DC Sources LAB/SMS

3 – 10 kW

ET SYSTEM

19“ x 2 HE x 440 – 600 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/SMS 315	3.000	0 – 15	0 - 200	19“ x 2 HE x 440 mm
LAB/SMS 335	3.000	0 – 35	0 - 90	19“ x 2 HE x 440 mm
LAB/SMS 345	3.000	0 – 45	0 - 70	19“ x 2 HE x 440 mm
LAB/SMS 370	3.000	0 – 70	0 - 45	19“ x 2 HE x 440 mm
LAB/SMS 3150	3.000	0 – 150	0 - 20	19“ x 2 HE x 440 mm
LAB/SMS 3300	3.000	0 – 300	0 - 10	19“ x 2 HE x 440 mm
LAB/SMS 3600	3.000	0 – 600	0 - 5	19“ x 2 HE x 440 mm
LAB/SMS 31000	3.000	0 – 1000	0 - 3	19“ x 2 HE x 440 mm
LAB/SMS 31200	3.000	0 – 1200	0 - 2,6	19“ x 2 HE x 440 mm
LAB/SMS 420	4.000	0 – 20	0 – 200	19“ x 2 HE x 440 mm
LAB/SMS 435	4.000	0 – 35	0 – 115	19“ x 2 HE x 440 mm
LAB/SMS 445	4.000	0 – 45	0 – 90	19“ x 2 HE x 440 mm
LAB/SMS 470	4.000	0 – 70	0 – 60	19“ x 2 HE x 440 mm
LAB/SMS 4150	4.000	0 – 150	0 – 30	19“ x 2 HE x 440 mm
LAB/SMS 4300	4.000	0 – 300	0 – 15	19“ x 2 HE x 440 mm
LAB/SMS 4600	4.000	0 – 600	0 – 7	19“ x 2 HE x 440 mm
LAB/SMS 41000	4.000	0 – 1.000	0 – 4	19“ x 2 HE x 440 mm
LAB/SMS 41200	4.000	0 – 1.200	0 – 3,4	19“ x 2 HE x 440 mm

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Type	Power W	Voltage V	Current A	Dimensions
LAB/SMS 525	5.000	0 – 25	0 – 200	19“ x 2 HE x 440 mm
LAB/SMS 535	5.000	0 – 35	0 – 150	19“ x 2 HE x 440 mm
LAB/SMS 545	5.000	0 – 45	0 – 120	19“ x 2 HE x 440 mm
LAB/SMS 570	5.000	0 – 70	0 – 75	19“ x 2 HE x 440 mm
LAB/SMS 5150	5.000	0 – 150	0 – 35	19“ x 2 HE x 440 mm
LAB/SMS 5300	5.000	0 – 300	0 – 17	19“ x 2 HE x 440 mm
LAB/SMS 5600	5.000	0 – 600	0 – 8,5	19“ x 2 HE x 440 mm
LAB/SMS 51000	5.000	0 – 1.000	0 – 5	19“ x 2 HE x 440 mm
LAB/SMS 51200	5.000	0 – 1.200	0 – 4,2	19“ x 2 HE x 440 mm
LAB/SMS 615	6.000	0 – 15	0 – 400	19“ x 2 HE x 600 mm
LAB/SMS 620	6.000	0 – 20	0 – 300	19“ x 2 HE x 600 mm
LAB/SMS 635	6.000	0 – 35	0 – 175	19“ x 2 HE x 600 mm
LAB/SMS 645	6.000	0 – 45	0 – 140	19“ x 2 HE x 600 mm
LAB/SMS 670	6.000	0 – 70	0 – 90	19“ x 2 HE x 600 mm
LAB/SMS 6150	6.000	0 – 150	0 – 40	19“ x 2 HE x 600 mm
LAB/SMS 6300	6.000	0 – 300	0 – 20	19“ x 2 HE x 600 mm
LAB/SMS 6600	6.000	0 – 600	0 – 10	19“ x 2 HE x 600 mm
LAB/SMS 61000	6.000	0 – 1.000	0 – 6	19“ x 2 HE x 600 mm
LAB/SMS 61200	6.000	0 – 1.200	0 – 5	19“ x 2 HE x 600 mm
LAB/SMS 820	8.000	0 – 20	0 – 440	19“ x 2 HE x 600 mm
LAB/SMS 825	8.000	0 – 25	0 – 320	19“ x 2 HE x 600 mm
LAB/SMS 835	8.000	0 – 35	0 – 230	19“ x 2 HE x 600 mm
LAB/SMS 845	8.000	0 – 45	0 – 180	19“ x 2 HE x 600 mm
LAB/SMS 870	8.000	0 – 70	0 – 115	19“ x 2 HE x 600 mm
LAB/SMS 8150	8.000	0 – 150	0 – 55	19“ x 2 HE x 600 mm
LAB/SMS 8300	8.000	0 – 300	0 – 30	19“ x 2 HE x 600 mm
LAB/SMS 8600	8.000	0 – 600	0 – 15	19“ x 2 HE x 600 mm
LAB/SMS 81000	8.000	0 – 1.000	0 – 8	19“ x 2 HE x 600 mm
LAB/SMS 81200	8.000	0 – 1.200	0 – 6,7	19“ x 2 HE x 600 mm
LAB/SMS1020	10.000	0 – 20	0 – 500	19“ x 2 HE x 600 mm
LAB/SMS1035	10.000	0 – 35	0 – 350	19“ x 2 HE x 600 mm
LAB/SMS1045	10.000	0 – 45	0 – 250	19“ x 2 HE x 600 mm
LAB/SMS1070	10.000	0 – 70	0 – 175	19“ x 2 HE x 600 mm
LAB/SMS10150	10.000	0 – 150	0 – 75	19“ x 2 HE x 600 mm
LAB/SMS10300	10.000	0 – 300	0 – 40	19“ x 2 HE x 600 mm
LAB/SMS10600	10.000	0 – 600	0 – 17	19“ x 2 HE x 600 mm
LAB/SMS101000	10.000	0 – 1.000	0 – 10	19“ x 2 HE x 600 mm
LAB/SMS101200	10.000	0 – 1.200	0 – 8,4	19“ x 2 HE x 600 mm

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OPTIONS

Appendix	Description
../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	Ausgangskennlinie nach Vorgabe
../SD	SD Kartenslot
../M-S	Master-Slave Option für Leistungen bis 90 kW

TECHNICAL DATAS

Input Voltage Specification	
Input voltage range	230 VAC / 3 x 208 VAC / 3 x 400 VAC / 3 x 480 VAC +/-10%
Input frequency	47 – 63 Hz

EMC ans 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 regulation	< 1 – 3 ms (typ.)
Ripple	< 0,2 % RMS (typ.)
Stability	+/-0,05 %
Programming accuracy (Vout)	+/-0,05 % +2 mV
Programming accuracy (Iout)	+/-0,05 % +2 mA
Display accuracy (Vout)	< +/-0,5%
Display accuracy (Iout)	< +/-0,5%
Isolation	3.000 V
Over voltage protection	0 – 120 % Vmax
Cuircuit protection	OC / OV / OT / OP
Line Regulation	< +/-0.1 % + 2 mV

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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

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	3 – 5 kW 18 kg, 6 – 10 kW 25 kg

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