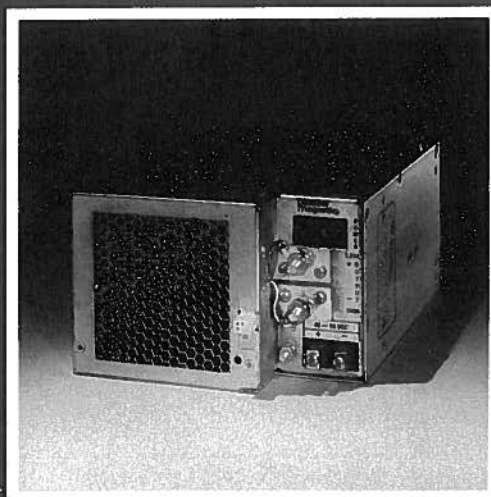


PIONEER MAGNETICS, INC.

# International

## Series PM 3024-26

SINGLE OUTPUT,  
48V DC INPUT SWITCHING  
POWER SUPPLIES  
750 TO 1000 WATTS



### FEATURES

- Approved to UL, CSA, and IEC (Class I, SELV) Safety Standards
- 5 x 8 x 11" Envelope
- No Minimum Load
- 0 to 50°C Operation at Full Load
- Overvoltage Protection
- Overcurrent Protection

- Overtemperature Protection
- No Turn-On or Turn-Off Overshoot
- Completely Isolated Output
- Self Contained Forced Air Cooling
- DC Input Breaker
- Wide Input Range

### TYPICAL OPTIONS

- (-1) Power Fail Signal
- (-2) Logic Inhibit
- (-5) Margining/Programming
- (-6) Direct Paralleling
- (-8T) Power Good

## **Model PM3024, PM3025 & PM3026**

**SINGLE OUTPUT,  
48V DC INPUT SWITCHING  
POWER SUPPLIES  
750 TO 1000 WATTS**

Pioneer's PM3024/25/26 DC-DC single output supply provides completely floating, regulated DC power ideally suited for telecommunications, mainframe computer and peripheral environments. Employing the very latest technology, the 3000 series meets today's stringent international safety and EMI standards.

Pioneer Magnetics can provide special custom options on request for units in suitable OEM quantities. Mechanical packaging considerations may limit the number of options that can be combined. Consult factory for details.

### **CONFIGURATION DESCRIPTION**

The PM3000 series DC Output is brought out on  $\frac{5}{16}$ "-18 THD studs. Currents up to 200 amperes are available. A pair of 10-32 screw blocks accepts the 48V DC input.

The PM3000 series is packaged in a 5 x 8 x 12 $\frac{3}{4}$ " fan cooled envelope. Plug-in units are available. Consult factory.

Option Interface connections, where required, are brought out on one Molex connector (6 pin) at the front panel. Output voltage and OVP are front panel accessible.

### **SPECIFICATIONS**

#### **INPUT:**

- Continuous voltage range: 42-56 VDC. Other input ranges available. (Consult factory)
- Turn-on Delay: 200 msec. maximum.
- Reverse Input Protection: Supply is protected against reverse voltages applied across input terminals.

#### **OUTPUT:**

See selection chart.

**OUTPUT VOLTAGE ADJUSTMENT RANGE:**  
±10% of nominal output voltage.

#### **STATIC REGULATION:**

- Line ±0.25% over full input range.
- Load: ±0.25% over no load to full load.
- Voltage Stability: ±0.1% after 30 minutes warm-up for a 24 hour period.
- Temperature Coefficient: ±0.02% per °C from 0°C to 50°C.

(Note: For units less than 5V the following apply:

Line: ±12.5mV, Load: ±12.5mV, VS: ±5mV,  
TC: 1 mV/°C)

#### **DYNAMIC REGULATION:**

- Output Transient Response: 2% deviation (100 mV deviation for units under 5V) with recovery to  $\frac{1}{2}$ % in less than 500  $\mu$ sec for a 25% load step, 1A/ $\mu$ sec slew rate.
- Overshoot: No turn-on or turn-off overshoot.

#### **P-P RIPPLE AND NOISE:**

1% of nominal output at full load current, 20 Hz to 20MHz band-width for 5V to 48V outputs. 50mV for outputs less than 5V.

# International

## SINGLE OUTPUT SUPPLY SELECTION CHART

Model Number		PM3024	PM3025	PM3026
Maximum 5V Power (Watts)	Type # (Add amps in blank)	750W	850W	1000W
DC Output Voltage		Output Current (Amps)		
2	2F	200A	—	—
3	3F	200A	—	—
5	5F	150A	170A	200A
12	12F	60A	71A	85A
15	15F	50A	57A	70A
24	24F	33A	35A	40A
28	28F	27A	30A	36A
48	48F	16A	18A	30A

### OVERVOLTAGE PROTECTION:

3V–48V outputs: Unit will shut down at 125% ±10% of nominal output.

2V outputs: Unit will shut down at 3V ±0.1V.

### OVERLOAD PROTECTION:

(Automatic recovery from overload or short circuit).

- Foldback Point: 105 to 120% of full output current.
- Short Circuit Current: Less than 65% of full output current.

### OVERTEMPERATURE PROTECTION:

Automatic latching shut-down type. After a suitable cool down period unit can be reset by cycling of input power.

### REVERSE VOLTAGE PROTECTION:

Protection against reverse voltage applied across output terminals up to rated output current (with fan running).

### REMOTE SENSE:

Will compensate for up to ½ volt total drop on output lines. Internal 100 ohm resistors prevent output from rising more than 100 mV should sense line be disconnected.

### OPTIONS:

- (–1) Power Fail Signal—Provides warning of output drop upon loss of input power.
- (–2) Logic Inhibit and Enable—System can be turned on or off with a TTL compatible signal or switch contact.
- (–5L) Margining/Programming—Allows ±5% change of output.
- (–6) Direct Paralleling—Current foldback is set between 100% and 105% of rated output allowing direct parallel operation.
- (–8T) Power Good Signal—Monitors the output terminals and sinks to logic return when output is beyond ±4% of nominal voltage.

### TEMPERATURE:

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

### HUMIDITY:

5% to 95% without condensation.

### ISOLATION:

Class I SELV.

### SAFETY STANDARDS:

UL 114, 1012 and 478 5th edition; CSA 142, 154; IEC 380 and 435; VDE 0806, SELV levels.

### EMI:

- Conducted: Equipped with standard LC filter to suppress EMI. A unique filter circuit minimizes line reflected audio frequencies for talk circuit applications.
- Radiated: Meets VDE 0871B.

### MECHANICAL DIMENSIONS:

- 5 x 8 x 12¾" (12.7 x 20.3 x 32.38 cm).

### WEIGHT:

- 20 pounds (9.1 kg) maximum.

### CONNECTORS:

#### PM3026

- Output: 5/16"–18 THD studs.
- DC Input: 10–32 Screw Block.
- Options Interface: (1) 6 pin and (1) 12 pin Molex type. Mates with Molex 03-06-2061 (6 pin) and Molex 03-06-2122 (12 pin). Uses Molex 02-06-2202 male pin.

### INPUT PROTECTION:

Front panel DC circuit breaker.

Pioneer Magnetics reserves the right to change specifications at any time without prior notice. It is Pioneer Magnetics' policy to improve products as new techniques and components become available.

# Series PM 3024-26

- 1 All mounting holes to be 8-32 screws with a max. penetration depth of  $\frac{3}{16}$  inches.
- 2 External fan shown in phantom is used for special configurations.
- 3 Symbol indicates standard mounting holes. Customer must indicate desired mounting positions if different from standard.
- 4 Symbol indicates optional mounting holes. Connectors: JT Conn Molex Part No. 03-06-1061 Mates to Part No. 03-06-2061
- 5 Input terminals are 10-32 screws. Main Output Studs are  $\frac{3}{16}$ "-18 THD
- 6 All dimensional tolerances are .XX  $\pm$  .02  
XXX  $\pm$  .010

