GOSSEN METRAWATT

LABKON P Series
Laboratory Power Supplies

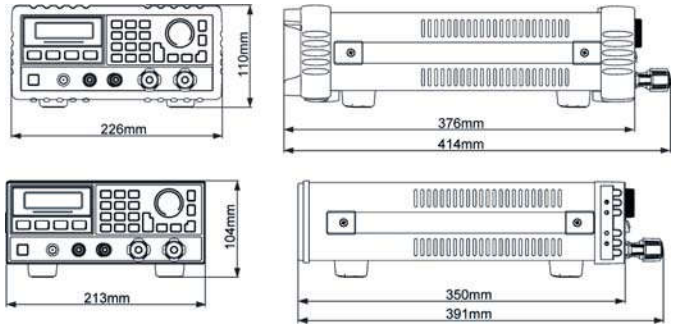
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- **Power: 500 W or 800 W, respectively**
- **Voltage up to 120 V, current up to 40 A**
- Modes: CV and CC, automatic switching
- Voltage and current continuously adjustable from 0 up to nominal output
- Several parameter groups (instrument settings) can be saved and retrieved.
- Floating output / no grounding
- High efficiency
- Safe DC isolation
- Output ON/OFF
- Supports SCPI commands
- Manually programmable via keyboard and rotary encoder
- Multifunctional LCD display
- Protective circuits, e. g. overvoltage protection
- Sense functionality
- Benchtop unit, can be installed into 19“ rack
- Rugged, compact and easy to handle
- RS-232 interface, optionally available with GPIB (IEEE-488) and USB
- Calibration (adjustment) function



Mechanical Design

Dimensions



Weight 5.5 kg

View

Rear panel with protective rubber housing



Standard Equipment

1 Benchtop device
1 Protective rubber housing
1 Mains power cable (earthing contact)
1 Safety instructions in German and English

Connection

Input voltage

LABKON P500:
100 V ... 240 V AC, 47 ... 63 Hz,
max. 750 VA

LABKON P800:
180 V ... 265 V AC, 47 ... 63 Hz,
max. 1050 VA

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Technical Characteristics

	LABKON P500 20 V / 25 A	LABKON P500 35 V / 14.5 A	LABKON P500 80 V / 6.5 A	LABKON P500 120 V / 4.2 A	LABKON P800 20 V / 40 A	LABKON P800 35 V / 22.5 A	LABKON P800 80 V / 10 A	LABKON P800 120 V / 6.5 A
Output Ratings								
Voltage	0 ... 20 V	0 ... 35 V	0 ... 80 V	0 ... 120 V	0 ... 20V	0 ... 35 V	0 ... 80 V	0 ... 120 V
Current	0 ... 25 A	0 ... 14.5 A	0 ... 6.5 A	0 ... 4.2 A	0 ... 40 A	0 ... 22.5 A	0 ... 10 A	0 ... 6.5 A
Ripple and Noise (20 Hz to 20 MHz)								
Voltage (rms)	< 3 m Vrms	< 5 m Vrms	< 8 m Vrms	< 15 m Vrms	< 10 m Vrms	< 10 m Vrms	< 16 m Vrms	< 16 m Vrms
Voltage (peak-to-peak)	< 25 mVp-p	< 10 mVp-p	< 14 mVp-p	< 80 mVp-p	< 25 mVp-p	< 20 mVp-p	< 25 mVp-p	< 80 mVp-p
Current	< 10 mArms	< 8 mArms	< 6 mArms	< 6 mArms	< 20 mArms	< 8 mArms	< 6 mArms	< 10 mArms
Common Mode Current	< 1.5 mArms	< 1.5 mArms	< 1.5 mArms	< 1.5 mArms	< 1.5 mArms	< 1.5 mArms	< 1.5 mArms	< 1.5 mArms
Load Regulation (static)								
Voltage	3 mA	5 mV	10 mV	10 mV	5 mV	3 mV	3 mV	10 mV
Current	3 mA	3 mA	2 mA	1 mA	4 mA	2 mA	2 mA	2 mA
Line Regulation								
Voltage	5 mV	5 mV	10 mV	10 mV	2 mV	2 mV	2 mV	10 mV
Current	3 A	3 A	2 mA	1 mA	2 mA	1 A	1 mA	1 mA
Rise and Fall Time 0 ... 100 % (measured from 10 ... 90 %)								
Full load up	50 ms	50 ms	50 ms	60 ms	50 ms	50 ms	50 ms	60 ms
Full load down	50 ms	50 ms	50 ms	60 ms	35 ms	50 ms	50 ms	60 ms
No load up	50 ms	50 ms	50 ms	60 ms	50 ms	50 ms	50 ms	60 ms
No load down	200 ms	200 ms	300 ms	300 ms	150 ms	200 ms	300 ms	300 ms
Programming Accuracy								
Voltage	0.03 % + 10 mV	0.15 % + 5 mV	0.03 % + 10 mV	0.03 % + 15 mV	0.03 % + 5 mV	0.03 % + 8 mV	0.03 % + 10 mV	0.03 % + 15 mV
Current	0.50 % + 8mA	0.50 % + 6 mA	0.50 % + 3 mA	0.50 % + 10mA	0.50 % + 15 mA	0.50 % + 6 mA	0.50 % + 5 mA	0.50 % + 12 mA
Readback Accuracy								
Voltage	0.02 % + 2 mV	0.15 % + 5 mV	0.02 % + 5 mV	0.02 % + 8 mV	0.02 % + 2 mV	0.02 % + 2 mV	0.02 % + 5 mV	0.02 % + 8 mV
Current	020 % + 8 mA	0.50 % + 5 mA	0.50 % + 5 mA	0.50 % + 5 mA	0.20 % + 5 mA	0.20 % + 5 mA	0.50 % + 5 mA	0.50 % + 12 mA
Programming Resolution								
Voltage	1 mV	1 mV	1 mV	1 mV (@ 0...99.999 V) 10 mV (@ 100...120 V)	1 mV	1 mV	1 mV	1 mV (@ 0...99.999 V) 10 mV (@ 100...120 V)
Current	1 mA	1 mA	1 mA	1 mA	1 mA	1 mA	1 mA	1 mA
Readback Resolution								
Voltage	1 mV	1 mV	1 mV	2 mV	1 mV	1 mV	1 mV	2 mV
Current	1 mA	1 mA	1 mA	1 mA	1 mA	1 mA	1 mA	1 mA
Measuring resolution								
Voltage	1 mV	1 mV	1 mV	1 mV (@ 0...99.999 V) 10 mV (@ 100...120 V)	1 mV	1 mV	2 mV	1 mV (@ 0...99.999 V) 10 mV (@ 100...120 V)
Current	1 mA	1 mA	1 mA	1 mA	1 mA	1 mA	1 mA	1 mA

Ambient Conditions

Operating Temperature	0 °C ... 40 °C
Humidity	max. 80 %

Order Information

Description	Type	Article n°
LABKON P500 20 V 25 A laboratory power supply	LABKON P500 20/25	K147A
LABKON P500 35 V 14.5 A laboratory power supply	LABKON P500 35/14	K148A
LABKON P500 80 V 6.5 A laboratory power supply	LABKON P500 80/6	K149A
LABKON P500 120 V 4.2 A laboratory power supply	LABKON P500 120/4	K150A
LABKON P800 20 V 40 A laboratory power supply	LABKON P800 20/40	K157A
LABKON P800 35 V 22.5 A laboratory power supply	LABKON P800 35/22	K158A
LABKON P800 80 V 10 A laboratory power supply	LABKON P800 80/10	K159A
LABKON P800 120 V 6.5 A laboratory power supply	LABKON P800 120/6	K160A
Option GPIB (IEEE-488) interface for LABKON Series	GPIB-IEEE-488	K890A
Option USB interface for LABKON Series	USB-Interface	K891A
Installation kit for 19“ rack	Installation kit SPL/LABKON	Z990A

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