# **Dioneer Magneticy** *PowerFactors* **1.5kW to 3kW** Single Phase PFC High Input — Up to 11 Multiple Outputs

MODEL	PM3398D-5		PM3399F-5			PM3399F-5		PM3399G-5		
MAX POWER	1500W		2000W			2500W		3000W		
# of Channels	8		11			6		5		
MAIN CHANNELS	CH1	CH2	CH1	CH2	CH3	CH1	CH2	CH1	CH2	CH3
Power Max	875W	375W	1000W	375W	375W	1500W	750W	1500W	750W	375W
Voltage VDC	2V to 60V		2V to 60V			2V to 60V		2V to 60V		
Current Max	200A	150A	200A	75A	75A	200A	150A	200A	150A	75A
SECONDARY(S)	CH3 & CH4		CH4 & CH5			CH3 & CH4		CH4		CH5
Power Max	250W		250W			250W		125W		125W
Voltage VDC	2 to 28V		2 to 28V			2 to 28V		2 to 28V	2	2 to 28V
Current Max	15A		15A			15A		7.5A		7.5A
SECONDARY(S)	CH5 to CH8		CH6 & CH11			CH5 & CH6				
Power Max	125W		125W			125W				
Voltage VDC	2 to 28V		2 to 28V			2 to 28V				
Current Max	7.5A		7.5A			7.5A				
Dimensions (in)	5″ x 6.5″ x 12.8″		5″ x 8″ x 12.8″			5″ x 8″ x 12.8″		5″ x 8.7″ x 12.8″		
Dimensions (mm)	127 x 165 x 325		127 x 203 x 325			127 x 203 x 325		127 x 221 x 325		



HIGH Current

\* AND \*

Low Current

> DIMENSIONS: See Table Above. Exclusive of I/O Connectors. WEIGHT: 14 to 16 lbs.

MOUNTING: Mounting holes for 8-32 screws included on the bottom and on one side. <u>VO CONNECTORS:</u>

High Current DC Output: DC Bus Bars. Low Current DC Output: Terminal Block. AC Input: Barrier strip with 6-32 screws. DB25 connector for options.



## FEATURES

- Power Factor Corrected (> 0.99)
- 0°C to +50°C at Full Load
- All Outputs Fully Floating
- Overcurrent Protection on all Outputs
- Overvoltage Protection on all Outputs
- Remote Sense on all Outputs
- Overtemperature Protection
- Self-contained Forced Air Cooling

## SPECIFICATIONS

#### INPUT:

 RANGE:
 180 to 264 VAC, Single Phase.

 FREQUENCY:
 47 to 63 Hz.

 POWER FACTOR:
 > 0.99 @ Full Load.

 HARMONIC CURRENT:
 < 5%.</td>

#### **OUTPUT:**

ADJUSTMENT RANGE: ±10% of nominal output voltage on all channels. POLARITY: Outputs are isolated. They may be referenced plus/minus as required.

**<u>REMOTE SENSING</u>**: 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 COEFF: ±0.02%/°C from 0°C to +50°C. P-P RIPPLE AND NOISE: 1% on all primary channels (20 Hz to 50 MHz). 1% or 120mV, whichever is greater, on all secondary channels. MINIMUM LOAD: 50 watts required on all primary channels to support secondary channels.

<u>TURN ON DELAY:</u> 1 second max from application of AC line. <u>DYNAMIC REGULATION:</u> Output Transient Response: 4% deviation (200mV @ < 500µsec for a 25% load step, 1A/µsec slew rate).

**OVERSHOOT:** No turn-on or turn-off overshoot.

**OVERVOLTAGE PROTECTION:** 125% ±5% of nominal. OVP shutdown is latched until the input line is removed for 5 seconds 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.

DMTBF: Over 500,000 hrs.

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.

<u>VIBRATION:</u> 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.

**<u>SHOCK:</u>** Operating: 5G, half sine, 11msec, 3 axes.

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

**<u>COOLING</u>**: Forced air, internal fan. Airflow exits at connector end.

**<u>EMI:</u>** Designed to meet Conducted and Radiated: EN55022 Level A.

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

## **<u>DIMENSIONS</u>**: See Table Above. Exclusive of I/O Connectors.

WEIGHT: 14 to 16 lbs

**MOUNTING:** Mounting holes for 8-32 screws included on the bottom and on one side.

#### I/O CONNECTORS:

High Current DC Output: DC Bus Bars. Low Current DC Output: Terminal Block. AC Input: Barrier strip with 6-32 screws. DB25 connector for options.

### **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*).

**NOTE:** The option signals (-1C), (-2T) and (-8UV) 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).

Cat Multiple, 1.5kW to 3kW, Non-Plug, Single Phase, 11/8/00

PMI is the owner of US Patent #4,677,366 for Power Factor Correction. • Specifications are subject to change without notice.