The Model 1645-24-12-30 provides a well-regulated 13.6-Vdc negative-ground output from a 24-Vdc negative-ground battery system. The unit is rated for a continuous output current of up to 30 amperes yet operates with a very low standby (no load) current drain of approximately 65 mA. This makes it ideally suited for powering mobile-radio transceivers and other loads when low battery drain under extended “stand-by” conditions is an important consideration. The high conversion efficiency of the Model 1645-24-12-30 minimizes heat generation and enhances long-term reliability. The ruggedized mechanical construction and conservative electrical design ensure long service life and dependable performance in harsh environments such as those encountered in fleet trucks, transit buses, heavy construction equipment and other industrial vehicles and equipment.

**SPECIFICATIONS**

- **Input Voltage**: 20 to 32 Vdc (24 Vdc nominal), negative ground
- **Output Voltage**: 13.6 Vdc, negative ground
- **Output Current**: 0 to 30 Adc
- **Output-Voltage Regulation**: Versus Line: ±0.5% Versus Load: ±1%
- **Output-Voltage Ripple**: Typically less than 10mV rms, 75mV peak-to-peak
- **Protection**: Protection against output overloads and short circuits is provided electronically. Recovery to normal operating conditions is automatic upon removal of the fault.
- **Temperature Range (Ambient)**: Operating: -30°C to +60°C (-22°F to +140°F) Storage: -40°C to +95°C (-40°F to +203°F)
- **Input/Output Connections**: The positive input and output voltage connections are made via a heavy-duty barrier-strip terminal block with #12 hardware. The common (negative) input and output voltage connections are made via a 1/4” x 20 stud.

**Efficiency**

The efficiency of the converter exceeds 94% for most of the load range (see Fig. 1). The no-load input current is approximately 65 milliamperes.

**Mechanical**

- **Size**: Dimensions given in inches (mm).
  - 2.5 (64) high x 7.9 (201) wide x 7.9 (201) deep, excluding mounting flanges and terminal block.
  - Terminal block extends 1.0 (26) from front panel.
- **Weight**: 4.2 pounds (1.9 kg)
- **Mounting**: Mounting flanges on base will accept four #10 screws. Hole pattern is 5.9 (150) wide and 8.6 (219) front to back.

**Additional Information**

For additional information on this or other Wilmore Electronics Company dc-to-dc converters, dc-to-ac inverters and uninterruptible power systems, please contact our Sales Department at (919) 732-9351 or FAX (919) 732-9359, or visit our Web site: www.wilmoreelectronics.com.

Information provided in this bulletin is subject to change without notice.