

74-V INPUT DC-AC INVERTER

500-VA OUTPUT, 110-VAC 60-HZ



Model 1749-74

- For Locomotive and Rail/Transit Applications
- Regulated, Isolated Frequency-Stable Sine-Wave Output
- Input Surge/Transient Protected
- 90% Efficient, Convection-Cooled
- Ruggedized for Portable Use

Designed to power test equipment, laptop computers and other ac loads from 74-Vdc locomotive battery systems, the Model 1749-74 dc-to-ac inverter provides 500 volt-amperes of 110-Vac, 60-Hz output power in a lightweight, portable package. Its high power-conversion efficiency allows the inverter to operate continuously at full power with simple convection cooling (no fans). The isolated, regulated, and frequency-stable sine-wave output is well-suited for powering a variety of loads, from sensitive electronic equipment to small motors and nonlinear loads normally considered difficult for inverters.

Specifications

INPUT VOLTAGE (VDC)	50 Vdc to 90 Vdc (74 Vdc nominal)
OUTPUT VOLTAGE (VDC)	110 Vac nominal, single phase Voltage regulation is $\pm 1\%$ versus dc input line and $\pm 3\%$ versus output load.
FREQUENCY	60 Hz nominal, ± 0.01 Hz maximum variation over the full range of load and input-voltage changes (crystal controlled).
VOLT-AMPERE RATING	500 VA (continuous duty) with surge capability for high-inrush loads
OUTPUT VOLTAGE WAVESHAPE	Sine wave with 1%-3% total harmonic distortion (typical)
EFFICIENCY	The power conversion efficiency exceeds 90% for most of the output load range. At nominal input voltage, the no-load input current is approximately 0.2 amperes..
TEMPERATURE RANGE	Operating: -30°C to $+65^{\circ}\text{C}$ Storage: -40°C to $+90^{\circ}\text{C}$
PROTECTION	Protection against output overload (including short circuit) and input overvoltage is provided electronically. Recovery to normal operation is automatic upon removal or correction of fault conditions. A front-panel circuit breaker is provided in series with the dc input to protect against accidental reversal of dc-input polarity.
ISOLATION	Mutual electrical isolation capable of passing an 1,800-Vdc stress test is provided between the dc input, the ac output and chassis.
TRANSIENT-WITHSTAND CAPABILITY	The inverter will not be damaged when its input is subjected to high energy transients as specified in IEC 1000-4-5, Surge Immunity Test, Level 3, applied line-to-line or line-to-chassis.
INPUT/OUTPUT CONNECTIONS	DC input connections are provided via a two-part (plug and header) connector. AC output connections are provided via a NEMA type 5-15R duplex receptacle. A chassis connection is provided via an 8-32 screw on the front panel.
DIMENSIONS INCHES (MM)	8.0 (203) high x 6.4 (163) wide x 15.0 (381) deep, excluding carrying handle and rubber feet.
WEIGHT LBS. (KG)	12 (5.5)
ACCESSORIES INCLUDED	Mating connector, user information guide

Products

For information about other Wilmore dc-to-ac inverters or for information about other power-conditioning products such as dc-to-dc converters, switching power supplies, and custom power solutions, please contact our sales department.