

Technical Specifications

GENERAL

Operating voltage is 24Vdc.

Power consumption is 35W to 135W.

LED power greater than 135W by special order.

Typically a minimum of 3 days autonomy is standard but can be increased as required.

Intelligent battery management software to prevent over-charging and over-discharging.

Insolation allowance for several successive cloudy or alternating overcast days to not affect illumination time.

LUMINAIRE

Supplied with a pair of LED luminaires.

Low profile design with minimal wind resistance.

Each LED luminaire is fitted with one or more LED modules

Each LED module contains 14 LED's.

Each module has a vented design to increase thermal dissipation.

Can be supplied with a Type I, II, III, IV or V lighting distribution pattern.

Choice of LED color temperature. White is standard.

Yellow is approx. 3800 to 4100k. Warm white is approx. 5,000 to 5,650k. White is approx. 5,650 to 6,300k. Lumen tolerance +/- 5%.

A "Turtle Friendly" version is available by special order with a color temperature of 2800k or less, to meet FWC requirements.

Each luminaire can be supplied with any LED power from 35W to 135W and any lumen output from 3,570lm to 14,280lm.

Each 35 Watt lamp unit provides 6,475 Lumens (with white LEDs).

Each 65 Watt lamp unit provides 12,025 Lumens (with white LEDs).

LED life is typically up to 100,000 hours or equal to about 22 years.

Painted aluminum construction with TIR optics and stainless steel hardware.

IP66 weather rated.

Full cut-off light feature as specified by IESNA or IES standards and Dark Sky Compliant.

CRI is >75.

The LEDs are powered by a MeanWell driver, with integrated PWM Dimming control and multi-driver redundancy.

Each 35W luminaire is approx. 17" x 12.5" x 5.5" (43cm x 31cm x 13cm) L x W x D and weighs approx. 11.5 lbs (5.3 kgs).

Each 65W luminaire is approx. 20" x 12.5" x 5.5" (50cm x 31cm x 13cm) L x W x D and weighs approx. 13.5 lbs (6.1 kgs).

Each 100W luminaire is approx. 22.5" x 12.5" x 5.5" (58cm x 31cm x 13cm) L x W x D and weighs approx. 16 lbs (7.3 kgs).

Each 135W luminaire is approx. 25.5" x 12.5" x 5.5" (65cm x 31cm x 13cm) L x W x D and weighs approx. 18 lbs (8.2 kgs).

Tenon internal diameter is approx. 2.4" (6cm).

Unique adjustable tenon allows horizontal adjustments from 0° to 15° and vertical adjustments from 0° to 15°.

Certifications, listings and approvals: UL, CE, FCC, RoHS, CB, TUV, CCC, CQC, cULus, ETL, DLC, cETLus, Designlights Consortium, LM79, LM80.

IES files are available upon request.

Silver/gray colored anti-static powder coated finish. Black and custom colors by special order only.













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BATTERY

As a 24Vdc system a pair of 12V sealed lead acid, AGM or GEL type rechargeable batteries are included.

Each battery type is a deep cycle grade designed specifically for solar applications.

The Deka branded batteries are made in the USA by East Penn.

The appropriate battery capacity is determined by the luminaire LED power and the illumination time required.

The 55A-Hr AGM battery dimensions are approx. 10" x 5.5" x 10" (24cm x 14cm x 25cm) L x W x D and weighs approx. 39 lbs (17.5 kgs).

The 79A-Hr AGM battery dimensions are approx. 11" x 7" x 10" (28cm x 17cm x 25cm) L x W x D and weighs approx. 53 lbs (24 kgs).

The 92A-Hr AGM battery dimensions are approx. 13" x 6.5" x 9.5" (33cm x 17cm x 24cm) L x W x D and weighs approx. 63 lbs (28.5 kgs).

The 105A-Hr AGM battery dimensions are approx. 13" x 7" x 10" (33cm x 17cm x 25cm) L x W x D and weighs approx. 69 lbs (31 kgs).

The 198A-Hr AGM battery dimensions are approx. 21" x 9" x 10" (53cm x 22cm x 25cm) L x W x D and weighs approx. 129 lbs (65 kgs).

The 245A-Hr AGM battery dimensions are approx. 21" x 11" x 10" (53cm x 28cm x 25cm) L x W x D and weighs approx. 158 lbs (72 kgs).

Certifications, listings and approvals: Exceeds IEEE 485 standard, ISO9001, ISO9000, ISO14001

SUPPORT ARM

A pair of galvanized, tubular steel support arms are supplied to enable each LED luminaire to attach to the side of the pole.

A choice of support arm length is available from 12" to 72" (30cm to 183cm).

Gray painted finish. Custom colors by special order.

POLE

A tapered, galvanized steel pole is included.

Any height pole from 15' to 33' (4.5M to 10M) is available with standard sizes being 15', 20', and 26' (4.5M, 6M and 10M).

Other heights and materials are available (concrete or fiberglass) by special order.

The pole is fitted with a square base approx. 12.5" x 12.5" (32cm x 32cm) with 4 pre-drilled holes for the anchor bolts.

A set of 4 J-Bolt anchor bolts are included and 2 steel templates.

The pole is a tapered design, for example the 20' (6M) pole is 3" (76mm) OD at the top and 6" (152mm) at the base.

Requires a suitable concrete foundation to facilitate the pole.

Gray painted finish. Custom colors by special order.

BATTERY ENCLOSURE

A galvanized steel lockable battery enclosure is supplied to accommodate the batteries, charge controller and any other specified components.

The size and style of the battery enclosure is determined by the size and specifications of the system.

Smaller enclosures will mount up on the pole, larger enclosures must be installed at the base of the pole (e.g. typically systems requiring batteries of 92A-Hr or greater).

For pole mounting, the battery enclosure includes mounting plates with slots for U-bolts or Stainless Steel Banding.

For base mounting, the enclosure has pre-drilled holes to enable it to be secured to a concrete or cement pad.

Padlock is not included.

Gray painted finish. Custom colors by special order.

SOLAR PANEL

One or more solar panels are included with this system.













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The quantity and wattage of the solar panel that is supplied will be determined by the geographic location of the site, the luminaire LED power and the illumination time required.

The solar panel may be supplied as a single unit or multiple units (usually a pair).

The solar panel may be polycrystalline or monocrystalline type and fitted with an aluminum frame.

The dimensions of the solar panel depends upon the Wattage.

Hardware is included to enable the solar panel to attach to the top of the pole and may include parts such a T-bar, support arm, support frame, tenon, etc.

Certifications, listings and approvals: CE, ISO9001. UL, ETL, TUV and other approvals are available by special order.

CONTROL MODULE/CHARGE CONTROLLER

An advanced, highly efficient MPPT charge controller is included.

The MPPT charge controller automatically controls the solar panel power, battery charging, and lighting function and operation.

Featuring ultra fast Maximum Power Point Tracking (MPPT).

The MPPT charge controller is typically 30% more efficient than standard PWM controllers and 10% more efficient than most other MPPT controllers.

The MPPT controller is sized to the system specifications with 10A, 15A, 20A, 30A, 40A and 50A versions available.

This MPPT charge controller is programmed by Solar Illuminations as per your requirements and system capabilities.

A smart version of this controller or a Bluetooth dongle are both available as an optional extra. This enables smart phone connectivity and monitoring as well as access to programming, data history and logs, etc.

Pre-programmed software for load output, dusk to dawn lighting, single timed lighting, dual timed lighting, dimming option and the ability of interfacing with motion detection, where required.

Lighting control features include illumination from dusk to dawn (where applicable), or on at dusk for X amount of hours then off, or on at dusk for X amount of hours, then off, then back on again for X amount of hours before dawn.

Dimming option (where applicable) allows the LED luminaire to dim at any percentage (1 to 99%) and for any duration during illumination time.

The dimming option or any other illumination mode can be used in conjunction with motion activation (where applicable).

Supports real time data monitoring and 30 day memory (iPhone, Andriod, Mac or PC) with optional interface and/or Bluetooth dongle (available as an optional extra).

Featuring a multi stage adaptive charge algorithm and automatic temperature compensation.

Protection feature includes battery reverse polarity (fuse), output short circuit and over temperature.

Operating temperature is -22°F (-30°C) to 140°F (+60°C). Humidity up to 95%, non condensing.

IP22 weather rated (connection terminal area).

Weight is approx. 1.1 lbs (500g).

Dimensions are approx. 4" x 4" x 1.5" (10cm x 10cm x 4cm) L x W x D.

Certifications, listings and approvals: UL, TUV, ISO9001.

HARDWARE AND CONNECTIONS

Standard hardware and connections are supplied.

Wiring is included for the LED luminaire, solar panel and batteries, etc.

Additional wiring may be included where optional components have been supplied e.g. motion sensors, manual on/off switches, etc.













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INSTALLATION

An installation manual is included.

REMARKS

Subject to warranty registration, a limited 20 year solar panel warranty applies and a limited 5 year warranty on all other components (excluding batteries). Battery warranty (if applicable) is with the battery manufacturer.* Warranty registration is required (after purchase), otherwise a standard 30 day limited warranty will apply. After making your purchase, go to www.solarilluminations.com/registration to register your warranty. Additionally, unlimited, lifetime technical support is available for all warranty registrations.

PLEASE NOTE

This product is a special order and is non-returnable except in the event of a fault (during its warranty period) when the product, once returned will be repaired or replaced.

The solar panel must be installed in a location where it can receive full direct sunshine (when available) and usually set facing South at an appropriate angle (where adjustment options allow). The solar panel must not be installed in a shaded or part shaded location and never indoors. The standard specifications of the system (particularly the solar panel Wattage and battery capacity) may need to be adjusted. These components are determined by your geographic location, power consumption (LED Wattage) and the total amount of hours of illumination time required. Such changes to the standard specifications may increase or decrease the cost shown. Please contact us for more information or assistance. The illumination time is estimated and subject to various factors including (but not limited to) geographic location, seasons, temperature, weather conditions & location of product etc. The illumination time of most solar lights can reduce during winter months when the weather is poor and the days are shorter. During this time insolation hours decrease accordingly. Shorter illumination time due to one or more of the above factors does not define the product as being 'defective' or 'not as described'. All solar lights must be used in a completely dark location at night time otherwise they may not illuminate. Nearby strong lighting sources or ambient lighting may affect the operation of a solar light. This does not define the product as being 'defective' or 'not as described'. Please note, if you do not install or use this product for several months the battery may discharge naturally on its own. By allowing a battery to deep discharge it may cause irreversible damage as the battery may then lose the ability to recharge or hold a full charge. Although unlikely, we reserve the right to supply this product with any minor alterations or minor changes to the specifications (shown above by text description or by photographs) due to different supplies or product batches received, incorporating such product changes made by the

The product specifications above should be used as a general guide. We can offer modifications and changes to the specifications of this product if necessary. This may be required to meet your specific needs and/or due to the geographic location of the installation site. In locations where insolation levels are poor or lower than normal, a higher wattage solar panel and larger capacity batteries may be required. We offer product customization. MPPT, dual timer and dimming charge controllers are all available as optional extras. One or more motion sensors can also be added as an optional extra. Other options included UL listed or ETL certified components and the provision of Buy American Act (BAA & ARRA) compliance, if required. Photometric data, 3D renderings and planning of your lighting project is available. Please contact our sales department for more information before making your purchase.

* View our Terms, Conditions and Polices (including our Returns Policy) for further information.









