

DIYSOLAR SOLAR OFF-GRID DIY/CONTRACTOR KIT

ecosolarTM
A DIVISION OF ecopower

DO-IT-YOURSELF SOLAR SOLUTION

One of our most popular systems, the all-in-one DIYSolar Lighting system is available at EcoSOLAR Authorized Dealers across North America, shipped complete individual boxes. 6' sectioned poles are ready for direct burial, and sleeving to a finished height of 14' or 20', with lighting at 13' or 19'. Available with EcoLED's SOL fixture in 30 or 50w, with built-in control electronics factory set to idle on dim at preset levels, and go to full on when motion is detected.

STANDARD COMPONENTS

PV PANEL & FRAME

Includes PV Panel Frame with 180° Mount and graduated angle indicator
Integrated daylight sensor.

85W SINGLE PV PANEL
For 30W Fixture

125W SINGLE PV PANEL
For 50W Fixture

BATTERY

cUL Listed battery stored in pole-mounted, insulated box

 Upgrade to premium EcoNORTH EcoLiFe long-life lithium ion (LiON)

LEAD ACID GEL (LAG)
Rated to -40°C/F

ECONORTH ECOLiFe (LiON)
Rated to -20°C/-4°F

ECOLED SOL FIXTURE

Available in 30 or 50w
IP 65 Rated

150 x 110° Type III Beam Angle

Fixture mounted occupancy sensor

Approx. 3-7 days autonomous operation with no charge, utilizing our preprogrammed MPPT controller and occupancy sensor*

Factory preset to idle at 40% output and go to 100% for 3 minutes upon motion detection

SOL
30w

SOL
50w

CCT

3000K

4000K

5000K

ECOPOLE SUPPORT

4.5" Round 0.25" Steel Sectioned in 6' Lengths - Black

Fixture height of 13'/19'

Max fixture height 20'

Direct Burial Installation.

14'

20'

• 6' Section buried 4'
• 2 x 6' Sections
• 13' Fixture height

• 6' Section buried 4'
• 3 x 6' Sections
• 19' Fixture height

JOB:

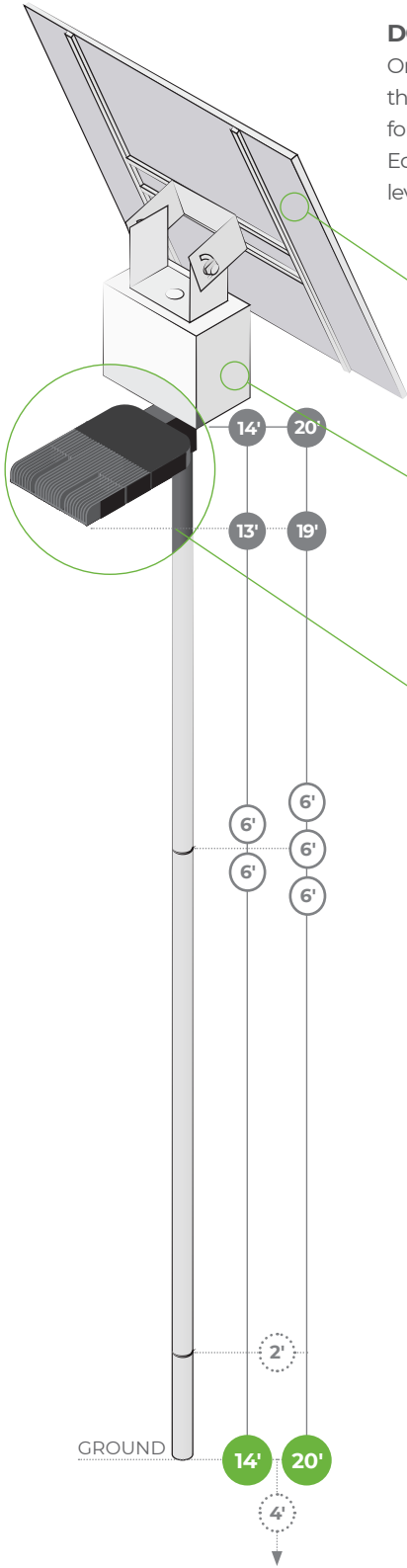
QUANTITY:

DRAWING #:

PART #:

NOTES/OPTIONS:

APPROVED/DATE:



ecosolar@ecopowerinc.com | ecosolar.ecopowerinc.com | 1.800.564.8086

Visit ecosolar.ecopowerinc.com for up-to-date specifications and resource information.

All cabling included.

The full assembly is fabricated to meet North American wind load and engineering standards.

* When installed according to instructions, within stated operating ambient temperatures, and adjusted 3x a year for maximum solar collection; for panel angles throughout the year, visit: <http://solarelectricityhandbook.com/solar-angle-calculator.html>



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Manufacturer

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DIYSOLAR SOLAR OFF-GRID DIY/CONTRACTOR KIT



ECOPOLE SPECIFICATIONS

Construction	4.5" Round 0.25" Steel
Colour	Powder coated black
Installation	4' direct burial 14': 12" sono tube 20': 18" sono tube 3200 PSI cement
Certifications	Engineered to meet EPA load and AASHTO requirements w/1.3 Gusts , fabricated to CSA and CWB standards
Warranty	10 Year

PV SOLAR PANEL SPECIFICATIONS

Size	85w / 120w
Mounting	Pole solar mount racking (PV framing)
Certifications	CID2 and cUL Certifications
Warranty	20 Year

LED AREA LIGHT SPECIFICATIONS

Wattage	30w/50w
Certifications	CSA certified to UL standards for installation in N.A.
Warranty	10 Year

BATTERY SPECIFICATIONS

Type	125AH LAG Absorbent Glass Mat (AGM) up to 5 years / 1800 cycles; or EcoNORTH EcoLiFe LiON based on technology that will provide up to 16 years / >6000 cycles deployment
Weight	LAG: 29.9 kg / 66 lbs EcoNORTH EcoLiFe LiON : 19.4kg / 42.9 lbs
Accessories	Battery, Controller and Light cabling, prewired, inline quick connects
Housing	Battery box, pole mounted NEMA4X powder coated steel
Environment	LAG: -40° - 40°C / -40° - 104°F EcoNORTH EcoLiFe LiON : -20° - 50°C / -4° - 122°F
Certifications	UN/DOT 38.3 5th Edition, Amendment 1 – Recommendations on the Transport of Dangerous Goods, tested to CSA and UL standards for installation in North America
Warranty	LAG: 2 year full replacement, 5 year prorated EcoNORTH EcoLiFe LiON : 5 year full replacement, 10 year prorated

CONTROLLER

Sensor	Preconfigured Occupancy(PIR)/Daylight Sensor (integrated with MPPT PWM controller)
Housing	Housed with battery to monitor temperature; PIR sensor embedded in lighting fixture
Cabling	Prewired cabling provided

PRODUCT CODE GENERATOR

DIYS	PV	-	BB	-	SOL	W	K	-	ST	BK	PH	-	OP
	PV Panel 85W 125W		Battery (AH)* LAG125 LION60** LION150		Fixture SOL	Wattage 30W 50W	Kelvin WW (3000K) NW (4000K) CW (5000K)		Pole Material ST (Steel)	Pole Colour BK (Black)	Pole Height (above grade) 14 20		Options RM (Remote)

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* LAG at 12 or 24vDC / LiON at 25.6vDC
** For use with 30w fixture only.



SOLAR OFF-GRID LIGHT



FEATURES

- IP65 Rated for Wet Environments

OPTIONS

- Sensor Options: Occupancy, Occupancy with Bi-Level Dimming
- Colour Options

Ideal for use in combination with EcoSOLAR off-grid solutions, the SOL Solar Off-Grid Light boasts 99.9% uptime* with easy installation in remote locations. With category leading 140 L/W, it provides excellent opportunities for extremely efficient long discharge life, and can also be adjusted via IR remote to operate in 5 different modes of stand-by time and output intensity.

EFFICIENCY	WATTAGES	VOLTAGES	KELVIN
140 L/w	30w / 50w	24-48vDC	3000K / 4000K / 5000K

TECHNICAL SPECIFICATIONS

Housing	Aluminum
Finish	Black standard
Lens	PC
Mounting	Pole/wall mounted
Applications	Parks, pathways, general egress and regress, areas peripheral to grid connected lighting, non-critical campus lighting

ELECTRICAL SPECIFICATIONS

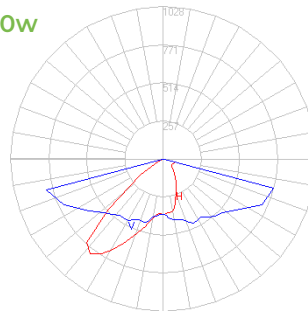
Lighting Source	SMD3030
Available Wattages	30w, 50w
Power Factor	>0.9
Ambient temperature	-40° to 40°C / -40° to 104°F
Input Voltage	24-48vDC

OPTICAL & PERFORMANCE SPECIFICATIONS

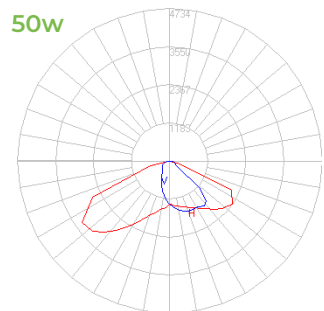
Efficiency	140L/w
Lumen Output	30w: 4,200L 50w: 7,000L
IP Rating	IP65
CRI	>70
Beam Angle	150 x 110° (Type III)
BUG Rating	B1-U1-G1
L70	100,000 hours
Certifications	cETL, CE, FCC, RoHS, available with CSA certification - check your local requirements as they vary between provinces

PHOTMETRICS

30w



50w



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FEATURES

- 30 Year Warranty
- MPPT Solar Controller

Ideal for use in combination with the EcoLED SOL Solar Off-Grid Light, our SSP Solo Solar Panel enables installation in any remote location and features the MPPT controller, housed in an IP67 case, with an estimated life of 100,000 hours. Thanks to dual-axis rotation on the solar panel itself, this unique design maximizes the ability to direct light exactly where needed, while giving optimum solar efficiency in a single unit.

TECHNICAL SPECIFICATIONS

Construction	High-transmission, low-iron tempered glass, EVA, TPT
Frame	Anodized aluminum
Solar Cells	85w/125w: 36 cells in series (4 x 9) 270w: 60 cells in series (6 x 10) 540w: 120 cells in series (10 x 12)
Operational Temp	-40 - 85°C / -40 - 185°F
Dimensions	85w: 935 x 670 x 42mm (36.81 x 26.38 x 1.65") 125w: 1265 x 670 x 42mm (49.8 x 26.38 x 1.65") 270w: 1661 x 992 x 8.5mm (65.4 x 39.2 x 0.33") 540w: 1984 x 1661 x 8.5mm (78.11 x 65.4 x 0.33")
Certifications	C1D2 and cUL Certifications

ELECTRICAL SPECIFICATIONS

STC: Irradiance 1000W/m ² AM1.5 spectrum, module temperature 25°C. Calculated using max power.	
Peak Power (Pmax)	85w / 125w / 270w / 540w
Max Power Voltage	85w/125w: 18.75v 270w: 30.8v 540w: 61.6v
Max Power Current	85w: 4.53A / 125w: 6.67A 270w/540w: 8.75A
Short Circuit Current	85w: 5.08A / 125w: 7.49A 270w/540w: 9.32A
Maximum Fuse Rating	85w/125w: 12A 270w/540w: 15A

MPPT SOLAR CONTROLLER

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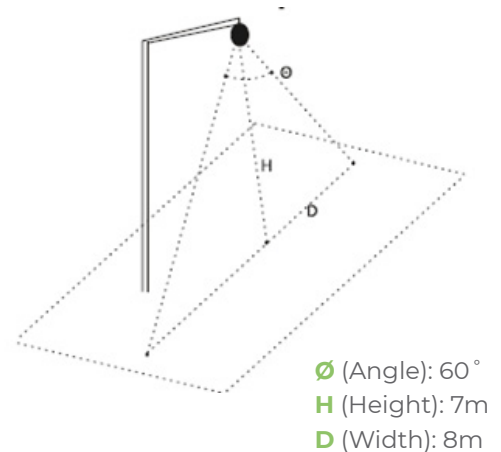


- Innovative Max Power Point Tracking(MPPT) Technology, Tracking Efficiency >99%
- Full Digital Technology, High Charge Conversion Efficiency Up To 96% Discharge Conversion
- 5 Stages Time and Dimming Adjustable, Dimming 0~100%
- Monitors Parameters and Running Status
- If Battery Voltage is Low, Unit Can Be Set To Dimming Automatically
- Idle and Occupancy Light Output Levels Can Be Set
- 12V/24V System Voltage
- Optional Remote Unit to Configure Operating Parameters
- IP67 Rated Waterproof Aluminum Case

MODE

Total rated charging current	10A
Total rated load current	10A
System voltage	24V/12V optional
Over load and short circuit protection	Overload protection time:1.5 times rated current: 10 second, ≥3 times rated current or short circuit
No load losses	≤10 mA
Charging circuit voltage drop	≤0.26V
Discharging circuit voltage drop	≤0.15V
Overcharge recover voltage	Constant voltage 12.6V
Overcharge protection voltage	3.90±0.025V
Over discharge protect voltage	2.00±0.08V
Over discharge recover voltage	11.1±0.2V; ×2/24V
Control	MPPT technology, tracking efficiency >99%
Working temperature	-35°C to +55°C
Storage temperature	-40°C to +75°C

SENSOR SCOPE



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