



ABN 43 064 478 842

➤ 231 osborne avenue clayton south, vic 3169  
PO box 1548, clayton south, vic 3169  
t 03 9265 7400 f 03 9558 0875  
freecall 1800 680 680  
[www.tmgtestequipment.com.au](http://www.tmgtestequipment.com.au)

## Test & Measurement

- sales
- rentals
- calibration
- repair
- disposal

## Complimentary Reference Material

This PDF has been made available as a complimentary service for you to assist in evaluating this model for your testing requirements.

TMG offers a wide range of test equipment solutions, from renting short to long term, buying refurbished and purchasing new. Financing options, such as Financial Rental, and Leasing are also available on application.

TMG will assist if you are unsure whether this model will suit your requirements.

Call TMG if you need to organise repair and/or calibrate your unit.

If you click on the “Click-to-Call” logo below, you can call us for FREE!

TMG Corporate Website

TMG Products Website



Click-to-Call  
TMG Now



### Disclaimer:

All trademarks appearing within this PDF are trademarks of their respective owners.



# 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  |
|--|--|--|
| <b>INPUT</b>                                 |  |  |
| Voltage                                      | 105-125/210-250V a-c                                     | User selectable  |
| Current                                      | 2A rms   | Maximum load, 115V a-c   |
| Frequency                                    | 50-440Hz   |  |
| <b>OUTPUT</b>                                |  |  |
| 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 <sup>(1)</sup> | 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   |
| <b>CONTROL</b>                               |  |  |
| Voltage                                      | 10-turn precision controls                               | Manual, all outputs  |
| <b>MECHANICAL</b>                            |  |  |
| 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)<br>mm              | 5⅞ x 12⅞ x 12⅞   | 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.

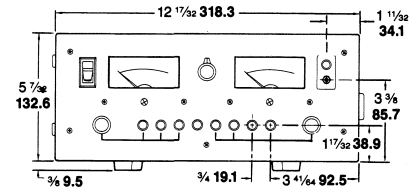
Both sections of MPS 620M have the capacity to sustain short circuit current indefinitely.

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

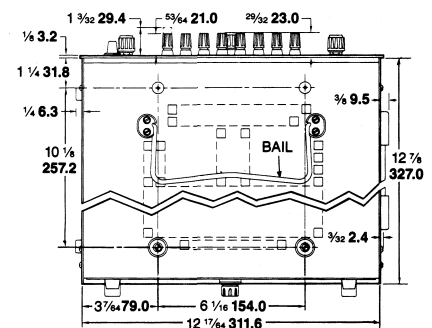
Convenient front panel binding posts offer easy connection to your experiment. Rear barrier strips are provided for more permanent installation.

### OUTLINE DIMENSIONAL DRAWINGS

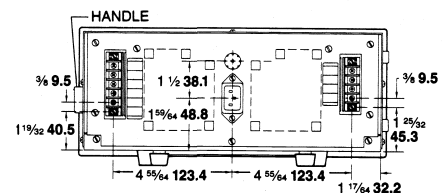
Fractional dimensions in light face type are in inches, dimensions in bold face type are in millimeters.  
Tolerance: ± 1/64" (0.4) between mounting holes  
± 1/32" (0.8) other dimensions



FRONT VIEW



BOTTOM VIEW



REAR VIEW

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

