



## Electrophoresis Power Supplies

Open a World of Powerful Possibilities

**BIO-RAD**

## PowerPac™ Basic Power Supply



- Recommended for basic horizontal and vertical electrophoresis applications
- Compact, stackable (as shown)
- Constant voltage or constant current output

## PowerPac™ HC High-Current Power Supply



- Recommended for high-current applications, such as western blotting
- Output of 250 V, 3.0 A, 300 W
- 2-line, 16-character LCD for programming
- Constant voltage, constant power, or constant current output

## PowerPac™ HV High-Voltage Power Supply



- Ideal for IEF and DNA sequencing
- Output of 5,000 V, 500 mA, and 400 W
- Protocol binder and text box to support IQ/OQ within GLP- and FDA-regulated environments

## PowerPac™ Universal Power Supply



- For all applications from mini vertical and high-throughput electrophoresis to blotting
- Protocol binder and text box to support IQ/OQ within GLP- and FDA-regulated environments

## PowerPac Power Supply Specifications



	PowerPac Basic	PowerPac HC	PowerPac HV	PowerPac Universal
Output range (programmable)				
Volts	10–300 V	5–250 V	20–5,000 V	10–500 V
Current	4–400 mA	0.01–3.0 A	0.01–500 mA	0.01–2.5 A
Power	75 W (maximum)	1–300 W	1–400 W	1–500 W
Type of output (with automatic crossover)	Constant voltage or constant current	Constant voltage, constant current, or constant power	Constant voltage, constant current, constant power, or constant temperature	Constant voltage, constant current, or constant power
Timer	1–999 min	1 min–99 hr, 59 min	1 min–99 hr, 59 min	1 min–99 hr, 59 min
Volt-hour control	—	—	• (99,000 V-hr)	• (99,000 V-hr)
Pause/resume function	•	•	•	•
Display	3-digit LED	16-character x 2-line LCD	128 x 64 pixel, backlit graphics LCD	128 x 64 pixel, backlit graphics LCD
Programmable methods	—	1 method up to 3 steps, no storage capability	Stores 9 methods, each with up to 9 steps	Stores 9 methods, each with up to 9 steps
Real-time clock	—	—	•	•
Automatic recovery after power failure	•	•	•	•
Data transfer/archiving	—	—	•	• (optional)
Temperature control	—	—	Via temperature probe; 30–90°C ± 2°C	—
Microampere readout	—	—	•	—
Safety features	Overload/short-circuit detection; overvoltage protection; no-load detection; sudden load change detection	Overload/short-circuit detection; overvoltage protection; no-load detection; sudden load change detection; ground leak detection	Overload/short-circuit detection; overvoltage protection; no-load detection; sudden load change detection; ground leak detection; arc detection	Overload/short-circuit detection; overvoltage protection; no-load detection; sudden load change detection; ground leak detection
Operating conditions	0–40°C; 0–95% humidity	0–40°C; 0–95% humidity	0–40°C; 0–95% humidity	0–40°C; 0–95% humidity
Stackable	•	•	•	•
Number of output jacks	4 sets in parallel	4 sets in parallel	4 sets in parallel	4 sets in parallel
Regulatory	EN-61010, CE	EN-61010, CE	EN-61010, CE	EN-61010, CE
IQ/OQ protocols	—	—	• (optional)	• (optional)
Input power (actual)	90–120 or 198–264 VAC, 50/60 Hz, autoswitching	90–120 or 198–264 VAC, 50/60 Hz, autoswitching	90–120 or 198–264 VAC, 50/60 Hz, autoswitching	90–120 or 198–264 VAC, 50/60 Hz, autoswitching
Dimensions (W x D x H)	21.0 x 24.5 x 6.5 cm	25.0 x 28.5 x 8.0 cm	27.5 x 34.0 x 10.0 cm	27.5 x 34.0 x 10.0 cm
Weight	1.1 kg (2.4 lb)	2.0 kg (4.4 lb)	2.85 kg (6.3 lb)	2.5 kg (5.5 lb)

## Ordering Information

Catalog # Description

### Power Supplies and Adaptors

164-5050	PowerPac Basic Power Supply, 100–120/220–240 V
164-5052	PowerPac HC Power Supply, 100–120/220–240 V
164-5056	PowerPac HV Power Supply, 100–120/220–240 V
164-5059	PowerPac HV Power Supply with Temperature Probe, 100–120/220–240 V
164-5097	PowerPac Data Transfer Software, version 2.0
164-5099	PowerPac HV IQ/OQ Protocol Binder
164-5098	PowerPac HV IQ/OQ Protocol Binder and Test Box
165-5058	PowerPac Temperature Probe
164-5070	PowerPac Universal Power Supply, 100–120/220–240 V
164-5069	PowerPac Universal IQ/OQ Protocol Binder and Test Box
164-5062	PowerPac Adaptor, 2 mm
164-5064	PowerPac Adaptor, 4 mm

### Mini-PROTEAN Tetra Systems

165-8025	Mini-PROTEAN® Tetra Cell and PowerPac Basic Power Supply, includes #165-8001 and #164-5050
165-8026	Mini-PROTEAN Tetra Cell and PowerPac Universal Power Supply, includes #165-8001 and #164-5070
165-8027	Mini-PROTEAN Tetra Cell and PowerPac HC Power Supply, includes #165-8001 and #164-5052
165-8028	Mini-PROTEAN Tetra Cell and PowerPac HV Power Supply, includes #165-8001 and #164-5056
165-8033	Mini-PROTEAN Tetra Cell, Mini Trans-Blot® Module, and PowerPac Basic Power Supply includes #165-8001, #170-3935, and #164-5050
165-8034	Mini-PROTEAN Tetra Cell for Mini Precast Gels, Mini Trans-Blot Module, and PowerPac Basic Power Supply, includes #165-8004, #170-3935, and #164-5050
165-8035	Mini-PROTEAN Tetra Cell, Mini Trans-Blot Module, and PowerPac HC Power Supply, includes #165-8001, #170-3935, and #164-5052
165-8036	Mini-PROTEAN Tetra Cell for Mini Precast Gels, Mini Trans-Blot Module, and PowerPac HC Power Supply, includes #165-8004, #170-3935, and #164-5052

### Criterion Systems

165-6019	Criterion™ Cell and PowerPac Basic Power Supply, 100–120/220–240 V, includes #165-6001 and #164-5050
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### Criterion Dodeca Systems

165-4138	Criterion™ Dodeca™ Cell and PowerPac HC Power Supply, includes #165-4130 and #164-5052
165-4139	Criterion Dodeca Cell and PowerPac Universal Power Supply, includes #165-4130 and #164-5070

For additional information, please visit [www.bio-rad.com/powersupplies](http://www.bio-rad.com/powersupplies).



**BIO-RAD**

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