

Power Supplies

Introduction and Equipment Compatibility

Biometra offers a full range of power supplies for protein and nucleic acid electrophoresis, blotting and isoelectric focussing (IEF).

Low Voltage Power Supplies

- Wide output range up to 400 V and 1,000 mA
- Constant voltage or constant current, with automatic crossover
- Integrated timer: PS 300 T, PS 305 T and P25 T
- Gel Saver Function: PS 305 T
- Universal: Standard Power Pack P25 and P25 T for electrophoresis (max. 400 V) and blotting (max. 1,000 mA).

High Voltage Power Supplies

- Up to 3,000 V and 300 mA
- Constant voltage, current or power with automatic crossover
- Integrated timer: PS 9009
- Programmable: PS 9009
- Temperature regulation option: PS 9009



Standard Power Pack P25 T



Model PS 9009

	Low Voltage Power Supplies					High Voltage Power Supplies	
	Mini Power Pack PS 300 T*	Model PS 304	Model PS 305 T	Standard Power Pack P25	Standard Power Pack P25 T	Model PS 3003	Model PS 9009
Agarose gel electrophoresis							
Compact Family	+	+	+	+	+	+	+
Horizon Family	+	+	+	+	+	+	+
Sunrise Family	+	+	+	+	+	+	+
Agagel Standard	+	+	+	+	+	+	+
Agagel Mini, Midi-Wide, Maxi	+	+	+	+	+	+	+
Polyacrylamide gel electrophoresis (PAGE)							
Minigel Family	+	+	+	+	+	+	+
Eco-Line Family	+	+	+	+	+	+	+
Mini-V8•10	+	+	+	+	+	+	+
Mini-V8•10 System	-	(+)	+	+	+	+	+
Model V15•17, V16, V16-2	+	+	+	+	+	+	+
Sequencing gels							
Model S2 / S2001 / SA	-	-	-	-	-	+	+
Blotting							
Fastblot	-	(+)	(+)	+	+	(+)	(+)
Tankblot	-	(+)	+	+	+	(+)	(+)
Eco-Line Tankblot Family	-	(+)	+	+	+	(+)	(+)
Mini-V8•10 Blot Module	-	(+)	+	+	+	(+)	(+)

* For maxi gels it is recommendet to run one gel

() limited use



Power Supplies

Technical Specifications

Low Voltage Power Supplies

Mini Power Pack PS 300 T



Model PS 304



Model PS 305 T

Standard Power Pack
P25/P25 T

Max. voltage [V]	300	300	300	400
Max. current [mA]	400	400	500	1,000
Max. power [W]	60	120	150	200
Const. voltage	+	+	+	+
Const. current	+	+	+	+
No. of outputs	2	2	2	4
Timer	+	-	+	-/+
Audible alarm	+	-	+	-/-
Programmable	-	-	-	-
"Gel Saver" function	-	-	+	-
Stackable	-	+	+	+
Apparatus dimensions (W x D x H, cm)	14.0 x 19.1 x 8.4	27.0 x 17.0 x 8.0	29.0 x 17.0 x 8.0	27.0 x 25.0 x 9.8
Weight (kg)	0.9	2.0	2.0	2.9

Range of use:

Agarose gel electrophoresis	+ ^c	+	+	+
Polyacrylamide gel electrophoresis	+ ^c	+	+	+
Semi-dry blotting	-	(+) ^b	(+) ^b	+
Tank blotting	-	(+) ^b	(+) ^b	+

High Voltage Power Supplies

Model PS 3003



Model PS 9009



Max. voltage [V]	3,000	3,000
Max. current [mA]	300	300
Max. power [W]	300	300
Const. voltage	+	+
Const. current	+	+
Const. power	+	+
No. of outputs	3	2
Timer	-	+
Audible alarm	-	+
Programmable	-	+
Number of programs	-	8 ^a (up to 10 steps) or 16 (1 step)
Integration Modi	-	Vh
External Temperature Sensor (option)	-	+
Stackable	+	+
Apparatus dimensions (W x D x H, cm)	27.0 x 34.0 x 11.0	27.0 x 34.0 x 11.0
Weight (kg)	4.0	5.0

Range of use:

Agarose gel electrophoresis	+	+
Polyacrylamide gel electrophoresis	+	+
Sequencing	+	+
IEF	+	+
Semi-dry blotting	(+) ^b	(+) ^b
Tank blotting	(+) ^b	(+) ^b

^a Incl. 1 dedicated program special designed for IEF (Prog. 28: <15 µA - 300 mA)

^b Use may be limited for blotting applications

^c For maxi gels it is recommended to run one gel



Low Voltage Power Supplies

For Agarose / Polyacrylamide Gel Electrophoresis and Blotting

Mini Power Pack PS 300 T

Ultra compact and lightweight instrument that requires the space of a DIN-A5 paper sheet. Designed for running two mini or two standard sized horizontal or vertical gels simultaneously. For maxi gels it is recommended to run one gel with this Power Pack. For blotting applications the instrument is not recommended.

The integrated timer allows continuous or timed electrophoresis runs.

Operates at constant voltage or current with automatic crossover from one mode to the other when reaching set limits.

Last settings automatically restored at power on.

No. of outputs:	2
Voltage:	10 – 300 V, 1 Volt steps
Current:	10 – 400 mA, 1 mA steps
Power:	max. 60 W



Model PS 304 Power Supply

Lightweight and compact instrument recommended for routine electrophoresis such as horizontal and vertical electrophoresis as well as mini-tank-blotting applications. Limited use for semi-dry blotting applications.

Operates at constant voltage or current with automatic crossover from one mode to the other when reaching set limits.

Last settings automatically restored at power on.

No. of outputs:	2
Voltage:	1 – 300V, 1V steps
Current:	1 – 400 mA, 1 mA steps
Power:	max. 120W



Model PS 305 T Power Supply

Compact and powerful instrument with 0 – 999 minutes timer. Designed for horizontal and vertical electrophoresis as well as mini-tank blotting applications. Limited use for semi-dry blotting applications.

Unique "band saving" function which keeps bands sharp after the main run is complete.

Operates at constant voltage or current with automatic crossover from one mode to the other when reaching set limits.

Last settings automatically restored at power on.

No. of outputs:	2
Voltage:	1 – 300 V, 1V steps
Current:	1 – 500 mA, 1 mA steps
Power:	max. 150W



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Low Voltage Power Supplies

For Agarose / Polyacrylamide Gel Electrophoresis and Blotting

- **Max. voltage 400 V**
- **Max. current 1,000 mA**
- **Timer option**

Standard Power Packs P25 and P25 T with Timer function

Perfect choice for electrophoresis and blotting. Lightweight and compact instruments covering a wide range of applications from mini vertical or horizontal electrophoresis up to high-throughput electrophoresis and semi-dry blotting as well as tankblotting.

The **Standard Power Pack P25** offers a wealth of further features:
One large knob allows adjusting the output voltage or current at any time. The output is adjustable in 1 V or 1 mA steps. The large LCD display guarantees for easy to read actual or set values for the voltage and current outputs. The P25 operates at constant voltage or constant current with automatic crossover from one mode of operation to the other mode of operation when reaching set limits. Special LED's indicate which parameter is kept constant. For convenience the last settings are automatically restored at power on.

The **Standard Power Pack P25 T** with its very intuitive and user-friendly operation offers additional **Timer** control from 0 to 1,999 minutes. The Power Pack P25 T can be used on timer or continuous mode. When the timer is activated the remaining time is shown in the display and the unit will switch off by itself after the given time interval has elapsed.

No. of outputs:	4
Output settings:	0 – 500 mA at 0 – 400 V 0 – 1,000 mA at 0 – 200 V
Power:	max. 200 W (continuous)



Ordering Information

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High Voltage Power Supplies

For DNA-Sequencing, Polyacrylamide Gel Electrophoresis and Isoelectric Focusing

- **Max. voltage 3,000 V**
- **Max. current 300 mA**
- **Timer and Program option**

Model PS 3003 High Voltage Power Supply

Basic high voltage instrument recommended for DNA sequencing and other electrophoresis applications like IEF, 2D-gel electrophoresis, PAGE and agarose gel electrophoresis as well as Western blotting (limited use). Operates at constant voltage, current or power with automatic crossover from one mode of operation (e.g. const.

current) to another mode of operation (e.g. const. voltage) when reaching set limits. The constant parameter is indicated by red LEDs. Automatic restart after power failure. Audible alarm for system failure. Last settings automatically restored at power on.

No. of outputs:	3
Voltage:	10 – 3,000 V, 10 V steps
Current:	1 – 300 mA, 1 mA steps
Power:	1 – 300 W, 1 W steps



Model PS 9009 Programmable High Voltage Power Supply

Programmable high voltage instrument with timer (1 – 9,999 minutes) or Vh integration for DNA sequencing and other electrophoresis applications like multiple step IEF, PAGE and agarose gel electrophoresis, as well as blotting (limited use). Adjustable temperature probe available to regulate temperature at the plate surface of the electrophoresis system by reducing or stopping the voltage or current output when the set temperature is passed. Special program (#28) for IEF at very low current (< 1 mA – 300 mA). Operates at constant voltage, current or power or with temperature limitation.

Automatic crossover from one mode of operation (e.g. const. current) to another mode of operation (e.g. const. voltage) when reaching set limits. A flashing display indicates the constant mode. Stores up to 8 programs with 10 steps each or 16 one-step programs. Automatic restart with main electrical failure (< 12 h). Alarm sounds at end of run. Last settings automatically restored at power on.

No. of outputs:	2
Voltage:	10 – 3,000 V, 10 V steps
Current:	1 – 300 mA, 1 mA steps
Power:	1 – 300 W, 1 W steps



Ordering Information

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Power Supplies

Order Information






Item	Order No.
Low Voltage Power Supplies	
Mini Power Pack PS 300 T (100 – 240 V, EU plug), max. 300 V, 400 mA, 60 W	040-100
dto., (100 – 240 V, US plug)	040-190
Model PS 304 Power Supply (EU version, 230 V), max. 300 V, 400 mA, 120 W	10801017
dto., (USA version, 115 V)	31067304
Model PS 305 T Power Supply (EU version, 230 V), max. 300 V, 500 mA, 150 W, Timer	10839017
dto., (USA version, 115 V)	31067305
Standard Power Pack P25 (115 V/230 V), max. 400 V, 1,000 mA, 200 W	040-800
Standard Power Pack P25 T with Timer (115 V/230 V), max. 400 V, 1,000 mA, 200 W	040-850
High Voltage Power Supplies	
Model PS 3003 HV Power Supply (EU version, 230 V), max. 3,000 V, 300 mA, 300 W	10553003
dto., (USA version, 115 V)	31063003
Model PS 9009 Programmable HV Power Supply (EU version, 230 V), max. 3,000 V, 300 mA, 300 W, Timer	10556017
dto., (USA version, 115 V)	31067242
Temperature Probe for PS 9009 (new design)	31067291



Power Supply Adaptors

Order Information

	Power Supply Output Jacks		
Instrument Leads	4 mm sheathed safety output jacks Found on all Biometra Power Supplies 	4 mm non-sheathed output jacks Found on very old (non CE-labeled) versions of Power Supplies	2 mm high-voltage output jacks May be found on Power Supplies of other suppliers 
Sheathed 4 mm male plug  Installed on all current Biometra electrophoresis nits	no adaptor necessary	010-026 or 010-027 	022-007 
Sheathed 2 mm male plug  May be included with electrophoresis units from other suppliers	022-018 	022-018 	no adaptor necessary

Item		Order No.
Power supply adaptors		
	Standard safety adaptor set (4 mm/4 mm), conical, for use with sheathed 4 mm male plug instrument leads to non-sheathed 4 mm power supply output jacks	010-026
	Safety adaptor set (4 mm/4 mm), cylindrical, for use with sheathed 4 mm male plug instrument leads to non-sheathed 4 mm power supply output jacks	010-027
	Safety adaptor set (4 mm/2 mm), for use with sheathed 4 mm male plug instrument leads to 2 mm high-voltage power supply output jacks	022-007
	Safety adaptor set (2 mm/4 mm), for use with sheathed 2 mm male plug instrument leads to sheathed 4 mm power supply output jacks	022-018
	Safety adaptor (4 mm/4 mm), special, for use with sheathed 4 mm male plug instrument leads to recessed 4 mm Bio-Rad power supply output jacks	010-031