MOBILE COMMUNICATIONS
DC-TO-DC CONVERTERS

Designed to power 12-volt or 24-volt equipment from a variety of vehicular battery systems, these dc-to-dc converters feature high conversion efficiency, low standby power consumption, good noise suppression, and electrical and mechanical ruggedness.

### +24 Vdc to +12 Vdc

**Model 1650-24-12-15**

**Characteristics**

- **Input/Output**
  - Input voltage: 24 Vdc nominal, negative ground (20 to 30 Vdc)
  - Output voltage: 12 Vdc nominal, negative ground
  - Maximum output current: 15 amperes, continuous

- **Output-Voltage Variation**
  - Line: Output voltage is directly proportional to input voltage
  - Load: Approximately ±0.3 volts for the load range 0.5 to 15 amperes

- **Output-Voltage Ripple**
  - Typically less than 10 millivolts rms, 50 millivolts peak-to-peak

**Protection**

- Protected by an input power fuse against short circuits and accidental reversal of input polarity

**Ambient Operating Temperature Range**

- -30°C to +60°C

**Mechanical**

- Size: 1.9”h x 4.5”w x 5.5”d excluding mounting flanges and fuse holder. Add 0.7” to height for fuse holder and terminal block.
- Weight: 1.0 lbs.
- Mounting: Mounting flanges on base will accept #10 screws. Hole pattern is 4.0” x 5.0” on center.

### -12 Vdc to +12 Vdc

(Polarity reversing)

**Model 1649-12-12-15**

**Characteristics**

- **Input/Output**
  - Input voltage: -12 Vdc nominal, positive ground (-10 to -15 Vdc)
  - Output voltage: 12 Vdc nominal, negative ground
  - Maximum output current: 15 amperes intermittent, 10 amperes continuous

- **Output-Voltage Variation**
  - Line: Output voltage is directly proportional to input voltage
  - Load: Approximately ±0.5 volts for the load range 0.5 to 12 amperes

- **Output-Voltage Ripple**
  - Typically less than 10 millivolts rms, 50 millivolts peak-to-peak

**Protection**

- Protected by an input power fuse against short circuits and accidental reversal of input polarity

**Ambient Operating Temperature Range**

- -30°C to +60°C

**Mechanical**

- Size: 1.9”h x 4.5”w x 6.9”d excluding mounting flanges and fuse holder. Add 0.7” to height for fuse holder and terminal block.
- Weight: 1.5 lbs.
- Mounting: Mounting flanges on base will accept #10 screws. Hole pattern is 5.0” x 5.0” on center.

### +12 Vdc to +24 Vdc

**Model 1649-12-24-15**

**Characteristics**

- **Input/Output**
  - Input voltage: 12 Vdc nominal, negative ground (10 to 15 Vdc)
  - Output voltage: 24 Vdc nominal, negative ground
  - Maximum output current: 15 amperes intermittent, 10 amperes continuous

- **Output-Voltage Variation**
  - Line: Output voltage is directly proportional to input voltage
  - Load: Approximately ±0.5 volts for the load range 0.5 to 12 amperes

- **Output-Voltage Ripple**
  - Typically less than 10 millivolts rms, 50 millivolts peak-to-peak

**Protection**

- Protected by an input power fuse against short circuits and accidental reversal of input polarity

**Ambient Operating Temperature Range**

- -30°C to +60°C

**Mechanical**

- Size: 1.9”h x 4.5”w x 6.9”d excluding mounting flanges and fuse holder. Add 0.7” to height for fuse holder and terminal block.
- Weight: 1.5 lbs.
- Mounting: Mounting flanges on base will accept #10 screws. Hole pattern is 5.0” x 5.0” on center.

For additional information about these and 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.