PM20S, PM20D, PM30S & PM30D

HIGH VOLTAGE POWER SUPPLIES

SENS - TECH

DESCRIPTION

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

- 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

SPECIFICATION

INPUT VOLTAGE (AC) 85V to 264V RMS	**INPUT FREQUENCY (AC)** 47Hz to 440Hz
INPUT CURRENT (AC) <0.5A RMS at full output and load	**INPUT VOLTAGE (DC)** 120V to 370V
INPUT CURRENT (DC) <0.5A at full output and load	**OUTPUT VOLTAGE** see output rating table (other voltages to special order)
OUTPUT POLARITY see output rating table	**HR RIPPLE** see output rating table
LF NOISE (0.1 TO 10HZ) <5mV peak to peak	**LINE REGULATION** <20ppm over full input voltage range

SPECIFICATION CONTINUED...

LOAD REGULATION <20ppm from zero to maximum load	**SHORT TERM DRIFT** <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 front panel LED illuminated when ON	**VOLTAGE MONITOR** 3½ digit front panel meter
CURRENT MONITOR (SIGNAL) 0 to 1V = 0 to 1mA (2 off 4mm sockets on the rear panel)	

Protection

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

Temperature

OPERATING 0 to +40°C	**STORAGE** -5 to +70°C

Package size

CASE DIMENSIONS 233mm x 182mm x 52mm	**WEIGHT** <1.3Kg

OUTPUT RATINGS

OUTPUT VOLTAGE RANGE	OUTPUT CURRENT	RIPPLE (HF) (peak to peak at maximum output and load)	TEMPERATURE COEFFICIENT (<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	PM20SN
2kV	switchable polarity	PM20D
3kV	positive only	PM30SP
3kV	negative only	PM30SN
3kV	switchable polarity	PM30D

Part number formation example:

PM30SP, is broken down (bold/underline)

Power, supply, **M**odule, maximum output voltage is **30**00V, output polarity is **S**ingle and is **P**ositive.

CONNECTIONS

INPUT (AC/DC)

Connector	3 pin IEC connector at rear
Mains lead	supplied with 2m cable

OUTPUT (HV)

(dual) 2 off SHV sockets

(single) 1 off SHV socket (supplied with 1 off plug)

OUTPUT (LV)

6 pin "HiRose" socket (supplied with 1 off plug)

LOW VOLTAGE PIN ASSIGNMENTS

pin 1	- 12V
pin 2	-5V
pin 3	0V
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.

OUTLINE DRAWING MM