

DC Sources LAB/SMP 1,2 – 2,4 kW



Picture shows a 2,4 kW Version

 19" x 1 HE x 440 mm

OVERVIEW

- Efficiency up to 94 %
- Compact Design
- Active and Parallel connectable
- Easiest operation via front panel
- Constant Current, Voltage, Resistance and Power Operation
- Randomly programmable Memory Locations for U/I waves
- UI, UIP, UIR Mode, Simulation of PV-Arrays
- Script Control: process programming and booting from memory card
- Creating user defined output characteristics via memory card or digital interface
- Digital Interfaces IEEE 488, RS232/485, USB and LAN (optional)
- Galvanically isolated Analogue Interface 0 – 5 V or 0 – 10 V (user selectable; optional)
- Storable U/I wave forms (e.g. for PV simulation and sequential control)
- Graphical Display
- Special version on request
- Datalog function: operation values can be saved in an adjustable interval to a memory card
- Script operation in combination with Datalog function allows an independent stand-alone test field setup
- Umax and Imax randomly selectable to limit maximum output voltage and current

PRODUCT EXAMPLES

Type	Power W	Voltage V	Current A	Dimensions
LAB/SMP 115	1.200	0 – 15	0 – 80	19" x 1 HE x 440 mm
LAB/SMP 135	1.200	0 – 35	0 – 35	19" x 1 HE x 440 mm
LAB/SMP 145	1.200	0 – 45	0 – 30	19" x 1 HE x 440 mm
LAB/SMP 170	1.200	0 – 70	0 – 20	19" x 1 HE x 440 mm
LAB/SMP 1150	1.200	0 – 150	0 – 8	19" x 1 HE x 440 mm
LAB/SMP 1300	1.200	0 – 300	0 – 4	19" x 1 HE x 440 mm
LAB/SMP 1600	1.200	0 – 600	0 – 2	19" x 1 HE x 440 mm
LAB/SMP 11200	1.200	0 - 1.200	0 – 1	19" x 1 HE x 440 mm
LAB/SMP 215	2.400	0 – 15	0 – 160	19" x 1 HE x 440 mm
LAB/SMP 235	2.400	0 – 35	0 – 68	19" x 1 HE x 440 mm
LAB/SMP 245	2.400	0 – 45	0 – 53	19" x 1 HE x 440 mm
LAB/SMP 270	2.400	0 – 70	0 – 34	19" x 1 HE x 440 mm
LAB/SMP 2150	2.400	0 – 150	0 – 16	19" x 1 HE x 440 mm
LAB/SMP 2300	2.400	0 – 300	0 – 8	19" x 1 HE x 440 mm
LAB/SMP 2600	2.400	0 – 600	0 – 4	19" x 1 HE x 440 mm
LAB/SMP 21200	2.400	0 – 1.200	0 – 2	19" x 1 HE x 440 mm

Type	Power W	Voltage V	Current A	Dimensions
LAB/SMP 215	2.400	0 – 15	0 – 160	19" x 1 HE x 440 mm
LAB/SMP 235 AR	2.400	0 – 35	0 – 105	19" x 1 HE x 440 mm
LAB/SMP 245 AR	2.400	0 – 45	0 – 90	19" x 1 HE x 440 mm
LAB/SMP 270 AR	2.400	0 – 70	0 – 60	19" x 1 HE x 440 mm
LAB/SMP 2150 AR	2.400	0 – 150	0 – 24	19" x 1 HE x 440 mm
LAB/SMP 2300 AR	2.400	0 – 300	0 – 12	19" x 1 HE x 440 mm
LAB/SMP 2600 AR	2.400	0 – 600	0 – 6	19" x 1 HE x 440 mm

AR = Auto Range

OPTIONS

Appendix	Description
../WI	90 – 264 VAC Input
../115	110 – 126 VAC Input
../230	230 / 207 – 253 VAC Input
../3P208	3 x 208 / 187 – 229 VAC Input
../3P400	3 x 400 / 360 – 440 VAC Input
../3P440	3 x 440 / 396 – 484 VAC Input
../3P480	3 x 480 / 432 – 528 VAC Input
../400Hz	400 Hz Input
../DC	250...750 VDC Input
../ATE	Only ATE mode, no frontpanel
../ATI5/10	Isolated analogue interface 0 – 5 / 0 – 10 VDC set and monitor
../LT	Interface IEEE488
../LTRS485	Interface RS485
../LTRS232	Interface RS232
../LAN	Interface LAN
../USB	Interface USB
../KFZ12	Car starting curve 12 VDC
../KFZ24	Car starting curve 24 VDC
../OPT	Output characteristics
../SD	SD card slot
../M-S	Master-Slave Option for max. 20 kW

TECHNICAL DATAS

Input Voltage Specification

Input voltage range	1,2 kW 90 – 264 VAC / PFC 2,4 kW 230 VAC +/-10 % / PFC
Input frequency	47 – 63 Hz

EMC and Safety Standards

Safety standard	EN 60950
Emission	EN 61000-6-4:2007
Immunity	EN 61000-6-2:2005
Measurement, control- and laboratory equipment	EN 61010-1:2006

Output Specifications

Static Voltage Regulation	+/-0.05 % + 2 mV
Static Current Regulation	+/-0.1 % + 2 mA
Dynamic Load Regulation	< 2 ms (typ.)
Ripple	< 0.2 % (typ.)
Stability	+/-0.05 %
Programming Accuracy (Vout)	+/-0.05 % +2 mV
Isolation	3.000 V
Over Voltage Protection	0 – 120 % Vmax
Circuit Protection	OC / OV / OT / OP
Line Regulation	< +/-0.1 % + 2 mV
Static Load Regulation	< +/-0.1 % + 2 mV

Programming & Controls

Output Control & Monitoring	Front panel and/or optional Analog 0 – +5V/+10V isolated / Digital 12 bit: RS232, RS485, IEEE488, LAN, USB, SD card
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Ambient Conditions

Cooling	Fans
Operating temperature	0 – 50°C
Storage temperature	-20 – 70°C
Humidity	< 80%
Operating height	< 2.000 m
Vibration	10 – 55 Hz / 1 min / 2G XYZ
Shock	< 20 G
Weight	1,2 kW 7 kg 2,4 kW 7,6 kg