

MECHRON



Auxiliary Power Unit (APU) For General Dynamics Stryker LAV

Mechron Power Systems

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The General Motors / General Dynamics Land Systems (GM/GDLS) Defense Group was awarded a contract to supply 2,131 light armored vehicles (LAV's) to the US Army's Brigade Combat Teams. An essential feature of the LAV's is the ability to operate in silent watch operational mode. Working closely with GM/GDLS, Mechron developed an integrated APU that met its demanding requirements.

The Mechron APU is a 28.5VDC, 135A, liquid-cooled diesel generator. Its primary function is the supply of DC power for critical systems and battery charging while the main vehicle engine is off.



The Mechron APU provides significant benefits, including:

- Reduced detectability (acoustic and infrared)
- Reduced fuel consumption
- Reduced engine repair and maintenance due to reduced operating hours and reduced low load operation

- Enhanced mission reliability through system redundancy

The Mechron APU was designed for the harsh environment of underhood operation in a combat vehicle. Among the APU's features are:

- Remote autostart operation from multiple locations
- Simple 2 switch operation
- Remote fault indication
- Controlled shutdown on fault
- Shared cooling system
- Starting and Operation from -50°C to +100°C
- Shock, Vibration, Corrosion resistance
- Operation at angles up to 45°
- MTBF>1000hrs
- Current limiting
- SAE J1939 CANBUS data / diagnostics interface
- Windows-based GUI fault diagnostics program

