PowerPac™ HV
high-voltage power supply

PROTEAN® II Ready Gel® Precast Gel System
Model 111 Mini IEF Cell
Rotofor® Cell and Mini Rotofor Cell

Plug in for great performance.
The PowerPac HV high-voltage power supply supports an increased output of 5,000 V, 500 mA, or 400 W, which allows you to drive all high-voltage applications, including low-current applications in the microampere range. It is ideal for isoelectric focusing (IEF) and DNA sequencing. With 400 W output, the PowerPac HV offers enough power to run the most demanding IEF or DNA sequencing experiments.

Data Tracking via Easy-to-Use Software

With the optional PowerPac™ data transfer software, it’s easy to organize, display, print, analyze, export, and annotate run data from the PowerPac HV power supply. Send run data first to a personal digital assistant (PDA) and then to a PC, or directly to a PC with a peripheral IR-receiving device. Once data are collected from the PowerPac HV, the data transfer software allows the operator to:

- View and track the programmed method
- See actual method and run conditions (voltage, current, power, method edits, error conditions, run date and time) recorded periodically during the run
- Annotate a run with notes
- Identify the serial number of the unit that generated the data
- Document all run-related information with reports
- Organize run data into projects
- Customize data presentation
Innovative Wireless Data Transfer
The PowerPac HV high-voltage power supply uses an integral IR port to transmit data to a PC either via a handheld PDA or directly via an IR-receiving device with the optional PowerPac data transfer software. With the IR receiver and PowerPac data transfer software, the PowerPac HV can be placed anywhere in the laboratory with respect to the PC. The recorded data include:
- The unit’s unique serial number (to identify each data-generating PowerPac power supply)
- Programmed methods
- Actual run conditions recorded throughout the run
- User notes entered post-run
- A date/time stamp from the onboard real-time clock

Built for the Real World
The PowerPac HV power supply is designed for long-term reliability. Each power supply is manufactured in a state-of-the-art facility with automated testing equipment to ensure that it arrives at your laboratory ready to deliver top performance.

Extraordinary User Interface and Programmability
The alphanumeric keypad and graphics display combine for straightforward programming of single- or multi-step methods. The PowerPac HV user interface provides:
- Simple methods programming for starting a run
- Repeat of the previous run with a single keystroke
- Continuous, timed, or volt-hour operation
- A running screen displaying large numbers that can be seen from a distance, as well as helpful run details such as the constant variable, elapsed time, and volt-hours

A Helping Hand With IQ/OQ
To support installation qualification and operational qualification (IQ/OQ) within GLP- and FDA-regulated environments, a PowerPac IQ/OQ protocol binder and test box are available for use exclusively with the PowerPac HV and PowerPac™ Universal power supplies. The first part of the user-customizable PowerPac IQ/OQ protocol provides an installation checklist and procedure to check performance of a newly installed PowerPac HV. The second part of the protocol checks actual performance against specified performance over time. The test box houses a factory-calibrated resistive load. When used with the appropriate meters to monitor output voltage and current, the test box determines the power supply’s performance against its specifications.
### Minimum Hardware Requirements for PowerPac Data Transfer Software

**PC requirements**
- Windows XP or 2000 operating system
- 400 MHz processor
- 256 MB RAM minimum, 512 MB recommended
- 1,024 x 768 pixel screen resolution with true-color mode (24 or 32 bits)
- 6 GB hard drive
- CD-ROM drive
- IR port

**PDA requirements**
- Palm OS software version 4.0 or 5.0
- 8 MB memory

### Ordering Information

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<th>Description</th>
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<tr>
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<td>PowerPac HV Power Supply, includes power cord, instructions</td>
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<tr>
<td>164-5059</td>
<td>PowerPac HV Power Supply With Temperature Probe</td>
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<td>164-5097</td>
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Palm OS is a trademark of Palm Computing, Inc. Windows and Windows 2000 and XP are trademarks of Microsoft Corp.

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**Specifications**

- **Output (programmable)**
  - Voltage: 20–5,000 V
  - Current: 0.01–500 mA
  - Power: 1–400 W

- **Type of output**
  - Constant voltage, constant current, constant power, or constant temperature

- **Timer control**
  - 1 min to 99 hr, 59 min

- **Volt-hour control**
  - Yes, 99,999 V-hr

- **Pause/resume function**
  - Yes

- **Display functions**
  - 128 x 64 pixel, yellow-green backlit graphics LCD

- **Programmable methods**
  - Stores up to 9 basic and 9 IEF methods, each with up to 9 steps

- **Real-time editing**
  - Yes

- **Real-time clock**
  - Yes

- **Automatic recovery after power failure**
  - Yes, user-selectable; setup values maintained

- **Data transfer/archiving**
  - Yes

- **Temperature control**
  - Yes, via temperature probe; 30–90°C ± 2°C

- **Microampere readout and control**
  - Yes

- **Safety features**
  - No-load detection, sudden load change detection, ground leak detection, overload/short circuit protection, overvoltage protection

- **Operating conditions**
  - 0–40°C, 0–95% humidity

- **Stackable**
  - Yes

- **Number of output jacks**
  - 4 sets in parallel

- **Regulatory**
  - EN-61010, CE

- **IQ/OQ protocols**
  - Yes

- **Input power (actual)**
  - 90–120 or 198–264 VAC, 50 or 60 Hz, autoswitching

- **Dimensions (W x D x H)**
  - 27.5 x 34 x 10 cm

- **Weight**
  - 2.85 kg (6.3 lb)