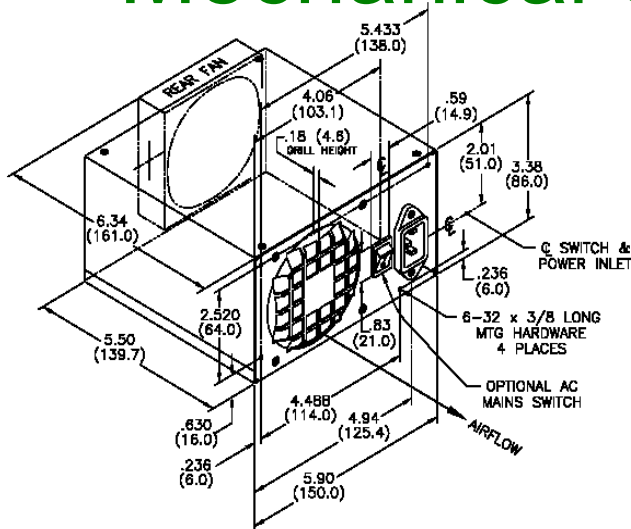
Safety Approved to the following standards
 ANSI/AAMI ES 60601-1:2005 ME-Part 1 and CSA C22.2
 No. 60601-1:08(ME-Part 1: General Requirements for
 Basic Safety and Essential Performance)
 IEC 60601-1:2005 (ME Part 1: General Requirements for
 Basic Safety and Essential Performance – Edition 3)

 For Continued protection equipment must be grounded at all times in accordance with the requirements of class 1 devices.


 RAM TECHNOLOGIES LLC declares that the PC and PCX power supplies are in conformity with the provisions of the low voltage directive.


See website [DOWNLOADS](#) for enclosure CAD files

Mechanical Specifications



Symbols Used

 Attention, consult accompanying documents

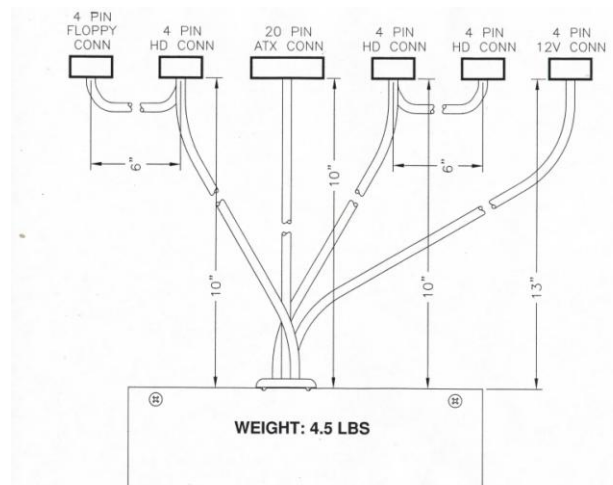
 Protective earth ground

 Caution

Power Good Signal

The Power Good Signal asserts itself high 200ms after all outputs have reached their operational values. Power Good Signal will go low when input stored energy can no longer support the outputs.

Intended Use: The PFC600PCX is intended to power imbedded ATX/EPs style motherboards in mission critical medical applications.



WE OFFER A WIDE VARIETY OF OUTPUT CABLES PLEASE CONTACT FACTORY FOR DETAILS

RAM P/N
#620012
Order #
0012

GND	Black	1	5	White (+12V)
GND	Black	2	6	White (+12V)
GND	Black	3	7	White (+12V)
GND	Black	4	8	White (+12V)

(GND)	Black	1	3	Yellow (+12V)
(GND)	Black	2	4	Yellow (+12V)

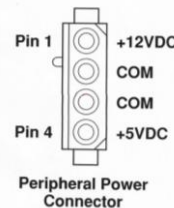
ATX12V Connector

(+3.3V)	Orange	1	11	Orange (+3.3V)
(+3.3V)	Orange	2	12	Blue (-12V)
(GND)	Black	3	13	Black (GND)
(+5V)	Red	4	14	Green (PS-ON)
(GND)	Black	5	15	Black (GND)
(+5V)	Red	6	16	Black (GND)
(GND)	Black	7	17	Black (GND)
(PG)	Gray	8	18	White (-5V)
(+5VSB)	Violet	9	19	Red (+5V)
(+12V)	Yellow	10	20	Red (+5V)

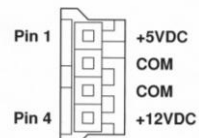
20 Pin ATX Connector

RAM P/N
#620002
+
#620031

(+3.3V)	Orange	1	13	Orange (+3.3V)
(+3.3V)	Orange	2	14	Blue (-12V)
(GND)	Black	3	15	Black (GND)
(+5V)	Red	4	16	Green (PS-ON)
(GND)	Black	5	17	Black (GND)
(+5V)	Red	6	18	Black (GND)
(GND)	Black	7	19	Black (GND)
(PG)	Gray	8	20	White (-5V)
(+5VSB)	Violet	9	21	Red (+5V)
(+12V)	Yellow	10	22	Red (+5V)
(+12V)	Yellow	11	23	Red (+5V)
(+3.3V)	Orange	12	24	Black (GND)



Peripheral Power Connector



Floppy Drive Power Connector

Example:
PFC400PCX-0016

24 PIN Optional
PCI-X Connector

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