

EnGo Leaf

Solar Street Light

Award-winning Design

An ideal solution for:

- Business Centers
- Boardwalks
- Parks



Environmental
Sensors



Remote
Management System



Easy Installation
& Maintenance



Smart Sensors



High Quality
Lithium Battery



Powered By
The Sun

EnGo Leaf 4

Technical Data Sheet



LEAF GENERAL SPECIFICATIONS	
LED Lamp	20-30 W 180 lm/W
Solar Power	200Wp, Flexible Curved Design, SunPower Monocrystalline Solar Cell
Battery System	Lithium Ion Phosphate - LiFePO4 12V, 52Ah-104Ah
Charge Controller	MPPT Controller - 12 V
Pole	Hot Dip Galvanized + Powder Coated 4m / 13ft
Environmental Sensors	Available upon request

LED LAMP ELECTRICAL PARAMETERS	
Rated Power	20 - 30W
Operating Temperature	-40 °C ↔ +50 °C / -40 °F ↔ +122°F
Power Factor (PF)	>0.9
Protection	Class I (Class II Optional)
Rated Voltage	12 VDC

LED LAMP PHOTOMETRIC CHARACTERISTICS	
Lumen Output	180lm/W
Correlated Color Temperature (CCT)	2200 K ↔ 4000 K

LED LAMP MECHANICAL CHARACTERISTICS	
Ratings	IP 66 IK 10
Lifetime	> 100,000 hours - L70 @25°C (77 °F)
Body	Anodized Aluminum
Pole Fitter Diameter	60 mm / 2.4 in (50 mm / 2 in - Optional)
Fixture Dimension	431 x 316 x 136 mm / 17 x 12.4 x 5.4 in
Packing Dimension	480 x 370 x 200 mm / 18.9 x 14.6 x 7.9 in
Fixture Weight	5.3 kg / 11.7 lbs
Packing Weight	6.3 kg / 13.9 lbs

SOLAR PANEL MAIN CHARACTERISTICS	
Maximum Output Power (Pmpp)	200 Wp
Power Tolerance	+/-3%
Solar Cell Efficiency	≥ 22%
Voltage at Pmpp (Vmpp)	34 V
Current at Pmpp (Impp)	5.88 A
Open Circuit Voltage (Voc)	40.8 V
Short Circuit Current (Isc)	6.47 A
Operating Temperature	-40 °C ↔ +85 °C / -40 °F ↔ 185 °F
Maximum System Voltage	700 V
Maximum Series Fuse Rating	15 A

SOLAR PANEL MECHANICAL CHARACTERISTICS	
Solar Cell Type	Monocrystalline 125 x 125 mm / 4.9 x 4.9 in
Dimensions of Module	1570 x 920 x 2.5mm / 61.8 x 36.2 x 0.1 in
Cables Specialized for PV use	2.5mm2 x 1 m
Weight	4.5 kg / 9.9 lbs

SOLAR PANEL TEMPERATURE CHARACTERISTICS	
Current Temperature Coefficient	0.05 % / °C
Voltage Temperature Coefficient	-0.35 % / °C
Power Temperature Coefficient	-0.45 % / °C

POLE CHARACTERISTICS	
Height	4m / 13ft
Pole Wall Thickness	approx. 4mm / 8 gauge*
Finishing Colors	White - RAL 9003 or Black - RAL 9005
Battery Storage	Inside Pole
Arm - Pole Angle	90°

LiFePO4 BATTERY MAIN CHARACTERISTICS	
Type	LiFePO4
Rated Voltage	12.8 V
Rated Capacity	52 - 104 Ah
Internal Resistance	≤ 45 Ohm
Dimensions	936 mm 82 mm 42 mm 36.9 in 3.2 in 1.7 in
Weight	4.2 kg / 9.25 lbs (with housing)
Shell Material	Poly Vinyl Chloride (PVC)
Charge Voltage	14.4 +/- 0.15 V
Charge Current	≤ 5 A
Operating Temperature	-15 °C ↔ +70 °C / 5 °F ↔ +158 °F
Passive Protection	Over-charge Protection Over-discharge Protection Temperature Protection Balanced Function

CHARGER CONTROLLER MODEL CHARACTERISTICS	
Model	VICTRON ENERGY SmartSolar MPPT 75/15 or EnGoPlanet MPPT Controller
Battery Voltage (auto select)	12 V
Rated Charge Current	15 A
Nominal PV Power, 12 V	440 W
Max. PV Short Circuit Current	15 A
Max. PV Open Circuit Voltage	75 V
Peak Efficiency	98%
Self-Consumption - Load On/Off	24 V: 15 mA
Charge Voltage 'Absorption'	28.8 V (Adjustable)
Charge Voltage 'Float'	27.6 V (Adjustable)
Operating Temperature	-30°C ↔ +60°C / -22°F ↔ +140°F
Safety Standards	EN/IEC 62109-1, UL 1741, CSA C22.2
Color	Blue (RAL 5012)
Protection Category	IP43 (electronic components), IP22 (connection area)
Weight	0.5 kg / 1.1 lbs
Dimensions	100 x 113 x 40 mm / 3.9 x 4.5 x 1.6 in

*varies based on specific requirements

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LEAF GENERAL SPECIFICATIONS		POLE CHARACTERISTICS	
LED Lamp	2 x 20 W 180 lm/W	Height	4m / 13ft
Solar Power	200Wp, Flexible Curved Design, SunPower Monocrystalline Solar Cell	Pole Wall Thickness	approx. 4mm / 8 gauge*
Battery System	Lithium Ion Phosphate - LiFePO4 12V, 52Ah-104Ah	Finishing Colors	White - RAL 9003 or Black - RAL 9005
Charge Controller	MPPT Controller - 12 V	Battery Storage	Inside Pole
Pole	Hot Dip Galvanized + Powder Coated 4m / 13ft	Arm - Pole Angle	90°
Environmental Sensors	Available upon request	LiFePO4 BATTERY MAIN CHARACTERISTICS	
LED LAMP ELECTRICAL PARAMETERS		Type	LiFePO4
Rated Power	2 x 20	Rated Voltage	12.8 V
Operating Temperature	-40 °C ↔ +50 °C / -40 °F ↔ +122°F	Rated Capacity	52 - 104 Ah
Power Factor (PF)	>0.9	Internal Resistance	≤ 45 Ohm
Protection	Class I (Class II Optional)	Dimensions	936 mm 82 mm 42 mm 36.9 in 3.2 in 1.7 in
Rated Voltage	12 VDC	Weight	4.2 kg / 9.25 lbs (with housing)
LED LAMP PHOTOMETRIC CHARACTERISTICS		Shell Material	Poly Vinyl Chloride (PVC)
Lumen Output	180lm/W	Charge Voltage	14.4 +/- 0.15 V
Correlated Color Temperature (CCT)	2200 K ↔ 4000 K	Charge Current	≤ 5 A
LED LAMP MECHANICAL CHARACTERISTICS		Operating Temperature	-15 °C ↔ +70 °C / 5 °F ↔ +158 °F
Ratings	IP 66 IK 10	Passive Protection	Over-charge Protection Over-discharge Protection Temperature Protection Balanced Function
Lifetime	> 100,000 hours - L70 @25°C (77 °F)	CHARGER CONTROLLER MODEL CHARACTERISTICS	
Body	Anodized Aluminum	Model	VICTRON ENERGY SmartSolar MPPT 75/15 or EnGoPlanet MPPT Controller
Pole Fitter Diameter	60 mm / 2.4 in (50 mm / 2 in - Optional)	Battery Voltage (auto select)	12 V
Fixture Dimension	431 x 316 x 136 mm / 17 x 12.4 x 5.4 in	Rated Charge Current	15 A
Packing Dimension	480 x 370 x 200 mm / 18.9 x 14.6 x 7.9 in	Nominal PV Power, 12 V	440 W
Fixture Weight	5.3 kg / 11.7 lbs	Max. PV Short Circuit Current	15 A
Packing Weight	6.3 kg / 13.9 lbs	Max. PV Open Circuit Voltage	75 V
SOLAR PANEL MAIN CHARACTERISTICS		Peak Efficiency	98%
Maximum Output Power (Pmpp)	200 Wp	Self-Consumption - Load On/Off	24 V: 15 mA
Power Tolerance	+/-3%	Charge Voltage 'Absorption'	28.8 V (Adjustable)
Solar Cell Efficiency	≥ 22%	Charge Voltage 'Float'	27.6 V (Adjustable)
Voltage at Pmpp (Vmpp)	34 V	Operating Temperature	-30°C ↔ +60°C / -22°F ↔ +140°F
Current at Pmpp (Impp)	5.88 A	Safety Standards	EN/IEC 62109-1, UL 1741, CSA C22.2
Open Circuit Voltage (Voc)	40.8 V	Color	Blue (RAL 5012)
Short Circuit Current (Isc)	6.47 A	Protection Category	IP43 (electronic components), IP22 (connection area)
Operating Temperature	-40 °C ↔ +85 °C / -40 °F ↔ 185 °F	Weight	0.5 kg / 1.1 lbs
Maximum System Voltage	700 V	Dimensions	100 x 113 x 40 mm / 3.9 x 4.5 x 1.6 in
Maximum Series Fuse Rating	15 A	*varies based on specific requirements	
SOLAR PANEL MECHANICAL CHARACTERISTICS			
Solar Cell Type	Monocrystalline 125 x 125 mm / 4.9 x 4.9 in		
Dimensions of Module	1570 x 920 x 2.5mm / 61.8 x 36.2 x 0.1 in		
Cables Specialized for PV use	2.5mm2 x 1 m		
Weight	4.5 kg / 9.9 lbs		
SOLAR PANEL TEMPERATURE CHARACTERISTICS			
Current Temperature Coefficient	0.05 % / °C		
Voltage Temperature Coefficient	-0.35 % / °C		
Power Temperature Coefficient	-0.45 % / °C		

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LEAF GENERAL SPECIFICATIONS		POLE CHARACTERISTICS	
LED Lamp	30-50 W 180 lm/W	Height	6m / 20ft
Solar Power	200Wp, Flexible Curved Design, SunPower Monocrystalline Solar Cell (Made in USA)	Pole Wall Thickness	approx. 4mm / 8 gauge*
Battery System	Lithium Ion Phosphate - LiFePO4 12V 52 Ah, - 104 Ah	Finishing Colors	White - RAL 9003 or Black - RAL 9005
Charge Controller	MPPT Controller - 12 V	Battery Storage	Inside Pole
Pole	Hot Dip Galvanized + Powder Coated 6m / 20ft	Arm - Pole Angle	90°
Environmental Sensors	Available upon request	LiFePO4 BATTERY MAIN CHARACTERISTICS	
LED LAMP ELECTRICAL PARAMETERS		Type	LiFePO4
Rated Power	30 - 50W	Rated Voltage	12.8 V
Operating Temperature	-40 °C ↔ +50 °C / -40 °F ↔ +122°F	Rated Capacity	52 Ah - 104 Ah
Power Factor (PF)	>0.9	Internal Resistance	≤ 45 Ohm
Protection	Class I (Class II Optional)	Dimensions	936 mm 82 mm 42 mm 36.9 in 3.2 in 1.7 in
Rated Voltage	12 VDC	Weight	4.2 kg / 9.25 lbs (with housing)
LED LAMP PHOTOMETRIC CHARACTERISTICS		Shell Material	Poly Vinyl Chloride (PVC)
Lumen Output	180 lm/W	Charge Voltage	14.4 +/- 0.15 V
Correlated Color Temperature (CCT)	2200 K ↔ 4000 K	Charge Current	≤ 5 A
LED LAMP MECHANICAL CHARACTERISTICS		Operating Temperature	-15 °C ↔ +70 °C / 5 °F ↔ +158 °F
Ratings	IP 66 IK 10	Passive Protection	Over-charge Protection Over-discharge Protection Temperature Protection Balanced Function
Lifetime	> 100,000 hours - L70 @25°C (77 °F)	CHARGER CONTROLLER MODEL CHARACTERISTICS	
Body	Anodized Aluminum	Model	VICTRON ENERGY SmartSolar MPPT 75/15 or EnGoPlanet MPPT Controller
Pole Fitter Diameter	60 mm / 2.4 in (50 mm / 2 in - Optional)	Battery Voltage (auto select)	12 V
Fixture Dimension	431 x 316 x 136 mm / 17 x 12.4 x 5.4 in	Rated Charge Current	15 A
Packing Dimension	480 x 370 x 200 mm / 18.9 x 14.6 x 7.9 in	Nominal PV Power, 12 V	440 W
Fixture Weight	5.3 kg / 11.7 lbs	Max. PV Short Circuit Current	15 A
Packing Weight	6.3 kg / 13.9 lbs	Max. PV Open Circuit Voltage	75 V
SOLAR PANEL MAIN CHARACTERISTICS		Peak Efficiency	98%
Maximum Output Power (Pmpp)	200 Wp	Self-Consumption - Load On/Off	24 V: 15 mA
Power Tolerance	+/-3%	Charge Voltage 'Absorption'	28.8 V (Adjustable)
Solar Cell Efficiency	≥ 22%	Charge Voltage 'Float'	27.6 V (Adjustable)
Voltage at Pmpp (Vmpp)	34 V	Operating Temperature	-30°C ↔ +60°C / -22°F ↔ +140°F
Current at Pmpp (Impp)	5.88 A	Safety Standards	EN/IEC 62109-1, UL 1741, CSA C22.2
Open Circuit Voltage (Voc)	40.8 V	Color	Blue (RAL 5012)
Short Circuit Current (Isc)	6.47 A	Protection Category	IP43 (electronic components), IP22 (connection area)
Operating Temperature	-40 °C ↔ +85 °C / -40 °F ↔ 185 °F	Weight	0.5 kg / 1.1 lbs
Maximum System Voltage	700 V	Dimensions	100 x 113 x 40 mm / 3.9 x 4.5 x 1.6 in
Maximum Series Fuse Rating	15 A	*varies based on specific requirements	
SOLAR PANEL MECHANICAL CHARACTERISTICS			
Solar Cell Type	Monocrystalline 125 x 125 mm / 4.9 x 4.9 in		
Dimensions of Module	1570 x 920 x 2.5mm / 61.8 x 36.2 x 0.1 in		
Cables Specialized for PV use	2.5mm2 x 1 m		
Weight	4.5 kg / 9.9 lbs		
SOLAR PANEL TEMPERATURE CHARACTERISTICS			
Current Temperature Coefficient	0.05 % / °C		
Voltage Temperature Coefficient	-0.35 % / °C		
Power Temperature Coefficient	-0.45 % / °C		

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LED Lamp	2 x 20W - 2 x 30W 180 lm/W	Height	6m / 20ft
Solar Power	200Wp, Flexible Curved Design, SunPower Monocrystalline Solar Cell (Made in USA)	Pole Wall Thickness	approx. 4mm / 8 gauge*
Battery System	Lithium Ion Phosphate - LiFePO4 12V 104 Ah, - 156 Ah	Finishing Colors	White - RAL 9003 or Black - RAL 9005
Charge Controller	MPPT Controller - 12 V	Battery Storage	Inside Pole
Pole	Hot Dip Galvanized + Powder Coated 6m / 20ft	Arm - Pole Angle	90°
Environmental Sensors	Available upon request	LiFePO4 BATTERY MAIN CHARACTERISTICS	
LED LAMP ELECTRICAL PARAMETERS		Type	LiFePO4
Rated Power	2 x 20W - 2 x 30W	Rated Voltage	12.8 V
Operating Temperature	-40 °C ↔ +50 °C / -40 °F ↔ +122°F	Rated Capacity	104 Ah - 156 Ah
Power Factor (PF)	>0.9	Internal Resistance	≤ 45 Ohm
Protection	Class I (Class II Optional)	Dimensions	936 mm 82 mm 42 mm 36.9 in 3.2 in 1.7 in
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Solar Cell Type	Monocrystalline 125 x 125 mm / 4.9 x 4.9 in		
Dimensions of Module	1570 x 920 x 2.5mm / 61.8 x 36.2 x 0.1 in		
Cables Specialized for PV use	2.5mm2 x 1m		
Weight	4.5 kg / 9.9 lbs		
SOLAR PANEL TEMPERATURE CHARACTERISTICS			
Current Temperature Coefficient	0.05 % / °C		
Voltage Temperature Coefficient	-0.35 % / °C		
Power Temperature Coefficient	-0.45 % / °C		