

## Solar Array Package

### Medium Intensity LED Red Obstruction Light

### FAA Type A-1

The proposed solar array system is complete with all the necessary equipment for the installation, including all of the hardware and wiring - the exception being the pole.

#### Solar Array System Summary

System Voltage	Solar Array Watts	Load Amp Hours each Day	Array to Load Ratio (minimum)	Battery Storage Capacity (Amp Hours)	Days of Storage
24 VDC	1080 W	69.2 AH	1.35	265 AH	3.06

#### Solar Array System Components:

##### 135 Watt Solar Panel

(8) Each KD135SX (UL 1703, CL I, Div II) module which has a peak output of 8.37 Amps at 22.1 Volts under Standard Test Conditions of 1000W/cm<sup>2</sup> Irradiance; 25°C; and Air Mass 1.5. The module shall have a glass front glass surface and include an integral aluminum frame and a weather resistant junction box. The module will have a 20 year limited warranty.

##### Battery

(2) Each sealed valve regulated lead acid (VRLA) battery, MK Deka 8G4D GEL battery 265AH @ 100 hour rate 12 Volt to provide energy during periods of cloudy weather. The battery will be filled with electrolyte suspended in a thixotropic gel, which allows the battery to be placed upright, or on its side. Battery will provide minimum of 3 days of load back up.

##### Mounting Structure

(2) Each side of pole mounting structure for 4 KD135SX-UPU modules.

##### System Enclosure

(1) Pre-assembled Aluminum White Powder Coated, 40"D X 27"W X 13"H with stainless steel hardware; padlock latch;

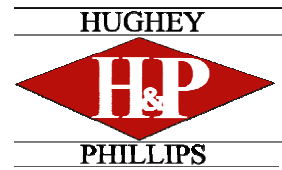
##### Charge Controller

(2) Each MorningStar TriStar TS-45 24Vdc 45 amp; DIN Rail Mounted; UL CI I, Div II. The unit shall be a system controller with the capacity to control the charging of the system batteries based on voltage and temperature. The controller will feature low voltage disconnect to protect the batteries from over discharge. The charging algorithm will be a solid state type that features temperature compensation charging. On board short circuit protection shall be standard. There will be 2 system controllers used.

##### Inverter

(1) Each 300W inverter to inverter 24VDC to 120VAC.

# HUGHEY & PHILLIPS, LLC.



## **System Cables**

System wiring will also be provided to complete the system installation. All cables necessary to interconnect the solar module, solar module to the system controller, controller to battery and controller to the load are to be included with the system. All cables will have sunlight resistant jackets to protect them from the weather and the environment.

## **FAA Lighting Equipment**

- |                 |   |
|-----------------|---|
| (1) L864LED-001 | FAA Type L-864 Medium Intensity Red LED Fixture, 120VAC |
| (2) SVL1108     | FAA Type L-810 Low Intensity Red LED Fixtures, 120VAC   |
| (1) S800PC120   | FAA Photocontroller, 120VAC                             |
| (1) 96900010    | Installation Kit for cabled lighting system             |

Customer will provide total length required for installation cable, WC23012CL0T-xxx.

## **Delivery**

3-5 Weeks ARO (Depending on quantity ordered)