

Auxiliary Power Unit 5kW – Liquid Cooled



KEY FEATURES:

- 5kW @ 28VDC
- Compact & Light Weight
- Liquid Cooled Engine & PM Generator
- Low Fuel Consumption
- Low Noise



Control Panel

GENERAL PRODUCT DESCRIPTION:

Our latest 5kW liquid-cooled APU has been developed to meet the growing needs of DC powers for military vehicles operating in idle modes. The unit is designed to meet the MIL-STD-810F requirements for wheeled and tracked armored vehicles. The APU has a capability to charge Li-IoN batteries with ON/OFF condition for extended silent watch mode.

The power pack can be placed under armor or integrated in an enclosure for external mounting applications. For low noise and/or

under water applications the engine/generator can be placed in a sealed enclosure. The radiator can be located remotely, or shared from the main engine's radiator.

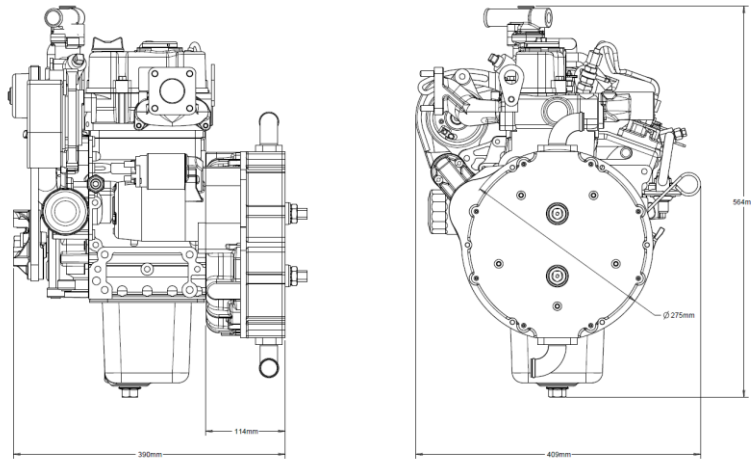
Due to the APU's compact size, it can easily be integrated in the existing vehicles' space claims. The power pack consists of a 5kW liquid cooled PM alternator designed by MLS. The alternator is integrated to a 2-Cylinder liquid-cooled diesel engine.

The alternator's voltage is regulated by varying the engine's

speed. The rotor is integrated into the engine flywheel, with no needs for bearings. The direct drive alternator is completely sealed and uses the engine's coolant for cooling.

The APU includes a remote Digital Control panel with LCD display and CANbus capability which is used to control the APU and display variety of system related data, power output, and fault details. The system comprises of several protections such as reverse polarity, over voltage, current and over speed.

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Overall APU Specifications:

Exterior Dimensions (L x W x H)	409 x 390 x 564 mm
Gross Weight	78 kg~
Electrical Output	5 kW @ 28 VDC
Current Flow.....	180 Amp @ 3200 rpm
Engine Type	Kubota Super Mini Z482
Engine Cooling Type	2-cylinder Liquid Cooled
Engine Displacement	0.479 [L]
Engine Mechanical Power.....	9.9kW @ 3600 rpm
Fuel Type (Diesel)	JP8, DF-1, DF-2, DF-A (NATO fuels: F-34, F-35,F-44)
Fuel Consumption.....	1.96 Liter/Hour (at max power)

Generator System:

Alternator Type.....	MLS 506 Liquid Cooled PMG
Alternator Speed.....	2400 – 3200 RPM
Coupling Type	Direct Mounted on flywheel
Output Voltage (Nominal).....	28 VDC

Operating Parameters:

Temperature	-32 °C to +54 °C
Altitude.....	Sea level to 3,050 m
Sand and Dust.....	Per MIL-STD-810F
EMI.....	Per MIL-STD-461E (RE 101, RE 102, RS 101, CE 101)
Protections.....	Reverse polarity, Overcurrent, Overvoltage, Over Speed, Over Temp, Low oil pressure, Emergency kill switch.