

74-VOLT WIDE-INPUT DC-DC CONVERTERS

Model 1740-74-14-30 and Model 1740-74-48-9.4

- For Locomotive/Rail-Transit Applications
- LSI Enclosure
- 425-450 Watt Output Power Rating
- Input Surge/Transient Protection
- Input-to-Output Isolation
- Mechanically Rugged and Conservatively Rated
- -40°C TO +70°C Operating Temperature Range (Convection Cooled)



SPECIFICATIONS

INPUT VOLTAGE RANGE	74Vdc nominal; 40-90Vdc normally; The converter will operate through brief abnormal input-voltage excursions down to 20 Vdc (operation at less than 40 Vdc is limited to 4 seconds maximum in any 2-minute period).
OUTPUT VOLTAGE (VDC)	1740-74-14-30: 14.2Vdc Nominal 1740-74-48-9.4: 48Vdc Nominal
OUTPUT CURRENT (ADC) and OUTPUT POWER (W)	1740-74-14-30: 30 amperes maximum load current (425W) 1740-74-48-9.4: 9.4 amperes maximum load current (450W)
OUTPUT VOLTAGE REGULATION	Better than ±5% with line and load variations
OUTPUT VOLTAGE RIPPLE	Less than 1% rms
ISOLATION	Isolation capable of passing a 1,500-Vdc stress test is provided between the input and output and between the input and chassis. Isolation capable of passing a 500-Vdc stress test is provided between the output and chassis.
PROTECTION	Protection against overloads, short circuits and converter-induced output overvoltages is provided electronically. Recovery to normal operating conditions is automatic upon removal of an overload or short circuit fault. Following an overvoltage shutdown, input power to the converter must be removed and reapplied to resume converter operation. A reverse-polarity protection diode is provided at the input to the converter to work in conjunction with a user-supplied fuse or circuit breaker to protect the converter should a reverse-polarity fault occur during installation.
TRANSIENT-WITHSTAND CAPABILITY	The converter will not be damaged nor will it malfunction when its input is subjected to high-energy transients as specified in IEC 1000-4-5, Surge Immunity Test, Installation Class 3. The converter will not be damaged nor will it malfunction when its input is subjected to transient bursts as specified in IEC 1000-4-4, Electrical Fast Transient/Burst Immunity Test, Level 4.
AMBIENT TEMPERATURE RANGE	Operating: -40°C to +70°C (-40°F to +158°F) Convection Cooling Storage: -40°C to +95°C (-40°F to +203°F).
INPUT/OUTPUT CONNECTIONS	Provided via heavy-duty barrier strip terminal blocks using 1/4-inch threaded studs. Connections are protected by a removable cover.
FRONT-PANEL INDICATORS	LED indicators provided for INPUT PRESENT (green), OUTPUT PRESENT (green), DISABLED-LOW INPUT (amber) and OUTPUT FAULT (red).
MECHANICAL	Enclosure is painted aluminum (black) and is constructed with welded seams and gasketed assembly interfaces. Internal printed circuit boards are conformally coated.
SIZE	4 Modular Concept Units (MCU's) as defined in Association of American Railroads Standard S-590.
WEIGHT LBS (KG)	12 (5.44)

Products

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