



**REFRIGERATOR
AIR CONDITION**

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GROUPE SM DEVIS INTERNATIONAL




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Our Competitive Products:

1. Solar Street Lights & LED Street Lighting 15W—120W;
2. 3-12M Street Light Pole, 15-40M High Mast;
3. Solar Garden Lights & Solar Landscape Lights 5W—30W;
4. Solar Battery: 4.5Ah—250Ah/12V, 200Ah—3000Ah/2V;
5. Solar Panels & Solar Modules 5W—300W Poly & Mono ;
6. Solar Controllers: 5A-60A/12V Or 24V Or 48V IP 65 IP68 Rating;
7. Solar Home Lighting System/Kits : 5W—5000W With Lighting + Fan + TV + Fridge + USB Charging Phone Function/AC or DC Power;



Solar Street Light Pictures



High Mast





Système solaire d'éclairage de rue de LED

L'éclairage public à LED est une nouvelle alternative aux réverbères traditionnels tels que: les lampadaires LPS, HPS ou MH

L'éclairage LED offre une multitude d'avantages par rapport à la lumière incandescente conventionnelle:



Avantages des projets d'éclairage public à LED:

1). Énergie verte, faible consommation d'énergie, économisez 60% -80% par rapport aux autres.

2). Puissance supérieure, intensité de luminosité plus élevée, bonne restitution des couleurs.

3). Économisez les coûts d'électricité. Économisez le coût du transformateur électrique et du câble.

Maintenance gratuite

4). Impact environnemental - Éliminer l'élimination dangereuse, la faible pollution lumineuse et l'absence de rayonnement.

5). Durée de vie plus longue: Entre 80000-100000 heures. Si allumer 12 heures / nuit, pourrait utiliser au moins 12 - 22 ans 6). Moins de chaleur produite par rapport à d'autres sources,

7) L'orientation vers le bas de la lumière, pourrait ajuster les angles d'éclairage et la gamme d'éclairage et la forme sur le terrain pour répondre à la route-Rectangulaire. Une autre source d'éclairage pourrait simplement donner une forme ronde commune et une petite plage d'éclairage.



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Lighting Effect




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Below is the technical details, please check:





Conception basée sur les conditions solaires et météorologiques ci-dessous

1. Pour le pays: **Bénin**

Latitude: **6.36N**, Longitude: 2.44W Temps d'éclairage: **11-12Hrs / Nuits**,

2. Mode d'éclairage pleine puissance.

3. Temps couvert: **2-3 jours**.

4. Conditions solaires

Incident moyen d'insolation mensuelle sur une surface horizontale (kWh / m² / jour)

Lat 6,36

Lon 2.44 Jan Fév Mar Avr Mai Juin Juil Août Sep Oct Nov Déc Annuel Moyenne

22 ans Moyenne 5,33 5,54 5,49 5,28 4,93 4,28 4,30 4,21 4,37 4,82 5,01 5,15 4,89

5. Notre conception est basée sur le rayonnement solaire moyen d'année, considèrent également le rayonnement solaire en été et en hiver, de sorte que pourrait assurer notre lampe allume toute l'année.

6. Nombre équivalent de jours NO-SUN ou NOIR (jours)





Equivalent Number Of NO-SUN Or BLACK Days (days)

Lat 6.36 Lon 2.44	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 day	0.77	0.87	0.83	0.87	0.88	0.94	0.79	0.80	0.84	0.87	0.83	0.70
3 day	0.87	1.33	1.22	1.66	1.44	1.70	1.75	1.50	1.35	1.31	1.13	0.80
7 day	1.59	1.42	1.67	2.07	2.17	2.52	2.84	2.02	2.26	2.23	1.45	1.00
14 day	1.87	1.59	2.37	2.04	3.02	4.37	3.38	3.79	3.21	2.68	1.97	1.73
21 day	1.85	1.66	2.70	2.15	4.36	5.10	3.23	2.96	3.71	2.32	2.15	2.31
Month	2.03	1.31	3.16	1.93	3.70	5.04	2.94	2.79	2.33	2.25	2.21	1.26





7.8M Pole 80W LED Solar Street Light design for Benin



Part Name and Lifespan	Technical Specification
Solar Panel: Lifespan:20-25 years	120W*2PC for 24V lighting, mono crystalline. High Efficiency. A-class Adding Aluminum Frame, Tempered Glass.
Gelled Battery Lifespan:5-8 years	150Ah/12V*2PC, Gelled battery, Sealed Type. Deep cycle. Maintenance Free
Intelligent Solar Controller Lifespan:8-10 years	15A/24V, IP68. Automatic Light and Time Control Over-charging/discharging Protection Reverse-connection Protection Switch on Automatically with Light Sensor; Switch off after designed Hours later.
Light source: High Power LED Lifespan: More than 80000-100000Hrs	80W LED, White Color, 12000LM,5000-6500K, IP65 High Power, High Brightness.
Lamp Housing: Lifespan: More than 20 years	Die-casted Aluminum, IP65 High transmittance & Density toughened glass,
Battery Box:	Engineering Steel, hang on the pole
Pole System: Lifespan: More than 20 years	7.5M Height, tapered Pole, Steel, Hot-Dip Galvanized. Plastic Coated, Rust Proof, With Arm, Bracket, Flange, Fittings, Cable, Etc Resistant to Wind: ≥150KM/H
Cable	Armored cable, include weather-protective cable glands
Base Foundation	Engineering steel, usually called "J" or "L" bolts



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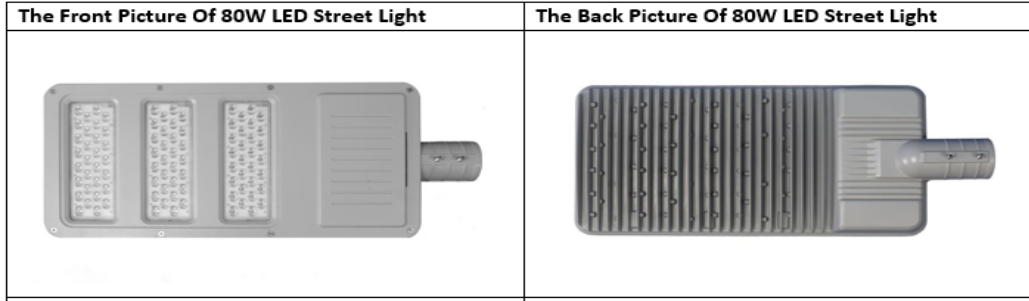



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Specifications----80W LED Lamp



Technical Parameters:

Grey, Black, White, Blue Is Available

LED Power	80W
LED Lighting Efficiency	11200LM
Body Size	650*290*90mm
Lamp Efficiency	>92%
CT	5000-6500K
Ra	>80%
Power Factor	>0.95
IP	65,66,67
Working Temperature	-40℃----+50℃
Lifespan	>80000 Hours
Led Dissipation Angle	>120 Degree
Weight	5.40KGS





Container Loading---Nigeria



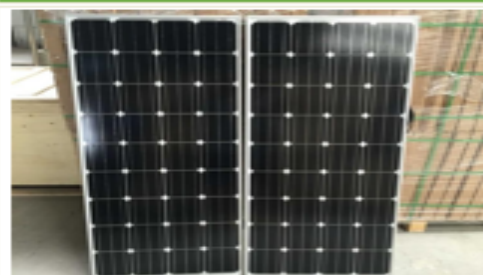
Container Loading---Ghana





Name		120Watts Mono Solar Panel*2pcs in series
Model Number:	BR-M120W	
Standard:	TUV,IEC61215,CE & EN	
Place of Origin:	China	
Solar cell spec:	156*156 MONO crystalline silicon solar cells	
Specifications:	PV module with 120W maximum power	
Max. system voltage:	1000V DC	
Power tolerance:	0%-3%	
Surface max. load capacity:	70m/S(200KG/sq.m)	
Weight:	10.0KG	
Dimensions:	1480mm*670mm*35mm	
Electrical characteristics:		
Open circuit voltage(V):	21.6V	
Short circuit current(A):	7.24A	
Max. power voltage(V):	17.8V	
Max. power current(A):	6.66A	
Cell <u>efficiency</u> (%):	≥17%	
Module <u>efficiency</u> (%):	≥14%	
<u>FF</u> (%):	70-72%	
Conditions (STD):		
Irradiance:	1000W/M2	
Temperature:	25°C	
Absolute maximum rating:		
Operating temperature:	-40°C to +80°C	
Storage temperature:	-40°C to +80°C	
Packing:	2 PCS/CTN	
Junction box	TUV Certified, MC4 Connector, Water-proof.	
Glass	High-Transmission, Low iron tempered glass.	
Limited Warranty	Workmanship for 5 years, 90% of minimum power output over 12 years, 80% over 20 years. High reliability with guaranteed +3% power output tolerance, (Lifespan:20-25 Years)	

Photo



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Packing Pictures

Packing Inside	Packing Outside: Carton+Pallet
	
	
Solar Panel Producing Machine	Solar Panel Producing Machine
	





Technical Specifications---150Ah Solar Battery

Gelled Battery 150Ah/12V*2pcs in series				Free Maintenance, Sealed Type, Gelled. Deep cycle.				
 <p>Valve-regulated Sealed Battery</p> <p>6-CAJ-150</p> <p>Deep cycle & Maintenance Free</p>				Nominal Voltage 12V				
				Number of cell.....6				
				Warranty..... 3 years				
				Design Life 5-8 years				
				10 hour rate(15.0A,10.5V) 150Ah				
				Fully Charged battery 77°F(25°C) 4mΩ				
				Discharge -20~60°C				
				Charge -10~60°C				
				Storage -20~60°C				
				Size..... 482*172*242mm				
				Net Weight..... 42.0KGS				
COMPONENT	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
RAW MATERIAL	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	SiO ₂	gel

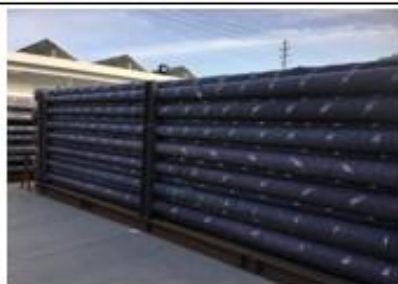
Packing Pictures





Technical Specifications—Pole System

7.5M Steel Pole, will Painted with black Color



Pole Height.....	7.5M
Material.....	Q235
Top Diameter.....	76mm
Bottom Diameter.....	175mm
Pole Thickness.....	3.5mm
Painting:.....	Wanted Color

7.5M Height Pole, Steel, Q235,
Hot-Dip Galvanized. Plastic Coated, Rust Proof,
With Arm , Bracket, Flange, Fittings, Cable, Etc
Resistant to Wind: $\geq 150\text{KM/H}$



pole






LED Lamp:1.6M for 7.5M pole

Bracket for Solar Panel





Technical Parameters, IP68 Grade

Model	10A	15A	20A	30A
Rated charge current	10A	15A	20A	30A
Rated load current	10A	15A	20A	30A
Working Voltage	12/24V Auto	2/24V Auto	12/24V Auto	12/24V Auto
Over load, short circuit protection	1.25 rated load current 60sec, 1.5 rated loads current 5sec, Over load protection action. ≥ 3 Rated load current short circuit protection action.			
No load current	$\leq 8mA$			
Charging circuit voltage drop	$\leq 0.26V$			
Load circuit voltage drop	$\leq 0.13V$			
Over voltage protection	1.7V; $\times 2/24V$			
Work temperature	Industry stage: $-35^{\circ}C$ to $+55^{\circ}C$			
Boost charge voltage	14.6V; $\times 2/24V$; (keep 10min)			
Direct charge voltage	14.4V; $\times 2/24V$; (keep 10min)			
Float charge voltage	13.6V; $\times 2/24V$			
charge return voltage	13.2V; $\times 2/24V$			
Temperature compensation	$-5mV/^{\circ}C/cell$ (Boost charge, Direct charge, Float charge, charge return voltage)			
Lower voltage indicate	12.0V; $\times 2/24V$			
Over discharge voltage	11.1V (no load) - real-time modified voltage by the discharge rate; $\times 2/24V$			
Over discharge return voltage	12.6V; $\times 2/24V$			
Control mode	PWM charge mode; modified discharge voltage by the discharge rate			
LED indication on system condition	LED indicating the system of charging, overcharge, power full power , low, over-discharge, over load, out short circuit, load on/off, etc.			
20A 12/24V Solar Controller		Automatic Light Control and Time Control System		
 <p>http://www.ecosolarlight.com</p>		Intelligent Micro-computer Controller Temperature Compensation. Size.....162*96*32mm Install Hole.....152*63.5mm Working Temperature: $-20^{\circ}C$ to $60^{\circ}C$ Over-charging/discharging Protection Reverse-connection Protection Switch on Automatically with Light Sensor; Switch off after designed Hours later.		
Packing Outside Picture		Packing Inside Picture		
				





Technical Specifications—Battery Box and Cable

Battery Box: **with air hole**. Engineering Steel, hang on the pole

Material: Engineering Steel, To Hold 1PC Battery



Battery Box: **with air hole**. Engineering Steel, hang on the pole



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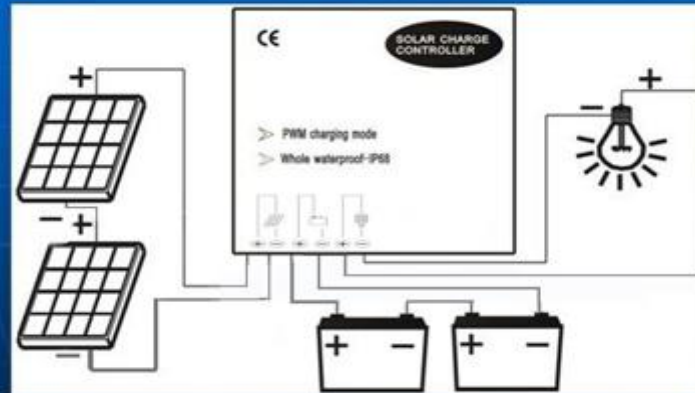
Before installation----Base foundation-Assemble



We Make & End Buyer Just Need Assemble it Locally, Buyer Should Make IT Locally with Cement

Brief Connecting Drawing:

System Connecting Drawing

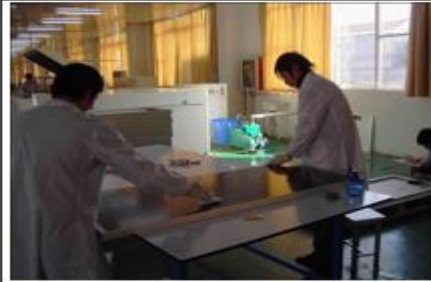


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Solar Panel Workshop



LED Lamp Workshop



Battery Charge, Discharge and Water-proof Test



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Pole Workshop



2008-3-13



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