

DC Sources LAB/HP

5.000 – 120.000 W



 19" x 3 HE x 620 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/HP 520 | 5.000 | 0 – 20 | 0 – 250 | 19" x 3 HE x 620 mm |
| LAB/HP 540 | 5.000 | 0 – 40 | 0 – 125 | 19" x 3 HE x 620 mm |
| LAB/HP 580 | 5.000 | 0 – 80 | 0 – 65 | 19" x 3 HE x 620 mm |
| LAB/HP 5100 | 5.000 | 0 – 100 | 0 – 50 | 19" x 3 HE x 620 mm |
| LAB/HP 5150 | 5.000 | 0 – 150 | 0 – 35 | 19" x 3 HE x 620 mm |
| LAB/HP 5300 | 5.000 | 0 – 300 | 0 – 17 | 19" x 3 HE x 620 mm |
| LAB/HP 5600 | 5.000 | 0 – 600 | 0 – 8,5 | 19" x 3 HE x 620 mm |
| LAB/HP 51000 | 5.000 | 0 – 1.000 | 0 – 5 | 19" x 3 HE x 620 mm |
| LAB/HP 51200 | 5.000 | 0 – 1.200 | 0 – 4 | 19" x 3 HE x 620 mm |

| Type | Power W | Voltage V | Current A | Dimensions |
|---------------|---------|-----------|-----------|---------------------|
| LAB/HP 1020 | 10.000 | 0 – 20 | 0 – 500 | 19" x 3 HE x 620 mm |
| LAB/HP 1040 | 10.000 | 0 – 40 | 0 – 250 | 19" x 3 HE x 620 mm |
| LAB/HP 1080 | 10.000 | 0 – 80 | 0 – 130 | 19" x 3 HE x 620 mm |
| LAB/HP 10100 | 10.000 | 0 – 100 | 0 – 100 | 19" x 3 HE x 620 mm |
| LAB/HP 10150 | 10.000 | 0 – 150 | 0 – 70 | 19" x 3 HE x 620 mm |
| LAB/HP 10300 | 10.000 | 0 – 300 | 0 – 34 | 19" x 3 HE x 620 mm |
| LAB/HP 10600 | 10.000 | 0 – 600 | 0 – 17 | 19" x 3 HE x 620 mm |
| LAB/HP101000 | 10.000 | 0 – 1.000 | 0 – 10 | 19" x 3 HE x 620 mm |
| LAB/HP101200 | 10.000 | 0 – 1.200 | 0 – 8 | 19" x 3 HE x 620 mm |
| | | | | |
| LAB/HP 1520 | 15.000 | 0 – 20 | 0 – 750 | 19" x 3 HE x 620 mm |
| LAB/HP 1540 | 15.000 | 0 – 40 | 0 – 375 | 19" x 3 HE x 620 mm |
| LAB/HP 1580 | 15.000 | 0 – 80 | 0 – 195 | 19" x 3 HE x 620 mm |
| LAB/HP 15100 | 15.000 | 0 – 100 | 0 – 150 | 19" x 3 HE x 620 mm |
| LAB/HP 15150 | 15.000 | 0 – 150 | 0 – 100 | 19" x 3 HE x 620 mm |
| LAB/HP 15300 | 15.000 | 0 – 300 | 0 – 50 | 19" x 3 HE x 620 mm |
| LAB/HP 15600 | 15.000 | 0 – 600 | 0 – 25 | 19" x 3 HE x 620 mm |
| LAB/HP 151000 | 15.000 | 0 – 1.000 | 0 – 15 | 19" x 3 HE x 620 mm |
| LAB/HP 151200 | 15.000 | 0 – 1.200 | 0 – 12 | 19" x 3 HE x 620 mm |

Other versions on request

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 | Without Manual Operation |
| ../ATI5/10 | Galvanically isolated Analogue Interface 0 – 5 VDC / 0 – 10 VDC |
| ../LT IEEE | 488 Interface |
| ../LTRS485 | RS 485 Interface |
| ../LTRS232 | RS 232 Interface |
| ../LAN | LAN Interface |
| ../USB | USB Interface |
| ../KFZ12 | Preselected Start-up Curve 12 V |
| ../KFZ24 | Preselected Start-up Curve 24 V |
| ../OPT | Predefined Output characteristic |
| ../SD | SD Card Slot |
| ../M-S | Master/Slave Option for power up to 120 kW |

TECHNICAL DATAS

Input Voltage Specification

| | |
|---------------------|---|
| Input voltage range | 230 VAC / 3 x 208 VAC / 3 x 400 VAC / 3 x 480 VAC \pm 10% |
| 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 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 |
| Circuit protection | OC / OV / OT / OP |
| Line Regulation | < +/-0.1 % + 2 mV |

Programming & Controls

| | |
|-----------------------------|---|
| Output Control & Monitoring | Front panel and/or optional Analog 0 – +5 V/+10 V 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 | 5 kW 19 kg, 10 kW 26 kg, 15 kW 33 kg |