

SPECIFICATIONS AND FEATURES

Specifications apply for all models.

DC OUTPUT - Voltage regulated for line and load.

Voltage Range.....TABLE I
VOLTAGE RANGE

| MODEL | LP-520-FM | LP-521-FM | LP-522-FM | LP-523-FM | LP-524-FM |
|-------------------|-----------|-----------|-----------|-----------|-----------|
| VOLTAGE RANGE VDC | 0-10 | 0-20 | 0-40 | 0-60 | 0-120 |

Multi-Current Ranges.....Current range must be chosen to suit the appropriate maximum ambient temperature. Current ratings apply for entire voltage range.

TABLE II
MAX. CURRENT (AMPS)

| MODEL | MAXIMUM CURRENT AT AMBIENT OF: | | | |
|-----------|--------------------------------|------|------|------|
| | 30°C | 40°C | 50°C | 60°C |
| LP-520-FM | 5.0 | 4.7 | 4.3 | 3.7 |
| LP-521-FM | 3.3 | 3.0 | 2.6 | 2.3 |
| LP-522-FM | 1.8 | 1.6 | 1.4 | 1.2 |
| LP-523-FM | 0.9 | 0.8 | 0.7 | 0.6 |
| LP-524-FM | 0.5 | 0.45 | 0.4 | 0.35 |

REGULATED VOLTAGE OUTPUT

Regulation (line)...0.01 percent plus 1.0 millivolt for input variations from 105-132 or 132-105 volts AC.

Regulation (load)...0.01 percent plus 1.0 millivolt for load variations from no load to full load or full load to no load.

Remote Programming

External Resistor.....Nominal 200 ohms/volt output.

Programming Voltage....One-to-one voltage change.

Ripple and Noise....500 microvolts rms; 1.5 millivolts peak-to-peak with either positive or negative terminal grounded.

Temperature Coefficient...Output change in voltage less than (0.015% + 0.3 mv) /°C

DC OUTPUT - Current regulated for line and load; automatic crossover with voltage limit.

Multi-Current Ranges...Current range must be chosen to suit the appropriate maximum ambient temperature. Current ratings apply for entire voltage range. For maximum current range, see Table II. Minimum current rating: 6 ma.

Voltage Range.....For voltage range see Table I; voltage ratings apply for entire current range.

REGULATED CURRENT OUTPUT: AUTOMATIC CROSSOVER

Regulation (line).....Less than 0.2% or 5 milliamperes, whichever is greater, variations from 105-132 or 132-105 volts AC.

Regulation (load).....Less than 6 milliamperes for load voltage changes from 0 to max. or max. to 0 volts DC

AC INPUT - 105-132 volts AC at 47-440 Hz. For input power see Table III Ratings apply for 57-63 Hz; for other input frequencies consult factory.

TABLE III
INPUT POWER, WATTS*

| MODEL | INPUT POWER | MODEL | INPUT POWER |
|-----------|-------------|-----------|-------------|
| LP-520-FM | 161 Watts | LP-523-FM | 101 Watts |
| LP-521-FM | 161 Watts | LP-524-FM | 117 Watts |
| LP-522-FM | 158 Watts | | |

*With output loaded to full 30°C rating and input voltage 132 volts AC, 60 Hz.

OVERLOAD PROTECTION

Thermal.....Thermostat, resets automatically when over-temperature condition is eliminated.

Electrical

External.....Adjustable, automatic, electronic current-limiting circuit, settable to 105 percent of rated current, limits output current to preset limit for protection of load and power supply when external overloads and direct shorts occur.

Internal....."SLO-BLO", 3A fuse F101 protects the AC input circuit. Overload of the supply does not cause fuse failure.

Fuse F2 (or, as applicable F102) provides protection against internal circuit failure in conjunction with overvoltage protector option.

INPUT AND OUTPUT CONNECTIONS - Heavy duty terminal block on rear of chassis with 5-foot, 3-wire detachable line cord for all models; five-way binding posts provide for additional positive (+) ground, and negative (-) DC output connections on front panel.

OVERSHOOT - No overshoot of output voltage under conditions of power turn-on, power turn-off or power failure.

OPERATING AMBIENT TEMPERATURE RANGE AND DUTY CYCLE - Continuous duty from 0°C to 60°C ambient with corresponding load current ratings for all modes of operation.

STORAGE TEMPERATURE - -55°C to +85°C
(non-operating)

METERS - Voltmeter and ammeter on all models.

CONTROLS

DC Output Controls.....Coarse and fine voltage controls and coarse current control permit adjustment of DC output; located on front panel of all models.

Binding Posts (+) (-) (GND) - Five-way binding posts on all models.

Remote Sensing.....Provision is made for remote sensing to eliminate effect of power output lead resistance on DC regulation.

Power.....Panel mounted switch and indicator light for all units.

PHYSICAL DATA

Size.....5-3/16"H x 4-3/16"W x 15-1/2"D

Weight.....14 lbs. net, 18 lbs. shipping wt.

MOUNTING

Laboratory bench table top - Secure the four bumper feet to the bottom of the unit using four 6x32 screws and lockwashers supplied with the power supply. Bumpers must be used to permit proper circulation of air through the unit. Removal of bumpers will restrict free flow of air, avoid removing bumpers. See figure 14 for outline drawing.

Standard 19" Rack.....All LP units can be used with rack adapters: LRA-1 (slide accomodation provided) LRA-2 (conventional mount) See figure 15.

MODEL OPTIONS

Suffix "R" Fungus.....Standard LP power supplies can be obtained with fungus proofing treatment with MIL V 173 varnish for all fungi nutrient components.

Suffix "V" Option.....Standard LP power supplies can be obtained for 205-265 VAC, 47-63 Hz input. or 187-242 VAC, 47-63 Hz input. See nameplate for AC input rating. See schematic diagram for rewiring of AC input.

ACCESSORIES

Rack Adapters.....Rack adapter LRA-1, with or without chassis slides is available as well as rack adapter LRA-2 which is used for simple rack installations where chassis slides are not required. See figure 15.

Blank Panels.....Quarter-rack panels can be used with the Lambda rack adapters, see figure 15.

Overvoltage Protector.Externally mounted, Overvoltage Protectors LHOV-4, LHOV-5, and LHOV-6 are available for use with LP power supplies LP-520-FM, LP-521-FM, LP-522-FM, and LP-523-FM.