



شركة
SOLAR POWER

رؤية
VISION
2030
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA



Engr. Anas Al Emam
Executive Manager
ION Solar

Renewable energy is increasingly playing a larger role in fulfilling this commitment to nation building. Saudi Arabia has pledged to reduce carbon emissions at multiple climate forums and only recently reiterated its commitment. With over 10 years of experience in renewable energy, we at the ION Solar see it as our responsibility —and indeed the responsibility of the entire sector — to help Saudi Arabia fulfil those pledges.

Our focus is simple — we are changing how our nation uses energy. And we are doing this by offering unique, high-performance, cost-effective energy conversion solutions using ION Solar Energy Solution. It is satisfying to know that we are able to provide optimum solutions that fulfill customers' needs, since customer satisfaction is the hallmark by which we measure our performance, and we hold ourselves, as do our clients, to the highest standards of quality.



About ION Solar

ION Solar Company was founded after an in-depth and intensive Research for Renewable Energy Technology and how it can be an alternative, cheaper and cleaner source of energy.

Due to the current Dilemma of power source generation all over the world and the global campaign to GO GREEN plus the benefit of being in the best country in the world to have a sufficient amount of sunlight all the year through, **ION** Company was established.

ION is dedicated to provide a high quality solar panels and accessories to our clients and to render a better service and quality work and is expert across full range of solar power applications, ranging from stand-alone home solar implementation, to complex projects with the best integrated energy storage.

ION Company is ideal partner for hybrid applications, which combines the advantages of renewable energy sources with conventional power generation. Within the field of electrical infrastructure, we have significant experience and engineering capability essential for the successful integration and implementation of solar power to the grid.



Why ION Solar?

We are your strategic partner for consultation, logistics, implementation and maintenance for alternative energy systems

- **Lower Cost for Electricity**
- **Zero Investment and Maintenance Cost**

We partnered with electrical company in providing your energy needs in the most cost effective and efficient way possible, through the strategic use of renewable and clean energy alternatives.

ION is dedicated to provide a high quality solar panels and accessories to our clients and to render a better service and quality work and is expert across full range of solar power applications, ranging from stand-alone home solar implementation, to complex projects with the best integrated energy storage.

ION Solar is ideal partner for hybrid applications, which combines the advantages of renewable energy sources with conventional power generation. Within the field of electrical infrastructure, we have significant experience and engineering capability essential for the successful integration and implementation of solar power to the grid.



Who can benefit **FROM OUR SERVICES?**

- Investors
- Construction Companies
- Industrial and Commercial Businesses
- Hotels and Resorts
- Government Facilities
- Agriculture
- Residential Complexes



Solar Energy Facts

- The sun is the biggest and the most productive source of energy available to man.
- In less than one hour the sun sends more energy to the earth than is consumed in an entire year.
- Solar energy is derived directly from the sun by a process called photovoltaics.
- Since 2002, photovoltaic production has been doubling every two years, increasing by an average of 48% every year, making it the world's fastest growing alternative energy technology.
- It is a clean, safe and reliable source of energy with minimal costs for maintenance.

Solar Advantages

- Zero Pollution
- Silent and non-disrupting operation
- Long lifespan of 25+ years
- Minimal maintenance and operating costs
- High return on investment

You can expect attractive and highly predictable gains of renewable energies that assure maximum returns at a minimum risk for extensive periods of time while earning carbon credits.



ION SOLAR Leader in Commercial Solar

ION Solar is a progressive alternative energy service provider that specializes in solar electric systems and the sale of Power Purchase Agreements (PPA). ION Solar has designed and implemented cost-effective solar electricity solutions for large scale commercial properties in SAUDI ARABIA and the rest of GCC. At ION Solar, our primary goal is to partner with companies to provide efficient and effective power solutions through the use of renewable and clean energy alternatives.

Our company offers a full suite of alternative energy services, including:

- energy efficiency consulting
- site analysis
- design and implementation
- financing
- maintenance and support
- billing

ION Solar employs a skilled team that is comprised of electrical engineers, licensed electricians, project managers and experienced customer service and administrative staff. Our dependable services, professionalism and commitment to providing exceptional customer support are why our company is the forerunner in the solar power industry.

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ION Solar Experienced Team, Innovative Solutions

ION Solar has been involved with solar energy generation and development for more that 10 years. Several factors distinguish ION from other solar power companies.

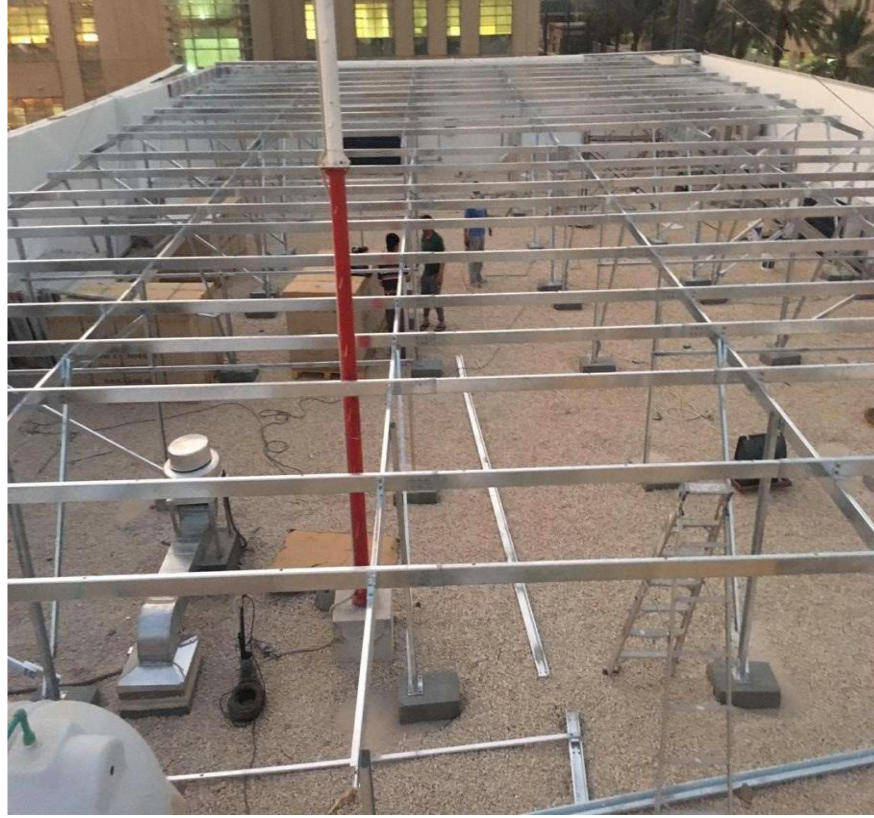
- Our solar construction crews are highly trained and managed by licensed electricians in order to provide the best quality electric work.
- Engineering Procurement and Construction - ION Company is one of the leading contracting Solar Company in Saudi Arabia that provides a complete turnkey Solar Power Solution for utility scale PV projects. We offer both full EPC scope including Panel Supply and EVP for balance of System as indicated by customer.
- Operation and Maintenance - We specialize in O & M for Solar Power Solutions, offering a full scope of onitoring, Preventive and Corrective support administrations upheld by suitable contracted certifications relying upon client requirements.
- Our marketing and public relations expers help governmental agencies and public institutions conduct public awareness and community education campaigns that emphasize the benefits of photovoltaic systems and solar power.



PROJECTS



50KW Solar System with Lithium battery



PROJECT 001

PRIVATE VILLA

Prince Bader

60kW

On-Grid System



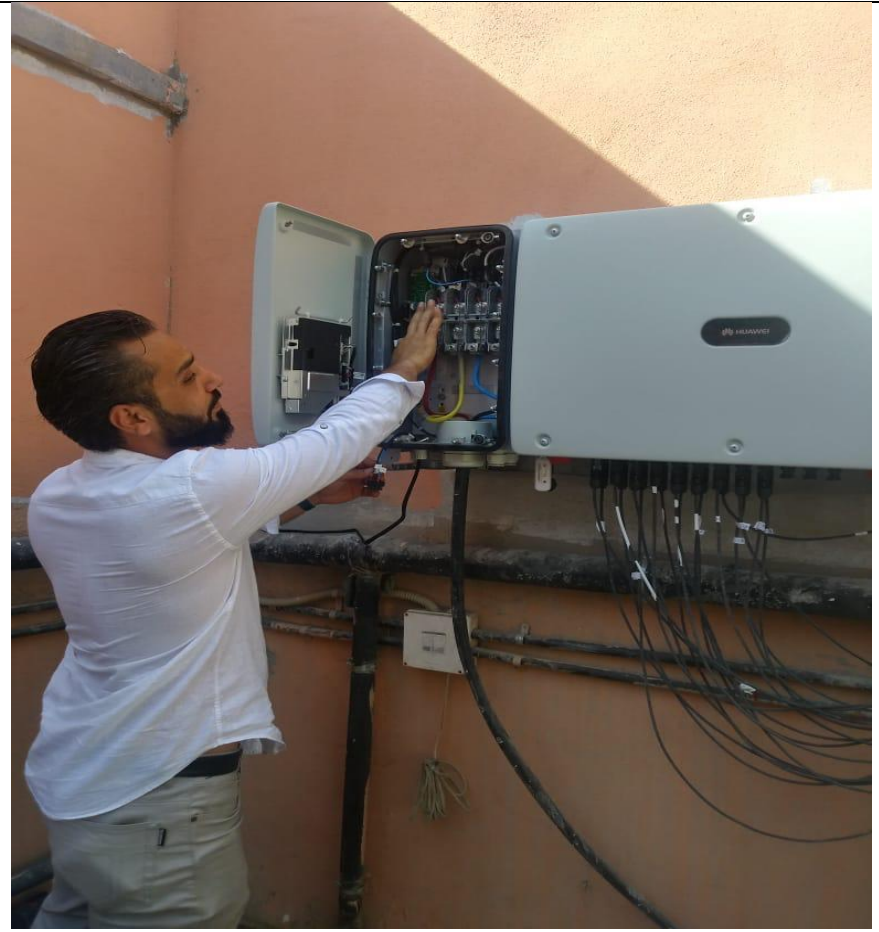
PROJECT 002

PRIVATE VILLA

Prince Bader

60kW

On-Grid System



PROJECT 002

RASHID FARM

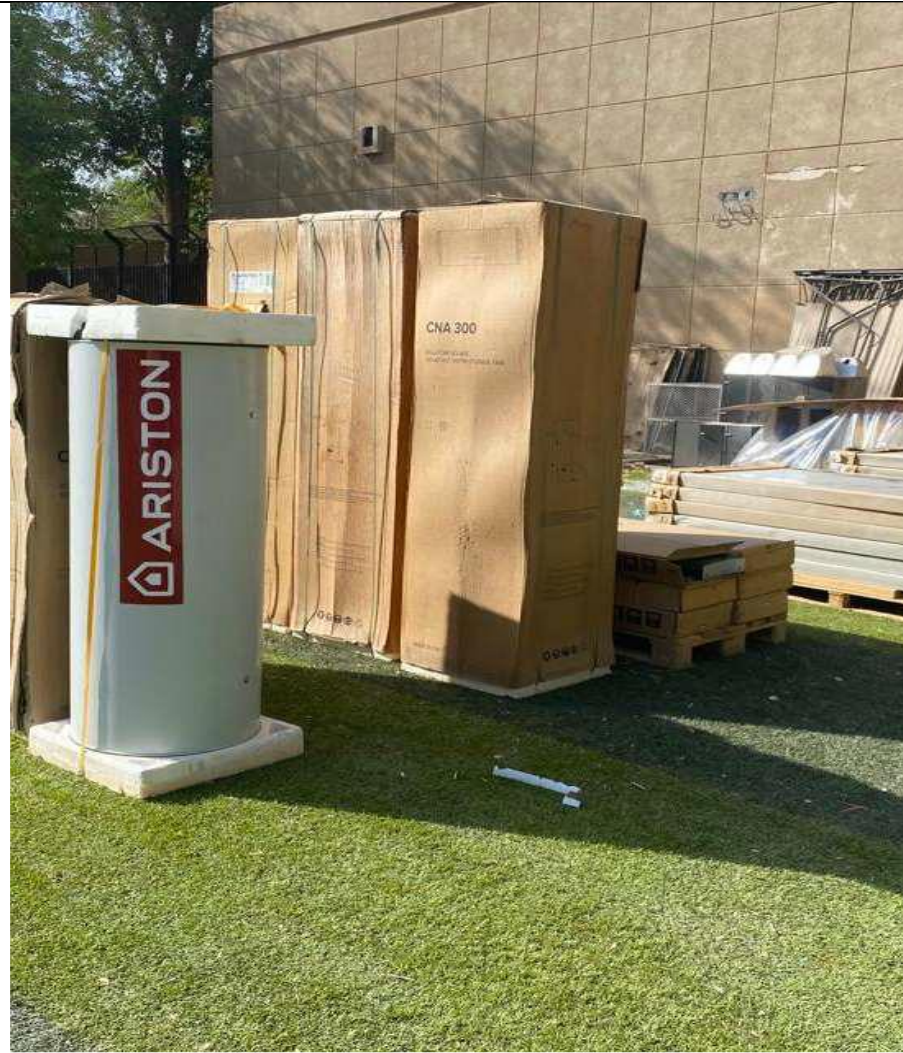
2,400 Liters of hot water system



PROJECT 003

BRITISH INTERNATIONAL SCHOOL

4,500 Liters of hot water system



PROJECT 004

RIYADH VILLA

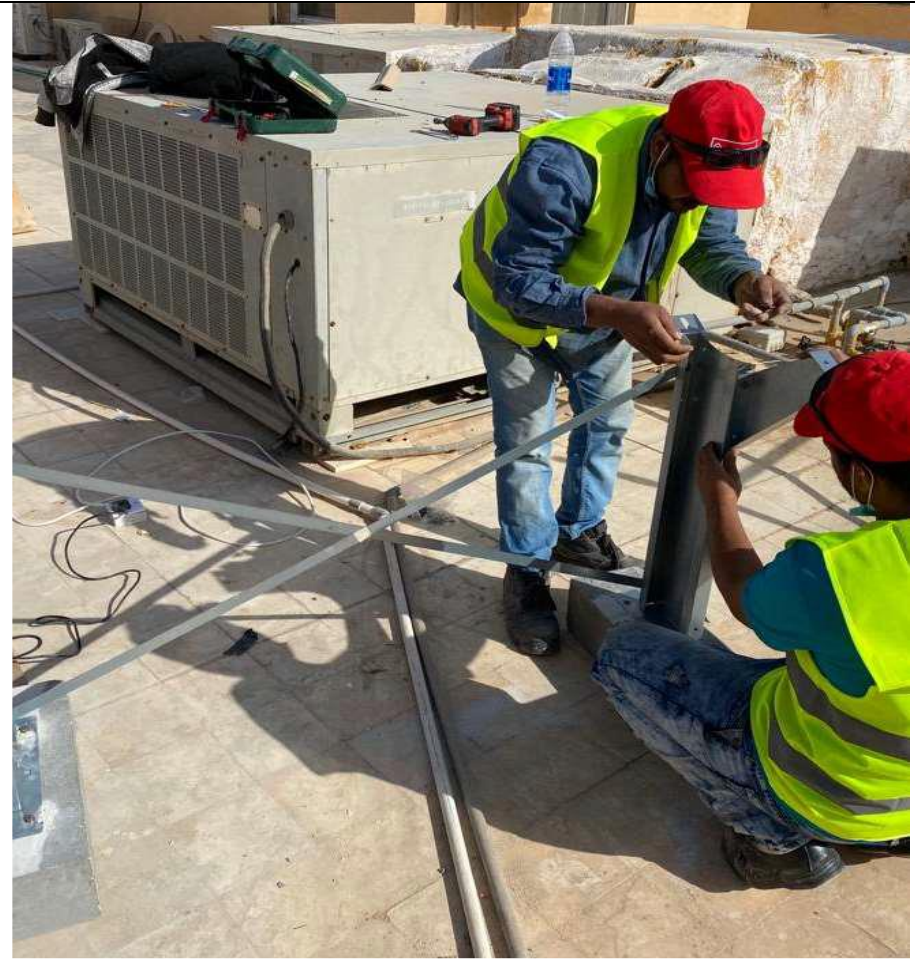
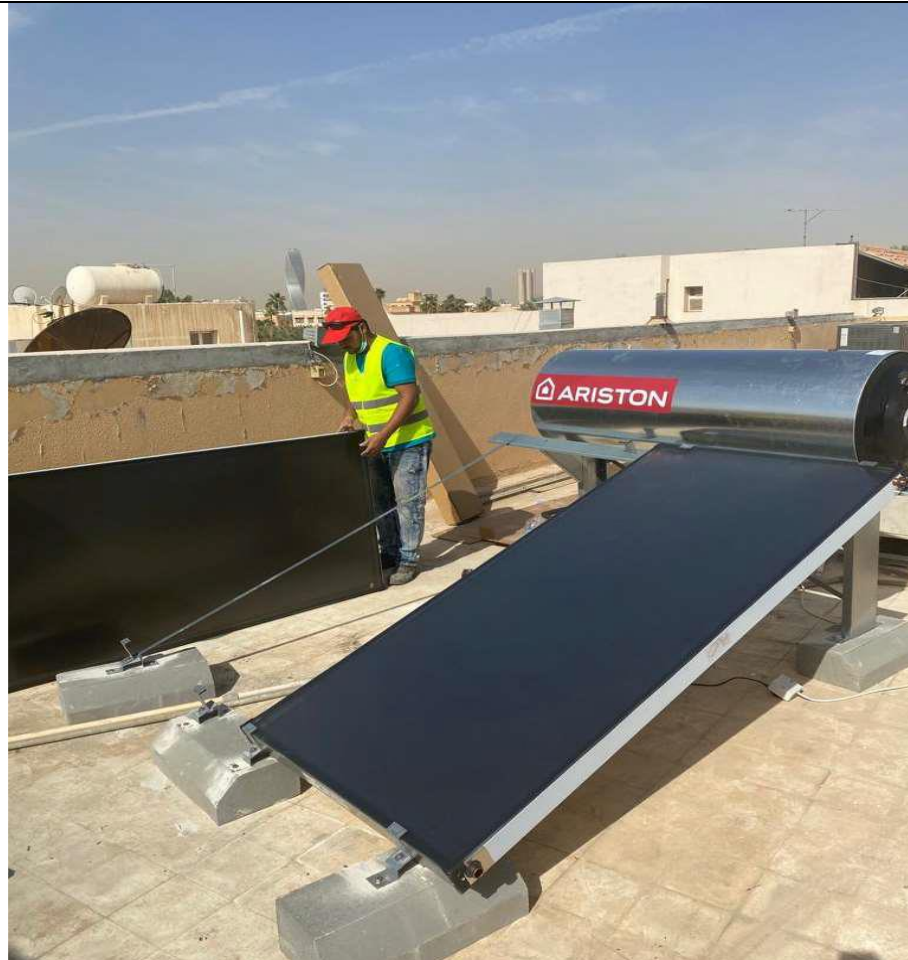
35kW On-Grid System



PROJECT 005

RIYADH VILLA

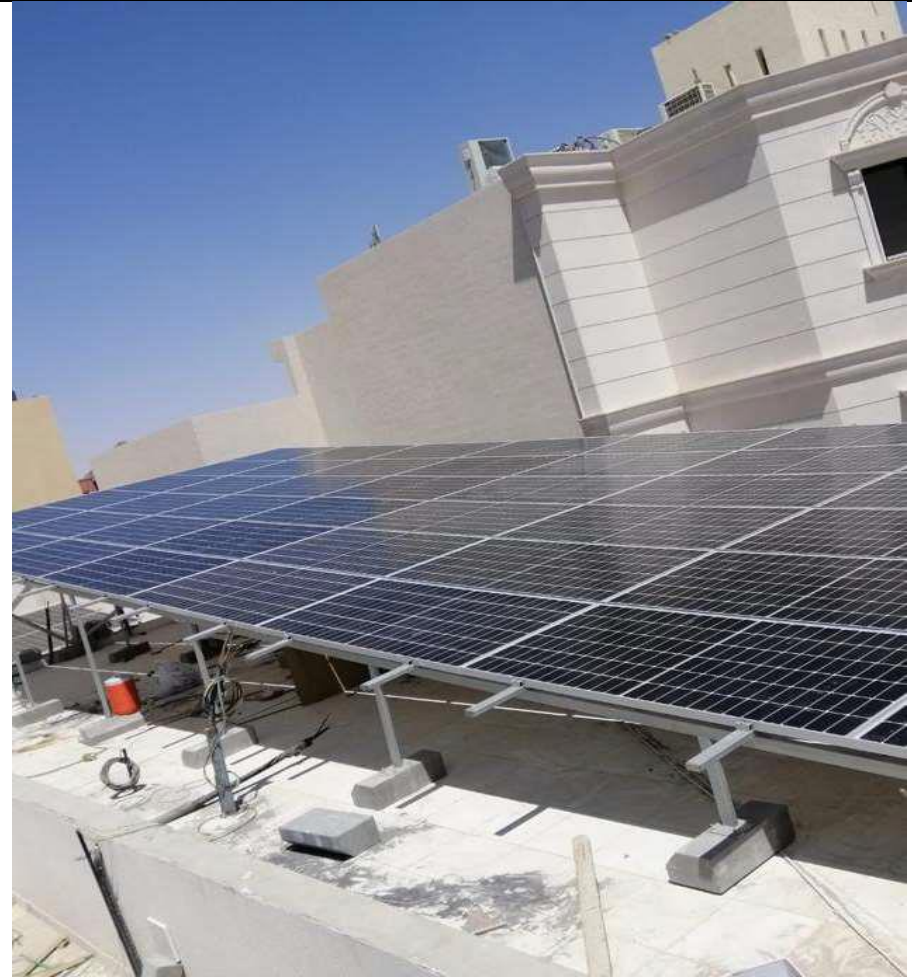
700 Liters of hot water system



PROJECT 006

RIYADH VILLA

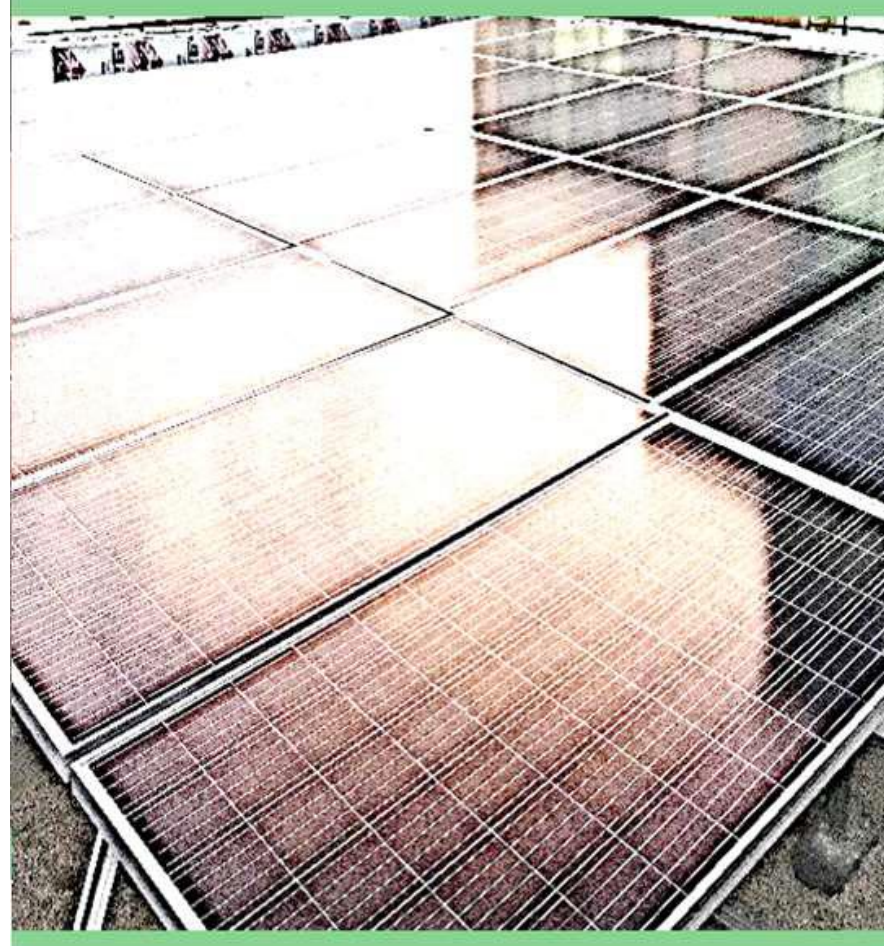
40kW On-Grid System



PROJECT 007

PRINCESS LATIFA

100KW On-Grid System



PROJECT 008

CAMEL CLUB

Installation of 130 pole with more than 550 cameras powered by Solar



PROJECT 009



PROJECT 010





Ghornata Branch



PROJECT 012



PROJECT 013





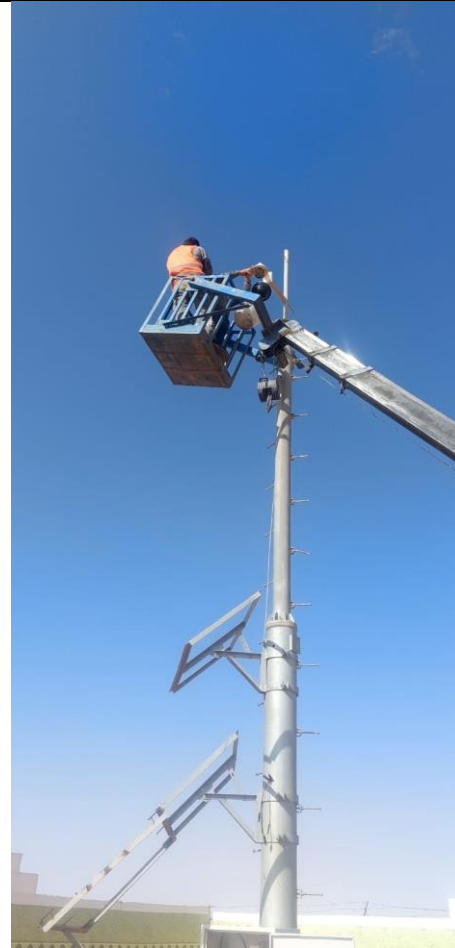
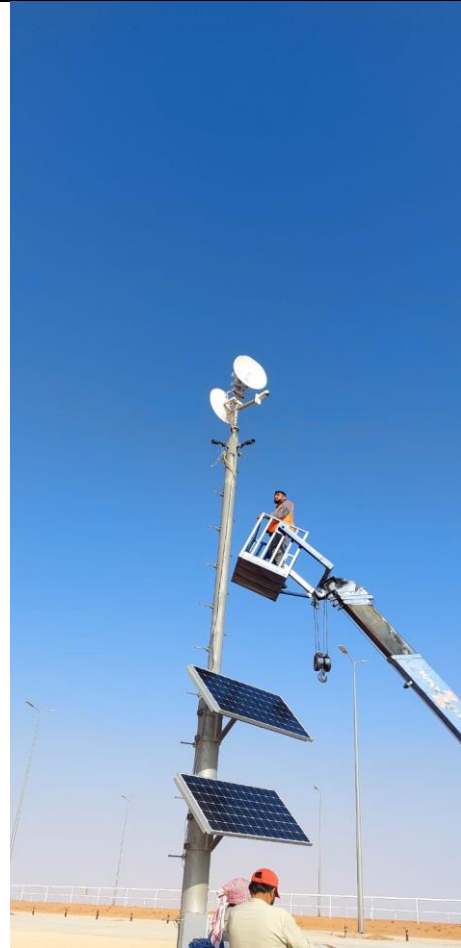
PROJECT 015



PROJECT 016



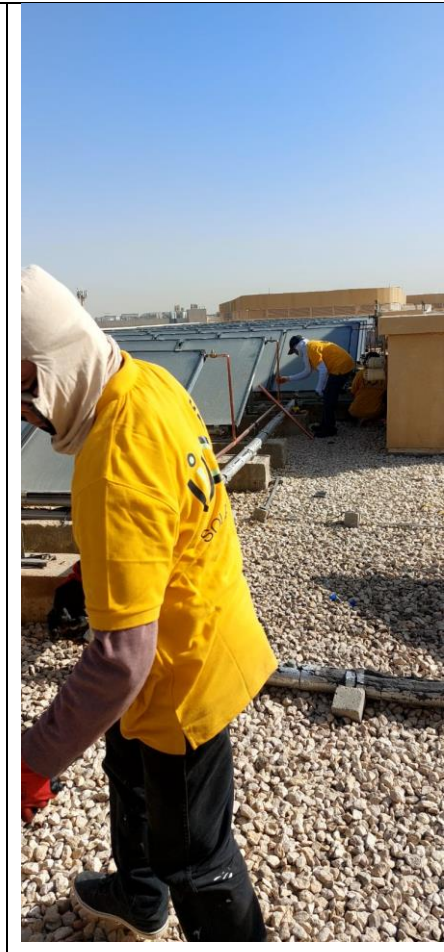
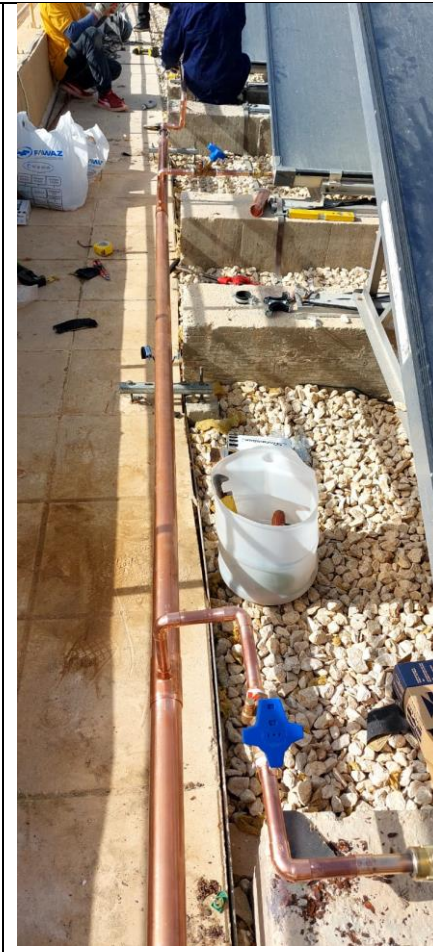
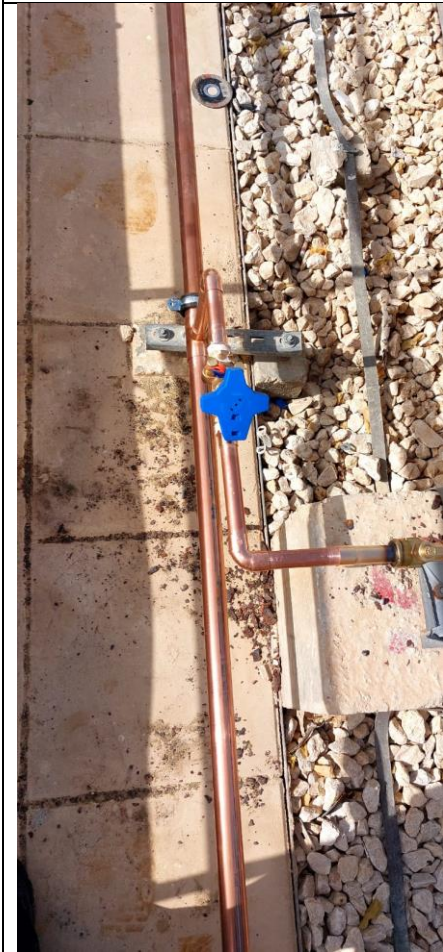
Nahdi Jamel



PROJECT 018

Riyadh Marriott Hotel

Remove the current SS tube of the solar water heater, and replace it with a copper tube.



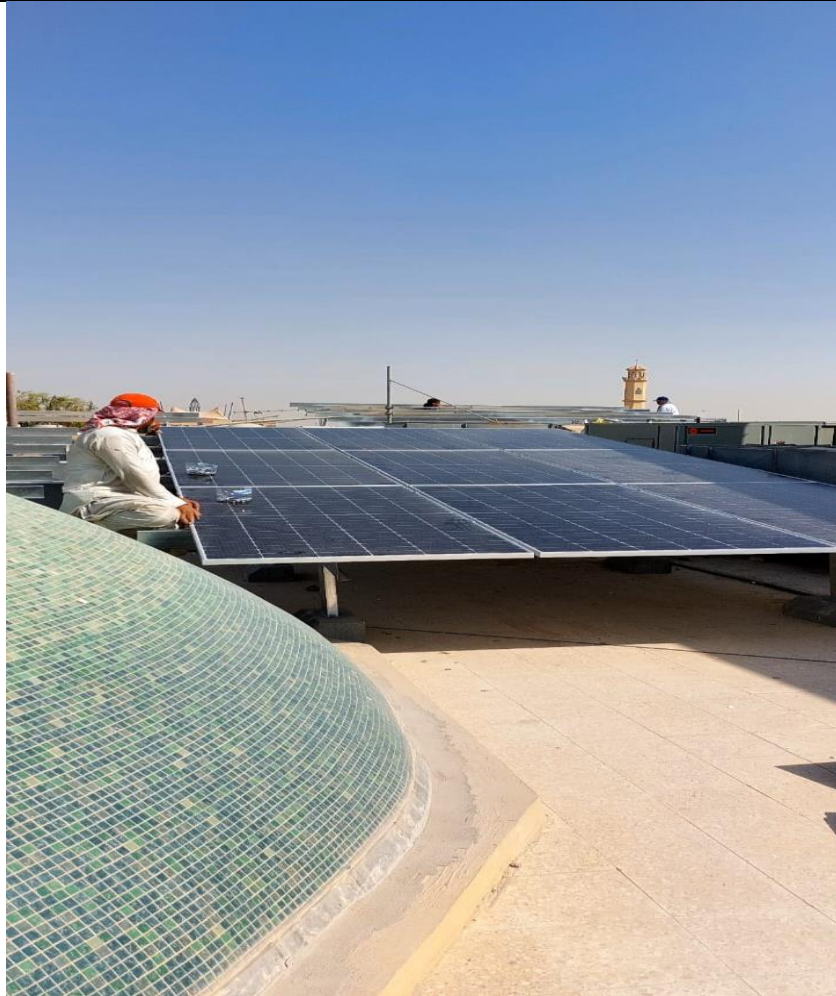
PROJECT 019

Riyadh Marriott Hotel

Remove the current SS tube of the solar water heater, and replace it with a copper tube



Kash Al Bahira Morooj



PROJECT 020

Jeddah Villa



PROJECT 021

Shagra Farm



PROJECT 022

AL Akaria Olaya



PROJECT 023



SOLAR

PANEL

Harvest the Sunshine

605W



JA SOLAR

JAM72D40 LB n-type Double Glass Bifacial Modules

Premium Cells

n-Bycium+ 16BB

26%
Up To
Cell Conversion Efficiency

MBB Half-Cell Technology

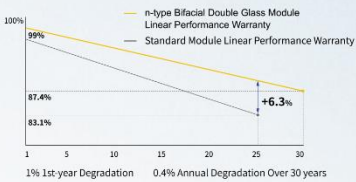
Premium Modules

Higher power generation better LCOE

Better Temperature Coefficient

n-type with very Lower LID

Better low irradiance response

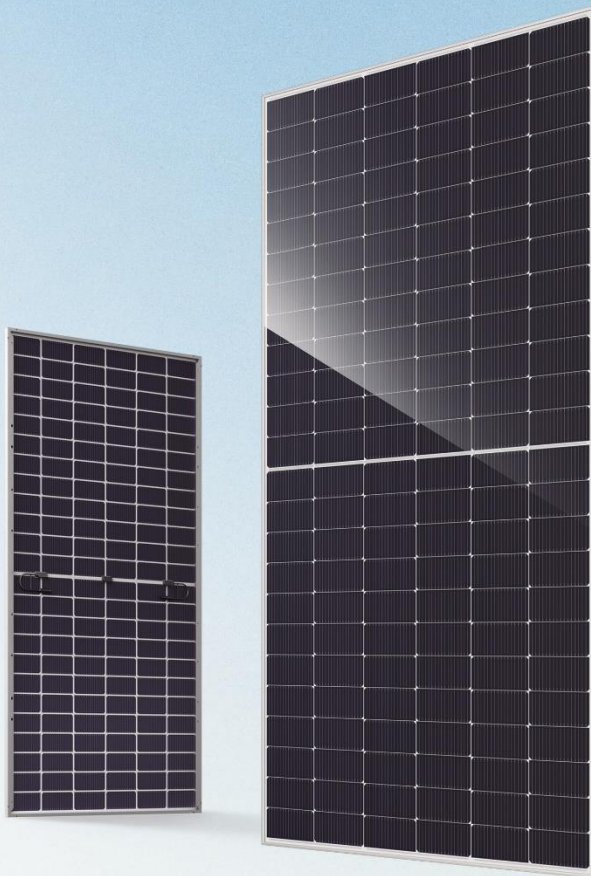


12-year product warranty

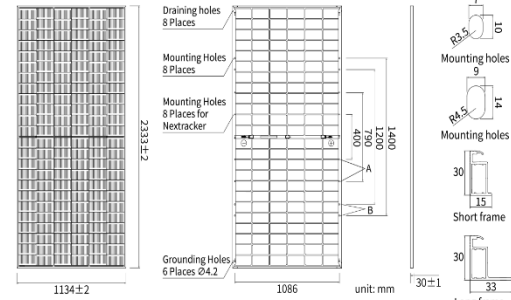
30-year linear power output warranty

Comprehensive Certificates

- IEC 61215, IEC 61730, UL 61215, UL 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems
- IEC 62941: 2019 Terrestrial photovoltaic (PV) modules - Quality system for PV module manufacturing



JAM72D40 LB n-type Double Glass Bifacial Modules



MECHANICAL PARAMETERS

Cell	Mono
Weight	32.5kg
Dimensions	2333±2mm×1134±2mm×30±1mm
Cable Cross Section Size	4mm ² (IEC), 12 AWG(UL)
No. of cells	144(6×24)
Junction Box	IP68, 3diodes
Connector	QC 4.10-35I/ MC4-EVO2A
Cable Length (Including Connector)	Portrait: 300mm(+)/400mm(-) Landscape: 1400mm(+)/1400mm(-)
Front Glass/Back Glass	2.0mm/2.0mm
Packaging Configuration	36pcs/Pallet, 720pcs/40HQ Container

Remark: customized frame color and cable length available upon request

ELECTRICAL PARAMETERS AT STC

TYPE	JAM72D40 580/LB	JAM72D40 585/LB	JAM72D40 590/LB	JAM72D40 595/LB	JAM72D40 600/LB	JAM72D40 605/LB
Rated Maximum Power(Pmax) [W]	580	585	590	595	600	605
Open Circuit Voltage (Voc) [V]	51.60	51.80	52.00	52.20	52.40	52.60
Maximum Power Voltage(Vmp) [V]	43.06	43.24	43.41	43.59	43.76	43.94
Short Circuit Current(Isc) [A]	14.23	14.29	14.35	14.42	14.48	14.53
Maximum Power Current(Imp) [A]	13.47	13.53	13.59	13.65	13.71	13.77
Module Efficiency [%]	21.9	22.1	22.3	22.5	22.7	22.9
Power Tolerance	0~+3%					
Temperature Coefficient of Isc(α_Isc)	+0.045%/°C					
Temperature Coefficient of Voc(β_Voc)	-0.250%/°C					
Temperature Coefficient of Pmax(γ_Pmp)	-0.290%/°C					
STC	Irradiance 1000W/m ² , cell temperature 25°C, AM1.5G					

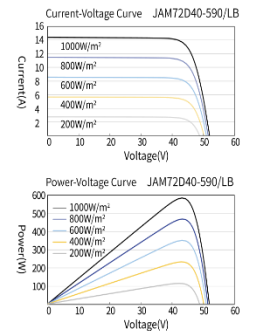
Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.

ELECTRICAL CHARACTERISTICS WITH 10% SOLAR IRRADIATION RATIO

TYPE	JAM72D40 580/LB	JAM72D40 585/LB	JAM72D40 590/LB	JAM72D40 595/LB	JAM72D40 600/LB	JAM72D40 605/LB
Rated Max Power(Pmax) [W]	626	632	637	643	648	653
Open Circuit Voltage(Voc) [V]	51.60	51.80	52.00	52.20	52.40	52.60
Max Power Voltage(Vmp) [V]	43.06	43.24	43.41	43.59	43.76	43.94
Short Circuit Current(Isc) [A]	15.36	15.43	15.50	15.57	15.64	15.69
Max Power Current(Imp) [A]	14.55	14.61	14.68	14.74	14.81	14.87
Irradiation Ratio (rear/front)	10%					

* For Nextacker installations, maximum static load please take compatibility approve letter between JA Solar and Nextacker for reference.
** Bifaciality=Pmax_rear/Rated Pmax_front

CHARACTERISTICS



OPERATING CONDITIONS

Maximum System Voltage	1500V DC
Operating Temperature	-40°C~+85°C
Maximum Series Fuse Rating	30A
Maximum Static Load, Front*	5400Pa(112 lb/ft ²)
Maximum Static Load, Back*	2400Pa(50 lb/ft ²)
NOCT	45±2°C
Bifaciality**	80%±10%
Safety Class	Class II
Fire Performance	UL Type 29/Class C



JA SOLAR

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Specifications subject to technical changes and tests. JA Solar reserves the right of final interpretation.

Version No.: Global-EN-20240423A

Harvest the Sunshine

565W



JA SOLAR

JAM72S30 MR p-type Monofacial Modules

Premium Cells

P-Percium+
11BB

24%
Up To

MBB Half-Cell
Technology

Cell Conversion
Efficiency

Premium Modules

Higher output power

Less shading and lower resistive loss

Lower LCOE

Better mechanical loading tolerance



12-year product warranty

25-year linear power output warranty

Comprehensive Certificates

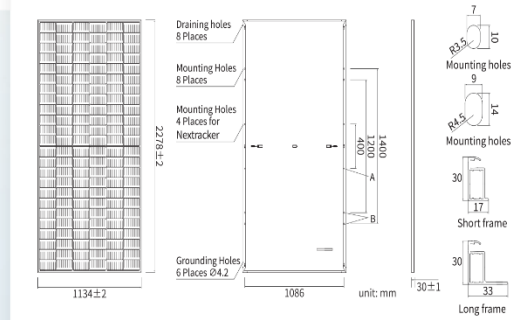
- IEC 61215, IEC 61730, UL 61215, UL 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems
- IEC 62941: 2019 Terrestrial photovoltaic (PV) modules - Quality system for PV module manufacturing



DEEP BLUE 3.0

JAM72S30 MR p-type Monofacial Modules

DEEP BLUE 3.0



MECHANICAL PARAMETERS

Cell	Mono
Weight	27.3kg
Dimensions	2278±2mm × 1134±2mm × 30±1mm
Cable Cross Section Size	4mm ² (IEC), 12 AWG(UL)
No. of cells	144(6×24)
Junction Box	IP68, 3diodes
Connector	QC 4.10-351/MC4-EVO2A
Cable Length (Including Connector)	Portrait: 300mm(+)/400mm(-) Landscape: 1300mm(+)/1300mm(-)
Front Glass	3.2mm
Packaging Configuration	36pcs/Pallet, 720pcs/40HQ Container

Remark: customized frame color and cable length available upon request

ELECTRICAL PARAMETERS AT STC

TYPE	JAM72S30 540/MR	JAM72S30 545/MR	JAM72S30 550/MR	JAM72S30 555/MR	JAM72S30 560/MR	JAM72S30 565/MR
Rated Maximum Power(Pmax) [W]	540	545	550	555	560	565
Open Circuit Voltage (Voc) [V]	49.60	49.75	49.90	50.02	50.15	50.28
Maximum Power Voltage(Vmp) [V]	41.64	41.80	41.96	42.11	42.27	42.42
Short Circuit Current(Isc) [A]	13.86	13.93	14.00	14.07	14.14	14.21
Maximum Power Current(Imp) [A]	12.97	13.04	13.11	13.18	13.25	13.32
Module Efficiency [%]	20.9	21.1	21.3	21.5	21.7	21.9
Power Tolerance	0→+3%					
Temperature Coefficient of Isc(α _{Isc})	+0.045%/°C					
Temperature Coefficient of Voc(β _{Voc})	-0.275%/°C					
Temperature Coefficient of Pmax(γ _{Pmp})	-0.350%/°C					
STC	Irradiance 1000W/m ² , cell temperature 25°C, AM1.5G					

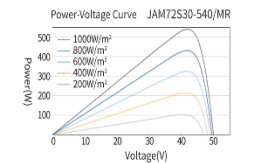
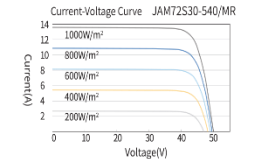
Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.

ELECTRICAL PARAMETERS AT NOCT

TYPE	JAM72S30 540/MR	JAM72S30 545/MR	JAM72S30 550/MR	JAM72S30 555/MR	JAM72S30 560/MR	JAM72S30 565/MR
Rated Max Power(Pmax) [W]	408	412	416	420	424	428
Open Circuit Voltage(Voc) [V]	46.43	46.55	46.68	46.85	46.99	47.15
Max Power Voltage(Vmp) [V]	38.99	39.20	39.43	39.66	39.85	40.04
Short Circuit Current(Isc) [A]	11.09	11.13	11.17	11.21	11.26	11.31
Max Power Current(Imp) [A]	10.47	10.51	10.55	10.59	10.64	10.69
NOCT	Irradiance 800W/m ² , ambient temperature 20°C, wind speed 1m/s, AM1.5G					

* For Nextcracker installations, maximum static load please take compatibility approve letter between JA Solar and Nextcracker for reference.

CHARACTERISTICS



OPERATING CONDITIONS

Maximum System Voltage	1000V/1500V DC
Operating Temperature	-40°C→+85°C
Maximum Series Fuse Rating	25A
Maximum Static Load, Front*	5400Pa(112 lb/ft ²)
Maximum Static Load, Back*	2400Pa(50 lb/ft ²)
NOCT	45±2°C
Safety Class	Class II
Fire Performance	UL Type 1 / Class C

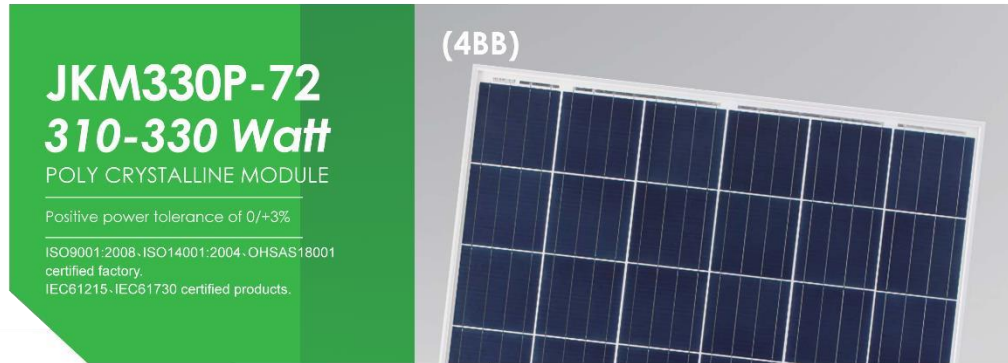
JA SOLAR

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Version No. : Global-EN-20240417A



JKM330P-72
310-330 Watt
POLY CRYSTALLINE MODULE

Positive power tolerance of 0/+3%

ISO9001:2008-ISO14001:2004-OHSAS18001 certified factory.
IEC61215-IEC61730 certified products.

(4BB)



KEY FEATURES



4 Busbar Solar Cell:

4 busbar solar cell adopts new technology to improve the efficiency of modules, offers a better aesthetic appearance, making it perfect for rooftop installation.



High Efficiency:

High module conversion efficiency (up to 17.01%), through innovative manufacturing technology.



Low-light Performance:

Advanced glass and solar cell surface texturing allow for excellent performance in low-light environments.



Severe Weather Resilience:

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).

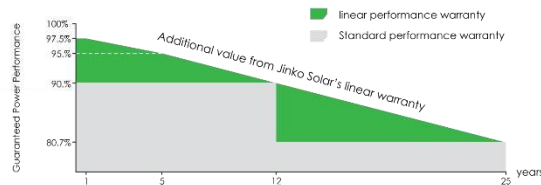


Durability against extreme environmental conditions:

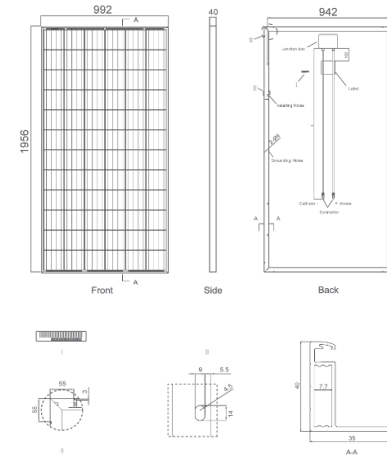
High salt mist and ammonia resistance certified by TÜV NORD.

LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty • 25 Year Linear Power Warranty



Engineering Drawings

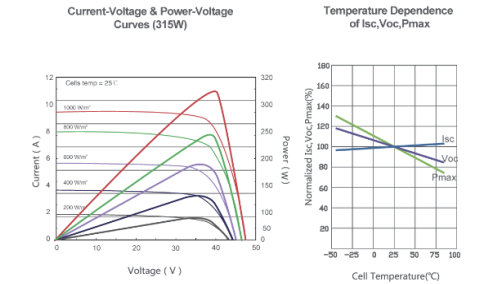


Packaging Configuration

(Two pallet=One stack)

25pcs/pallet, 50pcs/stack, 600 pcs/40'HQ Container

Electrical Performance & Temperature Dependence



Mechanical Characteristics

Cell Type	Poly-crystalline	156×156mm (6 inch)
No. of cells	72	(6×12)
Dimensions	1956×992×40mm	(77.01×39.05×1.57 inch)
Weight	26.5 kg	(58.4 lbs.)
Front Glass	4.0mm, High Transmission, Low Iron, Tempered Glass	
Frame	Anodized Aluminium Alloy	
Junction Box	IP67 Rated	
Output Cables	TUV 1×4.0mm², Length: 900mm or Customized Length	

SPECIFICATIONS

Module Type	JKM310P		JKM315P		JKM320P		JKM325P		JKM330P	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	310Wp	230Wp	315Wp	233Wp	320Wp	237Wp	325Wp	241Wp	330Wp	245Wp
Maximum Power Voltage (Vmp)	37.0V	34.4V	37.2V	34.7V	37.4V	34.7V	37.6V	35.0V	37.8V	35.3V
Maximum Power Current (Imp)	8.38A	6.68A	8.48A	6.71A	8.56A	6.83A	8.66A	6.89A	8.74A	6.94A
Open-circuit Voltage (Voc)	45.9V	42.7V	46.2V	42.8V	46.4V	43.0V	46.7V	43.3V	46.9V	43.6V
Short-circuit Current (Isc)	8.96A	7.26A	9.01A	7.28A	9.05A	7.35A	9.10A	7.40A	9.14A	7.45A
Module Efficiency STC (%)	15.98%		16.23%		16.49%		16.75%		17.01%	
Operating Temperature(°C)					-40°C~+85°C					
Maximum system voltage					1000VDC (IEC)					
Maximum series fuse rating					15A					
Power tolerance					0~+3%					
Temperature coefficients of Pmax					-0.41%/°C					
Temperature coefficients of Voc					-0.31%/°C					
Temperature coefficients of Isc					0.06%/°C					
Nominal operating cell temperature (NOCT)					45±2°C					

STC: ☀ Irradiance 1000W/m² 📱 Cell Temperature 25°C ☁ AM=1.5

NOCT: ☀ Irradiance 800W/m² 📱 Ambient Temperature 20°C ☁ AM=1.5 🌬 Wind Speed 1m/s

* Power measurement tolerance: ± 3%

SOLAR INVERTER



Smart String Inverter

SUN2000-50KTL-M0



Smart

- 12 strings intelligent monitoring and fast trouble-shooting
- Power Line Communication (PLC) supported
- Smart I-V Curve Diagnosis supported

Efficient

- Max. efficiency 98.7%
- European efficiency 98.5%
- 6 MPPT per unit, effectively reducing string mismatch

Safe

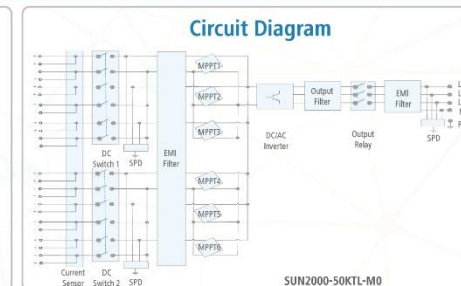
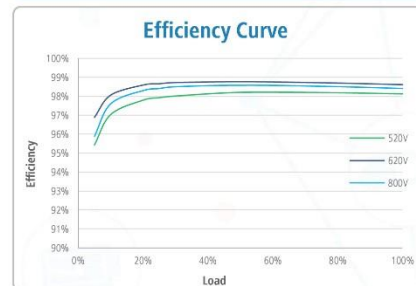
- DC switch integrated, safe and convenient for maintenance
- Residual Current Monitoring Unit (RCMU) integrated
- Fuse free design

Reliable

- Natural cooling technology
- Protection degree of IP65
- Type II surge arresters for both DC and AC

Smart String Inverter (SUN2000-50KTL-M0)

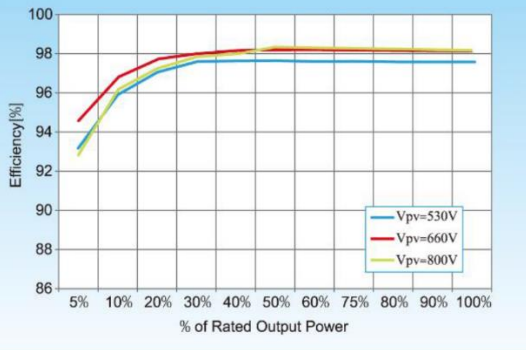
Technical Specifications	SUN2000-50KTL-M0
Efficiency	
Max. Efficiency	98.7%
European Efficiency	98.5%
Input	
Max. Input Voltage	1,100 V
Max. Current per MPPT	22 A
Max. Short Circuit Current per MPPT	30 A
Start Voltage	200 V
MPPT Operating Voltage Range	200 V ~ 1,000 V
Rated Input Voltage	600 V
Number of Inputs	12
Number of MPP Trackers	6
Output	
Rated AC Active Power	50,000 W
Max. AC Apparent Power	55,000 VA
Max. AC Active Power (cosφ=1)	55,000 W
Rated Output Voltage	220 V / 380 V, 230 V / 400 V, default 3W + N + PE; 3W + PE optional in settings
Rated AC Grid Frequency	50 Hz / 60 Hz
Rated Output Current	76 A @380 V / 72.2 A @400 V
Max. Output Current	83.6 A @380 V / 79.4 A @400 V
Adjustable Power Factor Range	0.8 LG ... 0.8 LD
Max. Total Harmonic Distortion	< 3%
Protection	
Input-side Disconnection Device	Yes
Anti-islanding Protection	Yes
AC Overcurrent Protection	Yes
DC Reverse-polarity Protection	Yes
PV-array String Fault Monitoring	Yes
DC Surge Arrester	Type II
AC Surge Arrester	Type II
DC Insulation Resistance Detection	Yes
Residual Current Monitoring Unit	Yes
Communication	
Display	LED Indicators, Bluetooth + APP
RS485	Yes
USB	Yes
Power Line Communication (PLC)	Yes
General	
Dimensions (W x H x D)	1,075 x 555 x 300 mm (42.3 x 21.9 x 11.8 inch)
Weight (with mounting plate)	74 kg (163.1 lb.)
Operating Temperature Range	-25°C ~ 60°C (-13°F ~ 140°F)
Cooling Method	Natural Convection
Max. Operating Altitude	4,000 m (13,123 ft.)
Relative Humidity	0 ~ 100%
DC Connector	Amphenol Helios H4
AC Connector	Cable Gland + OT Terminal
Protection Degree	IP65
Topology	Transformerless
Standard Compliance (more available upon request)	
Certificate	EN 62109-1/-2, IEC 62109-1/-2, EN 50530, IEC 62116, IEC 62910, IEC 60068, IEC 61683
Grid Code	IEC 61727, G5913, ASINZS 4777.2



The text and figures reflect the current technical data at the time of printing. Subject to technical changes. Errors and omissions excepted. Huawei assumes no liability for mistakes or printing errors. For more information, please visit solar.huawei.com, version No. 01/2018 (01/17)

3-Phase String Inverter

50000TL/60000TL/70000TL



Efficiency Curve

High-yield

- Max 98.6% efficiency
- Real time precise MPPT algorithm for max harvest
- Wide input voltage operation range from 250V to 960V

All in one, flexible and economical system solution

- DC switch
- DC surge protection device
- AC surge protection device (option)
- Built-in PV Combiner
- Power management unit
- Optimum selection for big PV plants, commercial buildings...

Low maintenance cost

- Detachable cover for easy installation
- Rust-free aluminum covers
- Flexible monitoring solution
- Multi function relay can be configured to show various inverter information

Intelligent grid management

- ZVRT support
- Reactive power adjustable
- Self power reducer when over frequency
- Remote active/reactive power limit control

50000TL/60000TL/70000TL

Technical Data

	50000TL	60000TL	70000TL
Input(DC)			
Max.Input power	55000W	66000W	77000W
Max DC power for single MPPT	22000W(500V-800V)	22000W(530V-800V)	26000W(660V-800V)
Number of independent MPPT	3		
Number of DC inputs	4/3/3	4/4/4	
Max. input voltage	1000V		
Start-up input voltage	350V		
Rated input voltage	600V	600V	700V
MPPT voltage range	250V-960V		
Full load DC voltage range	500V-800V	530V-800V	660V-800V
Max. input MPPT current	40A/30A/30A	40A/40A/40A	40A/40A/40A
Max. input current per string	12A		
Output(AC)			
Rated power(@230V,50Hz)	50000W	60000W	70000W
Max. AC power	50000VA	60000VA	70000VA
Max. output current	80A	90A	90A
Nominal Grid Voltage	3/N/PE,3/PE,230/400Vac	3/N/PE,3/PE,230/400Vac	3/N/PE, 277/480Vac or 3/PE, 277/480Vac
Grid Voltage Range	180Vac-270Vac	180Vac-270Vac	245Vac-305Vac
Nominal Frequency	50/60Hz		
Grid frequency range	47~53 / 57~63Hz (According to local standard)		
Active power adjustable range	0~100%		
THDi	<3%		
Power factor	1(Adjustable +/-0.8)		
Performance			
Max efficiency	98.5%	98.6%	98.6%
European weighted efficiency	98.3%	98.4%	98.4%
Self-consumption at night	<1W		
Feed-in start power	45W		
MPPT efficiency	>99.9%		
Protection			
DC reverse polarity protection	Yes		
DC switch	Yes		
Protection class /overvoltage category	I/III		
Input/output SPD(II)	Optional		
Safety protection	Anti islanding, RCMU, Ground fault monitoring		
Certification	IEC 62116,IEC 61727,IEC 61683,IEC 60068(1,2,14,30),IEC 62109-1/2 CE,CGC,ZVRT,AS4777,AS3100,VDE4105,C10-C11,G59(more available on request)		
ARPC	Anti Reverse Power Controller(optional)		
Communication			
Power management unit	According to certification and request		
Standard Communication Mode	RS485, Wifi (optional), SD card, Multi-function relay		
Operation Data Storage	25 years		
General data			
Ambient temperature range	-25°C...+60°C		
Topology	Transformerless		
Degree of protection	IP65		
Allowable relative humidity range	0...100% no condensing		
Max.operating altitude	4000m		
Noise	<60dB		
Weight	68kg	70kg	
Cooling	Fan		
Dimension	737*713*297mm		
Display	LCD display		
Warranty	5 years		

Product Range



Key Facts



Long Battery Life
Design life 18 years and up to 6000 charge/discharge cycle (20%DOD)



Long Shelf Life
Storable for two years without need of refresh charging



Better Performance
Charges two times faster than alternatives



Full Recovery
Can be discharged 100% and charged in daily basis



Guarantee
3 years (Terms & Conditions apply)



Recyclable
up to 99%



Cleaner
No Cadmium or Antimony and less acid



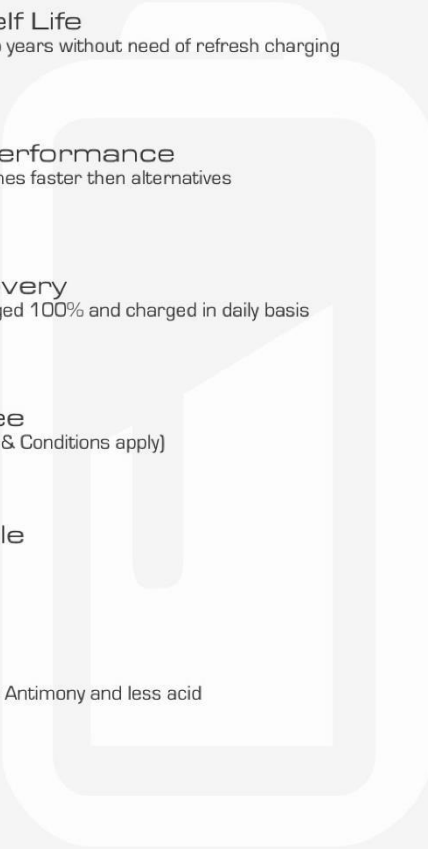
Safer
No leakage



Easy to transport
Non-hazardous for any kind of transportation



Works on extreme temperatures
From -40°C up to +65°C



LiFePO4 Battery

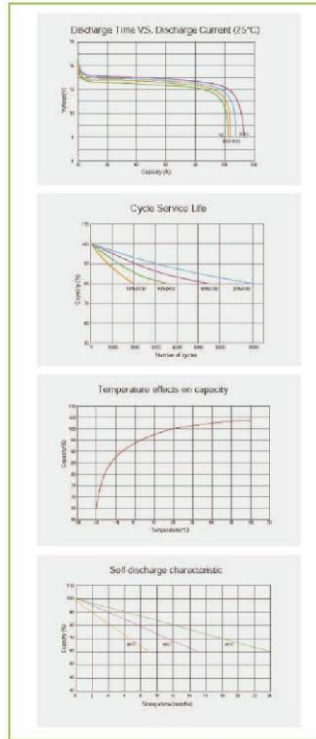


Introduction:

- The lithium iron phosphate (LiFePO₄) is a type of rechargeable battery based on the original lithium ion chemistry, created by the use of iron (FE) as a cathode material. LiFePO₄ cells have higher discharge current, do not explode under extreme conditions, and weigh less but have lower voltage and energy density than normal Li-ion cells.

Specification

ITEM	SPECIFICATION
Nominal Volt Range	12V / 24V / 48V / ...
Capacity Range in Ah	3Ah - 300Ah
Container Material	ABS / PVC / Iron / ...
Nominal Cell Volt	3.2V
Cell Capacity Range	1Ah-120Ah
Cell Model	18650 / 26650 / 32850 / 50Ah / ...
Battery Cell Shape	Cylindrical / Prismatic
Limited Charging Voltage	3.65V/cell
Max Charging Current	1C
Recommendation Charging Current	0.5C
Charging Method	CC/CA
Discharge Cut-off Volt	2.75V/cell
Max Discharging Current	2C
Recommendation Discharging Current	0.5C
Operating Temp. Range	-20°C - 80°C
Storage Environment	-20°C-45°C in three months 25±3°C over three months 26-27 Humidity : 65±20%RH
DOD Cycles up to	2000 @100% DOD 3500 @80% 5500 @50% DOD 8000 @30% DOD
Design Lifespan(Year)	15-20 Year
BMS Function	Over-charge protection Over-discharge protection Over-current protection Short-circuit protection Charging control Balance Current



Performanch

Product List

MODEL	VOLT	CAPACITY	APPROX. WEI GHT	DIMENSION BOX (L×W×H×TH)	MATERIAL	TERMINAL
SL12-3	12V	3Ah	38.4WH	90x70x101mm	ABS/PVC/Iron	Optional
SL12-4	12V	4Ah	51.2WH	90x70x101mm	ABS/PVC/Iron	Optional
SL12-5	12V	5Ah	64.0WH	90x70x101mm	ABS/PVC/Iron	Optional
SL12-7.5	12V	7.5Ah	96.0WH	151x65x94mm	ABS/PVC/Iron	Optional
SL12-10	12V	10Ah	128.0WH	151x65x94mm	ABS/PVC/Iron	Optional
SL12-12	12V	12Ah	153.6WH	151x98x95mm	ABS/PVC/Iron	Optional
SL12-15	12V	15Ah	192.0WH	151x98x95mm	ABS/PVC/Iron	Optional
SL12-16	12V	16Ah	204.8WH	181x77x167mm	ABS/PVC/Iron	Optional
SL12-20	12V	20Ah	256WH	181x77x167mm	ABS/PVC/Iron	Optional
SL12-32	12V	32Ah	409.6WH	195x130x155mm	ABS/PVC/Iron	Optional
SL12-33	12V	33Ah	422.4WH	195x130x155mm	ABS/PVC/Iron	Optional
SL12-36	12V	36Ah	460.8WH	195x130x155mm	ABS/PVC/Iron	Optional
SL12-40	12V	40Ah	512.0WH	195x130x175mm	ABS/PVC/Iron	Optional
SL12-55	12V	55Ah	704.0WH	239x132x205mm	ABS/PVC/Iron	Optional
SL12-60	12V	60Ah	768.0WH	239x132x205mm	ABS/PVC/Iron	Optional
SL12-100	12V	100Ah	1280.0WH	329*172*214*243mm	ABS/PVC/Iron	Optional
SL12-120	12V	120Ah	1536.0WH	406*174*207*232mm	ABS/PVC/Iron	Optional
SL12-150	12V	150Ah	1920.0WH	483*170*240*240mm	ABS/PVC/Iron	Optional
SL12-200	12V	200Ah	2560.0WH	522*240*219*244mm	ABS/PVC/Iron	Optional
SL12-250	12V	250Ah	3200.0WH	520*269*220*249mm	ABS/PVC/Iron	Optional
SL12-300	12V	300Ah	3840.0WH	520*269*220*249mm	ABS/PVC/Iron	Optional
SL24-10	24V	10Ah	256.0WH	CUSTOM	ABS/PVC/Iron	Optional
SL24-20	24V	20Ah	512.0WH	CUSTOM	ABS/PVC/Iron	Optional
SL24-30	24V	30Ah	768.0WH	CUSTOM	ABS/PVC/Iron	Optional
SL24-40	24V	40Ah	1024.0WH	CUSTOM	ABS/PVC/Iron	Optional
SL24-50	24V	50Ah	1280.0WH	CUSTOM	ABS/PVC/Iron	Optional
SL24-60	24V	60Ah	1536.0WH	CUSTOM	ABS/PVC/Iron	Optional
SL24-80	24V	80Ah	2048.0WH	CUSTOM	ABS/PVC/Iron	Optional
SL24-100	24V	100Ah	2560.0WH	CUSTOM	ABS/PVC/Iron	Optional
SL48-10	48V	10Ah	512.0WH	CUSTOM	ABS/PVC/Iron	Optional
SL48-20	48V	20Ah	1024.0WH	CUSTOM	ABS/PVC/Iron	Optional
SL48-30	48V	30Ah	1536.0WH	CUSTOM	ABS/PVC/Iron	Optional
SL48-40	48V	40Ah	2048.0WH	CUSTOM	ABS/PVC/Iron	Optional
SL48-50	48V	50Ah	2560.0WH	CUSTOM	ABS/PVC/Iron	Optional
SL48-60	48V	60Ah	3072.0WH	CUSTOM	ABS/PVC/Iron	Optional
SL48-80	48V	80Ah	4096.0WH	CUSTOM	ABS/PVC/Iron	Optional
SL48-100	48V	100Ah	5120.0WH	CUSTOM	ABS/PVC/Iron	Optional

PWM controller

Solar Inverter controller

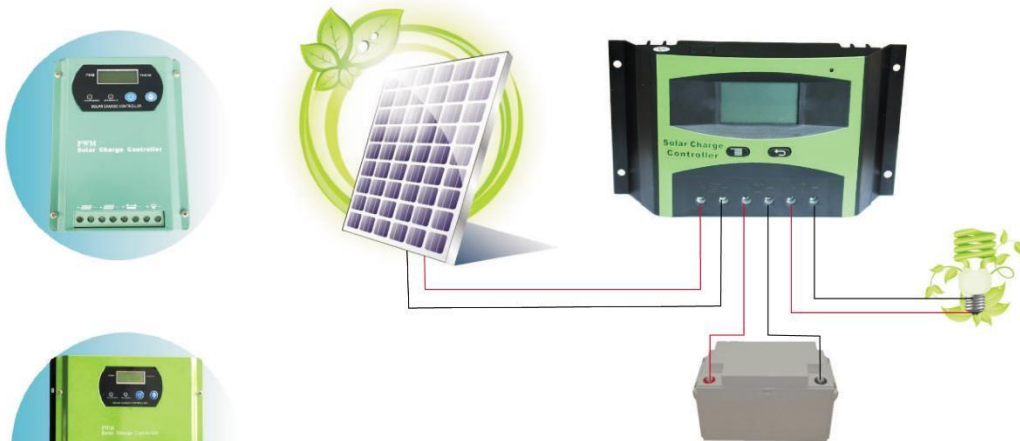
Feature:

- 10A 20A 30A 50A 60A solar charge controller
- Vivid LCD graphic symbols
- Simple button operation
- Automatic identification of system voltage level
- Intelligent PWM charging mode
- Adjustable charge-discharge protection
- Automatic temperature compensation
- Settable operation mode of load
- Battery reverse-discharge protection
- Battery low voltage disconnection(LVD)
- Battery reverse connection protection Over current protection
- USB output

Introduction:

This intelligent, multi-purpose solar charge and discharge controller has a very friendly interface of fixed LCD display. Various control parameters can be flexibly set, fully meet your various application requirements.

Solar System Connection



LCD Display Inframatin



LCD display



12V / 24V Auto



PWM



Simple button operation



Protections



USB Output


 Small Size
Light Weight

 More Accurate
More Intelligent

Specification

MODEL		S-PWM				
S2460	System voltage	12V/24V		48V		
	Max input voltage	25V	50V	100V		
	Self-consumption	≤12mA				
	Max charge current	40A	50A	60A	50A	60A
	Max discharge current	40A	50A	60A	50A	60A
	LVD	11.0V/22V			44V	
	LVR	12.6V	ADJ	11V...13.5V	50.4V	ADJ 11V...54V
		25.2V	ADJ	11V...27V		
	Float voltage	13.8V	ADJ	13V...15V	55.2V	ADJ 13V...60V
		27.6V	ADJ	13V...30V		
	Boost charging	1PCS Battery voltage less than 12v start boost charging 2 hours				
	Battery Over Voltage Protection	16.5V/33V			66V	
	Charging mode	PWM				
	Temperature Compensation	-24mV/C* for 12system;			-96mV/C* for 48system;	
		-48mV/C* for 24system;				
	Working temperature	-20℃~ 50℃				
	Terminal scale	14-6AWG				
	Waterproof grade	IP32				
Size	220*128*44mm					
Net weight	480g					
Carton size	470*434*305mm					
PCS/CTN	24PCS					
S96100	System voltage	96V		96V		
	Max input voltage	200V				
	Self-consumption	≤12mA				
	Max charge current	50A		100A		
	Max discharge current	50A				
	LVD	88V				
	LVR	100.8V			ADJ 11V...108V	
		108V				
	Boost charging	1PCS Battery voltage less than 12v start boost charging 2 hours				
	Battery Over Voltage Protection	112V				
	Charging mode	PWM				
	Temperature Compensation	-4mV/C*/2V				
	Working temperature	-20℃~ 50℃				
	Terminal scale	14-6AWG				
	Waterproof grade	IP32				
Size	150*135*63mm		250*200*85mm			
Net weight	1.15kg					
Carton size	150*135*63mm					
PCS/CTN	1PCS					



50A/60A





GROUND MOUNTING

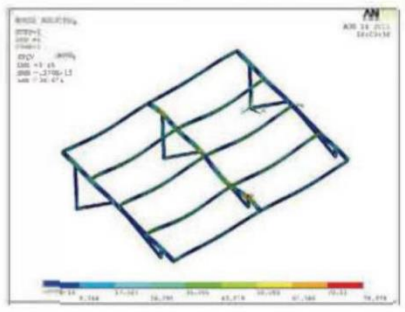


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... 01 Reasonable design and solution

All the solution will be designed based on strict strength calculation.



Rails

R1



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
R1-2560	Al 6005-T5	2560mm	2690 G	Anodized
R1-3405	Al 6005-T5	3405mm	3580 G	Anodized
R1-4200	Al 6005-T5	4200mm	4410 G	Anodized
R1	Al 6005-T5	Customized	-	Anodized

R2



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
R2-2560	Al 6005-T5	2560mm	2230 G	Anodized
R2-3405	Al 6005-T5	3405mm	2960 G	Anodized
R2-4200	Al 6005-T5	4200mm	3650 G	Anodized
R2	Al 6005-T5	Customized	-	Anodized

R4



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
R4-2560	Al 6005-T5	2560mm	3280 G	Anodized
R4-3405	Al 6005-T5	3405mm	4360 G	Anodized
R4-4200	Al 6005-T5	4200mm	5380 G	Anodized
R4	Al 6005-T5	Customized	-	Anodized

R6



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
R6-2560	Al 6005-T5	2560mm	2480 G	Anodized
R6-3405	Al 6005-T5	3405mm	3300 G	Anodized
R6-4200	Al 6005-T5	4200mm	4700 G	Anodized
R6	Al 6005-T5	Customized	-	Anodized

R-SP



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
R-SP	Al 6005-T5	190mm	105 G	Anodized

Framed panel clamps

IC



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
IC-35	Al 6005-T5	35mm	58.0 G	Anodized
IC-40/42	Al 6005-T5	40/42mm	59.6 G	Anodized
IC-45/46	Al 6005-T5	45/46mm	62.0 G	Anodized
IC-50	Al 6005-T5	50mm	62.8 G	Anodized

EC



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
EC-35	Al 6005-T5	35mm	50.4 G	Anodized
EC-40	Al 6005-T5	40mm	52.8 G	Anodized
EC-42	Al 6005-T5	42mm	54.4 G	Anodized
EC-45	Al 6005-T5	45mm	55.0 G	Anodized
EC-46	Al 6005-T5	46mm	55.1 G	Anodized
EC-50	Al 6005-T5	50mm	56.8 G	Anodized

IC (C)



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
IC(C)-35	Al 6005-T5	35mm	53.8 G	Anodized
IC(C)-40	Al 6005-T5	40mm	55.6 G	Anodized
IC(C)-45	Al 6005-T5	45mm	57.0 G	Anodized
IC(C)-50	Al 6005-T5	50mm	58.6 G	Anodized

EC (C)



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
EC(C)-35	Al 6005-T5	35mm	50.6 G	Anodized
EC(C)-40	Al 6005-T5	40mm	52.5 G	Anodized
EC(C)-45	Al 6005-T5	45mm	56.2 G	Anodized
EC(C)-50	Al 6005-T5	50mm	59.4 G	Anodized

AE



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
AE	Al 6005-T5	35-50mm	65.0 G	Anodized

Thin film solar clamps

IC-Type1



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
IC-Type1	Al 6005-T5	For Thin Film Panel	101.2 G	Anodized

EC-Type1



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
EC-Type1	Al 6005-T5	For Thin Film Panel	84.0 G	Anodized

IC-Type3



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
IC-Type3	Al 6005-T5	For Thin Film Panel (No Bolt, No Nut)	79.5G	Anodized

EC-Type3



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
EC-Type3	Al 6005-T5	For Thin Film Panel (No Bolt, No Nut)	55G	Anodized

Grounding Components

GW



ITEM NO.	Description	Material	WEIGHT	SURFACE
GW	Grounding Washer	SUS 304	3.6 G	Clean

GL



ITEM NO.	Description	Material	WEIGHT	SURFACE
GL	Grounding Lug	Al6005-T5&SUS304	36.6 G	Clean

BJ



ITEM NO.	Description	Material	WEIGHT	SURFACE
BJ	Bonding Jumper	Copper&Steel	75.8 G	Clean

Cable Clips

CC1



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
CC1	SUS304	1~2 cables	2.5G	Clean

CC2

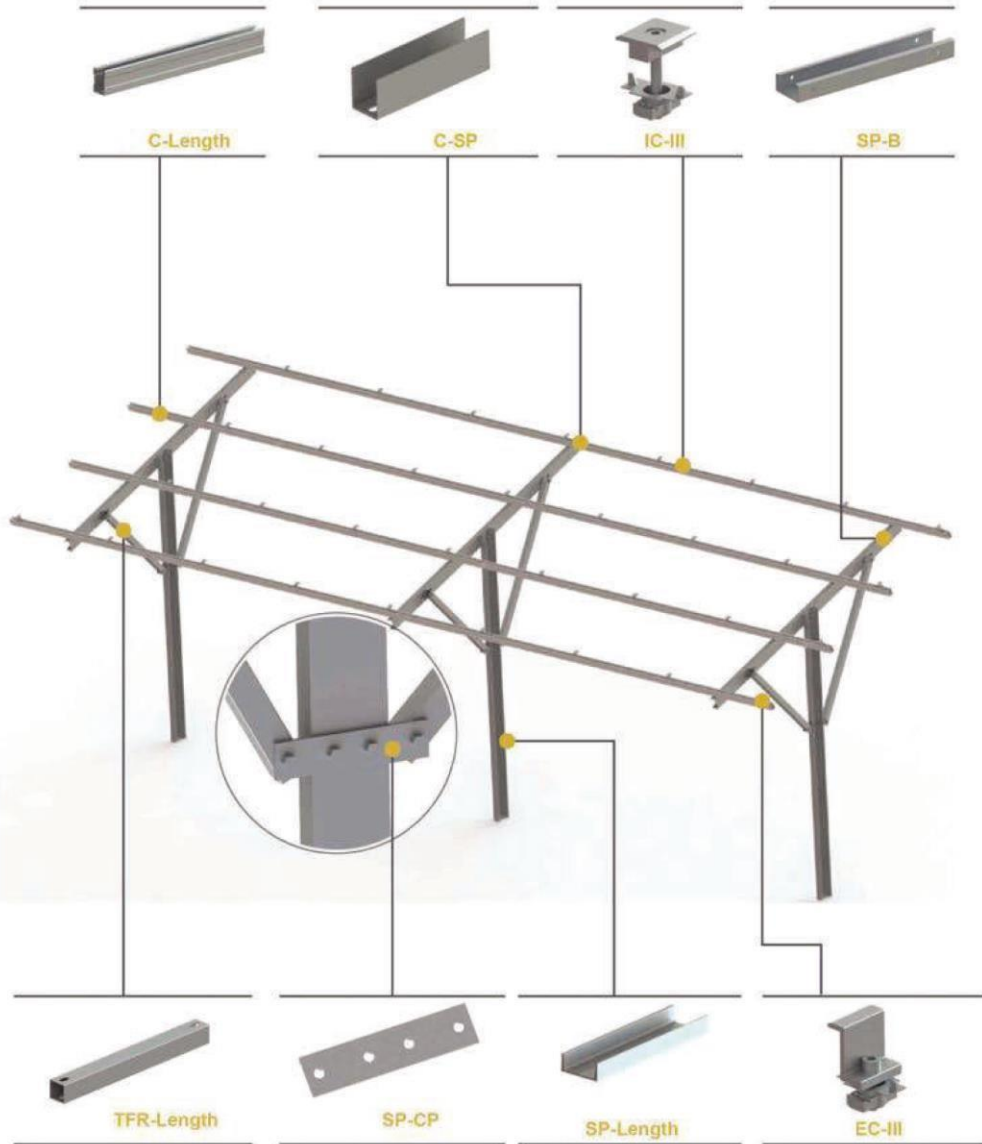


ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
CC2	SUS304	3~4 cables	5.5G	Clean



Single Pole Structure

Single Poled Structure racking system designed to last for 25 years. Its design allows for quickly delivery and easy installation, which will save your labor cost.



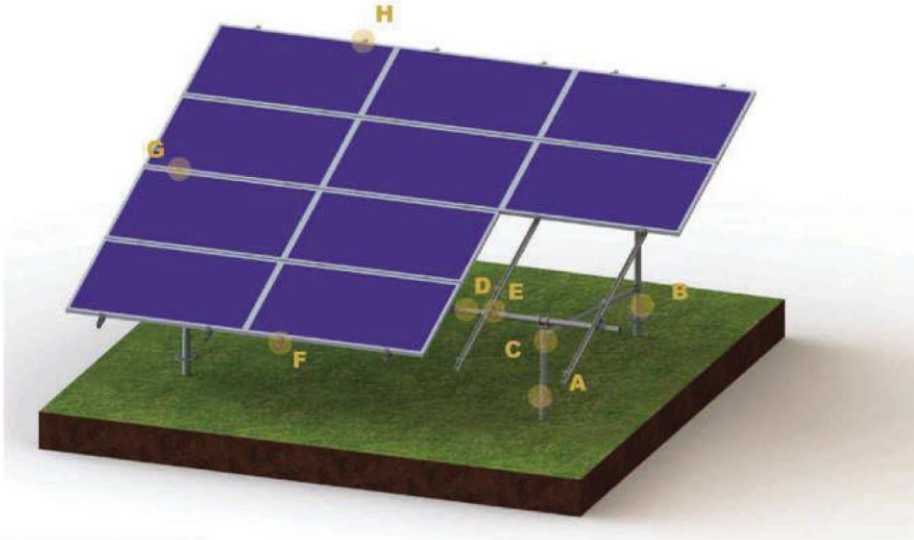
Dual Pole Structure (ST1-C)

Dual Poled Structure racking system designed to last for 25 years. Its design requires lower material which ensure lower mounting cost. Highly pre-assembly also save your labor cost on site.



Ground Mounting ST1

ST1 Ground mounting is a solution including steel structure and aluminum rails. It is suitable for both small and large-scale solar plants. With a flexible connection, it can be installed onto the concrete base, and also the earth ground, even the slope can also be workable.



Components Parts

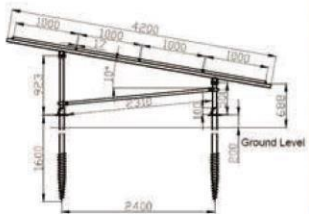
A ST1-09 ◆ Description Leg Cap, Steel Q235 ◆ Function Fix front/rear Legs	B TFL/TRL ◆ Description Front/Rear Leg, Steel Q235 ◆ Function Support Cross Pipe	C ST1A-07 ◆ Description Fix Ring, Steel Q235 ◆ Function Fix Enforcement Pipe
D CP ◆ Description Cross Pipe, Steel, Al Q235 ◆ Function Support Rails	E ST1-06 ◆ Description U Connector, Al 6005-T5& Steel Q235 ◆ Function Fix Rail to Cross Pipe	F R ◆ Description Rail, Al 6005-T5 ◆ Function The frame supports the solar panel
G IC ◆ Description Mid clamp, Al 6005-T5& SUS 304 ◆ Function Fix panel on the rail in the inner part	H EC ◆ Description End clamp, Al 6005-T5& SUS 304 ◆ Function Fix panel on the rail at the end of panel	I TFR ◆ Description Enforcement Pipe, Steel Q235 ◆ Function Increase the strength of the mounting

Brief Introduction

- Material: Steel Q235 & Aluminum 6005-T5
- Installation Site: Open Field, Earth or concrete ground
- Height from the Ground: According to your requirement
- Module Tilt Angle : 0~60° according to your requirement or latitude
- Max. Wind Speed: 60m/s;
- Snow Load: 1.4KN/m²
- Warranty: **10** years warranty; **25** years service life.

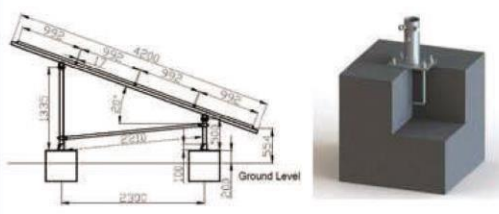
Connecting Solutions

1. Ground Screws



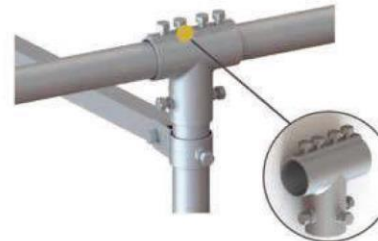
Ground Screw is suitable for earth ground footing
The ground screw should be 200mm out of ground

2. Concrete Foundations



Concrete foundation is suitable for concrete or sand ground

New Design for T connector



Advantage of T connector

- 01 Only pipe for both legs and cross pipe, save the packing space, save the transportation cost
- 02 Better strength for the connection part
- 03 Easier Installation

Brief Installation Guide

1 Install the legs according to the technical drawing and Installation Guide	2 Connect the Cross pipe to the legs top and fix with U bolt/T connectors	3 Fix the rails cross to the cross pipe and fix with ST1-06 as Installation Guide	4 Put panels onto rails and fix with clamps as

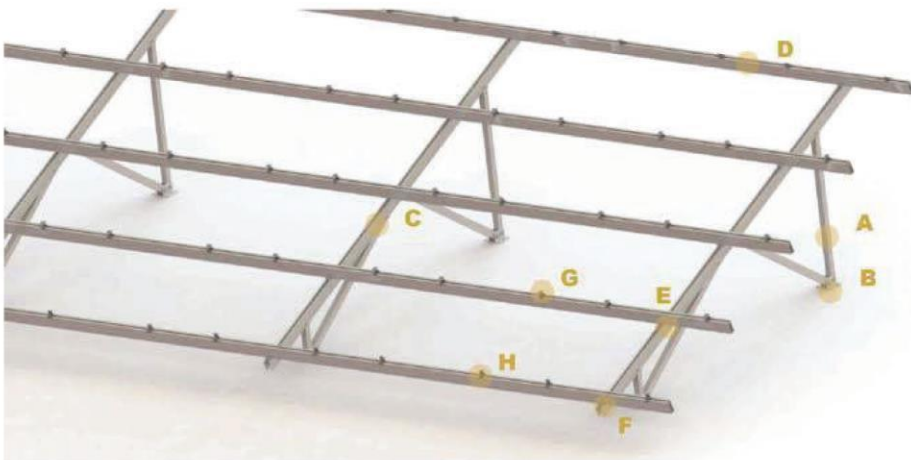
ST3 Aluminum Ground Mounting

ST3 Aluminum Ground Mounting is usually applicable to the open field, not only for residential projects, but also for the big commercial projects. For its strong and powerful structure and its nice appearance, the ST3 Ground Mounting win a good market all over the world.











Brief Introduction

- Installation Site: Open field/ Ground
- Module Angle: **10-60** degrees
- Max. Wind Speed: **60** m/s
- Snow Load: **1.4** KN/m²
- Material: Aluminum 6005-T5
- Warranty: **10** years warranty; **25** years service life.



Components Parts

<p>A</p>  <p>FL/RL</p> <p>◆ Description Front/rear leg, Al 6005-T5</p> <p>◆ Function Support the frame</p>	<p>B</p>  <p>LA</p> <p>◆ Description Leg base, Al 6005-T5</p> <p>◆ Function Fix front/rear leg on base</p>
<p>C</p>  <p>Rack</p> <p>◆ Description Support Rack</p> <p>◆ Function Support the rail and solar panel</p>	<p>D</p>  <p>R</p> <p>◆ Description Rail, Al6005-T5</p> <p>◆ Function The frame support the solar panel</p>
<p>E</p>  <p>Clamp</p> <p>◆ Description Fixing clamp</p> <p>◆ Function Fix the rail to the support rack</p>	<p>F</p>  <p>Clamp-A</p> <p>◆ Description Fixing clamp with self tapping screw</p> <p>◆ Function The clamp with self tapping screw can prevent the rail slide.</p>
<p>G</p>  <p>IC</p> <p>◆ Description Mid clamp, Al 6005-T5& SUS 304</p> <p>◆ Function Fix panel on the rail in the inner part</p>	<p>H</p>  <p>EC</p> <p>◆ Description End clamp, Al 6005-T5& SUS 304</p> <p>◆ Function Fix panel on the rail at the end of panel</p>

Advantages



The clamp with self tapping screw can prevent the rail slide.




The ripples on the foot base can make it be anti-skid and stronger

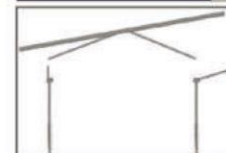


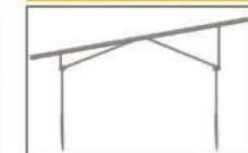
Highly pre-assembled, save cost and time

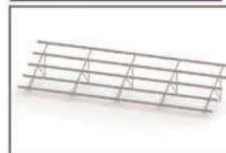
Brief Installation Guide

- 1** Connect and fix front/rear leg to the leg foot


- 2** Connect the support rack to the front leg and both foot bases


- 3** Connect the rear leg to the support rack and do proper adjustment

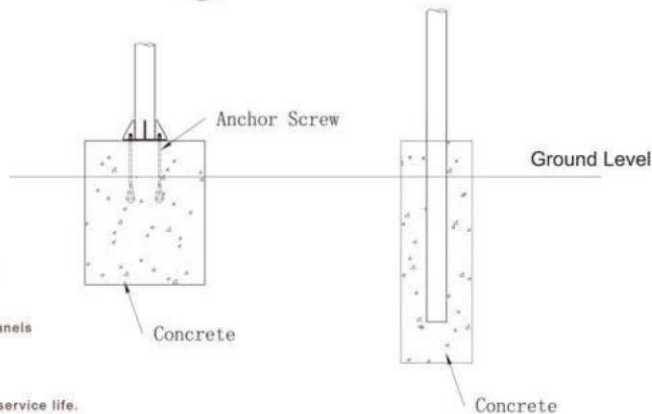
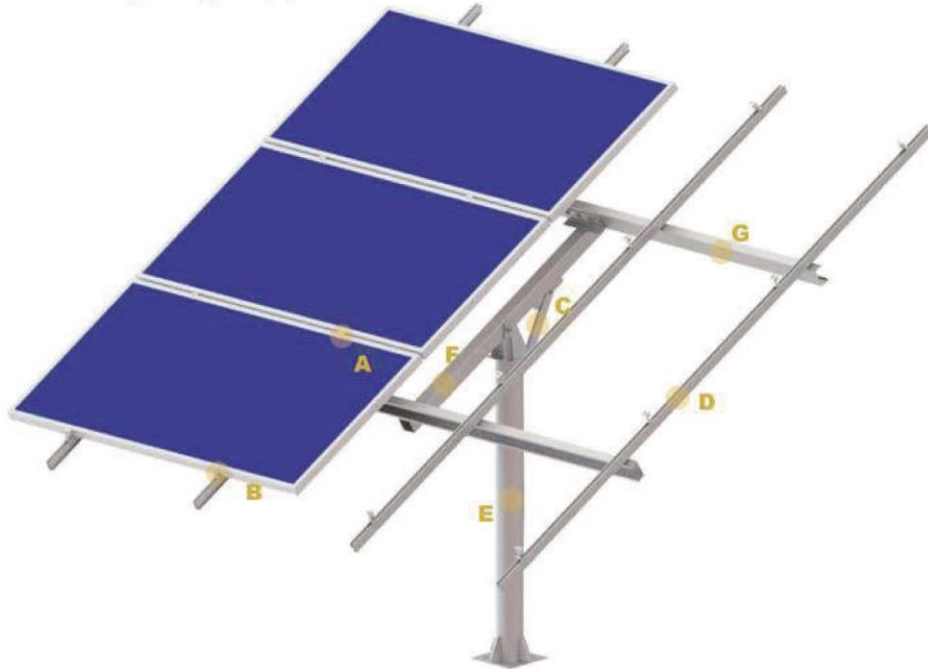

- 4** Put the rail onto the rack, and main installation will be finished



Pole Mounting system

Pole Mount System is a ground solar panel mounting system on one single pole that delivers flexible, effective and durable design to mount 4, 6 or 8 panels per pole. This pole ground solar panel mounting system can be applied to large commercial scale installations, and the pole system is combined with hot-galvanized steel and aluminum which offers good corrosion-resistant capability.

The single pole mounting system can be designed to be adjustable if required by customers. With the efficient structural design, Pole mount system saves installation time and minimizes labor cost for developers, operators and installers when applied to large scale projects.



Brief Introduction

- Installation Site: Earth & Concrete ground
- Module Angle: 10-60 degrees
- Surface: Hot Galvanized and Anodized
- Panel Layout: 4 panels, 6 panels and 8 panels
- Max. Wind Speed: 60 m/s;
- Snow Load: 1.4 KN/m²
- Material: Aluminum 6005-T5 & Q235;
- Warranty: 10 years warranty; 25 years service life.

Components Parts



IC
 ◆ Description
 Mid clamp, Al 6005-T5 & SUS 304
 ◆ Function
 Fix panel on the rail in the inner part



EC
 ◆ Description
 End clamp, Al 6005-T5 & SUS 304
 ◆ Function
 Fix panel on the rail at the end of panel



Pole2
 ◆ Description
 Adjustment Beam, Steel Q235
 ◆ Function
 To adjust the angle



R
 ◆ Description
 Rail: Extruded Aluminum Profile, Al6005-T5, 2560mm, 3405mm and 4200mm are the standard size
 ◆ Function
 The frame supports the solar panel



Pole1
 ◆ Description
 Main Pole, Steel Q235
 ◆ Function
 Support on the ground

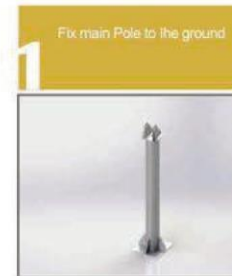


Pole2
 ◆ Description
 Main Support, Steel Q235
 ◆ Function
 Support the Beam



Pole4
 ◆ Description
 C Beam, Steel Q235
 ◆ Function
 Support the rail

Brief Installation Guide



Solar Carport Mounting

With great flexibility, the Solar carport can be applied for both commercial and residential areas. The Carport capacity can be customized as per customers' request. The whole structure is made of Aluminum and the fastener will be stainless steel.



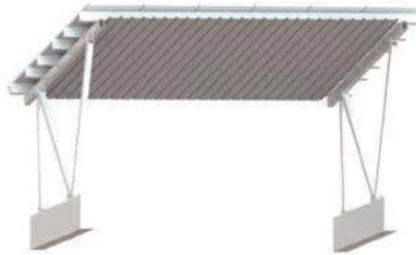
Brief Introduction

- Installation Site: Ground; Open field
- Module Angle: 0-20 degrees
- Max. Building Height: Customized
- Max. Wind Speed: 60 m/s;
- Snow Load: 1.4 KN/m²
- Material: Aluminum 6005-T5 & Stainless Steel 304;
- Warranty: 10 years warranty; 25 years service life.

Other Options



W-type carport, which is used when the wind and snow load is heavy.



Waterproof method is to put a metal roof on the top.

Brief Installation Guide

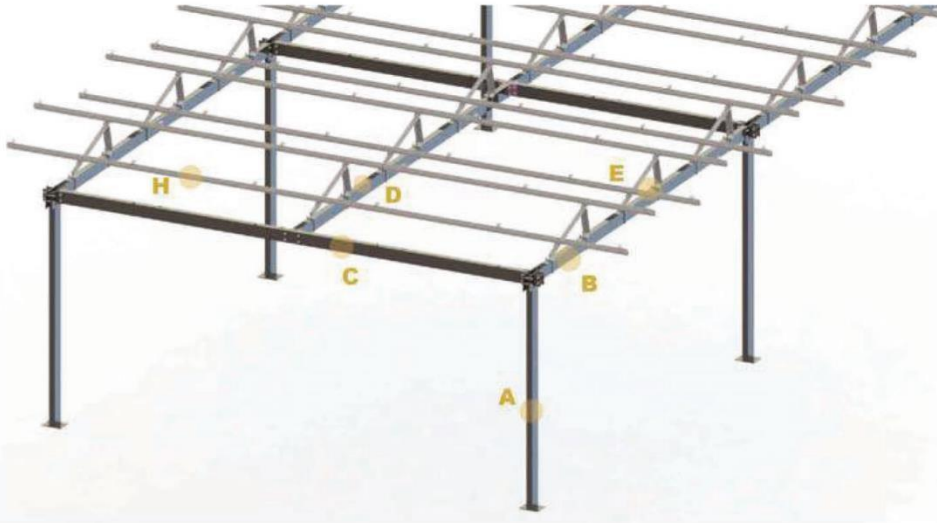
- 1 Mark lines on the ground as per the technical drawing to fix the concrete foundations.
- 2 Install the footstand onto the concrete
- 3 Connect the Carport Support Rack to the footstands on the concrete foundations.
- 4 Put rails onto the support rack and fix with clamps
- 5 Put panels onto rails and fix with clamps
- 6 Finished the installation

Components Parts

<p>A</p> <p>EC</p> <p>◆ Description Mid clamp, Al 6005-T5& SUS 304</p> <p>◆ Function Fix panel on the rail in the inner part</p>	<p>B</p> <p>IC</p> <p>◆ Description End clamp, Al 6005-T5& SUS 304</p> <p>◆ Function Fix panel on the rail at the end of panel</p>	<p>C</p> <p>STC-FL/R</p> <p>◆ Description Front/Rear leg, Al6005-T5</p> <p>◆ Function To support the whole panel and rack.</p>
<p>D</p> <p>STC-FLA</p> <p>◆ Description Footstand A, Al6005-T5</p> <p>◆ Function To fix front leg to the concrete base</p>	<p>E</p> <p>STC-LA</p> <p>◆ Description Footstand B, Al6005-T5</p> <p>◆ Function To fix rear leg to the concrete base</p>	
<p>F</p> <p>STC-R16</p> <p>◆ Description Sloped beam, Al6005-T5</p> <p>◆ Function Supports the rails</p>	<p>G</p> <p>R8</p> <p>◆ Description Rail, Al6005-T5</p> <p>◆ Function The frame supports the solar panel</p>	<p>H</p> <p>Clamp</p> <p>◆ Description Clamp A, Al6005-T5</p> <p>◆ Function To fix the rail to the sloped beam</p>

Solar Farm

Solar farm has been a classic applications of solar energy. With all traditional functions, Solar farm can protect the plants from extreme weather and gather heat for fast growing. Furthermore, reasonable design ensures the photosynthesis work normally.



Components Parts

<p>A</p> <p>AR Pole</p> <ul style="list-style-type: none"> Description: AR Pole, Q235 Function: This pole support the whole solar farm brackets. 	<p>B</p> <p>AR Beam A</p> <ul style="list-style-type: none"> Description: AR Beam A, Q235 Function: To connect AR poles 	
<p>C</p> <p>AR Beam B</p> <ul style="list-style-type: none"> Description: AR Beam B, Q235 Function: To connect AR poles 	<p>D</p> <p>AR Beam C</p> <ul style="list-style-type: none"> Description: AR Beam C, Q235 Function: To connect beam B 	<p>E</p> <p>AR Triangle support</p> <ul style="list-style-type: none"> Description: Triangle support, aluminum 6005-T5 Function: The frame supports the rail
<p>F</p> <p>IC</p> <ul style="list-style-type: none"> Description: Mid clamp, Al 6005-T5& SUS 304 Function: Fix panel on the rail in the inner part 	<p>G</p> <p>EC</p> <ul style="list-style-type: none"> Description: End clamp, Al 6005-T5& SUS 304 Function: Fix panel on the rail at the end of panel 	<p>H</p> <p>R</p> <ul style="list-style-type: none"> Description: Rail, Extruded Aluminum Profile, Al6005-T5, 2560mm, 3405 and 4200 are the standard size Function: The frame supports the solar panel

Brief Installation Guide

- Position the pole location and fix the pole to the ground.
- Connect AR-beam A to the top AR-Pole
- Connect AR-Beam B to the top AR-Pole
- Connect AR-Beam C to the middle AR beam B
- Put the preassembled triangle support set on to the Beam A and Beam C.
- Put rails onto triangle support and fix the panels with mid and end clamps

Brief Introduction

- Installation Site: open field
- Mouldle Angle : 0-60 degrees
- Max. Wind Speed: 60m/s;
- Snow Load: 1.4 KN/m²
- Material: Aluminum 6005-T5 & Q235;
- Warranty: 10 years warranty; 25 years service life.

Advantages

- Highly pre-assembled components before delivery makes the installation to be easier and save much cost
- Easy installation with humanized user guide
- Reliable calculation and testing make the system to be more economic and safer.

Ground Screw

Ground Screw is made of Q235 material. We have flange top and tube top types with different specification. Our standard thickness is 3mm, 3.5mm and 2.75mm and length with 1200mm, 1600mm, 1800mm, 2000mm. The length and size could also be customized. It can be used for many kinds of application, like Timer-Frame Construction; Advertising and traffic systems; Urban, Garden and Landscape Construction; Hall and container Construction; Fencing Systems, Solar systems; Flag Poles & Banners etc.



Brief Introduction

- Material: Q235
- Surface: Hot dip galvanization
- Thickness: 3.0mm/2.75mm/3.5mm
- Series: Flange Top, Tube Top
- Warranty: **10** years warranty; **25** years service life.

Advantages

- 01 Compatibility with all type of structures.**
Our technical department will adapt the head of our ground screw piles to whatever the need of the customer is.
- 02 Foundation solution concrete free**
No need of Concrete base.
- 03 Surrounding areas remains unspoiled**
The special configuration of our products allows the insertion without performing land preparation works, which allows a significant cost reduction.
- 04 Easy removal simple and easy to relocate**
One of the main advantages of our ground screw piles is the possibility of removing them, reducing the environmental impact and minimizing the removing costs.

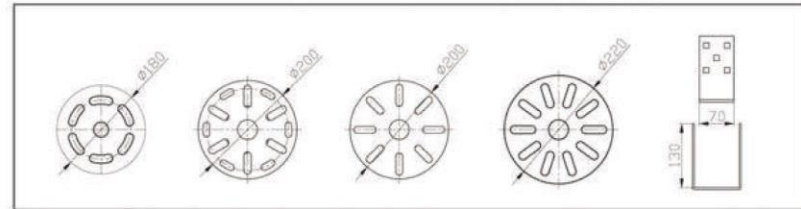
Ground Screw



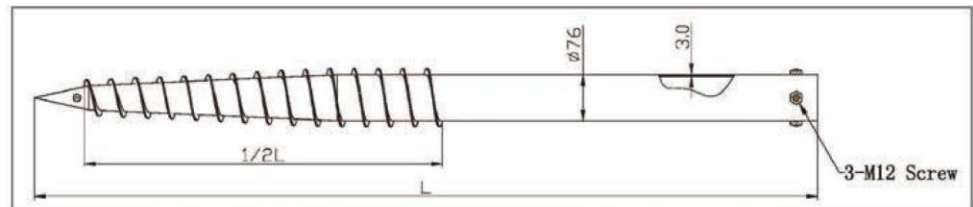
Specification

NO	Code1	Surface	Material	H(mm)	D(mm)	Galvanized Surface	Thickness
01	F76×L— 2	Hot Galvanized	Q235	Customized	76	≥ 80 μm	3.5mm/ 2.75mm/ 3.0mm
02	F76×L— 4			Customized	76	≥ 80 μm	
03	F76×L			Customized	76	≥ 80 μm	
04	N76×L			Customized	76	≥ 80 μm	
05	F76×L— A			Customized	76	≥ 80 μm	
06	F76×L— U			Customized	76	≥ 80 μm	

Flange Type



Tube Type



SOLAR STREET LIGHTS





Quotation

Model:	SE-CH20	Specifications		
20W All in one solar street light		Solar panel	Max power 18V 35W (Monocrystalline silicon)	
		Life span	25 years	
		Battery	Type	LiFe PO4 12.8V 18AH
			Life span	5-8 years
		LED Source	Power	12V 20W
			Chips brand	PHILIPS high efficiency 3030 led chips
			lumens	150-160lm/W
		Life span	50000 hours	
		Installation	Mounting height: 4-5M, Mounting distance:15M	
		Pole	Diamter: ϕ 60- ϕ 105mm (up to down)	
		Lamp body material	Aluminium Alloy, with good heat dissipation performance	
Charging time	6-7hours (with enough strong shine)			
Lighting time	10-12 hours per day, sustain 3-5 rainy days			
Working mode	PIR sensor and light control			
Catificates	CE, ROHS, IP65			
Warranty	3 years			
Packing	Product size	680*205*60mm		
	N. W.	5. 1KGS		
	Package size	720*260*220mm		
	G. W.	6. 6KGS		
	Q' ty/ctn:	1set/ctn		
Container	20GP	660PCS		
	40HQ	1600PCS		




Quotation

Model:	SE-CH30	Specifications		
30W All in one solar street light		Solar panel	Max power 18V 50W (Monocrystalline silicon)	
		Life span	25 years	
		Battery	Type	LiFe PO4 12.8V 21AH
			Life span	5-8 years
		LED Source	Power	12V 30W
			Chips brand	PHILIPS high efficiency 3030 led chips (50PCS *2=100PCS)
			lumens	150-160lm/W
		Life span	50000 Hours	
		Installation	Mounting height: 5-6M, Mounting distance: 20M	
		Lamp body material	Aluminium Alloy	
		Charging time	6-7hours (with enough strong shine)	
Lighting time	10-12 hours per day, sustain 3-5 rainy days			
Working mode	PIR sensor and light control			
Catificates	CE, ROHS, TUV, IP65			
Warranty	3 years			
Packing	Product size	1060*205*60mm		
	N. W.	8. 5KGS		
	Package size	1100*260*220mm		
	G. W.	10. 25KGS		
	Q' ty/ctn:	1set/ctn		
Container	20GP	440PCS		
	40HQ	1050PCS		




WQ SOLAR POWER
Quotation

Model:	SE-CH40	Specifications	
40W All in one solar street light		Solar panel	Max power 18V 50W (Monocrystalline silicon) Life span 25 years
		Battery	Type LiFe PO4 12.8V 24AH Life span 5-8 years
		LED Source	Power 12V 40W Chips brand PHILIPS high efficiency 3030 led chips (50PCS *2=100PCS) lumens 150-160lm/W Life span 50000 Hours
		Installation	Mounting height: 5-6M, Mounting distance: 20-25M Pole upper Diameter: φ60-φ105mm
		Lamp body material	Aluminium Alloy
		Charging time	6-7hours (with enough strong shine)
		Lighting time	10-12 hours per day, sustain 3-5 rainy days
		Working mode	PIR sensor and light control
		Catificates	CE, ROHS, TUV, IP65
		Warranty	3 years
		Packing	Product size 1060*205*60mm
			N. W. 8.5KGS
			Package size 1100*260*220mm
			G. W. 10.25KGS
		Q' ty/ctn:	1set/ctn
Container		20GP	440PCS
		40HQ	1050PCS




WQ SOLAR POWER

Model:	SE-CH50	Specifications	
50W All in one solar street light		Solar panel	Max power 18V 70W (Monocrystalline silicon) Life span 25 years
		Battery	Type LiFe PO4 12.8V 33AH Life span 5-8 years
		LED Source	Power 12V 50W Chips brand PHILIPS high efficiency 3030 led chips (50PCS *3=150PCS) lumens 150-160lm/W Life span 50000 Hours
		Installation	Mounting height: 6-7M, Mounting distance: 20-25M Pole upper Diameter: φ60-φ76mm
		Lamp body material	Aluminium Alloy
		Charging time	6-7hours (with enough strong shine)
		Lighting time	10-12 hours per day, sustain 3-5 rainy days
		Working mode	PIR sensor and light control
		Catificates	CE, ROHS, TUV, IP65
		Warranty	3 years
		Packing	Product size Lamp: 1406*205*60mm Sleeve: 405*150*290mm
			N. W. Lamp: 9.0KGS Sleeve: 5.5KGS
			Package size Lamp: 1436*260*130mm Sleeve: 420*170*315mm
			G. W. Main Lamp: 11.0KGS Sleeve: 6.4KGS
		Q' ty/ctn:	1set/2ctns
Container		20GP	380PCS
		40HQ	940PCS




Quotation

Model:	SE-CH60	Specifications	
60W All in one solar street light		Solar panel	Max power 18V 70W (Monocrystalline silicon) Life span 25 years
	Battery	Type	LiFe P04 12.8V 36AH
		Life span	5-8 years
LED Source	Power	Chips brand	PHILIPS high efficiency 3030 led chips (50PCS *3=150PCS)
		lumens	150-160lm/W
		Life span	50000 Hours
Installation	Mounting height: 7-8M, Mounting distance: 20-25M Pole upper Diameter: φ 60- φ 76mm		
Lamp body material	Aluminium Alloy		
Charging time	6-7hours (with enough strong shine)		
Lighting time	10-12 hours per day, sustain 3-5 rainy days		
Working mode	PIR sensor and light control		
Catificates	CE, ROHS, TUV, IP65		
Warranty	3 years		
Packing	Product size	Lamp: 1406*205*60mm Sleeve: 405*150*290mm	
	N. W.	Lamp: 9.0KGS Sleeve: 5.5KGS	
	Package size	Lamp: 1436*260*130mm Sleeve: 420*170*315mm	
	G. W.	Main Lamp: 11.5KGS Sleeve: 6.4KGS	
	Q' ty/ctn:	1set/2ctns	
Container	20GP	380PCS	
	40HQ	940PCS	




Quotation

Model:	SE-CH60	Specifications	
60W All in one solar street light		Solar panel	Max power 18V 70W (Monocrystalline silicon) Life span 25 years
	Battery	Type	LiFe P04 12.8V 36AH
		Life span	5-8 years
LED Source	Power	Chips brand	PHILIPS high efficiency 3030 led chips (50PCS *3=150PCS)
		lumens	150-160lm/W
		Life span	50000 Hours
Installation	Mounting height: 7-8M, Mounting distance: 20-25M Pole upper Diameter: φ 60- φ 76mm		
Lamp body material	Aluminium Alloy		
Charging time	6-7hours (with enough strong shine)		
Lighting time	10-12 hours per day, sustain 3-5 rainy days		
Working mode	PIR sensor and light control		
Catificates	CE, ROHS, TUV, IP65		
Warranty	3 years		
Packing	Product size	Lamp: 1406*205*60mm Sleeve: 405*150*290mm	
	N. W.	Lamp: 9.0KGS Sleeve: 5.5KGS	
	Package size	Lamp: 1436*260*130mm Sleeve: 420*170*315mm	
	G. W.	Main Lamp: 11.5KGS Sleeve: 6.4KGS	
	Q' ty/ctn:	1set/2ctns	
Container	20GP	380PCS	
	40HQ	940PCS	



Quotation				
Model:	SE-CH80	Specifications		
	Solar panel	Max power	18V 100W (Monocrystalline silicon)	
		Life span	25 years	
	Battery	Type	LiFe PO4 12.8V 42AH	
		Life span	5-8 years	
	LED Source	Power	12V 80W	
		Chips brand	PHILIPS high efficiency 3030 led chips (90PCS)	
		lumens	150-160lm/W	
		Life span	50000 Hours	
	Installation	Mounting height: 8-9M, Mounting distance: 20-25M		
		Pole upper Diamter: ϕ 76- ϕ 105mm		
	Lamp body material	Aluminium Alloy		
	Charging time	6-7hours (with enough strong shine)		
	Lighting time	10-12 hours per day, sustain 3-5 rainy days		
	Working mode	PIR sensor and light control		
	Catificates	CE, ROHS, TUV, IP65		
	Warranty	3 years		
Packing	Product size	1136*420*45mm		
	N.W.	16.7KGS		
	Package size	1190*490*220mm		
	G.W.	19.2KGS		
	Q'ty/ctn:	1set/ctn		
Container	20GP	230PCS		
	40HQ	530PCS		
Bulk price: SR 1299.99				

Quotation				
Model:	SE-CH100	Specifications		
	Solar panel	Max power	18V 110W (Monocrystalline silicon)	
		Life span	25 years	
	Battery	Type	LiFe PO4 12.8V 48AH	
		Life span	5-8 years	
	LED Source	Power	12V 100W	
		Chips brand	PHILIPS high efficiency 3030 led chips (120PCS)	
		lumens	150-160lm/W	
		Life span	50000 Hours	
	Installation	Mounting height: 9-10M, Mounting distance: 30-35M		
		Pole upper Diamter: ϕ 76- ϕ 105mm		
	Lamp body material	Aluminium Alloy		
	Charging time	6-7hours (with enough strong shine)		
	Lighting time	10-12 hours per day, sustain 3-5 rainy days		
	Working mode	PIR sensor and light control		
	Catificates	CE, ROHS, TUV, IP65		
	Warranty	3 years		
Packing	Product size	1136*420*45mm		
	N.W.	17.2KGS		
	Package size	1190*490*220mm		
	G.W.	19.8KGS		
	Q'ty/ctn:	1set/ctn		
Container	20GP	230PCS		
	40HQ	530PCS		
Bulk price: SR 1499.99				



Modern air conditioning & solar energy systems.

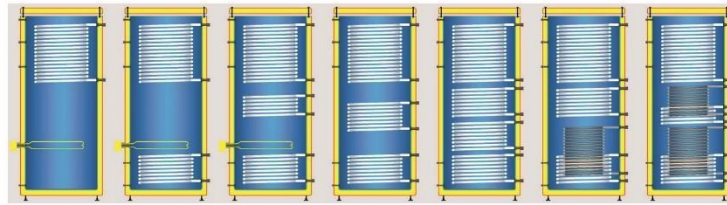
Our main activity is the production and manufacture of heating products. We produce & manufacture heating & hot water systems with pellet, wood, biomass, electric and solar energy.

Our Products: Oil boilers, wood boilers, pellet boilers, biomass boilers, pellet stoves, pellet burners, biomass burners and solar water heaters, ash filters, water and oil tanks, hybrid solar boilers and electric boilers.

Our services: We cover all the needs of a home or business or hotel for heating and hot water as our products have all the certificates for high efficiency, economy and low pollutants.

Dramatic changes in the form of fuel due to the rise in oil, gas, electricity and greenhouse gas prices make it imperative to adapt consumers to new, environmentally friendly heating systems fuels such as biomass (wood and pellets) from recyclable materials in the country, at lower cost in operation and without the risk of dramatic changes in





The new series of **Boiler - Buffer - Water Heater Hofamat 2018** is a global innovative product designed and constructed by the experienced personnel of Mytherm. Multiple types in a wide range of capacities are available (**from 300 lit to 5.000 lit or even larger**) in order to fully cover your needs for heating, energy storage and domestic hot water at the same time. It is the perfect solution for housing or business premises heating. It provides plenty of domestic hot water taking advantage of the solar energy, the hot water of the boiler, the electric energy, the heat pump or the geothermal energy. It operates under atmospheric pressure conditions thus confirms its

long lasting durability. Inside the boiler there are flexible stainless steel heat exchangers for the production of thermal energy, single phase or three phase electrical resistances (**between 4kw to 24kw**), sockets for sensors or thermometer placement and hydraulic filling and drainage.

The tank is constructed of a special plastic material. Two containers placed one within the other. Thermal insulation of polyurethane is placed between them. Polyurethane has low thermal conductivity and a thin layer of it (**50-100mm**) covers the insulation requirements. An insulated cap at the top of the **Boiler - Buffer - Water Heater** seals the container from the outside conditions while provides access inside in order to control the water's level. This also permits future interventions such as placement of additional exchangers or resistances or the possibility of an extension.

Adjustable supports at the lower part of the **Boiler - Buffer - Water Heater** help the correct placing of it. It is also equipped with a manual system of tube cleaning. It has the ability to regulate water's properties by the use of special additives in order to enhance the system's performance (i.e. additives for clarity, anti - freezers, salts neutralization etc.) It is the only boiler that can be easily placed in narrow spaces since it can be constructed in rectangular narrow shape (**1.250 & 1.500 lit**).

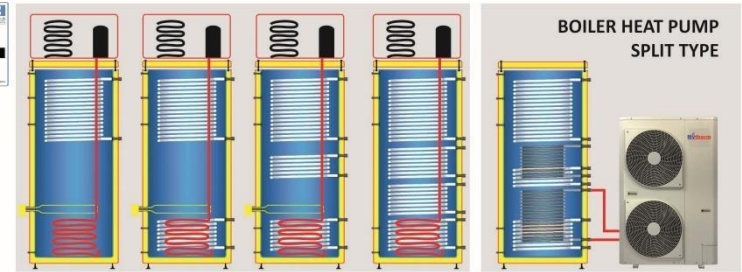
What makes it unique:

- No need for service (cleaning) from sludge or salts
- Innovative eco design
- Compatible with the common boilers (Easy replacement)
- Easy access inside
- Rectangular construction
- Anodic protection

ENERGY STORAGE TANKS (solar - boiler - heat pums - resistance) TYPE BL

Type Lit.	Dimensions D/W x H x L mm	Weight of boiler kg	Exchanger Solar m ²	Exchanger Heat pump m ²	Exchanger Boiler m ²	Exchanger Heating m ²	Exchanger DHW m ²	BL II 2 D.H.W. exchanger	BL III 3 D.H.W. exchanger	BL IV 4 D.H.W. exchanger	BL IV 5 D.H.W. exchanger
300	700 x 1.350	65 - 77	1,40	1,45	1,10	1,10	2,60	880,06	979,22	1124,09	1227,98
600	750 x 1.750	83 -102	1,60	1,65	1,20	1,20	4,40	1063,54	1168,88	1332,47	1443,91
800	905 x 2.100	107 -130	1,90	2,00	1,50	1,50	6,50	1333,04	1450,37	1679,60	1807,93
1.000	1.050 x 2.100	124 -152	2,40	2,50	1,80	1,80	7,50	1670,88	1824,06	2070,01	2289,07
1.250*	820 x 1.950 x 1.120	180 -232	4,50	4,60	2,50	2,50	11,00	2773,67	3037,82	3514,96	3851,31
1.500	1.050 x 2.400	168 -215	4,70	4,80	2,20	2,20	12,00	2767,00	3036,46	3553,93	3873,03
1.500*	820 x 2.350 x 1.120	233 -308	5,10	5,20	2,80	2,80	12,60	3458,75	3795,57	4442,41	4841,28
2.000	1.150 x 2.200	208 -266	5,60	5,80	3,50	3,50	13,00	3529,85	3884,77	4505,40	4953,75
3.000	1.300 x 2.600	245 -311	5,60	5,80	3,50	3,50	16,00	4909,05	5290,79	6084,06	6508,67
5.000	1.650 x 2.700	315 -400	5,80	6,20	4,80	4,80	19,00	7238,54	7934,41	9051,50	9742,79
Resistance 4 kw 220 V							58,00				
Resistance 9-24 kw 380 V							340,00				

* Rectangular model



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The tank is constructed of a special plastic material. Two containers placed one within the other. Thermal insulation of polyurethane is placed between them. Polyurethane has low thermal conductivity and a thin layer of it (**50-100mm**) covers the insulation requirements. An insulated cap at the top of the **Boiler - Buffer - Water Heater** seals the container from the outside conditions while provides access inside in order to control the water's level. This also permits future interventions such as placement of additional exchangers or resistances or the possibility of an extension.

Adjustable supports at the lower part of the **Boiler - Buffer - Water Heater** help the correct placing of it. It is also equipped with a manual system of tube cleaning. It has the ability to regulate water's properties by the use of special additives in order to enhance the system's performance (i.e. additives for clarity, anti - freezers, salts neutralization etc.) It is the only boiler that can be easily placed in narrow spaces since it can be constructed in rectangular narrow shape (**1.250 & 1.500 lit**). In this series, Mytherm has developed a new product "Boiler - Hofamat Heat Pump" in order to provide an additional solution where there is need for domestic hot water. It is suitable for houses and small hotels. As about the construction of it, an exchanger of domestic hot water production is integrated in the hofamat boiler. The main source of hot water production is a heat pump which recovers the hot ambient air and by the use of a copper made exchanger heats the water which is inside the boiler. Having a COP factor of up to 4.0, provides domestic hot water at a very low cost. At the same time it is achieved an up to 70% reduction in energy consumption compared to the use of electrical resistances.

Available at 300 and 600 lit capacity with a pump of 1.3 kW absorbed power (compressor freon R134 a) and a bigger than 5kW power output. It is also possible the production for the needs of higher consumptions since the hofamat boiler can operate with bigger pumps (air-water) or chiller. The boiler takes the energy that is discharged to the atmosphere and gives it back to the boiler in order to produce free domestic hot water. The Boiler - Hofamat BH has an electronic control panel for a safe, economic and trouble free operation. This can also control the temperature of the produced domestic hot water.

It produces domestic hot water above 70 °C. The ON time production of domestic hot water is 200 lit /h with ΔT 25° C and at the same time inside the boiler it is stored an additional amount of energy 350lit (type BH 300) and 700lit (type BH 600).

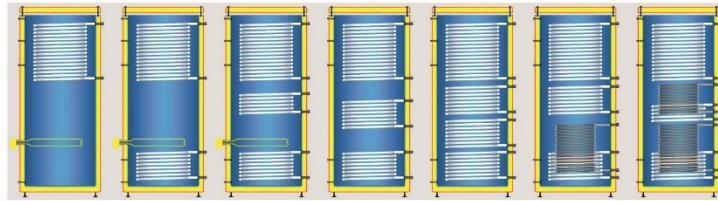
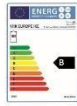
If even a larger amount of domestic hot water is needed for short periods of time -during peak hours- an electrical resistance 4-9 kW can be installed in order to add 130-300lit/h of domestic hot water. Additional exchangers, electrical resistances or connections with heating systems (solar as well) are available and compatible too.

What makes it unique:

- No need for service (cleaning) from sludge or salts
- Innovative eco design
- Compatible with the common boilers (Easy replacement)
- Easy access inside
- Rectangular construction
- Anodic protection

ENERGY STORAGE TANKS (solar - boiler - heat pums - resistance) TYPE BH

Type Lit.	Dimensions D/W x H x L mm	Weight of boiler kg	Power Heat pump kw	Exchanger Solar m ²	Exchanger Heat pump m ²	Exchanger Boiler m ²	Exchanger Heating m ²	Exchanger DHW m ²	BH II 2 D.H.W. exchanger	BH III 3 D.H.W. exchanger	BH IV 4 D.H.W. exchanger	BH IV 5 D.H.W. exchanger		
300	700 x 1.350	65 - 77	1,30	1,40	1,45	1,10	1,10	2,60	2185,80	2351,96	2511,67	2670,18		
600	750 x 1.750	83 -102	1,30	1,60	1,65	1,20	1,20	4,40	2369,39	2544,18	2714,87	2888,04		
Resistance 4 kw 220 V				58,00				Resistance 9-24 kw 380 V					340,00	



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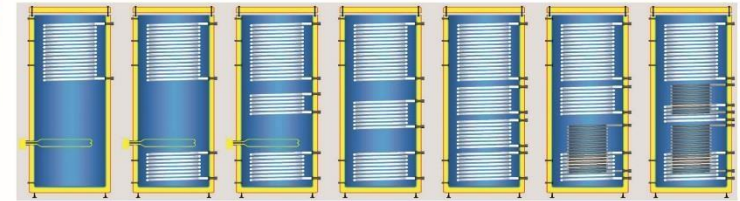
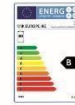
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- Easy access inside
- Rectangular construction
- Anodic protection

BUFFER - TYPE BF

Type Lit.	Dimensions D/W x H x L mm	Weight of boiler kg	Exchanger Solar m ²	Exchanger Heat pump m ²	Exchanger Boiler m ²	Exchanger Heating m ²	Exchanger DHW m ²	BF II 2 exchanger	BF III 3 exchanger	BF IV 3 D.H.W. exchanger	BF IV 4 D.H.W. exchanger
300	700 x 1.350	65 - 77	1,40	1,45	1,10	1,10	2,60	787,95	887,12	969,67	1063,44
600	750 x 1.750	83 - 102	1,60	1,65	1,20	1,20	4,40	927,60	1032,94	1160,35	1225,16
800	905 x 2.100	107 - 130	1,90	2,00	1,50	1,50	6,50	1136,46	1253,79	1443,22	1562,92
1.000	1.050 x 2.100	124 - 152	2,40	2,50	1,80	1,80	7,50	1410,45	1555,07	1814,38	1973,37
1.250*	820 x 1.950 x 1.120	180 - 232	4,50	4,60	2,50	2,50	11,00	2398,29	2691,21	3021,84	3343,66
1.500	1.050 x 2.400	168 - 215	4,70	4,80	2,20	2,20	12,00	2426,81	2750,87	3020,56	3376,49
1.500*	820 x 2.350 x 1.120	233 - 308	5,10	5,20	2,80	2,80	12,60	3033,51	3438,58	3775,70	4220,61
2.000	1.150 x 2.200	208 - 266	5,60	5,80	3,50	3,50	13,00	3069,05	3506,12	3868,99	4352,87
3.000	1.300 x 2.600	245 - 311	5,60	5,80	3,50	3,50	16,00	4100,12	4551,53	5298,19	5814,92
5.000	1.650 x 2.700	315 - 400	5,80	6,20	4,80	4,80	19,00	6023,71	6627,50	7877,83	8583,48
Resistance 4 kw 220 V					58,00						
Resistance 9- 24 kw 380 V					340,00						

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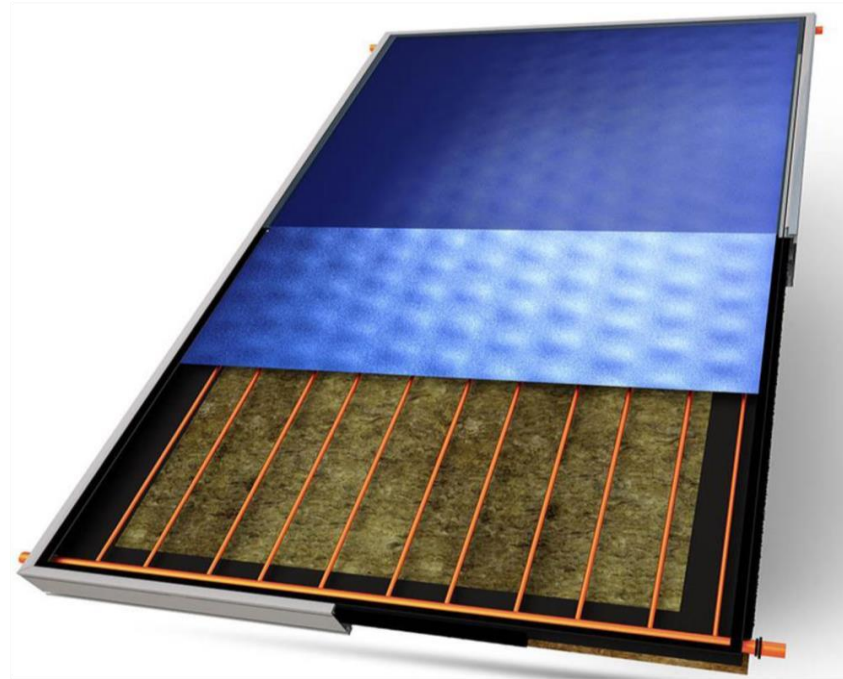
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- Anodic protection

WATER HEATERS (resistance) TYPE BW

Type Lit.	Dimensions D/W x H x L mm	Weight of boiler kg	Exchanger Solar m ²	Exchanger Heat pump m ²	Exchanger Boiler m ²	Exchanger Heating m ²	Exchanger DHW m ²	BW 220 V D.H.W. exchanger	BW 380 V D.H.W. exchanger
300	700 x 1.350	65 - 77	-	-	-	-	2,60	816,99	1062,69
600	750 x 1.750	83 - 102	-	-	-	-	4,40	992,24	1237,94
800	905 x 2.100	107 - 130	-	-	-	-	6,50	1247,41	1498,96
1.000	1.050 x 2.100	124 - 152	-	-	-	-	7,50	1542,24	1797,39
1.250*	820 x 1.950 x 1.120	180 - 232	-	-	-	-	11,00	-	2886,52
1.500	1.050 x 2.400	168 - 215	-	-	-	-	12,00	-	2821,05
1.500*	820 x 2.350 x 1.120	233 - 308	-	-	-	-	12,60	-	3526,31
2.000	1.150 x 2.200	208 - 266	-	-	-	-	13,00	-	3421,12
3.000	1.300 x 2.600	245 - 311	-	-	-	-	16,00	-	4873,00
5.000	1.650 x 2.700	315 - 400	-	-	-	-	19,00	-	7180,66
Resistance 4 kw 220 V					58,00				
Resistance 9- 24 kw 380 V					340,00				

* Rectangular model

Price catalogue



Solar collector				
Dimension		TYPE	CLASS	Price (€)
1.00m * 1.50m	SELECTIVE	SELECTIVE	SECURITY	198,00
1.00m * 2.00m	SELECTIVE	SELECTIVE	SECURITY	236,00
1.25m * 2.00m	SELECTIVE	SELECTIVE	SECURITY	296,00
SUPPORT FOR FLAT ROOF		GALVANIZED		78
SUPPORT FOR TILE ROOF		GALVANIZED		112

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