



*made for experts*  
In partnership with 

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## LAB/SM Primary Switched Laboratory DC Power Supply



- Extremely compact 100kHz design
- Power factor correction as standard
- CV/CC operating modes
- Both current and voltage presets
- Analogue and computer interfaces

### Description

The LAB/SM series of Laboratory DC Sources provides power outputs of between 1kW and 12kW. A wide array of voltage and current ranges are available at each power rating. Constant voltage and constant current operating modes are provided. PFC of 0.98 is standard across the entire range. A further advantage of this power supply is the automatic ranging combined with automatic power control. This often saves the acquisition of a second unit. The LAB/SM also allows the voltage and current outputs to be preset and read before applying them to the load. Additional features include adjustable over voltage protection, remote sense, stand by and thermal overload protection. To enable remote control a number of optional analogue and/or computer interfaces can be specified. LabVIEW drivers are also available for GPIB computer control and system integration. The LAB/SM design is exceptionally flexible and allows ET to offer virtually any output required. Please contact our office if your ideal ranges are not covered by ET's standard units.

### Options

/ATE	:	No front panel control or display. Analogue Interface provided as standard
/AI 5	:	0-5V Analogue Interface for all control and measurement functions
/AI 10	:	0-10V 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
/L	:	IEEE 488.2 Interface with listener function only
/LT	:	IEEE 488.2 Interface with both listener and talker functions
/LRS	:	RS232 Interface with listener function only
/LTRS	:	RS232 Interface with both listener and talker functions
/L+LRS	:	IEEE 488.2 and RS232 Interfaces with listener functions only
/LT+LTRS	:	IEEE 488.2 and RS232 Interfaces with both listener and talker functionality
/3P	:	3 phase input for 1kW to 3kW units (standard for 4kW and over)



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# LAB/SM Primary Switched Laboratory DC Power Supply

## Selection Table

Part Number	Power (kW)	Voltage (V <sub>OUT</sub> )	Current (I <sub>OUT</sub> )	Height (U)	Part Number	Power (kW)	Voltage (V <sub>OUT</sub> )	Current (I <sub>OUT</sub> )	Height (U)
LAB/SM 105	1	0 - 5	0 - 150	1	LAB/SM 470	4	0 - 70	0 - 62	4
LAB/SM 108	1	0 - 8	0 - 125	1	LAB/SM 4150	4	0 - 150	0 - 30	4
LAB/SM 135	1	0 - 35	0 - 35	1	LAB/SM 4300	4	0 - 300	0 - 15	4
LAB/SM 145	1	0 - 45	0 - 30	1	LAB/SM 635	6	0 - 35	0 - 185	6
LAB/SM 170	1	0 - 70	0 - 20	1	LAB/SM 645	6	0 - 45	0 - 150	6
LAB/SM 1150	1	0 - 150	0 - 10	1	LAB/SM 670	6	0 - 70	0 - 95	6
LAB/SM 1300	1	0 - 300	0 - 6	1	LAB/SM 6150	6	0 - 150	0 - 45	6
LAB/SM 1500	1	0 - 500	0 - 1.6	1	LAB/SM 6300	6	0 - 300	0 - 22	6
LAB/SM 220	2	0 - 20	0 - 100	2	LAB/SM 835	8	0 - 35	0 - 250	8
LAB/SM 235	2	0 - 35	0 - 70	2	LAB/SM 845	8	0 - 45	0 - 190	8
LAB/SM 245	2	0 - 45	0 - 50	2	LAB/SM 870	8	0 - 70	0 - 125	8
LAB/SM 270	2	0 - 70	0 - 35	2	LAB/SM 8150	8	0 - 150	0 - 60	8
LAB/SM 2150	2	0 - 150	0 - 18	2	LAB/SM 8300	8	0 - 300	0 - 30	8
LAB/SM 2300	2	0 - 300	0 - 8	2	LAB/SM 1010	10	0 - 10	0 - 1000	10
LAB/SM 335	3	0 - 35	0 - 100	4	LAB/SM 1035	10	0 - 35	0 - 300	10
LAB/SM 345	3	0 - 45	0 - 75	4	LAB/SM 1045	10	0 - 45	0 - 250	10
LAB/SM 370	3	0 - 70	0 - 50	4	LAB/SM 1070	10	0 - 70	0 - 160	10
LAB/SM 3150	3	0 - 150	0 - 20	4	LAB/SM 10150	10	0 - 150	0 - 75	10
LAB/SM 3300	3	0 - 300	0 - 12	4	LAB/SM 10200	10	0 - 200	0 - 50	10
LAB/SM 435	4	0 - 35	0 - 125	4	LAB/SM 10300	10	0 - 300	0 - 38	10
LAB/SM 445	4	0 - 45	0 - 95	4	LAB/SM 1260	12	0 - 60	0 - 200	12

Please contact Wayne Kerr Electronics Ltd if your ideal outputs are not covered by the standard range.

## Technical Data

Standard Input Voltage (1kW Output).....	88 - 264V <sub>AC</sub>
Standard Input Voltage (Output of 2kW & 3kW).....	230V <sub>AC</sub> ± 10%
Standard Input Voltage (Output =>4kW).....	3 x 400V <sub>AC</sub> ± 10%
Insulation (Input / Output).....	3750V <sub>AC</sub>
Power Factor Correction.....	0.98
Typical Efficiency.....	85%
Voltage Regulation.....	±0.05% + 2mV
Current Regulation.....	±0.1% + 2mA
Response Time (10%-90%).....	<0.5ms
Remote Sense Capability.....	2% of V <sub>MAX</sub>
Over Voltage Protection.....	0 to (V <sub>MAX</sub> * 1.2)
Ripple.....	<0.2% RMS
Stability.....	0.05%
Operating Temperature.....	0 - 50°C
Temperature Coefficient.....	0.02% per °C
Derating 50°C - 70°C.....	-2% per °C
Case Sizes (WxHxD).....	19"x H x 434.5mm (See selection table for height)

Every effort is made to ensure that the information provided within this technical summary is accurate. However, ET must reserve the right to make changes to the published specification without prior notice. Where certain operating parameters are critical for your application we advise that they be confirmed at the time of order. The photograph illustrates a 1kW DC Source on top of a 2kW unit. Please note that your actual unit may differ from that one shown.