

SERIES MPS



Model MPS 620M

The MPS is a 70 Watt, triple output power supply specifically designed to meet the needs of IC/microprocessor experimenters. It is actually two linear (series pass) power supplies in one.

The first has a single 0-6V, 0-5A output backed up by an adjustable current limiter and overvoltage crowbar for digital work. The second has two tracked outputs, 0 to +20V and 0 to -20V, both rated at 0-1 Amp. The two power supplies are completely isolated from each other, sharing only the front panel meters and the chassis.

The 0-6V output is continuously adjustable with a front panel 10-turn control and is backed up by a fixed, rectangular current limit set to ~110% of maximum current. It is monitored by an overvoltage crowbar controlled by a locking type screwdriver adjustment on the front panel, setting range: 4 to 8V d-c. A crowbar-on LED is provided for convenient setting of the crowbar level.

The 0 to $\pm 20V$ outputs are continuously adjustable with a single 10-turn front panel control. Tracking is better than $\pm 1\%$ +10mV. They are equipped with adjustable current limits. Adjustment range is ~10% to 105% of rated current.

The 0 to $\pm 20V$ outputs can be used in series to provide 0-40V (but not in parallel, since they share a common center terminal).

MPS 620M OUTPUT RATINGS

OUTPUT 1		OUTPUT 2		OUTPUT 3	
VOLTS	AMPS	VOLTS(1)	AMPS	VOLTS(1)	AMPS
0-6	0-5	0 to +20	0 to +1	0 to -20	0 to -1

(1) Tracked with single 10-turn control

FEATURES

- Linear low-noise voltage stabilization.
- Large display meters.
- 10 turn voltage control for exceptional resolution.
- Convenient front panel binding posts for all outputs.
- 0-6V supply backed with an overvoltage protector.
- $\pm 20V$ outputs. Single knob controls both in a tracking mode.



MPS 620M GENERAL SPECIFICATIONS

SPECIFICATION	RATING/DESCRIPTION	CONDITION
INPUT		
Voltage	105-125/210-250V a-c	User selectable
Current	2A rms	Maximum load, 115V a-c
Frequency	50-440Hz	
OUTPUT		
d-c Output	Transistor	Series pass
Type of Stabilizer	Voltage	Current limited
Voltage Adjustment Range	0-100% of rating	0 to +50°C
Current Limiting Range	110% fixed	6V output
	10-105% internal	0 to ±20V output
Error Sense Voltage Allowance ⁽¹⁾	0.5V per lead	6V output only
Voltage Recovery	<50 µsec typ, 100 µsec max	Step load current change, 10% to 100% max
Isolation Voltage	300V d-c or peak	Output to ground
Series Connection	The two 20V outputs can be used in series to provide 40V	
OVP	Adjustable 4-8V d-c	6V output only
CONTROL		
Voltage	10-turn precision controls	Manual, all outputs
MECHANICAL		
Input Connections	Detachable IEC type, 3-wire	
Output Connections	Front panel binding posts and rear barrier strip	d-c output and sensing
Meters	Two 2½", 2%, analog	Display voltage and current for output chosen by 3-position switch
Indicators	One LED, one neon	Crowbar; power on
Mounting (in standard 19" rack)	Use Kepco RA 24 rack adapter	
Cooling	Convection	
Dimensions inches (HxWxD)	5 7/32 x 12 17/32 x 12 7/8	¾ rack size
	132.6 x 318.3 x 327	
Finish; Fed Std 595	Black & light gray, color 26440	Front panel, two-tone
	Textured dark gray	Cover
Weight	29lb (13.1Kg)	Packed for shipment

(1) An additional 1 Volt is provided in the output beyond the rating of the 6V output for this purpose.

MPS 620M STATIC SPECIFICATIONS

INFLUENCE QUANTITY	OUTPUT EFFECTS	
	0 to 6V	0 to ±20V
Source: 105-125/210-250V a-c	0.01%	0.01%
Load: no load – full load	0.01%(1)	0.05%(1)
Time: 8-hour (drift)	0.01%	0.01%
Temperature: per °C	0.01%	0.01%
Ripple and Noise	rms	0.1mV
	p-p	1.0mV

(1) Or 5mV, whichever is greater.

Both sections of MPS 620M have the capacity to sustain short circuit current indefinitely.

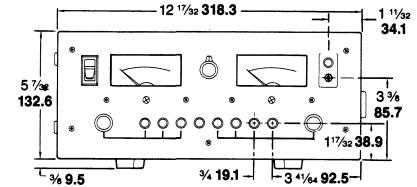
Two large (2½") front panel meters display Volts and Amps for any of the three outputs, as chosen by a 3-position switch.

Convenient front panel binding posts offer easy connection to your experiment. Rear barrier strips are provided for more permanent installation.

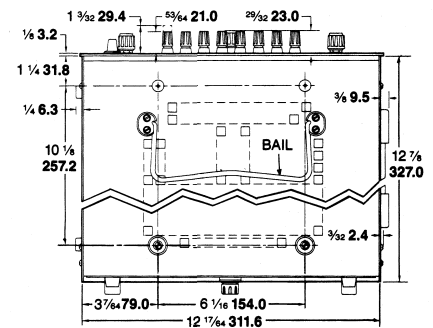
OUTLINE DIMENSIONAL DRAWINGS

Fractional dimensions in light face type are in inches, dimensions in bold face type are in millimeters.

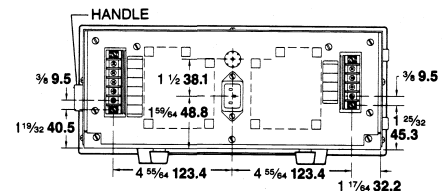
Tolerance: ± 1/64" (0.4) between mounting holes
± 1/32" (0.8) other dimensions



FRONT VIEW



BOTTOM VIEW



REAR VIEW

MPS 620M power supplies can be rack mounted using RA 24. See page 77.

