

## Hot Plug Three Phase PFC High Input Isolated Front End (IFE)

**Pioneer  
owns  
U.S. Patent  
# 4, 677, 366  
for  
Power Factor  
Correction.**

MODEL	PM33211BP-5P	PM33213BP-5P	PM33215BP-5P
POWER	3000W	4000W	5000W
INPUT	180 to 264VAC		
OUTPUTS	CURRENT	CURRENT	CURRENT
48V	63A	83A	104A
32V	94A	125A	156A
28V	107A	143A	178A
26V	115A	154A	190A
24V	125A	167A	204A
12V	250A	320A	400A

**Power  
Density  
of  
Up To  
13 Watts  
per  
Cubic Inch.**



**LOWER DRAWER**

**DIMENSIONS:** 5" x 5" x 11.5"  
(127mm x 127mm x 292mm).  
Exclusive of I/O Connectors.  
**WEIGHT:** 11 lbs.  
**MOUNTING:** Designed to lock  
into matching rack.  
**I/O CONNECTORS:** Elcon Lower  
Drawer Connector provides hot  
plug operation. Models with output  
current greater than 70A use Elcon  
Top Drawer connector.

**Model: PM33211BP-5P**



**TOP DRAWER**

**DIMENSIONS:** 5" x 5" x 17"  
(127mm x 127mm x 432mm).  
Exclusive of I/O Connectors.  
**WEIGHT:** 16.4 lbs.  
**MOUNTING:** Designed to lock  
into matching rack.  
**I/O CONNECTORS:** Elcon Top  
Drawer Connector provides hot  
plug operation.

**Models: PM33213BP-5P and  
PM33215BP-5P**

### FEATURES

- Power Factor Corrected (> 0.95)
- 0°C to +50°C at Full Load
- Output Fully Floating
- Overcurrent Protection
- Overvoltage Protection
- Remote Sense
- Overtemperature Protection
- Self-contained Forced Air Cooling

### SPECIFICATIONS

#### INPUT

**RANGE:** 180 to 264 VAC, Three Phase.  
**FREQUENCY:** 47 to 63 Hz.  
**POWER FACTOR:** > 0.95 @ Full Load.

#### OUTPUT

**ADJUSTMENT RANGE:** +5%/-10% of  
nominal output voltage.  
**POLARITY:** Output is isolated. It may be  
referenced plus/minus as required.  
**REMOTE SENSING:** Compensates for up to  
0.5V total loop drop in the output line.  
**STATIC REGULATION:**  
Line: ±0.25% over full line range.  
Load: ±0.25% zero load to full load.  
**VOLTAGE STABILITY:** ±0.1% for 24-hour  
period after 30-minute warm up.  
**TEMP COEFFICIENT:** ±0.02%/°C from 0°C to  
+50°C.  
**P-P RIPPLE AND NOISE:**  
1% (20 Hz to 50 MHz Bandwidth).  
**MINIMUM LOAD:** Not Required.

**TURN ON DELAY:** 1 sec. max from  
application of AC line.

**OVERVOLTAGE PROTECTION:** 125% ±5%  
of nominal. OVP shutdown is latched until the  
input line is removed for 5 secs and then  
reapplied. OVP sensing is done at the output  
terminals.

**OVERCURRENT PROTECTION:** Current  
Limit Point: 105% to 115% of full load.

#### ENVIRONMENTAL

**OVERTEMPERATURE PROTECTION:**  
Automatically shuts down and latches the unit  
in the event of an overtemperature condition.  
After cool down, power must be recycled to  
restart unit.

**AUDIBLE NOISE:** 63dBA max at 1 meter.  
70dBA for high speed fans.

**DMTBF:** Over 500,000 hours.

**TEMPERATURE:** Operating: 0°C to +50°C at  
full load. Storage: -55°C to +85°C.

**HUMIDITY:** 20% to 95% non-condensing.

**ALTITUDE:** Operating: 5,000 feet.

Derates to 85% at 10,000 feet.

Non-Operating: To 30,000 feet.

**VIBRATION:** Operating: From 5 to 27 Hz, 0.02  
in double amplitude; from 27 Hz to 500 Hz,  
0.75G, 3 axes, 3 min per octave sweep, dwell  
15 min at resonance. Non-operating: From 5 to  
17 Hz, 0.10 in double amplitude, from 17 to  
500 Hz, 1.5G peak; 3 axes, 5 min per octave  
sweep; dwell 15 min at resonance.

**SHOCK:** Operating: 5G, half sine, 11msec,  
3 axes. Non-Operating: 15G, half sine,  
11msec, 3 axes.

**COOLING:** Forced air, internal fan. Airflow  
exits at connector end.

**EMI:** Designed to meet Conducted and  
Radiated: EN55022 Level A.

**SAFETY:** Designed to meet UL1950, CSA22.2  
No. 950, and TUV to EN60950.

#### TYPICAL OPTIONS

(Complete Option List Available)

**(-1C) AC POWER FAIL:** Upon loss of AC line, signal goes  
from low to high before loss of output regulation.

**(-2T) LOGIC INHIBIT:** Less than 0.5 volts will inhibit the  
supply. Two volts or more or an open circuit will enable the  
supply. Logic inhibit return should be connected to negative  
output.

**(-6B) CURRENT SHARING:** Allows two or more similar  
power supply main outputs to load share using a single wire.

**(-8UV) UNDERVOLTAGE DETECT:** Signal pulls low when  
output drops more than 15% ±5% of the nominal. There is no  
upper trip point. Sensing occurs at the output terminals  
instead of the remote sense leads. High good (LED on) and  
Low bad (LED off).

**(-20C) ISOLATION DIODE:** Built-in Oring diodes in the  
positive output line to prevent a failed power supply from  
affecting the bus.

**(-33) CURRENT MONITOR:** The current monitor signal is  
referenced to the negative output. It is accurate to within  
+/-10%, from 10% to 100% load. The analog signal 0V to 5V  
is proportional to the load when increased from no load to  
maximum load.

**NOTE:** The option signals (-1C) and (-2T) are floating and  
referenced to Logic Return. Logic Return should be  
connected by the customer to the system common.

#### SPECIAL OPTION

##### Intelligent Power Supply



- Built-in microchip controls all power supply & battery parameters, plus stores data on history, operating conditions & address.
- Allows user to program system functions & alarms.
- Permits either local monitoring (via RS485 bus) or remote monitoring (via modem).

#### SPECIFIC APPLICATIONS

- Telecom and Datacom
- Computer / Network Systems
- Broadcast

