

P SERIES BENCH POWER SUPPLIES

Autoranging dual output. To 30V or 10A each channel

Independent isolated outputs. Can be floated up to 200V from earth

CV or CC modes with automatic changeover

Precision 10-turn controls for accurate settings of voltage and current

Voltage presets of $\pm 5V$, ± 5 with $\pm 12V$, $\pm 12V$ or $\pm 24V$

Simultaneous monitoring of voltage, current and power on exclusive LCD information panel. Also displays status information

Output enable switches provide voltage or current preview facility

Output remotely programmable by voltage

Remote sensing terminals eliminate up to 1V drop per load lead

Overvoltage protection

Dynamic bleed for faster down programming

MODEL PDD3010A
DUAL 60W OUTPUTS
DIGITAL METERING



Farnell

supplies the new generation

INCORPORATING WAYNE NEER INSTRUMENTS

The PDD3010A is a dual output bench power supply with a unique digital display. It uses a switch-mode conversion technique to reduce size and weight and will deliver a wide and useful range of voltage and current combinations with a maximum power limitation envelope of 60W each channel. Careful design and good RFI screening ensure satisfactory operation even in noise-sensitive applications.

The provision of separate 10-turn potentiometers and digital metering allow accurate setting for constant voltage or constant current operation in the range 0 to 30V, 0 to 10A. Alternatively, a front panel rotary switch conveniently gives access to voltage presets of +5V, +5 with +12V, ±12V or ±24V depending on the selected position of the switch. The normal controls are disabled when presets are selected.

Simultaneous monitoring of voltage, current and power is possible on the unique, custom LCD panel. A useful analogue

indication as well as precise digital display of voltage and current is given and the operational status of the power supply is also clearly indicated. A power limit warning for invalid settings is provided. The display is backlit so that it is easily read under all conditions.

Separate output enable switches are provided for each independent channel giving the user the opportunity to preview the settings prior to connecting to the load. Up to 1V drop per lead can be eliminated using the remote sensing terminals. The outputs can be programmed by means of a voltage input to rear panel terminals and the overvoltage trips are also programmable. A dynamic bleed circuit is incorporated for faster down programming times.

The PDD3010A is a 3U high, half-rack width unit for which a rack mounting kit is available as an optional extra.

SPECIFICATION

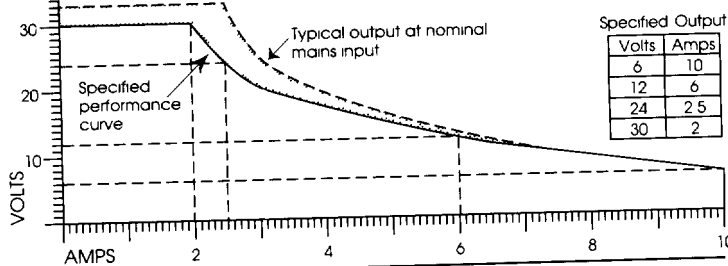
AC input

230V ±14% (198 to 263V) or 115V ±10% (99 to 132V) by internal switch 48-63Hz

Input current

2A rms for 240VAC 6A peak
4A rms for 115VAC
(both outputs ON)

Output characteristic for each channel



Line regulation

for a ±10% change
CV less than 0.01% +2mV
CC less than 0.01% +2mA

Load regulation

for a zero to 100% load change
CV less than 0.01% +2mV
CC less than 0.01% +2mA

Temperature coefficient

(typical after 30 minutes warm up)
0.01% +2mV per °C in CV mode
0.01% +4mA per °C in CC mode

Ripple and noise

(Δf = 20Hz to 20MHz)
CV 15mV pk-pk, 4mV rms max at 30V, 2A
20mV pk-pk max at 6V, 10A
CC 10mA pk-pk, 5mA rms max, typical
HF spike CV mode 20mV pk-pk max

Transient response (CV mode typical)

Less than 2ms typical for output to recover within 100mV following a change in output of 10% of maximum rating at that voltage

Metering

2 × 4 digits LCD plus analogue bar graph
Voltmeter range 0-35V

resolution 10mV
accuracy ±0.2% rdg +0.1% fs

Ammeter range 0-10.2A
resolution 10mA

accuracy ±0.3% rdg +0.1% fs

Preview check set levels when ENABLE switch is OFF

Analogue 28 segment bar graph selectable by push button for volts, amps or power

Status Constant current, constant voltage, overvoltage trip all clearly annunciated

Backlight Twin strip filament lamps

Remote voltage sensing

Maintains nominal voltage at load by correcting for up to 1V drop in each output lead

Remote programming

Output voltage programmable via rear panel terminals

Protection

Automatic CV/CC changeover

Overvoltage protection user programmable

Mains input and DC output fuses, accessible from outside the unit

Dimensions (mm) Height 170, Width 215, Depth 330

Weight 5.1kg

Environmental

Operating temperature 0 to 50°C

Power derates linearly above 35°C

Storage temperature -20°C to +70°C

Cooling is by convection

Operating relative humidity 0-90% non-condensing

Safety compliance BS 4743 (IEC348)

Order code/accessories

1EAPDD3010A Bench Power Supply

1EAA20170 Rack Mounting Kit (accepts 1 or 2 units)

Represented by

Design developments may result in specification changes

FARNELL INSTRUMENTS

SANDBECK WAY

WETHERBY LS22 4DH UK

TELEPHONE (0937) 581961

FACSIMILE (0937) 587514

TELEX 557294 FARIST G

Manufactured in the EC

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