

270 VDC External Power Converter



Model EPC Cart



Model LPC Cart



PERFORMANCE FEATURES:

Proven design:

- Fully qualified and approved by USAF. Tested to MIL-STD-810 environmental conditions.
- Field proven reliability, with MTBF well over 3,000 hours.
- Solid state voltage regulator provides steady state and transient performance exceeding MIL-STD-704.
- Technical manual including operation, maintenance and illustrated parts breakdown in accordance with MIL-M-38797/ MIL-M-38807.
- Fault monitoring diagnostic circuitry.

Durable:

- Designed to endure the rigors of the flight line/hangar environment
- Easy access to all components for maintenance

ITW MILITARY GSE:

ITW Military GSE is the industry leader in product design and innovation. The best combination of experience, new technology and customer input has resulted in a product line you can trust for your aircraft's needs.

APPLICATION:

The External Power Converter (EPC) Type ECU-124/E is Flight Line Support Equipment (SE) to convert 115 VAC, 3-Phase, 400 Hz, 72 kW input to 270 VDC, 70 kW output.

The Line Power Converter (LPC) is Facility Support Equipment (SE) to convert 480 VAC, 3-Phase, 60 Hz, 72 kW input to 270 VDC, 70 kW output.

Both provide 28 VDC @ 10 amps for Interlock Control Power.



Model	Input Power	Output Power	28VDC Interlock	Length	Width	Height	Weight
EPC Cart	115 VAC, 400 Hz, 72 kW	270 VDC, 70 kW	28 VDC @ 10 A	69.5" (176 cm)	40.38" (102.6 cm)	56" (142.2 cm)	2,500 lbs (1,134 kg)
LPC Cart	480 VAC, 60 Hz, 72 kW	270 VDC, 70 kW	28 VDC @ 10 A	69.5" (176 cm)	52" (132 cm)	48.5" (123.2 cm)	2,500 lbs (1,134 kg)

External Power Converter (EPC) Cart Unit Specifications

ENVIRONMENTAL

- Storage temperature: -65° F to +160° F
- Storage pressure: 14.7 to 4.4 PSIA (0 to 40,000 feet)
- Operating temperature: -40° F to +120° F
- Operating pressure: 14.7 to 11.3 PSIA (0 to 7,000 feet)
- Relative Humidity: Operating: 100%RH @ -40° F to +120° F, no condensation in/on equipment
Non-Operating: 100%RH @ -65° F to +160° F with condensation in/on equipment

ELECTRICAL INPUT POWER REQUIREMENTS

- Per MIL-STD-704
- 115 VAC, 400 Hz, 72 kW (EPC)
- 480 VAC, 60 Hz, 72 kW (LPC)
- Input Under Voltage Protection on both

INPUT POWER RECEPTACLE

- Per MS90362 (EPC)

OUTPUT ELECTRICAL POWER

- Output Voltage: 270Vdc Nominal
- Adjustable from 265 to 275 under Full Load
- Output Ripple Voltage < 6Vac
- Transient Response Full Load < ±10Vdc (260-280Vdc) Recovery < 40 msec.
- Output Under Voltage Protection < 230Vdc Output Power Interrupted < 1.0 secs.
- Output Overload Protection: 110% Overload Remove Power approx. 15 mins.
- 125% Overload Remove Power < 7 secs.
- 150% Instantaneous Power Removal
- Output Interlock Control Power 28Vdc Nominal @ 10 Amps
- Instrumentation Accuracy: ±2%

APPLICABLE DOCUMENTS

Government specifications:

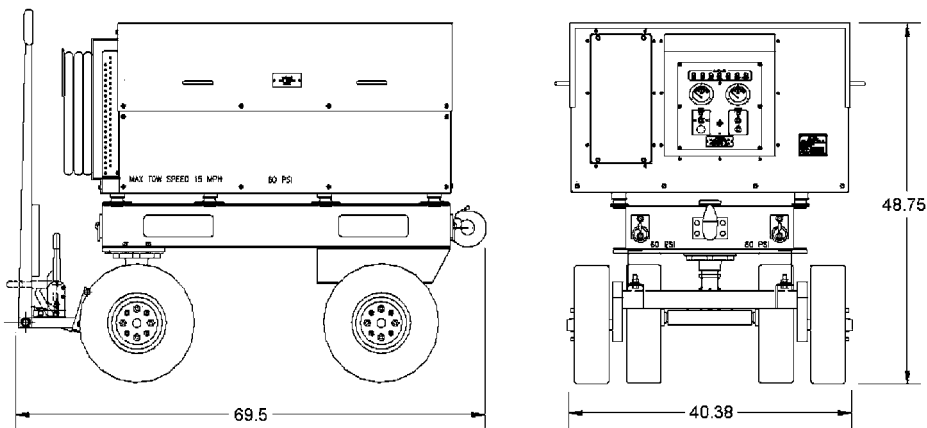
- MIL-C-85285 Top Coat
- MIL-C-85570 Cleaning compound, aircraft exterior

- MIL-I-46058 Insulating compound, electrical (for coating printed circuit assemblies).
- MIL-P-116 Preservation, methods of
- MIL-P-53030A Primer coat
- MIL-P-85582 Primer coat
- MIL-P-85285 Coating, Polyurethane, High Solids.

Standards:

- MIL-STD-704 Aircraft Electrical Power Characteristics
- MIL-STD-100 Engineering drawing practices.
- FED-STD-101C Test procedures for packaging materials.
- FED-STD-595 Colors used in Government procurement.
- MIL-STD-129 Marking for shipment and storage.
- MIL-STD-130 Identification marking of US Military property.
- MIL-STD-454 Standard general requirements for electronic equipment.
- MIL-STD-794 Parts and equipment, procedures for packaging and packing of.
- MIL-STD-808 Finish, protective and codes for finishing schemes for ground and ground support equipment.
- MIL-STD-810 Environmental test methods and engineering guidelines.
- MIL-STD-882C System Safety Program Requirements
- MIL-STD-1472 Human engineering design criteria for military systems, equipment and facilities.
- MIL-STD-1798 Mechanical equipment and subsystems integrity program (MECSIP)
- MIL-STD-2165 Testability program for electronic systems and equipment.

For additional applicable documents, consult factory. Specifications subject to change without notice.



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