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### Specifications:

Hybrid design incorporates a minimum of four (4) separate power sources: batteries, solar panels, diesel/JP-8 generator, and grid power/exterior generator.

### Battery

- Engine Starter Battery: 12 volt M-24 800 CCA
- Optional: 12/24 volt super capacitor 2000 CCA

### HYBRID System Battery

- Lithium (standard): 2, 24 volt (29.5 to 22.5 operating range) 660 amp/hr (total)
- Temperature Range: -40°C to 60°C
- UN38.3 certified for transport by plane
- AGM Lead Acid (optional): 4, 24 volt (27.5 to 23 operating range) 400 amp/hr (total)
- Lithium 6T (optional): 6, 24 volt (29.5 to 22.5 operating range) 380 amp/hr
- Nano Wet Cell: In testing – drop in place replacement

### Engine/Generator

- Caterpillar/Perkins JP8: C1.1/403-D11 19.7 hp with 10kw generator single phase 60 hz
- Optional: 10kw generator three phase 60 hz 50 hz 400 hz
- Caterpillar JP\* (optional): C2.2. 28 hp with 20kw generator three phase
- Optional: Honda Dual Fuel Gas NG/Propane
- Fuel Capacity: 35 gallons

### Electrical Panel

- 125 volt gauge
- 250 volt gauge
- 125 VAC 20 Amp GFI (NEMA 5-20R)
- 2, 125/250 30 Amp (NEMA L14-30R)
- 125 VAC 30 Amp GFI (NEMA L5-30R)
- 250 VAC 50 Amp (NEMA 6-50R)
- 250 VAC 20 Amp (NEMA L6-20R)
- USB Charger
- Main Breaker 60 Amp
- Optional: Outlets or connectors on request

### HYBRID/Battery Power

- Single phase pure sine 60 hz 3kw

- 125 VAC 15 Amp GFI (NEMA 5-15R)
- Optional: Outlets or connectors on request
- Optional: 28 volt DC GPU, conforms to 28 volt DC MIL-STD-704F
- Optional: 270 volt DC GPU, conforms to 270 volt DC MIL-STD-704F

### Solar Panels

- 525 watt 3 panels
- Optional: Additional panels up to eight (8)

### Shore Power/Auxiliary Source:

- 125 VAC 15 Amp (NEMA 5-15P) or 20 Amp

### LED Light Fixtures

- 105235 max lumen output per LED fixture (4 total) 320 W each
- Dimmable IP67 two (2) lens patterns – 60/150 degree
- Optional: Two (2) LED fixture Fixtures (rather than 4)
- Optional: Infrared and/or UV lights
- Optional: Additional four (4) LED fixtures (up to a maximum of 8)

### Frame

- Four (4) wheel site trailer
- Optional: Two (2) wheel high speed/rough terrain trailer
- Conforms to MIL-STD-209

### Mast Height:

- Maximum 18 ft
- Optional: Maximum 30 ft
- Optional: Maximum 12 ft

### Dimensions:

- L 99" x W 42" x H 83"

### Additional Specifications:

- Top of mast 120 volt pure SINE accessory power to quick attach video surveillance, a lightning prevention, additional lighting, traffic control equipment, gunshot detection, or other 120 volt accessories.
- Perform safely in sustained winds of up to 45 m/h
- Each LED fixture is connected to the end of the mast by means of a quick connect system.
- Each LED fixture can be completely and quickly removed or reattached with no tools.
- LED fixtures are attached to the end of the mast on a manually adjusted rotation system that allows the LED fixtures to rotate from a traditional light tower position with all four (4) fixtures facing forward to a street-light position where all LED fixtures are facing down. In the street-light position lighting meets all IES anti-glare standards for Federal DOT and FAA airport lighting

- LED fixtures can be removed from the mast and placed up to 250 ft from the unit with use of a quick attach extension cable
- Lights can run over 250 hours at full intensity and over 500 hours at low intensity with no operator input or supervision while the lights turn on/off by way of timer or photocell.
- Hybrid system has a fail-safe operation where switching between power sources is automatic and requires no operator input or adjustment
- Solar panels are folded in and protected from exposure during transport and folded out for operation. The angle towards the sky for the solar panels are adjustable
- Electronic engine controller that allows to select between on, off, auto mode, or maintainer mode
- Under auto (automatic) control the engine reads primary battery voltage (not the starter battery). If the voltage drops below a specified voltage (adjustable and predetermined by the operator) the engine will start automatically.
- When the engine is operating; power is supplied to run lights, supply auxiliary 120/240 volt power, and recharge the primary batteries
- An external standard 120/240 volt electrical plug will simultaneously power the LED fixtures, supply auxiliary 120/240 volt power, and recharge the primary batteries
- Lights can be controlled on/off manually or through a seven (7) day programmable timer
- Lights can be controlled on/off manually or through a photocell that detects ambient light