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SPLT-.6K-LM30-6XWP60-700AL-ISTG-WG-AT-TLR10-M2

Solar Light Tower - 30' Light Tower - 10' Trailer - (6) LED Lights, 8 kW Tri-fuel Generator - Wind Generator

Product ID: 285132

Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.

SPLT-.6K-LM30-6XWP60-700AL-ISTG-WG-AT-TLR10-M2 Trailer Mounted Solar LED Mast

Fold Over Mast Specs

Tower Length: 8.75` to 30`
Stages: 5
Mast Head Length: 44"
Materials: Steel
Finish: Powder Coated - Gloss Blue
Operation: (2) 3,500 lbs Manual Winches, Electric Optional
Mast Cable: 3/16" Galvanized Aircraft Cable
Cable Sheath: Sealtight Coiled Tubing

Solar Specs

Panels: (2) 300 Watt panels
Method of Deployment: Fixed Mount, Sliders
System Voltage: 12 Volts
Solar Charge Controller: -
Battery Bank: (4) 176 aH LFP
Battery Capacity: 704 aH Total / 704 aH Usable
Battery Charger: 120V AC
Inverter: -

Backup Generator Specs

Dimensions: 27.6" x 28.2" x 26"
Weight: 207 lbs

Quick Summary

8.75` to 30` Solar Tower
Steel Construction
Powder Coated Finish
Removable Mast Head
125 mph Wind Resistance
Manual or Optional Electric Operation
(2) 300 Watt Solar Panels
Fully Solar, No Fuel Needed
(6) LED Lights
Wind Generator
Tri-fuel Generator
Made in USA
Buy American Compliant
BAA Compliant

Engine: 459CC

Fuel Type: Gasoline, Propane (LNG) or Natural Gas (LNG)

Gasoline Rated Power: 10,000W - Starting, 8,000W - Running

Propane Rated Power: 9,000W - Starting, 7,200W - Running

Natural Gas Rated Power: 8,750W - Starting, 7,000W - Running

Fuel Tank: N/A - Mounting Provisions for 20 lbs LPG/LNG Tank

Starting System: Recoil & Electric
Auto Start/Auto Shut Off: Auto Start When Battery Bank and Sunlight are Low; Auto Shut Off When Batteries are Charged
Battery Charger Connection: To Backup Generator (Default)

LED Lamp Specs
Lamp Type: CREE LED
Lamp Qty: (6)
Total Watts: 360W
Single-lamp Watts: 60W

Total Lumens: 32,400 lms

Single-lamp Lumens: 5,400 lms

Luminous Efficacy: 90 lm/w

LED Life Expectancy: 50,000+ hours

Color Temp: 5600K

Color Rendering Index: 80

Beam Angle: 60° Vertical, 75° Horizontal

Lighting Configuration: Flood Beam
Glare Shield: Included
Lighting Coverage: 3000 sq. ft. Area
Sensor Type: Motion Sensor
Operating Modes: Timer, Motion Sensor, Manual On
Ambient Temp Range: -25°C to +60°
Lamp Housing Material: Cast Aluminum
Lamp Lens Material: Polycarbonate

Wind Generator Specs

Dimensions: 9.44" x 25.59" x 5.7"

Rotor Diameter: 44.1"

Voltage: 12V

Watts: 400W

Amps: 27A

Blades: 3

Minimum Wind Speed: 7 mph

Maximum Wind Speed: 45 mph

Protection: Overspeed, Overcharge

Materials: Cast Aluminum, Carbon Fiber Composite

Trailer Specs
Materials: Steel

Trailer Dimensions: 10`L x 6`W (Trailer Bed) - 14`L (Tow Length)
Trailer Footprint: 14.65`L x 12.91`W
Wiring: 7-Pin Flat
Axle: 3,500lb

Suspension: 3,500 Lb 4-Leaf Double Eye Springs

Leveling Jacks: (4) 1,000 Manual Crank Leveling Jacks

Lights: LED Stop/Turn/Tail Lights

Wheels: (2) 15" 5x4.5 Steel Rims

Tires: ST205/75/D15 H188

Hitch: 2" Ball Coupler
Weight: +-1200 lbs

Special Orders - Special Requirements
Contact us for special requirements

Shipping: Common Freight
Shipping Dimensions: 14`L x 10`W x 12`H
Shipping Weight: +-600 lbs
Options: Length- Mounting-Fixtures/ Call Us for Special Requirements

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Made in the USA

The Larson Electronics SPLT-.6K-LM30-6XWP60-700AL-ISTG-WG-AT-TLR10-M2 Portable Solar LED Light Tower provides a safe and effective way for operators to illuminate locations from elevated positions between 8.75` to 30`. This solar assembly features a fold over, telescoping tower with a rotating boom that allows 360° rotation and a removable mast head for storage when not in use. Six LED lights provide illumination for a 3,000 square-foot area. This unit features two 300-watt solar panels, a 704 aH capacity LFP battery bank and a 120V battery charger for powering the batteries when sunlight is unavailable, as well as an 8 kW tri-fuel backup generator.

PLEASE NOTE: ANY FREE SHIPPING OFFERS DO NOT APPLY TO LIGHT MASTS OR LIGHT TOWERS

The SPLT-.6K-LM30-6XWP60-700AL-ISTG-WG-AT-TLR10-M2 is a complete, portable solar-powered lighting system for outdoor and remote locations. This unit consists of an 8.75`-30` mast, two 300-watt solar panels, LFP battery bank, tri-fuel generator, battery charger, six LED lights and a wind generator. All components are mounted on a single-axle trailer.

Operation:

- (2) 300W solar panels
- (4) 176 aH lithium-iron phosphate batteries - 704 aH total battery bank/704 aH usable
- 8 kW tri-fuel w/ auto start and auto shut off
- 120V battery charger
- (6) LED lights
- 400W wind generator
- All system components secured to a DOT-approved trailer
- Trailer comes with (4) leveling jacks and vin#

LED Light Fixtures: This solar light plant is equipped with six 60-watt wall pack lights from Larson Electronics. Each light assembly consists of six LEDs paired with high purity specular optics to produce a wide light distribution overpowering that of a 500 watt quartz flood lights. This light is constructed of three angled boards that helps provide a wider spread. Instead of the light only shining forward, the center board is concentrated to go straight out while the boards on the side are 45° offset. This LED wall pack is designed to withstand demanding conditions and is waterproof, vapor proof, and built to resist the damaging effects of an outdoor environment.

The lights consists of six LEDs housed within a waterproof aluminum housing that is powder coated for added durability and resistance to corrosion. The housing incorporates integral cooling fins for efficient heat dissipation and increased LED longevity. The LED lamp assembly is protected by a shatterproof polycarbonate lens which is secured to the housing with a waterproof seal. A 1/2" waterproof connector provides a secure and sealed power connection point and rounds out this unit`s weather resistant construction. An optional glare shield for dark sky compliance it shipped with this light, which can be removed on the field.

LED Technology: Unlike gas burning and arc type lamps that have glass bulbs, LEDs have no filaments or fragile housings to break during operation. Instead of heating a small filament or using a combination of gases to produce light, light emitting diodes (LEDs) use semi-conductive materials that illuminate when electric current applied and emitting light. With LED lights, there is no warm up time or

cool down time before re-striking and provide instant illumination when powered on, adding to the reliability of LED technology. By nature, LED light sources run significantly cooler than traditional lamps, reducing the chance of accidental burns and increased temperatures due to heat emissions. This solid state design of light emitting diodes provides a more reliable, stable, durable, and energy efficient light source over traditional lighting.

Lamp Control: Each lamp can be powered on individually, allowing operators to power one lamp or all four lamps at a single time to fit the required illumination requirements. An equipped dusk-to-dawn day/night sensor allows for automated operation of the light configuration set within the control center. Operators may also set a time/duration for light activation using the built-in auto timer feature.

Click Photo to Enlarge

Solar Tower: This fold over, telescoping five stage steel light mast from Larson Electronics' is designed to allow operators to quickly and safely deploy equipment in locations where this equipment must be elevated to heights up to 30` for effective coverage. This light boom can be extended to 30` for maximum area coverage and collapsed to 8.75` for applications where a smaller footprint is required. The tower is constructed of square steel tubing with a base section 6.6` in length and 6" by 6" by 3/16" thick, lower section 6.78` in length and 5" by 5" by 3/16" thick, middle section 6.93` in length and 4" by 4" by 1/8" thick, upper section 7.08` in length and 3" by 3" by 1/8" thick, and top section 7.58` in length and 2" by 2" by 1/8" thick. Each section has a 1` overlap. The mast is elevated using an included 3,000 lbs hand winch with 3/16" galvanized steel cable and extended to its full height using a second 3,000 lbs hand winch.

A 44" wide and 2" by 2" by 1/4" thick mounting plate is attached to the upper section of the mast which provides a strong and stable platform for equipment. A half-moon shaped mounting plate on the top of the mast head provides a secure mounting platform for the NEMA 3R 12" x 12" x 6" junction box, where operators can mount cameras, indicator lights, and route electrical cabling. When elevated to its full upright position, the mast can be rotated a full 360°. By loosening the T-Handle, operators can rotate the mast with easy in either direction. The mast can be positioned in one of four different positions, and locked back in place by re-tightening the T-handle. The mast itself spins freely with easy, and can typically be rotated with a single hand. The LM series of towers are powder coated with glossy blue finish for corrosion resistances and aesthetics.

The LM family of telescoping towers feature a proprietary mast guidance system, which provide increased stability during high winds. Four 1,000 lbs hand crank leveling jacks are used for leveling. The jacks can be leveled by hand crank or attachment provided for power drills. These components can be extended 2` out from the side of the trailer for added stability. When lowered to 8.75`, the mast can withstand winds up to 125 mph. Custom builds can be provided for higher wind speed resistance when fully raised.

Click Photo to Enlarge

Solar Panel Assembly: This unit is comprised of two 300-watt solar panels,

generating a total maximum output of 0.6 KW. The panels are mounted to a stationary assembly with sliders. Solar panels on sliders allow the mast to fold over. The panels are on right side of trailer, with the mast on left side. When the mast is elevated to the vertical orientation, the second solar panel slides out to the left for deployment.
The panels are wired to the solar charger control box which manages the charging system. The two solar panels are mounted to a frame angled at 45° to capture the intensity of the sun for optimized light intake.
Batteries: This unit contains a battery bank that consists of four, 176 aH lithium-iron phosphate batteries for a 704 aH battery bank (704 aH usable). Compared to conventional SLA batteries, these units are 100% usable and lighter in weight. Over time, this results in lower operating and maintenance costs. An included battery level indicator that provides real-time power monitoring for the battery bank.
Battery Charger: A 120V battery charger can be used for powering the batteries when sunlight is unavailable. This component is plugged into the backup generator by default. The battery charger can be unplugged for charging with local power sources.
Inverter: This unit does not come with an inverter. We can add an inverter to power additional equipment from the solar tower at an additional cost.
Backup Generator: This solar tower features an 8 kW tri-fuel generator, which runs on gasoline, propane or natural gas. Mounting provisions for a 20 lb. propane or natural gas tank is available. This genset will automatically kick on when the battery bank and sunlight levels are low. Automatic shut off occurs when the battery bank is charged to a specific level.
Wind Generator: The system contains a 400-watt wind generator, which can be used to charge the batteries in windy conditions. The compact turbine is equipped with three, carbon fiber blades and features overspeed protection. For best results, the unit should be exposed to a minimum wind speed of seven mph and a maximum wind speed of 45 mph. This weatherproof wind generator comes with a charge controller that automatically shuts down the unit, when the batteries are in a fully charged state.
Component Control Center: All the electrical components are encapsulated in a NEMA 3R job box that is bolted to the trailer. Since most of these components are not rated for high heat, our component cooling system circulates air within the job box at 1400 CFM when the ambient temperature exceeds 90 degrees Fahrenheit. The job box that contains the component control system includes locks for security purposes.
Trailer Assembly: The entire assembly is mounted to a 10` (trailer length) x 10` (trailer bed) x 14` (tow length), single axle trailer via six 1/2" anchor bolts. Trailer length refers to the measurement from the hitch to the rear bumper. The trailer bed refers to deck space that holds system components and equipment (not including tires, hitch, bumper and external trailer components). This two-wheel trailer is equipped with 3,500 lbs axle and leaf springs with 15" trailer tires. A standard 2" ball coupling, two standard safety chains, and 7-pin flat trailer plug allow for easy hookup and towing. The trailer tongue can be folded up for seamless storage. A rugged and waterproof job box is included, safely secured to the trailer. Leveling jacks on the trailer allow operators to level the trailer, and provide stabilization during deployment. All trailer lighting complies with DOT/FMVSS regulations.
Outriggers vs Leveling Jacks: The solar-powered system features manual-crank leveling jacks. Outriggers help expand the surface area for large equipment or loads. This differs from leveling jacks that are used to stabilize or level systems. Leveling jacks can be mounted to outrigger legs (or the side of the trailer).
Applications: Security, live events, law enforcement, military, commercial, industrial facilities, outdoor surveillance, remote locations and more.
At Larson Electronics, we do more than meet your lighting needs. We also provide replacement, retrofit, and upgrade parts as well as industrial grade power accessories. Our craftsmen can custom build any lighting system and/or accessories to fit the unique demands of your operation. A commitment to

honesty, quality, and dependability has made Larson Electronics a leader in the lighting and electronics business since 1973. Contact us today at 800-369-6671 or message sales@larsonelectronics.com for more information about our custom options tailored to meet your specific industry needs.

Frequently Asked Questions (FAQ)