

Low Voltage Power Supply / Battery Charger

L.V.P.S. / B. C.

MODEL 5600/75BC35 (P.N. 020-0072-00)

LVPS/BC GENERAL FEATURES:

LVPS/BC IS A 5600 W POWER SUPPLY DESIGNED FOR RAILWAY PASSENGER CARS. IT PROVIDES TWO (2) OUTPUTS AT A NOMINAL VOLTAGE OF 71 Vdc (ADJUSTABLE FROM 65 TO 78 Vdc):

- 1) NOMINALLY 40 Adc FOR CAR LOAD SYSTEMS
- 2) NOMINALLY 35 Adc FOR CAR BATTERY CHARGING.

Environmental:

Suitable for transportation, mobile and harsh environment operation

Remote mountable digital monitoring and control panel:

Output parameter monitoring - voltage and current for each load
Battery temperature
Passcode protected setting of operating parameters
Adjustable backlighting control for optimum legibility under all ambient lighting conditions
Emergency power reserve activation control
Suitable for all ambient conditions

Intelligent battery management:

Battery charging controlled against battery environmental temperature to minimize battery stress and water consumption.
An external remote battery temperature sensor
Battery discharge control to prevent deep discharge condition
Emergency power reserve function to permit extended battery operation while protecting the battery from damaging cell polarity reversal

Echelon network connection:

Transmission of operating parameters and operational status to remote monitoring systems
Full function remote control ready - configurable to customer requirements

APPLICATIONS

- HIGH RELIABILITY POWER SUPPLY AND BATTERY CHARGER ON RAIL PASSENGER CARS ACCEPTING SOURCE POWER FROM 480 VAC HEAD END POWER SYSTEM.
- DC LINK POWER SUPPLY FOR UNINTERRUPTABLE POWER SUPPLY SYSTEMS.
- Remote controlled and monitored Power Supply for isolated installations (Pipelines, communication cells, etc.)

PERFORMANCE

- Total power output capacity: 5600 Watts.
- 40 Adc output for low voltage load system and 35 Adc output for battery charging parameter values which may be distributed per customer requirements.
- Rugged unit for Rail Environment.
- Natural convection cooling.
- Battery environment temperature sensing for efficient battery charging in cold or hot weather (-40°C to +50°C). Nominal charging voltage (69Vdc) at 20°C, field adjustable parameter.
- Emergency power reserve control button.

FEATURES

- Uninterrupted load supply from the battery upon 480 Vac loss.
- Field serviceable parameter Adjustment and Monitoring Panel.
- Echelon topology communication node.
- Waterproof and dustproof enclosure.
- 0 to 100% relative humidity tolerance.
- Complete electrical, electronic and mechanical protections as required under railroad specifications and IEC571 Standards.
- Minimum weight and size through 100 KHz frequency commutation.

CHARACTERISTICS

- Input: 3-phase, 60 Hz, 480 Vac

- Output: Total continuous current capacity: 75 Adc

1- DC Load Output: Min. 40 Adc

2- Car Battery Output: From 5 to 35 Adc (adjustable limits).

- Output voltage: Nominal 69 Vdc, field adjustable from 65 to 78 Vdc.

Operating temp.: - 40°C to 55°C

Control accuracy: ± 0.7 Vdc

± 0.3 Vdc from -20°C to +40°C

DIMENSIONS and WEIGHT

Length: 25 in.

Width: 26 in.

Height: 16 in.

Total weight: 100 lbs

INPUT

Voltage: 480 ($\pm 10\%$) Vab, 3-phase, 60 Hz.;
 $\pm 20\%$ surges of 2 seconds.

Current: From 480 Vac, 3-phase. (Battery connection not required for operation)

OUTPUT

Voltage: 65 to 78 Vdc, adjustable.

Current: 0 to 75 Adc