

# LAB-SM

## SWITCH MODE DC POWER SUPPLY



POSITIVE PROBLEM SOLVING **+ =**

**The LAB-SM series of Laboratory DC Sources provides power outputs up to 2kW. Constant voltage and constant current operating modes are provided.**

PFC of 0.98 is standard across the range. These power supplies have automatic ranging combined with automatic power control. This often saves the rental of a second unit. The voltage and current outputs can be preset and read before applying them to the load. Additional features include adjustable over voltage protection, remote sense, standby and thermal overload protection. The LAB-SM is used in a wide variety of industries from automotive and general lab work to battery charging and automatic test systems.

- + Power Factor Correction as Standard**
- + Extremely Compact 100kHz Design**
- + Both Current and Voltage Presets**
- + CV/CC Operating Modes**

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### SELECTION TABLE

Part Number	Max Power	Voltage Range	Current Range
LAB-SM 170	1kW	0 - 70VDC	0 - 20ADC
LAB-SM 245	2kW	0 - 45VDC	0 - 50ADC

### TECHNICAL DATA

GENERAL	
Input Voltage	230VAC $\pm$ 10%
Input Frequency	47-63Hz
Insulation (Input / Output)	3000VAC
Power Factor Correction	0.98
Typical Efficiency	85%
Voltage Regulation	$\pm$ 0.05% + 2mV
Current Regulation	$\pm$ 0.1% + 2mA
Response Time (10%-90%)	<0.5ms
Over Voltage Protection	0 to 110% $V_{MAX}$
Ripple	<0.2% RMS
Stability	0.05%
Operating Temperature	0 - 50°C
Storage Temperature	-45°C to +85°C
Temperature Coefficient	0.02% per°C
Derating 50°C-70°C	-2% per°C
Harmonics	EN61000-3-2 A14
Safety	EN 60950
Emission	EN 61000-6-4
Immunity	EN 61000-6-2
Protection	OC / OV / OT / OP
Remote Sense (<35V)	2V <sub>MAX</sub>
Remote Sense (>35V)	5V <sub>MAX</sub> (no sense $V_{OUT} \geq 500V_{dc}$ )
Isolation Class	1
Computer Interface Resolution	12 Bit
Cooling (1kW)	Back to Back
Cooling (2kW)	Front to Back
Vibration	10-55Hz/1min/2G XYZ
Shock	Less than 20G
1kW Case Size	19" x 1U x 434.5mm (W x H x D)
2kW Case Size	19" x 2U x 434.5mm (W x H x D)

Every effort is made to ensure that the information provided within this technical summary is accurate. However, ETPS Ltd 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. ETPS Ltd specialises in modifying its proven platforms to suit your needs. Please contact our office if your requirement is non-standard. Please note that your actual unit may differ from those shown.



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