

TECHNICAL DATA

MODEL 2005

PRECISION DC POWER SOURCE





ELECTRICAL SPECIFICATIONS

OUTPUT _0 to 20 VDC, continuously adjustable, at 0 to 500 MA.

INPUT _ 105 to 125 V, 50 to 440 Hz, 40 W max. (including oven heater).

CALIBRATION AND ACCURACY – Two dual, concentric, decade switches provide dial readout to four places with an accuracy of 0.1% ± 1 MV at outputs below 10 V. A 1-MV range, single-turn potentiometer permits interpolation of the last place. This potentiometer has a resolution of 10 uV. A toggle switch extends the range of the dial readout from 10 to 20 V, without affecting resolution or accuracy (five-place readout). An illuminated indicator identifies the range in operation.

REGULATION – Output voltage change less than 100 uV (at sense connection points) for line or load variations over the operating range.

RIPPLE AND NOISE –Less than 100 uV peak-to-peak. SOURCE IMPEDANCE –Less than 0.2 milliohm at DC, 0.04 ohm at 20 KHz, 0.5 ohm at 1 MHz.

RECOVERY TIME – Less than 10 uS to return to within 250 uV or 0.005% (whichever is greater) of the set voltage for a 10% to 100% step change in rated load; less than 40 uS to return with 100 uV.

OPERATING TEMPERATURE RANGE ${\scriptstyle -}15$ to 4 ${\rm ^{\circ}C}$ ambient; 0 to 60 ${\rm ^{\circ}C}$ ambient with reduced accuracy.

TEMPERATURE COEFFICIENT – DC output voltage change less than 0.001% or 50 uV (whichever is greater) per °C over the range of + 15 to +45 °C; less than 0.002% or 100 uV (whichever is greater) per °C from 0 to + 15 °C and +45 to +60 °C.

STABILITY – Better than 0.001% + 100 MV/8 hrs.; better than 1 MV/wk (at constant ambient temperature, load and line voltage, after warmup).

OUTPUT TERMINALS – Three front-panel binding posts and rear-panel barrier block. Either positive or negative output terminal may be grounded.

METER – Front-panel volt-ammeter permits monitoring output voltage or current with an accuracy of $\pm 2\%$.

REMOTE SENSING – Two terminals on rear-panel barrier block are provided for remote sensing of voltage at the load.

REMOTE PROGRAMMING Rear terminals are provided for remote programming of the output voltage at 1000 ohms-per-volt. Accuracy of programming is better than 0.01% of value of resistance (including connecting leads).

CURRENT LIMITING – The output current can be limited to any value from 0 to 500 MA by a front-panel control. A push-button permits easy adjustment without the need for shorting the output terminals.

MECHANICAL SPECIFICATIONS

DIMENSIONS _ **8 3/8"** x 4 3/4" x **8-15/16"**

WEIGHT - 9 pounds

FINISH – Brushed anodized aluminum panel with etched black lettering. Dust cover finished in blue enamel; chassis and bottom plate, golden indite.



Pair of Model 2005 Units shown in Type RRB-12 Rack Panel Adapter.

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