

LAB-HP

High Power DC Source

Description

The LAB-HP provides up to 15kW of power in just a 3U high case. The active parallel mode enables up to 6 identical units to be operated together supplying an output of up to 90kW. The 10 turn digitally encoded potentiometer allows for straight forward front panel operation. The large display indicates all relevant output quantities simultaneously. Output values can be preset and read prior to releasing the output. ATE options are offered for system integration. Isolated analogue interfaces with proportional 0-5Vdc or 0-10Vdc control are available. Any combination of Integrated RS232, RS485, GPIB, USB, CAN & LAN interfaces can be specified if required. The LAB-HP's compact design delivers high efficiencies of up to 94%. The power supply can be operated in constant current, voltage, Power or resistance modes. The adjustable internal resistance and optional automotive starting curves make this range ideal for automotive simulation as well as general laboratory and production work. A PV operation mode is built in as standard. This enables a photo-voltaic generator's MPP tracking to be simulated. The MPP is available in both voltage and current modes. An SD card slot can be specified on order. This is a useful feature to enable the DC Source to follow predetermined voltage and current curves. Data is programmed on a PC using text or .WAV formats. It can then be simply transferred to an SD card and recalled from the front panel of the LAB/HP. Our legendary flexibility allows non-standard outputs and customer Specific options to be provided on request. This helps to ensure that the LAB-HP is suitable for the widest variety of applications.



- CV, CC, CP, R & PVsim modes
- Simple Front Panel Operation
- Memory Card Slot Option
- Optional Computer Interfaces
- Compact 3U Design
- Worldwide Input Options

Selection Table

Part Number	Power	Voltage	Current	Dimensions	Weight
LAB-HP 540	5kW	0 - 40Vdc	0 - 125A	19" x 3U x 600mm	19kg
LAB-HP 560	5kW	0 - 60Vdc	0 - 84A	19" x 3U x 600mm	19kg
LAB-HP 580	5kW	0 - 80Vdc	0 - 65A	19" x 3U x 600mm	19kg
LAB-HP 5100	5kW	0 - 100Vdc	0 - 50A	19" x 3U x 600mm	19kg
LAB-HP 5150	5kW	0 - 150Vdc	0 - 35A	19" x 3U x 600mm	19kg
LAB-HP 5300	5kW	0 - 300Vdc	0 - 17A	19" x 3U x 600mm	19kg
LAB-HP 5600	5kW	0 - 600Vdc	0 - 8.5A	19" x 3U x 600mm	19kg
LAB-HP 51000	5kW	0 - 1000Vdc	0 - 5A	19" x 3U x 600mm	19kg
LAB-HP 51200	5kW	0 - 1200Vdc	0 - 4A	19" x 3U x 600mm	19kg
LAB-HP 1040	10kW	0 - 40Vdc	0 - 250A	19" x 3U x 600mm	26kg
LAB-HP 1060	10kW	0 - 60Vdc	0 - 167A	19" x 3U x 600mm	26kg
LAB-HP 1080	10kW	0 - 80Vdc	0 - 130A	19" x 3U x 600mm	26kg
LAB-HP 10100	10kW	0 - 100Vdc	0 - 100A	19" x 3U x 600mm	26kg
LAB-HP 10150	10kW	0 - 150Vdc	0 - 70A	19" x 3U x 600mm	26kg
LAB-HP 10300	10kW	0 - 300Vdc	0 - 34A	19" x 3U x 600mm	26kg
LAB-HP 10600	10kW	0 - 600Vdc	0 - 17A	19" x 3U x 600mm	26kg
LAB-HP 101000	10kW	0 - 1000Vdc	0 - 10A	19" x 3U x 600mm	26kg
LAB-HP 101200	10kW	0 - 1200Vdc	0 - 8A	19" x 3U x 600mm	26kg
LAB-HP 1540	15kW	0 - 40Vdc	0 - 375A	19" x 3U x 600mm	33kg
LAB-HP 1560	15kW	0 - 60Vdc	0 - 250A	19" x 3U x 600mm	33kg
LAB-HP 1580	15kW	0 - 80Vdc	0 - 195A	19" x 3U x 600mm	33kg
LAB-HP 15100	15kW	0 - 100Vdc	0 - 150A	19" x 3U x 600mm	33kg
LAB-HP 15150	15kW	0 - 150Vdc	0 - 100A	19" x 3U x 600mm	33kg
LAB-HP 15300	15kW	0 - 300Vdc	0 - 50A	19" x 3U x 600mm	33kg
LAB-HP 15600	15kW	0 - 600Vdc	0 - 25A	19" x 3U x 600mm	33kg
LAB-HP 151000	15kW	0 - 1000Vdc	0 - 15A	19" x 3U x 600mm	33kg
LAB-HP 151200	15kW	0 - 1200Vdc	0 - 12A	19" x 3U x 600mm	33kg

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Options Table

Code	Description
/3P208.....	3 Phase Input of 3 * 208 (187 - 229Vac), 50/60Hz
/3P400.....	3 Phase Input of 3 * 400 (360 - 440Vac), 50/60Hz
/3P440.....	3 Phase Input of 3 * 440 (396 - 484Vac), 50/60Hz
/3P480.....	3 Phase Input of 3 * 480 (432 - 528Vac), 50/60Hz
/ATE.....	No front panel control or display. Analogue Interface provided as standard
/AI-5.....	0-5V Analogue Interface for all control and measurement functions
/ATI-5.....	Isolated 0-5V Analogue Interface for all control and measurement functions
/ATI-10.....	Isolated 0-10V Analogue Interface for all control and measurement functions
/USB.....	USB Interface with both listener and talker functions
/LT.....	IEEE 488.2 (GPIB) Interface with both listener and talker functions
/LTRS232.....	RS232 Interface with both listener and talker functions
/LTRS485.....	RS485 Interface with both listener and talker functions
/LAN.....	Ethernet interface with listener and talker functions over a LAN
/CAN.....	CAN Interface with both listener and talker functions
/KFZ12.....	Output follows a 12Vdc automotive cranking curve
/KFZ24.....	Output follows a 24Vdc automotive cranking curve
/KFZXX.....	Output follows a user specific curve

Technical Data

Input voltage.....	See table
Input frequency.....	47 to 63Hz
Harmonics.....	EN61000-3-2 A14
Isolation (Input / Output).....	3000Vac
Isolation class.....	1
Safety.....	EN60950
Emissions.....	EN61000-6-4
Immunity.....	EN61000-6-2
Voltage regulation.....	±0.05% + 2mV
Current regulation.....	±0.1% + 2mA
Response time (10%-90%).....	<0.5ms (typ)
Ripple & noise.....	<0.025% mV _{RMS} FS
Stability.....	0.05% V _{MAX}
Overvoltage protection.....	0 - 110% V _{MAX}
PV Voltage Simulation Mode (V _{MPP}).....	0.6 to 0.95 * V
PV Current Simulation Mode (I _{MPP}).....	0.6 to 0.95 * I
Remote sense capability (<35V).....	2V
Remote sense capability (>35V).....	5V
Display.....	3½ digits for V & I
Protections.....	OC / OV / OT / OP
Optional Analogue interfaces.....	0 - 10Vdc or 0-5Vdc
Optional Computer interfaces.....	12 Bit
Maximum internal resistance.....	CR _{MAX} = V _{MAX} /I _{MAX}
Minimum Internal Resistance.....	CR _{MIN} = (V _{MAX} /I _{MAX}) / 10
Operating temperature.....	0 to +50 °C
Storage temperature.....	-45 °C to +85 °C
Operating/Storage humidity.....	0 to 95% (non condensing)
Derating 50 °C - 70 °C.....	-2% per °C
Cooling.....	Forced air
Air flow.....	Front to back
Vibration.....	10-55Hz /1min/2G XYZ
Shock.....	Less than 20G

Every effort is made to ensure that the information provided within this technical summary is accurate. However, we must reserve the right to make changes to the published specifications without prior notice. Where certain operating parameters are critical for your application we advise that they be confirmed at the time of order. Please contact our office if your requirement is non-standard.