

Model **6kW NIGHTSHIFT**



FEATURES

- Prototype & Production Tested Design
- Designed for operating conditions from -40°F to 120°F
- Simple access for maintenance and operations
- Weatherproof enclosure
- Safety guards for all electrical connections and moving parts
- Lockable latches standard with key
- Engineered vibration dampening system
- Single point lifting bail system
- Internal exhaust silencer system
- All parts powder coated or galvanized
- Display of all critical operating measures
- Heavy duty towable design
- Fully programmable controller
- Telematic ready

Battery System

- Proven LiFePO4 lithium ion battery technology with field proven temperature control system
- Advanced battery management system
- High efficiency alternator and rectifier with low ripple

Engine

- Heavy duty Doosan D10 engine
- Robust design with modern controls
- Tier 4 Final emissions compliance
- Mechanical fan system
- Complete with engine fluids, ready for operation

Controls

- Standard controls are easy to understand and use
- Control wiring laser labelled and optimized for maximum reliability

UNIT SPECIFICATIONS

Tower Details	23 Feet, Manual Winch Cable Design
Outriggers	2 Outrigger design with adjustable distances
Energy Storage Capacity	6 kW / 230 AH, 26v Nominal
Solar Panel Rating	120 Watts
Wind Rating	70 MPH, 112 KPH
Axle Type	Torsion Flex Type
Transport Compliance	US DOT and Transport Canada
Coating Type	Galvanized, Powder Coated Panels, or Zinc Plated
Fuel Tank Capacity	52 Gallons, 196 litres
Run Time based on 12 hour nights	60 days

ENERGY STORAGE

Battery Compliance	UL
Internal Resistance	0.3mΩ
Fast Charge Time	~1 Hour
Charging Temperature	0~55°C
Discharging Temperature	-36~65°C
Cycle Life	≥4000 cycles
Temperature Monitoring System	Multi Point Sensing
Pack Temp Control System	Heating and Cooling
Cell Balancing	Passive Type

Model Options Available

- Electric block heater
- Arctic package
- Customer colors and decal installation
- 2" Ball or Pintle Ring

Engine

Manufacturer	Doosan
Model	D10
Stroke	4
Fuel	Diesel fuel oil
Emissions Compliance	Tier 4 Final
Number and disposition of cylinders	3 Cylinder, Inline
Total Displacement	1.007 Litre, 1,000 CC
Air Intake	Naturally Aspirated
Starting System	12V Dedicated
Speed / Speed Governor	2200 RPM, Electronic Governor
Lube Oil Capacity	3.8 L (4.01 US. qt)
Oil Type <small>(Note: Changes based ambient temp - see manual)</small>	15W-40 Heavy Duty Diesel Engine Oil
Engine Cooling Fan System	Mechanical
Coolant Capacity	5 litres

ALTERNATOR

Type	Permanent magnet synchronous generator
1C Operating RPM	2450 RPM
Voltage Regulation	PID Type Control
Voltage Regulation	RPM Based
1C Charge Rate	230 Amp
Standby 150/40 ° C Rating	NA
Harmonic Distortion	<5%
Alternator IP Protection / Insulation	IP23

APPLICATION DATA

Tower CONTROL PANEL

Model	Enovation Controls
Function	Auto Control Module
Country of Origin	USA

- Backlighting: LED, 900-1000 cd/m2 (30,000 hr lifetime)
- User configurable with PIN protection
- IP rating: IP67, front and back
- RTC: Real-time clock with Li-ion battery backup
- Operating Temperature: -40° to +85°C (-40° to 185°F)
- Build Standards: SAEJ1113, EN61000-6-2, EN12895, ISO 13766



PROTECTIONS

• Over charging	Battery
• Low Oil Pressure	• Over-charging
• High Engine Temperature	• Over-discharging.
• Start Fail	• State of health monitoring
• ECU Diagnostics	• State of charge monitoring
• Engine +/- Batt Volts	• Maximum charge current as a charge current limit (CCL)
• Over/Under Speed	• Maximum discharge current as a discharge current limit (DCL)
• Tamper Proof Hour Meter	• Temperature monitoring

ENGINE:

- Cast iron block, one piece forged crankshaft
- Pusher type fan with radiator
- Forged connecting rods
- Proven ECM control system
- Long term proven design and longevity
- Global support network
- J1939 Standard Controls and Communication
- Cast iron cylinder heads
- High thermal efficiency
- Designed and capable of long term 24/7 operation
- Standard parts and maintenance kits for lifetime ops
- Premium fuel control system for accurate speed control
- Firing order: 1-2-3
- Displacement: 1.007 liters
- Injection timing E & U & D : 20° BTDC , E1 & U1 : 14° BTDC
- Net Engine Output Rating Standby @ 3600 RPM: 15.7 kW
- Net Engine Output Rating Prime @ 3600 RPM: 14.1 kW
- Coolant capacity (Engine Only) 1.6 liters
- Lub. Method Fully forced pressure feed type



DIMENSIONS

