



CUSTOM AUXILIARY POWER UNIT (APU)



Features:

- Ubiquitous air-cooled EPA compliant engine
 - long hours of operation
 - minimum maintenance
- Programmable vehicle interface for local and remote monitoring and control
- Programmable voltage and current management with over current limiting
- Designed for very high shock and vibration environment
- High Reliability MTBF> 1400 hrs

Dewey Electronics Corporation designs and encloses custom APUs for various uses. The pictured APU is a 3000 W, 28V DC power generator manufactured by Dewey Electronics and designed to operate in silent watch or to charge the vehicle batteries. Contact Dewey Electronics with your needs for a custom enclosed APU.

SAMPLE SUMMARY SPECIFICATION

ELECTRICAL RATINGS	
Output Voltage	28V DC
Output Power (rated)	3000W (de-rated to 2700W at 140° F)
Surge Power	3200W
ENCLOSURE SIZE AND WEIGHT (Pictured)	
Length	32"
Width	Top 23" Bottom 17.5"
Height	23.25"
Weight (small arms proof)	480 lbs, Dry
Noise @ 20 meters (2 meter high)	<63.5 dB(A)
OPERATING ENVIRONMENT	
Temperature Range Nominal	-40°F to 140°F (-40°C to 60°C)
Temperature Range Extreme Cold	-46°F (starting -40°F)
Temperature Power Derating	3%/18°F above 95°F
Altitude	Sea Level to 8000 ft.
Altitude Power Derating	3.5%/1000ft. above sea level
Inclination (max)	15°
ALTERNATOR	
Type	Brush AC Rectified to DC
Load Capacity	3.3 kW
Voltage Output	28V DC
Cooling	Forced air
Drive Type	Direct Coupling
Duty Classification	Continuous

The Dewey Electronics Corporation
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ENGINE	
Manufacturer	Yanmar
Model	L 70 V
Engine Type	Air-cooled, 4 Cycle, Vertical Cylinder
Number of Cylinders	1
Starting System	24 Volt Electric
Decompression System	Manual Type with Auto-return Lever
Charging System	24 Volt Electric
Electric Stop Device	Fuel Stop Solenoid
FUEL SYSTEM	
Type of Fuel	DL-2, JP-5, or JP-8
Fuel Consumption Rate	0.337 gal/hr. @ 100% load
Fuel Pump	24 Volt Electric
Max. Distance for Fuel Lines (Fuel Source to Fuel Pump)	72 inches
ELECTRICAL CHARACTERISTICS	
Voltage Connections	28V DC, 2 Wire
Voltage Set Point	28.0 V DC
PROTECTIVE DEVICES	
Low Oil Pressure Switch	Less than 15 psi/engine shutdown
Fuel Solenoid Switch	Fault engine shutdown
INSTRUMENTATION & INDICATORS	
Hour Meter	Electro-mechanical
Circuit Breaker	Over voltage/Short Circuit
Fault Indicators	User Specified

Dewey designs its enclosures to meet the most stringent of military requirements. Our mechanical engineering department utilizes PRO-E solid modeling to provide our customers with a design that can be integrated onto the vehicle before the unit is assembled. Our electrical engineers provide the electrical interface with your controls and monitoring system to provide a seamless integration with the vehicle power system.

Our generator controls are designed to provide the proper interface with your vehicle's command and control system. We can provide the digital interface to your data bus or integrate with an analog panel.

Contact Dewey with your APU requirements and enclosure needs. We can provide a solution that can be trailer mounted, vehicle mounted, or integrated directly into an onboard compartment on your vehicle. Our APU's are designed to efficiently charge batteries. Using our current limiting battery charging designs we are capable of rapidly charging battery systems with smaller powered APU's that save space, weight, and use less fuel than traditionally designed APU's.

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