Section 9

2U LOW PROFILE
AC TO DC SINGLE OUTPUT

Pioneer's introduces a 2U Low Profile High Efficiency PFC Series that provide full output power with Single AC Input. Designed to support both standalone and parallel configurations, these models are configured in standard Non-Plug and Hot Plug I/O interfaces. The Premium Quality front ends are rugged, reliable, designed for high performance and come in the low profile 2U x 5" package. These low profile units are featured with internal forced air-cooling and built-in protection from electrical over-loads and over temperature.

A single module provides continuous full power over operating temperatures of 0°C to +50°C, from a Single AC Input line.

Product Matrix

MODEL	PM3326	PM3327	PM3328
MAX POWER	1000W	1200W	1334W
Vout	Iout	Iout	Iout
12V	83A	100A	110A
15V	67A	80A	89A
24V	42A	50A	56A
28V	36A	43A	48A
32V	30A	38A	42A
40V	25A	30A	33A
48V	21A	25A	28A
54V	18A	22A	24A
60V	17A	20A	22A
Non-Plug	3.5"	5"	11.25"
Hot Plug	3.5"	5"	12
AC Input	90V	To	264V

Notes: 1. All Models are available with wide input range 90 to 264VAC (option –6) or high input 180 to 264VAC (option –5)
2. Input Current Formula: 1φ Iin = Pout/(Vin x Efficiency x 0.99PFC)
3. The dimension of 12V output unit is 4.1" x 5" x 11.25" for non-plug configuration

Features:

- Power Factor Correction
- 0°C to +50°C at Full Load
- De-rated @ 70°C
- Standard 2U x 5" Case
- Outputs Fully Floating
- Over Current Protection
- Over Voltage Protection
- Remote Sense
- Over Temperature Protection
- Internal Forced Air Cooling

Options:

- (-128L) DC OK with LED indicator
- (-1CL) AC Fail with LED indicator
- (-2T) Unit enable/disable
- (-5LO) ±10% Output voltage adjust
- (-6B) Single wire current sharing
- (-20C) Isolation diodes
- (-25) Constant current limit
- (-33) Current monitor

Note: Refer to Section 26 for list of all standard options

SPECIFICATION

Inputs

RANGE: 90 to 264 VAC, 1φ.
FREQUENCY: 47 to 63 Hz.
POWER FACTOR: 0.99 @ Full Load
INRUSH CURRENT: < 25A when averaged over 1/2 cycle.
HARMONIC CURRENT: < 5%
INTERNAL FUSE: Provided

Environmental

AUDIBLE NOISE: 60dBA max at 1 meter
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. De-rates to 70% at 15,000 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 500Hz, 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. Reverse airflow available.

Output

ADJUSTMENT RANGE: +5% to -10% of nominal output voltage.
POLARITY: Output is isolated. It may be referenced plus/minus as required.
REMOTE SENSE: 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% (20Hz to 50MHz Bandwidth).
MINIMUM LOAD: Not Required.
TURN ON DELAY: 1sec max from application of AC line.

Internal Protection

OVER VOLTAGE PROTECTION: 125% ±5% of nominal. OVP shutdown is latched until the input line is removed for 30 seconds and then reapplied. OVP sensing is done at the output terminals.
OVER CURRENT PROTECTION: Current Limit Point: 110% to 120% of full load.
SHORT CIRCUIT CURRENT: Fold back type to 40%-80% of full rated current. Unit will recover when overload is removed.
REVERSE VOLTAGE PROTECTION: Protected to rated load with the fan running.
OVER TEMPERATURE PROTECTION: The unit automatically shuts down in the event of an over temperature condition. After cool down, power must be recycled to restart unit. Optionally, non-latchable protection is also available.

Safety

SAFETY: UL1950, CSA22.2 No 950 and TUV to EN60950. CE Mark (LVD)
EMI: Conducted & Radiated: EN55022 Level A
CE Certification is Optional