



**Aviation
Ground
Equipment Corp.**

**1100 Series
Electric**

Model 1100-1



Power Converter Cart (PCC) 72 kW – 270 VDC, 270 VDC Aux

The 270 VDC Power Converter Cart (PCC) is a four wheeled, manually propelled vehicle designed for flight deck conditions as well as land based theaters. The cart features an integrated power frequency converter providing ground power for aircraft requiring 270 VDC and 270 VDC Auxiliary outputs.

Standard Features:

- DC Output: 270 VDC Main, 72 KW, Meets LMCO F-35 Requirements
- DC Output: 270 VDC Auxiliary, 4.05 KW, Meets LMCO F-35 Requirements
- DC Output Cable: 60 ft.
- Utility Output: 115/230 VAC, 50/60 Hz
- Smart Control User Interface
- Built-In Test Diagnostics (BIT) with Fault Recording
- Rugged Four-Wheeled Trailer, Hand Brake System, AS 8090, Type II, Group C



Aviation Ground Equipment Corp.

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1100 Series Electric

Specifications

Description

The 270 VDC Power Converter Cart (PCC) is a four wheeled, manually propelled vehicle designed for flight deck conditions as well as land based theaters. The cart features an integrated power frequency converter providing ground power for aircraft requiring 270 VDC and 270 VDC Auxiliary outputs.

Operation

270 VDC Aircraft Power

The PCC converts facility input power to provide 270 VDC main, 270 VDC auxiliary and 28 VDC interlock electrical power. The Cart provides power to the aircraft through an electrical cable providing primary 270 VDC power (with 28 VDC Interlock power).

270 VDC Auxiliary Power

The PCC supplies auxiliary 270 VDC power for auxiliary support equipment through a panel mounted receptacle. The main aircraft power and the auxiliary power are capable of simultaneous operation.

Utility Power

The PCC supplies 115 VAC, 20 amp or 230 VAC, 10 amp utility power for tools or equipment.

Facility Input

- 440/460 VAC, 3-Phase, 60Hz or 380 VAC, 3-Phase, 50Hz
- Input Phase Rotation Insensitive
- 3 Wire Ungrounded Type 1 Power

270 VDC Main Output

- Meets or Exceeds F-35 (JSF) Specifications as recognized by LMCO
- Meets or Exceeds MIL-STD-704F
- Ratings: 72 KW (continuous)
- Overloads: 125% - 5 minutes
200% - 5 seconds
- Fully Adjustable Current Limiting (Soft Start)
- Integrated Unit-Cable Interlock

270 VDC Output Auxiliary

- Output/connector meets or Exceeds F-35 (JSF) Specifications as recognized by LMCO
- Meets or Exceeds MIL-STD-704F
- Ratings: 4.05 KW (continuous)
- Overloads: 125% - 5 minutes
150% - 30 seconds
200% - 5 seconds

Maintenance

- Mean Time to Repair (MTTR) = <120 minutes

Environmental

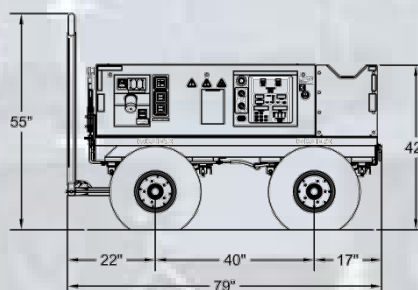
- Temperature, MIL-STD-810F Method 501.4, 502.4 Operating -40° F to + 125° F (-40° C to +52° C); Non-Operating -60° F to + 160° F (-51° C to +71° C)
- Humidity, MIL-STD-810F, Method 507.4
- Salt Fog, MIL-STD-810F, Method 509.3
- Blowing Rain, MIL-STD-810F, Method 506.4
- Blowing Sand, MIL-STD-810F, Method 510.4
- Wind, MIL-STD-810F, Method 506.10
- Vibration, MIL-STD-167-1
- Rail Impact, MIL-STD-810F 516.5
- Heavyweight Shock, MIL-S-901D Grade B
- Air Transportability
- Tie Down, MIL-T-81259B

Military & Commercial Standards

- MIL-STD-704F
- MIL-STD-461E
- MIL-STD-464A
- MIL-STD-167-1
- MIL-STD-810F
- MIL-S-901D
- MIL-STD-209
- MIL-STD-889
- MIL-STD-1472
- SAE AS 50881
- F-35 (JSF) LMCO (Approved)

Dimensions & Weight

- Dimensions 42"H X 43"W X 79"L
- Weight 2250 lbs.



E3, Emissions & Susceptibility

- MIL-STD-461E
 - Conducted Susceptibility, CS101, CS114, CS115 & CS116
 - Radiated Susceptibility, RS101 & RS103
 - Conductive Emissions, CE102
 - Radiated Emissions, RE102
- EMV
 - MIL-STD-464A, Table 1A
 - MIL-HDBK-235-2B

Protection

- Input: Over/Under Voltage, Over/Under Frequency, Overload, Phase Loss
- AC Output: Over/Under Voltage, Over/Under Frequency, Overload
- DC Outputs(270 VDC Main and Auxiliary): Over/Under Voltage, Overload, Short Circuit
- Internal: Door Interlock, Contactors Stuck (Open/Closed), Internal Power Supply Voltage, Converter Fail

Controls / Indicators

- Smart Control User Interface
- Sealed, tactile feedback membrane panel
- Integrated Built-In Test (BIT)
- Front Control Panel
 - Fault Code Display with Indicators
 - Adjustable Brightness Indicator Lamps with ON/OFF
 - LED Display Input/Output
 - Voltage
 - Amperage
 - Frequency
 - Cable Interlock Status Indicators
 - Line Drop Comp, User Adjustable
 - Output Voltage, User Adjustable
 - Emergency Stop Switch
- Door Interlock Switch
- Elapsed Time Hour Meter

Specifications subject to change without notice

Datasheet REV 08-19-2017

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