



The ConsuLab EM-200-31 Power Supply provides the following features to power up various training aids without the use of a standard lead-acid battery:

- Advanced switch-mode technology
- Reliable power with minimum weight and size
- Circuit innovations minimize output voltage ripple and RFI
- Input voltage can be set at 120VAC or 240VAC (internal jumper)
- UL listed to both USA & Canadian safety standards

The power supply is protected against overload by constant current limiting at 35 A. If the load tries to draw more than 35 A, the output voltage drops and is no longer regulated. It drops to near 0 V in case of a dead short. The unit will recover automatically once the overload condition is removed.

Protection is provided to shut down the EM-200-31 power supply in case the fan fails or if the air flow is blocked or if the ambient temperature is very high. A temperature sensor is mounted on the power transformer and will activate at  $105^{\circ}\text{C} \pm 5^{\circ}\text{C}$  ( $221^{\circ}\text{F} \pm 40^{\circ}\text{F}$ ) and shut down the output of the power supply. After the power supply cools down to  $95^{\circ}\text{C} \pm 5^{\circ}\text{C}$  ( $203^{\circ}\text{F} \pm 40^{\circ}\text{F}$ ), the temperature sensor will de-activate and the power supply will resume operation automatically.

### SPECIFICATIONS

<b>Manufacturer and model number :</b>	SamlexPower, model No SEC-1235M
<b>Nominal Input Voltage:</b>	120 VAC, 60 Hz (100 VAC to 130 VAC) – Factory preset; 230 VAC, 50 Hz / 60 Hz (200 VAC to 260 VAC) – By internal setting
<b>Input current:</b>	7.5 A at 120 VAC, 60 Hz; 3.5 A at 230 VAC 50 / 60 Hz
<b>Output Voltage:</b>	13.8 VDC
<b>Output voltage adjustment:</b>	11.5 V to 15.5 V with the help of internal potentiometer
<b>Output current:</b>	30 A continuous
<b>Current limit:</b>	35 A, constant current limiting, auto recovery
<b>No load current draw:</b>	120 mA at 120 VAC
<b>Ripple:</b>	50 mV peak to peak
<b>Noise:</b>	150 mV peak to peak
<b>Peak Efficiency:</b>	85 %
<b>Cooling:</b>	Temperature controlled fan
<b>Output indications:</b>	Voltmeter, 0-40 VDC, et ammeter, 0-15 ADC
<b>Protections against:</b>	Overload, short circuit and over temperature
<b>Operating temperature:</b>	0 - 40° C (0 - 104° F)
<b>Safety Certification:</b>	cULusa, UL60950-1, E179076
<b>EMI (Emissions) compliance:</b>	FCC Part 15 (B) for Class B devices
<b>AC input connections:</b>	Male AC inlet connector Type "IEC 320-C14" Detachable AC power cord with: - Female connector Type "IEC 320-C13" on one end to mate with AC power inlet connector on the power supply - Male, 2 pole 3 Wire grounding (3 prong) plug Type "NEMA5-15P" on the other end for connection to the AC outlet
<b>DC output connections:</b>	RED (+) and BLACK (-) terminals with tubular hole and set screw. Hole diameter 0.2 ", (5 mm). Includes a pair of copper terminal lugs for crimping to output wires to the load
<b>Input side fuse:</b>	Littelfuse Model 218008, 250 VAC, 8 A (120 VAC); Model 218004, 250 VAC, 4 A (230 VAC)
<b>Dimensions (Training Board):</b>	22 x 22 x 13 in (55 x 55 x 32.5 cm) w/packaging
<b>Weight (Training Board):</b>	35 lb w/packaging