

## Ground Power Unit – Lite 38kWe

Part Number: PD-GPU38

## 38kW System for Ground Support Mission

PD Power Systems is proud to offer the 38kWe Ground Power Unit (GPU) with modular configurable output options to join the ground support portfolio. The 38kW GPU leverages a proven modular design approach and control system that has been successfully demonstrated in our 72kW Ground Power Unit.

The compact and lightweight design reduces the logistics footprint by enabling the users to ship two (2) of these units on the standard single 463 Air Force pallet.

## **Key Components**

The offered unit is designed with selected components approved for use in harsh military environments, including MIL-STD-810H and MIL-STD-461F. Attention has been given to using components that are already part of the DoD Logistics footprint to ensure reliance on existing infrastructures to support the missions.



#### **Engine**

The unit uses the QSB3.3 Cummins Engine (or equivalent) - the same engine powering the U.S. Army 30kW generator set as part of the AMMPS Program. The engine is configured to run with all military fuels and is programmed to offer the best-in-class fuel efficiency for the required output rating. The engine is made in the U.S.A.

#### Generator

The generator is a 480V, 60Hz, double-bearing Marathon made in North America. The generator has a critical grade varnish to protect the windings against extreme and harsh weather. The generator comes preequipped with a Permanent Magnet Generator (PMG).

#### **Output Configuration Options:**

## 400Hz Output Model No. PD-GPU38/400

- 3-phase, 38 kW, 115/200VAC at 400 Hz
- 38kW, 480V, 60Hz
- Single-phase, 4.8kW/6kVA, 120VAC at 60 Hz

## 400Hz/270VDC Output Model No. PD-GPU38/270

- 3-phase, 38 kW, 115/200VAC at 400 Hz
- 38kW, 270 VDC
- 38kW, 480V, 60Hz
- Single-phase, 4.8kW/6kVA, 120VAC at 60Hz

## 400Hz/28VDC Output Model No. PD-GPU38/28

- 3-phase, 38 kW, 115/200VAC at 400 Hz
- 17.1kW, 28.5VDC
- 38kW, 480V, 60Hz
- Single-phase, 4.8kW/6kVA, 120VAC at 60 Hz



#### **Input Configuration Option:**

- Diesel (compatible with military fuels) powered
- 480V, 50/60Hz Utility (mains) input

Designing and engineering power and distribution systems for DoD clients, supplemented by in-house logistics support capabilities for the Company's developed products

#### **Design Features**

- All-in-one design for engine or utility powered operation
- Power Quality Type II Utility (Class 2A) MIL-STD1332B
- 4-way battery maintenance: solar, utility, 120VAC shore power, and on-board 120A DC alternator
- Power Control Module (PCM): Self-contained, designed to work as stand-alone system with utilities if the engine-generator is removed for maintenance
- Rugged four-wheeled trailer, hand brake system, SAE AS 8090, Type II, Group C
- Fuel: JP-8 (primary), DF1 and 2, JP5, and Jet A
- Cooling system with variable speed fan
- Stainless steel exhaust system
- Rust-free aluminum fuel tanks
- Sound attenuation 75dBA at 7 meters
- Specially coated detractable cable hangers for shipping mode
- 14 ft. tall detractable Tactical Remote Area Lighting System (TRALS) (85,000 theoretical Lumens) with 150° spread angle
- Daisy chain multiple units to light up the TRALS on remote units by running one engine to avoid wet stacking of engines for ultra low loads





#### **Environmental Specifications**

- Temperature, MIL-STD-810H Method 501.4, 502.4
  - Operating  $-40^{\circ}$ F to  $+131^{\circ}$ F ( $-40^{\circ}$ C to  $+55^{\circ}$ C)
  - Storage -50°F to +160°F (-45.5°C to +71°C)
- Humidity, MIL-STD-810H, Method 507.4
- Salt Fog, MIL-STD-810H, Method 509.3
- Blowing Rain, MIL-STD-810H, Method 506.4
- Blowing Sand, MIL-STD-810H, Method 510.4
- Wind, MIL-STD-810H, Method 506.10
- Air Transportability Compatible to MIL-STD-1791 (4.5G Down, 2G Up, 3G Forward, 1.5G Aft)
- Tie Down, MIL-T-81259B

## Military & Commercial Compliance

- SAE AS 50881
- SAE A8090
- MIL-STD-704F
- MIL-STD-167-1
- MIL-STD-810H
- MIL-STD-209
- MIL-STD-889
- MIL-STD-1472
- MIL-STD-461F



## **Shipping Dimensions**

Length: 107 inches Width: 40 inches

Width: 40 inches
Height: 70 inches (estimated)

Weight (wet): 3,850 lbs.

## **Deployed Dimensions**

Length: 107 inches

Width: 64 inches (retractable cable hangers)

Height: 70 inches (estimated)

Weight (wet): 3,850 lbs.





## **Worldwide Service and Support**

PD Power Systems provides support for military products around the world:

- Support at various existing and future locations of the U.S. military around the globe.
- Commissioning, training, and maintenance support services globally.
- Parts inventory at critical locations and around the world.
- Support for engineering and technical data for all products and services.

## Highly Technical, Experienced Workforce with Deep Subject Matter Expertise

PD Power Systems is a full systems integrator, designer, and manufacturer of power generation and distribution equipment.

We offer full-service solutions to government and industry with agile approaches using lean technology.

Our superior leadership, hardware developers, integrators, and on-site engineers provide concept-to-delivery products across engineering, production, system integration, testing, and Integrated Logistics Support (ILS).



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