

Solar Lighting for Parking Lot, Carport, Bus Shelters





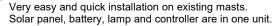


#### **LED All-In-One Solar Streetlight** 30W with Video Surveillance

Compact solar street lamp for quick, retrofitting.

With wireless surveillance camera and motion detector for lighting as required.

LT-SOL-AC3



No extra components are required.

Recommended for sunny regions, like Africa, desert countries, South America, Philipines.

High brightness corresponds to 80 watt mercury light or 50 watt sodium light. This solar light is maintenance free - only the solar panel should be cleaned

occasionally with water. Just to fix on a wall or any pole 80 - 100mm diameter.



#### **General specifications:**

Lighted area: aprx. 20 x 10m Distance from pole to pole: aprx. 18 - 24 meter

Recommended pole height: 4m - 6m Ambient temperature: -10°C ~ +65°C

Protection degree: IP65

Protection class: III SELV Low safe voltage

Energy efficiency class:

Approvals: CE, RoHS, WEEE

Guarantee: 3 years

Aluminium alloy casing grey.

1098 mm \* 227mm \* 164 mm Dimensions:

#### Lamp specifications:

LED power:

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 120 lm/w Lamp efficiacy: > 100 lm/wLuminous flux: > 2700 lm Dimming lumens: > 500 lm Central illumination: > 10 Lux (6m) Average illumination: > 6 Lux (6m) 50000 hours LED life time:

#### Camera:

Resolution: 1.100.000 Pixel Transfer: WiFi 32G TF Card Memory:

The 24h recording can be read out with a smart phone.

#### **Motion sensor:**

Day-Night sensor PIR motion sensor

120° wide Lighting angle: Detecting distance: 7-10m

#### System controler specifications:

Microprocessor charge controler.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. Temperature feeded battery charging for extended battery life.

Overcharge and deep-discharge protection for the battery.

#### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass encapsulated)

Efficiency: aprx. 17% Power:

#### **Battery specifications:**

Battery type: Lithium Iron Phosphate, LiFePo4 battery

Capacity: 144.3WH

Internet:

maintenance-free, longlife. For solar cycling charge operation



Lifetime about 8 Years / 20°C

Autarkic backup for 2 nights at fully charged batteries. At absolutely no

sunshine.

Complete unit: Just to fix on any pole 80 - 100mm diameter.or wall-

mount

Weight: 9,8 kg



#### Solar lighting for garden shed, stable, weekend house



Solar Floodlight Pole LED with push button 10W



Switchable solar area light fixture, bright LED and 4m post for sports place, barbecue place, maintenance applications. Made in Germany. LT-SOL-AF1

Robust photovoltaic area lighting with LED lamp - no power supply required. High brightness - comparable to 100 watt halogen light.

With a switch - the lighting is switched on as needed.

The shutdown takes place automatically after 1 or 2 hours with an adjustable

So turning off will not be forgotten and the battery will not deep discharge. The LED floodlight is rotatable and pivotable.

All functions are pre-programmed charge on the project and customer requirements from us, so that the lamp is ready for use immediately after construction.

Solar module (without extension): monocrystalline silicon 40W with very high efficiency (tempered safety glass, hail-resistant), about 25 years of life

This high-quality module technology allows charging also on cloudy days. Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant

The screws are made from stainless VA steel.

Robust LED luminaire head of diecast aluminum with high protection (water and storm protected).

The solar lamp is maintenance-free - (only the solar module should be cleaned occasionally with water).

#### Technical specifications:

Power LED 10W Chipset LED Lamp: LED lifetime: about 40,000 hours

**Energy Class:** A +++ Luminous flux: > 1100 Lm 4000K cool white Light color: Illuminated area: Ca. 8 x 5m Mast height:

4 m

Autonomous operating time in overcast weather (with fully charged battery):

a) basic version: 6 hours b) with extension kit autumn: 9 hours c) with extension kit winter: 12 hours

For adequate reliability in autumn or winter, we strongly recommend our

expansion sets.

Ambient temperature: -20 °C ~ + 50 °C (extension possible on request)

Solar battery: Lithium-Eisenphosphat LiFePo4 12V, maintenance-free, long life. Life is about 10 years / 20°C

Temperature-optimized battery-charge and trickle charge to protect the

Overvoltage and deep discharge protection for the battery.

Reverse polarity and short circuit protection. Protection lamp head: Protection Light Control: IP67

III Safety extra low voltage Protection class: CE, RoHS, WEEE Approvals:

#### Supplied flat pack with the following components:

LED lamp head with pole mounting,

High power solar battery,

Solar module with stable, screw-pole mounting,

Galvanized steel mast, height 4 meters + anch. section 600mm for

Microprocessor control lights (located conveniently accessible behind a lockable door in the mast).

Illustrated installation instructions in German or English.

All components are pre-wired and ready for fast assembly.

20 years availability guarantee for spare parts.

The ready-lamp is delivered disassembled, complete with solar panel, mast, battery and lamp.

Weight: 39 kg







Solar Floodlight Pole 4m LED with push Button 20W



Switchable solar area light fixture, bright LED and 4m post for building site, maintenance applications. Made in Germany. LT-SOL-AF2

Robust photovoltaic area lighting with LED lamp - no power supply required. High brightness - comparable to 600 watt halogen light.

With a switch - the lighting is switched on as needed.

The shutdown takes place automatically after 1 or 2 hours with an adjustable

So turning off will not be forgotten and the battery will not deep discharge. The LED floodlight is rotatable and pivotable.

All functions are pre-programmed charge on the project and customer requirements from us, so that the lamp is ready for use immediately after construction.

Solar module (without extension): monocrystalline silicon 60W with very high efficiency (tempered safety glass, hail-resistant), about 25 years of life

This high-quality module technology allows charging also on cloudy days. Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant

The screws are made from stainless VA steel.

Robust LED luminaire head of diecast aluminum with high protection (water and storm protected).

The solar lamp is maintenance-free - (only the solar module should be cleaned occasionally with water).

#### **Technical specifications:**

LED Lamp: Power LED 20W Chipset LED lifetime: about 40,000 hours

**Energy Class:** A +++ > 2200 Lm Luminous flux: Light color: 4000K cool white Illuminated area: Ca. 15 x 8m

Mast height: 4 m

Autonomous operating time in overcast weather (with fully charged battery):

a) basic version: 6 hours b) with extension kit autumn: 9 hours c) with extension kit winter: 12 hours

For adequate reliability in autumn or winter, we strongly recommend our

expansion sets.

-20 °C ~ + 50 °C (extension possible on Ambient temperature:

request) Solar battery: Lithium-Eisenphosphat LiFePo4 12V, maintenance-free, long life. Life is about 10 years / 20°C

Temperature-optimized battery-charge and trickle charge to protect the

Overvoltage and deep discharge protection for the battery.

Reverse polarity and short circuit protection. Protection lamp head: **IP66 Protection Light Control:** IP67

Protection class: III Safety extra low voltage Approvals: CE, RoHS, WEEE

#### Supplied flat pack with the following components:

LED lamp head with pole mounting,

High power solar battery,

Solar module with stable, screw-pole mounting,

Galvanized steel mast, height 5 meters + anch. section 800mm for

Microprocessor control lights (located conveniently accessible behind a lockable door in the mast).

Robust battery ground mounting box made of ABS, watertight, walkable, dimensions 550 x 550 x 480mm.

Illustrated installation instructions in German or English.

All components are pre-wired and ready for fast assembly.

20 years availability guarantee for spare parts.

The ready-lamp is delivered disassembled, complete with solar panel, mast, battery and lamp.

Weight: 132 ka



#### Solar Garden Lights



#### Solar Floodlight Pole LED on demand 20W



Switchable solar area light fixture, bright LED and 4m post for building site, maintenance applications. Made in Germany.

LT-SOL-AF2-E

Robust photovoltaic area lighting with LED lamp - no power supply required. High brightness - comparable to 600 watt halogen light.

With a switch - the lighting is switched on as needed.

The shutdown takes place automatically after 1 or 2 hours with an adjustable

So turning off will not be forgotten and the battery will not deep discharge. The LED floodlight is rotatable and pivotable.

All functions are pre-programmed charge on the project and customer requirements from us, so that the lamp is ready for use immediately after

Solar module (without extension): monocrystalline silicon 60W with very high efficiency (tempered safety glass, hail-resistant), about 25 years of life expectancy.

This high-quality module technology allows charging also on cloudy days. Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant

The screws are made from stainless VA steel.

Robust LED luminaire head of diecast aluminum with high protection (water and storm protected).

The solar lamp is maintenance-free - (only the solar module should be cleaned occasionally with water).

#### Technical specifications:

LED Lamp: Power LED 20W Chipset LED lifetime: about 40,000 hours

**Energy Class:** 

Luminous flux: > 3000 Lm 4000K cool white Light color: Illuminated area: Ca. 15 x 8m Mast height: 4 m

Autonomous operating time in overcast weather (with fully charged battery):

a) basic version: 6 hours b) with extension kit autumn: 9 hours c) with extension kit winter: 12 hours

For adequate reliability in autumn or winter, we strongly recommend our

expansion sets.

-20 °C ~ + 50 °C (extension possible on Ambient temperature:

request) Solar battery: Lithium-Eisenphosphat LiFePo4 12V,

maintenance-free, long life. Life is about 10 years / 20°C

Temperature-optimized battery-charge and trickle charge to protect the

Overvoltage and deep discharge protection for the battery.

Reverse polarity and short circuit protection. Protection lamp head:

Protection Light Control: IP67

III Safety extra low voltage Protection class: Approvals: CE, RoHS, WEEE

#### Supplied flat pack with the following components:

LED lamp head with pole mounting,

High power solar battery,

Solar module with stable, screw-pole mounting,

Galvanized steel mast, height 5 meters + anch. section 800mm for

Microprocessor control lights (located conveniently accessible behind a lockable door in the mast).

Robust battery ground mounting box made of ABS, watertight, walkable, dimensions 550 x 550 x 480mm.

Illustrated installation instructions in German or English.

All components are pre-wired and ready for fast assembly.

20 years availability guarantee for spare parts.

The ready-lamp is delivered disassembled, complete with solar panel, mast,

battery and lamp. Weight: 132 kg



#### Solar Lights for Horse Riding, Dog Training, Sports Stadium



Solar Floodlight with Pole 5m and push Button 70W



Switchable solar area light fixture, bright LED and 5m post for sports place, riding range, building site, maintenance applications. Made in Germany. I T-SOL-AF4

Robust photovoltaic area lighting with LED lamp - no power supply required. High brightness - comparable to 600 watt halogen light.

With a switch - the lighting is switched on as needed.

The shutdown takes place automatically after 1 or 2 hours with an adjustable

So turning off will not be forgotten and the battery will not deep discharge. The LED floodlight is rotatable and pivotable.

All functions are pre-programmed charge on the project and customer requirements from us, so that the lamp is ready for use immediately after

Solar module (without extension): monocrystalline silicon 120W with very high efficiency (tempered safety glass, hail-resistant), about 25 years of life expectancy.

This high-quality module technology allows charging also on cloudy days. Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant

The screws are made from stainless VA steel.

Robust LED luminaire head of diecast aluminum with high protection (water and storm protected).

The solar lamp is maintenance-free - (only the solar module should be cleaned occasionally with water).

#### Technical specifications:

Power LED 70W Chipset LED Lamp: LED lifetime: about 40,000 hours

**Energy Class:** 

Luminous flux: > 6900 Lm 4000K cool white Light color: Illuminated area: Ca. 25 x 10m

Mast height: 5 m

Autonomous operating time in overcast weather (with fully charged battery):

a) basic version 8 hours b) with extension kit autumn: 12 hours c) with extension kit winter: 16 hours

For adequate reliability in autumn or winter, we strongly recommend our

expansion sets.

Ambient temperature: -20 °C ~ + 50 °C (extension possible on

request) Solar battery:

Lead gel 12V, maintenance-free, long life. Life

is about 10 years / 20°C

Temperature-optimized battery-charge and trickle charge to protect the

batteries

Overvoltage and deep discharge protection for the battery.

Reverse polarity and short circuit protection.

Protection lamp head: Protection battery box: IP66 IP67 Protection Light Control:

Protection class: III Safety extra low voltage Approvals: CE, RoHS, WEEE

#### Supplied flat pack with the following components:

LED lamp head with pole mounting,

High power solar battery,

Solar module with stable, screw-pole mounting,

Galvanized steel mast, height 5 meters + anch. section 800mm for concreting.

Microprocessor control lights (located conveniently accessible behind a lockable door in the mast).

Robust battery ground mounting box made of ABS, watertight, walkable, dimensions 550 x 550 x 480mm.

Illustrated installation instructions in German or English. All components are pre-wired and ready for fast assembly.

20 years availability guarantee for spare parts.

The ready-lamp is delivered disassembled, complete with solar panel, mast, battery and lamp.

Weight: 132 kg







#### Solar Floodlight LED on demand 80W with pole



Switchable solar area light fixture, bright LED and 8m post for sports place, riding range, building site, maintenance applications. Made in Germany. LT-SOL-AF5

Robust photovoltaic area lighting with LED lamp - no power supply required. High brightness - comparable to 800 watt halogen light.

With a switch - the lighting is switched on as needed.

The shutdown takes place automatically after 1 or 2 hours with an adjustable

So turning off will not be forgotten and the battery will not deep discharge. The LED floodlight is rotatable and pivotable.

All functions are pre-programmed charge on the project and customer requirements from us, so that the lamp is ready for use immediately after

Solar module (without extension): monocrystalline silicon 120W with very high efficiency (tempered safety glass, hail-resistant), about 25 years of life

This high-quality module technology allows charging also on cloudy days. Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant

The screws are made from stainless VA steel.

Robust LED luminaire head of diecast aluminum with high protection (water and storm protected).

The solar lamp is maintenance-free - (only the solar module should be cleaned occasionally with water).

#### **General specifications:**

aprx. 20 x 30m Lighted area: Distance from pole to pole: aprx. 20 meters Recommended pole height: 7m - 8m Ambient temperature: -20°C ~ +55°C 85° C / 176 F degree Max. direct sunshine temperature: III SFLV Protection class: CE, RoHS, WEEE Approvals:

20 years sparepart supply ability.

#### Lamp specifications:

LED Lamp: Power SMD Chipset Philips

LED power: 80W Life time: 50000 hours

4000K neutral white (on request Light colour.

5000K cold white or 3000K warm white). No uv-radiation for reduced insects attraction LED efficiacy: > 125 lm/w Lamp efficiacy: > 100 lm/w Luminous flux: 8400 I m Central illumination: > 39 Lux (8m) Average illumination: > 23 Lux (8m)

Rigid aluminium die-cast. Seawater Casing:

and thunderstorm-proof

Protection degree: IP66 Guarantee: 5 years

Mast height: 8 m

Autonomous operating time in overcast weather (with fully charged battery):

a) basic version: 11 hours b) with extension kit autumn: 15 hours c) with extension kit winter: 18 hours

For adequate reliability in autumn or winter, we strongly recommend our

expansion sets.

-20 °C  $\sim$  + 50 °C (extension possible Ambient temperature: on request)

Solar battery: Lithium iron phosphate LiFePo4 12V, maintenance-free, long life 10 years / 20°C

Temperature-optimized battery-charge and trickle charge to protect the

Overvoltage and deep discharge protection for the battery.

Reverse polarity and short circuit protection. Protection Light Control:

#### Supplied flat pack with the following components:

LED lamp head with pole mounting,

High power solar battery,

Solar module with stable, screw-pole mounting,

Internet:



Galvanized steel mast, height 8 meters + anch. section 800mm for concreting,

Microprocessor light control (located conveniently accessible behind a lockable door in the mast).

Illustrated installation instructions in German or English.

All components are pre-wired and ready for fast assembly.
20 years availability guarantee for spare parts.
The ready-lamp is delivered disassembled, complete with solar panel, mast, battery and lamp.

Weight:







Solar Floodlight Mast 8m with push button LED 140W



Photovoltaic area light fixture switchable 2\* 70w power LED and 8m pole for sport place, riding range, building site, maintenance applications. Made in Germany. LT-SOL-AF50

Robust photovoltaic square lighting with LED lamp - no power connection required. High light intensity - the brightness is comparable to 2000 Watt halogen light.

The lighting is switched on as required with a switch. Switching off is automatic after 1 or 2 hours via an adjustable timer. This way, switching off is not forgotten and the battery is not deep-discharged. The galvanised steel mast and the entire construction are so robust that kicking is pointless. The LED floodlight can be rotated and swivelled.

All functions are pre-programmed by us free of charge according to project and customer specifications, so that the light is ready for operation immediately after assembly.

The solar light is maintenance-free - (only the solar module should be cleaned with water occasionally).

#### **Technical specifications:**

Illuminated area: Aprx. 25 x 20m

Ambient temperature: -20°C  $\sim +50$ °C (extension -35°C  $\sim +65$ °C possible

on request)
Protection class: III safety extra-low voltage
Approval marks: CE, RoHS, WEEE
20-year availability guarantee for spare parts.
Protection class luminaire control:IP67

#### **Luminaire head specification:**

2 robust LED luminaire heads made of die-cast aluminium

The LED floodlights can be rotated and swiveled.

LED lamp: SMD chipset LED power: 140W total

Energy efficiency class B

Light colour 4000K neutral white No UV radiation for reduced insect attraction

LED efficiency: > 160 lm/w
Luminaire efficiency: > 145 lm/w
Luminous flux lumen: 20800 Lm
Central illuminance: > 28 Lux

LED life approx. 100,000 hours

Protection class: IP66 (water and storm protected).

Impact resistance: IK10 Warranty 5 years

#### **Solar module (without extension):**

Monocrystalline silicon 240W with very high efficiency (hardened protective glass, hailproof), approx. 25 years life expectancy.

This high-quality module technology also guarantees charging in overcast conditions.

All brackets and fixings are hot-dip galvanised (also available with a paint finish of your choice at an extra charge).

The screws are made of VA stainless steel.

#### **Battery storage:**

Battery: lead-gel 12V

maintenance-free, longlife, for solar cycle operation Service life approx. 5 - 10 years / 20°C

Function even at low temperatures.

For sufficient operating safety in autumn or winter, we strongly recommend our extension sets.

Self-sufficient operating time in overcast weather (with fully charged battery):

a) basic version:b) with extension set autumn:9 hoursc) with extension set winter:12 hours

Temperature-optimised battery charging and trickle charging to protect the

Overvoltage and deep discharge protection for battery. Reverse polarity and short circuit protection.

#### Mast:



Material: Steel pole, hot-dip galvanised

Visible height: 8 m

Ground section: 130 cm for setting in concrete

(on request also 4m - 12m height)

For easier erection, we also offer installation sleeves into which the mast can

be inserted.

Lockable mast door, for easy access to the control unit.

#### **Battery box:**

The batteries sit in the ground for protection against temperature fluctuations (longer life).

Sturdy plastic box IP67 ( not walk-in version) with cable protection hose:

Dimensions: L 496 x W 280 x H 270mm

On request ABS box IP66 (walk-in version): Dimensions: L 550 x W 550 x H  $^{480}$ mm

480mm

# Delivery disassembled with the following components:

Galvanised steel pole,

2 x LED lamp head with pole mounting,

Solar module with stable, screwable pole mount,

Microprocessor luminaire control unit (easily accessible behind a lockable door in the pole).

Energy storage with floor installation box,

Illustrated assembly instructions in German or English. Other languages on request.

The ready-to-operate luminaire is delivered disassembled. All components are pre-wired and prepared for quick assembly.

Weight: 200 kg



Germany



## Solar riding arena lighting without electricity, with pole 6m



Photovoltaic area light fixture switchable 2\* 70w power LED and 6m mast for sport place, riding range, building site, maintenance applications. Made in Germany.

LT-SOL-AF51

All functions are pre-programmed charge on the project and customer requirements from us, so that the lamp is ready for use immediately after construction.

Solar module (without extension): Monocrystalline silicon 330W with very high efficiency (tempered safety glass, hail-resistant), about 25 years of life expectancy.

This high-quality module technology allows charging also on cloudy days. All attachments and fasteners are galvanized or provided with a scratch-resistant and UV-resistant paint in a shade of gray.

The screws are made from stainless VA steel.

Robust LED luminaire head of diecast aluminum with high protection (water and storm protected).

The solar lamp is maintenance-free - (only the solar module should be cleaned occasionally with water).

#### **Technical specifications:**

LED floodlight: SMD LED 140W Chipset

LED lifetime about 60,000 hours

Energy Class B

Luminous flux: > 15800 Lm Light color 4000K cool white Illuminated area: Ca. 25 x 20m

Mast height: 6 m

Autonomous operating time in overcast weather (with fully charged battery):

- a) basic version: 6 hours
- b) with extension kit autumn: 9 hours
- c) with extension kit winter: 12 hours

For adequate reliability in autumn or winter, we strongly recommend our expansion sets.

Ambient temperature: -20° C  $\sim$  + 50° C (extension possible on request) Solar battery: Lead gel 12V, maintenance-free, long life. Life is about 10 years / 20 ° C

Temperature-optimized battery-charge and trickle charge to protect the batteries.

Overvoltage and deep discharge protection for the battery.

Reverse polarity and short circuit protection.

Protection lamp head: IP66

Protection battery box: IP66
Protection Light Control: IP67

Protection class: III Safety extra low voltage

Approvals: CE, RoHS, WEEE

# Supplied flat pack with the following components:

LED lamp head with pole mounting,

High power solar battery,

Solar module with stable, screw-pole mounting,

Galvanized steel mast, height 6 meters + anch. section 800mm for concreting.

Microprocessor control lights (located conveniently accessible behind a lockable door in the mast).

Robust battery ground mounting box made of ABS, watertight, walkable, dimensions  $550 \times 550 \times 480 \text{mm}$ .

Illustrated assembly instructions in German or English. Other languages on request.

All components are pre-wired and ready for fast assembly.

20 years availability guarantee for spare parts.

The ready-lamp is delivered disassembled, complete with solar panel, mast, battery and lamp.

Weight: 200 kg



Solar Lighting for Parking Lot, Carport, Bus Shelters





#### Integrated LED All-In-One Solar Light 12W



Compact LED street lamp for quick and easy retrofitting. With motion detector for lighting as required. Including remote control LT-SOL-AO12

Very easy and quick installation on existing masts.

Solar panel, battery, lamp and controller are in one unit.

No extra components are required.

Recommended for sunny regions, like Africa, desert countries, South

America, Philipines.

High brightness corresponds to 100 watt halogen light.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

#### **General specifications:**

Lighted area: aprx. 10 x 6m Distance from pole to pole: aprx. 10 meter Recommended pole height: 3m - 5m -10°C ~ +60°C Ambient temperature:

1098 mm \* 227mm \* 164 mm Dimensions:

Protection degree: **IP65** 

Protection class: III Low safe voltage

Energy efficiency class:

Approvals: CE, RoHS, WEEE

3 years guarantee Polycarbonate casing grey.

Dimensions: 510 x 240 x 120mm

#### Lamp specifications:

LED power:

4000K pure white (on request also 3000K Light colour

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 110 lm/w Lamp efficiacy: > 100 lm/w > 1200 lm Luminous flux: Central illumination: > 10 Lux (4m) Average illumination: > 6 Lux (4m)Life time: 40000 hours

#### **Motion sensor:**

Day-Night sensor PIR motion sensor

Lighting angle: 120 deg (very wide)

Detecting distance:

#### **System controler specifications:**

Microprocessor charge controler.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery.

#### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass encapsulated) Èfficiency: aprx. 17% Power:

#### **Battery specifications:**

Battery type: Lithium Iron Phosphate, LiFePo4 battery maintenance-free, longlife, for solar cycling charge operation

Lifetime: about 8 Years / 20°C

Autarkic backup: 2 nights at fully charged batteries. At

absolutely no sunshine.

#### Complete unit:

Just to fix on any pole 60 - 90mm diameter.

Internet:

#### No standard parcel service shipping to foreign countries!

This product contains batteries, wich can be shipped only by sea freight or



special service. Weight: 2,8 kg







#### Integrated LED All-In-One Solar Light 20W



Photovoltaic road light fixture for easy and quick installation. With motion detector for lighting on demand. LT-SOL-AO2

Very easy and quick installation on existing masts.

Solar panel, battery, lamp and controller are in one unit.

No extra components are required.

Recommended for sunny regions, like Africa, desert countries, South

America, Philipines.

High brightness corresponds to 50 watt mercury light or 200 watt halogen

light.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

#### General specifications:

Lighted area: aprx. 15 x 8m Distance from pole to pole: aprx. 15 meter Recommended pole height: 3m - 4m -10°C ~ +60°C Ambient temperature: Protection degree: IP65

Protection class:

III Low safe voltage Energy efficiency class:

Approvals: CE, RoHS, WEEE

Guarantee: 2 years

Aluminium alloy casing grey.

Dimensions: 680 mm \* 227mm \* 47 mm

#### Lamp specifications:

LED power:

Light colour: 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 120 lm/w Lamp efficiacy: > 100 lm/w Luminous flux: > 2000 lm Dimming lumens: > 300 lm Central illumination: > 10 Lux (4m) Average illumination: > 6 Lux (4m) Life time: 40000 hours

#### **Motion sensor:**

Day-Night sensor

PIR motion sensor

Lighting angle: 120° wide 7-10m Detecting distance:

#### System controler specifications:

Microprocessor charge controler.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery.

#### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass encapsulated) Efficiency: aprx. 17% Power: 28W

#### **Battery specifications:**

Battery type: Lithium Iron Phosphate, LiFePo4 battery

100.3WH Capacity:

maintenance-free, longlife, for solar cycling charge operation

about 8 Years / 20°C Lifetime:

Autarkic backup for 2 nights at fully charged batteries. At absolutely no

sunshine.

#### Complete unit:

Just to fix on any pole 60 - 67mm diameter.

Internet:

No standard parcel service shipping to foreign



#### countries!

This product contains batteries, wich can be shipped only by sea freight or special service.

Weight: 8,8 kg







## Integrated LED All-In-One Solar Light 30W



Photovoltaic road light fixture for easy and quick installation. With motion detector for lighting on demand. LT-SOL-AO3

Very easy and quick installation on existing masts.

Solar panel, battery, lamp and controller are in one unit.

No extra components are required.

Recommended for sunny regions, like Africa, desert countries, South

America, Philipines.

Lighting of parking lot, drive, waste collection area, yard, drive way.

High brightness corresponds to 80 watt mercury light or 50 watt sodium light. This solar light is maintenance free - only the solar panel should be cleaned

occasionally with water.

Just to fix on a wall or any pole 76 - 89mm diameter.

#### **General specifications:**

Lighted area: aprx. 20 x 10m
Distance from pole to pole: aprx. 18 - 24 meter
Recommended pole height: 4m - 6m
Ambient temperature: -10°C ~ +65°C
Protection degree: IP65

Protection class: III Low safe voltage

Energy efficiency class: B

Approvals: CE, RoHS, WEEE

Guarantee: 2 years

Aluminium alloy casing grey.

Dimensions: 900 mm \* 300mm \* 64 mm

#### **Lamp specifications:**

LED power: 30W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 120 lm/w Lamp efficiacy: > 100 lm/w Luminous flux: > 3000 lm Dimming lumens: > 500 lm Central illumination: > 6 Lux (6m) LED life time: 50000 hours

#### **Motion sensor:**

Day-Night sensor PIR motion sensor

Lighting angle: 120° wide Detecting distance: 7-10m

#### **System controler specifications:**

Microprocessor charge controler.

Automatic lamp start at sunset and turn-off by dawn.

Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. Temperature feeded battery charging for extended battery life.

Overcharge and deep-discharge protection for the battery.

#### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass encapsulated)
Power: 40W
Efficiency: aprx. 17%

#### **Battery specifications:**

Battery type: Lithium Iron Phosphate, LiFePo4 battery

Capacity: 230.2WH

maintenance-free, longlife.

For solar cycling charge operation

Lifetime about 8 Years / 20°C

Autarkic backup for 2 nights at fully charged batteries. At absolutely no sunshine.

Complete unit: Just to fix on any pole 76 - 89mm diameter or wall-mount

No standard parcel service shipping to foreign



#### countries!

This product contains batteries, wich can be shipped only by sea freight or special service. Weight: 9,8

9,8 kg





#### Integrated LED All-In-One Solar Light 30W



Photovoltaic road light fixture for easy and quick installation. With motion detector for lighting on demand.

LT-SOL-AO3+

Very easy and quick installation on existing masts.

Solar panel, battery, lamp and controller are in one unit.

No extra components are required.

Recommended for sunny regions, like Africa, desert countries, South

America, Philipines.

Lighting of parking lot, drive, waste collection area, yard, drive way.

High brightness corresponds to 80 watt mercury light or 50 watt sodium light. This solar light is maintenance free - only the solar panel should be cleaned

occasionally with water.

Just to fix on any round pole 60mm diameter.

#### **General specifications:**

Lighted area: aprx. 20 x 9m Distance from pole to pole: aprx. 12 - 20 meters

Recommended pole height: 3m - 6m 60 - 70mm Pole top diameter: -10°C ~ +60°C Ambient temperature:

Protection degree: IP65

Protection class: III Low safe voltage Energy efficiency class:

Approvals: CE, RoHS, WEEE

Guarantee: 2 vears

Aluminium profile grey Casing: Dimensions: 839 mm \* 351mm \* 64 mm

#### Lamp specifications:

LED power:

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 120 lm/w Lamp efficiacy: > 110 lm/w Luminous flux: > 3300 lm Dimming lumens: > 300 - 800 lm Central illumination: > 10 Lux (6m) Average illumination: > 6 Lux (6m) LED life time: 100000 hours

#### **Motion sensor:**

Day-Night sensor PIR motion sensor

Lighting angle: 120° wide Detecting distance: 7-15m

#### System controler specifications:

Microprocessor charge controler.

Automatic lamp start at sunset and turn-off by dawn.

Timer-dimmer: Full power at start-up, automatic dimming at late night, for more safety at low battery capacity.

Temperature feeded battery charging for extended battery life.

Overcharge and deep-discharge protection for the battery.

Remote control available for selecting different lighting and operating modes in summer or winter.

#### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass encapsulated) 50W Power: aprx. 19% Efficiency:

Internet:

#### **Battery specifications:**

Lithium Iron Phosphate, LiFePo4 battery Battery type:



Capacity: 300.2WH maintenance-free, longlife.

For solar cycling charge operation

Lifetime about 10 Years / 20°C

Autarkic backup for 2 nights at fully charged batteries. At absolutely no sunshine.

# No standard parcel service shipping to foreign countries!

This product contains batteries, wich can be shipped only by sea freight, truck or special service.

Weight: 11,3 kg



#### Solar Park Lanterns and Pedestrian Lighting





### LED All-In-One Solar Street Light Lantern Round



Integrated solar lamp for mounting on mast.

With motion detector to change the light intensity as required.

Very easy and quick installation on existing masts.

Solar panel, battery, lamp and controller are in one unit. No extra components are required.

Recommended for sunny regions, like Africa, desert countries, South America, Philipines.

High brightness corresponds to 50 watt mercury light or 200 watt

halogen light.
This solar light is maintenance free - only the solar panel should h

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

#### **General specifications:**

Lighted area: aprx. 10 x 10m

Distance from pole to pole: aprx. 10 meter Recommended pole height: 3m - 5m Ambient temperature: -10°C ~ +55°C

Protection degree: IP65

Protection class: III Low safe voltage Energy efficiency class: A+++ Approvals: CE, RoHS, WEEE

Guarantee: 2 years

Aluminium alloy casing, white. Dimensions: 500 mm \* 100 mm

#### Lamp specifications:

LED power: 20W

Light colour: 6000K bright white (from 50 pcs. also 3000K warm

white or 4000K pure white).

No uv-radiation for reduced insects attraction

LED efficiacy: > 120 lm/w Lamp efficiacy: > 100 lm/w Luminous flux: > 2000 lm Dimming lumens: > 300 lm Central illumination: > 10 Lux (4m) Average illumination: > 6 Lux (4m)

Life time: 40000 hours

#### **Motion sensor:**

Day-Night sensor PIR motion sensor

Lighting angle: 120° wide Detecting distance: 5-8m

#### System controler specifications:

Microprocessor charge controler.

Automatic lamp start at sunset and turn-off by dawn.

Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity.

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery.

#### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass encapsulated)

Efficiency: aprx. 16%

Power: 20W

#### **Battery specifications:**

Battery type: Lithium Iron Phosphate, LiFePo4 battery

Capacity: 100.3WH maintenance-free, longlife, for solar cycling charge operation Lifetime: about 8 Years / 20°C

Autarkic backup for 8 hours at fully charged batteries. At absolutely

no sunshine.



Complete unit: Just to fix on any pole with 60mm diameter.

# No standard parcel service shipping to foreign countries!

This product contains batteries, wich can be shipped only by sea freight or special service.

. Weight: kg





#### LED All-In-One Solar Street Light **Lantern Square**



Integrated solar lamp for mounting on mast.

With motion detector to change the light intensity as required.

Very easy and quick installation on existing masts.

Solar panel, battery, lamp and controller are in one unit. No extra components are required.

Recommended for sunny regions, like Africa, desert countries,

South America, Philipines.

High brightness corresponds to 50 watt mercury light or 200 watt

halogen light.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

#### **General specifications:**

Lighted area: aprx. 10 x 10m

Distance from pole to pole: aprx. 10 meter Recommended pole height: 3m - 5m Ambient temperature: -10°C ~ +55°C

Protection degree: IP65

Protection class: III Low safe voltage Energy efficiency class: A+++ Approvals: CE, RoHS, WEEE

Guarantee: 2 years

Aluminium alloy casing, white. Dimensions: 500 mm \* 100 mm

#### Lamp specifications:

LED power: 20W

Light colour: 6000K bright white (from 20 pcs. also 3000K warm

white or 4000K pure white).

No uv-radiation for reduced insects attraction

LED efficiacy: > 120 lm/w Lamp efficiacy: > 100 lm/w Luminous flux: > 2200 lm Dimming lumens: > 300 lm Central illumination: > 10 Lux (4m) Average illumination: > 6 Lux (4m)

Life time: 40000 hours

#### System controler specifications:

Microprocessor charge controler.

Automatic lamp start at sunset and turn-off by dawn.

Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity.

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery.

#### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass

encapsulated) Efficiency: aprx. 17%

Power: 20W

#### **Battery specifications:**

Battery type: Lithium Iron Phosphate, LiFePo4 battery

Capacity: 100.3WH maintenance-free, longlife, for solar cycling charge operation Lifetime: about 8 Years / 20°C

Autarkic backup for 8 hours at fully charged batteries. At absolutely

no sunshine.

Complete unit: Just to fix on any pole with 60mm diameter.

No standard parcel service shipping to foreign

#### countries!

This product contains batteries, wich can be shipped only by sea freight or special service. Weight: 4,9

4,9 kg



Solar Lighting for Parking Lot, Carport, Bus Shelters





Germany



## Integrated LED All-In-One Solar Light 30W



Photovoltaic road light fixture for easy and quick installation. With motion detector for lighting on demand.

LT-SOL-AO3M

Very easy and quick installation on existing masts.

Solar panel, battery, lamp and controller are in one unit.

No extra components are required.

Recommended for sunny regions, like Africa, desert countries, South

America, Philipines.

Lighting of parking lot, drive, waste collection area, yard, drive way.

High brightness corresponds to 80 watt mercury light or 50 watt sodium light. This solar light is maintenance free - only the solar panel should be cleaned

occasionally with water.

Just to fix on any round pole 60mm diameter.

#### **General specifications:**

Lighted area: aprx. 20 x 9m
Distance from pole to pole: aprx. 12 - 20 meters
Recommended pole height: 3m - 6m

Ambient temperature: -10°C ~ +65°C
Protection degree: IP65

Protection class: III Low safe voltage

Energy efficiency class: A

Approvals: CE, RoHS, WEEE

Guarantee: 2 years Aluminium alloy casing silvergrey.

Dimensions: 700 mm \* 330mm \* 64 mm

#### Lamp specifications:

LED power: 30W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 120 lm/w Lamp efficiacy: > 100 lm/w Luminous flux: > 3300 lm Dimming lumens: > 500 lm Central illumination: > 10 Lux (6m) Average illumination: > 6 Lux (6m) LED life time: 100000 hours

#### **Motion sensor:**

Day-Night sensor

PIR motion sensor

Lighting angle: 120° wide Detecting distance: 7-15m

#### System controler specifications:

Microprocessor charge controler.

Automatic lamp start at sunset and turn-off by dawn.

Timer-dimmer: Full power at start-up, automatic dimming at late night, for more safety at low battery capacity.

Temperature feeded battery charging for extended battery life.

Overcharge and deep-discharge protection for the battery.

Remote control available for selecting different lighting and operating modes in summer or winter.

#### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass encapsulated)
Power: 50W
Efficiency: aprx. 19%

#### **Battery specifications:**

Battery type: Lithium Iron Phosphate, LiFePo4 battery

Capacity: 300.2WH



maintenance-free, longlife.
For solar cycling charge operation
Lifetime about 10 Years / 20°C
Autarkic backup for 2 nights at fully charged batteries. At absolutely no sunshine.

# No standard parcel service shipping to foreign countries!

This product contains batteries, wich can be shipped only by sea freight, truck or special service.

Weight: 9,8 kg





Germany



# Integrated LED All-In-One Solar Light 30W



Photovoltaic road light fixture for easy and quick installation. With motion detector for lighting on demand.

LT-SOL-AO3ME

Very easy and quick installation on existing masts.

Solar panel, battery, lamp and controller are in one unit.

No extra components are required.

Recommended for sunny regions, like Africa, desert countries, South

America, Philipines.

Lighting of parking lot, drive, waste collection area, yard, drive way.

High brightness corresponds to 80 watt mercury light or 50 watt sodium light. This solar light is maintenance free - only the solar panel should be cleaned

occasionally with water. Just to fix on any round pole 60mm diameter.

#### **General specifications:**

Lighted area: aprx. 20 x 9m
Distance from pole to pole: aprx. 12 - 20 meter
Recommended pole height: 3m - 6m
Ambient temperature: -10°C ~ +65°C
Protection degree: IP65

Protection class: III Low safe voltage

Energy efficiency class: C

Approvals: CE, RoHS, WEEE

Guarantee: 2 years

Aluminium alloy casing grey.

Dimensions: 700 mm \* 330mm \* 45 mm

#### Lamp specifications:

LED power: 30W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 120 lm/w Lamp efficiacy: > 110 lm/w Luminous flux: > 3300 lm Dimming lumens: > 500 lm Central illumination: > 10 Lux (6m) Average illumination: > 6 Lux (6m) LED life time: 100000 hours

#### **Motion sensor:**

Day-Night sensor PIR motion sensor

Lighting angle: 120° wide Detecting distance: 7-15m

#### **System controler specifications:**

Microprocessor charge controler.

Automatic lamp start at sunset and turn-off by dawn.

Timer-dimmer: Full power at start-up, automatic dimming at late night, for more safety at low battery capacity.

Temperature feeded battery charging for extended battery life.

Overcharge and deep-discharge protection for the battery.

#### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass encapsulated)
Power: 50W
Efficiency: aprx. 19%

#### **Battery specifications:**

Battery type: Lithium Iron Phosphate, LiFePo4 battery

Capacity: 230.2WH

maintenance-free, longlife.

For solar cycling charge operation

Lifetime about 8 Years / 20°C

Autarkic backup for 2 nights at fully charged batteries. At absolutely no

sunshine.

# No standard parcel service shipping to foreign countries!



Germany
This product contains batteries, wich can be shipped only by sea freight or special service.

Weight: 9,8 kg







## Integrated LED All-In-One Solar Light 40W



Photovoltaic road light fixture for easy and quick installation. With motion detector for lighting on demand. LT-SOL-AO4

Very easy and quick installation on existing masts.

Solar panel, battery, lamp and controller are in one unit.

No extra components are required.

Recommended for sunny regions, like Africa, desert countries, South

America, Philipines.

High brightness corresponds to 160 watt mercury light or 100 watt sodium

light.

This solar light is maintenance free - only the solar panel should be cleaned

occasionally with water.

Just to fix on a wall or any pole 60 - 76mm diameter.

**General specifications:** 

Lighted area: aprx. 29 x 10m
Distance from pole to pole: Accommended pole height: Ambient temperature: aprx. 29 x 10m

Protection degree: IP65

Protection class: III Low safe voltage

Energy efficiency class: A+++

Approvals: CE, RoHS, WEEE

Guarantee: 2 years Aluminium alloy casing grey.

Dimensions: 1298 mm \* 227mm \* 164 mm

**Lamp specifications:** 

LED power: 40W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 120 lm/w Lamp efficiacy: > 100 lm/w Luminous flux: > 4240 lm Dimming lumens: > 1000 lm Central illumination: > 10 Lux (6m) Average illumination: > 6 Lux (6m) LED life time: 50000 hours

**Motion sensor:** 

Day-Night sensor PIR motion sensor

Lighting angle: 120° wide Detecting distance: 7-10m

**System controler specifications:** 

Microprocessor charge controler.

Automatic lamp start at sunset and turn-off by dawn.

Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. Temperature feeded battery charging for extended battery life.

Overcharge and deep-discharge protection for the battery.

Solar panel specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated)

Efficiency: aprx. 17%
Power: 70W

**Battery specifications:** 

Battery type: Lithium Iron Phosphate, LiFePo4 battery

Capacity: 211.2WH

maintenance-free, longlife.

For solar cycling charge operation

Lifetime about 8 Years / 20°C

Autarkic backup 2 nights at fully charged batteries. At

absolutely no sunshine.

No standard parcel service shipping to foreign countries!

GEO TECHNIK

Germany
This product contains batteries, wich can be shipped only by sea freight or special service.

Weight: 9,8 kg







## LED All-In-One Solar Light self cleaning 40W



Compact solar street lamp with automatic cleaning brush. Quick and easy installation. With motion sensor for lighting as needed.

Very easy and quick installation on existing masts.

Solar panel, battery, lamp and controller are in one unit.

No extra components are required.

Recommended for sunny regions, like Africa, desert countries, South

America, Philipines.

Lighting of parking lot, drive, waste collection area, yard, drive way.

High brightness corresponds to 80 watt mercury light or 70 watt sodium light. This solar light is maintenance free - only the solar panel should be cleaned

occasionally with water.

Just to fix on a wall or any pole 76 - 89mm diameter.

#### **General specifications:**

Lighted area: aprx. 20 x 10m
Distance from pole to pole: aprx. 18 - 24 meter
Recommended pole height: 4m - 6m
Ambient temperature: -10°C ~ +65°C
Protection degree: IP65

Protection class: III Low safe voltage

Energy efficiency class: A

Approvals: CE, RoHS, WEEE

Guarantee: 2 years

Aluminium alloy casing grey.

Dimensions: 900 mm \* 300mm \* 64 mm

#### **Lamp specifications:**

LED power: 40W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 120 lm/w Lamp efficiacy: > 100 lm/w Luminous flux: > 4000 lm Dimming lumens: > 500 lm Central illumination: > 10 Lux (6m) Average illumination: > 6 Lux (6m) LED life time: 50000 hours

#### **Motion sensor:**

Day-Night sensor PIR motion sensor

Lighting angle: 120° wide Detecting distance: 7-10m

#### **System controler specifications:**

Microprocessor charge controler.

Automatic lamp start at sunset and turn-off by dawn.

Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. Temperature feeded battery charging for extended battery life.

Overcharge and deep-discharge protection for the battery.

#### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass encapsulated)
Power: 40W
Efficiency: aprx. 17%

#### **Battery specifications:**

Battery type: Lithium Iron Phosphate, LiFePo4 battery

Capacity: 230.2WH

maintenance-free, longlife.

For solar cycling charge operation

Lifetime about 8 Years / 20°C

Autarkic backup for 2 nights at fully charged batteries. At absolutely no sunshine.

Complete unit: Just to fix on any pole 76 - 89mm diameter or wall-mount

No standard parcel service shipping to foreign



#### countries!

This product contains batteries, wich can be shipped only by sea freight or special service. Weight: 9,8

9,8 kg







#### Integrated LED All-In-One Solar Light 60W



Photovoltaic road light fixture for easy and quick installation. With motion detector for lighting on demand. LT-SOL-AO6

Very easy and quick installation on existing masts.

Solar panel, battery, lamp and controller are in one unit.

No extra components are required.

Recommended for sunny regions, like Africa, desert countries, South

America, Philipines.

High brightness corresponds to 160 watt mercury light or 100 watt sodium

light.

This solar light is maintenance free - only the solar panel should be cleaned

occasionally with water.

Just to fix on a wall or any pole 60 - 76mm diameter.

#### General specifications:

Lighted area: aprx. 33 x 10m Distance from pole to pole: aprx. 28 - 33 meter Recommended pole height: 6m - 8m -20°C ~ +65°C Ambient temperature: Protection degree: IP65

Protection class: III Low safe voltage

Energy efficiency class:

CE, RoHS, WEEE Approvals:

Guarantee: 3 years

Aluminium alloy casing grey.

1298 mm \* 227mm \* 164 mm Dimensions:

#### Lamp specifications:

LED power:

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 160 lm/w > 135 lm/w Lamp efficiacy: Luminous flux: > 8600 lm > 1000 lm Dimming lumens: Central illumination: > 10 Lux (8m) Average illumination: > 6 Lux (8m) Life time: 40000 hours

#### **Motion sensor:**

Day-Night sensor PIR motion sensor

120° wide Lighting angle: Detecting distance: 7-10m

#### System controler specifications:

Microprocessor charge controler.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery.

#### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass encapsulated) Èfficiency: 17%

#### **Battery specifications:**

Battery type: Lithium Iron Phosphate, LiFePo4 battery

Capacity: 346.0WH

maintenance-free, longlife.

For solar cycling charge operation

about 8 Years / 20°C Lifetime

2 nights at fully charged batteries. At Autarkic backup

absolutely no sunshine.

#### No standard parcel service shipping to foreign countries!

GEO TECHNIK

Germany
This product contains batteries, wich can be shipped only by sea freight or special service.

Weight: 14 kg





## Integrated LED All-In-One Solar Light 80W



Photovoltaic road light fixture for easy and quick installation. With motion detector for lighting on demand. LT-SOL-AO8

Very easy and quick installation on existing masts.

Solar panel, battery, lamp and controller are in one unit.

No extra components are required.

Recommended for sunny regions, like Africa, desert countries, South

America, Philipines.

High brightness corresponds to 250 watt mercury light or 150 watt sodium

light.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Just to fix on a wall or any pole 60 - 76mm diameter.

### **General specifications:**

Lighted area:
Distance from pole to pole:
Recommended pole height:
Ambient temperature:
Protection degree:

Ambient degree:

Ambient temperature:

Protection degree:

Ambient temperature:

Ambient t

Protection class: III Low safe voltage

Energy efficiency class: A+++

Approvals: CE, RoHS, WEEE

Guarantee: 3 years

Aluminium alloy casing grey.

Dimensions: 1298 mm \* 227mm \* 164 mm

### **Lamp specifications:**

LED power: 80W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 120 lm/w
Lamp efficiacy: > 100 lm/w
Luminous flux: > 8000 lm
Dimming lumens: > 1000 lm
Central illumination: > 10 Lux (10m)
Average illumination: > 6 Lux (10m)
Life time: 40000 hours

### **Motion sensor:**

Day-Night sensor PIR motion sensor

Lighting angle: 120° wide Detecting distance: 8-12m

### **System controler specifications:**

Microprocessor charge controler.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery.

### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass encapsulated)
Power: 130W
Efficiency: aprx. 17%

### **Battery specifications:**

Battery type: Lithium Iron Phosphate, LiFePo4 battery

Capacity: 144.3WH

maintenance-free, longlife.

For solar cycling charge operation

Lifetime about 8 Years / 20°C

Autarkic backup 2 nights at fully charged batteries. At

absolutely no sunshine.

# No standard parcel service shipping to foreign countries!

GEO TECHNIK

Germany
This product contains batteries, wich can be shipped only by sea freight or special service.

Weight: 18 kg





### Integrated LED All-In-One Solar **Light 30W Africa**



Photovoltaic road light fixture for easy and quick installation. With motion detector for lighting on demand. LT-SOL-AOX23

Very easy and quick installation on existing masts.

Solar panel, battery, lamp and controller are in one unit.

No extra components are required.

Recommended for sunny regions, like Africa, desert countries, South

America, Philipines.

High brightness corresponds to 80 watt mercury light or 50 watt sodium light. This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Just to fix on a wall or any pole 80 - 100mm diameter.

### General specifications:

Lighted area: aprx. 25 x 10m Distance from pole to pole: aprx. 20 - 25 meter Recommended pole height: 4m - 6m -10°C ~ +65°C Ambient temperature: Protection degree: IP65

Protection class: III Low safe voltage

Energy efficiency class:

Approvals: CE, RoHS, WEEE

Guarantee: 3 years

Aluminium alloy casing grey.

Dimensions: 1098 mm \* 227mm \* 164 mm

### Lamp specifications:

LED power:

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 120 lm/w Lamp efficiacy: > 100 lm/w Luminous flux: > 2700 lm Dimming lumens: > 500 lm > 10 Lux (6m) Central illumination: Average illumination: > 6 Lux (6m) LED life time: 50000 hours

### **Motion sensor:**

Day-Night sensor

PIR motion sensor

Lighting angle: 120° wide 7-10m Detecting distance:

### System controler specifications:

Microprocessor charge controler.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery.

### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass encapsulated) Efficiency: aprx. 17% Power:

### **Battery specifications:**

Battery type: Lithium Iron Phosphate, LiFePo4 battery

Capacity: 144.3WH

maintenance-free, longlife.

For solar cycling charge operation

about 8 Years / 20°C

Internet:

Autarkic backup for 2 nights at fully charged batteries. At absolutely no

Complete unit: Just to fix on any pole 80 - 100mm diameter.or wall-



# No standard parcel service shipping to foreign countries!

This product contains batteries, wich can be shipped only by sea freight or special service.

Weight: 9,8 kg





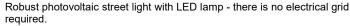
## LED Solar Light for Walking Way 50W with Pole

Low-cost PV LED post-top luminaire with motion sensor for access paths, footpaths, allotments, residential properties, etc.

German manufacture

- Pole height 4 metres
- LED power 18W
- Luminous flux 2500 Lm
- Lithium iron phosphate battery
- insect friendly

LT-SOL-AP38



Recommended for regions with average sun radiation, such as Europe, southern Russia, New Zealand.

High luminous intensity thanks to state-of-the-art SMD LED in conjunction with an electronic 12V-60V DC PWM driver.

The brightness is comparable to an 50W mercury vapor lamp.

Very long, maintenance-free luminaire operation due to special design features.

Microprocessor Control,

All brackets and fittings are hot-dip galvanized or scratch-proof and UV-resistant in gray.

The screws are made of VA stainless steel.

Construction, production and quality management in Germany. The solar light is maintenance-free - (only the solar module should occasionally be cleaned with water).

### **General technical data:**

Illuminated area: approx. 15 x 5m Recommended mast spacing= approx. 15 meters

Ambient temperature:  $-10^{\circ}\text{C} \sim +50^{\circ}\text{C}$  (extension -35°C ~ +65°C

possible on request)

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE 20-year availability guarantee for replacement parts.

### Lamp head specification:

Robust LED luminaire head made of die-cast aluminum LED lamp: SMD Chipset Philips

LED power: 18\
Energy efficiency class B

Light color 4000K neutral white (on special order also

3000K warm white).

No UV radiation for reduced insect attractiveness LED efficiency: > 145 lm / w
Luminous efficiency: > 130 lm / w
Luminous flux Lumen: 2500 Lm

Central illuminance: > 10 lux (4m height)
Average light intensity: > 5 lux (4m)
LED life about 80,000 hours

Protection class: IP65 (protected against water and storm).

5 years warranty

### **Light Controller:**

Programmable microprocessor control with infrared remote control option. Reading the current operating status with storage of the measurement data of all components of the last days.

Automatic lamp start at sunset and turn-off by dawn.

Light normally in dimmed mode for pefect orientation.

If a person or car is detected within 10 meters zone, the light switches on full brightness.

and falls back into dimming mode after some time.

Adjustable dimming during the night in idle mode between 0% - 30%. The duration of full illumination is adjustable between 1 min and 10 min.

The charge controller settings are preset by us according to customer requirements.

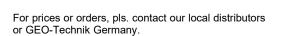
If you want to change settings, you need the remote control S-SOLS29. We will gladly help you to decide on the right presettings.

All functions are preprogrammed by us free of charge, depending on the project and customer request, so that the luminaire is ready for operation immediately after assembly.

Temperature-optimized battery charging and trickle charging to conserve

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.







Germany

Additional fuse Protection class:

5 years warranty

**Solar module specifications:** 

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies.

IP66

Efficiency: > 18%

Power: 50Wp (without extension)

Life expectancy: approx. 25 years 20 years 80% performance guarantee \* 10 years 90% performance guarantee \* \* except in the case of mechanical impact

### **Battery storage:**

High performance solar lithium ion iron accumulator LiFePo4

Battery voltage: 12\ maintenance-free, longlife.

For solar cycle operation

Lifetime 6 - 10 years / 20°C

Function even at low temperatures.

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Self-sufficient operating time in overcast weather (with fully charged battery):

a) Basic version:
b) with extension set autumn: 5 days (60 hours)
c) with extension set winter: 7 days (80 hours)
The battery is in the mast, behind the lockable door.

### Mast:

Steel mast, hot-dip galvanized
Visible height: 4 m

Ground piece: 60 cm for setting in concrete

(on request also 3m - 5m height)

For easier installation, we also offer installation sleeves into which the mast

can be inserted.

Lockable mast door for easy access to the controls.

Delivery disassembled with the following components:

LED lamp head with mast mounting,

Lithium Ion Battery

Solar module with stable, screw-down mast mounting,

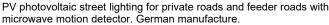
Steel pole

Weight: 74 kg





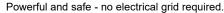
## Solar Street Light LED Private Road 60W Pole PIR



Complete with mast and lithium iron phosphate battery.

- Pole height 5 metres
- LED power 25W
- Luminous flux > 3500 Lm

LT-SOL-AP41



Recommended for average sunshine regions, like Europe, southern Russia, New Zealand.

High brightness corresponds to 40 watt fluorescent light.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant painting).

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

### **General technical data:**

Lighted area: aprx. 20 x 10m Distance from pole to pole: 15 - 24 meters

Energy efficiency class: 0

Ambient temperature: -20°C ~ +55°C (extended temperature

range -35°C ~ +65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree Protection class:

III Low safe voltage Approvals:

CE, RoHS, WEEE

20 years sparepart supply ability.

### Lamp head specification:

LED Lamp: SMD Chipse

LED power: 25W

Light colour 4000K pure white (on request also 3000K

warm white).

No uv-radiation for reduced insects attraction LED efficiency: > 145 lm/w Lamp efficiacy: > 130 lm/w Luminous flux: > 3500 lm

Central illumination: > 10 Lux (at 5m pole height)

Average illumination: > 9 Lux (4m)

Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof. Arm length:

300mm (on request, we supply with max. 2

meter arm)

Protection degree: IP65 Shock resistance: IK10

5 years guarantee

### **System controler specifications:**

Programmable Processor charge controler.

Infra Red remote control

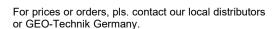
Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable)

Full power for a few minutes, if a person is detected.

Automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity.

All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.





Germany

Temperature feeded battery charging for extended battery life. Overcharge and deep discharge protection for the battery.

Reverse polarity and electronic short circuit protection.

Additional electric fuse

Protection degree: IP66

5 years guarantee

### **Solar module specifications:**

High efficient monocrystalline silicone

(tempered glass encapsulated, hailproof)

This modern cell technology has a high degree of efficiency and allows

charging also at cloudy weather.

Efficiency: > 18%
Power: 60Wp
Life expectancy: Aprx. 25 years

20 years 80% power guaranty \* 10 years 90% power guaranty \*

### **Battery storage:**

High performance solar lithium iron accumulator LiFePo4

Battery voltage: 12V

maintenance-free, longlife.

For solar cycle operation

Lifetime 6 - 10 years / 20°C

Function even at low temperatures.

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Autonomy time in overcast weather (with fully charged battery):

a) Basic version: 40 hours (4 days) b) with extension set winter: 80 hours (8 days)

The battery is mounted inside the mast, behind the lockable door.

### Pole:

Steel pole, hot-dip galvanized,

Upper height 5 m inground length: 800mm

Installation into concrete.

With lockable service door, for easy acces to the controller.

### **Including following components:**

LED light fixture with arm and pole mount bracket.

LiFePo4 battery,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Steel pole.

Manual for easy mechanical and electrical setup in english language. Other

languages on request. Complete pre-wired unit Weight: 72 kg

### Accessories for outdoor fixtures



Extension Kit Winter for LT-SOL07B LT-SOL-AP41C

<sup>\*</sup> excepted is the complete failing (3 years guarantee)



Solar Lighting for Parking Lot, Carport, Bus Shelters





# Solar Hybride Street Light LED Private Road 60W Pole PIR

PV photovoltaic street lighting for private roads and feeder roads with microwave motion detector. German manufacture.

Complete with mast and lithium iron phosphate battery.

- Pole height 5 metres
- LED power 25W
- Luminous flux > 3500 Lm

LT-SOL-AP41N



High brightness corresponds to 40 watt fluorescent light.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant painting).

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.



### **General technical data:**

Lighted area: aprx. 20 x 10m Distance from pole to pole: 15 - 24 meters

Energy efficiency class: C

Ambient temperature: -20°C ~ +55°C (extended temperature

range -35°C ~ +65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree Protection class:

III Low safe voltage Approvals:

CE, RoHS, WEEE

20 years sparepart supply ability.

### Lamp head specification:

LED Lamp: SMD Chipset

LED power: 20W

Light colour 4000K pure white (on request also 3000K

warm white).

No uv-radiation for reduced insects attraction LED efficiency: > 145 lm/w Lamp efficiacy: > 130 lm/w Luminous flux: > 3500 lm

Central illumination: > 10 Lux (at 5m pole height)

Average illumination: > 9 Lux (4m) Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof. Arm length:

Arm length: 300mm (on request, we supply with max. 2 meter arm)

Protection degree: IP65 Shock resistance: IK10

5 vears quarantee

### **System controler specifications:**

Programmable Processor charge controler.

Infra Red remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable)

Full power for a few minutes, if a person is detected.

Automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity.

All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.

Temperature feeded battery charging for extended battery life. Overcharge and deep discharge protection for the battery.





Germany

Reverse polarity and electronic short circuit protection.

Additional electric fuse

Protection degree: IP66

5 years guarantee

### Solar module specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated, hailproof)

This modern cell technology has a high degree of efficiency and allows

charging also at cloudy weather.

Efficiency: > 18%
Power: 60Wp
Life expectancy: Aprx. 25 years

20 years 80% power guaranty \*

10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

### **Battery storage:**

High performance solar lithium iron accumulator LiFePo4

Battery voltage: 12V

maintenance-free, longlife. For solar cycle operation

Lifetime 6 - 10 years / 20°C

Function even at low temperatures.

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Autonomy time in overcast weather (with fully charged battery):
a) Basic version:
40 hours (4 days)

b) with extension set winter: 80 hours (8 days)

The battery is mounted inside the mast, behind the lockable door.

### Pole:

Steel pole, hot-dip galvanized, Upper height 5 m inground length: 800mm

Installation into concrete.

With lockable service door, for easy acces to the controller.

### **Including following components:**

LED light fixture with arm and pole mount bracket.

LiFePo4 battery,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Steel pole.

Manual for easy mechanical and electrical setup in english language. Other

languages on request. Complete pre-wired unit

Weight: 72 k





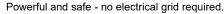
### **Solar Double Street Light Post** 5m LED Private Road PIR

PV photovoltaic street lighting for private roads and feeder roads with microwave motion detector. German manufacture.

Complete with mast and lithium iron phosphate battery.

- Pole height 5 metres
- LED power 2\* 25W
- Luminous flux > 5000 Lm

LT-SOL-AP42



Recommended for average sunshine regions, like Europe, southern Russia, New Zealand.

High brightness corresponds to 2\* 40 watt fluorescent light.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

### General technical data:

Lighted area: aprx. 20 x 15m Distance from pole to pole: 15 - 24 meters

Energy efficiency class:

Ambient temperature: -20°C ~ +55°C (extended temperature

range -35°C ~ +65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree Protection class: III Low safe voltage CE, RoHS, WEEE Approvals:

20 years sparepart supply ability.

### Lamp head specification:

LED Lamp:

LED power:

Light colour 4000K pure white (on request also 3000K

warm white)

No uv-radiation for reduced insects attraction LED efficiency: > 145 lm/w Lamp efficiacy: > 130 lm/w Luminous flux: > 5000 lm

> 10 Lux (at 5m pole height) Central illumination:

Average illumination: > 9 Lux (4m)

Life time: 80000 hours Rigid aluminium die-cast. Seawater and

Casing:

thunderstorm-proof.

Arm length:

300mm (on request, we supply with max. 2

meter arm)

Protection degree: IP65 IK10 Shock resistance:

5 years guarantee

### System controler specifications:

Programmable Processor charge controler.

Infra Red remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable)

Full power for a few minutes, if a person is detected.

Automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity.

All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.



Germany

Temperature feeded battery charging for extended battery life. Overcharge and deep discharge protection for the battery.

Reverse polarity and electronic short circuit protection.

Additional electric fuse

Protection degree: IP66

5 years guarantee

### **Solar module specifications:**

High efficient monocrystalline silicone

(tempered glass encapsulated, hailproof)

This modern cell technology has a high degree of efficiency and allows

charging also at cloudy weather.

Efficiency: > 18%
Power: 120Wp
Life expectancy: Aprx. 25 years

20 years 80% power guaranty \* 10 years 90% power guaranty \*

### **Battery storage:**

High performance solar lithium iron accumulator LiFePo4

Battery voltage: 12\

maintenance-free, longlife.

For solar cycle operation

Lifetime 6 - 10 years / 20°C

Function even at low temperatures.

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Autonomy time in overcast weather (with fully charged battery):

a) Basic version: 40 hours (4 days) b) with extension set winter: 80 hours (8 days)

The battery is mounted inside the mast, behind the lockable door.

### Pole:

Steel pole, hot-dip galvanized,

Upper height 5 m inground length: 800mm

Installation into concrete.

With lockable service door, for easy acces to the controller.

### **Including following components:**

LED light fixture with arm and pole mount bracket.

LiFePo4 battery,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Steel pole.

Manual for easy mechanical and electrical setup in english language. Other

languages on request. Complete pre-wired unit

Weight: 72 kg

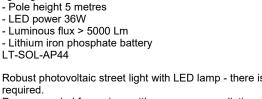
<sup>\*</sup> excepted is the complete failing (3 years guarantee)







### **LED Solar Light for Parking Lot** 100W with Pole





Robust photovoltaic street light with LED lamp - there is no electrical grid required.

Inexpensive PV solar lighting with motion detector for car park and footpath

Recommended for regions with average sun radiation, such as Europe, southern Russia, New Zealand.

High luminous intensity thanks to state-of-the-art SMD LED in conjunction with an electronic 12V-60V DC PWM driver.

The brightness is comparable to an 80W mercury vapor lamp or 50W sodium vapor lamp.

Very long, maintenance-free luminaire operation due to special design

Microprocessor Control,

lighting. German manufacture.

All brackets and fittings are hot-dip galvanized or scratch-proof and UVresistant in gray.

The screws are made of VA stainless steel.

Construction, production and quality management in Germany. The solar light is maintenance-free - (only the solar module should occasionally be cleaned with water).

### General technical data:

Illuminated area: approx. 25 x 10m Recommended mast spacing: approx. 25 meters

-10°C ~ +50°C (extension -35°C ~ +65°C Ambient temperature:

possible on request)

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE 20-year availability guarantee for replacement parts.

### Lamp head specification:

Robust LED luminaire head made of die-cast aluminum LED lamp: SMD Chipset Philips

LED power: Energy efficiency class

Light color 4000K neutral white (on special order also

3000K warm white).

No UV radiation for reduced insect attractiveness

LED efficiency: > 160 lm / w Luminous efficiency: > 145 lm / w Luminous flux Lumen: 5000 Lm > 26 lux (5m height) Central illuminance:

Average light intensity: > 19 lux (5m) LED life about 80,000 hours

Protection class: IP65 (protected against water and storm).

5 years warranty

### **Light Controller:**

Programmable microprocessor control with infrared remote control option. Reading the current operating status with storage of the measurement data of all components of the last days.

Automatic lamp start at sunset and turn-off by dawn.

Light normally in dimmed mode for pefect orientation.

If a person or car is detected within 10 meters zone, the light switches on full brightness,

and falls back into dimming mode after some time.

Adjustable dimming during the night in idle mode between 0% - 30%. The duration of full illumination is adjustable between 1 min and 10 min.

The charge controller settings are preset by us according to customer

If you want to change settings, you need the remote control S-SOLS29. We will gladly help you to decide on the right presettings.

All functions are preprogrammed by us free of charge, depending on the project and customer request, so that the luminaire is ready for operation immediately after assembly.

Temperature-optimized battery charging and trickle charging to conserve batteries

Overvoltage and deep discharge protection for battery.

Internet:

Reverse polarity and short circuit protection.

Additional fuse



Germany

Protection class: IP66

5 years warranty

Solar module specifications:

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies.

Efficiency: > 19%

Power: 100Wp (without extension)

Life expectancy: approx. 25 years 20 years 80% performance guarantee \* 10 years 90% performance guarantee \* \* except in the case of mechanical impact

### **Battery storage:**

High performance solar lithium ion iron accumulator LiFePo4

Battery voltage: maintenance-free, longlife. For solar cycle operation

Lifetime 6 - 10 years / 20°C

Function even at low temperatures.

For sufficient reliability in autumn or winter, we strongly recommend our

extension sets.

Self-sufficient operating time in overcast weather (with fully charged battery):

4 days (44 hours) a) Basic version: b) with extension set autumn: 5 days (60 hours) c) with extension set winter: 7 days (80 hours) The battery is in the mast, behind the lockable door.

### Mast:

Steel mast, hot-dip galvanized 5 m Visible height:

Ground piece: 80 cm for setting in concrete

(on request also 6m - 8m height)

For easier installation, we also offer installation sleeves into which the mast

can be inserted.

Lockable mast door for easy access to the controls.

Delivery disassembled with the following components:

LED lamp head with mast mounting,

Lithium Ion Battery

Solar module with stable, screw-down mast mounting,

Steel pole Weight:

### Accessories for outdoor fixtures



Extension Kit Winter for LT-SOL-AP44 LT-SOL-AP44C



Solar Lighting for Parking Lot, Carport, Bus Shelters



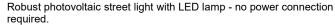


## LED Solar Light for Parking Lot 2\*100W with Pole

Low-priced 2-lamp LED street lamp with motion detector for car park lighting. German manufacture.

- Pole height 5 metres
- LED power 2x 30W
- Luminous flux > 10000 Lm
- Lithium iron phosphate battery

LT-SOL-AP45



Recommended for countries with average sun exposure, such as Europe, southern Russia, New Zealand.

High light intensity through the latest SMD LED in connection with an electronic 12V-60V DC PWM driver.

The brightness is comparable to two 80W mercury lamps or 50W sodium lamps.

Very long, maintenance-free lighting operation due to special design features.

Microprocessor Control,

All brackets and fastenings are hot-dip galvanized (for a surcharge also with a paint finish as desired).

The screws are made of stainless steel VA.

Construction, manufacturing and quality management in Germany. The solar lamp is maintenance-free - (only the solar module should be cleaned occasionally with water).

### General technical data:

Illuminated area: Approx. 25 x 20m Recommended mast spacing Approx. 25 meters

Ambient temperature:  $-10 \,^{\circ}$  C  $\sim +50 \,^{\circ}$  C (extension -35  $^{\circ}$  C  $\sim +65 \,^{\circ}$ 

° C possible on request)
Protection class: III safety extra low voltage
Certification marks: CE, RoHS, WEEE
20-year availability guarantee for spare parts.

### **Luminaire head specification:**

Robust LED lamp head made of die-cast aluminum LED lamp: Power SMD chipset

LED power: 2x 30W Energy efficiency class C

Light color 4000K neutral white (on special order also

3000K warm white).

No UV radiation for reduced insect attraction
LED efficiency: > 160 lm / w
Luminaire efficiency: > 145 lm / w
Luminous flux: 2x 5000 lm
Central illuminance: > 12 lux (6m height)

Average light intensity: > 7 Lux (6m)
LED lifespan Approx. 80,000 hours

Degree of protection: IP65 (water and storm protected).

Warranty: 5 years

### **Light Control:**

Programmable microprocessor control with infrared remote control option. Read out the current operating status with storage of the measurement data of all components of the past few days.

Automatic switch on at sunset and switch off at sunrise. (Switching level adjustable)

Adjustable dimming during the night in idle mode between 10% - 30%. When the motion detector is activated, the lighting switches briefly to 100%. The duration of full lighting can be set between 1 min and 10 min.

The charge controller settings are preset by us according to customer requirements.

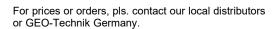
If you want to change settings, you need the S-SOLS29 remote control. We would be happy to help you decide on the correct default settings. All functions are preprogrammed free of charge depending on the project and customer request, so that the luminaire is ready for operation immediately after assembly.

Temperature-optimized battery charging and trickle charging to protect the batteries.

Overvoltage and deep discharge protection for batteries.

Reverse polarity and short circuit protection.

Additional fuse





Germany

Degree of protection: IP66 Warranty: 5 years

### Solar module specifications:

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high-quality module technology also ensures charging when the sky is overcast. Reloading is restricted on dark days in winter, which shortens the lighting time.

Efficiency: > 19%

Power: 160Wp (without extension) Life expectancy: Approx. 25 years

Performance guarantee \* 20 years 80% / 10 years 90%

### **Battery storage:**

High-performance solar lithium-ion iron accumulator LiFePo4

Battery voltage: 24V maintenance-free, longlife. For solar cycle operation

Service life approx. 10 years / 20 ° C Function even at low temperatures.

For sufficient operational safety in autumn or winter, we strongly recommend our expansion sets.

Autonomous operating time in overcast weather (with fully charged battery):

a) Basic version: 4 days (44 hours)

b) with autumn extension set: 5 days (60 hours)

c) with winter extension set: 7 days (80 hours)

The batteries are housed in the mast. This simplifies luminaire assembly.

### Mast:

Steel mast, hot-dip galvanized

Visible height: 5 m

Base: 80 cm for concreting (6m - 8m height on request)

To make installation easier, we also offer installation sleeves into which the

mast can be inserted.

Lockable mast door, for easy access to the controls.

# Delivery disassembled with the following components:

LED lamp head with mast attachment,

Lithium Ion Battery

Solar module with stable, screwable mast mounting,

Steel pole,

Luminaire control (already installed in the luminaire head).

Illustrated assembly instructions in German or English. Other languages on request.

All components are pre-wired and prepared for quick assembly.

The ready-to-use luminaire is delivered disassembled for safe transport.

\* The guarantee is void in the event of violence, incorrect use or improper installation.

Weight: 74 kg

### Accessories for outdoor fixtures



Extension Kit Winter for LT-SOL-AP45 LT-SOL-AP45C

Internet:



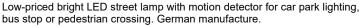
Solar Lighting for Parking Lot, Carport, Bus Shelters







**LED Solar Light for Parking Lot** 160W with Pole 8m



- Pole height 8 metres
- LED power 60W
- Luminous flux > 8100 Lm
- Lithium iron phosphate battery

LT-SOL-AP46



Robust photovoltaic street light with LED lamp - no power supply required. Recommended for countries with average solar radiation, such as Europe, Southern Russia, New Zealand.

High luminous intensity through state-of-the-art SMD LED in combination with an electronic 12V-60V DC PWM driver.

The brightness is comparable to a 160W mercury vapor lamp or a 100W sodium vapor lamp.

Very long, maintenance-free lamp operation due to special design features. Microprocessor system control,

All brackets and fastenings are hot-dip galvanized (for an additional charge also with a paint finish as desired).

The screws are made of VA stainless steel.

Design, production and quality management in Germany.

The solar light is maintenance-free - (only the solar module should be cleaned occasionally with water).

### General technical data:

Illuminated area: Approx. 33 x 10m

Recommended mast distance: approx. 33 meters

Ambient temperature: -10°C ~ +50°C (extension -35°C ~ +65°C

possible on request) Protection class: III protective low voltage CE, RoHS, WEEE mark of conformity: 20-year availability guarantee for spare parts.

### Lamp head specification:

Robust LED lamp head made of die-cast aluminum LED Lamp: Power SMD Chipset

LED power: 60W Energy efficiency class:

Light color 4000K neutral white (on special order also

3000K warm white).

No UV radiation for reduced insect attraction LED efficiency: > 160 lm/w > 145 lm/w luminaire efficiency: Luminous flux lumen: 8100 Lm

> 10 Lux (8m height) Central illuminance:

Average light intensity: > 6 Lux (8m)

LED lifetime approx. 80.000 hours

Protection class: IP65 (water and storm protected).

Warranty: 5 years

### Lamp control:

Programmable microprocessor control with infrared remote control option. Readout of the current operating status with storage of the measuring data of all components of the last days.

Automatic switch-on at sunset and switch-off at sunrise. (Switching level adjustable)

Adjustable dimming during the night in idle mode between 10% - 30%. When the motion detector is activated, the lighting switches briefly to 100%. The duration of the full lighting can be adjusted between 1 min and 10 min

The charge controller settings are pre-set by us according to customer requirements.

If you want to change settings, you need the remote control S-SOLS29. We will gladly help you to decide on the correct presettings.

All functions are pre-programmed by us free of charge according to the

project and the customer's wishes, so that the lamp is ready for operation immediately after installation.

Temperature-optimized battery charging and trickle charging to preserve the

Overvoltage and deep discharge protection for battery.

Internet:

Reverse polarity and short circuit protection.

Additional fuse Protection class: IP66 Warranty: 5 years





### Solar module specifications:

Monocrystalline silicon with very high efficiency

hardened protection glass, hail resistant

This high-quality module technology also ensures that you can load even when the sky is overcast. On dark days in winter, recharging is limited, thus shortening the lighting period.

Efficiency: > 19%

160Wp (without extension) Power:

Life expectancy: approx. 25 years
Performance guarantee \* 20 years 80% / 10 years 90%

### **Battery storing:**

High Performance Solar Lithium-Ion Iron Battery LiFePo4

battery voltage: 12V maintenance-free, longlife. For solar cyclic operation

Service life approx. 10 years / 20°C Function even at low temperatures.

For sufficient operational safety in autumn or winter we strongly recommend our extension sets.

Autarkic operating time in overcast weather (with fully charged battery):

a) Basic version: 4 days (44 hours)

b) with extension set autumn: 5 days (60 hours)

c) with extension set winter: 7 days (80 hours)

The batteries are located in the mast, behind the lockable door.

### Mast:

Steel mast, hot-dip galvanized

Visible height: 8 m

Soil piece: 160 cm for concreting in

(on request also other height)

For easier installation we also offer installation sleeves into which the mast

can be inserted

Lockable mast door, for easy access to the control unit.

### Supplied disassembled with the following components:

LED lamp head with mast mounting,

Lithium-ion battery

Solar module with stable, screwable mast mounting,

Steel mast,

Lamp control (already mounted in the lamp head).

Illustrated assembly instructions in German or English language. Other languages on request.

All components are pre-wired and prepared for quick assembly. The ready-to-use lamp is delivered disassembled for safe transport.

### Accessories for outdoor fixtures



Extension Kit Winter for LT-SOL-AP46 LT-SOL-AP46C

<sup>\*</sup> The warranty is void in case of force, incorrect use or improper assembly. Weight: 103 kg



### Solar Lights for Horse Riding, Dog Training, Sports Stadium



### Solar parking lot lighting LED



Photovoltaic light fixture with 30w power LED and 5m post. Made in Germany. LT-SOL-P3

Robust photovoltaic parking lot lighting with LED lamp - no power supply required.

High brightness - comparable to 300 watt halogen light.

The lighting is switched on via a motion detector.

Switching off after a few minutes with an adjustable timer.

The galvanized steel pole and the whole structure is so robust that kicking is futile

With adjustable LED floodlight.

All functions are pre-programmed charge on the project and customer requirements from us, so that the lamp is ready for use immediately after construction.

Solar module (without extension): monocrystalline silicon 60W with very high efficiency (tempered safety glass, hail-resistant), about 25 years of life expectancy.

This high-quality module technology allows charging also on cloudy days. All attachments and fasteners are galvanized or provided with a scratch-resistant and UV-resistant paint in a shade of gray.

The screws are made from stainless VA steel.

Robust LED luminaire head of diecast aluminum with high protection (water and storm protected).

The solar lamp is maintenance-free - (only the solar module should be cleaned occasionally with water).

### Technical specifications.

LED Lamp: Power LED 30W Chipset LED lifetime about 40,000 hours Energy Class A +++ Luminous flux: > 2900 Lm

Light color 4000K cool white Illuminated area: Aprx. 20 x 10m

Mast height: 5 m

Autonomous operating time in overcast weather (with fully charged battery): 20 hours

Ambient temperature: -20  $^{\circ}$  C  $^{\circ}$  C (extension possible on request) Solar battery: Lead gel 12V, maintenance-free, long life. Life is about 10 years / 20  $^{\circ}$  C

Temperature-optimized battery-charge and trickle charge to protect the batteries.

Overvoltage and deep discharge protection for the battery.

Reverse polarity and short circuit protection.

Protection lamp head: IP66 Protection battery box: IP66 Protection Light Control: IP67

Protection class: III Safety extra low voltage

Approvals: CE, RoHS, WEEE

### Supplied flat pack with the following components:

LED lamp head with pole mounting,

High power solar battery,

Solar module with stable, screw-pole mounting,

Galvanized steel mast, height 5 meters + inground section 800mm for concreting,

Microprocessor light controller (located conveniently accessible behind a lockable door in the mast).

Robust battery ground mounting box made of ABS, watertight, walkable, dimensions 410 x 410 x 450mm.

Illustrated assembly instruction in German or English. Other languages on request.

All components are pre-wired and ready for fast assembly.

20 years availability guarantee for spare parts.

The ready-lamp is delivered disassembled, complete with solar panel, mast, battery and lamp.

Weight: 80 kg





### Solar parking lot lighting LED **Double Sided**



Photovoltaic light fixture with 2 power LED lamps and 5m post with IR sensor. Made in Germany. LT-SOL-P4

Robust photovoltaic parking lot lighting with LED lamp - no power supply required.

High brightness - comparable to 600 watt halogen light.

The lighting is switched on via a motion detector.

Switching off after a few minutes with an adjustable timer.

The galvanized steel pole and the whole structure is so robust that kicking is futile.

Available with 2 adjustable LED floodlights.

All functions are pre-programmed charge on the project and customer requirements from us, so that the lamp is ready for use immediately after construction

Solar module (without extension): monocrystalline silicon 120W with very high efficiency (tempered safety glass, hail-resistant), about 25 years of life expectancy.

This high-quality module technology allows charging also on cloudy days. All attachments and fasteners are galvanized or provided with a scratchresistant and UV-resistant paint in a shade of gray.

The screws are made from stainless VA steel.

Robust LED luminaire head of diecast aluminum with high protection (water and storm protected)

The solar lamp is maintenance-free - (only the solar module should be cleaned occasionally with water).

### Technical specifications:

LED Lamp: Power LED 2\* 30W Chipset

LED lifetime about 40,000 hours

Energy Class C

Luminous flux: 2\*2900 Lm

Light color 4000K cool white Illuminated area: Aprx. 25 x 10m

Mast height: 5 m

Autonomous operating time in overcast weather (with fully charged battery):

Ambient temperature: -20 ° C ~ + 50 ° C (extension possible on request) Solar battery: Lead gel 12V, maintenance-free, long life. Life is about 10 years / 20 ° C

Temperature-optimized battery-charge and trickle charge to protect the

Overvoltage and deep discharge protection for the battery.

Reverse polarity and short circuit protection.

Protection lamp head: IP66

Protection battery box: IP66

Protection Light Control: IP67

Protection class: III Safety extra low voltage

Approvals: CE, RoHS, WEEE

### Supplied flat pack with the following components:

LED lamp head with pole mounting,

High power solar battery,

Solar module with stable, screw-pole mounting,

Galvanized steel mast, height 5 meters + inground section 800mm for

Microprocessor light controller (located conveniently accessible behind a lockable door in the mast).

Robust battery ground mounting box made of ABS, watertight, walkable, dimensions 550 x 550 x 480mm.

Illustrated assembly instruction in German or English. Other languages on request.

All components are pre-wired and ready for fast assembly.

20 years availability guarantee for spare parts.

The ready-lamp is delivered disassembled, complete with solar panel, mast, battery and lamp.

Weight: 132 kg

### Accessories for outdoor fixtures



Extension bis - 35 Grad

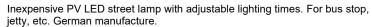


Solar Lighting for Parking Lot, Carport, Bus Shelters



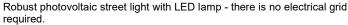


# LED Solar Light for Walking Way 50W with Pole and clock timer



- Pole height 3 metres
- LED power 7W
- Luminous flux 970 Lm
- Lithium iron phosphate battery

LT-SOL-Z38



Recommended for regions with average sun radiation, such as Europe, southern Russia, New Zealand.

High luminous intensity thanks to state-of-the-art SMD LED in conjunction with an electronic 12V-60V DC PWM driver.

The brightness is comparable to an 50W mercury vapor lamp.

Very long, maintenance-free luminaire operation due to special design features.

Microprocessor Control,

All brackets and fittings are hot-dip galvanized or scratch-proof and UV-resistant in grav.

The screws are made of VA stainless steel.

Construction, production and quality management in Germany. The solar light is maintenance-free - (only the solar module should occasionally be cleaned with water).

### General technical data:

Illuminated area: approx. 15 x 5m Recommended mast spacing= approx. 15 meters

Ambient temperature: -10°C ~ +50°C (extension -35°C ~ +65°C

possible on request)

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE 20-year availability guarantee for replacement parts.

### Lamp head specification:

Robust LED luminaire head made of die-cast aluminum LED lamp: SMD Chipset Philips

LED power: 7W Energy efficiency class B

Light color 4000K neutral white (on special order also

3000K warm white).

No UV radiation for reduced insect attractiveness LED efficiency: > 160 lm / w
Luminous efficiency: > 140 lm / w
Luminous flux Lumen: 970 Lm

Central illuminance: > 10 lux (4m height)
Average light intensity: > 5 lux (4m)
LED life about 100,000 hours

Protection class: IP65 (protected against water and storm).

5 years warranty

### **Light Controller:**

Programmable microprocessor control with infrared remote control option. Reading the current operating status with storage of the measurement data of all components of the last days.

Automatic lamp start at sunset and turn-off by dawn.

Light normally in dimmed mode for pefect orientation.

If a person or car is detected within 10 meters zone, the light switches on full brightness,

and falls back into dimming mode after some time.

Adjustable dimming during the night in idle mode between 0% - 30%. The duration of full illumination is adjustable between 1 min and 10 min.

The charge controller settings are preset by us according to customer requirements.

If you want to change settings, you need the remote control S-SOLS29. We will gladly help you to decide on the right presettings.

All functions are preprogrammed by us free of charge, depending on the project and customer request, so that the luminaire is ready for operation immediately after assembly.

Temperature-optimized battery charging and trickle charging to conserve batteries.

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse

Protection class: IP66





5 years warranty

### **Solar module specifications:**

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies.

Efficiency: > 16%

Power: 50Wp (without extension) Life expectancy: approx. 25 years

20 years 80% performance guarantee \*
10 years 90% performance guarantee \*
\* except in the case of mechanical impact

### **Battery storage:**

High performance solar lithium ion iron accumulator LiFePo4

Battery voltage: 12V maintenance-free, longlife. For solar cycle operation

Lifetime 6 - 10 years / 20°C

Function even at low temperatures.

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Self-sufficient operating time in overcast weather (with fully charged battery):

a) Basic version: 4 days (44 hours) b) with extension set autumn: 5 days (60 hours) c) with extension set winter: 7 days (80 hours)

The battery is in the mast, behind the lockable door.

### Mast:

Steel mast, hot-dip galvanized
Visible height: 4 m

Ground piece: 60 cm for setting in concrete

(on request also 3m - 5m height)

For easier installation, we also offer installation sleeves into which the mast

can be inserted.

Lockable mast door for easy access to the controls.

Delivery disassembled with the following components:

LED lamp head with mast mounting,

Lithium Ion Battery

Solar module with stable, screw-down mast mounting,

Steel pole Weight: 74 kg







## Solar light for bus stop with pole and timer



Photovoltaic road light fixture with dimmer 30w power LED and 5m post. Made in Germany.

Time controlled.

LT-SOL-Z41

Bright solar pole light with LED lamp - no power connection required. Automatic basic lighting in darkness, as well as bright light at specific times with timer.

Any times can be specified at which the light intensity is automatically turned up to provide more safety during shift work.

#### Example:

Switch-on in the evening at dusk (pre-set), switch-off via timer Mo-Fr. at 22:00h

In the morning, switch-on at 5:00~a.m., switch-off at sunrise (pre-set). Switched off on Saturdays and Sundays.

The brightness is comparable to 150W halogen light.

Very long, maintenance-free luminaire operation due to special design features. Intelligent microprocessor system control.

Manufacture and quality management in Germany.

#### General technical data:

Illuminated area: Approx. 12 x 6m

Ambient temperature: -20°C  $\sim$  +50°C (extension -35°C  $\sim$  +65°C possible on

request

Material: Brackets: Hot-dip galvanised steel (UV-resistant paint available at

extra cost). Screws: VA stainless steel.

Energy efficiency class: A

Protection class: III safety extra-low voltage

Marks of conformity: CE, RoHS, WEEE

20-year availability guarantee for spare parts.

#### Luminaire head specification:

Robust LED luminaire head made of die-cast aluminium

LED lamp: SMD chipset Osram

LED power: 15W

Light colour: 4000K neutral white (on special order also 3000K warm white).

No UV radiation for reduced insect attraction

LED efficiency: > 115 lm/w
Luminaire efficiency: > 100 lm/w
Luminous flux lumen: 1600 lm
Central illuminance: > 10 Lux
Average luminous intensity: > 6 lux
LED service life: approx. 100,000 hours
Protection class: IP65 (water- and storm-proof).

Warranty: 5 years

### Luminaire control:

Smart microprocessor control with WiFi programming option.

Readout of the current operating status with storage of the measurement data of all components of the last days.

Automatic switch-on at sunset and switch-off at sunrise. (the brightness value of the basic lighting is adjustable).

Any times can be specified at which the light intensity is automatically increased to provide more security during shift operation.

Example of basic lighting: From dusk 5 hours at 10%, then off (0%) and early in the morning 2 hours again at 10%.

Example of main lighting: 19:30 - 21:00 bright, at 6:45 - 8:00 bright.

In addition, the charge controller is equipped with a Smart Power function that enables automatic dimming during the night, depending on the battery charge level. When the battery voltage drops below 50%, the lamp is automatically dimmed to 50%, this process is descending until the deep discharge protection kicks in. This setting enables safe operation even on the low-light days in winter.

The charge controller settings are preset by us according to customer requirements. If you would like to change the settings, you will need the S-SOLS29 remote control. We will be happy to help you decide on the correct presettings. All functions are pre-programmed by us free of charge, depending on the project and customer requirements, so that the luminaire is ready for operation immediately after installation.

Temperature-optimised battery charging and trickle charging to extend battery life.

Overvoltage and deep discharge protection for battery.



Germany

Reverse polarity and short circuit protection.

Additional fuse

Protection class: IP66 Warranty: 5 years

Solar module specifications:

Monocrystalline silicon with very high efficiency Tempered protective glass, hail-resistant.

This high-quality module technology ensures charging even on overcast days.

On dark days in winter, recharging is limited and the lighting duration is thus shortened.

Efficiency: > 19%

Output: 100Wp (without extension) Life expectancy: approx. 25 years

Performance guarantee \* 20 years 80% / 10 years 90% \* except in case of mechanical impact

\* except in case of mechanical impact

Battery storage:

Battery type: Lithium Ion LiFePo4 12V, maintenance-free, longlife, for solar cycle operation.

Service life: approx. 10 years / 20°C Function even at low temperatures.

For sufficient operating safety in autumn or winter, we strongly recommend our extension sets.

Autonomous operating time in overcast weather (with fully charged battery):

a) basic version: 2 days (22 hours)

b) with extension set autumn: 3 days (30 hours)
c) with extension set winter: 4 days (40 hours)

The new emergency lighting function ensures lighting even when the battery charge is low during very long periods of bad weather, but with reduced luminosity.

The batteries are located in the mast and are protected from strong sun heat.

Mast:

Steel mast, hot-dip galvanised,

Visible height: 5 m

Ground stake: 80 cm for setting in concrete

For easier erection, we also offer installation sleeves into which the mast can be inserted.

Lockable mast door for easy access to the control unit.

Supplied disassembled with the following components:

LED lamp head with mast mounting, solar battery solar module with stable, screwable mast mounting, steel mast, luminaire control unit (already mounted in the mast).

Illustrated assembly instructions in German or English. Other languages on request

All components are pre-wired and prepared for quick assembly. The ready-to-use luminaire is delivered disassembled for safe transport.

Weight: 90 kg

### Accessories for outdoor fixtures



Extension Kit Autumn for LT-SOL-Z41 LT-SOL-Z41B



Extension Kit Winter for LT-SOL-Z41 LT-SOL-Z41C



Solar Lighting for Parking Lot, Carport, Bus Shelters







### **LED Solar Light for Parking** Lithium with pole



LED lighting for parking in shift operation, jetties, stops with adjustable lighting

Including steel pole 5 metres.

LT-SOL-Z46

Robust photovoltaic street light with LED lamp - no power connection required.

Recommended for countries with average solar radiation, such as Europe, southern Russia, New Zealand.

High luminous intensity thanks to state-of-the-art SMD LED in combination with an electronic 12V-60V DC PWM driver.

The brightness is comparable to an 80W mercury vapor lamp or 50W sodium vapor lamp.

Very long, maintenance-free luminaire operation due to special design features.

Microprocessor Control,

All brackets and fixings are hot-dip galvanized (with surcharge also with a coating as desired).

The screws are made of VA stainless steel.

Construction, production and quality management in Germany. The solar light is maintenance-free - only the solar module should occasionally be cleaned with water.

### General technical data:

Illuminated area: approx. 25 x 10m

Recommended mast spacing: approx. 25 meters Ambient temperature: -20  $^{\circ}$  C  $^{\sim}$  + 50  $^{\circ}$  C (extension -35  $^{\circ}$  C  $^{\sim}$  + 65  $^{\circ}$  C

possible on request)

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE

20-year availability guarantee for replacement parts.

### **Lamp specifications:**

LED Lamp: SMD Chipset Philips

LED power: 30W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 160 lm/w > 145 lm/w Lamp efficiacy: Luminous flux: > 5000 lm

Central illumination: > 36 Lux (5m pole height)

Average illumination: > 19 Lux (5m) 80000 hours Life time:

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Dimensions: 470mm x 230mm x 60mm

Arm length: 300mm (on request, we supply with max. 2

meter arm) **IP65** Protection degree: Guarantee: 5 years

### Light Control:

Smart microprocessor control with infrared programming option.

Reading the current operating status with storage of the measurement data of all components of the last days.

Automatic switch on at sunset and switch off at sunrise. (Switching level

Adjustable dimming during the late night and full power in the morning to extend the duration of the light in bad weather.

Operating time / duration (please specify when ordering)

You have the option from dawn to choose 4 consecutive time blocks with 1-15 hours duration and different light intensity of 10-100%.

Example 1 - Night reduction with shutdown and morning light:

From dusk 4 hours with 100%, then 2 hours with 50%, then 3 hours off (0%) and early in the morning 5 hours with 100%

Example 2 - night shutdown: 4 hours 100%, 4 hours midnight 0%, 5 hours

Example 3 - 4 hours bright in the evening, then reduced to 50% for 4 hours, then 10 hours (rest of the night) to 50%

In addition, the charge controller is equipped with a Smart Power function, which allows automatic dimming at night depending on the battery charge level.

If the battery voltage drops below 50%, the lamp is automatically dimmed to 50%, this process is decreasing until the deep discharge protection starts.



Germany

This setting enables safe operation even on the faint days in winter. The charge controller settings are preset by us according to customer requirements.

If you want to change the settings, you need the remote control S-SOLS29. We will gladly help you to decide on the right presettings.

All functions are preprogrammed by us free of charge, depending on the project and customer request, so that the luminaire is ready for use immediately after installation.

Temperature-optimized battery charge and trickle charge to extend battery life.

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse Protection class: IP66 Warranty: 5 years

### Solar module specifications:

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies. On dark days in winter, the recharging is limited, the light duration is thus reduced.

Efficiency: > 19%

Power: 330Wp (without extension)

Life expectancy: approx. 25 years

Performance Guarantee \* 20 years 80% / 10 years 90%

\* except in the case of mechanical impact

### Battery storage:

Battery Type: Lithium Ion LiFePo4 12V,

maintenance-free, longlife, for solar cycle operation

Lifetime approx. 10 years / 20 ° C Function even at low temperatures.

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Self-sufficient operating time in overcast weather (with fully charged battery):

a) Basic version: 44 hours

b) with extension set autumn: 36 hours

c) with extension set winter: 48 hours

The new emergency lighting function ensures the lighting even with low battery charge during very long periods of bad weather,

but with reduced luminosity.

The batteries are located in the mast and are protected from strong sunlight.

### <u>Mast:</u>

Steel mast, hot-dip galvanized,

Visible height: 5 m

Ground piece: 80 cm for setting in concrete

(on request also 6m - 8m height)

For easier installation, we also offer installation sleeves into which the mast can be inserted.

Lockable mast door for easy access to the controls.

### Delivery disassembled with the following components:

LED lamp head with mast mounting,

Solar battery

Solar module with stable, screw-down mast mounting,

Steel pole,

Light control (already mounted in the mast).

Illustrated assembly instructions in German or English. Other languages on request.

All components are pre-wired and prepared for quick setup.

Weight: 132 kg





### Solar Double Light for Parking Lithium with pole



LED solar light with 2 lights for shift parking, jetties, stops with adjustable lighting times.

Including steel pole 5 metres.

LT-SOL-Z46-2

Robust photovoltaic street light with LED lamp - no power connection required.

Recommended for countries with average solar radiation, such as Europe, southern Russia, New Zealand.

High luminous intensity thanks to state-of-the-art SMD LED in combination with an electronic 12V-60V DC PWM driver

The brightness is comparable to 2 pcs. 80W mercury vapor lamps or 100W sodium vapor lamp.

Very long, maintenance-free luminaire operation due to special design features.

Microprocessor Control,

All brackets and fixings are hot-dip galvanized (with surcharge also with a coating as desired).

The screws are made of VA stainless steel.

Construction, production and quality management in Germany. The solar light is maintenance-free - only the solar module should occasionally be cleaned with water.

### General technical data:

Illuminated area: approx. 25 x 10m

Recommended mast spacing: approx. 25 meters Ambient temperature: -20  $^{\circ}$  C  $^{\sim}$  + 50  $^{\circ}$  C (extension -35  $^{\circ}$  C  $^{\sim}$  + 65  $^{\circ}$  C

possible on request)

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE

20-year availability guarantee for replacement parts.

### **Lamp specifications:**

LED Lamp: SMD Chipset Philips

LED power: 30W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 160 lm/w > 145 lm/w Lamp efficiacy: Luminous flux: > 5000 lm

Central illumination: > 22 Lux (6m pole height)

Average illumination: > 11 Lux (6m) 80000 hours Life time:

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Dimensions: 470mm x 230mm x 60mm

Arm length: 300mm (on request, we supply with max. 2

meter arm) **IP65** Protection degree: Guarantee: 5 years

### Light Control:

Smart microprocessor control with infrared programming option.

Reading the current operating status with storage of the measurement data of all components of the last days.

Automatic switch on at sunset and switch off at sunrise. (Switching level

Adjustable dimming during the late night and full power in the morning to extend the duration of the light in bad weather.

Operating time / duration (please specify when ordering)

You have the option from dawn to choose 4 consecutive time blocks with 1-15 hours duration and different light intensity of 10-100%.

Example 1 - Night reduction with shutdown and morning light:

From dusk 4 hours with 100%, then 2 hours with 50%, then 3 hours off (0%) and early in the morning 5 hours with 100%

Example 2 - night shutdown: 4 hours 100%, 4 hours midnight 0%, 5 hours

Example 3 - 4 hours bright in the evening, then reduced to 50% for 4 hours, then 10 hours (rest of the night) to 50%

In addition, the charge controller is equipped with a Smart Power function, which allows automatic dimming at night depending on the battery charge level.

If the battery voltage drops below 50%, the lamp is automatically dimmed to 50%, this process is decreasing until the deep discharge protection starts.



This setting enables safe operation even on the faint days in winter. The charge controller settings are preset by us according to customer requirements.

If you want to change the settings, you need the remote control S-SOLS29. We will gladly help you to decide on the right presettings.

All functions are preprogrammed by us free of charge, depending on the project and customer request, so that the luminaire is ready for use immediately after installation.

Temperature-optimized battery charge and trickle charge to extend battery

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse Protection class: IP66 Warranty: 5 years

### Solar module specifications:

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies. On dark days in winter, the recharging is limited, the light duration is thus reduced.

Efficiency: > 19%

Power: 330Wp (without extension)

Life expectancy: approx. 25 years

Performance Guarantee \* 20 years 80% / 10 years 90%

\* except in the case of mechanical impact

### <u>Battery storage:</u>

Battery Type: Lithium Ion LiFePo4 12V,

maintenance-free, longlife, for solar cycle operation

Lifetime approx. 10 years / 20 °C Function even at low temperatures.

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Self-sufficient operating time in overcast weather (with fully charged battery):

a) Basic version: 36 hours

b) with extension set autumn: 54 hours

c) with extension set winter: 72 hours

The new emergency lighting function ensures the lighting even with low battery charge during very long periods of bad weather,

but with reduced luminosity.

The batteries are located in the mast and are protected from strong sunlight.

### Mast:

Steel mast, hot-dip galvanized,

Visible height: 5 m

Ground piece: 80 cm for setting in concrete

(on request also 6m - 8m height)

For easier installation, we also offer installation sleeves into which the mast can be inserted.

Lockable mast door for easy access to the controls.

### Delivery disassembled with the following components:

LED lamp head with mast mounting,

Solar battery

Solar module with stable, screw-down mast mounting,

Steel pole,

Light control (already mounted in the mast).

Illustrated assembly instructions in German or English. Other languages on

All components are pre-wired and prepared for quick setup.

Weight: 132 kg



Solar Street Lights for desert + equatorial countries





### **LED Solar Street Light Equador** Blue 60W



German manufactured streetlight fixture with 15W power LED lamp and lithium battery.

LT-Sol041-060

Robust PV street light with LED lamp - no power connection required. Recommended for countries with many sunny days, such as Africa, Arabia, Iraq, Turkey, India, Central and South America.

High light intensity through the latest SMD LED in connection with an electronic 12V-60V DC PWM driver.

The brightness is comparable to a 40W fluorescent tube or 50 Watt HQL / HPL or 130W halogen light.

Very long, maintenance-free lighting operation due to special design features.

Smart Microprocessor Control.

Construction, manufacturing and quality management in Germany. The solar light is maintenance-free - (only the solar module should occasionally be cleaned with water).

### General technical data:

Illuminated area: approx. 22 x 8m

Recommended mast spacing approx. 20 - 25 meters Ambient temperature: -20° C  $\sim$  + 50° C (extension -35° C  $\sim$  + 65° C possible

on request)

Protection class: III SELV Certification marks: CE, RoHS, WEEE

Material: Brackets steel hot-dip galvanized (for a surcharge also with a paint

Screws: Stainless steel VA.

20-years availability guarantee for spare parts.

### Luminaire head specification:

Robust LED lamp head made of die-cast aluminum

LED lamp: SMD chipset

LED power: 15W

Energy efficiency class A

Light color 4000K neutral white (from 10 pieces on special order also 3000K warm white).

No UV radiation for reduced insect attraction

LED efficiency: > 145 lm /w Luminaire efficiency: > 135 lm /w 2500 lm Luminous flux:

Central illuminance: > 10 lux (5m height) LED lifespan approx. 100,000 hours

Degree of protection: IP65 (protected against water and storms).

Impact resistance: IK10 Warranty 5 years

### **Light Control:**

Programmable microprocessor control with infrared remote control option. Read out the current operating status with storage of the measurement data of all components of the last days

Automatic switch on at sunset and switch off at sunrise. (Switching level adjustable)

Adjustable dimming during late night and full power again in the morning to extend the lighting time in bad weather.

Operating time / light duration (please specify when ordering) You have the option to select 4 consecutive time blocks from dusk, each with a duration of 1-15 hours and a different light intensity of 10-100%.

Example 1 - Night reduction with switch-off and morning light: from dusk 4 hours with 100%, then 2 hours with 50%, then 3 hours off (0%) and early in the morning 5 hours with 100%

Example 2 - Night shutdown: 4 hours 100%, 4 hours midnight 0%, 5 hours

Example 3 - 4 hours in the evening bright, then reduced 4 hours with 50%, then 10 hours (rest of the night) with 50%

In addition, the charge controller is equipped with a Smart Power function, which enables automatic dimming depending on the battery charge level. If the battery voltage falls below 50%, the lamp is automatically dimmed to 50%, this process is decreasing until the deep discharge protection starts. This setting enables safe operation even on the faint days in winter. The charge controller settings are preset by us according to customer requirements. If you want to change settings, you need the S-SOLS29 remote control.



German

We would be happy to help you decide on the correct default settings. All functions are preprogrammed free of charge depending on the project and customer request, so that the luminaire is ready for operation immediately after assembly.

Temperature-optimized battery charging and trickle charging to protect the batteries.

Overvoltage and deep discharge protection for batteries.

Reverse polarity and short circuit protection.

Additional fuse Protection class: IP66 Warranty 5 years

### Solar module specifications:

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high-quality module technology also ensures charging when the sky is overcast.

Reloading is restricted on dark days in winter, which shortens the light duration.

Efficiency: > 19% Power: 60Wp

Life expectancy: approx. 25 years 20 years 80% performance guarantee \* 10 year 90% performance guarantee \* \* except for mechanical action

#### **Battery storage:**

Battery type: Lithium-ion iron phosphate LiFePo4 12V, maintenance-free, longlife

longlite.

For solar cycle operation

Service life approx. 6 - 10 years / 20 ° C

Self-sufficient operating time in overcast weather (with fully charged battery): 24 hours (approx. 2 days)

The new emergency lighting function ensures lighting even when the battery is low in bad weather periods, but with reduced brightness.

The battery is located in the mast, behind the lockable door.

#### Mast:

For a surcharge we can supply a suitable steel mast, galvanized. Recommended mast height: 4 - 6 m

# Delivery disassembled with the following components:

LED lamp head with mast attachment,

Lithium-ion solar battery,

Solar module with stable, screwable mast mounting,

Luminaire control (for installation in the mast).

(Complete system pre-wired, but without mast)

Illustrated assembly instructions in German or English.

Other languages on request.

All components are pre-wired and prepared for quick assembly. The ready-to-use luminaire is delivered disassembled for safe transport.

Weight: 50 kg





**LED Solar Street Light Blue-Line 70W** 



Elegant streetlight with 20W bright LED lamp LT-Sol041-070

Sandstorm-proof and seawater resistant PV street lighting fixture, equipped with bright LED Lamp.

Recommended for sunny regions, like Africa, desert countries, South America, Philipines.

High brightness corresponds to 50 watt mercury light or 25w fluorescent liaht.

Long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microcontroller system control for lighting and charging.

All components are galvanized or surfaced with a grey, scratchproof 2-layers UV-resistant coating.

The screws consist of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

### General specifications:

Lighted area: aprx. 18 x 8m

Distance from pole to pole: aprx. 13 - 18 meter

Recommended pole height: 4m - 6m

Ambient temperature: -20°C ~ +50°C (extended temperature range -35°C ~

+65°C available on request)

Max. direct sunshine temperature: 80° C / 171 F degree

Protection class: III Low safe voltage Energy efficiency class: A+++ Approvals: CE, RoHS, WEEE 20 years sparepart supply ability.

### Lamp specifications:

LED Lamp: SMD Chipset Philips

LED power: 20W

Light colour 4000K pure white (on request also 3000K warm white or 6000K

daylight).

No uv-radiation for reduced insects attraction

LED efficiacy: > 120 lm/w Lamp efficiacy: > 100 lm/w Luminous flux: > 2000 lm

Central illumination: >9 Lux (6m) Average illumination: >13 Lux (5m)

Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and thunderstorm-proof.

Dimensions: 470mm x 230mm x 60mm

Arm length: 300mm (on request, we supply with max. 2 meter arm)

Protection degree: IP65 5 years guarantee

### System controler specifications:

Programmable microprocessor charge controler.

WiFi remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery. Reverse polarity and electronic short circuit protection.

Additional electric fuse Protection degree : IP66 5 years guarantee

### Solar panel specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated, sandstorm proof)

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

Efficiency: > 16% Power: 70W





Germany

Life expectancy: aprx. 25 years 20 years 80% power guaranty \* 10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

#### **Battery specifications:**

Battery type: Lead gel 12V, On option Li-Ion LiFePo4 battery maintenance-free, longlife. For solar cycling charge operation Lifetime about 10 Years / 20°C

Autonomy 15 days (each 10h) at cloudy weather

Autarkic backup for 25 hours = 2 nights at fully charged batteries. At absolutely no sunshine.

### **Battery box:**

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Size: L 496 x w 280 x h 270mm

on option ABS plastic box IP66 (walk over):

Size: L 550 x w 550 x h 480mm

### **Including following components:**

LED light fixture with arm and pole mount bracket.

Solar battery,

Recessed battery box,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Manual for easy mechanical and electrical setup in english language. Other languages on request.

Complete pre-wired unit without pole.

Weight: 88 kg







# LED Solar Street Light Blue-Line 100W



Stable Streetlight with 30W bright LED lamp LT-Sol041-100

Sandstorm-proof and seawater resistant PV street lighting fixture, equipped with high power LED Lamp.

Recommended for sunny regions, like Africa, desert countries, South America, Philipines.

High brightness corresponds to 80 watt mercury light.

Long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microcontroller system control for lighting and charging.

All components are galvanized or surfaced with a grey, scratchproof 2-layers UV-resistant coating.

The screws consist of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

#### **General specifications:**

Lighted area: aprx. 25 x 12m Distance from pole to pole: aprx. 25 meter Recommended pole height: 4m - 7m

Ambient temperature: -20°C ~ +55°C (extended temperature

range -35°C ~ +65°C available on request)

Max. direct sunshine temperature: 80° C / 171 F degree
Protection class: III Low safe voltage
Energy efficiency class: B
Approvals: CE, RoHS, WEEE

Sparepart supply ability: 20 years

### **Lamp Head:**

LED Lamp: SMD Chipset Philips

LED power: 30W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 160 lm/w
Lamp efficiacy: > 145 lm/w
Luminous flux: > 5000 lm
Central illumination: > 22 Lux (6m)
Average illumination: > 21 Lux (4m)
Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Dimensions: 470mm x 230mm x 60mm

Arm length: 300mm (on request, we supply with max. 2

meter arm)
Protection degree: IP65
Guarantee: 5 years

### **System controler specifications:**

Programmable microprocessor charge controler.

WiFi remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery. Reverse polarity and electronic short circuit protection.

Additional electric fuse

Protection degree: IP66
Guarantee: 5 years

### Solar panel specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated, sandstorm proof)

Internet:

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

Efficiency: > 19%





Germany

Power: 100W Life expectancy: aprx. 25 years

20 years 80% power guaranty \* 10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

### **Battery specifications:**

Battery type: Lead AGM 12V

maintenance-free, longlife. For solar cycling charge operation On option Li-Ion LiFePo4 battery

Lifetime about 5-8 Years / 20°C

Autonomy 15 days (each 10h) at cloudy weather 25 hours = 2 nights at fully charged batteries.

At absolutely no sunshine.

#### **Battery box:**

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box (non walkover) with cabel protection hose:

Dimensions: Width 610 mm x depth 310 mm x height 250

mm

Protection class IP67

### **Including following components:**

LED light fixture with arm and pole mount bracket.

Battery box with battery,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Manual for easy mechanical and electrical setup in english language. Other

languages on request.

Complete pre-wired unit without pole.

Weight: 88 kg







#### **LED Solar Street Light Lithium Blue 100W**



Stable Streetlight with 30W bright LED lamp LT-Sol041-101

Sandstorm-proof and seawater resistant PV street lighting fixture, equipped with high power LED Lamp.

Recommended for sunny regions, like Africa, desert countries, South America, Philipines.

High brightness corresponds to 80 watt mercury light.

Long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microcontroller system control for lighting and charging.

All components are galvanized or surfaced with a grey, scratchproof 2-layers UV-resistant coating.

The screws consist of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

### **General specifications:**

Lighted area: aprx. 25 x 12m Distance from pole to pole: aprx. 25 meter Recommended pole height: 4m - 7m

-20°C ~ +55°C (extended temperature Ambient temperature:

range -35°C ~ +65°C available on request)

Max. direct sunshine temperature: 80° C / 171 F degree III SELV Low safe voltage Protection class:

Energy efficiency class:

CE, RoHS, WEEE Approvals:

Sparepart supply ability: 20 years

#### Lamp specifications:

LED Lamp: SMD Chipset Philips

LED power:

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 160 lm/w Lamp efficiacy: > 145 lm/w Luminous flux: > 5000 lm Central illumination: > 22 Lux (6m) Average illumination: > 21 Lux (4m) Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Dimensions: 470mm x 230mm x 60mm

Arm length: 300mm (on request, we supply with max. 2

meter arm)

Protection degree: IP65 Guarantee: 5 years

### System controler specifications:

Programmable microprocessor charge controler.

WiFi remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery.

Reverse polarity and electronic short circuit protection.

Additional electric fuse

Protection degree: **IP66** Guarantee: 5 years

#### Solar panel specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated, sandstorm proof)

Internet:

This modern cell technology has a high degree of efficiency and allows

charging also at cloudy weather.

Efficiency: aprx. 19%



Germany

Power: 100W Life expectancy: aprx. 25 years

20 years 80% power guaranty \* 10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

#### **Battery specifications:**

Battery type: Lithium Iron Phosphate, LiFePo4

Voltage: 12.6 V maintenance-free, longlife, overcharge For solar cycling charge operation

Lifetime about 6-10 Years / 20°C

Autonomy 15 days (each 10h) at cloudy weather Autarkic backup 25 hours = 2 nights at fully charged batteries.

At absolutely no sunshine.

The battery is located inside the pole, behind the service door for easier

installation and thieve protection.

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

Lithium battery,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Manual for easy mechanical and electrical setup in english language. Other

languages on request.

Complete pre-wired unit without pole.

Weight: 58 kg

Internet:







# LED Solar Street Light Blue-Line 130W



Stable Streetlight with 40W bright LED lamp LT-Sol041-120

Sandstorm-proof and seawater resistant PV street lighting fixture, equipped with high power LED Lamp.

Recommended for sunny regions, like Africa, desert countries, South America, Philipines.

High brightness, more than 80 watt mercury light.

Long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microcontroller system control for lighting and charging.

All components are galvanized or surfaced with a grey, scratchproof 2-layers UV-resistant coating.

The screws consist of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

### **General specifications:**

Lighted area: aprx. 25 x 12m Distance from pole to pole: aprx. 25 meter Recommended pole height: 5m - 8m

Ambient temperature: -20°C ~ +55°C (extended temperature

range -35°C ~ +65°C available on request)

Max. direct sunshine temperature: 80° C / 171 F degree Protection class: III Low safe voltage Energy efficiency class: B

Approvals: CE, RoHS, WEEE Sparepart supply ability: 20 years

### **Lamp specifications:**

LED Lamp: SMD Chipset Philips

LED power: 40V

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 120 lm/w
Lamp efficiacy: > 100 lm/w
Luminous flux: > 5000 lm
Central illumination: > 15 Lux (6m)
Average illumination: > 18 Lux (5m)
Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Dimensions: 470mm x 230mm x 60mm

Arm length: 300mm (on request, we supply with max. 2

meter arm)

Protection degree: IP66 Guarantee: 5 years

### **System controler specifications:**

Programmable microprocessor charge controler.

WiFi remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery.

Reverse polarity and electronic short circuit protection.

Additional electric fuse

Protection degree: IP66 Guarantee: 5 years

#### **Solar panel specifications:**

High efficient monocrystalline silicone

(tempered glass encapsulated, sandstorm proof)

Internet:

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

Efficiency: > 18%





Germany

Power: 130W Life expectancy: aprx. 25 years

20 years 80% power guaranty \*
10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

#### **Battery specifications:**

Battery type: Lead gel 12V Capacity: 1000 Wh On option Li-Ion LiFePo4 battery maintenance-free, longlife. For solar cycling charge operation

Lifetime about 8 Years / 20°C

Autonomy 15 days (each 10h) at cloudy weather Autarkic backup 25 hours = 2 nights at fully charged batteries.

At absolutely no sunshine.

#### **Battery box:**

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box IP67 (non walkover) with cabel protection hose, steel

reinforced:

Size: L 496 x w 280 x h 270mm

on option ABS plastic box IP66 (walk over):

Size: L 550 x w 550 x h 480mm

#### Including following components:

LED light fixture with arm and pole mount bracket.

Solar battery,

Recessed battery box,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Manual for easy mechanical and electrical setup in english language. Other

languages on request.

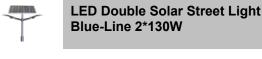
Complete pre-wired unit without pole.

Weight: 88 kg





Germany





Stable Streetlight with 2 arms 2\* 40W bright LED lamps LT-Sol041-122

Sandstorm-proof and seawater resistant PV street lighting fixture, equipped with high power LED Lamp.

Recommended for sunny regions, like Africa, desert countries, South America, Philipines.

High brightness, more than 80 watt mercury light.

Long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microcontroller system control for lighting and charging.

All components are galvanized or surfaced with a grey, scratchproof 2-layers UV-resistant coating.

The screws consist of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

### **General specifications:**

Lighted area: aprx. 25 x 24m Distance from pole to pole: Recommended pole height: 5m - 8m

Ambient temperature:  $-20^{\circ}\text{C} \sim +55^{\circ}\text{C}$  (extended temperature

range -35°C ~ +65°C available on request)

Max. direct sunshine temperature: 80° C / 171 F degree Protection class: III Low safe voltage Energy efficiency class: B

Approvals: CE, RoHS, WEEE

Sparepart supply ability: 20 years

#### **Lamp specifications:**

LED Lamp: SMD Chipset Philips

LED power: 2\* 40W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 120 lm/w
Lamp efficiacy: > 100 lm/w
Luminous flux: 2\* > 5000 lm
Central illumination: > 15 Lux (6m)
Average illumination: > 18 Lux (5m)
Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Dimensions: 470mm x 230mm x 60mm

Arm length: 300mm (on request, we supply with max. 2

meter arm)

Protection degree: IP66 Guarantee: 5 years

### System controler specifications:

Programmable microprocessor charge controler.

WiFi remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery.

Reverse polarity and electronic short circuit protection.

Additional electric fuse

Protection degree: IP66 Guarantee: 5 years

### **Solar panel specifications:**

High efficient monocrystalline silicone

(tempered glass encapsulated, sandstorm proof)

Internet:

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

Efficiency: > 18%





Germany

Power: 265W Life expectancy: aprx. 25 years

20 years 80% power guaranty \* 10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

#### **Battery specifications:**

Battery type: Lead gel 12V Capacity: 1800 Wh On option Li-Ion LiFePo4 battery maintenance-free, longlife.

For solar cycling charge operation

Lifetime about 6 Years / 20°C

Autonomy 15 days (each 10h) at cloudy weather Autarkic backup 25 hours = 2 nights at fully charged batteries.

At absolutely no sunshine.

### **Battery box:**

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box IP67 (non walkover) with cabel protection tube: Size: L 496 x w 280 x h 270mm

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

Solar battery,

Recessed battery box,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Manual for easy mechanical and electrical setup in english language. Other

languages on request.

Complete pre-wired unit without pole.

Weight: 88 kg







#### **LED Solar Street Light Move 60W** Lithium



Stable Streetlight with 60 watt bright LED lamp 6200 lumens, IR presence detector and LiFe2Po4 battery.

LT-Sol041-139

Sandstorm-proof and seawater resistant PV street lighting fixture, equipped with high power LED Lamp.

Recommended for sunny regions, like Africa, desert countries, South America, Philipines.

High brightness corresponds to 160 watt mercury light.

Light normally in dimmed mode for pefect orientation.

If a person or car is detected within 10 meters zone, the light switches on full brightness, after 10 Sec. - 60 minutes delay, the light will fall back into dimming mode again.

All functions are pre-programmed by us, for the project and customer specifications, so that the lamp is ready for operation immediately after installation.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant painting).

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

#### **General specifications:**

aprx. 25 x 12m Lighted area 20 - 25 meters Distance from pole to pole: Recommended pole height: 7m - 9m Energy efficiency class: A+++

-20°C ~ +55°C (extended temperature Ambient temperature:

range -35°C ~ +65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree Protection class: III Low safe voltage CE, RoHS, WEEE Approvals:

20 years sparepart supply ability.

### Lamp specifications:

LED Lamp: SMD Chipset LED power: 60W

Light colour 4000K pure white (on request also 3000K

warm white).

No uv-radiation for reduced insects attraction LED efficiency: > 112 lm/w Lamp efficiacy: > 100 lm/w Luminous flux: > 6200 lm

Central illumination: > 22 Lux (at 8m pole height)

> 20 Lux (6m) Average illumination: 60000 hours Life time:

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Arm length: 300mm (on request, we supply with max. 2

meter arm) IP65 Protection degree: Shock resistance: IK10 Guarantee: 5 years

### System controler specifications:

Programmable Processor charge controler.

Infra Red remote control

Internet:

Metering memory for actual and last days system status. Automatic lamp start at sunset and turn-off by dawn. (Level adjustable)

Full power for a few minutes, if a person is detected.

Automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity.

All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after

Temperature feeded battery charging for extended battery life. Overcharge and deep discharge protection for the battery.





Germany Reverse polarity and electronic short circuit protection.

Additional electric fuse

Protection degree: IP66 Guarantee: 5 years

#### Solar panel specifications:

High efficient monocrystalline silicone

tempered glass encapsulated, sand storm proof

This modern cell technology has a high degree of efficiency and allows

charging also at cloudy weather.
Efficiency: > 16%
Power: 60Wp

Life expectancy: aprx. 25 years 20 years 80% power guaranty \* 10 years 90% power guaranty \*

#### **Battery storage:**

High performance solar lithium iron accumulator LiFePo4

Battery voltage: 12V Capacity: 240 Wh

maintenance-free, longlife.

For solar cycle operation Lifetime 6 - 10 years / 20°C

Function even at low temperatures.

Autonomy time with fully charged battery:

Autonomy 10 days (each 10h) at cloudy weather

Autarkic backup 24 hours = 2 nights at fully charged batteries.

At absolutely no sunshine.

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

LiFePo4 battery

Solar module with frame and bracket for adjustable top-mount.

System controler.

Steel pole.

Manual for easy mechanical and electrical setup in english language. Other

languages on request.

Complete pre-wired unit without pole.

Weight: 88 kg

<sup>\*</sup> excepted is the complete failing (3 years guarantee)





# Power LED Solar Street Light Blue-Line 300 W



Very bright streetlight for highway. Made in Germany. Economical price version. With LED lamp 120W.

LT-Sol041-300

Sandstorm- and salty mist proof PV street lighting fixture, equipped with high power LED Lamp.

Recommended for sunny regions, like desert countries, Arabia, South America, Africa.

Very high brightness corresponds to 250 watt hps sodium light.

Very long maintenance-free system lifespan, by quality LED, MPPT solar controler with dimmable PWM driver.

Microprocessor system control for lighting and charging.

MPPT tracker charger for up to 30% higher solar module efficiency.

All components are galvanized or surfaced with a grey, scratchproof 2-layers UV-resistant coating.

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

#### **General specifications:**

Lighted area:

Distance from pole to pole:

Recommended pole height:

Ambient temperature:

Protection class:

Aprx. 30 x 12m

aprx. 30 - 45 meter

8m - 12m

-20°C ~ +55°C

85° C / 176 F degree

III Low safe voltage

CE, RoHS, WEEE

20 years sparepart supply ability.

#### Lamp specifications:

LED Lamp: Power SMD Chipset Osram

LED power: 120W Life time: 50000 hours

Light colour: 4000K pure white (on request also

3000K warm white or 6000K daylight).

No uv-radiation for reduced insects attraction
LED efficiacy: > 142 lm/w
Lamp efficiacy: > 132 lm/w
Luminous flux: > 15920 lm

Central illumination: > 38 lux (10m pole height)

Average illumination: > 23 lux (10m)

Casing: Rigid aluminium die-cast. Seawater

and thunderstorm-proof.

Protection degree lamp head: IP66 Guarantee: 5 years

#### System controler specifications:

Smart processor charge controler.

Wireless programmer

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn.

Timer-dimmer: Full power at start-up, after midnight power reduction on 50% and full power again in the early morning, for more safety at low battery canacity

All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.

MPPT Solar charger efficiency: > 99%

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery.

Reverse polarity and short circuit protection.

Additional electric fuse

Protection degree controller: IP66 Guarantee: 5 years

#### Solar panel specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated, sandstorm proof)

This modern cell technology has a high degree of efficiency and allows

charging also at cloudy weather.

Efficiency: > 19%
Power: 300W
Life expectancy: aprx. 25 years



15 days (each 10h) at cloudy



Germany

20 years 80% power guaranty \*

10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

### **Battery specifications:**

Battery type: Lead gel 12V maintenance-free, longlife. 3600 Wh Capacity:

For solar cycling charge operation

Lifetime:

about 10 Years / 20°C On option Li-Ion LiFePo4 battery

Autonomy

weather 24 hours = 2 nights at fully charged Autarkic backup:

batteries. At absolutely no sunshine.

#### **Battery box:**

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box IP67 (non walkover) with cabel protection hose, steel

reinforced:

Size: L 496 x w 600 x h 270mm on option 2 pieces ABS plastic box IP66 (walk over):

L 550 x w 550 x h 480mm each

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

2 pcs. solar battery,

Recessed battery box

Solar module with frame and bracket for adjustable top-mount.

Charge controler.

Manual for easy mechanical and electrical setup in english language. Other

languages on request.

Complete pre-wired unit without pole.

Weight: 130 kg







# Double LED Solar Street Light Blue-Line 2\*300 W



Very bright streetlight for highway. Made in Germany. Economical price version. With 2 x LED lamp 120W.

LT-Sol041-302

Sandstorm- and salty mist proof PV street lighting fixture, equipped with high power LED Lamp.

Recommended for sunny regions, like desert countries, Arabia, South America, Africa.

Very high brightness corresponds to 2x 250 watt hps sodium lights. Very long maintenance-free system lifespan, by quality LED, MPPT solar controler with dimmable PWM driver.

Microprocessor system control for lighting and charging.

MPPT tracker charger for up to 30% higher solar module efficiency.

All components are galvanized or surfaced with a grey, scratchproof 2-layers UV-resistant coating.

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

### **General specifications:**

Lighted area:

Distance from pole to pole:

Recommended pole height:

Ambient temperature:

Protection class:

Approvals:

aprx. 45 x 22m

aprx. 40 - 45 meter

9m - 12m

-20°C ~ +55°C

85° C / 176 F degree

III Low safe voltage
CE, RoHS, WEEE

20 years sparepart supply ability.

### **Lamp specifications:**

LED Lamp: Power SMD Chipset Osram

LED power: 2x 120W Life time: 50000 hours

Light colour 4000K pure white (on request also

3000K warm white or 6000K daylight).

No uv-radiation for reduced insects attraction

LED efficiacy: > 125 lm/w

Lamp efficiacy: > 100 lm/w

Luminous flux: 2 x >13920 lm /5500K (12200 lm

/4000K)

Central illumination: >38 lux (10m pole height)

Average illumination: >23 lux (10m)

Casing: Rigid aluminium die-cast. Seawater

and thunderstorm-proof.

Protection degree lamp head: IP66
Guarantee: 5 years

### **System controler specifications:**

Programmable Processor charge controler.

Infra Red remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn.

Timer-dimmer: Full power at start-up, after midnight power reduction on 50% and full power again in the early morning, for more safety at low battery capacity.

All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation

MPPT Solar charger efficiency: > 99%

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery.

Reverse polarity and short circuit protection.

Additional electric fuse
Protection degree controller: IP66
Guarantee: 5 years

### Solar panel specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated, sandstorm proof)

This modern cell technology has a high degree of efficiency and allows

charging also at cloudy weather.

Efficiency: > 16%
Power: 300W
Life expectancy: aprx. 25 years

Internet:





Germany

24 hours = 2 nights at fully charged

20 years 80% power guaranty \* 10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

### **Battery specifications:**

Battery type: Lead gel 12V

maintenance-free, longlife.

7200 Wh Capacity: For solar cycling charge operation

Lifetime

about 10 Years / 20°C On option Li-Ion LiFePo4 battery

Autonomy

15 days (each 10h) at cloudy weather

Autarkic backup

batteries. At absolutely no sunshine. ABS plastic for waterproof inground

Battery box:

installation Protection degree: IP67 (non walkover)

The batteries are located underground for equalized temperature (longer life)

and thieve protection.

### Including following components:

2 pcs. LED light fixture with arm and pole mount bracket.

2 pcs. solar battery, Recessed battery box

Solar module array with bracket for adjustable top-mount.

Charge controler.

Manual for easy mechanical and electrical setup in english language. Other

languages on request.

Complete pre-wired unit without pole.

440 kg Weight:





#### Solar Street Light + Wind power **LED 60W**



Hybrid streetlight fixture with solar module 150W, Power LED and spinning wind generator. Made in Germany. LT-SOL050-6L

Powerful and reliable photovoltaic light with storage of solar energy for 50 hours of lighting.

Recommended for use in Central Europe and Northern Europe - with average and low number of sunny days.

#### <u>Technical specifications:</u>

Energy efficiency class A Light source: Power LED white 60W -> 6400 lumens,

Brightness is equivalent to about 500W halogen light.

Lifespan 100,000 hours, white light color. Max. Illuminance at 7m mounting height: 18 lux max. / 13 lux on average.

Wind power generator: 400W. Solar Panel: Monocrystalline silicon (tempered protective glass, hailproof)

approx. 25 years life expectancy.

This high quality module technology also ensures charge in

High performance lead gel solar batteries 2x 12V, maintenance-free, longlife: service life approx. 8 years / 20 ° C.

Control: Microprocessor for optimized battery charging and luminaire control. Programmable switch-on and switch-off depending on twilight or time control.

Overvoltage and deep discharge protection for battery.

Please order mast separately.

Our galvanized steel poles have a lockable door, behind which the luminaire control is inserted.

Battery box for ground installation IP67 (walk-in), dimensions 550 x 550 x 480mm

Operating conditions:

Self-sufficient operating time in rainy weather (with fully charged battery):

- a) Basic version: 2 days (25 hours)
- b) with extension set autumn: 3 days (32 hours)
- c) with extension set winter: 4 days (40 hours)

Separate control cabinet made of steel with safety lock or floor box for housing the batteries and for the wind power charge controller.

Light environment Ø approx. 35 meters

Ambient temperature: -20 ° C ~ + 50 ° C (extension available on request) Maintenance-free - (only the solar cells should be freed from snow or leaves if necessary).

The ready-to-use mast luminaire comes disassembled, complete with wind generator, solar module, batteries, LED lamp and cables, but without mast. The luminaire pole must be ordered separately (recommended length 7 - 12

Recommended distance from light to light: 35m.

10 years availability guarantee for spare parts.

Minimum order quantity: 2 pcs.

Weight: 180 kg



Germany



# LED Solar Path Way Light 30W Africa with Pole



Solar walkway, cycle track and street light fixture including 4m steel pole and LED lamp. Made in Germany.

LT-Sol051-039L

Sandstorm-proof and seawater resistant PV street lighting fixture, with LED Lamp.

Recommended for sunny regions, like Africa, desert countries, South America, Philipines.

This solar light is very robust and reliable - no power connection required. However, the light intensity is not very high, making the lamp is not approved for public street lighting.

Recommended for access path, hiking trail, driveway, driveway, cul-de-sac, private road ...

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant painting).

The screws consist of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

#### **General specifications:**

Lighted area: aprx. 18 x 5m
Distance from pole to pole: 15 - 20 meters

Ambient temperature:  $-20^{\circ}\text{C} \sim +55^{\circ}\text{C}$  (extended temperature

range -35°C ~ +65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree Protection class: III Low safe voltage Approvals: CE, RoHS, WEEE

20 years sparepart supply ability.

### Lamp specifications:

Life time: 60000 hours

Energy efficiency class:

Light colour: 4000K neutral white (on request 5000K cold

white or 3000K warm white).

No uv-radiation for reduced insects attraction
LED efficiency: > 112 lm/w

Lamp efficiacy: > 125 lm/w
Luminous flux: 600 Lm

Central illumination: > 8 Lux (at 4m pole height)

Life time: Aprx. 60000 h

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.
Adjustable inclination: 0 / 5 / 10/ 15 degr

Arm length: 300mm (on request, we supply with 1 meter

arm)

Profection degree: IP66 Impact resistance: IK08 Guarantee: 5 years

#### **System controler specifications:**

Programmable Processor charge controler.

Infra red remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation

Temperature feeded battery charging for extended battery life. Overcharge and deep discharge protection for the battery. Reverse polarity and electronic short circuit protection.

Additional electric fuse

Protection degree: IP66 Guarantee: 5 years

#### Solar panel specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated, sandstorm proof)

Internet:



This modern cell technology has a high degree of efficiency and allows

charging also at cloudy weather.

Efficiency: > 16% 30Wp Power: Life expectancy: aprx. 25 years

20 years 80% power guaranty \* 10 years 90% power guaranty \*

#### **Battery storage:**

Battery type: Li iron phosphate accumulator LiFePo4

Battery voltage: 12V maintenance-free, longlife. For solar cycle charge operation

Lifetime 6 - 10 years / 20°C

Function even at low temperatures.

For sufficient reliability in autumn or winter, we strongly recommend our

extension sets.

Autonomy time: 35 hours (3 days) at absolutely no sunshine

(with fully charged battery):

The new emergency lighting function ensures lighting even during low

battery charging during very long periods of bad weather,

but with reduced luminosity.

The battery is mounted inside the mast, behind the lockable door.

#### Steel Pole is included:

Resistant to vandalism and environmental influences.

Material: Steel

Surface: Hot dip galvanized

Conform to DIN EN 40.

With service door, for easy acces to the controller.

Dimensions: h1 length = 4000 mm / h2 inground = 800 mm.

Foundation depth 860mm Pole top Ø 60 mm d2 Foot Ø 110 mm s material strength: 3 mm

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

LiFePo4 battery,

Solar module with frame and bracket for adjustable top-mount.

System controler,

steel pole,

Manual for easy mechanical and electrical setup in english language. Other

languages on request. Weight: 55 kg

<sup>\*</sup> excepted is the complete failing (3 years guarantee)





Germany



# LED Solar Street Light Solar Equador 60 Watt Lithium-Iron



German manufactured streetlight fixture with 1500 lumen LED lamp. LT-Sol051-060L

Sandstorm-proof and seawater resistant PV street lighting fixture, with bright LED Lamp.

Recommended for sunny regions, like Africa, desert countries, South America, Philipines.

High brightness corresponds to 40 watt fluorescent light.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant painting).

The screws consist of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

#### **General specifications:**

Lighted area: aprx. 23 x 8m
Distance from pole to pole: 20 - 25 meters

Ambient temperature: -20°C ~ +55°C (extended temperature

range -35°C ~ +65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree Protection class: III SELV Low safe voltage Approvals: CE, RoHS, WEEE

20 years sparepart supply ability.

#### **Lamp specifications:**

Energy efficiency class: E

Light colour: 4000K neutral white (on request 5000K cold

white or 3000K warm white).

No uv-radiation for reduced insects attraction LED efficiency: > 145 lm/w Lamp efficiacy: > 135 lm/w Luminous flux: 2500 Lm

Central illumination: > 8 Lux (at 6m pole height)

Life time: Aprx. 100000 h

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Adjustable inclination: 0 / 5 / 10/ 15 degr

Arm length: 300mm (on request, we supply with 1 meter

arm)

Protection degree: IP66 Impact resistance: IK08 Guarantee: 5 years

#### System controler specifications:

Programmable Processor charge controler.

Infra red remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation

Temperature feeded battery charging for extended battery life. Overcharge and deep discharge protection for the battery. Reverse polarity and electronic short circuit protection.

Additional electric fuse

Protection degree: IP66
Guarantee: 5 years

#### Solar panel specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated, sandstorm proof)

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

charging also at cloudy weather.

Efficiency: > 19%

Power: 60Wp

Life expectancy: aprx. 25 years

20 years 80% power guaranty 3





Germany

10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

#### **Battery storage:**

Battery type: Li iron phosphate accumulator LiFePo4

Battery voltage: 12V maintenance-free, longlife. For solar cycle charge operation

Lifetime 6 - 10 years / 20°C

Function even at low temperatures.

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Autonomy time: 35 hours (3 days) at absolutely no sunshine

(with fully charged battery):

The new emergency lighting function ensures lighting even during low

battery charging during very long periods of bad weather,

but with reduced luminosity

The battery is mounted inside the mast, behind the lockable door.

#### Pole is not included:

Recommended height: 4m - 6m

With service door, for easy acces to the controller.

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

LiFePo4 battery,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Manual for easy mechanical and electrical setup in english language. Other

languages on request.

Complete pre-wired unit without pole.

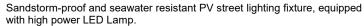
65 kg Weight:





#### **Solar Street Light LED Oasis** 120W

Streetlight Made in Germany with 5000 Lumen bright LED lamp LT-Sol051-100L



Recommended for sunny regions, like Africa, desert countries, South America, Philipines.

High brightness corresponds to 80 watt mercury light.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant painting).

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

### **General specifications:**

Lighted area: aprx. 25 x 12m aprx. 25 meter Distance from pole to pole: Recommended pole height: 4m - 7m

Ambient temperature: -20°C ~ +55°C (extended temperature

range -35°C ~ +65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree

III SELV Protection class: Energy efficiency class:

Approvals: CE, RoHS, WEEE

Sparepart supply ability: 20 years

#### Lamp specifications:

LED Lamp: SMD Chipset Osram

LED power: 32W

Light colour 4000K pure white (on request also 3000K

warm white or 5000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 160 lm/w Lamp efficiacy: > 145 lm/w Luminous flux: > 5000 lm Central illumination: > 22 Lux (6m) Average illumination: > 21 Lux (4m) Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Dimensions: 480mm x 260mm x 82mm

Adjustable inclination: 0 / 5 / 10/ 15 degr

Arm length: 300mm (on request, we supply with 1 meter

arm)

Protection degree: IP66 Impact resistance: IK08 Guarantee: 3 years

#### **System controler specifications:**

Intelligent processor charge controler.

Wireless programming

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery. Reverse polarity and electronic short circuit protection.

Additional electric fuse

Protection degree: Guarantee: 5 years

#### Solar panel specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated, sandstorm proof)

Internet:



Germany

This modern cell technology has a high degree of efficiency and allows

charging also at cloudy weather.

Fifticiency: > 19%
Power: 120W
Life expectancy: aprx. 25 years

20 years 80% power guaranty \* 10 years 90% power guaranty \*

### **Battery specifications:**

Battery type: Lead gel 12V

On option Li-Ion LiFePo4 battery maintenance-free, longlife. For solar cycling charge operation

Lifetime about 10 Years / 20°C

Autonomy: 20 days (each 10h) at cloudy weather Autarkic backup 30 hours = 3 nights at fully charged batteries.

At absolutely no sunshine.

#### **Battery box:**

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box IP67 (non walkover) with cabel protection hose, steel

reinforced:

Size: L 496 x w 280 x h 270mm

on option ABS plastic box IP66 (walk over):

Size: L 550 x w 550 x h 480mm

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

Battery,

Recessed battery box,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Manual for easy mechanical and electrical setup in english language. Other

languages on request.

Complete pre-wired unit without pole.

Weight: 88 kg

<sup>\*</sup> excepted is the complete failing (3 years guarantee)





# Solar Street Light LED Oasis Lithium 120W



Streetlight Made in Germany with bright LED lamp 5000 Lumen and Lithium Battery

LT-Sol051-101L

Sandstorm-proof and seawater resistant PV street lighting fixture, equipped with high power LED Lamp.

Recommended for sunny regions, like Africa, desert countries, South America, Philipines.

High brightness corresponds to 80 watt mercury light.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant painting).

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

### **General specifications:**

Lighted area: aprx. 25 x 12m
Distance from pole to pole: aprx. 25 meter
Recommended pole height: 4m - 7m

Ambient temperature: -20°C ~ +55°C (extended temperature

range -35°C ~ +65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree

Protection class: III SELV Energy efficiency class: B

Approvals: CE, RoHS, WEEE

Sparepart supply ability: 20 years

#### Lamp specifications:

LED Lamp: SMD Chipset Osram

LED power: 32W

Light colour: 4000K neutral white (on request 5000K cold

white or 3000K warm white).

No uv-radiation for reduced insects attraction LED efficiacy: > 160 lm/w Luminous flux: 5000 Lm

Central illumination: > 22 Lux (at 6m pole height)

Average brightness: > 21 Lux (4m) Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Dimensions: 480mm x 260mm x 82mm

Adjustable inclination: 0 / 5 / 10/ 15 degr

Arm length: 300mm (on request, we supply with 1 meter

arm)

Profection degree: IP66 Impact resistance: IK08 Guarantee: 5 years

#### System controler specifications:

Intelligent processor charge controler.

Wireless programming

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn.

Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery. Reverse polarity and electronic short circuit protection.

Additional electric fuse

Protection degree controller: IP66 Guarantee: 3 years

#### **Solar panel specifications:**

High efficient monocrystalline silicone

(tempered glass encapsulated, sandstorm proof)

Internet:

This modern cell technology has a high degree of efficiency and allows





Germany

charging also at cloudy weather.

Efficiency: > 19%

Power: 120W

Life expectancy: aprx. 25 years

20 years 80% power guaranty \* 10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

### **Battery specifications:**

Battery type: Li-Ion LiFePo4 battery 12V maintenance-free, long-lasting, for solar cycle operation

Capacity: 480 Wh

Lifetime: approx. 10 years / 20° C

Autonomy: 24 hours = 3 nights with fully charged

batteries. Without sunshine.

Extremely high ambient temperature range -20°C to + 60°C Anti explosion protected (standard LiO batteries are not safe)

The batteries are located inside the pole, for protection against sunheat and

thieves.

On request the batteries can be located underground in a waterproof box.

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

Solar battery,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Manual for easy mechanical and electrical setup in english language. Other

languages on request.

Complete pre-wired unit without pole.

Weight: 38 kg







Double Arm Solar Street Light LED Oasis 2\*120W

Streetlight lamp Made in Germany with 2 pcs. power LED lamp, each 5000 lumen.

Sandstorm- and weatherproof PV street lighting fixture with 2 high power LED lamps. For the road median strip.

High brightness corresponds to 2 \* 80 watt mercury.

Very long maintenance-free system lifespan, by use of efficient LED lamps, electronic 24V PWM driver and microcontroller system control.

High quality monocrystalline solar-module 220W (tempered glass encapsulated, hailproof) aprx. 25 years lifespan.

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant painting). The screws consist of stainless steel

Rigid aluminium die-cast LED street light fixture, seawater, salt and thunderstorm-proof. This solar light is maintenance free - (only the solar panel should be cleaned occasionally with water).

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

#### Technical specifications:

2 LED Lamp: Power SMD Chipset Osram 32W each

Light intensity: 2 \* 5000 Lm

Highest energy efficiency = 2\* 100 watt mercury vapour = 2\* 70 watt sodium high

pressure.

Central illumination: > 22 Lux (at 6m pole height)

Average brightness: > 11 Lux (6m)

Light colour 4000K neutral white (on request also 3000K warm white).

Microprocessor control for adjustable time and level functions and log-file.

Automatic lamp start at sunset and turn-off by dawn.

Timer-dimmer: Full power at start-up, during midnight power reduction on 50%, in the

early morning) 100% power again.

The dimming functions are programmed to your specifications. Temperature feeded battery charging for extended battery life.

Overcharge and deep-discharge protection for the battery. Distance from pole to pole = Lighted area Ø aprx. 30 meter

Recommended pole height: 6m - 9m

Autonomy 20 days (each 10h) at cloudy weather

Autonomy 3 days (max. 40 h) at absolutely no sunshine

Protection degree lamp head: IP66 Protection degree battery box: IP67

Protection degree controller: IP66 Protection class: III Low safe voltage

Approvals: CE, RoHS, WEEE

#### Including following components:

2 LED light fixtures with arm and pole mount clamp.

2 pcs. maintenance-free high-power longlife Solar Gel Battery,

Solar module with frame and bracket for adjustable top-mount.

Processor charge controler

Recessed battery box for waterproof inground installation,

Electrical cable, cable glands, all required electrical connectors and terminals.

Manual for easy mechanical and electrical setup in english language. Other languages on

(Complete pre-wired unit without pole)

LT-Sol051-102L







#### **LED Solar Light Four Arm for** crossing or parking 1000W



PV street light with very high brightness for public lighting of parking lot, intersection or market place. With 4 power LED lamps 90W. Made in Germany

LT-Sol051-1100L

Sandstorm- and weatherproof PV street lighting fixture, equipped with 4 pcs. high power LED lamps 4 \* 90W.

Recommended for sunny regions, like desert countries, Arabia, South

Very high brightness corresponds to 4 \* 250 watt mercury lamps.

For very large avenues, places, center stripes, highways, building sites etc. With efficient LED lamps, electronic 24V PWM driver and microcontroller

system control, for a very long maintenance-free system lifespan.

Recommended pole height 12m or higher

Distance from pole to pole = Lighted area Ø aprx. 40 meter

Protection degree lamp head: IP66 Protection degree battery box: IP67 Protection degree controller: IP66 Protection class: III Low safe voltage Approvals: CE, RoHS, WEEE

#### **Including following components:**

4 pcs. maintenance-free high-power longlife Solar Gel Battery,

4 pcs. high quality monocrystalline solar-module, total 1100W (tempered glass encapsulated, sand storm proof) aprx. 25 years life expectancy. This modern cell technology has a high degree of efficiency and allows

charging also at cloudy weather.

Programmable Processor charge controler + intelligent light switch with clock.

Automatic dimming at late night.

Rigid aluminium die-cast LED street light fixture.

Full electronic ballast 24V DC for LED lamps. Extreme low losses and higher lamp output and increased lamp lifespan.

LED lamp power chipset 4 \* 90W. Warmwhite or daylight-white light colour.

Recessed battery casing for watertight inground installation,

Electrical cable, glands, all required electrical connectors and terminals.

Steel frames for adjustable mount of the solar panels.

Junction clamp for light fixtures mount.

Manual for easy mechanical and electrical setup in english language - other languages on request.

(Complete unit without pole) Weight: 500 kg





### Solar Street Light Egypt 150 Watt HPS Sodium

Solar streetlight Made in Germany. Electronic ballast 24V DC HPS sodium lamp 35w

Sandstorm- and weatherproof PV street lighting fixture, equipped with 35W SHP sodium high pressure lamp.

By use of HPS lamps, electronic 24V ballast and microcontroller system control, the light is brighter and lifespan of the lamps is longer than regular HPS.

Measured brightness at 12m mounting height: 10 Lux on ground, 8 Lux in 10m distance. Distance from pole to pole = Lighted area Ø aprx. 32 meter

(Complete unit with solar panels, but without pole)

<u>Including following components:</u> 2 pcs. maintenance-free high-power longlife Solar Gel Battery,

2 pc. high quality monocrystalline solar-modules 150W total (tempered glass encapsulated, hailproof) aprx. 25 years lifespan.

This modern cell technology has a high degree of efficiency and allows charging also at

Programmable Processor charge controler + intelligent light switch with clock.

Rigid aluminium die-cast street light fixture with lamp holder E27.

Full electronic ballast 24V DC for HPS sodium lamps 35 watt. Low losses and higher lamp output and increased lamp life duration.

Sodium high pressure lamp NAV-E 35W E27. Light yellow lightcolour.

High energy efficiency. 35W HPS = 50 watt mercury vapour = 150w halogen. Recessed battery box for waterproof inground installation,

Electrical cable, cable glands, all required electrical connectors and terminals.

Steel frame for adjustable top-mount of the solar panel.

Junction clamp for light fixture mount.

Manual for easy mechanical and electrical setup in english language - other languages on request

LT-Sol051-130M











### Solar Street Light Oman 200W Sodium **HPS**

Photovoltaic streetlight made in Germany. Full electronic ballast 24V DC HPSV sodium lamp 70w.

Sandstorm- and weatherproof PV street lighting fixture, equipped with a 70W SHP sodium high pressure lamp.

By use of HPS lamps, electronic 24V ballast and microcontroller system control, the light is brighter and lifespan of the lamps is longer than regular HPS.

Measured brightness at 12m mounting height: 14 Lux on ground, 10 Lux in 10m distance. Distance from pole to pole = Lighted area Ø aprx. 37 meter.

#### Including following components:

2 pcs. maintenance-free high-power longlife Solar Gel Battery,

High quality solar panel 2 pc. 100W monocrystalline silicon (tempered glass

encapsulated, hailproof) aprx. 25 years lifespan.

This modern module technology has a high degree of efficiency and allows charging also at cloudy weather.

Programmable Processor charge controler + intelligent light switch with clock.

Rigid aluminium die-cast street light fixture with lamp holder E27.

Full electronic ballast 24V DC for HPS sodium lamps 70 watt. Low losses and higher lamp output and increased lamp lifespan.

Sodium high pressure lamp NAV-E 70W E27. Light yellow lightcolour.

High energy efficiency = 100 watt mercury vapour = 48 watt sodium low pressure.

Recessed battery box for waterproof inground installation,

Electrical cable, cable glands, all required electrical connectors and terminals.

Steel frame for adjustable top-mount of the solar panel.

Junction clamp for light fixture mount.

Manual for easy mechanical and electrical setup in english language - other languages on request.

(Complete unit without pole)

LT-Sol051-175M





### Solar Street **Light Double** Arm Oman 2\* 200W Sodium **HPS**

Photovoltaic streetlight made in Germany. Full electronic ballast 24V DC HPSV sodium lamp 2 x 70w.

Sandstorm- and weatherproof PV street lighting fixture, equipped with two 70W SHP sodium high pressure lamps.

Installation place: On the road median strip of large highways.

By use of HPS lamps, electronic 24V ballast and microcontroller system control,

the light is brighter and lifespan of the lamps is longer than regular HPS.

Measured brightness at 12m mounting height: 14 Lux on ground, 10 Lux in 10m distance.

Distance from pole to pole = Lighted area Ø aprx. 37 meter

#### **Including following components:**

2 pcs. maintenance-free high-power longlife Solar Gel Battery,

High quality solar panel 4 pc. 100W monocrystalline silicon (tempered glass encapsulated, hailproof) aprx. 25 years lifespan.

This modern module technology has a high degree of efficiency and allows charging also at cloudy weather.

Programmable Processor charge controler + intelligent light switch with clock.

Rigid aluminium die-cast street light fixture with lamp holder E27.

Full electronic ballast 24V DC for HPS sodium lamps 70 watt. Low losses and higher lamp output and increased lamp life expectancy

Sodium high pressure lamp NAV-E 70W E27. Light yellow light colour.

High energy efficiency = 100 watt mercury vapour = 48 watt sodium low pressure.

Recessed battery box for waterproof inground installation,

Electrical cable, cable glands, all required electrical connectors and terminals.

Steel frame for adjustable top-mount of the solar panel.

Junction clamp for light fixture mount.

Manual for easy mechanical and electrical setup in english language - other languages on

(Complete unit without pole)

LT-Sol051-177M







Solar Street Light LED Emirate 235 Watt



Solar street lighting system made in Germany. 24V DC PWM direct driver and LED lamp 60w.

LT-Sol051-220L

Sandstorm-proof and seawater resistant PV street lighting fixture, equipped with high power LED Lamp.

Recommended for sunny regions, like desert countries, Arabia, South America, Africa, Philipines.

High brightness corresponds to 160 watt mercury light.

Long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant painting)

The screws consist of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

### **General specifications:**

Lighted area: aprx. 35 x 16m Distance from pole to pole: aprx. 35 meter Recommended pole height: 6m - 8m

Ambient temperature: -20°C ~ +55°C (extended temperature

range -35°C ~ +65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree

Protection class: III Low safe voltage

Energy efficiency class: B

Approvals: CE, RoHS, WEEE

20 years sparepart supply ability.

### Lamp specifications:

LED Lamp: SMD Chipset Osram

LED power: 60W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 125 lm/w Lamp efficiacy: > 100 lm/w Luminous flux: > 6020 lm

Central illumination: >22 Lux (8m)

Average illumination: >20 Lux (6m) Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Adjustable inclination: 0 / 5 / 10/ 15 degr

Arm length: 300mm (on request, we supply with 1 meter

arm)

Profection degree: IP66 Impact resistance: IK08 Guarantee: 3 years

### **System controler specifications:**

Smart processor charge controler.

Wireless remote programmer

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery. Reverse polarity and electronic short circuit protection.

Additional electric fuse

Protection degree: IP66 Guarantee: 5 years

#### Solar panel specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated, sandstorm proof)

Internet:

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

Efficiency: > 16%





Germany

Power: 235W

Life expectancy: aprx. 25 years 20 years 80% power guaranty \* 10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

### **Battery specifications:**

Battery type: Lead gel 12V,
On option Li-lon LiFePo4 battery
maintenance-free, longlife.
For solar cycling charge operation
Lifetime about 10 Years / 20°C
Autonomy 20 days (each 10h) at cloudy weather
Autarkic backup for 53 hours = 5 nights at fully charged batteries. At absolutely no sunshine.

#### **Battery box:**

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box IP67 (non walkover) with cabel protection hose, steel reinforced:

Size: L 496 x w 280 x h 270mm

on option ABS plastic box IP66 (walk over):

Size: L 550 x w 550 x h 480mm

### **Including following components:**

LED light fixture with arm and pole mount bracket.

2 pcs. solar battery,

Recessed battery box,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Manual for easy mechanical and electrical setup in english language. Other languages on request.

Weight: 105 kg





#### Solar Street Light Solar LED Emirate 245 Watt



Solar street lighting system made in Germany. 24V DC PWM direct driver and LED lamp 70w.

LT-Sol051-221-TMP

Sandstorm- and weatherproof PV street lighting fixture, equipped with high power LED Lamp 70w.

Very high brightness corresponds to 150 watt hps sodium light. With efficient LED lamps, electronic 24V PWM driver and microcontroller system control, for a very long maintenance-free system lifespan. High quality monocrystalline solar-module 245W (tempered glass encapsulated, sand storm proof) aprx. 25 years lifespan.

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant painting)

The screws are made of stainless steel.

Rigid aluminium die-cast LED street light fixture IP65 seawater and thunderstorm-proof.

#### Technical specifications:

LED Lamp: Power LED Chipset Osram 70W

Light intensity: 6200 Lm

Measured brightness: 22 Lux at 8m mounting height.

Average brightness: >20 Lux (6m)

Light colour 4000K neutral white (on request also 3000K warm white). Microprocessor control for adjustable time and level functions and log-file.

Automatic lamp start at sunset and turn-off by dawn.

Timer-dimmer: Full power at start-up, during midnight power reduction on

50%, in the early morning) 100% power again.

The dimming functions are programmed to your specifications. Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery. Distance from pole to pole = Lighted area Ø aprx. 35 meter

Recommended pole height: 6m - 8m

Autonomy 20 days (each 10h) at cloudy weather

Autonomy 4 days (max. 41 h) at absolutely no sunshine

Protection degree lamp head: IP66 Protection degree battery box: IP67 Protection degree controller: IP66 Protection class: III Low safe voltage Approvals: CE, RoHS, WEEE

#### Including following components:

LED light fixture with arm and pole mount clamp.

2 pcs. maintenance-free high-power longlife Solar Gel Battery, Solar module with frame and bracket for adjustable top-mount.

Programmable Processor charge controler + intelligent light switch with clock

Recessed battery box for waterproof inground installation,

1 manual for easy mechanical and electrical setup in english language.

Other languages on request.

(Complete pre-wired unit without pole)

Weight: 105 kg





# Solar Street Light Lamp LED Oasis 300 Watt



High power PV streetlight. Made in Germany to customers specification. LED lamp 120W.

LT-Sol051-280D

Sandstorm-proof and seawater resistant PV street lighting fixture, equipped with high power LED Lamp.

Recommended for sunny regions, like desert countries, Arabia, South America, Africa, Philipines.

Very high brightness corresponds to 250 watt hps sodium light.

Long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant painting).

The screws consist of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

### General specifications:

Lighted area: aprx. 45 x 22m

Distance from pole to pole: aprx. 40 - 45 meter

Recommended pole height: 8m - 12m

Ambient temperature: -20°C ~ +55°C (extended temperature range -35°C ~

+65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree

Protection class: III Low safe voltage Energy efficiency class: A+++ Approvals: CE, RoHS, WEEE 20 years sparepart supply ability.

#### Lamp specifications:

LED Lamp: SMD Chipset Osram

LED power: 120W

Light colour 4000K pure white (on request also 3000K warm white or 6000K

daylight).

No uv-radiation for reduced insects attraction

LED efficiacy: > 135 lm/w Lamp efficiacy: > 110 lm/w

Luminous flux: > 14120 lm /5500K (13600 lm /4000K)

Central illumination: >38 lux (10m pole height)

Average illumination: >23 lux (10m)

Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and thunderstorm-proof.

Adjustable inclination: 0 / 5 / 10/ 15 degr

Arm length: 300mm (on request, we supply with 1 meter arm)

Protection degree: IP66
Impact resistance: IK08
Guarantee: 5 years

#### System controler specifications:

Programmable Processor charge controler.

Infra Red remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery. Reverse polarity and electronic short circuit protection.

Additional electric fuse Protection degree : IP66

Guarantee: 5 years

### Solar panel specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated, sandstorm proof)

Internet:

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

Efficiency: > 16% Power: 300W

Life expectancy: aprx. 25 years





Germany

20 years 80% power guaranty \*

10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

### **Battery specifications:**

Battery type: Lead gel 12V,
On option Li-lon LiFePo4 battery
maintenance-free, longlife.
For solar cycling charge operation
Lifetime about 10 Years / 20°C
Autonomy 15 days (each 10h) at cloudy weather
Autarkic backup for 30 hours = 3 nights at fully charged batteries. At absolutely no sunshine.

#### Battery box:

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box IP67 (non walkover) with cabel protection hose, steel reinforced:

Size: L 496 x w 280 x h 270mm

on option ABS plastic box IP66 (walk over):

Size: L 550 x w 550 x h 480mm

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

2 pcs. solar battery, Recessed battery box,

solar module array with bracket for adjustable top-mount.

System controler.

Manual for easy mechanical and electrical setup in english language. Other languages on request.

Complete pre-wired unit without pole.

Weight: 265 kg





#### **LED Solar Street Light Oasis** 400W Power



Very bright PV solar streetlight for highway or intersection. Made in Germany. With LED lamp 128W.

LT-Sol051-350L

Sandstorm-proof and seawater resistant PV street lighting fixture, equipped with high power LED Lamp.

Recommended for sunny regions, like desert countries, Arabia, South America, Africa, Philipines.

Very high brightness corresponds to 250 watt hps sodium light.

Long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant

The screws consist of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

#### **General specifications:**

Lighted area: aprx. 45 x 22m Distance from pole to pole: aprx. 40 - 45 meter Recommended pole height: 8m - 12m

-20°C ~ +55°C (extended temperature Ambient temperature:

range -35°C ~ +65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree III Low safe voltage Protection class:

Energy efficiency class:

CE, RoHS, WEEE Approvals:

20 years sparepart supply ability.

#### Lamp specifications:

LED Lamp: SMD Chipset Osram

LED power:

4000K neutral white (on request 5000K cold Light colour:

white or 3000K warm white).

No uv-radiation for reduced insects attraction LED efficiacy: > 135 lm/w Lamp efficiacy: > 110 lm/w

> 17200 lm /5500K (13600 lm /4000K) Luminous flux:

> 38 lux (10m pole height) Central illumination:

> 23 lux (10m) Average illumination: Light angle: > 130 deg Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Adjustable inclination: 0 / 5 / 10/ 15 dear

Arm length: 300mm (on request, we supply with 1 meter

arm) Protection degree: IP66

Impact resistance: IK08 3 years Guarantee:

### System controler specifications:

Programmable Processor charge controler.

Infra Red remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery. Reverse polarity and electronic short circuit protection.

Additional electric fuse

Protection degree: 5 years Guarantee:

#### Solar panel specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated, sandstorm proof)

Internet:

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.





Germany

Efficiency: Power: 400W Life expectancy: aprx. 25 years

20 years 80% power guaranty \* 10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

### **Battery specifications:**

Battery type: Lead gel 12V,

On option Li-lon LiFePo4 battery maintenance-free, longlife. For solar cycling charge operation

Lifetime about 10 Years / 20°C

Autonomy 20 days (each 10h) at cloudy weather Autarkic backup 40 hours = 4 nights at fully charged batteries.

At absolutely no sunshine.

#### **Battery box:**

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box IP67 (non walkover) with cabel protection hose, steel

reinforced:

Size: L 496 x w 280 x h 270mm

on option ABS plastic box IP66 (walk over):

Size: L 550 x w 550 x h 480mm

#### Including following components:

LED light fixture with arm and pole mount bracket.

4 pcs. solar battery,

2 pcs. recessed battery box,

solar module array with bracket for adjustable top-mount.

System controler.

Manual for easy mechanical and electrical setup in english language. Other

languages on request.

Complete pre-wired unit without pole.

Weight: 265 kg







# LED Solar Street Light Riyadh 400W



Very bright PV solar streetlight for highway or intersection. Made in Germany. With LED lamp 128W.

LT-Sol051-390L

Sandstorm-proof and seawater resistant PV street lighting fixture, equipped with high power LED Lamp.

Recommended for sunny regions, like desert countries, Arabia, South America, Africa, Philipines.

Very high brightness corresponds to 250 watt hps sodium light.

Long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant painting).

The screws consist of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

# **General specifications:**

Lighted area: aprx. 45 x 22m
Distance from pole to pole: aprx. 40 - 45 meter

Recommended pole height: 8m - 12m

Ambient temperature: -20°C ~ +55°C (extended temperature

range -35°C ~ +65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree Protection class: III Low safe voltage

Energy efficiency class: B

Approvals: CE, RoHS, WEEE

20 years sparepart supply ability.

### Lamp specifications:

LED Lamp: SMD Chipset Osram

LED power: 128W

Light colour: 4000K neutral white
No uv-radiation for reduced insects attraction
LED efficiacy: > 135 lm/w
Lamp efficiacy: > 120 lm/w
Luminous flux: > 16640 lm

Central illumination: >38 lux (10m pole height)

Average illumination: >23 lux (10m) Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Adjustable inclination: 0 / 5 / 10/ 15 degr

Arm length: 300mm (on request, we supply with 1 meter

arm)

Protection degree: IP66 Impact resistance: IK08 Guarantee: 3 years

#### System controler specifications:

Programmable Processor charge controler.

Infra Red remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery.

Reverse polarity and electronic short circuit protection.

Additional electric fuse Protection degree : IP66

Guarantee: 5 years

### **Solar panel specifications:**

High efficient monocrystalline silicone

(tempered glass encapsulated, sandstorm proof)

Internet:

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

Efficiency: > 16% Power: 400W

Life expectancy: aprx. 25 years





Germany

20 years 80% power guaranty \*

10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

# **Battery specifications:**

Battery type: Lead gel 12V On option Li-Ion LiFePo4 battery maintenance-free, longlife. For solar cycling charge operation Lifetime about 10 Years / 20°C Autonomy 20 days (each 10h) at cloudy weather Autarkic backup for 40 hours = 4 nights at fully charged batteries. At absolutely no sunshine.

#### Battery box:

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box IP67 (non walkover) with cabel protection hose, steel reinforced:

Size: L 496 x w 280 x h 270mm

on option ABS plastic box IP66 (walk over):

Size: L 550 x w 550 x h 480mm

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

4 pcs. solar battery,

2 pcs. recessed battery box,

solar module array with bracket for adjustable top-mount.

System controler.

Manual for easy mechanical and electrical setup in english language. Other languages on request.

Complete pre-wired unit without pole.

Weight: 265 kg







# High Power Solar Street Light LED Bright 400W



Most powerful PV solar streetlight for highway or intersection. Made in Germany. With LED lamp 160W.

LT-Sol051-400L

Sandstorm-proof and seawater resistant PV street lighting fixture, equipped with high power LED Lamp.

Recommended for sunny regions, like desert countries, Arabia, South America, Africa.

Very high brightness, even brighter than 250 watt hps sodium light. Long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant painting).

The screws consist of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

#### **General specifications:**

Lighted area: aprx. 45 x 22m

Distance from pole to pole: aprx. 40 - 45 meter

Recommended pole height: 10m - 12m

Ambient temperature: -20°C ~ +55°C (extended temperature range -35°C ~

+65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree

Protection class: III Low safe voltage Energy efficiency class: A+++ Approvals: CE, RoHS, WEEE 20 years sparepart supply ability.

#### **Lamp specifications:**

LED Lamp: SMD Chipset Osram

Improved heat distribution by the use of many small LEDs wich extends the

service life.

LED power: 160W

Light colour: 4000K neutral white (on request 5000K cold white or 3000K

warm white).

No uv-radiation for reduced insects attraction

LED efficiacy: > 135 lm/w Lamp efficiacy: > 110 lm/w Luminous flux: > 15600lm mean lumens after 10000 h: - 5% Central illumination: > 42lux (12m) Average illumination: > 33lux (12m)

Color temperature: 4000K pure white ( 3000K or 6000K as a special design)

Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and thunderstorm-proof. Arm length: 300mm (on request, we supply with max. 2 meter arm)

Protection degree lamp head: IP66 Guarantee: 5 years

### **System controler specifications:**

Programmable Processor charge controler.

Infra Red remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery. Reverse polarity and electronic short circuit protection.

Additional electric fuse Protection degree: IP66

Guarantee: 5 years

### **Solar panel specifications:**

High efficient monocrystalline silicone

(tempered glass encapsulated, sandstorm proof)

Internet:

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

Efficiency: > 16% Power: 400W

Life expectancy: aprx. 25 years





Germany

20 years 80% power guaranty \*

10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

# **Battery specifications:**

Battery type: Lead gel 12V On option Li-Ion LiFePo4 battery maintenance-free, longlife. For solar cycling charge operation Lifetime about 10 Years / 20°C Autonomy 10 days (each 10h) at cloudy weather Autarkic backup for 30 hours = 3 nights at fully charged batteries. At absolutely no sunshine.

#### Battery box:

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box IP67 (non walkover) with cabel protection hose, steel reinforced:

Size: L 496 x w 280 x h 270mm

on option ABS plastic box IP66 (walk over):

Size: L 550 x w 550 x h 480mm

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

4 pcs. solar battery,

2 pcs. recessed battery box,

solar module array with bracket for adjustable top-mount.

System controler.

Manual for easy mechanical and electrical setup in english language. Other languages on request.

Complete pre-wired unit without pole.

Weight: 265 kg







### **Solar Street Light LED Double** Arm Kuwait 2\* 400W



Very bright solar street light fixture with 2 lighting heads power LED 120 Watt for the road median strip.

LT-Sol051-402L

Sandstorm- and weatherproof PV street lighting fixture, equipped with double side high power LED Lamp 120w.

Recommended for sunny regions, like desert countries, Arabia, South America, Africa

Very high brightness, even brighter than 2\* 250 watt hps sodium light. Long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant

The screws consist of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

# General specifications:

Lighted area: aprx. 45 x 40m

Distance from pole to pole: aprx. 40 - 45 meter

Recommended pole height: 9m - 13m

Ambient temperature: -20°C ~ +55°C (extended temperature range -35°C ~

+65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree

Protection class: III Low safe voltage Energy efficiency class: A+++ Approvals: CE, RoHS, WEEE 20 years sparepart supply ability.

#### Lamp specifications:

LED Lamp: 2 pcs. SMD LED Chipset Osram Luminous flux: 2 \* > 17200 lm

Improved heat distribution by the use of many small LEDs wich extends the service life.

LED power: 2\* 120W

Light colour: 4000K neutral white (on request 5000K cold white or 3000K

warm white)

No uv-radiation for reduced insects attraction

LED efficiacy: > 135 lm/w Lamp efficiacy: > 110 lm/w Luminous flux: > 15600lm mean lumens after 10000 h: - 5% Central illumination: > 38lux (10m) Average illumination: > 23lux (10m)

Color temperature: 4000K pure white ( 3000K or 6000K as a special design)

Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and thunderstorm-proof. Arm length: 300mm (on request, we supply with max. 2 meter arm)

Protection degree lamp head: IP66 Guarantee:

### System controler specifications:

Programmable microprocessor charge controler with MPPT tracking. Infra red remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery. Reverse polarity and electronic short circuit protection.

Additional electric fuse Protection degree: IP66

Guarantee: 5 years

### Solar panel specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated, sandstorm proof)

Internet:

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.





Germany

Efficiency: > 16% Power: 800W

Life expectancy: aprx. 25 years 20 years 80% power guaranty \* 10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

#### **Battery specifications:**

Battery type: Lead gel 12V
Capacity: 9600 Wh
On option Li-Ion LiFePo4 battery
maintenance-free, longlife.
For solar cycling charge operation
Lifetime about 10 Years / 20°C
Autonomy 10 days (each 10h) at cloudy weather

Autarkic backup for 40 hours = 4 nights at fully charged batteries. At

absolutely no sunshine.

#### **Battery box:**

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box IP67 (non walkover) with cabel protection hose, steel

reinforced:

Size: L 496 x w 280 x h 270mm

on option ABS plastic box IP66 (walk over):

Size: L 550 x w 550 x h 480mm

#### **Including following components:**

2 pcs. LED light fixture with arm and pole mount bracket.

8 pcs. solar battery

2 pcs. recessed battery box,

solar module array with brackets for adjustable top-mount.

System controler.

Manual for easy mechanical and electrical setup in english language. Other languages on request.

(Complete pre-wired unit without pole)

Weight: 555 kg



# Solar Working Lights and Building Site Lighting



Solar Floodlight Tower 500W / **100W LED** 



Mobile lighting tower with 2 flood lighting projectors LED 50 Watt. LT-Sol051-410L

Sandstorm- and weatherproof PV flood lighting fixture, equipped with 2 pcs. high power LED floodlights 50W.

Recommended for building sites, mining, camps and events in sunny regions, like desert countries, Africa, Arabia, South America Very high brightness corresponds to 2 \* 500 watt halogen light. Very long maintenance-free system lifespan, by use of efficient LED lamps, electronic 24V PWM driver and microcontroller system control. High quality monocrystalline solar-module 500W (tempered glass

encapsulated, sand storm proof) aprx. 25 years life expectancy. This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

All components are galvanized or surfaced with a grey, scratchproof 2-layers UV-resistant coating.

The screws consist of stainless steel.

Rigid aluminium die-cast LED street light fixture IP66 waterproof.

With rigid winch elevating tower.

Back-up energy for 50 hours = 5 days at full charged batteries. This is to avoid black-outs during rainy days.

Light intensity: 2x 4700 Lm - similar to 2\* 500 watt halogen or 2\* 150W metal halide lamp.

Distance from pole to pole = Lighted area Ø aprx. 45 meter

Protection degree lamp head: IP66 Protection degree battery box: IP67 Protection degree controller: IP66 Protection class: III Low safe voltage Approvals: CE, RoHS, WEEE

# Including following components:

4 pcs. maintenance-free high-power longlife Solar Gel Battery,

2 pcs. high quality monocrystalline solar-modules.

Programmable Processor charge controler.

2 rigid aluminium die-cast LED floodlight projectors.

Battery box for mobile installation,

Electrical cable, cable glands, all required electrical connectors and

Steel frame for adjustable top-mount of the solar panels.

Junction clamp for light fixture mount.

Manual for easy mechanical and electrical setup in english language - other languages on request.

Weight: 390 kg



# Solar Lights for Horse Riding, Dog Training, Sports Stadium



Solar Floodlight for Highmast 2x 400 Watt LED



Lighting tower with 2 flood lighting projectors LED 120 Watt = 2 pcs. 250w sodium

LT-Sol051-412L

Sandstorm- and weatherproof PV flood lighting fixture, equipped with 2 pcs. high power LED flood lights 120W.

Recommended for building sites, mining and events in sunny regions, like Gulf countries, Africa, Arabia, South America.

Very high brightness corresponds to 2 \* 250 watt hps sodium lights. With efficient LED lamps, electronic 24V PWM driver and microcontroller system control, for a very long maintenance-free system lifespan. Back-up energy for 50 hours = 5 days at full charged batteries. This is to

avoid black-outs during rainy days. Distance from pole to pole = Lighted area  $\varnothing$  aprx. 45 meter

Protection degree lamp head: IP66 Protection degree battery box: IP67 Protection degree controller: IP66 Protection class: III Low safe voltage

Approvals: CE, RoHS, WEEE

### **Including following components:**

8 pcs. maintenance-free high-power longlife Solar Gel battery,

4 pcs. high quality monocrystalline solar-module 200W (tempered glass encapsulated, sand storm proof) aprx. 25 years lifespan.

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

Programmable Processor charge controler.

Rigid aluminium die-cast LED floodlight projectors.

Full electronic ballast 24V DC for LED lamps. Extreme low losses and higher

lamp output and increased lamp life time.

2 pcs. LED lamp power 120W with pure white light colour.

Battery box for inground or mobile installation,

Electrical cable, cable glands, all required electrical connectors and terminals

Steel frame for adjustable top-mount of the solar panels.

Junction clamp for light fixture mount.

1 manual for easy mechanical and electrical setup in english language -

other languages on request.

(Complete unit without pole)

Weight: 450 ka



# Solar Working Lights and Building Site Lighting



Mobile Solar Floodlight Tower 1200W 4x100W LED



Mobile lighting tower with 4 flood lighting projectors LED 100 Watt. LT-Sol051-420L

PV flood lighting fixture, equipped with 4 pcs. high power LED floodlights 100W

Recommended for building sites, mining, camps and events in sunny regions, like desert countries, Africa, Arabia, South America. Ready to use installed on a trailer.

The lift can be risen by a crank up to 5 meter hight.

Lamp starting: Automatically by light sensor or by hand switch.

Luminous output: 45000 lumen

The brightness is like 4 halogen floodlights each 1000 watt. Light colour: 4000 K (pure white). on request other colours.

Very long maintenance-free system lifespan, by use of efficient LED lamps, electronic 24V PWM driver and microcontroller system control.

High quality monocrystalline solar modules (tempered glass encapsulated, sand storm proof) aprx. 25 years life expectancy.

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

20 Years sparepart availability guarantee.

Back-up energy for 50 hours = 5 days at full charged batteries. This is to avoid black-outs during rainy days.

Lighted area Ø aprx. 60 meter
Protection degree lamp head: IP66
Protection degree battery box: IP67
Protection degree controller: IP66
Protection class: III Low safe voltage
Approvals: CE, RoHS, WEEE

# Small trailer with following components:

maintenance-free high-power longlife Solar Gel Battery set, Monocrystalline solar-modules with swivel mechanism.

Processor charge controler with MPPT for maximum solar efficiency. 4 robust aluminium die-cast LED floodlight projectors, adjustable mounted. Battery box,

operation manual in english language - other languages on request. (Complete unit - all inclusive)

The trailer has a car connector plug and lighting, according to traffic rules. Dimensions: Length 6m, width 2.20m

Weight: 390 kg

### Solar Garden Lights



Solar Garden Pole Light LED Globe Design

Decorative and professional solar lamp for garden or pathways. Made in Germany.

LT-SOL07-1

<sup>\*</sup> The pictures show samples with different sizes.



# Solar Park Lanterns and Pedestrian Lighting



Solar Park Pole Light Globe 4m **LED with IR Detector** 



Decorative and professional solar lamp with 4 meters pole for public garden and pedestrian precinct. Made in Germany.

LT-SOL07-B

Elegant in design and stable construction - no power connection required. Easy self-assembly and environmentally friendly.

Energy efficiency class A +++ Light source: SMD Power LED Light intensity: 1300 Lm

The brightness corresponds to a 150W halogen lamp,

LED Life span: > 30,000 h

Solar Panel: 50W monocrystalline silicon (tempered protective glass,

hailproof) approx. 25 years life expectancy.

The high quality module technology also ensures charging in cloudy skies.

On dark days in winter, the recharging is limited, the light duration is thus reduced.

# **Controller:**

Automatic switch on standby via the light sensor at dusk.

Switching on the solar lamp via two adjustable PIR motion detectors.

The lighting duration is adjustable from 10 sec. - 10 min.

Overvoltage and deep discharge protection, as well as automatically temperature-adapted characteristic curve to extend the battery life.

Steel mast height 400cm, Ø 60mm galvanized (additional scratch-resistant powder coated).

For setting in concrete (optional for construction with base

This solar light can even shine for several days, even if the solar energy is insufficient. (dark winter days)

#### **Battery storage:**

Battery: lithium iron phosphate LiFePo4 12V,

maintenance-free, longlife.

For solar cycle operation

Lifetime approx. 5 - 10 years / 20 ° C

For sufficient reliability in autumn or winter, we strongly recommend our

Self-sufficient operating time in overcast weather (with fully charged battery): a) Basic version: 480 lighting periods with 1 minute (or 40 hours at 20%

b) with extension set winter: 960 lighting periods with 1 min. (or 80 hours with 20% dimmed light)

Thereafter, the battery must be recharged with sunlight.

The batteries are located in the mast, behind the lockable door.

Light environment Ø approx. 25 meters / height: 400 cm

Detection distance of the IR sensor 10m Ambient temperature: -20 ° C ~ + 50 ° C

Degree of protection IP54, class II

Maintenance-free - (only the solar cells should be freed from snow or leaves if necessary).

Steel pole: 4 meter hot-dip galvanized (optionally powder coated).

For mounting into concrete.

Working Conditions: Autonomous lighting time under cloudy weather: 3 days / 29h

Lighting range: 25 meters / height: 400 cm Ambient temperature: -20°C ~ +50°C

Protection grade: IP54, class II

Packing a. Carton size: 90cm x 40cm x 50cm (1 unit per carton)

Preparing time 2 weeks (manufacturing on demand).

Weight: 41 kg







### **Solar Light Pedestrian Precinct** Globe LED Double Lamp



Decorative and professional solar street light for city, public garden or walkway lighting. Made in Germany. LT-SOL07-D

Sturdy construction, elegant and reliable. No power connection required. Suitable for footpaths, cycle paths, driveways, small access roads. Easy self-assembly and environmentally friendly.

#### General technical data:

Light area Ø approx. 25 metres / Height: 400 cm Minimum illuminance at 25m mast distance: 1.5 Lux

Ambient temperature: -20°C ~ +45°C

Protection class IP54, class II

Maintenance-free - (only the solar module should be cleared of snow or leaves if necessary).

10 year availability guarantee for spare parts (custom made).

#### Intelligent control:

Smart microprocessor control with wireless programming option.

Automatic switch-on and switch-off at dusk.

Adjustable midnight break (lights up only in the evening and morning if required).

Overcharge protection, deep discharge protection and automatically temperature-adjusted characteristic curve to extend battery life. The luminaire control is conveniently accessible behind a lockable flap in the

#### Luminaire sphere:

Acrylic sphere: 300mm diameter Energy efficiency class C Light source: 2 bright SMD LEDs

Light intensity: 2x 800 lumen (brightness corresponds to two 75W

incandescent lamps)

Light colour: 4000K pleasant neutral white (no cold, blue light)

LED life 50,000 hours

The beam direction of the LEDs can be switched in 6 directions to optimally adapt the luminaire to the path.

The LEDs can be replaced.

#### Solar module:

Monocrystalline silicon (hardened protective glass, hail-resistant).

Power: 150W

Life expectancy: approx. 25 years

The high-quality module technology ensures charging even on cloudy days. On dark days in winter, recharging is limited and the lighting duration is thus shortened.

#### Battery:

Battery: Lithium iron phosphate LiFePo4 12V, maintenance-free, longlife, for solar cycle operation

Service life approx. 8 - 10 years / 20°C

Function also at low or high temperatures.

For sufficient operating safety in autumn or winter, we strongly recommend our extension sets.

Autonomous operating time in overcast weather (with fully charged battery):

a) basic version: 60 hours (approx. 5-6 days)

b) with extension set autumn: 80 hours (approx. 8 days)

The new emergency lighting function ensures lighting even when the battery charge is low during very long periods of bad weather,

but with reduced luminosity.

The batteries are located in the mast, behind the lockable door.

Steel mast: Galvanised (additionally scratch-resistant powder-coated at an extra charge).

Height 400cm Top end Ø 60mm

Earth piece 800mm for setting in concrete (or inserting into a sleeve)

Weight: 78 kg

#### Accessories for outdoor fixtures



Extension Kit Winter for LT-SOL07B LT-SOL07-E01



# Solar Park Lanterns and Pedestrian Lighting



# **Solar Pathway Cycle Track Lighting Globe Design LED**



Decorative and professional solar street light for bike path way or walkway lighting. Made in Germany.

LT-SOL07-F

Sturdy construction, elegant and reliable. No power connection required. Suitable for footpaths, cycle paths, driveways, small access roads.

Energy efficiency class C

Easy self-assembly and environmentally friendly. Light source: Bright SMD LED longlife

Light intensity: 900 lumen

Brightness corresponds to a 75W incandescent lamp

Light colour: 4000K pleasant neutral white (no cold, blue light).

LED service life: 50,000 hours

Due to the arrangement of the LEDs, the light cone is elongated to better

follow the path.

### Solar module:

75W monocrystalline silicon (tempered protective glass, hail-resistant) approx. 25-year life expectancy.

The high-quality module technology ensures charging even on cloudy days. On dark days in winter, recharging is limited and the lighting duration is thus shortened.

### Intelligent control:

Smart microprocessor control with wireless programming option.

Automatic switch-on and switch-off at dusk.

Adjustable midnight break (lights up only in the evening and morning if required).

Overcharge protection, deep discharge protection and automatically temperature-adjusted characteristic curve to extend battery life. The luminaire control is conveniently located behind a lockable door in the

pole.

Light area 20 metres / height: 400 cm Minimum illuminance at 25m mast spacing: 1.5 lux

Ambient temperature: -25°C ~ +50°C

Protection class: IP54

Maintenance-free - (only the solar cells should be cleared of snow or leaves if page 2000)

if necessary).

### **Battery storage:**

Battery: Lithium iron phosphate LiFePo4 12V, maintenance-free, longlife, for solar cycle operation Service life approx. 5 - 10 years / 20°C

Function also at low or high temperatures.

For sufficient operating safety in autumn or winter, we strongly recommend our extension sets.

Autonomous operating time in overcast weather (with fully charged battery):

a) basic version: 40 hours (approx. 3-4 days) b) with extension set winter: 60 hours (approx. 6 days)

The new emergency lighting function ensures lighting even when the battery

charge is low during very long periods of bad weather,

but with reduced luminosity.

The batteries are located in the mast, behind the lockable door.

#### Mast:

Steel mast: Galvanised (additionally scratch-resistant powder-coated at an extra charge).

Height 400cm Top end: Ø 60mm

Ground piece 800mm for setting in concrete (or inserting into a

sleeve)

Weight: 58 kg



### Solar Park Pole Light Globe **Design 15W LED**



Decorative and professional solar lamp for public garden and pedestrian precinct. Made in Germany.

Elegant in design and stable construction - no power connection required. Easy self-assembly and environmentally friendly.

Energy efficiency class

Light source: Bright high performance SMD LED

Luminous flux: 1600 Lm

The brightness corresponds to a 160W incandescent lamp

Light color: 4000K pleasantly neutral white (no

cold, blue light). LED life: over 30,000 hours

The LEDs can be easily replaced. Acrylic ball with 400mm diameter

Solar Panel: 100W monocrystalline silicon (tempered protective glass, hailproof) approx. 25 years life expectancy. The high quality module technology also ensures charging in cloudy skies.

On dark days in winter, the recharging is limited, the light duration is thus reduced.

#### **Light Controller:**

Automatic switch on at sunset and switch off at sunrise.

Adjustable dimming during late night and full power in the morning to extend battery life.

Operating time / duration (please specify when ordering)

You have the option from dawn to choose 4 consecutive time blocks with

1-15 hours duration and different light intensity of 10-100%.

Night reduction with shutdown and Example 1:

morning light

From dusk 4 hours with 100%, then 2 hours with 50%, starting 3 hours off

(0%) and again 5 hours with 100%

Example 2: Night shutdown

4 hours 100%, 4 hours 0%, 5 hours 100% Example 3: Reduced

4 hours with 100%, then 10 hours (rest of the night) with 50%

In addition, the charge controllers are equipped with a smart power function that allows automatic dimming at night depending on the battery charge

If the battery voltage drops below 50%, the lamp is automatically dimmed to 50%, this process is decreasing until the deep discharge protection starts.

This setting allows safe operation even on the faint days in winter.

The charge controller settings are preset by us according to customer requirements.

If you want to change the settings, you need the remote control S-SOLS29. We will gladly help you to decide on the right presettings.

All functions are preprogrammed by us according to project and customer specification, so that the luminaire is ready for operation immediately after assembly.

The light control is conveniently accessible behind a lockable flap in the

mast.

Steel mast height 400cm Ø 60mm galvanized

(additional scratch-resistant powder coated).

For setting in concrete (optional for construction with base plate).

Max. Light intensity: 6.5 lux

Light environment Ø approx. 30 meters / height 400

cm

Ambient temperature: -25 ° C ~ + 45 ° C

Protection class: IP54

Maintenance-free - (only the solar cells should be freed from snow or leaves if necessary).

10 years availability guarantee for spare parts.

#### **Battery storage:**

Battery: lithium iron phosphate LiFePo4 12V,

maintenance-free, longlife, for solar cycle operation

Lifetime approx. 6 - 10 years / 20 ° C

Function even at low or high temperatures.

For extended service on dark winter days, we recommend our extension set autumn or winter

Self-sufficient operating time in overcast weather (with fully charged battery):

a) Basic version: 2 days (18 hours)

b) with extension set autumn: 4 days (36 hours)

c) with extension set winter: 6 days (54 hours)

The new emergency lighting function ensures the lighting even with low





Germany

battery charge during very long periods of bad weather, but with reduced luminosity.

The batteries are located in the mast, behind the lockable door.

#### **Delivery disassembled with the following components:**

LED lamp head with mast mounting,

High performance accumulator,

Solar module with stable, screw-down mast mounting,

Galvanized steel mast, height 4 meters + ground piece 800mm for setting in concrete.

Microprocessor light control (located in the mast).

Illustrated assembly instructions in German or English. Other languages on request.

All components are pre-wired and prepared for quick setup.

20-year availability guarantee for replacement parts.

The ready-to-use light comes disassembled, complete with solar panel and mast.

Weight: 54 kg





### LED Solar Post Light Globe 4m with Motion Detector Dim



Solar Park Pole Light Globe LED with IR Detector Dim LT-SOL07-HD

#### With DIM function,

automatically dimmed lighting all night at 10-20%, full brightness when a person approaches for 1-10 minutes. Elegant design and stable construction - no power supply required. Easy self-assembly and environmentally friendly.

#### General technical data:

Light area Ø approx. 20 metres / height: 400 cm Ambient temperature: -20°C ~ +40°C

Protection class IP54, class II

Maintenance-free - (only the solar module should be cleared of snow or leaves if necessary).

10 year availability guarantee for spare parts (custom made).

#### Luminaire control:

Automatic switch-on via light sensor at dusk to 0% - 20% dim mode. Adjustable midnight pause (lights only in the evening and morning if

Full brightness when a person approaches. Detection distance of IR sensor 10m

Light duration adjustable from 10 sec. - 10 min.

Overcharge protection, deep discharge protection and automatic temperature-adjusted characteristic to extend battery life.

#### Luminaire sphere:

Acrylic sphere 300mm diameter

Energy efficiency class C

Bright SMD LED Light source:

Light intensity: 1600 lumen (The brightness corresponds to a 150W incandescent lamp)

Light colour: 4000K pleasant neutral white (no cold, blue light)

LED life 30,000 hours

The beam direction of the LEDs can be switched in 6 directions to optimally adapt the luminaire to the path.

The LEDs can be replaced.

#### Solar panel specifications:

Monocrystalline silicon 100W (hardened protective glass, hail-resistant)

Life expectancy approx. 25 years

The high-quality module technology ensures charging even on cloudy days. On dark days in winter, recharging is limited and the lighting duration is thus shortened.

#### Battery store:

Battery: Lithium iron phosphate LiFePo4 12V

maintenance-free, long-life.

For solar cycle operation

Service life: approx. 8 - 10 years / 20°C

This solar light can even shine for several days, even if the solar energy is not sufficient. (dark winter days)

For sufficient operating safety in autumn or winter, we strongly recommend our extension sets.

Self-sufficient operating time in overcast weather (with fully charged battery): a) Basic version: 480 switch-ons per 1 minute (or 40 hrs. with 20% idle lighting).

b) with winter extension set: 960 switch-ons per 1 minute (or 80 hrs. with 20% no-activity illumination).

Afterwards, the battery must be recharged with sunlight.

The batteries are located in the mast, behind the lockable door.

Steel mast: Galvanised (additional scratch-resistant powder coating available at extra cost).

Height 400cm

Top end Ø 60mm

Earth piece 800mm for setting in concrete (or inserting into a sleeve)

54 kg Weight:







# Solar Park Pole Light Globe Garden Design



Decorative and professional 7w solar lamp for public garden and pathway. Made in Germany.

LT-SOL07-M

Elegant in design and stable construction - no power connection required.

Energy efficiency class A +++

Easy self-assembly and environmentally friendly.

Light source: Bright SMD LED longlife

Light intensity: 600 lumens

The brightness corresponds to a 60W incandescent lamp Light color: 4000K pleasantly neutral white (no cold, blue light).

LED life 50,000 hours

The LEDs can be easily replaced.

Solar panel: 40W monocrystalline silicon (tempered protective glass,

hailproof) approx. 25 years life expectancy.

The high quality module technology also ensures charging in cloudy skies. On dark days in winter, the recharging is limited, the light duration is thus reduced.

High performance solar lead gel battery 12V, maintenance free, longlife: Lifespan: 5 - 8 years.

Intelligent control: Automatic switch-on and switch-off at dusk.

Adjustable midnight break (lit when needed only in the evening and in the morning).

Overcharge protection, deep discharge protection and automatically temperature-adapted characteristic curve to extend the battery life.

The light control is conveniently accessible behind a lockable flap in the mast.

Steel mast: height 300cm, Ø 60mm galvanized (optionally additionally scratch-resistant powder-coated).

For setting in concrete (optional for construction with base

Operating time in rainy weather: 3 days (29 hours with full battery).

This light may occasionally turn off on dark winter days when solar energy is insufficient.

Light environment Ø approx. 15 meters / height: 300 cm

Ambient temperature: -25 ° C ~ + 45 ° C

Protection class: IP54

Maintenance-free - (only the solar panel should be cleared of snow or leaves if necessary).

10 years availability guarantee for spare parts.

(Custom made).

Weight: 48 kg





### Historical Solar Park Pole Lantern Light 4m High



Decorative and robust solar lamp for public garden lighting. Made in Germany. LT-SOL09

Elegant in design and reliable - no power connection required.

Energy efficiency class A +++

Easy self-assembly and environmentally friendly. Light source: Bright high performance SMD LED

Luminous flux: 1300 Lm

The brightness corresponds to a 120W incandescent lamp Light color: 4000K pleasantly neutral white (no cold, blue light).

LED life: over 30,000 hours
The LEDs can be easily replaced.

Solar Panel: 100W monocrystalline silicon (tempered protective glass,

hailproof) approx. 25 years life expectancy.

The high quality module technology also ensures charging in cloudy skies. On dark days in winter, the recharging is limited, the light duration is thus reduced.

High performance solar lead gel battery 12V, maintenance free, longlife: Lifespan: 5 - 8 years.

Intelligent control: Automatic switch-on and switch-off at dusk.

Adjustable midnight break (lit when needed only in the evening and in the morning).

Overcharge protection, deep discharge protection and automatically temperature-adapted characteristic curve to extend the battery life.

The light control is conveniently accessible behind a lockable flap in the mast.

Steel mast height 400cm,  $\emptyset$  60mm galvanized (optionally additionally scratch-resistant powder-coated).

For setting in concrete (optional for construction with base

plate).

Autonomous operating time in rainy weather: 3 days (29 hours with full battery).

With Winterset: 5 days (50 hours)

Light environment Ø: approx. 25 meters / height: 400 cm

Ambient temperature: -25 ° C ~ + 50 ° C

Maintenance-free - (only the solar cells should be freed from snow or leaves if necessary).

Scope of delivery: High performance solar battery and bulbs.

Order quantity from 10 pieces, (special order).

Weight: 58 kg





#### Solar Park Light Pole LED Lamp Moritz 4m



Decorative and professional solar lamp with pole for garden or pathways. Made in Germany.

LT-SOL10-1

Bell light - elegant in design and safe to operate - no power connection required

Usage: Cycle path lighting, footpaths, car park, driveway, pedestrian zone, cycle paths etc.

Energy efficiency class A+++

Easy self-assembly and environmentally friendly. Light source: Bright SMD LED bulb - replaceable.

Luminous flux: 600 lumen

Brightness corresponds to a 60W incandescent lamp

Light colour: 4000K pleasant neutral white (no cold, blue light).

LED service life: 50,000 hours

### Solar panel:

50W monocrystalline silicon (tempered protective glass, hail-resistant). approx. 25 years life expectancy.

The high-quality module technology ensures charging even on cloudy days. On dark days in winter, recharging is limited, thus the lighting duration is shortened.

### **Battery storage:**

Lithium iron phosphate LiFePo4 12V, maintenance-free, longlife, for solar cycle operation Service life approx. 7 - 10 years / 20°C Function even at low or high temperatures.

### Intelligent control:

Automatic switch-on and switch-off at dusk.

Adjustable midnight break (lights up only in the evening and morning if required).

Overcharge protection, deep discharge protection and automatic temperature-adjusted characteristic curve to extend battery life.

The luminaire control unit is conveniently located behind a lockable door in the pole.

Smart Energy Management ensures longer luminaire life even when the battery is low.

#### Steel pole

Height 400cm,  $\varnothing$  60mm galvanised (optional additional scratch-resistant powder coating).

For setting in concrete (optional for erection with base plate).

# Operating conditions:

Daily operation in overcast weather: 30h / 2 - 3 days. Light environment = mast spacing:  $\emptyset$  18 metres

Ambient temperature: -25°C ~ +45°C

Protection class IP44, class II

Maintenance-free - (only the solar cells should be cleared of snow or leaves if necessary).

#### Included in the delivery:

High performance battery and solar panel, as well as lamp post and bulb.

Minimum order quantity: 2 pieces

Weight: 46 kg





# Solar Park Light Post LED Double Lamp Moritz



Decorative and professional solar lamp with pole for garden or pathways. Made in Germany. LT-SOL10-2

Bell light - elegant in design and safe to operate - no power connection required.

Usage: Cycle path lighting, footpaths, car park, driveway, pedestrian zone, cycle paths etc.

Energy efficiency class A+++

Easy self-assembly and environmentally friendly. Light source: Two bright LED bulbs - replaceable.

Luminous flux: 2 x 600 lumen

Brightness corresponds to two 60W incandescent lamps Light colour: 4000K pleasant neutral white (no cold, blue light).

LED service life: 50,000 hours

### Solar panel:

100W monocrystalline silicon (tempered protective glass, hail-resistant). approx. 25 years life expectancy.

The high-quality module technology ensures charging even on cloudy days. On dark days in winter, recharging is limited, thus the lighting duration is shortened.

### **Battery storage:**

Lithium iron phosphate LiFePo4 12V, maintenance-free, longlife, for solar cycle operation Service life approx. 7 - 10 years / 20°C Function even at low or high temperatures.

### Intelligent control:

Automatic switch-on and switch-off at dusk.

Adjustable midnight break (lights up only in the evening and morning if required).

Overcharge protection, deep discharge protection and automatic temperature-adjusted characteristic curve to extend battery life.

The luminaire control unit is conveniently located behind a lockable door in the pole.

Smart Energy Management ensures longer luminaire life even when the battery is low.

#### Steel pole

Height  $4^\circ$ 0cm, Ø 60mm galvanised (optional additional scratch-resistant powder coating).

For setting in concrete (optional for erection with base plate).

# Operating conditions:

Daily operation in overcast weather: 30h / 2 - 3 days. Light environment = mast spacing:  $\emptyset$  18 metres

Ambient temperature: -25°C ~ +45°C

Protection class IP44, class II

Maintenance-free - (only the solar cells should be cleared of snow or leaves if necessary).

#### Included in the delivery:

High performance battery and solar panel, as well as lamp post and bulb.

Minimum order quantity: 2 pieces

Weight: 46 kg





Solar Park Light Pole LED Lamp
5m Moritz Plus



Decorative solar lantern pole light with LED lamp and 5 metre pole for park, paths or grounds. German manufacture.

Minimum order quantity: 2 pieces

Bell light - elegant in design and safe to operate - no power connection

Usage: Cycle path lighting, footpaths, car park, driveway, pedestrian zone, cycle paths etc.

Energy efficiency class B

LT-SOL10-4

Easy self-assembly and environmentally friendly. Light source: Bright SMD LED bulb - replaceable.

Luminous flux: 1800 lumen

Brightness corresponds to a 150W halogen lamp

Light colour: 4000K pleasant neutral white (no cold, blue light).

LED service life: 50,000 hours

# Solar panel:

50W monocrystalline silicon (tempered protective glass, hail-resistant). approx. 25 years life expectancy.

The high-quality module technology ensures charging even on cloudy days. On dark days in winter, recharging is limited, thus the lighting duration is shortened.

# **Battery storage:**

Lithium iron phosphate LiFePo4 12V, maintenance-free, longlife, for solar cycle operation Service life approx. 7 - 11 years / 20°C Function even at low or high temperatures.

### Intelligent control:

Automatic switch-on and switch-off at dusk.

Adjustable midnight break (lights up only in the evening and morning if required).

Overcharge protection, deep discharge protection and automatic temperature-adjusted characteristic curve to extend battery life.

The luminaire control unit is conveniently located behind a lockable door in the pole.

Smart Energy Management ensures longer luminaire life even when the battery is low.

# Steel pole

Height 500cm, Ø 76mm galvanised (optional additional scratch-resistant powder coating).

For setting in concrete (optional for erection with base plate).

# Operating conditions:

Daily operation in overcast weather: 30h / 2 - 3 days. Light environment = mast spacing: Ø 20 metres Ambient temperature: -25°C ~ +45°C

Protection class IP44, class II

Maintenance-free - (only the solar cells should be cleared of snow or leaves if necessary).

#### Included in the delivery:

High performance battery and solar panel, as well as lamp post and bulb.

Minimum order quantity: 2 pieces

Weight: 62 kg







Solar Park Light Pole LED Lamp 5m Moritz Plus Double



Decorative solar lantern pole light with LED lamp and 5 metre pole for park, paths or grounds.

German manufacture.

LT-SOL10-5

Bell shape light - elegant in design and safe to operate - no power connection required.

Usage: Cycle path lighting, footpaths, car park, driveway, pedestrian area, cycle lanes etc.

Easy self-assembly and environmentally friendly.

Maintenance free - (only the solar cells should be cleared of snow or leaves

The brightness is equivalent to a 300W halogen lamp.

### General technical data:

Illuminated area: All-round optic approx. 12 x 8m

or with street light optics (following the course

of the path) 20 x 4m

Recommended mast spacing: Approx. 12 - 25 metres

Ambient temperature: -20°C ~ +50°C (extension -35°C ~ +65°C possible on request)

Material:

Brackets: Hot-dip galvanised steel (UV-

resistant paint available at extra cost).

Screws: VA stainless steel.

Energy efficiency class:

IP44,III SELV safety extra-low voltage Protection class:

Marks of conformity: CE, RoHS, WEEE 20-year availability guarantee for spare parts.

### Luminaire head specification:

Robust LED luminaire head made of die-cast aluminium LED lamp: SMD chipset Osram

LED power: 2 x 15W

Light colour: 4000K neutral white (can also be ordered in

3000K warm white)

No UV radiation for reduced insect attraction LED efficiency: > 160 lm/wLuminaire efficiency: > 142 lm/w Luminous flux lumen: 2 x 1800 lm Central illuminance: > 9 Lux (5m height) Average luminous intensity: > 5 Lux (5m) approx. 50,000 hours LED life:

Protection class: IP66 (water and storm protected)

IK10 Impact resistance: Warranty:

### Solar panel specifications:

Monocrystalline silicon with very high efficiency Hardened protective glass, hail-resistant

This high-quality module technology guarantees charging even when the sky is overcast. On dark days in winter, recharging is limited and the lighting duration is thus shortened.

Efficiency: > 19%

200Wp (without extension) Output:

Life expectancy: approx. 25 years

Performance guarantee \* 20 years 80% / 10 years 90% \* except for

mechanical impact.

### **Battery storage:**

Lithium iron phosphate LiFePo4 12V maintenance-free, longlife, for solar cycle operation

Approx. 7 - 11 years / 20°C Service life

Function also at low or high temperatures

30h / 2 - 3 days (in overcast weather). Energy storage:

### Intelligent control:

Smart microprocessor control with wireless programming option.

Readout of the current operating status with storage of the measurement data of all components of the last days.

Automatic switch-on at sunset and switch-off at sunrise. (Switching level adjustable)

Adjustable dimming during late night and full power again in the morning to extend the lighting duration in bad weather.



Germany

Please specify desired lighting times and night-time dimming when ordering. You have the option of selecting 4 consecutive time blocks from dusk onwards, each lasting 1-15 hours and with varying light intensity from 10-100%.

Example 1: From dusk 4 hours with 100%, then 2 hours with 50%, then 3 hours off (0%) and early in the morning 4 hours with 100%.

Example 2: 4 hours 100%, 5 hours midnight 0%, 4 hours 100%.

Example 3: 4 hours at 100%, then 10 hours (rest of the night) at 50%.

In addition, the charge controller is equipped with a Smart Power function that enables automatic dimming depending on the battery charge level. When the battery voltage drops below 50%, the lamp is automatically dimmed to 50%, this process is descending until the deep discharge protection kicks in. This setting enables safe operation even on the low-light days in winter. The charge controller settings are preset by us according to customer requirements. To change the settings, you need the S-SOLS29 remote control. We will be happy to help you decide on the correct presettings. All functions are pre-programmed by us free of charge, depending on the project and customer requirements, so that the luminaire is ready for operation immediately after installation.

Temperature-optimised battery charging and trickle charging to extend battery life.

Overvoltage and deep discharge protection for battery. Reverse polarity and short circuit protection. Additional fuse

Protection class: IP66 Warranty: 5 years

#### Steel mast

Steel pole, hot-dip galvanised

(additionally scratch-resistant powder-coated at extra charge).

Visible height: 5 m
Top end: Ø 76mm

Ground section: 80 cm for setting in concrete (on request

also 3m - 8m height)

For easier erection, we also offer installation sleeves into which the mast can be inserted

Lockable mast door, for easy access to the control unit.

### **Included in delivery:**

High-power battery and solar panel, as well as lamp post and bulb.

Weight: 62 kg





# Solar Light LED Park Post Classic Design



Decorative solar park lantern pole light in LED technology 3.5m high. For park, paths or facilities. German production. Order quantity from 2 pcs. (special production). LT-SOL14

Light colour: 4000K neutral white (no cold, blue light) LED lifetime: > 50.000 hours

#### Solar panel specifications:

Solar panel: 80W monocrystalline silicon (tempered protective glass, hail-resistant).

approx. 25 years life expectancy.

The high-quality module technology ensures charging even on cloudy days. On dark days in winter, recharging is limited, thus the lighting duration is shortened.

#### Battery storage:

Maintenance-free lithium iron phosphate battery, longlife type. Service life: 5 - 10 years.

#### Luminaire control:

Intelligent control: automatic switch-on and switch-off at dusk. Adjustable midnight pause (lights only in the evening and morning if required).

Overcharge protection, deep discharge protection and automatic temperature-adjusted characteristic curve to extend battery life.

The luminaire control unit is conveniently located behind a lockable door in the pole.

#### Mast:

Steel mast: Galvanised (additionally scratch-resistant powder-coated at an extra charge).
Height 300cm

Spigot Ø 60mm

Earth piece 600mm for setting in concrete (or insertion into a sleeve).

#### Operating conditions:

Daily operation in overcast weather: 2 - 3 days

Light cone: Ø 15 metres

Ambient temperature: -20°C ~ +80°C (in direct sunshine)

Maintenance-free - (only the solar module should be cleared of snow or

leaves if necessary)

Scope of delivery: pole, battery, solar panel and bulb

10-year availability guarantee for spare parts

Weight: 36 kg





# LED Solar Street Pole Light Unique



High quality solar parking lantern LED solar light with pole for paths or grounds - insect friendly. Made in Germany. Minimum order quantity 10 pcs.

LT-SOL16

Timeless design that blends in with the old town as well as parks or footpaths.

Usage: Footpath, park, driveway, garden pub, private garden, cycle path etc.

Sturdy galvanised steel frame with aluminium components, powder coated. The luminaire is completely handmade in Germany and is of long-lasting quality.

LED luminaire head:

With LED light source

Brightness: 600 lumen

Lifetime: 50000 hours

Pleasant light colour 4000K (no cold, blue light).

The brightness corresponds to about 60W (conventional light source).

Light area: Ø approx. 15m

Colour: matt silver (other colour on request).

Dimensions: Depth 310mm, width 450mm, height 400mm.

Protection class: IP44

Solar panel:

Monocrystalline silicon, 12V 20W

hermetically sealed, approx. 25 years life expectancy.

Programmable control:

Automatic switch-on and switch-off at dusk.

Adjustable midnight break (lights only in the evening and morning if required).

As an accessory: With motion detector - Low quiet lighting at night and high brightness when a person approaches.

Intelligent energy management: Automatic dimming to allow lighting even on long snowy winter days. In the dark season, the lighting duration is limited because the sunlight is only sufficient for a small recharge.

Overcharge protection, deep discharge protection and automatic

temperature-adjusted characteristic to extend battery life.

A wireless programmer for changing the lighting times and brightnesses can be ordered as an accessory.

Energy storage:

Lithium iron phosphate battery 12V, maintenance-free, service life: 5 - 10 years.

The battery is easily accessible and protected from strong sunlight, located at the bottom of the pole, behind a lockable door.

Self-sufficient operating time even under slightly cloudy skies: 30 hrs (3 nights).

General data:

Energy efficiency class B

Maintenance-free - (only the solar cells should be cleared of snow or leaves if necessary).

Ambient temperature: Minus 20°C ... + 55°C

Steel pole:

Galvanised steel

Matt silver powder-coated (other colours are possible by arrangement)

Total height: 340cm pole top end Ø 60mm

For embedding in concrete, 60cm deep (optional for erection with base

plate).

Weight: 38 kg



PV Solar Street Lights for Central European Countries







# LED Solar Bike Lane Light 50W Lithium with 4m Pole



Solar cycle track, walkway, pathway lighting fixture including LED and steel post for quick installing. Made in Germany. LT-SOL38

This solar light is very robust and safe to operate - no power connection required. However, the light intensity is not very high, which means that the luminaire is not approved for public street lighting. Recommended for access road, footpath, driveway, cycle path, cul-de-sac, school path, private road, bus stop ...

Due to the latest SMD LED technology in combination with an electronic 12V DC PWM driver and microprocessor system control, a higher light output is achieved with extended lamp life.

The solar light is maintenance-free - (only the solar module should be cleaned with water occasionally).

The battery is located in the pole, behind a locked door.

Installation is greatly simplified by the foundation tube, which is available as an accessory. This tube is placed in an 80cm deep hole in the ground and filled with concrete around the outside. After hardening, the luminaire pole is inserted into this tube and the space between is filled with sand.

#### General technical data:

Illuminated area: approx. 18 x 5m Recommended mast spacing: approx. 15 - 20 metres

Ambient temperature: -20°C ~ +50°C (extension -35°C ~ +65°C

possible on request)

Material: Brackets: Hot-dip galvanised steel (UV-resistant paint available at an extra charge). Screws: VA stainless steel.

Energy efficiency class: A

Protection class: III safety extra-low voltage Marks of conformity: CE, RoHS, WEEE 20-year availability guarantee for spare parts.

### **Luminaire head specification:**

Robust LED luminaire head made of die-cast aluminium

Adjustable inclination: -5 ~ +15 deg LED lamp: SMD Chipset Philips

LED power: 7W

Light colour: 4000K neutral white (from 10 pcs. also

available with other luminaire head in 3000K warm white)

No UV radiation for reduced insect attraction LED efficiency: > 150 lm/w Luminaire efficiency: > 139 lm/w Luminous flux lumen: 972 lm

Central illuminance: > 13 Lux (4m height)
Average luminous intensity: > 7 Lux (4m)
LED life: > 100,000 hours

Protection class: IP66 (water and storm protected)

Impact resistance: IK10
Warranty: 5 years

### **Luminaire control:**

Smart microprocessor control with wireless programming option.

Readout of the current operating status with storage of the measurement data of all components of the last days.

Automatic switch-on at sunset and switch-off at sunrise. (Switching level adjustable)

Adjustable dimming during late night and full power again in the morning to extend the lighting duration in bad weather.

Please specify desired lighting times and night-time dimming when ordering. You have the option of selecting 4 consecutive time blocks from dusk onwards, each lasting 1-15 hours and with varying light intensity from 10-100%

Example 1: From dusk 4 hours with 100%, then 2 hours with 50%, then 3 hours off (0%) and early in the morning 4 hours with 100%.

Example 2: 4 hours 100%, 5 hours midnight 0%, 4 hours 100%.

Example 3: 4 hours at 100%, then 10 hours (rest of the night) at 50%.

In addition, the charge controller is equipped with a Smart Power function that enables automatic dimming depending on the battery charge level. When the battery voltage drops below 50%, the lamp is automatically dimmed to 50%, this process is descending until the deep discharge protection kicks in. This setting enables safe operation even on the low-light days in winter. All functions are pre-programmed by us free of charge,



depending on the project and customer requirements, so that the luminaire is ready for operation immediately after installation. To change the settings. you need the S-SOLS29 remote control. We will be happy to help you decide on the right presettings.

Temperature-optimised battery charging and trickle charging to extend battery life.

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse

Protection class: Warranty: 5 years

### Solar panel specification:

Monocrystalline silicon with very high efficiency Tempered protective glass, hail-resistant

This high-quality module technology guarantees charging even on overcast days. On dark days in winter, recharging is limited and the lighting duration is thus shortened.

Efficiency: > 19%

50Wp (without extension) Output:

Life expectancy: approx. 25 years performance guarantee \* 20 years 80% / 10 years 90% \* except in case of mechanical impact

# **Battery storage:**

Battery: Lithium iron phosphate LiFePo4 12V

maintenance-free, longlife, for solar cycle operation.

Service life approx. 10 years / 20°C

Function also at low or high temperatures.

For sufficient operating safety in autumn or winter, we strongly recommend our extension sets.

Autonomous operating time in overcast weather (with fully charged battery):

a) basic version: 16 hours (approx. 2 days) b) with extension set autumn: 24 hours (approx. 3 days) c) with extension set winter: 40 hours (approx. 5 days)

The new emergency lighting function ensures lighting even when the battery charge is low during very long periods of bad weather, but with reduced luminosity.

The batteries are located in the mast, behind the lockable door

#### Mast:

Steel mast, hot-dip galvanised Visible height:

Ground level: 80 cm for setting in concrete (on request also

3m - 8m height)

For easier erection, we also offer installation sleeves into which the mast can

be inserted.

Lockable mast door, for easy access to the control unit.

Supplied disassembled with the following components:

LED lamp head with mast mounting, battery storage solar module with stable, screwable mast mounting, steel mast, luminaire control unit (already mounted in the mast). Illustrated assembly instructions in German or English.

Other languages on request.

Weight: 55 kg







### **Solar Street Light LED Private Road 100W Lithium with Pole**



Solar street light fixture including 5 meter post and 15w lamp. Made in

LT-SOL41

Powerful and safe - no electrical grid required.

Recommended for average sunshine regions, like Europe, southern Russia, New Zealand.

High brightness corresponds to 40 watt fluorescent light.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

#### **General specifications:**

Lighted area: aprx. 18 x 8m

Distance from pole to pole: 18 - 25 meters

Ambient temperature: -20°C ~ +55°C (extended temperature range -35°C ~

+65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree

Protection class: III Low safe voltage Approvals: CE, RoHS, WEEE 20 years sparepart supply ability.

# **Lamp specifications:**

LED Lamp: SMD chipset

LED power: 18W Energy efficiency class:

Light colour: 4000K neutral white (on request 5000K

cold white or 3000K warm white).

No uv-radiation for reduced insects attraction LED efficiency: > 160 lm/w Lamp efficiacy: > 140 lm/w Luminous flux: 2500 Lm

Central illumination: > 8 Lux (at 5m pole height)

Aprx. 100000 h Life time:

Casing: Rigid aluminium die-cast. Seawater and thunderstorm-proof.

Protection degree: IP66 5 years guarantee

## System controler specifications:

Programmable smart processor charge controler.

Wireless remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after

Temperature feeded battery charging for extended battery life.

Overcharge and deep discharge protection for the battery.

Reverse polarity and electronic short circuit protection.

Additional electric fuse Protection degree: IP66 5 years guarantee

#### Solar panel specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated, hailproof)

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

Efficiency: > 16% Power: 100Wp

Life expectancy: aprx. 25 years 20 years 80% power guaranty 10 years 90% power guaranty \*

excepted is the complete failing (3 years guarantee)

#### **Battery storage:**

High performance lithium iron phosphate accumulator LiFePo4



Battery voltage:

maintenance-free. longlife.

For solar cycle operation

Lifetime 6 - 10 years / 20°C

Function even at low temperatures. For sufficient reliability in autumn or winter, we strongly recommend our

extension sets

Autonomy time in overcast weather (with fully charged battery):

a) Basic version: 40 hours (4 days)

b) with extension set winter: 80 hours (8 days)

The new emergency lighting function ensures lighting even during low battery charging during very long periods of bad weather, but with reduced luminosity.

The battery is mounted inside the mast, behind the lockable door.

Steel pole, hot-dip galvanized,

Upper height 5 m

inground length: 800mm Installation into concrete.

With lockable service door, for easy acces to the controller.

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

LiFePo4 battery,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Steel pole.

Manual for easy mechanical and electrical setup in english language. Other

languages on request.

Complete pre-wired unit

Weight: 62 kg

### Accessories for outdoor fixtures



Extension Kit Autumn for LT-SOL41 LT-SOL41B



Extension Kit Winter for LT-SOL41

LT-SOL41C



Extension Kit Winter for LT-SOL41

LT-SOL41CH

Internet:



PV Solar Street Lights for Central European Countries







Solar Street Light LED Flood **Protected 100W Lithium with** 

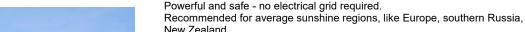
PV photovoltaic street lighting for private roads and feeder roads. Floodprotected.

Recommended for flood-prone areas, locks, next to rivers, lowlands, HQ100, etc.

Complete with mast and lithium iron phosphate battery.

- Mast height 5 metres
- Flood protected up to 4m height
- LED power 18W
- Luminous flux > 2500 Lm
- Self-sufficient operating time: 25 80 hours
- insect friendly

LT-SOL41H



High brightness corresponds to 40 watt fluorescent light.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

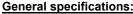
Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.



Lighted area: aprx. 18 x 8m

Distance from pole to pole: 18 - 25 meters

Ambient temperature: -20°C ~ +55°C (extended temperature range -35°C ~

+65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree

Protection class: III Low safe voltage Approvals: CE, RoHS, WEEE 20 years sparepart supply ability.

#### Lamp specifications:

LED Lamp: SMD chipset LED power: 15W

Energy efficiency class: A

Light colour: 4000K neutral white (on request 5000K cold white or 3000K

warm white).

No uv-radiation for reduced insects attraction

LED efficiency: > 160 lm/w Lamp efficiacy: > 140 lm/w Luminous flux: 2500 Lm

Central illumination: > 8 Lux (at 5m pole height)

Life time: Aprx. 100000 h

Casing: Rigid aluminium die-cast. Seawater and thunderstorm-proof.

Protection degree: IP66 5 years guarantee

# System controler specifications:

Programmable smart processor charge controler.

Wireless remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after

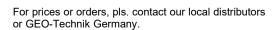
Temperature feeded battery charging for extended battery life. Overcharge and deep discharge protection for the battery. Reverse polarity and electronic short circuit protection.

Additional electric fuse Protection degree: IP66 5 years guarantee

### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass encapsulated, hailproof)

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.







Germany

Efficiency: > 20% Power: 120Wp

Life expectancy: aprx. 25 years 20 years 80% power guaranty \* 10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

#### **Battery storage:**

High performance lithium iron phosphate accumulator LiFePo4

Battery voltage: 12V

maintenance-free, longlife.

For solar cycle operation

Lifetime

10 years / 20°C

Function even at low temperatures.

For sufficient reliability in autumn or winter, we strongly recommend our

extension sets.

Autonomy time in overcast weather (with fully charged battery):

a) Basic version: 40 hours (4 days)

b) with extension set winter: 80 hours (8 days)

The new emergency lighting function ensures lighting even during low battery charging during very long periods of bad weather,

but with reduced luminosity.

The battery is mounted inside the mast, behind the lockable door.

#### Pole:

Steel pole, hot-dip galvanized,

Upper height 5 m inground length: 800mm Installation into concrete.

With lockable service door, for easy acces to the controller.

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

LiFePo4 battery,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Steel pole.

Manual for easy mechanical and electrical setup in english language. Other

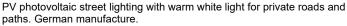
languages on request. Complete pre-wired unit Weight: 62 kg







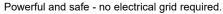
### **Solar Street Light LED Private** Road 100W with Pole 2700K



Complete with mast and lithium iron phosphate battery.

- Pole height 5 metres
- LED power 18W
- Luminous flux > 2400 Lm
- Self-sufficient operating time: 25 80 hours
- insect friendly

LT-SOL41I



Recommended for average sunshine regions, like Europe, southern Russia, New Zealand.

High brightness corresponds to 40 watt fluorescent light.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant painting).

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.



Lighted area: aprx. 20 x 8m

Distance from pole to pole: 20 - 25 meters

Ambient temperature: -20°C ~ +55°C (extended temperature range -35°C ~

+65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree

Protection class: III Low safe voltage Approvals: CE, RoHS, WEEE 20 years sparepart supply ability.

### Lamp specifications:

LED Lamp: SMD chipset LED power: 18W Energy efficiency class: B

Light colour: 2700K neutral white (on request 4000K pure white or 3000K

warm white)

No uv-radiation for reduced insects attraction

LED efficiency: > 160 lm/w Lamp efficiacy: > 140 lm/w Luminous flux: 2400 Lm

Central illumination: > 8 Lux (at 5m pole height)

Life time: Aprx. 100000 h

Casing: Rigid aluminium die-cast. Seawater and thunderstorm-proof.

Protection degree: IP66 5 years guarantee

#### System controler specifications:

Programmable smart processor charge controler.

Wireless remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.

Temperature feeded battery charging for extended battery life. Overcharge and deep discharge protection for the battery.

Reverse polarity and electronic short circuit protection.

Additional electric fuse Protection degree: IP66 5 years guarantee

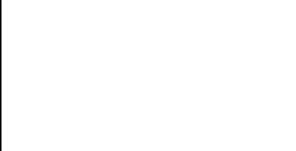
#### **Solar panel specifications:**

High efficient monocrystalline silicone (tempered glass encapsulated, hailproof)

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

Efficiency: > 16% Power: 100Wp

Life expectancy: aprx. 25 years







Germany

20 years 80% power guaranty \*

10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

#### **Battery storage:**

High performance lithium iron phosphate accumulator LiFePo4

Battery voltage: 12V

maintenance-free, longlife. For solar cycle operation

Lifetime 6 - 10 years / 20°C

Function even at low temperatures.

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Autonomy time in overcast weather (with fully charged battery):

a) Basic version: 40 hours (4 days) b) with extension set winter: 80 hours (8 days)

The new emergency lighting function ensures lighting even during low

battery charging during very long periods of bad weather,

but with reduced luminosity.

The battery is mounted inside the mast, behind the lockable door.

#### Pole:

Steel pole, hot-dip galvanized,

Upper height 5 m

inground length: 800mm

Installation into concrete.

With lockable service door, for easy acces to the controller.

#### Including following components:

LED light fixture with arm and pole mount bracket.

LiFePo4 battery,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Steel pole.

Manual for easy mechanical and electrical setup in english language. Other

languages on request. Complete pre-wired unit

Weight: 62 kg

For prices or orders, pls. contact our local distributors

or GEO-Technik Germany.

www.geo-technik.de

Internet:







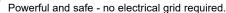
**Solar Street Light LED Private** Road 100W Lithium with Pole

PV photovoltaic street lighting with warm white light for private roads and paths. German manufacture.

Complete with mast and lithium iron phosphate battery.

- Pole height 5 metres
- LED power 18W
- Luminous flux > 2500 Lm
- Self-sufficient operating time: 25 80 hours
- insect friendly

LT-SOL41W



Recommended for average sunshine regions, like Europe, southern Russia, New Zealand.

High brightness corresponds to 40 watt fluorescent light.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

Pole and brackets are hot dip galvanized (on surcharge with a UV-resistant painting).

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

#### General specifications:

Lighted area: aprx. 20 x 8m

Distance from pole to pole: 20 - 25 meters

Ambient temperature: -20°C ~ +55°C (extended temperature range -35°C ~

+65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree

Protection class: III Low safe voltage Approvals: CE, RoHS, WEEE 20 years sparepart supply ability.

# Lamp specifications:

LED Lamp: SMD chipset LED power: 18W Energy efficiency class: A

Light colour: 3000K neutral white (on request 5000K cold white or 4000K

pure white).

No uv-radiation for reduced insects attraction

LED efficiency: > 160 lm/w Lamp efficiacy: > 140 lm/w Luminous flux: 2500 Lm

Central illumination: > 8 Lux (at 5m pole height)

Life time: Aprx. 100000 h

Casing: Rigid aluminium die-cast. Seawater and thunderstorm-proof.

Protection degree: IP66 5 years guarantee

#### System controler specifications:

Programmable smart processor charge controler.

Wireless remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after

Temperature feeded battery charging for extended battery life. Overcharge and deep discharge protection for the battery.

Reverse polarity and electronic short circuit protection.

Additional electric fuse Protection degree: IP66 5 years guarantee

installation.

#### **Solar panel specifications:**

High efficient monocrystalline silicone (tempered glass encapsulated, hailproof)

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

Efficiency: > 16% Power: 100Wp

Life expectancy: aprx. 25 years







Germany

20 years 80% power guaranty \*

10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

#### **Battery storage:**

High performance lithium iron phosphate accumulator LiFePo4

Battery voltage: 12V

maintenance-free, longlife. For solar cycle operation

Lifetime 6 - 10 years / 20°C

Function even at low temperatures.

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Autonomy time in overcast weather (with fully charged battery):

a) Basic version: 40 hours (4 days) b) with extension set winter: 80 hours (8 days)

The new emergency lighting function ensures lighting even during low

battery charging during very long periods of bad weather,

but with reduced luminosity.

The battery is mounted inside the mast, behind the lockable door.

#### Pole:

Steel pole, hot-dip galvanized,

Upper height 5 m

inground length: 800mm

Installation into concrete.

With lockable service door, for easy acces to the controller.

#### Including following components:

LED light fixture with arm and pole mount bracket.

LiFePo4 battery,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Steel pole.

Manual for easy mechanical and electrical setup in english language. Other

languages on request. Complete pre-wired unit

Weight: 62 kg





Solar Street Light LED Private Road 160W Lithium with Pole

PV photovoltaic street lighting, two-lamp, for private roads, small squares and access roads. German manufacture.

Complete with mast and lithium iron phosphate battery.

- Pole height 5 metres
- LED power 2x 15W
- Luminous flux > 2x 1900 Lm
- Self-sufficient operating time: 25 80 hours
- insect friendly

LT-SOL42



Robuste PV-Straßenleuchte mit LED Lampe - kein Stromanschluß erforderlich. Empfohlen für Länder mit durchschnittlicher Sonneneinstrahlung, wie Europa, südliches Russland, Neuseeland. Hohe Lichtstärke durch modernste SMD LED in Verbindung mit einem elektronischen 12V-60V DC PWM Treiber. Die Helligkeit ist vergleichbar mit einer 40W Leuchtstoffröhre, bzw. 130W Halogenlicht. Sehr langer, wartungsfreier Leuchtenbetrieb durch besondere Konstruktionsmerkmale. Mikroprozessor-Systemsteuerung, Alle Halterungen und Befestigungen sind feuerverzinkt (gegen Aufpreis auch mit einer Lackierung nach Wunsch). Die Schrauben bestehen aus VA Edelstahl rostfrei. Konstruktion, Herstellung und Qualitätsmanagement in Deutschland. Die Solarleuchte ist wartungsfrei - lediglich das Solarmodul sollte im Hebst von heruntergefallenen Blättern befreit werden.

## Allgemeine technische Daten:

Beleuchtete Fläche: Ca. 22 x 20m

Empfohlener Mastabstand: ca. 20 - 25 Meter

Umgebungstemperatur: -20°C ~ +50°C (Erweiterung -35°C ~ +65°C auf

Anfrage möglich)

Schutzklasse: III Schutzkleinspannung Prüfzeichen: CE, RoHS, WEEE

20 Jahre Verfügbarkeitsgarantie für Ersatzteile.

## Leuchtenkopf Spezifikation:

Robuster LED Leuchtenkopf aus Alu-Druckguss

LED Lampe: SMD Chipset LED Leistung: 2 x 15W Energie-Effizienzklasse C

Lichtfarbe 4000K neutralweiß (ab 10 Stk. auf Sonderbestellung auch 3000K

Warmweiß).

Keine UV-Strahlung für reduzierte Insekten Anlockung

LED Effizienz: > 160 lm/w
Leuchten Effizienz: > 145 lm/w
Lichtstrom Lumen: 2 x 2500 Lm
Zentrale Beleuchtungsstärke: > 8 Lux (5m Höhe)
LED Lebensdauer ca. 80.000 Stunden

Schutzart: IP65 (wasser- und sturmgeschützt)

Schlagfestigkeit: IK10 Gewährleistung: 5 Jahre

#### Leuchtensteuerung:

Smarte Mikroprozessor Steuerung mit Infarot Programmier-Möglichkeit. Auslesen des aktuellen Betriebszustandes mit Speicherung der Messdaten aller Komponenten der letzten Tage.

Automatische Einschaltung bei Sonnenuntergang und Abschaltung bei Sonnenaufgang. (Schaltpegel einstellbar)

Einstellbare Dimmung während der Spätnacht und wieder volle Leistung am Morgen zur Verlängerung der Leuchtdauer bei schlechtem Wetter. Betriebszeit/Leuchtdauer (bitte bei Bestellung angeben) Sie haben die Möglichkeit ab Dämmerung 4 aufeinanderfolgende Zeitblöcke mit je 1-15 Stunden Dauer und unterschiedlicher Lichtstärke von 10-100% zu wählen.

Beispiel 1 - Nachtreduzierung mit Abschaltung und Morgenlicht: Ab Dämmerung 4 Std mit 100%, dann 2 Std mit 50%, anschließend 3 Std aus(0%) und früh morgens 5 Std mit 100%

Beispiel 2 - Nachtabschaltung: 4 Std 100%, 4 Std Mitternacht 0%, 5 Std 100%

Beispiel 3 - Abends 4 Std. hell, danach reduziert 4 Std mit 50%, anschließend 10 Std (Rest der Nacht) mit 50%

Zusätzlich ist der Laderegler mit einer Smart Power Funktion ausgerüstet, die eine automatische Dimmung je nach Akkuladezustand ermöglicht. Wenn die Akkuspannung unter 50% fällt, wird die Lampe automatisch auf 50% gedimmt, dieser Prozess ist absteigend bis der Tiefenentladeschutz einsetzt. Diese Einstellung ermöglicht einen sicheren Betrieb auch an den



Germany

lichtschwachen Tagen im Winter. Die Laderegler-Einstellungen werden von uns nach Kundenwunsch voreingestellt. Zum Ändern der Einstellungen, benötigen Sie die Fernbedienung S-SOLS29. Gerne helfen wir Ihnen bei der Entscheidung der richtigen Voreinstellungen. Alle Funktionen werden je nach Projekt und Kundenwunsch von uns kostenfrei vorprogrammiert, sodaß die Leuchte sofort nach Aufbau betriebsfertig ist. Temperatur-optimierte Batterie-Ladung und Erhaltungsladung zur Verlängerung der Batterie-Lebensdauer. Überspannungs- und Tiefentladeschutz für Batterie. Verpolungs- und Kurzschlußschutz. Zusätzliche Schmelzsicherung Schutzklasse: IP66 Gewährleistung: 5 Jahre

## **Solarmodul Spezifikationen:**

Monokristallines Silizium mit sehr hohem Wirkungsgrad gehärtetes Schutzglas, hagelfest Diese hochwertige Modul-Technologie gewährleistet auch Ladung bei bedecktem Himmel. An dunklen Tagen im Winter ist die Nachladung eingeschränkt, die Leuchtdauer ist damit verkürzt.

Wirkungsgrad: > 19%

Leistung: 160Wp (ohne Erweiterung)

Lebenserwartung: ca. 25 Jahre

Leistungsgarantie \* 20 Jahre 80% / 10 Jahre 90% \* ausgenommen bei

mechanischer Einwirkung

### **Batterie Speicher:**

Batterie: Lithium-Eisenphosphat LiFePo4 12V, wartungsfrei, longlife, für Solar Zyklenbetrieb

Lebensdauer ca. 7 - 10 Jahre / 20°C

Funktion auch bei niedrigen oder hohen Temperaturen.

Zur ausreichenden Betriebssicherheit in Herbst oder Winter empfehlen wir unbedingt unsere Erweiterungssets. Autarke Betriebsdauer bei bedecktem Wetter (mit voll geladenem Akku):

- a) Grundversion: 40 Stunden (ca. 4 Tage)
- b) mit Erweiterungsset Herbst: 60 Stunden (ca. 6 Tage)
- c) mit Erweiterungsset Winter: 80 Stunden (ca. 8 Tage)

Die neue Notbeleuchtungs-Funktion sichert die Beleuchtung auch bei schwacher Batterieladung bei sehr langen Schlechtwetter-Perioden, jedoch mit verminderter Leuchtstärke. Die Batterien befinden sich im Mast, hinter der verriegelbaren Tür.

#### Mast:

Stahlmast, feuerverzinkt

Sichtbare Höhe: 5 m

Erdstück: 80 cm zum Einbetonieren (auf Anfrage auch 3m - 8m Höhe) Zum leichteren Aufstellen bieten wir auch Einbauhülsen an, in die der Mast eingesteckt werden kann.

Verschließbare Masttür, für den leichten Zugang zum Steuergerät.

# Anlieferung zerlegt mit folgenden Komponenten:

LED Lampenkopf mit Mastbefestigung, Solar Batterie, Solarmodul mit stabiler, verschraubbarer Mastbefestigung, Stahlmast, Leuchtensteuerung (bereits im Mast montiert). Batterie Bodeneinbaukasten, Bebilderte Aufbauanleitung in deutscher oder englischer Sprache. Andere Sprachen auf Anfrage.

Alle Komponenten sind vorverkabelt und vorbereitet für den schnellen Aufbau. Die betriebsfertige Leuchte wird zerlegt geliefert, für den sicheren Transport.

Weight: 62 kg

#### Accessories for outdoor fixtures



Extension Kit Winter for LT-SOL-42 LT-SOL42C



PV Solar Street Lights for Central European Countries







Solar Street Light LED 30W Eco 130W with pole



Bright PV LED street lamp with pole and energy saving mode for street lighting. German manufacture.

- Pole height 5 metres
- LED power 30W
- Luminous flux > 5000 Lm
- Self-sufficient operating time: 44 hours (approx. 4 days)

LT-SOL44

Robust photovoltaic street light with LED lamp - no power connection required.

Recommended for countries with average solar radiation, such as Europe, southern Russia, New Zealand.

High luminous intensity thanks to state-of-the-art SMD LED in combination with an electronic 12V-60V DC PWM driver.

The brightness is comparable to an 80W mercury vapor lamp or 50W sodium vapor lamp.

Very long, maintenance-free luminaire operation due to special design

Microprocessor Control,

All brackets and fixings are hot-dip galvanized (with surcharge also with a coating as desired).

The screws are made of VA stainless steel.

Construction, production and quality management in Germany. The solar light is maintenance-free - only the solar module should occasionally be cleaned with water.

#### General technical data:

Illuminated area: approx. 25 x 10m

Recommended mast spacing: approx. 25 meters Ambient temperature: -20  $^{\circ}$  C  $^{\circ}$  C (extension -35  $^{\circ}$  C  $^{\circ}$  C + 65  $^{\circ}$  C

possible on request)

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE

20-year availability guarantee for replacement parts.

## Lamp specifications:

LED Lamp: SMD Chipset Philips

LED power: 30W

4000K pure white (on request also 3000K Light colour

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 160 lm/w Lamp efficiacy: > 145 lm/w Luminous flux: > 5000 lm

Central illumination: > 36 Lux (5m pole height)

Average illumination: > 19 Lux (5m) Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Dimensions: 470mm x 230mm x 60mm

Arm length: 300mm (on request, we supply with max. 2

meter arm)

IP65 Protection degree: Guarantee: 5 years

### **Light Control:**

Smart microprocessor control with infrared programming option.

Reading the current operating status with storage of the measurement data of all components of the last days

Automatic switch on at sunset and switch off at sunrise. (Switching level

Adjustable dimming during the late night and full power in the morning to extend the duration of the light in bad weather.

Operating time / duration (please specify when ordering)

You have the option from dawn to choose 4 consecutive time blocks with 1-15 hours duration and different light intensity of 10-100%.

Example 1 - Night reduction with shutdown and morning light:

From dusk 4 hours with 100%, then 2 hours with 50%, then 3 hours off (0%) and early in the morning 5 hours with 100%

Example 2 - night shutdown: 4 hours 100%, 4 hours midnight 0%, 5 hours

Example 3 - 4 hours bright in the evening, then reduced to 50% for 4 hours, then 10 hours (rest of the night) to 50%

In addition, the charge controller is equipped with a Smart Power function, which allows automatic dimming at night depending on the battery charge



requirements.

If the battery voltage drops below 50%, the lamp is automatically dimmed to 50%, this process is decreasing until the deep discharge protection starts. This setting enables safe operation even on the faint days in winter. The charge controller settings are preset by us according to customer

If you want to change the settings, you need the remote control S-SOLS29. We will gladly help you to decide on the right presettings.

All functions are preprogrammed by us free of charge, depending on the project and customer request, so that the luminaire is ready for use immediately after installation.

Temperature-optimized battery charge and trickle charge to extend battery

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse Protection class: IP66 Warranty: 5 years

### Solar module specifications:

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies. On dark days in winter, the recharging is limited, the light duration is thus reduced.

Efficiency: > 19%

130Wp (without extension) Power:

Life expectancy: approx. 25 years
Performance Guarantee \* 20 years 80% / 10 years 90%

\* except in the case of mechanical impact

Weight: 132 kg







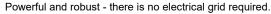
Solar Street Light Double Arm LED 30W /260W with Pole

LED solar luminaire two-lamp with pole for car park lighting or for residential area streets with center stripe.

Dimmable. German manufacture.

- Pole height 6 metres
- LED power 2 \* 30W
- Luminous flux 2x 5000 Lm
- Self-sufficient operating time: 40 hours (approx. 4 days)

LT-SOL45-2



Recommended for average sunshine regions, like Europe, southern Russia, New Zealand.

High brightness corresponds to 80 watt mercury light.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

All components are surfaced with a grey, scratchproof 2-layers UV-resistant coating.

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.



Lighted area: aprx. 27 x 24m Distance from pole to pole: 25 - 30 meter

Ambient temperature:  $-20^{\circ}\text{C} \sim +55^{\circ}\text{C}$  (extended

temperature range -35°C ~ +65°C available on request)
Max. direct sunshine temperature:

85° C / 176 F degree
Protection class:

III Low safe voltage
Approvals:

CE, RoHS, WEEE

20 years sparepart supply ability.

## **Lamp specifications:**

LED Lamp: SMD Chipset Philips

LED power: 2\* 30W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 160 lm/w Lamp efficiacy: > 145 lm/w Luminous flux: 2\* > 5000 lm

Central illumination: > 36 Lux (5m pole height)

Average illumination: > 19 Lux (5m)
Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Dimensions: 470mm x 230mm x 60mm

Arm length: 300mm (on request, we supply with max. 2

meter arm)

Protection degree: IP65
Guarantee: 5 years

5 years guarantee

## System controler specifications:

Programmable Processor charge controler.

Infra Red remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery. Reverse polarity and electronic short circuit protection.

Additional electric fuse

Protection degree: IP66

Internet:

5 years guarantee

### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass encapsulated, hailproof)





Germany

This modern cell technology has a high degree of efficiency and allows

charging also at cloudy weather.

Efficiency: > 17%
Power: 300Wp
Life expectancy: aprx. 25 years

20 years 80% power guaranty \* 10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

### **Battery specifications:**

Battery type: Lead gel 12V

On option Li-lon LiFePo4 battery maintenance-free, longlife. For solar cycling charge operation

Lifetime: about 10 Years / 20°C

Functions well, even under low temperature.

Autonomy at no sunshine or dark-cloudy weather (with fully charged battery):

a) Standard version: 4 days (40 h) b) with extension kit autumn: 5 days (60 h) c) with extension kit winter: 7 days (80 h)

### **Battery box:**

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box IP67 (non walkover) with cabel protection hose, steel reinforced:

Size: L 496 x w 280 x h 270mm

on option ABS plastic box IP66 (walk over):

Size: L 550 x w 550 x h 480mm

### Pole:

Steel pole, hot-dip galvanized,

Upper height 6 m inground length: 800mm

Installation into concrete.

With lockable service door, for easy acces to the controller.

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

Solar battery,

Recessed battery box,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Steel pole.

Manual for easy mechanical and electrical setup in english language. Other

languages on request.

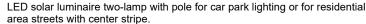
Weight: 251 kg







Solar Street Light Hybride Double Arm LED 30W /260W with Pole



100% unlimited operation by hybride grid connection.

Dimmable. German manufacture.

- Pole height 6 metres

- Luminous flux 2x 5000 Lm

LT-SOL45-2H



High brightness corresponds to 80 watt mercury light.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

All components are surfaced with a grey, scratchproof 2-layers UV-resistant coating

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

### **General specifications:**

Lighted area: aprx. 27 x 24m Distance from pole to pole: 25 - 30 meter

Ambient temperature: -20°C ~ +55°C (extended

temperature range -35°C  $\sim$  +65°C available on request) Max. direct sunshine temperature: 85° C / 176 F degree Protection class: III Low safe voltage Approvals: CE, RoHS, WEEE

20 years sparepart supply ability.

## <u>Lamp specifications:</u>

LED Lamp: SMD Chipset Philips

LED power: 2x 30W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 160 lm/w Lamp efficiacy: > 145 lm/w Luminous flux: 2x > 5000 lm

Central illumination: > 22 Lux (6m pole height)

Average illumination: > 12 Lux (6m) Life time: > 80000 hours

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Dimensions: 470mm x 230mm x 60mm

Arm length: 300mm (on request, we supply with max. 2

meter arm)
Protection degree: IP65
Guarantee: 5 years

### **System controler specifications:**

Programmable Processor charge controler.

Infra Red remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery. Reverse polarity and electronic short circuit protection.

Additional electric fuse

Protection degree: IP66

5 years guarantee

## Solar panel specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated, hailproof)

This modern cell technology has a high degree of efficiency and allows

charging also at cloudy weather.

Efficiency: > 19% Power: 300Wp





Germany

Life expectancy: aprx. 25 years

20 years 80% power guaranty \*

10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

#### **Battery specifications:**

Battery type:

Lead gel 12V

On option Li-Ion LiFePo4 battery maintenance-free, longlife.

For solar cycling charge operation

Lifetime: about 10 Years / 20°C

Functions well, even under low temperature.

Autonomy at no sunshine or dark-cloudy weather (with fully charged battery):

a) Standard version: 4 days (40 h) b) with extension kit autumn: 5 days (60 h) c) with extension kit winter: 7 days (80 h)

#### **Battery box:**

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box IP67 (non walkover) with cabel protection hose, steel

reinforced:

Size: L 496 x w 280 x h 270mm

on option ABS plastic box IP66 (walk over):

Size: L 550 x w 550 x h 480mm

#### Pole:

Steel pole, hot-dip galvanized,

Upper height 6 m inground length: 800mm

Installation into concrete.

With lockable service door, for easy acces to the controller.

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

Solar battery,

Recessed battery box,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Steel pole.

Manual for easy mechanical and electrical setup in english language. Other

languages on request.

Weight: 251 kg







Solar Street Light LED 30W / 120W Lithium with pole



PV LED street light with pole and long-life lithium-iron battery for street lighting. German manufacture.

- Pole height 5 metres
- LED power 30W
- Luminous flux > 5000 Lm
- Self-sufficient operating time: 44 hours (approx. 4 days)

LT-SOL46

Robust photovoltaic street light with LED lamp - no power connection required.

Recommended for countries with average solar radiation, such as Europe, southern Russia, New Zealand.

High luminous intensity thanks to state-of-the-art SMD LED in combination with an electronic 12V-60V DC PWM driver.

The brightness is comparable to an 80W mercury vapor lamp or 50W sodium vapor lamp.

Very long, maintenance-free luminaire operation due to special design

Microprocessor Control,

All brackets and fixings are hot-dip galvanized (with surcharge also with a coating as desired).

The screws are made of VA stainless steel.

Construction, production and quality management in Germany.

The solar light is maintenance-free - only the solar module should occasionally be cleaned with water.

## **General technical data:**

Illuminated area: approx. 25 x 10m

Recommended mast spacing: approx. 25 meters

Ambient temperature: -20 ° C ~ + 50 ° C (extension -35 ° C ~ + 65 ° C

possible on request)

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE

20-year availability guarantee for replacement parts.

## Lamp specifications:

LED Lamp: SMD Chipset Philips

LED power: 30W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 160 lm/w Lamp efficiacy: > 145 lm/w Luminous flux: > 5000 lm

Central illumination: > 36 Lux (5m pole height)

Average illumination: > 19 Lux (5m) Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Dimensions: 470mm x 230mm x 60mm

Arm length: 300mm (on request, we supply with max. 2

meter arm)

Protection degree: IP65
Guarantee: 5 years

#### **Light Control:**

Smart microprocessor control with infrared programming option.

Reading the current operating status with storage of the measurement data of all components of the last days.

Automatic switch on at sunset and switch off at sunrise. (Switching level adjustable)

Adjustable dimming during the late night and full power in the morning to extend the duration of the light in bad weather.

Operating time / duration (please specify when ordering)

You have the option from dawn to choose 4 consecutive time blocks with 1-15 hours duration and different light intensity of 10-100%.

Example 1 - Night reduction with shutdown and morning light:

From dusk 4 hours with 100%, then 2 hours with 50%, then 3 hours off (0%) and early in the morning 5 hours with 100%

Example 2 - night shutdown: 4 hours 100%, 4 hours midnight 0%, 5 hours 100%

Example 3 - 4 hours bright in the evening, then reduced to 50% for 4 hours, then 10 hours (rest of the night) to 50%



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In addition, the charge controller is equipped with a Smart Power function, which allows automatic dimming at night depending on the battery charge level.

If the battery voltage drops below 50%, the lamp is automatically dimmed to 50%, this process is decreasing until the deep discharge protection starts. This setting enables safe operation even on the faint days in winter. The charge controller settings are preset by us according to customer

requirements.

If you want to change the settings, you need the remote control S-SOLS29. We will gladly help you to decide on the right presettings.

All functions are preprogrammed by us free of charge, depending on the project and customer request, so that the luminaire is ready for use immediately after installation.

Temperature-optimized battery charge and trickle charge to extend battery life.

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse

Protection class: IP66 Warranty: 5 years

## **Solar module specifications:**

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies. On dark days in winter, the recharging is limited, the light duration is thus reduced.

Efficiency:> 16%

Power: 120Wp (without extension) Life expectancy: approx. 25 years

Performance Guarantee \* 20 years 80% / 10 years 90%

\* except in the case of mechanical impact

### **Battery storage:**

Battery Type: Lithium Ion LiFePo4 12V,

maintenance-free, longlife, for solar cycle operation

Lifetime approx. 10 years / 20 ° C Function even at low temperatures.

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Self-sufficient operating time in overcast weather (with fully charged battery):

a) Basic version: 4 days (44 hours)

b) with extension set autumn: 5 days (60 hours)

c) with extension set winter: 7 days (80 hours)

The new emergency lighting function ensures the lighting even with low battery charge during very long periods of bad weather,

but with reduced luminosity.

The batteries are located in the mast and are protected from strong sunlight.

### Mast:

Steel mast, hot-dip galvanized,

Visible height: 5 m

Ground piece: 80 cm for setting in concrete

(on request also 6m - 8m height)

For easier installation, we also offer installation sleeves into which the mast

can be inserted.

Lockable mast door for easy access to the controls.

### Delivery disassembled with the following components:

LED lamp head with mast mounting,

Solar battery

Solar module with stable, screw-down mast mounting,

Steel pole,

Light control (already mounted in the mast).

Illustrated assembly instructions in German or English. Other languages on request.

All components are pre-wired and prepared for quick setup.

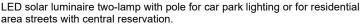
Weight: 132 kg







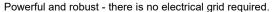
Solar Street Light Double Arm LED 30W / 260W with Pole



Dimmable. German manufacture.

- Pole height 6 metres
- LED power 2 \* 30W
- Luminous flux 2x 3000 Lm
- Self-sufficient operating time: 40 hours (approx. 4 days)

LT-SOL46-2



Recommended for average sunshine regions, like Europe, southern Russia, New Zealand.

High brightness corresponds to 80 watt mercury light.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

All components are surfaced with a grey, scratchproof 2-layers UV-resistant coating.

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.



Lighted area: aprx. 27 x 24m Distance from pole to pole: 25 - 30 meter

Ambient temperature: -20°C ~ +55°C (extended

temperature range -35°C ~ +65°C available on request)
Max. direct sunshine temperature:

85° C / 176 F degree
Protection class:

III Low safe voltage
Approvals:

CE, RoHS, WEEE

20 years sparepart supply ability.

## **Lamp specifications:**

LED Lamp: SMD Chipset Philips

LED power: 2\* 30W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 160 lm/w Lamp efficiacy: > 145 lm/w Luminous flux: 2\* > 5000 lm

Central illumination: > 36 Lux (5m pole height)

Average illumination: > 19 Lux (5m) Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and

thunderstorm-proof.

Dimensions: 470mm x 230mm x 60mm

Arm length: 300mm (on request, we supply with max. 2

meter arm)

Protection degree: IP65 Guarantee: 5 years

#### **System controler specifications:**

Programmable Processor charge controler.

Infra Red remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery. Reverse polarity and electronic short circuit protection.

Additional electric fuse

Protection degree: IP66

5 years guarantee

#### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass encapsulated, hailproof)

This modern cell technology has a high degree of efficiency and allows





Germany

charging also at cloudy weather.

Efficiency: > 17% 300Wp Power: Life expectancy: aprx. 25 years

20 years 80% power guaranty \* 10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

## **Battery specifications:**

Battery type: Lead gel 12V

On option Li-Ion LiFePo4 battery maintenance-free, longlife. For solar cycling charge operation Lifetime:

about 10 Years / 20°C

Functions well, even under low temperature.

Autonomy at no sunshine or dark-cloudy weather (with fully charged battery):

4 days (40 h) a) Standard version: b) with extension kit autumn: 5 days (60 h) c) with extension kit winter: 7 days (80 h)

#### **Battery box:**

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box IP67 (non walkover) with cabel protection hose, steel reinforced:

L 496 x w 280 x h 270mm

on option ABS plastic box IP66 (walk over):

Size: L<sup>550</sup> x w 550 x h 480mm

#### Pole:

Steel pole, hot-dip galvanized,

Upper height 6 m inground length: 800mm

Installation into concrete.

With lockable service door, for easy acces to the controller.

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

Solar battery

Recessed battery box,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Steel pole.

Manual for easy mechanical and electrical setup in english language. Other

languages on request.

Weight: 251 kg



Germany



Solar Street Light LED 30W/ 120W Hybride 100% Operation with pole



PV LED street light with pole and long-life lithium-iron battery for street lighting. German manufacture.

- Pole height 5 metres
- Luminous flux > 5000 Lm

LT-SOL46N

Robust photovoltaic street light with LED lamp.

High luminous intensity thanks to state-of-the-art SMD LED in combination with an electronic 12V-60V DC PWM driver.

The brightness is comparable to an 80W mercury vapor lamp or 50W sodium vapor lamp.

Very long, maintenance-free luminaire operation due to special design features.

Microprocessor Control,

All brackets and fixings are hot-dip galvanized (with surcharge also with a coating as desired).

The screws are made of VA stainless steel.

Construction, production and quality management in Germany.

### General technical data:

Illuminated area: approx. 25 x 10m Recommended mast spacing: approx. 25 meters

Ambient temperature: -20° C ~ + 50° C (extension -35° C ~ + 65° C

possible on request)

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE 20-year availability guarantee for replacement parts.

## Lamp specifications:

LED Lamp: SMD Chipset Philips

LED power: 30W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 160 lm/w Lamp efficiacy: > 145 lm/w Luminous flux: > 5000 lm

Central illumination: > 36 Lux (5m pole height)

Average illumination: > 19 Lux (5m)
Life time: 80000 hours
Casing: Rigid aluminium die-cast. Seawater and

Casing: thunderstorm-proof.

Dimensions: 470mm x 230mm x 60mm

Arm length: 300mm (on request, we supply with max. 2

meter arm)

Protection degree: IP65
Guarantee: 5 years

#### **Light Control:**

Smart microprocessor control with infrared programming option.

Reading the current operating status with storage of the measurement data of all components of the last days.

Automatic switch on at sunset and switch off at sunrise. (Switching level adjustable)

Adjustable dimming during the late night and full power in the morning to extend the duration of the light in bad weather.

Operating time / duration (please specify when ordering)

You have the option from dawn to choose 4 consecutive time blocks with

1-15 hours duration and different light intensity of 10-100%.

Example 1 - Night reduction with shutdown and morning light:

From dusk 4 hours with 100%, then 2 hours with 50%, then 3 hours off (0%) and early in the morning 5 hours with 100%

Example 2 - night shutdown: 4 hours 100%, 4 hours midnight 0%, 5 hours 100%

Example 3 - 4 hours bright in the evening, then reduced to 50% for 4 hours, then 10 hours (rest of the night) to 50%

In addition, the charge controller is equipped with a Smart Power function, which allows automatic dimming at night depending on the battery charge level

If the battery voltage drops below 50%, the lamp is automatically dimmed to 50%, this process is decreasing until the deep discharge protection starts. This setting enables safe operation even on the faint days in winter.

The charge controller settings are preset by us according to customer



requirements.

If you want to change the settings, you need the remote control S-SOLS29.

We will gladly help you to decide on the right presettings.

All functions are preprogrammed by us free of charge, depending on the project and customer request, so that the luminaire is ready for use immediately after installation.

Temperature-optimized battery charge and trickle charge to extend battery

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse

Protection class: IP66 Warranty: 5 years

### Solar module specifications:

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies. On dark days in winter, the recharging is limited, the light duration is thus reduced

Efficiency: > 19%

Power: 120Wp (without extension)

Life expectancy: approx. 25 years

Performance Guarantee \* 20 years 80% / 10 years 90%

\* except in the case of mechanical impact

### **Battery storage:**

Battery Type: Lithium Ion LiFePo4 12V,

maintenance-free, longlife, for solar cycle operation

Lifetime approx. 10 years / 20 ° C Function even at low temperatures.

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Self-sufficient operating time in overcast weather (with fully charged battery):

a) Basic version: 4 days (44 hours)

b) with extension set autumn: 5 days (60 hours)

c) with extension set winter: 7 days (80 hours)

The new emergency lighting function ensures the lighting even with low battery charge during very long periods of bad weather,

but with reduced luminosity

The batteries are located in the mast and are protected from strong sunlight.

#### Mast:

Steel mast, hot-dip galvanized,

Visible height: 5 m

Ground piece: 80 cm for setting in concrete

(on request also 6m - 8m height)

For easier installation, we also offer installation sleeves into which the mast can be inserted.

Lockable mast door for easy access to the controls.

### Delivery disassembled with the following components:

LED lamp head with mast mounting,

Solar battery

Solar module with stable, screw-down mast mounting,

Steel pole,

Light control (already mounted in the mast).

Illustrated assembly instructions in German or English. Other languages on request.

All components are pre-wired and prepared for quick setup.

Weight: 132 kg







Solar Street Light LED Hybride Upgrade 100% Operation



PV LED street light upgrade kit with longlife lithium-iron battery for street lighting. German manufacture.

- LED power 30W
- Luminous flux > 5000 Lm

LT-SOL46U

Robust photovoltaic street light with LED lamp.

High luminous intensity thanks to state-of-the-art SMD LED in combination with an electronic 12V-60V DC PWM driver.

The brightness is comparable to an 80W mercury vapor lamp or 50W sodium vapor lamp.

Very long, maintenance-free luminaire operation due to special design features.

Microprocessor Control,

All brackets and fixings are hot-dip galvanized (with surcharge also with a coating as desired).

The screws are made of VA stainless steel.

Construction, production and quality management in Germany.

### General technical data:

Illuminated area: approx. 25 x 10m Recommended mast spacing: approx. 25 meters

Ambient temperature: -20° C ~ + 50° C (extension -35° C ~ + 65° C

possible on request)

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE 20-year availability guarantee for replacement parts.

## Lamp specifications:

LED Lamp: SMD Chipset Philips

LED power: 30W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 160 lm/w Lamp efficiacy: > 145 lm/w Luminous flux: > 5000 lm

Central illumination: > 36 Lux (5m pole height)

Average illumination: > 19 Lux (5m)
Life time: 80000 hours
Casing: Rigid aluminium die-cast. Seawater and

Casing: thunderstorm-proof.

Dimensions: 470mm x 230mm x 60mm

Arm length: 300mm (on request, we supply with max. 2

meter arm)

Protection degree: IP65
Guarantee: 5 years

#### **Light Control:**

Smart microprocessor control with infrared programming option.

Reading the current operating status with storage of the measurement data of all components of the last days.

Automatic switch on at sunset and switch off at sunrise. (Switching level adjustable)

Adjustable dimming during the late night and full power in the morning to extend the duration of the light in bad weather.

Operating time / duration (please specify when ordering)

You have the option from dawn to choose 4 consecutive time blocks with

1-15 hours duration and different light intensity of 10-100%.

Example 1 - Night reduction with shutdown and morning light:

From dusk 4 hours with 100%, then 2 hours with 50%, then 3 hours off (0%) and early in the morning 5 hours with 100%

Example 2 - night shutdown: 4 hours 100%, 4 hours midnight 0%, 5 hours 100%

Example 3 - 4 hours bright in the evening, then reduced to 50% for 4 hours, then 10 hours (rest of the night) to 50%

In addition, the charge controller is equipped with a Smart Power function, which allows automatic dimming at night depending on the battery charge level

If the battery voltage drops below 50%, the lamp is automatically dimmed to 50%, this process is decreasing until the deep discharge protection starts. This setting enables safe operation even on the faint days in winter.

The charge controller settings are preset by us according to customer



requirements.

If you want to change the settings, you need the remote control S-SOLS29. We will gladly help you to decide on the right presettings.

All functions are preprogrammed by us free of charge, depending on the project and customer request, so that the luminaire is ready for use immediately after installation.

Temperature-optimized battery charge and trickle charge to extend battery life.

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse

Protection class: IP66 Warranty: 5 years

### **Solar module specifications:**

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies. On dark days in winter, the recharging is limited, the light duration is thus reduced.

Efficiency: > 19%

Power: 120Wp (without extension)

Life expectancy: approx. 25 years

Performance Guarantee \* 20 years 80% / 10 years 90%

\* except in the case of mechanical impact

## **Battery storage:**

Battery Type: Lithium Ion LiFePo4 12V,

maintenance-free, longlife, for solar cycle operation

Lifetime approx. 10 years / 20 ° C Function even at low temperatures.

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Self-sufficient operating time in overcast weather (with fully charged battery):

a) Basic version: 4 days (44 hours)

b) with extension set autumn: 5 days (60 hours)

c) with extension set winter: 7 days (80 hours)

The new emergency lighting function ensures the lighting even with low battery charge during very long periods of bad weather,

but with reduced luminosity.

The batteries are located in the mast and are protected from strong sunlight.

#### Mast:

A sufficiently load-bearing steel mast must be available on site. Spigot size at least 76mm

## Delivery disassembled with the following components:

LED lamp head with mast mounting,

Solar battery

Solar module with stable, screw-down mast mounting,

Light control (already mounted in the mast).

Illustrated assembly instructions in German or English. Other languages on request.

All components are pre-wired and prepared for quick setup.

Weight: 18,2 kg



Germany

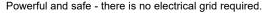


Solar Street Light LED 35W / 130W with Post

Dimmable solar photovoltaic LED light with long operating time and pole for street lighting. German manufacture.

- Pole height 5 metres
- LED power 35W
- Luminous flux > 5000 Lm
- Self-sufficient operating time: 44 hours (approx. 4 days)

LT-SOL48



Recommended for average sunshine regions, like Europe, southern Russia, New Zealand.

High brightness corresponds to 80 watt mercury light.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

All components are surfaced with a grey, scratchproof 2-layers UV-resistant coating.

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

#### **General specifications:**

Lighted area: aprx. 25 x 12m

Distance from pole to pole: 25 - 30 meter

Ambient temperature: -20°C ~ +55°C (extended temperature range -35°C ~

+65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree

Protection class: III Low safe voltage Approvals: CE, RoHS, WEEE 20 years sparepart supply ability.

## Lamp specifications:

LED Lamp: SMD Chipset Philips

LED power: 30W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 160 lm/w Lamp efficiacy: > 145 lm/w Luminous flux: > 5000 lm

Central illumination: > 36 Lux (5m pole height)

Average illumination: > 19 Lux (5m)

Life time: 80000 hours

Casing: Rigid aluminium die-cast. Seawater and thunderstorm-proof.

Dimensions: 470mm x 230mm x 60mm

Arm length: 300mm (on request, we supply with max. 2

meter arm)

Protection degree: IP65 Guarantee: 5 years

### System controler specifications:

Programmable Processor charge controler.

Infra Red remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity. All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery.

Reverse polarity and electronic short circuit protection.

Additional electric fuse Protection degree : IP66 5 years guarantee

### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass encapsulated, hailproof)

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

Efficiency: > 16%





Germany

Power: 130Wp

Life expectancy: aprx. 25 years 20 years 80% power guaranty \* 10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

#### **Battery specifications:**

Battery type: Lead gel 12V, On option Li-Ion LiFePo4 battery maintenance-free, longlife. For solar cycling charge operation Lifetime about 10 Years / 20°C.

Functions well, even under low temperature.

Autonomy at no sunshine or dark-cloudy weather (with fully charged battery):

a) Standard version: 4 days (48 h) b) with extension kit autumn: 5 days (60 h) c) with extension kit winter: 7 days (80 h)

#### **Battery box:**

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box IP67 (non walkover) with cabel protection hose, steel

reinforced:

Size: L 496 x w 280 x h 270mm

on option ABS plastic box IP66 (walk over):

Size: L 550 x w 550 x h 480mm

#### Pole:

Steel pole, hot-dip galvanized,

Upper height 5 m

inground length: 800mm Installation into concrete.

With lockable service door, for easy acces to the controller.

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

Solar battery,

Recessed battery box,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Steel pole.

Manual for easy mechanical and electrical setup in english language. Other

languages on request. Complete pre-wired unit Weight: 132 kg



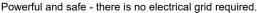


### Solar Street Light LED 35W / 130W Lithium with Post

Dimmable solar photovoltaic LED light with long-life lithium-iron battery and pole for street lighting.

German manufacture.

- Pole height 5 metres
- LED power 35W
- Luminous flux > 5000 Lm
- Self-sufficient operating time: 44 hours (approx. 4 days)



Recommended for average sunshine regions, like Europe, southern Russia, New Zealand.

High brightness corresponds to 80 watt mercury light.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

All components are surfaced with a grey, scratchproof 2-layers UV-resistant

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

#### **General specifications:**

Lighted area: aprx. 25 x 12m

Distance from pole to pole: 25 - 30 meter

Ambient temperature: -20°C ~ +55°C (extended temperature range -35°C ~

+65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree

Protection class: III Low safe voltage Approvals: CE, RoHS, WEEE 20 years sparepart supply ability.

### Lamp specifications:

LED Lamp: SMD Chipset Philips

LED power: 30W

Light colour 4000K pure white (on request also 3000K

warm white or 6000K daylight).

No uv-radiation for reduced insects attraction LED efficiacy: > 160 lm/w Lamp efficiacy: > 145 lm/w Luminous flux: > 5000 lm

Central illumination: > 36 Lux (5m pole height)

Average illumination: > 19 Lux (5m) Life time: 80000 hours

Rigid aluminium die-cast. Seawater and Casing:

thunderstorm-proof.

470mm x 230mm x 60mm Dimensions:

Arm length: 300mm (on request, we supply with max. 2

meter arm)

Protection degree: 5 years Guarantee:

## System controler specifications:

Programmable Processor charge controler.

Infra Red remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Timer-dimmer: Full power at start-up, automatic dimming at late night and full power again in the early morning, for more safety at low battery capacity.

All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after

Temperature feeded battery charging for extended battery life. Overcharge and deep-discharge protection for the battery.

Reverse polarity and electronic short circuit protection.

Additional electric fuse Protection degree: IP66 5 years guarantee

#### Solar panel specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated, hailproof)

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.





Germany

Efficiency: > 16% Power: 130Wp

Life expectancy: aprx. 25 years 20 years 80% power guaranty \* 10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

#### **Battery specifications:**

Battery type: Lead gel 12V, On option Li-Ion LiFePo4 battery maintenance-free, longlife. For solar cycling charge operation Lifetime about 10 Years / 20°C.

Functions well, even under low temperature.

Autonomy at no sunshine or dark-cloudy weather (with fully charged battery): a) Standard version: 4 days (48 h)

b) with extension kit autumn: 5 days (60 h)
c) with extension kit winter: 7 days (80 h)

#### **Battery box:**

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box IP67 (non walkover) with cabel protection hose, steel

reinforced:

Size: L 496 x w 280 x h 270mm

on option ABS plastic box IP66 (walk over):

Size: L 550 x w 550 x h 480mm

#### Pole:

Steel pole, hot-dip galvanized, Upper height 5 m inground length: 800mm Installation into concrete.

With lockable service door, for easy acces to the controller.

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

Solar battery,

Recessed battery box,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Steel pole.

Manual for easy mechanical and electrical setup in english language. Other

languages on request. Complete pre-wired unit Weight: 132 kg







**Double Solar Street Light Lamp** Berlin LED + Wind



Solar hybrid pole light with solar modules 200W, batteries and wind generator. Made in Germany.

Minimum order quantity: 2 pieces

LT-SOL50-D

Very rigid street photovoltaic-light with storing of electrical power for 5 days of lighting.

Recommended for use in Northern Europe or other countries with medium or small quantity of sunshiny days.

Complete unit with solar panel, battery, wind generator, longlife discharge lamp and cables, but without pole.

By the electronic ballast the light output is aprx. 2 \* 80 watts mercury high pressure lamp or like 2 \* 250 watts quartz halogen.

#### Lighting System:

1) pcs. 30 watt power LED: warm white color, luminous flux: > 6040lm total Mean lumens after 10000 h: - 5%

Wind Power Dynamotor: 300W.

Solar Panel: 2x 100W monocrystalline silicon (protecting glass, hailproof) aprx. 25 years lifespan.

This modern module technology has a high degree of efficiency and allows charging also at cloudy weather.

Solar recharge batteries: 2 pcs. 12V maintenance-free power lead-acid gel accumulator 12 volt, 10 years lifetime / 20°C

#### Microprocessor control unit:

with solar power input regulator for optimated battery charging and extended battery life.

Overvoltage and deep discharge protection for the battery.

Event memory to read out informations for your computer.

Programmable light control for switching on and off, depending on dawn or time or with midnight-dimming.

Vandal resistant lockable battery casing secures battery and pcu. Inter-connection wires.

The microprocessor light controller is mounted in the pole - easy access by a lockable door.

Independent operating time 50 hours

Lighted area Ø aprx. 30 meter

Descriptions

Recommended space from light to light: 30 meters

The lighting pole has to be ordered extra (recommended height 8 - 12

Ambient temperature: -30°C ~ +50°C (extended temperature range available on request)

WS300 wind turbine

Descriptions	W3300 Willa tarbille
Rated Output Power (W)	300
Max. Output Power (W)	350
Rated Wind Speed (m/s)	12.5
Rated Rotation Speed (rpm)	900
Start-Up Wind Speed (m/s)	1.3
Cut-In Wind Speed (m/s)	2
Rotor Diameter (m)	1.4
Blade Material	synthetic MC nylon & carbon fibre
Airfoil type	true foil
Governor System	aeroelastic thrust
Governor Wind Speed (m/s)	60
Shut-Down Mechanism	electric control
Battery System (Volts)	24V
Driving Type	direct driving
Charge Controller	included
Over-Speed Protection	yes
Low-Voltage Protection	yes
Over-Voltage Protection	yes
	·

Minimum ordering quantity: 2 pcs.

Weight: 206 ka

Weight (kg)









## Solar Road Light Solar LED Frankfurt 30W / 200W

Pole street light luminaire with solar cells 200W and batteries (sodium or LED lamp). Made in Germany. Robust and reliable photovoltaic street light with LED lamp - no power connection required

Recommended for countries with average solar radiation, such as Europe, southern Russia, New Zealand.

Applications: Nature reserves, remote homes, country roads, campsites, bike paths, parks, driveways, farms, highway car parks, park and ride lots, industrial buildings, airfields. Adaptable for other applications, e.g. traffic sign lighting, coastal navigation lights, NEMP HEMP hardened and much more.

High luminous intensity due to state-of-the-art SMD LED in combination with dimmable DC PWM driver

The brightness is comparable to an 80W mercury vapour lamp or 50W sodium vapour lamp

Very long, maintenance-free luminaire operation due to special design features. Smart microprocessor luminaire control.

Manufacture and quality management in Germany.

The solar light is maintenance-free - (only the solar module should be cleaned with water occasionally).

General technical data:

Illuminated area: Approx. 27 x 10m

Recommended mast distance: 20 - 28 metres

Ambient temperature: -20°C ~ +55°C (extension -35°C ~ +65°C possible on request)

Energy efficiency class A

Protection class: III safety extra-low voltage
Approval marks: CE, RoHS, WEEE

Material: Brackets: Hot-dip galvanised steel (UV-resistant paint available at extra charge).

Screws: VA stainless steel.

20-year availability guarantee for spare parts.

Luminaire head specification:

Robust LED luminaire head made of die-cast aluminium

LED lamp: SMD chipset

LED power: 35W

Light colour 4000K neutral white (on special order also 3000K warm white or 5000K cool

white).

No UV radiation for reduced insect attraction

Luminaire efficiency: > 134 lm/w Luminous flux lumen: 5000 Lm

Central illuminance: >15 Lux (6m height) Average luminous intensity: > 8 Lux (6m)

LED life: approx. 100,000 hours

Protection class: IP66 (water and storm protected).

Warranty: 5 years

#### Luminaire control:

Smart MPPT microprocessor control with wireless programming option.

Readout of the current operating status with storage of the measurement data of all components of the last days.

Automatic switch-on at sunset and switch-off at sunrise. (Switching level adjustable) Adjustable dimming during late night and full power again in the morning to extend the lighting duration in bad weather. Please specify desired lighting times and night-time dimming when ordering. You have the option of selecting 4 consecutive time blocks from dusk onwards, each lasting 1-15 hours and with varying light intensity from 10-100%.

Example 1: From dusk 4 hours with 100%, then 2 hours with 50%, then 3 hours off (0%) and early in the morning 4 hours with 100%.

Example 2: 4 hours 100%, 5 hours midnight 0%, 4 hours 100%.

Example 3: 4 hours at 100%, then 10 hours (rest of the night) at 50%.

In addition, the charge controller is equipped with a Smart Power function that enables automatic dimming during the night depending on the battery charge level. When the battery voltage drops below 50%, the lamp is automatically dimmed to 50%, this process is descending until the deep discharge protection kicks in. This setting enables safe operation even on the low-light days in winter.

The charge controller settings are preset by us according to customer requirements. To change the settings, you need the S-SOLS29 remote control. We will be happy to help you decide on the right presettings. All functions are pre-programmed by us free of charge, depending on the project and customer requirements, so that the luminaire is ready for operation immediately after installation.

Temperature-optimised battery charging and trickle charging to protect the batteries. Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection. Additional fuse.

Protection class: IP66 Warranty: 5 years

Solar module specifications:



Germany

Monocrystalline silicon with very high efficiency Tempered protective glass, hail-resistant. This high-quality module technology ensures charging even on overcast days.

On dark days in winter, recharging is limited and the lighting duration is thus shortened. Efficiency: > 18

Output: 200Wp (without extension) Life expectancy: approx. 25 years

Performance guarantee \* 20 years 80% / 10 years 90% \* except in case of mechanical impact

#### Battery storage:

Battery type: lead-gel 12V maintenance-free, longlife.

For solar cycle operation Service life approx. 10 years / 20°C.

Function also at low temperatures.

For an extra charge: Lithium-ion LiFePo4 battery

For sufficient operating safety in autumn or winter, we strongly recommend our extension sets

Autonomous operating time in overcast weather (with fully charged battery): 80 hours The new emergency lighting function ensures lighting even when the battery charge is low during very long periods of bad weather, but with reduced luminosity.

#### Battery box:

The batteries sit in the ground to protect against temperature fluctuations (longer life). Sturdy plastic box IP67 ( not walk-in version) with cable protection tube: Dimensions: L 496 x W 280 x H 270mm

On request ABS enclosure IP66 (walk-in version): Dimensions: L 550 x W 550 x H 480mm

Supplied disassembled with the following components:

LED lamp head with pole mount.

Battery storage solar module with stable, screwable pole mounting.

Luminaire control unit (with mounting plate for standard light poles).

Battery ground installation box,

Illustrated assembly instructions in German or English. Other languages on request.

All components are pre-wired and prepared for quick assembly. The ready-to-use luminaire is delivered disassembled for safe transport.

The lamp post must be ordered separately (recommended length 5 - 8 metres) with a spigot diameter of approx. 89mm.

LT-SOL51-3L







# Double Solar Road Light Frankfurt 600W



Bright photovoltaic street light fixture for center lane or wide places. With two 40w power LED. Made in Germany. LT-SOL51-4D

Bright and reliable - no power connection required.

Recommended for use in Central Europe and Southern Europe - with average and large number of sunny days.

The ready-to-use light comes disassembled, complete with solar panel, batteries, longlife lamp and cables, but without mast.

Light source: 2 x Power LED 40W Light color: 4000K natural white Luminous flux: > 10000 lumens

The brightness corresponds to about a 150W mercury vapor lamp or 100W sodium vapor lamp.

Lifetime: > 80,000 hours Energy efficiency class A

Max. Illuminance at 7m mounting height: 18 lux max. / 13 lux on average. Solar Panel: Monocrystalline silicon (tempered protective glass, hailproof) approx. 25 years life expectancy.

This high quality module technology also ensures charge in

High performance lead gel solar batteries 2x 12V, maintenance-free, longlife: life span approx. 8 years.

#### **Light Control:**

Automatic switch on at sunset and switch off at sunrise.

Adjustable dimming during late night and full power in the morning to extend battery life.

Operating time / duration (please specify when ordering)

You have the option from dawn to choose 4 consecutive time blocks with

1-15 hours duration and different light intensity of 10-100%.

Example 1: Night reduction with shutdown and morning light

From dusk 4 hours with 100%, then 2 hours with 50%, starting 3 hours off (0%) and again 5 hours with 100%

Example 2: Night shutdown

4 hours 100%, 4 hours 0%, 5 hours 100%

Example 3: Reduced

4 hours with 100%, then 10 hours (rest of the night) with 50%

In addition, the charge controllers are equipped with a smart power function that allows automatic dimming at night depending on the battery charge level.

If the battery voltage drops below 50%, the lamp is automatically dimmed to 50%, this process is decreasing until the deep discharge protection starts. This setting allows safe operation even on the faint days in winter.

The charge controller settings are preset by us according to customer requirements.

To change the settings, you need the S-SOLS29 remote control.

We will gladly help you to decide on the right presettings.

All functions are preprogrammed by us according to project and customer specification, so that the luminaire is ready for operation immediately after assembly.

Battery box for ground mounting waterproof IP67

### Max. Operating time in overcast weather (with fully charged battery):

a) Basic version: 60 hours (about 4 days)

c) with extension set winter: 80 hours (about 6 days)

The new emergency lighting function ensures the lighting even with low battery charge during very long periods of bad weather,

but with reduced luminosity.

The luminaire pole must be ordered separately (recommended length 6 - 9 meters) with a plait diameter of about 108mm.

Illuminated area: approx. 30 x 30m

Recommended distance from luminaire to luminaire: 30m.

Ambient temperature: -20 ° C ~ + 50 ° C (extension available on request)

Degree of protection luminaire head: IP66

Degree of protection Battery box: IP67

Degree of protection luminaire control: IP66

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE

Maintenance-free - (only the solar module should occasionally be cleaned with water).

Weight: 120 kg





#### Solar Road Light LED Frankfurt **60W LED**



Bright photovoltaic street light fixture for wide roads. With 60w power LED. Made in Germany. LT-SOL51-6L

Robust and reliable photovoltaic street light with LED lamp - no power connection required.

Recommended for countries with average solar radiation, such as Europe, southern Russia, New Zealand.

Applications: nature reserves, remote houses, country roads, campsites, bike paths,

Parks, driveways, farms, highway parking, park and ride places, industrial buildings, airfields.

High luminous intensity thanks to state-of-the-art SMD LED in combination with an electronic 12V-60V DC PWM driver.

The brightness is comparable to a 150W mercury vapor lamp or 100W sodium vapor lamp.

Very long, maintenance-free luminaire operation due to special design features.

Microprocessor control lights,

All mounts and fixings are hot-dip galvanized (on request additionally scratch-resistant and UV-resistant lacquered).

The screws are made of VA stainless steel.

Construction, production and quality management in Germany. The solar light is maintenance-free - (only the solar module should occasionally be cleaned with water).

### General technical data:

Illuminated area: approx. 30 x 15m

Recommended mast spacing: 30 - 35 meters Ambient temperature: -20  $^{\circ}$  C  $^{\sim}$  + 55  $^{\circ}$  C (extension -35  $^{\circ}$  C  $^{\sim}$  + 65  $^{\circ}$  C

possible on request)

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE

20-year availability guarantee for replacement parts.

#### Lamp head specification:

Robust LED luminaire head made of die-cast aluminum

SMD chipset LED lamp: LED power: 60W Energy rating: A +++

4000K natural white (on special order also 3000K warm Light color:

white or 5000K cool white).

No UV radiation for reduced insect attractiveness

Luminous efficiency: > 135 lm / w Lumen flux: 7500 Lm

> 20 lux (8m height) Central illuminance: Average light intensity:> 13 lux (8m) LED life about 80,000 hours

Protection class: IP66 (protected against water and storm).

Warranty: 5 years

#### Light Control:

Smart microprocessor control with infrared programming option.

Reading the current operating status with storage of the measurement data of all components of the last days.

Automatic switch on at sunset and switch off at sunrise. (Switching level adjustable)

Adjustable dimming during the late night and full power in the morning to extend the duration of the light in bad weather.

Operating time / duration (please specify when ordering)

You have the option from dawn to choose 4 consecutive time blocks with 1-15 hours duration and different light intensity of 10-100%.

Example 1: Night reduction with shutdown and morning light

From dusk 4 hours with 100%, then 2 hours with 50%, then 3 hours off (0%) and early in the morning 5 hours with 100%

Example 2: Night shutdown 4 hours 100%, 4 hours Midnight 0%, 5 hours 100%

Example 3: Reduced

4 hours with 100%, then 10 hours (rest of the night) with 50%

In addition, the charge controller is equipped with a Smart Power function, which allows automatic dimming at night depending on the battery charge

If the battery voltage drops below 50%, the lamp is automatically dimmed to 50%, this process is decreasing until the deep discharge protection starts.



This setting allows safe operation even on the faint days in winter.

We will gladly help you to decide on the right presettings.

All functions are preprogrammed by us free of charge, depending on the project and customer request, so that the luminaire is ready for use immediately after installation.

To change the settings, you need the S-SOLS29 remote control.

Temperature-optimized battery charge and trickle charge to protect the batteries

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse Protection: IP66 Warranty: 5 years

### Solar module specifications:

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies. On dark days in winter, the recharging is limited, the light duration is thus reduced.

Efficiency: > 18%

Power: 330Wp (without extension)

Life expectancy: approx. 25 years
Performance Guarantee \* 20 years 80% / 10 years 90%

\* except in the case of mechanical impactBattery storage:

Battery Type: Lead Gel 12V, maintenance-free, longlife.

For solar cycle operation

Life span: approx. 8-10 years / 20 ° C Function even at low temperatures.

For an extra charge: Lithium-ion LiFePo4 battery

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

#### Self-sufficient operating time in overcast weather (with fully charged battery):

a) Basic version: 2 days (48 hours) b) with extension set autumn: 3 days (60 hours)

c) with extension set winter: 4 days (80 hours)

The new emergency lighting function ensures the lighting even with low battery charge in very long periods of bad weather, but with reduced luminosity.

#### **Battery box:**

The batteries sit in the ground to protect against temperature fluctuations (longer life).

Stable plastic box IP67 (non-walkable version) with cable protective hose,

stainless steel reinforced:

Dimensions: L 496 x W 280 x H 270mm optional ABS housing IP66 (walk-in version): Dimensions: L 550 x W 550 x H 480mm

#### Delivery disassembled with the following components:

LED lamp head with mast mounting.

Solar battery

Solar module with stable, screw-down mast mounting.

Luminaire control (with mounting plate for commercial light poles).

Battery ground installation box,

Illustrated assembly instructions in German or English. Other languages on request.

All components are pre-wired and prepared for quick setup.

The ready-to-use light is delivered disassembled for safe transport.

The luminaire pole must be ordered separately (recommended length 6 - 8 meters) with a plait diameter of about 108mm

Weight: 120 kg

#### Accessories for outdoor fixtures



Extension Kit Winter for LT-SOL51-6 LT-SOL51-E06



Extension Kit Winter for LT-SOL51-3 LT-SOL51-E3





Extension Kit Winter for LT-SOL51-4D LT-SOL51-E4D



PV Solar Street Lights for Central European Countries





Germany



P S

Solar lighting for bike path crossing LED with 8 meters mast

LED solar street lamp for bicycle crossing. With long throwing light emission. Robust photovoltaic street light for cycle paths crossings and cycle overpasses.

With wide-angle light emission.

With LED lamp - no power connection required.

High luminous intensity due to state-of-the-art SMD LED in combination with an electronic 12V-60V DC PWM driver. The brightness is comparable to an 80W mercury vapour lamp or 50W sodium vapour lamp.

Very long, maintenance-free luminaire operation due to special design features. Intelligent microprocessor system control.

Production and quality management in Germany.

The solar light is maintenance-free - only the solar module should be cleaned with water occasionally.

#### General technical data:

Illuminated area: Approx. 8 x 16m

Recommended street width: Max. 10 metres (for wider streets, a luminaire should be

placed on both sides)

Ambient temperature: -20°C ~ +50°C (extension -35°C ~ +65°C possible on request) Material: Brackets: Hot-dip galvanised steel (UV-resistant paint available at extra cost).

Screws: VA stainless steel. Energy efficiency class: B

Protection class: III safety extra-low voltage
Marks of conformity: CE, RoHS, WEEE
20-year availability guarantee for spare parts.

#### Luminaire head specification:

Robust LED luminaire head made of die-cast aluminium

LED lamp: SMD chipset Osram

LED power: 30W

Light colour: 4000K neutral white (on special order also 3000K warm white).

No UV radiation for reduced insect attraction

LED efficiency: > 135 lm/w Luminaire efficiency: > 130 lm/w Luminous flux lumen: 4000 lm

Central illuminance: > 10 Lux (8m height) Average luminous intensity: > 6 Lux (8m)

LED life: approx. 60,000 hours

Protection class: IP65 (water and storm protected).

Warranty: 5 years

#### Luminaire control:

Smart MPPT microprocessor control with wireless programming option. Readout of the current operating status with storage of the measurement data of all components of the last days.

Automatic switch-on at sunset and switch-off at sunrise. (Switching level adjustable) Adjustable dimming during late night and full power again in the morning to extend the lighting duration in bad weather. Please specify desired lighting times and night-time dimming when ordering.

You have the option of selecting 4 consecutive time blocks from dusk onwards, each lasting 1-15 hours and with varying light intensity from 10-100%.

Example 1: From dusk 4 hours with 100%, then 2 hours with 50%, then 3 hours 30% and early in the morning 4 hours with 100%.

Example 2: 4 hours at 100%, then 10 hours (rest of the night) at 50%.

In addition, the charge controller is equipped with a Smart Power function that enables automatic dimming during the night, depending on the battery charge level. When the battery voltage drops below 50%, the lamp is automatically dimmed to 50%, this process is descending until the deep discharge protection kicks in. This setting enables safe operation even on the low-light days in winter.

The charge controller settings are preset by us according to customer requirements. If you would like to change the settings, you will need the S-SOLS29 remote control. We will be happy to help you decide on the correct presettings. All functions are preprogrammed by us free of charge, depending on the project and customer requirements, so that the luminaire is ready for operation immediately after installation.

Temperature-optimised battery charging and trickle charging to extend battery life.

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse Protection class: IP66 Warranty: 5 years

#### Solar module specifications:

Monocrystalline silicon with very high efficiency Tempered protective glass, hail-resistant. This high-quality module technology ensures charging even in overcast conditions.

Efficiency: > 18%

Output: 200Wp (without extension)



Life expectancy: approx. 25 years Performance guarantee \* 20 years 80% / 10 years 90%

\* except in the case of mechanical impact

\* except in case of mechanical impact

#### **Battery storage:**

Battery type: Lithium Ion LiFePo4 12V, maintenance-free, longlife, for solar cycle operation.

Service life: approx. 10 years / 20°C Function even at low temperatures.

On dark days in winter, recharging is limited and the lighting duration is thus shortened. For sufficient operating safety in autumn or winter, we strongly recommend our extension sets.

Autonomous operating time in overcast weather (with fully charged battery):

- a) basic version: 4 days (44 hours)
- b) with extension set autumn: 5 days (60 hours)
- c) with extension set winter: 7 days (80 hours)

The new emergency lighting function ensures lighting even when the battery charge is low during very long periods of bad weather, but with reduced luminosity.

The batteries are located in the mast and are protected from strong sun heat.

#### Mast:

Steel mast, hot-dip galvanised, Visible height h1: 8m h2 Ground: 1000 mm Foundation depth: 130cm Mast top end Ø: 89mm d2 base Ø: 133 mm Wall thickness s: 3 mm

For easier erection, we also offer installation sleeves into which the mast can be inserted. Lockable mast door, for easy access to the control unit.

#### Supplied disassembled with the following components:

LED lamp head with mast mounting, solar battery solar module with stable, screwable mast mounting, steel mast, luminaire control unit (already mounted in the mast). Illustrated assembly instructions in German or English. Other languages on request. LT-SOL55-1



Solar Lighting for Parking Lot, Carport, Bus Shelters







LED Solar Light for pedestrian crossing with Pole 8m



Bright LED street lamp with motion detector for lighting on a pedestrian crossing. German manufacture.

- Pole height 8 metres
- LED power 60W
- Luminous flux > 8100 Lm
- Lithium iron phosphate battery

LT-SOL55-6

Robust photovoltaic street light with LED lamp - no power supply required. Recommended for countries with average solar radiation, such as Europe, Southern Russia, New Zealand.

High luminous intensity through state-of-the-art SMD LED in combination with an electronic 12V-60V DC PWM driver.

The brightness is comparable to a 160W mercury vapor lamp or a 100W sodium vapor lamp.

Very long, maintenance-free lamp operation due to special design features. Microprocessor system control,

All brackets and fastenings are hot-dip galvanized (for an additional charge also with a paint finish as desired).

The screws are made of VA stainless steel.

Design, production and quality management in Germany.

The solar light is maintenance-free - (only the solar module should be cleaned occasionally with water).

### General technical data:

Illuminated area: Approx. 13 x 10m

Ambient temperature: -10°C ~ +50°C (extension -35°C ~ +65°C

possible on request)

Protection class: III protective low voltage mark of conformity: CE, RoHS, WEEE 20-year availability guarantee for spare parts.

### Lamp head specification:

Robust LED lamp head made of die-cast aluminum LED Lamp: Power SMD Chipset

LED power: 60W Energy efficiency class: C

Light color 4000K neutral white (on special order also

3000K warm white).

No UV radiation for reduced insect attraction LED efficiency: > 160 lm/w luminaire efficiency: > 145 lm/w Luminous flux lumen: 8100 Lm

Central illuminance: > 10 Lux (8m height)
Average light intensity: > 6 Lux (8m)
LED lifetime approx. 80.000 hours

Protection class: IP65 (water and storm protected).

Warranty: 5 years

#### Lamp control:

Programmable microprocessor control with infrared remote control option. Readout of the current operating status with storage of the measuring data of all components of the last days.

Automatic switch-on at sunset and switch-off at sunrise. (Switching level adjustable)

Adjustable dimming during the night in idle mode between 10% - 30%. When the motion detector is activated, the lighting switches briefly to 100%. The duration of the full lighting can be adjusted between 1 min and 10 min

The charge controller settings are pre-set by us according to customer requirements.

If you want to change settings, you need the remote control S-SOLS29. We will gladly help you to decide on the correct presettings.

All functions are pre-programmed by us free of charge according to the project and the customer's wishes, so that the lamp is ready for operation immediately after installation.

Temperature-optimized battery charging and trickle charging to preserve the hatteries

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse Protection class: IP66 Warranty: 5 years

## **Solar module specifications:**



Monocrystalline silicon with very high efficiency

hardened protection glass, hail resistant

This high-quality module technology also ensures that you can load even when the sky is overcast. On dark days in winter, recharging is limited, thus shortening the lighting period.

Efficiency: > 19%

Power: 160Wp (without extension) Life expectancy: approx. 25 years

Performance guarantee \* 20 years 80% / 10 years 90%

## **Battery storing:**

High Performance Solar Lithium-Ion Iron Battery LiFePo4

battery voltage: 12V maintenance-free, longlife.

For solar cyclic operation

Service life approx. 10 years / 20°C

Function even at low temperatures.

For sufficient operational safety in autumn or winter we strongly recommend our extension sets.

Autarkic operating time in overcast weather (with fully charged battery):

a) Basic version: 4 days (44 hours)

b) with extension set autumn: 5 days (60 hours)

c) with extension set winter: 7 days (80 hours)

The batteries are located in the mast, behind the lockable door.

### Mast:

Steel mast, hot-dip galvanized

Visible height: 8 m

Soil piece: 160 cm for concreting in

(on request also other height)

For easier installation we also offer installation sleeves into which the mast can be inserted.

Lockable mast door, for easy access to the control unit.

#### Supplied disassembled with the following components:

LED lamp head with mast mounting,

Lithium-ion battery

Solar module with stable, screwable mast mounting,

Steel mast,

Lamp control (already mounted in the lamp head).

Illustrated assembly instructions in German or English language. Other

languages on request.

All components are pre-wired and prepared for quick assembly.

The ready-to-use lamp is delivered disassembled for safe transport.

\* The warranty is void in case of force, incorrect use or improper assembly. Weight:



PV Solar Street Lights for Central European Countries





Germany



P

Solar lighting for pedestrian crossing LED with pole

LED street lamp for crossing the road, zebra crossing, way to school. With wide-angle

light emission.

Robust photovoltaic street light for cycle paths crossings and cycle overpasses.

With wide-angle light emission.
With LED lamp - no power connection required.

High luminous intensity due to state-of-the-art SMD LED in combination with dimmable DC PWM driver.

The brightness is comparable to an 80W mercury vapour lamp or 50W sodium vapour lamp.

Very long, maintenance-free luminaire operation due to special design features. Intelligent microprocessor system control. Production and quality management in Germany.

The solar light is maintenance-free - only the solar module should be cleaned with water occasionally.

General technical data:

Illuminated area: Approx. 5 x 12m

Recommended street width: Max. 10 metres (for wider streets, a luminaire should be

placed on both sides)

Ambient temperature: -20°C ~ +50°C (extension -35°C ~ +65°C possible on request) Material: Brackets: Hot-dip galvanised steel (coated in RAL colours at extra cost). Screws:

VA stainless steel. Energy efficiency class: B

Protection class: III safety extra-low voltage

Marks of conformity: CE, RoHS, WEEE

20-year availability guarantee for spare parts.

Luminaire head specification:

Robust LED luminaire head made of die-cast aluminium

LED lamp: SMD chipset Osram

LED power: 36W

Light colour: 4000K neutral white (on special order also 3000K warm white).

No UV radiation for reduced insect attraction

LED efficiency: > 135 lm/w Luminaire efficiency: > 130 lm/w Luminous flux lumen: 5000 lm

Central illuminance: > 10 Lux (8m height) Average luminous intensity: > 6 Lux (8m)

LED life approx. 100,000 hours

Protection class: IP65 (water and storm protected).

Warranty: 5 years

Luminaire control:

Smart MPPT microprocessor control with wireless programming option. Readout of the current operating status with storage of the measurement data of all components of the last days.

Automatic switch-on at sunset and switch-off at sunrise. (Switching level adjustable) Adjustable dimming during late night and full power again in the morning to extend the lighting duration in bad weather. Please specify desired lighting times and night-time dimming when ordering.

You have the option of selecting 4 consecutive time blocks from dusk onwards, each lasting 1-15 hours and with varying light intensity from 10-100%.

Example 1: From dusk 4 hours with 100%, then 2 hours with 50%, then 3 hours 30% and early in the morning 4 hours with 100%.

Example 2: 4 hours at 100%, then 10 hours (rest of the night) at 50%.

In addition, the charge controller is equipped with a Smart Power function that enables automatic dimming during the night, depending on the battery charge level. When the battery voltage drops below 50%, the lamp is automatically dimmed to 50%, this process is descending until the deep discharge protection kicks in. This setting enables safe operation even on the low-light days in winter.

The charge controller settings are preset by us according to customer requirements. If you would like to change the settings, you will need the S-SOLS29 remote control. We will be happy to help you decide on the correct presettings. All functions are preprogrammed by us free of charge, depending on the project and customer requirements, so that the luminaire is ready for operation immediately after installation.

Temperature-optimised battery charging and trickle charging to extend battery life.

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse Protection class: IP66 Warranty: 5 years

Solar module specifications:

Monocrystalline silicon with very high efficiency Tempered protective glass, hail-resistant. This high-quality module technology ensures charging even in overcast conditions.

Efficiency: > 18%





Output: 200Wp (without extension)

Life expectancy: approx. 25 years Performance guarantee \* 20 years 80% / 10 years 90%

\* except in the case of mechanical impact

\* except in case of mechanical impact

#### Battery storage:

Battery type: Lithium Ion LiFePo4 12V, maintenance-free, longlife, for solar cycle operation.

Service life approx. 10 years / 20°C Function even at low temperatures.

On dark days in winter, recharging is limited, the lighting duration is thus shortened. For sufficient operating safety in autumn or winter, we strongly recommend our extension sets

Autonomous operating time in overcast weather (with fully charged battery):

- a) basic version: 4 days (44 hours)
- b) with extension set autumn: 5 days (60 hours)
- c) with extension set winter: 7 days (80 hours)

The new emergency lighting function ensures lighting even when the battery charge is low during very long periods of bad weather, but with reduced luminosity.

The batteries are located in the mast and are protected from strong sun heat.

#### Mast:

Steel mast, hot-dip galvanised,

Visible height h1: 8m h2 Ground: 1000 mm Foundation depth: 130cm Mast top end Ø: 89mm d2 base Ø: 133 mm Wall thickness s: 3 mm

For easier erection, we also offer installation sleeves into which the mast can be inserted. Lockable mast door, for easy access to the control unit.

Supplied disassembled with the following components:

LED lamp head with mast mounting, solar battery solar module with stable, screwable mast mounting, steel mast, luminaire control unit (already mounted in the mast). Illustrated assembly instructions in German or English. Other languages on request. All components are pre-wired and prepared for quick assembly. The ready-to-use luminaire is delivered disassembled for safe transport. LT-SOL55-7

### Accessories for outdoor fixtures

Extension Kit Winter for LT-SOL55 LT-SOL55-E2

Extension Kit Winter for LT-SOL-AP1 LT-SOL63W

Extension Kit Autumn for LT-SOL38 LT-SOL64B

Extension Kit Winter for LT-SOL38 LT-SOL64C

Extension Kit B for longer autarkic time at LT-SOL39 LT-SOL65B

Extension Kit C for Winter operation at LT-SOL39 LT-SOL65C

Extension Kit Autumn for LT-SOL40/-07H LT-SOL66B

Extension Kit Winter for LT-SOL40/-07-H LT-SOL66C

Extension Kit Autumn for LT-SOL45/48 LT-SOL67B

Extension Kit Autumn for LT-SOL45-2 LT-SOL67B2



Special Kit 3 for improved Brightness LT-SOL0X

Extension Kit Winter for LT-SOL45 double LT-SOL67C2

LT-SOL68

Extension Kit Autumn for LT-SOL0X

Extension Kit Autumn for LT-SOL0X

LT-SOL69

Extension Kit Autumn for LT-SOL0X-D LT-SOL69-2H

Extension Kit Winter for LT-SOL0X-D LT-SOL69-2W

Extension Kit Winter for LT-SOL0X LT-SOL0X LT-SOL69-2W



PV Solar Street Lights for Central European Countries







### **Solar Street Light LED Winter**



LED Pole street light luminaire with more than 120 hours autarkic lighting time. Made in Germany.

LT-SOL70

Very rigid photovoltaic street light with storing of electrical power for 10 days of lighting.

Recommended for use in Northern Europe or russian countries with lower quantity of sunshiny days.

High brightness corresponds to 120 watt mercury light.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

All components are surfaced with a grey, scratchproof 2-layers UV-resistant coating.

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

### **General specifications:**

Lighted area: aprx. 25 x 12m

Distance from pole to pole: 25 - 30 meter Recommended pole height: 5m - 8m

Ambient temperature: -20°C ~ +55°C (extended temperature range -35°C ~

+65°C available on request)

Max. direct sunshine temperature: 85° C / 176 F degree

Protection class: III Low safe voltage Approvals: CE, RoHS, WEEE 20 years sparepart supply ability.

### **Lamp specifications:**

LED Lamp: SMD chipset Osram

LED power: 32W

Light colour: 4000K neutral white (on request 5000K cold white or 3000K

warm white).

No uv-radiation for reduced insects attraction

LED efficiacy: > 160 lm/w Luminous flux: 5000 Lm

Central illumination: > 22 Lux (at 6m pole height)

Average brightness:> 11 Lux (6m) Life time: Aprx. 80000 h

Casing: Rigid aluminium die-cast. Seawater and thunderstorm-proof.

Protection degree: IP66 5 years guarantee

### System controler specifications:

Programmable Processor charge controler.

MPPT maximum power point tracking for 30% better solar efficiency.

Infra red remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Smart dimming functions 10-100% to economize battery charging at snow, fog, rain or storm.

Timer-dimmer: Full power at start-up, automatic dimming at midnight and full power again in the early morning.

All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.

Temperature feeded battery charging for extended battery life.

Overcharge and deep-discharge protection for the battery.

Reverse polarity and electronic short circuit protection.

Internet:

Additional electric fuse Protection degree : IP66 5 years guarantee

### Solar panel specifications:

High efficient monocrystalline silicone

(tempered glass encapsulated, hailproof)

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

Efficiency: > 16% Power: 265Wp

Life expectancy: aprx. 25 years 20 years 80% power guaranty \* 10 years 90% power guaranty \*





Germany

\* excepted is the complete failing (3 years guarantee)

### **Battery specifications:**

Battery type: Lead gel 12V, On option Li-Ion LiFePo4 battery maintenance-free, longlife. For solar cycling charge operation Lifetime about 10 Years / 20°C. Functions well, even under low temperature. Autonomy at fully charged battery: 20 days at cloudy weather 120h (10 days) at absolutely no sunshine

#### **Battery box:**

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box IP67 (non walkover) with cabel protection hose, steel reinforced:

Size: L 496 x w 280 x h 270mm

on option ABS plastic box IP66 (walk over):

Size: L 550 x w 550 x h 480mm

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

Solar battery

Inground battery box,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Manual for easy mechanical and electrical setup in english language. Other languages on request.

(Complete pre-wired unit without pole)

Our systems will be configured to your demands and the local requirements.

A product training and installation help is available.

(Please ask for different versions for southern countries with many sunshiny

days)

Weight: 96 kg





Germany



### Solar Street Light LED Kiev



Independant LED Pole street light luminaire with more than 120 hours autarkic lighting time for Ukraine or Sweden. Made in Germany. LT-SOL75

Very rigid photovoltaic street light with storing of electrical power for 10 days of lighting.

Recommended for use in Northern Europe or ukrainian countries with lower quantity of sunshiny days.

High brightness corresponds to 120 watt mercury light.

Very long maintenance-free system lifespan, by use of efficient LED lamps and electronic 24V-60V PWM driver.

Microprocessor system control for lighting and charging.

All components are surfaced with a grey, scratchproof 2-layers UV-resistant coating.

The screws are made of stainless steel.

This solar light is maintenance free - only the solar panel should be cleaned occasionally with water.

Our systems are provided with serial numbers, wich can be validated to protect against malicious copies.

### **General specifications:**

Lighted area: aprx. 25 x 12m
Distance from pole to pole: 25 - 30 meter
Recommended pole height: 5m - 8m
Ambient temperature: -35°C ~ +65°C

Max. direct sunshine temperature: 85° C / 176 F degree

Protection class: III Low safe voltage Approvals: CE, RoHS, WEEE 20 years sparepart supply ability.

### **Lamp specifications:**

LED Lamp: SMD chipset Osram

LED power: 32W Life time: 80000 hours

Energy efficiency class: B

Light colour: 4000K neutral white (on request 5000K cold white or

3000K warm white).

No uv-radiation for reduced insects attraction

LED efficiacy: > 148 lm/w Luminous flux: 5000 Lm

Central illumination: > 22 Lux (at 6m pole height)

Average brightness:> 11 Lux (6m) Life time: Aprx. 80000 h

Casing: Rigid aluminium die-cast. Seawater and thunderstorm-proof.

Protection degree: IP66 5 years guarantee

### **System controler specifications:**

Programmable Processor charge controler.

MPPT maximum power point tracking for 30% better solar efficiency.

Infra red remote control

Metering memory for actual and last days system status.

Automatic lamp start at sunset and turn-off by dawn. (Level adjustable) Smart dimming functions 10-100% to economize battery charging at snow, fog, rain or storm.

Timer-dimmer: Full power at start-up, automatic dimming at midnight and full power again in the early morning.

All functions are pre-programmed by us, for the project and to customer specifications, so that the lamp is ready for operation immediately after installation.

Temperature feeded battery charging for extended battery life.

Overcharge and deep-discharge protection for the battery.

Reverse polarity and electronic short circuit protection.

Additional electric fuse Protection degree : IP66 5 years guarantee

### Solar panel specifications:

High efficient monocrystalline silicone (tempered glass encapsulated, hailproof)

This modern cell technology has a high degree of efficiency and allows charging also at cloudy weather.

Efficiency: > 16% Power: 240Wp

Life expectancy: aprx. 25 years 20 years 80% power guaranty \*





Germany

10 years 90% power guaranty \*

\* excepted is the complete failing (3 years guarantee)

### **Battery specifications:**

Battery type: Li-Ion LiFePo4 maintenance-free, longlife. For solar cycling charge operation Lifetime about 10 Years / 20°C. Functions well, even under low temperature. Autonomy at fully charged battery: 20 days at cloudy weather 120h (10 days) at absolutely no sunshine

### **Battery box:**

The batteries are located underground for equalized temperature (longer life) and thieve protection.

Rigid plastic box IP67 (non walkover) with cabel protection hose, steel reinforced:

Size: L 496 x w 280 x h 270mm

on option ABS plastic box IP66 (walk over):

Size: L 390 x w 390 x h 400mm

#### **Including following components:**

LED light fixture with arm and pole mount bracket.

Solar battery

Inground battery box,

Solar module with frame and bracket for adjustable top-mount.

System controler.

Manual for easy mechanical and electrical setup in english language. Other languages on request.

(Complete pre-wired unit without pole)

Our systems will be configured to your demands and the local requirements. A product training and installation help is available.

(Please ask for different versions for southern countries with many sunshiny

days)

Weight: 88 kg



Photovoltaic Off-Grid Power Systems with Battery





devices up to 500W.

Suitable for pole mounting or building installation.

LT-SV0500A





Stable and reliable - no power connection required.

Usage examples: traffic signs, warning lights, signal lights, billboards, billboards.

PV photovoltaic system for continuous operation of cameras and ac 230v

Recommended for use in Central Europe and Southern Europe - with

average and large number of sunny days.

Very long, maintenance-free operation due to special design features. Including mounting device, suitable for your pole or metal construction.

All brackets and fittings are hot-dip galvanized.

The inverter must be protected against moisture in a building or

weatherproof housing.

Construction, production and quality management in Germany. The PV system is maintenance-free - (only the solar module should occasionally be cleaned with water).

### General technical data:

Ambient temperature: -20 °C ~ + 55 °C (extension -35 °C ~ + 65 °C

possible on request)

Protection class:

Test mark: CE, RoHS, WEEE 20-year availability guarantee for replacement parts.

### **Consumer specification:**

Max. Power:

230V AC 50 Hz Voltage:

Max. Current consumption: 2.45A

### Control and inverter:

Output voltage:

Single Phase

Frequency: 50 - 60Hz, auto-sensing, pure sine wave

Continuous load: 2000VA / 1600W Selectable priority for solar battery or mains operation.

Automatic switching if the selected energy source does not supply enough

(eg mains failure, battery dead)

typ. 10 ms Switching time: Efficiency: max. 90% Short-circuit protection and overload shutdown. Standby power consumption only 2W 0 - 55 ° C Temperature range:

Housing: aluminum Dimensions: 100 x 272 x 355mm

Depending on the project and customer requirements, the functions are preprogrammed free of charge by us, so that the system is ready for use

immediately after installation. IP40 Protection class: Warranty: 3 years

### Solar module specifications:

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies.

Efficiency: > 17%

Power: 4 x 300Wp (without extension)

Life expectancy: approx. 25 years 20 years 80% performance guarantee 10 years 90% performance guarantee \* except in the case of mechanical impact

### **Battery storage:**

Battery Type: Lead Gel 12V

maintenance-free, longlife. For solar cycle operation

Lifetime approx.: 5-10 years / 20 ° C

Internet:

Function even at low temperatures.

For an extra charge: Lithium-ion LiFePo4 battery

For sufficient reliability in autumn or winter, we strongly recommend our

extension sets

Autonomous operating time at 60 watts rated load in overcast conditions





Germany

(with fully charged battery):

a) Basic version: 4 days (48 hours) b) with extension set autumn: 5 days (60 hours) c) with extension set winter: 7 days (80 hours)

### **Battery box:**

Stable gfk plastic box (on floor mount)

Dimensions: h 800 x W 600 x H 270mm

Delivery disassembled with the following components: Solar module with stable, screw-down mast mounting.

Solar battery with ground installation box, Inverter and control.

Illustrated assembly instructions in German or English. Other languages on

request.

The mast is not included.

 $^{\star}$  The warranty is void in case of force, incorrect use or improper installation. Weight:  $255~\mathrm{kg}$ 







### Solar power 120W for mobile, GSM, signaling



PV photovoltaic system for continuous operation of cameras and devices up to 70W. Suitable for pole mounting or building installation. LT-SV120D

Stable and reliable - no power connection required.

Usage examples: traffic signs, warning lights, signal lights, billboards,

Recommended for use in Central Europe and Southern Europe - with average and large number of sunny days.

Very long, maintenance-free operation due to special design features. Microprocessor Control,

Including mounting device, suitable for your pole or metal construction.

All brackets and fittings are hot-dip galvanized.

The screws are made of VA stainless steel.

Construction, production and quality management in Germany. The PV system is maintenance-free - (only the solar module should occasionally be cleaned with water).

#### General technical data:

Ambient temperature: -20 °C ~ + 55 °C (extension -35 °C ~ + 65 °C possible

on request)

Energy efficiency class A +++

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE

20-year availability guarantee for replacement parts.

#### Consumer specification: Max. Power: 150W

Voltage: 12V DC (12-14,85V) On special order also with 24V DC available.

Max. Current consumption: 15A

#### Control:

Smart microprocessor control with infrared programming option.

Reading the current operating status with storage of the measurement data of all components of the last days.

Depending on the project and customer requirements, the functions are preprogrammed free of charge by us, so that the system is ready for use immediately after installation.

Temperature-optimized battery charge and trickle charge to protect the

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse Protection class: IP66 5 years warranty

### Solar module specifications:

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies.

Efficiency: > 16%

Power: 600Wp (without extension) Life expectancy: approx. 25 years 20 years 80% performance guarantee \* 10 years 90% performance guarantee

\* except in the case of mechanical impact

### Battery storage:

Battery Type: Lead Gel 12V,

maintenance-free, longlife.

For solar cycle operation

Lifetime approx. 5-10 years / 20 °C

Function even at low temperatures.

For an extra charge: Lithium-ion LiFePo4 battery

For sufficient reliability in autumn or winter, we strongly recommend our extension sets

Autonomous operating time at 60 watts rated load in overcast conditions (with fully charged battery):

a) Basic version: 4 days (48 hours)

b) with extension set autumn: 5 days (60 hours)

c) with extension set winter: 7 days (80 hours)

### Battery box:

The batteries are in the ground to protect against temperature fluctuations (longer life)

Stable plastic box IP67 (non-walkable version) with cable protective hose, stainless steel reinforced:



Dimensions: L 496 x W 280 x H 270mm optional ABS housing IP66 (walk-over model): Dimensions: L 550 x W 550 x H 480mm

Delivery disassembled with the following components: Solar module with stable, screw-down mast mounting. Solar battery with ground installation box, Light control.

Illustrated assembly instructions in German or English. Other languages on

request.

The mast is not included. 300 kg Weight:





### Solar Power Supply 15W for Radio or Traffic Signals



Solar photovoltaic system for continuous operation of signaling equipment, devices up to 15 watts. Suitable for pole mounting or building installation. LT-SV15D

Robust and reliable PV power supply - no power connection required. Usage examples: traffic signs, warning lights, signal lights, billboards, billboards.

Recommended for countries with average solar radiation, such as Europe, southern Russia, New Zealand.

Very long, maintenance-free operation due to special design features. Microprocessor Control.

Including mounting device, suitable for your pole or metal construction. All brackets and fittings are hot-dip galvanized or scratch-proof and UV-resistant in gray.

The screws are made of VA stainless steel.

Construction, production and quality management in Germany. The PV system is maintenance-free - (only the solar module should occasionally be cleaned with water).

#### General technical data:

Ambient temperature: -20 °C ~ + 55 °C (extension -35 °C ~ + 65 °C possible on request)

Energy efficiency class A +++

Protection class: III Protective SELV extra-low voltage

Test mark: CE, RoHS, WEEE

20-year availability guarantee for replacement parts.

### Consumer specification:

Max. Power: 100W

Voltage: 12V DC (12-14,85V) On special order also with 24V DC available.

Max. Current consumption: 10A

#### Control:

Smart microprocessor control with infrared programming option.

Reading the current operating status with storage of the measurement data of all components of the last days.

Depending on the project and customer requirements, the functions are preprogrammed free of charge by us, so that the system is ready for use immediately after installation.

Temperature-optimized battery charge and trickle charge to protect the batteries.

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse Protection class: IP66 5 years warranty

### Solar module specifications:

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies.

Efficiency: > 16%

Power: 130Wp (without extension)
Life expectancy: approx. 25 years
20 years 80% performance guarantee \*
10 years 90% performance guarantee \*
\* except in the case of mechanical impact

### Battery storage:

Battery Type: Lead Gel 12V,

maintenance-free, longlife.

For solar cycle operation

Lifetime approx. 5-10 years / 20 °C

Function even at low temperatures.

For an extra charge: Lithium-ion LiFePo4 battery

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Autonomous operating time at 15 watts rated load in overcast conditions (with fully charged battery):

- a) Basic version: 4 days (44 hours)
- b) with extension set autumn: 5 days (60 hours)
- c) with extension set winter: 7 days (80 hours)

### Battery box:

The batteries are in the ground to protect against temperature fluctuations (longer life).

Stable plastic box IP67 (non-walkable version) with cable protective hose,



stainless steel reinforced:

Dimensions: L 496 x W 280 x H 270mm optional ABS housing IP66 (walk-over model): Dimensions: L 550 x W 550 x H 480mm

Delivery disassembled with the following components: Solar module with stable, screw-down mast mounting. Solar battery with ground installation box,

Light control.

Illustrated assembly instructions in German or English. Other languages on

request.

The mast is not included. Weight: 70 kg







Solar power 30W for mobile, GSM, signaling



PV photovoltaic system for continuous operation of cameras and devices up to 35W. Suitable for pole mounting or building installation.

Stable and reliable - no power connection required.

Usage examples: traffic signs, warning lights, signal lights, billboards, billboards.

Recommended for use in Central Europe and Southern Europe - with average and large number of sunny days.

Very long, maintenance-free operation due to special design features. Microprocessor Control,

Including mounting device, suitable for your pole or metal construction. All brackets and fittings are hot-dip galvanized or scratch-proof and UVresistant in gray.

The screws are made of VA stainless steel.

Construction, production and quality management in Germany. The PV system is maintenance-free - (only the solar module should occasionally be cleaned with water).

#### General technical data:

Ambient temperature: -20 °C ~ + 55 °C (extension -35 °C ~ + 65 °C possible on request)

Energy efficiency class A +++

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE

20-year availability guarantee for replacement parts.

### Consumer specification:

Max. Power: 150W

Voltage: 12V DC (12-14,85V) On special order also with 24V DC available.

Max. Current consumption: 15A

Smart microprocessor control with infrared programming option.

Reading the current operating status with storage of the measurement data of all components of the last days.

Depending on the project and customer requirements, the functions are preprogrammed free of charge by us, so that the system is ready for use immediately after installation.

Temperature-optimized battery charge and trickle charge to protect the batteries

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse Protection class: IP66 5 years warranty

### Solar module specifications:

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies.

Efficiency: > 16%

Power: 300Wp (without extension) Life expectancy: approx. 25 years 20 years 80% performance guarantee \* 10 years 90% performance guarantee \*

\* except in the case of mechanical impact

### Battery storage:

Battery Type: Lead Gel 12V, maintenance-free, longlife.

For solar cycle operation

Lifetime approx. 5-10 years / 20 °C

Function even at low temperatures.

For an extra charge: Lithium-ion LiFePo4 battery

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Autonomous operating time at 30 watts rated load in overcast conditions (with fully charged battery):

- a) Basic version: 4 days (48 hours)
- b) with extension set autumn: 5 days (60 hours)
- c) with extension set winter: 7 days (80 hours)

### Battery box:

The batteries are in the ground to protect against temperature fluctuations (longer life)

Stable plastic box IP67 (non-walkable version) with cable protective hose,



stainless steel reinforced:

Dimensions: L 496 x W 280 x H 270mm optional ABS housing IP66 (walk-over model): Dimensions: L 550 x W 550 x H 480mm

Delivery disassembled with the following components: Solar module with stable, screw-down mast mounting. Solar battery with ground installation box,

Light control.

Illustrated assembly instructions in German or English. Other languages on

request.

The mast is not included. Weight: 120 kg





### Solar power for surveillance camera 30W



PV photovoltaic power supply system for continuous operation of cameras and devices up to 35W. Suitable for pole mounting or building installation.

Stable and reliable - no power connection required.

Usage examples: traffic signs, warning lights, signal lights, billboards, billboards.

Recommended for use in Central Europe and Southern Europe - with average and large number of sunny days.

Very long, maintenance-free operation due to special design features. Microprocessor Control,

Including mounting device, suitable for your pole or metal construction. All brackets and fittings are hot-dip galvanized or scratch-proof and UVresistant in gray.

The screws are made of VA stainless steel.

Construction, production and quality management in Germany. The PV system is maintenance-free - (only the solar module should occasionally be cleaned with water).

#### General technical data:

Ambient temperature: -20 °C ~ + 55 °C (extension -35 °C ~ + 65 °C possible on request)

Energy efficiency class A +++

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE

20-year availability guarantee for replacement parts.

### Consumer specification:

Max. Power: 150W

Voltage: 12V DC (12-14,85V) On special order also with 24V DC available.

Max. Current consumption: 15A

Smart microprocessor control with infrared programming option.

Reading the current operating status with storage of the measurement data of all components of the last days.

Depending on the project and customer requirements, the functions are preprogrammed free of charge by us, so that the system is ready for use immediately after installation.

Temperature-optimized battery charge and trickle charge to protect the batteries

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse Protection class: IP66 5 years warranty

### Solar module specifications:

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies.

Efficiency: > 16%

Power: 300Wp (without extension) Life expectancy: approx. 25 years 20 years 80% performance guarantee \* 10 years 90% performance guarantee \*

\* except in the case of mechanical impact

### Battery storage:

Battery Type: Lead Gel 12V, maintenance-free, longlife.

For solar cycle operation

Lifetime approx. 5-10 years / 20 °C

Function even at low temperatures.

For an extra charge: Lithium-ion LiFePo4 battery

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Autonomous operating time at 30 watts rated load in overcast conditions (with fully charged battery):

- a) Basic version: 4 days (48 hours)
- b) with extension set autumn: 5 days (60 hours)
- c) with extension set winter: 7 days (80 hours)

### Battery box:

The batteries are in the ground to protect against temperature fluctuations (longer life)

Stable plastic box IP67 (non-walkable version) with cable protective hose,



stainless steel reinforced:

Dimensions: L 496 x W 280 x H 270mm optional ABS housing IP66 (walk-over model): Dimensions: L 550 x W 550 x H 480mm

Delivery disassembled with the following components: Solar module with stable, screw-down mast mounting. Solar battery with ground installation box,

Light control.

Illustrated assembly instructions in German or English. Other languages on

request.

The mast is not included. Weight: 120 kg







### Solar power 30W for lighting **Post**



Solar photovoltaic system for night-time operation of lights and appliances up to 30W. Suitable for pole mounting or building mounting.

Robust and reliable PV power supply - no power connection required. Usage examples: traffic signs, warning lights, signal lights, billboards,

Recommended for countries with average solar radiation, such as Europe, southern Russia, New Zealand.

Very long, maintenance-free operation due to special design features. Microprocessor Control.

Including mounting device, suitable for your pole or metal construction. All brackets and fittings are hot-dip galvanized or scratch-proof and UVresistant in gray.

The screws are made of VA stainless steel.

Construction, production and quality management in Germany. The PV system is maintenance-free - (only the solar module should occasionally be cleaned with water).

#### General technical data:

Ambient temperature: -20 °C ~ + 55 °C (extension -35 °C ~ + 65 °C possible on request)

Energy efficiency class A +++

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE

20-year availability guarantee for replacement parts.

### Consumer specification:

Max. Power: 100W

Voltage: 12V DC (12-14,85V) On special order also with 24V DC available.

Max. Current consumption: 10A

Smart microprocessor control with infrared programming option.

Reading the current operating status with storage of the measurement data of all components of the last days.

Automatic switch on at sunset and switch off at sunrise.

It is also possible to define free time blocks to enable a lighting interruption or premature shutdown.

Brightness threshold: Adjustable

We will gladly help you to decide on the right presettings.

Depending on the project and customer requirements, the functions are preprogrammed free of charge by us, so that the system is ready for use immediately after installation.

Temperature-optimized battery charge and trickle charge to protect the batteries

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse

Protection class: IP66 5 years warranty

### Solar module specifications:

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies.

Efficiency: > 16%

Power: 130Wp (without extension)

Life expectancy: approx. 25 years

20 years 80% performance guarantee \*

10 years 90% performance guarantee \*

\* except in the case of mechanical impact

### Battery storage:

Battery Type: Lead Gel 12V, maintenance-free, longlife.

For solar cycle operation

Lifetime approx. 5-10 years / 20 °C

Function even at low temperatures.

For an extra charge: Lithium-ion LiFePo4 battery

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Autonomous operating time at 30 watts rated load in overcast conditions (with fully charged battery):

a) Basic version: 2 days (24 hours)

b) with extension set autumn: 3 days (30 hours)

Internet:

c) with extension set winter: 4 days (40 hours)



Battery box:

The batteries sit in the ground to protect against temperature fluctuations (longer life).

Stable plastic box IP67 (non-walkable version) with cable protective hose,

stainless steel reinforced:

Dimensions: L 496 x W 280 x H 270mm optional ABS housing IP66 (walk-over model): Dimensions: L 550 x W 550 x H 480mm

Delivery disassembled with the following components: Solar module with stable, screw-down mast mounting.

Solar battery with ground installation box,

Light control.

Illustrated assembly instructions in German or English. Other languages on

request.

The mast is not included. Weight: 70 kg





PV photovoltaic system for continuous operation of cameras and devices up

to 70W. Suitable for pole mounting or building installation.



# Solar power 60W for mobile, GSM, signaling



Stable and reliable - no power connection required.

Usage examples: traffic signs, warning lights, signal lights, billboards, billboards

Recommended for use in Central Europe and Southern Europe - with

average and large number of sunny days.

Very long, maintenance-free operation due to special design features.

Microprocessor Control,

Including mounting device, suitable for your pole or metal construction. All brackets and fittings are hot-dip galvanized.

The screws are made of VA stainless steel.

Construction, production and quality management in Germany.

The PV system is maintenance-free - (only the solar module should occasionally be cleaned with water).

General technical data:

Ambient temperature: -20 °C ~ + 55 °C (extension -35 °C ~ + 65 °C possible

on request)

Energy efficiency class A +++

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE

20-year availability guarantee for replacement parts.

Consumer specification: Max. Power: 150W

Voltage: 12V DC (12-14,85V) On special order also with 24V DC available.

Max. Current consumption: 15A

Control:

Smart microprocessor control with infrared programming option.

Reading the current operating status with storage of the measurement data

of all components of the last days.

Depending on the project and customer requirements, the functions are preprogrammed free of charge by us, so that the system is ready for use

immediately after installation.

Temperature-optimized battery charge and trickle charge to protect the batteries.

batteries.

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse Protection class: IP66 5 years warranty

Solar module specifications:

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies.

Efficiency: > 16%

Power: 600Wp (without extension)

Life expectancy: approx. 25 years

20 years 80% performance guarantee \*

10 years 90% performance guarantee \*

\* except in the case of mechanical impact

Battery storage:

Battery Type: Lead Gel 12V,

maintenance-free, longlife.

For solar cycle operation

Lifetime approx. 5-10 years / 20 °C

Function even at low temperatures.

For an extra charge: Lithium-ion LiFePo4 battery

For sufficient reliability in autumn or winter, we strongly recommend our extension sets

Autonomous operating time at 60 watts rated load in overcast conditions (with fully charged battery):

a) Basic version: 4 days (48 hours)

b) with extension set autumn: 5 days (60 hours)

c) with extension set winter: 7 days (80 hours)

Battery box:

The batteries are in the ground to protect against temperature fluctuations (longer life).

Stable plastic box IP67 (non-walkable version) with cable protective hose, stainless steel reinforced:





Germany

Dimensions: L 496 x W 280 x H 270mm optional ABS housing IP66 (walk-over model): Dimensions: L 550 x W 550 x H 480mm

Delivery disassembled with the following components: Solar module with stable, screw-down mast mounting.

Solar battery with ground installation box, Light control.

Illustrated assembly instructions in German or English. Other languages on

request.

The mast is not included. Weight: 180 kg







### Solar power 60W for lighting **Post**



PV photovoltaic system for night-time operation of luminaires and appliances up to 70W. Suitable for pole mounting or building mounting.

Stable and reliable - no power connection required.

Usage examples: traffic signs, warning lights, signal lights, billboards,

Recommended for use in Central Europe and Southern Europe - with average and large number of sunny days.

Very long, maintenance-free operation due to special design features. Microprocessor Control,

Including mounting device, suitable for your pole or metal construction. All brackets and fittings are hot-dip galvanized or scratch-proof and UVresistant in gray.

The screws are made of VA stainless steel.

Construction, production and quality management in Germany. The PV system is maintenance-free - (only the solar module should occasionally be cleaned with water).

#### General technical data:

Ambient temperature: -20 °C ~ + 55 °C (extension -35 °C ~ + 65 °C possible on request)

Energy efficiency class A +++

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE

20-year availability guarantee for replacement parts.

### Consumer specification:

Max. Power: 150W

Voltage: 12V DC (12-14,85V) On special order also with 24V DC available.

Max. Current consumption: 15A

Smart microprocessor control with infrared programming option.

Reading the current operating status with storage of the measurement data of all components of the last days.

Automatic switch on at sunset and switch off at sunrise.

It is also possible to define free time blocks to enable a lighting interruption or premature shutdown.

Brightness threshold: Adjustable

We will gladly help you to decide on the right presettings.

All functions are preprogrammed by us free of charge, depending on the project and customer request, so that the luminaire is ready for operation immediately after assembly.

Temperature-optimized battery charge and trickle charge to protect the batteries

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse

Protection class: IP66 5 years warranty

### Solar module specifications:

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies. Efficiency: > 16%

Power: 300Wp (without extension)

Life expectancy: approx. 25 years

20 years 80% performance guarantee \*

10 years 90% performance guarantee \*

\* except in the case of mechanical impact

### Battery storage:

Battery Type: Lead Gel 12V, maintenance-free, longlife.

For solar cycle operation

Lifetime approx. 5-10 years / 20 °C

Function even at low temperatures.

For an extra charge: Lithium-ion LiFePo4 battery

For sufficient reliability in autumn or winter, we strongly recommend our extension sets.

Autonomous operating time at 60 watts rated load in overcast conditions (with fully charged battery):

a) Basic version: 2 days (24 hours)

b) with extension set autumn: 3 days (30 hours)

c) with extension set winter: 4 days (40 hours)



Battery box:

The batteries sit in the ground to protect against temperature fluctuations (longer life).

Two stable plastic box IP67 (non-walkable version) with cable protective

hose, stainless steel reinforced: Dimensions: L 496 x W 280 x H 270mm

on request two ABS enclosures IP66 (walk-over model):

Dimensions: L 550 x W 550 x H 480mm

Delivery disassembled with the following components: Solar module with stable, screw-down mast mounting. Solar battery with ground installation box,

Light control.

Illustrated assembly instructions in German or English. Other languages on

request.

The mast is not included. Weight: 120 kg









PV photovoltaic system for continuous operation of cameras and devices up to 90W. Suitable for pole mounting or building installation. LT-SV90D

Stable and reliable - no power connection required.

Usage examples: traffic signs, warning lights, signal lights, billboards,

Recommended for use in Central Europe and Southern Europe - with average and large number of sunny days.

Very long, maintenance-free operation due to special design features. Microprocessor Control,

Including mounting device, suitable for your pole or metal construction.

All brackets and fittings are hot-dip galvanized.

The screws are made of VA stainless steel.

Construction, production and quality management in Germany. The PV system is maintenance-free - (only the solar module should occasionally be cleaned with water).

#### General technical data:

Ambient temperature: -20 °C ~ + 55 °C (extension -35 °C ~ + 65 °C possible

on request)

Energy efficiency class A +++

Protection class: III Protective extra-low voltage

Test mark: CE, RoHS, WEEE

20-year availability guarantee for replacement parts.

#### Consumer specification: Max. Power: 150W

Voltage: 24V DC (24-29.7V) - on special order also with 12V DC available.

Max. Current consumption: 15A

#### Control:

Smart microprocessor control with infrared programming option.

Reading the current operating status with storage of the measurement data of all components of the last days.

Depending on the project and customer requirements, the functions are preprogrammed free of charge by us, so that the system is ready for use immediately after installation.

Temperature-optimized battery charge and trickle charge to protect the

Overvoltage and deep discharge protection for battery.

Reverse polarity and short circuit protection.

Additional fuse Protection class: IP66 5 years warranty

### Solar module specifications:

Monocrystalline silicon with very high efficiency

tempered protective glass, hailproof

This high quality module technology also ensures charge in overcast skies.

Efficiency: > 17%

Power: 600Wp (without extension) Life expectancy: approx. 25 years 20 years 80% performance guarantee \*

10 years 90% performance guarantee \* except in the case of mechanical impact

### Battery storage:

Battery Type: Lead Gel,

maintenance-free, longlife.

For solar cycle operation

Lifetime approx. 5-10 years / 20 °C

Function even at low temperatures.

For an extra charge: Lithium-ion LiFePo4 battery

For sufficient reliability in autumn or winter, we strongly recommend our extension sets

Autonomous operating time at 60 watts rated load in overcast conditions (with fully charged battery):

a) Basic version: 4 days (48 hours)

b) with extension set autumn: 5 days (60 hours)

c) with extension set winter: 7 days (80 hours)

### Battery box:

The batteries are in the ground to protect against temperature fluctuations (longer life)

Stable plastic box IP67 (non-walkable version) with cable protective hose, stainless steel reinforced:



Dimensions: L 496 x W 280 x H 270mm optional ABS housing IP66 (walk-over model): Dimensions: L 550 x W 550 x H 480mm

Delivery disassembled with the following components: Solar module with stable, screw-down mast mounting.

Solar battery with ground installation box, Light control.

Illustrated assembly instructions in German or English. Other languages on

request.

The mast is not included. 180 kg Weight: