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# **SPECIFICATION**

**INPUT VOLTAGE (AC)** 85V to 264V RMS

**INPUT CURRENT (AC)** <0.5A RMS at full output and load

**INPUT CURRENT (DC)** <0.5A at full output and load

**OUTPUT POLARITY** see output rating table

LF NOISE (0.1 TO 10HZ) <5mV peak to peak

**INPUT FREQUENCY (AC)** 47Hz to 440Hz

**INPUT VOLTAGE (DC)** 120V to 370V

**OUTPUT VOLTAGE** see output rating table (other voltages to special order)

HR RIPPLE see output rating table

LINE REGULATION <20ppm over full input voltage range

HIGH VOLTAGE	<b>POWER</b>	SUPPLIES

## The PM range of bench top high voltage power supplies provide a fully adjustable, stable and virtually ripple free high voltage output. Dual types (PM20D & PM30D) have switchable output polarity making these supplies ideal in the R+D setting where multiple applications may be encountered over the forthcoming years.

**FEATURES & APPLICATIONS** 

DESCRIPTION

- Output fully adjustable from near zero to maximum via a 10 turn precision dial read potentiometer
- Fixed and dual polarity types
- Low HF ripple & low LF noise
- · High stability, low long & short term drift
- Recommended for PM tubes and similar applications where high stability is key to the system performance





#### **HIGH VOLTAGE POWER SUPPLIES**



#### **SPECIFICATION CONTINUED...**

LOAD REGULATION	SHORT TERM DRIFT
<20ppm from zero to maximum load	<15ppm during any 15 min period (after 1 hour warm up)
LONG TERM DRIFT <50ppm during 8 hours (after 1 hour warm up)	

#### **Monitors**

HIGH VOLTAGE ON	VOLTAGE MONITOR
front panel LED illuminated when ON	3½ digit front panel meter

CURRENT MONITOR (SIGNAL) O to 1V = O to 1mA (2 off 4mm sockets on the rear panel)

#### Protection

<b>CURRENT</b>	SHORT CIRCUIT
output current is limited to <107%	protected against continual short circuit to
(this may be set to a lower value to special order)	ground
FLASHOVER protected against intermittent flashover to ground	INPUT (DC) protected against input reversal

#### **Temperature**

<b>OPERATING</b> O to +40°C	STORAGE -5 to +70°C	
Package size		
CASE DIMENSIONS	WEIGHT	
233mm x 182mm x 52mm	<1.3Kg	

<u>&lt;</u> 1	2	Kc	<b>.</b>
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### **OUTPUT RATINGS**

OUTPUT VOLTAGE RANGE	OUTPUT CURRENT	<b>RIPPLE (HF)</b> (peak to peak at maximum output and load)	<b>TEMPERATURE COEFFICIENT</b> (<50ppm to special order)
20V - 2kV	1mA	<1mV	50ppm / °C
100V – 3kV	1.3mA	<15mV	100ppm / °C
AUXILIARY LV (LOW VOLTAGE) OUTPUT RATINGS			
+5V fixed	1A	short circuit protected	
-5V fixed	0.25A	short circuit protected	
+12V fixed	0.25A	short circuit protected	
-12V fixed	0.25A	short circuit protected	

## **ORDERING INFORMATION**

HV (HIGH VOLTAGE) OUTPUT TYPES	OUTPUT POLARITY OPTIONS	PART NUMBER
2kV	positive only	PM20SP
2kV	negative only	PM2OSN
2kV	switchable polarity	PM20D
3kV	positive only	PM30SP
3kV	negative only	PM3OSN
3kV	switchable polarity	PM30D

Part number formation example:

**PM30SP**, is broken down (bold/underline)

<u>P</u>ower, supply, <u>M</u>odule, maximum output voltage is <u>30</u>00V, output polarity is <u>S</u>ingle and is <u>P</u>ositive.

PM20S, PM20D, PM30S & PM30D

#### **HIGH VOLTAGE POWER SUPPLIES**



#### **CONNECTIONS**

INPUT ( Conne Mains I			
OUTPUT (LV) 6 pin "HiRose" socket (supplied with 1 off plug)			
	OLTAGE PIN ASSIGNMENTS		
pin 1	- 12V		
pin 2	-5V		
pin 3	OV N/C		
pin 4	N/C		
pin 5	+5V		
pin 6	+12V		

## **SAFETY & EMI COMPLIANCE**

Designed to meet UL61010-01.

These supplies are constructed in a fully enclosed metal case with screened connectors for compliance with EN60601-1 &-2.

#### WARNING

High voltages generated by these products present an electrical shock hazard and appropriate precautions must be taken.

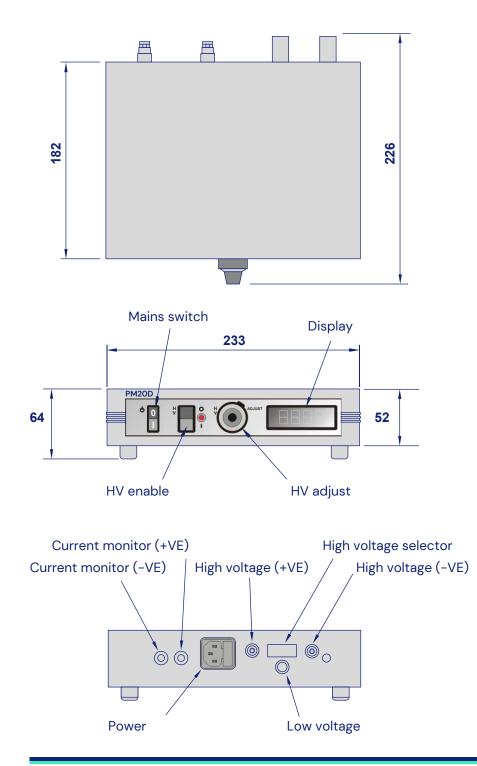
They must be installed by qualified personnel and operated within the specified ratings.

Do not operate outside the ratings limit. This may result in loss of performance or permanent damage.

# PM20S, PM20D, PM30S & PM30D

## **HIGH VOLTAGE POWER SUPPLIES**

#### **OUTLINE DRAWING MM**



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