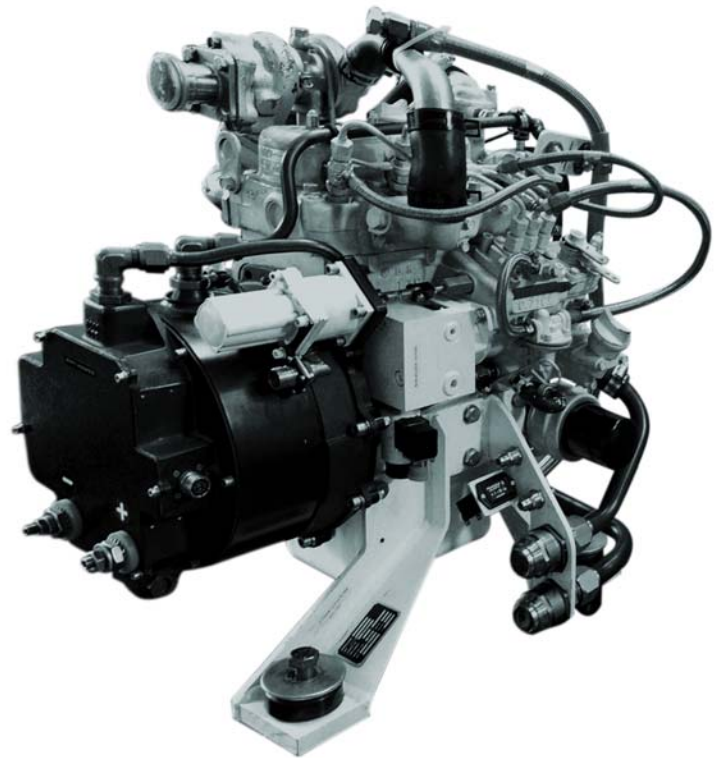


# Auxiliary Power Unit (APU) for the Expeditionary Fighting Vehicle (EFV)



Expeditionary Fighting Vehicle (EFV)



## KEY FEATURES:

- Lightweight High Efficiency
- Digital Controller
- 9.2 kW 28 VDC Power Output
- 2 GPM Flow @ 3500 psi

## GENERAL PRODUCT DESCRIPTION:

The MLS Auxiliary Power Unit has been designed to meet the requirements of the U.S. Marine Corps and General Dynamics Amphibious Systems. The APU provides electrical and hydraulic power to the Expeditionary Fighting Vehicle (EFV).

The power plant is a Kubota D722TB water-cooled, turbocharged diesel engine with a shaft mounted three-phase brushless, permanent magnet generator. The generator system

output and engine power is controlled by a variable speed governor which, depending on system load optimizes the engine operating speed.

The hydraulic pump is a piston type rated for 2 gpm flow @ 3,500 psi.

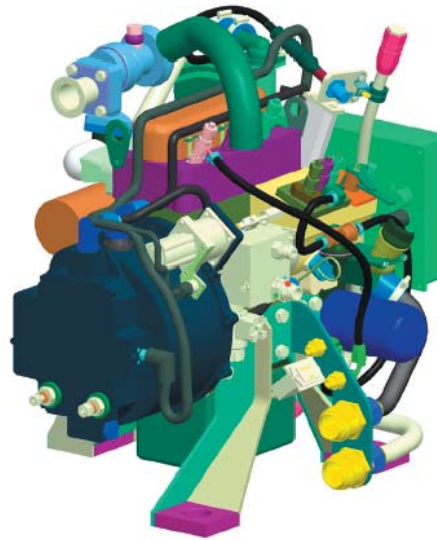
The entire APU System gross weight is under 200 pounds and less than 30 inches high. The System also provides 9.2 kW at 28-VDC power output (with

voltage ripple independent of the engine speed or load at less than 100 mV RMS).

### Control System Data

The control system consists of a linear actuator and an electronic engine speed controller.

# Auxiliary Power Unit (APU) for the Expeditionary Fighting Vehicle (EFV)



## Overall APU Specifications:

---

|                                      |                           |
|--------------------------------------|---------------------------|
| Exterior Dimensions (L x W x H)..... | 25" x 19" x 30"           |
| Gross Weight.....                    | 200 lb                    |
| Electrical Output.....               | 9.2 kW @ 28 vDC           |
| Air Flow.....                        | 550 CFM                   |
| Engine Type (air-cooled).....        | Kubota D722, Turbocharged |
| Fuel Type (Diesel).....              | DF-1, DF-2, JP-4, JP-8    |
| Engine Rating.....                   | 22 HP                     |

## Operating Parameters:

---

|                   |                        |
|-------------------|------------------------|
| Temperature ..... | -25 °F to 125 °F       |
| Altitude .....    | Sea level to 10,000 ft |
| Slope Angle ..... | 0° to 31°              |

## Generator System:

---

|                                    |                               |
|------------------------------------|-------------------------------|
| Type Alternator.....               | Brushless, permanent magnet   |
| Alternator Speed.....              | 2,400 to 3,300 Variable Speed |
| Output Voltage (Nominal).....      | 28 vDC                        |
| Output Rated Current.....          | 300 amps                      |
| Output Power.....                  | 9.2 kW                        |
| Alternator Weight.....             | 30 lb                         |
| Military Specification.....        | Per MIL-G-6162                |
| Electrical Power Output.....       | Per MIL-STD-1275 (AT)         |
| Electromagnetic Compatibility..... | Per MIL-STD-461, Class A3     |