YOUESS

Shenzhen Youess Energy Storage Technology Co.,Ltd

ADD: 5/F, Building A, Darxun Science and Technology Industrial Park, Pinghu Street, Shenzhen

Tel:+86 755 28502100

Web:www.youess.com

YOUESS

PRODUCT BROCHURE

Lithium Battery
Solar Inverter
Solar Panel

Shenzhen Youess Energy Storage Technology Co.,Ltd

YOUESS

COMPANY PROFILE

Shenzhen Youess Energy Storage Technology Co., Ltd. was founded in 2023 and is a new energy enterprise under the Chinese listed company FANGZHENG TOOL (300998). Our company specializes in research and development, production, and sales of photovoltaic systems and energy storage systems. The core team members possess more than 10 years of technology research and development experience, as well as engineering design experience in the field of photovoltaic and energy storage. We utilize advanced technology and equipment while being committed to the development and application of new energy technologies to improve energy efficiency and reduce environmental impact.

As a globally focused service provider of photovoltaic energy storage systems, we offer a full range of products such as batteries, solar panels, inverters, solar controllers, portable solar generators, and car charging posts. We hold several self-developed patents and product certificates (UL, CE, UN38.3, MSDS, IEC, ISO, etc.). Our products sell well in over 60 countries and regions worldwide, and we have established global offices and technical after-sales service centers in Europe, the Middle East, South Africa, Australia, and other locations.

CORPORATE MISSION

To bring clean energy to every household

CORPORATE VISION

To become a global leader in intelligent energy

ENTERPRISE CORE VALUES

love, struggle, pragmatic and promising

CERTIFICATION

UL

ISO

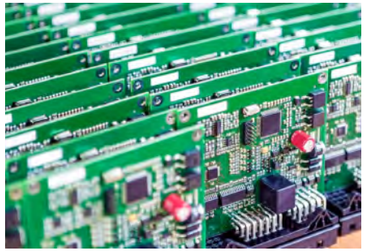
IEC

UN38.3

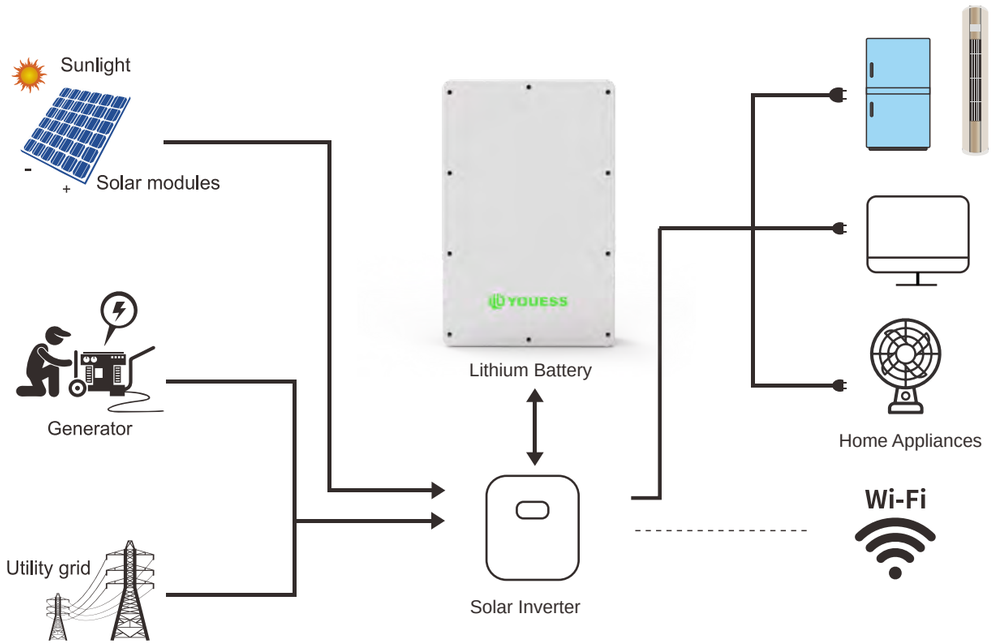
CE

MSDS

FACTORY



Solar System Connection



- Cycle life ＞6000 times
- LED Display
- Floor or wall mounting
- APP / Bluetooth
- LiFePO4 battery
- Safety & Reliability
- Scalability
- 95%DOD
- 99% Faradic charge efficiency

Product Parameter

MODEL	iPower-5.12E	iPower-10.24E
Total Energy [kWh]	5.12	10.24
Capacity [Ah]	100	200
Nominal Voltage [V]	51.2	51.2
Voltage Range [V]	45-57.6	45-57.6
MAX. Charge & Discharge Current [A]	60	100
Peak Charge & Discharge Current [A] (for 10 sec.)	80	120
Dimension [W×D×H,mm]	440×180×680	630×185×845
Net Weight [Kg]	45	85
Scalability	1~16 in parallel	
Communication	CAN,RS485	
Communicated Inverter	GOODWE/Victron/SOFAR/Deye/Growatt/MEGAREVO/SRNE	
Enclosure Protection Rating	IP65	
Working Temperature Range [°C]	-10 ~ 50	
Cycle Life	>6,000 Cycle@ 80% DOD / 25°C / 0.5C, 60%EOL	
Warranty	10 years	
Certification	IEC62619,UL1973,UN38.3,CE	

Features and advantages

- Excellent safety of cobalt free LiFePO4 battery
- Flexible capacity options, 5.12kWh to 25.6kWh
- Easy installation with modular and stacked design
- Compatible with Tier 1 inverter brands
- IP65 Protection Level
- Remote Diagnosis & Upgrade

Max.+50°C

Min.-10°C

RH.+5%~+95%

High voltage energy storage Lithium battery pack

iTower-HV 5.12	iTower-HV 10.24	iTower-HV 15.36	iTower-HV 20.48	iTower-HV 25.6

Product Parameter

MODEL	iTower-HV 5.12	iTower-HV 10.24	iTower-HV 15.36	iTower-HV 20.48	iTower-HV 25.6
Battery Module	HV-BMU(5.12kwh,102.4V)				
Number of Modules	1	2	3	4	5
Total Energy [kWh]	5.12	10.24	15.36	20.48	25.6
Nominal Voltage [V]	102.4	204.8	307.2	409.6	512
MAX. Charge Voltage [V]	115.2	230.4	345.6	460.8	576
MIN. Discharge Voltage [V]	96	192	288	384	480
Dimension [W×D×H,mm]	600×370×470	600×370×670	600×370×870	600×370×1070	600×370×1270
Net Weight [Kg]	76	127	178	229	280
Max. Chargeing Current [A]	50				
Max. Discharge Current [A]	50				
Communication	CAN,RS485				
Communicated Inverter	GOODWE/DEYE//MEGAREVO/SOFAR/Growatt/SOLAX				
Enclosure Protection Rating	IP65				
Working Temperature Range [°C]	-10~50				
Cycle Life	>6,000 Cycle@ 80% DOD / 25°C / 0.5C, 60%EOL				
Warranty	10 years				
Certification	IEC62619,UL1973,UN38.3,CE				

Lithium Battery
iTower-LV Series

High performance battery

Excellent safety of cobalt free LiFePO4 battery

Scalable from 5.12kWh to 40.96 kWh

Economic intelligence

Designed for household use, quick display of product status

Automatic intelligent management, no manual operation

Charge during the day and discharge during the night to save electricity

Flexibility and convenience

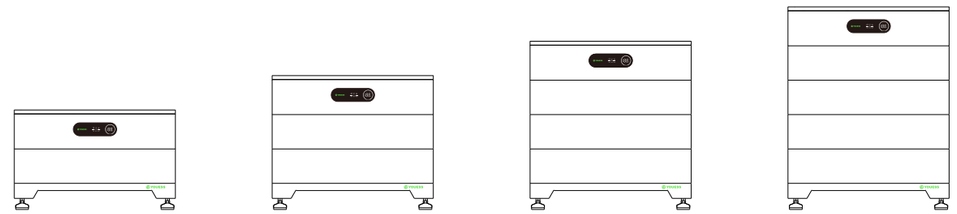
IP65 Protection Level

Plug-and-play interface for quick and easy installation

Stacked battery modules for flexible and expandable reserve power

Multiple safety design for safer household

Low voltage energy storage Lithium battery pack



iTower-LV 5.12 | iTower-LV 10.24 | iTower-LV 15.36 | iTower-LV 20.48

iTower-LV 25.6 | iTower-LV 30.72 | iTower-LV 35.84 | iTower-LV 40.96

Product Parameter

MODEL	iTower-LV 5.12	iTower-LV 10.24	iTower-LV 15.36	iTower-LV 20.48	iTower-LV 25.6	iTower-LV 30.72	iTower-LV 35.84	iTower-LV 40.96
Battery Module	LV-BAT (5.12kwh,51.2V)							
Number of Modules	1	2	3	4	5	6	7	8
Total Energy [kWh]	5.12	10.24	15.36	20.48	25.6	30.72	35.84	40.96
Max. Chargeing Current [A]	50	100	150	200	250	300	300	300
Max. Discharge Current [A]	50	100	150	200	250	300	300	300
Dimension [W×H×D,mm]	750×470×460	750×470×620	750×470×780	750×470×940	750×470×1100	750×470×1260	750×470×1420	750×470×1580
Weight [Kg]	65	110	155	200	245	290	335	380
Nominal Voltage [V]	51.2							
MAX. Charge Voltage [V]	57.6							
MIN. Discharge Voltage [V]	45							
Communication	CAN,RS485							
Communicated Inverter	GOODWE/Victron/SOFAR/DEYE/Growatt/MEGAREVO/SRNE							
Enclosure Protection Rating	IP65							
Working Temperature Range [℃]	-10 ~ 50							
Cycle Life	＞6,000 Cycle@ 80% DOD / 25℃ / 0.5C, 60%EOL							
Warranty	10 years							
Certification	IEC62619,UL1973,UN38.3,CE							

Product features

Friendly & flexibility

- Support multi-parallel connection;
- Support flexible access of diesel generator;
- Compatible with lead-acid and lithium-ion battery;

Economy & practicality

- Support intelligent EMS management function;
- Support on/off-grid automatic switching function to ensure uninterrupted power when important loads are off-grid;

High-end villa

communication base station

Nomadic farm

residential electricity consumption

Product Parameter

MODEL	E-6K-L1
Input (PV)	
Max. power(kW)	7
Max. DC voltage(V)	550
MPPT voltage range(V)	125~500
Max.input current of single MPPT(A)	14
MPPT tracker/strings	2/1
AC output	
Rated output power(kVA)	6
Max. output current(A)	26
Grid voltage/range(V)	230/176~270
Frequency (Hz)	50 /60
PF	0.8lagging-0.8leading
THDi	<3%
AC output topology	L+N+PE
Battery	
Battery voltage range(V)	40~58
Max. charging voltage(V)	58
Max. charge/discharge current(A)	95/110
Battery type	lithium /Lead-acid
Communication interface	CAN/RS485
EPS output	
Rated power (kVA)	6
Rated output voltage(V)	230
Rated output current(A)	26
Rated frequency (Hz)	50 /60
Automatic switching time (ms)	<20
THDu	<2%
Overload capacity	110%, 30S/120%, 10S/150%, 0.02S
General data	
Battery chage/dischage efficiency	95.0%
DC Max. efficiency	97.6%
Europe efficiency	97.0%
MPPT efficiency	99.9%
Ingress protection	IP65
Noise emission (dB)	<35
Operation temperature	- 25°C~ 60°C
Cooling	Natural
Relative humidity	0~95%(non-condensing)
Altitude	2,000m(>2,000 Derating)
Dimensions W×D×H (mm)	550×200×515
Weight (kg)	25
Isolation transformer	No
Self-consumption(W)	<3
Display and communication	
Display	LCD
Interface:RS485/Wifi/4G/CAN/DRM	Yes/ Opt/ Opt/ Yes/ Yes
Safety standard	IEC/EN62109-1/-2, IEC/EN62477-1
EMC	IEC/EN 61000-6-1, IEC/EN 61000-6-3
On-grid	South Africa NRS097-2-1:2017, UK G98,G99

Product features

Friendly & Flexibility

- Support diesel generator access;
- Support full power discharge, automatic management of battery charge and discharge;

Economy & practicality

- It is more economical to support multiple operating modes;
- Can be as a UPS for the important loads when power off;

High-end villa | communication base station | Nomadic farm | residential electricity consumption

Product Parameter

MODEL	E-8K-H3	E-10K-H3	E-12K-H3
Input (PV)			
Max. power(kW)	12	15	18
Max. DC voltage(V)	1000		
MPPT voltage range(V)	180~850		
Max.input current of single MPPT(A)	12		
MPPT tracker/strings	2/1	2/1	2/1
AC output			
Rated output power(kVA)	8	10	12
Max. output current(A)	12.7	15.9	19.1
Grid voltage/range(V)	400/360~440		
Frequency (Hz)	50 /60		
PF	0.8lagging-0.8leading		
THDi	<3%		
AC output topology	3W+N+PE		
Battery			
Battery voltage range(V)	125~600		
Max. charging voltage(V)	600		
Full battery voltage(V)	250	300	350
Rated charge/discharge current(A)	40	40	40
Battery type	lithium /Lead-acid		
Communication Interface	CAN/RS485		
EPS output			
Rated power(kVA)	8.8	11	13.2
Rated output voltage(V)	400		
Max. output current(A)	12.7	15.9	19.1
Rated frequency(Hz)	50/60		
Automatic switching time(ms)	<20		
THDu	<2%		
Overload capacity	110%, 30S/120%, 10S/150%, 0.02S		
General data			
Battery chage/dischage efficiency	96.6%	96.7%	96.8%
DC Max. efficiency	97.9%	98.2%	98.2%
Europe efficiency	97.2%	97.5%	97.5%
MPPT efficiency	99.5%	99.5%	99.5%
Ingress protection	IP65		
Noise emission (dB)	<35		
Operation temperature	-25℃~ 60℃		
Cooling	Natural		
Relative humidity	0~95%（non-condensing）		
Altitude	2,000m (>2,000 Derating)		
Dimensions W×D×H (mm)	530×200×600		
Weight (kg)	29		
Isolation transformer	No		
Self-consumption(W)	<3		
Display and communication			
Display	LCD		
Interface:RS485/Wifi/4G/CAN/DRM	Yes/ Opt/ Opt/ Yes/ Yes		
Safety standard	IEC/EN62109-1/-2, IEC/EN62477-1		
EMC	IEC/EN 61000-6-1, IEC/EN 61000-6-3		
On-grid	Europe：EN50549-1, Germany：VDE4105/0124，UK：G99，South Africa：NRS097-2-1:2017		

Product Features:

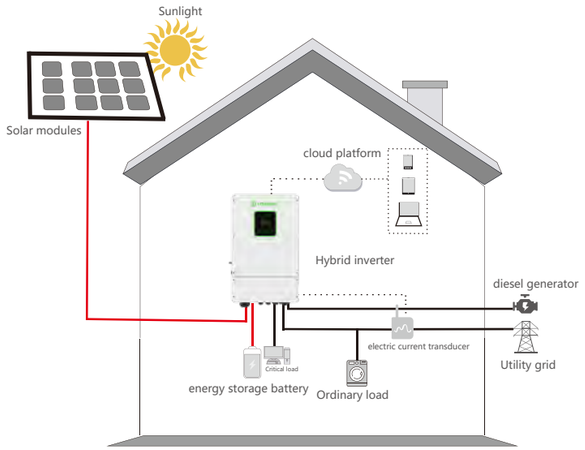
Friendly & Flexibility

- Support multi-machine parallel connection;
- Support multi-machine parallel mode with shared a battery pack; Single-machine load capacity 100A;

Economy & Efficiency

- Support parallel SOC equalization control and parallel current sharing control;
- Use split-phase topology and eliminate the transformers, to make the system higher efficiency ;
- Support the diesel generator and the grid access at the same time;

Home light storage solutions



- Compatible with lithium-ion battery and lead-acid battery;
- High voltage and low voltage battery flexible compatibility;
- Smart home energy management terminal;
- Power dispatching and demand-side response management node;
- Distributed virtual power plant node;

Product Parameter

MODEL	U-5K-L1	U-6K-L1	U-8K-L1	U-10K-L1
Input (PV)				
Max.Power(kW)	7.5	9	12	13
Max.Power(kW)	500			
MPPT Voltage Range(V)	120~500			
Max.Input current Of Single MPPT(A)	12			
Max.Input current Of Single MPPT(A)	4/1			
AC output				
Rated Output Power(kVA)	5	6	8	10
Max. Output Current(A)	24	28.8	38.3	47.8
Ac Output Voltage(V)	120/240(split phase), 208(2/3 phase),230 (single phase)			
Frequency (Hz)	50/60			
PF	0.8lagging-0.8leading			
THDi	< 3%			
AC Output Topology	Split phase, 2/3 phase, single phase			
Battery				
Battery Voltage Range(V)	40~58			
Max. Charging Voltage(V)	58			
Max. Charge/Discharge Current(A)	120/120	135/135	190/190	210/210
Battery Type	lithium /Lead-acid			
Communication Interface	CAN/RS485			
EPS output				
Rated Power(kVA)	5	6	8	10
Rated Output Voltage(V)	120/240 (split phase), 208 (2/3 phase),230 (single phase)			
Rated Output Current(A)	24	28.8	38.3	47.8
Rated Frequency(Hz)	50/60			
Automatic Switching Time(ms)	<20			
THDu	< 2%			
Overload Capacity	125%,60S/150%,1S			
General Data				
Max. Efficiency	≥98.2%			
North American Efficiency	≥97.2%			
Ingress Protection	IP65/NEMA 3R			
Noise Emission(dB)	<25	<29	<29	<29
Operation Temperature	-25℃ ~ 60℃			
Cooling	Natural			
Relative Humidity	0 ~95% (non-condensing)			
Altitude	2,000m(>2,000 Derating)			
Dimensions W *D *H (mm)	430*220*710			
Weight(kg)	41			
Isolation Transformer	No			
Self-Consumption(W)	<3			
Display And Communication				
Display	LCD, touch screen			
Interface:RS485/Wifi/4G/CAN/DRM	Yes			
Safety Standard	UL1741SA all options, UL1699B, CSA 22.2			
EMC	FCC Part 15, Class B			
On-Grid	IEEE 1547, IEEE 2030.5, Hawaii Rule 14H, Rule 21 Phase I,II,III,NRS			

SC Series Solar Panel

SC-410/SC-460/SC-550

Introduction

MONO module Assembled with PERC cells, the configuration of the modules offers the advantages of higher power output, cells temperature-dependent performance, reduces shading effect on the energy generation, lower risk of hot spot, as well as enhanced tolerance for mechanical loading.

Higher Durability

The multi-busbar design can decrease the risk of the cell micro- cracks and fingers broken.

High Power Density

High conversion efficiency and more power output pers quare meter,by lower series resistance and improved light harvesting.

PID Resistant

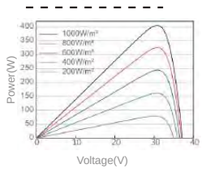
Tested in accordance to the standard IEC 62804, our PV modules have demonstrated resistance a gainst PID (Potential Induced Degradation), which translates to security for your investment.

Bigger Cells with better performance

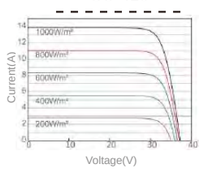
A slight increase of the size of our cells, boosts the performance of the newest modules by six percent on average.

Higher Durability

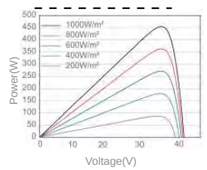
SC-410



SC-410



SC-460



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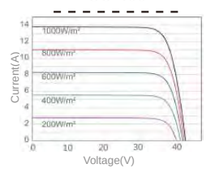
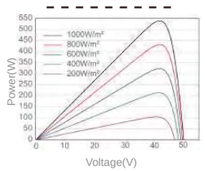
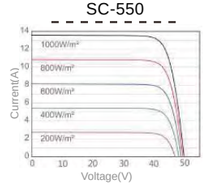


SC-550



SC-550



Product Parameter

SPECIFICATIONS

MODEL	SC-410	SC-460	SC-550
Weight	21.5kg	23kg	26.2kg
Dimensions	1722mm*1134mm*30mm	1909mm*1134mm*30m	2094mm*1134mm*35mm
Cell Amount	54*2 pcs	60*2 pcs	66*2 pcs
Maximum System Voltage	1500V	1500V	1500V
Junction Box	IP68	IP68	IP68
Frame	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy
Cable	4mm²/300mm	4mm²/300mm	4mm²/300mm
Connector	MC4 Compatible	MC4 Compatible	MC4 Compatible
Application Level	Class A	Class A	Class A

ELECTRICAL PARAMETERS AT STC

MODEL	SC-410	SC-460	SC-550
Maximum Power (Pmax/W)	410	460	550
Open Circuit Voltage(Voc/V)	37.28	41.55	49.95
Short Circuit Current(Isc/A)	13.94	14.05	14.05
Maximun Power Voltage(Vmp/V)	30.95	35.06	41.97
Maximum Power Current(Imp/A)	13.25	13.13	13.11
Module Efficiency(%)	21.00	21.20	21.30

*** Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.**

ELECTRICAL PARAMETERS AT NOCT

MODEL	SC-410	SC-460	SC-550
Maximum Power (Pmax/W)	305.0	343.0	414.0
Open Circuit Voltage(Voc/V)	34.90	38.77	46.63
Short Circuit Current(Isc/A)	11.26	11.12	11.17
Maximun Power Voltage(Vmp/V)	28.80	32.67	39.31
Maximum Power Current(Imp/A)	10.60	10.51	10.53

*** Under Nominal Module Operating Temperature (NOCT), irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.**

TEMPERATURE CHARACTERISTICS

MODEL	SC-410	SC-460	SC-550
NOCT	45±2°C	45±2°C	45±2°C
Temp Coefficient of Isc	+0.046%/°C	+0.046%/°C	+0.046%/°C
Temp Coefficient of Voc	-0.276%/°C	-0.276%/°C	-0.276%/°C
Temp Coefficient of Pmax	-0.350%/°C	-0.350%/°C	-0.350%/°C

PACKING CONFIGURATION

MODEL	SC-410	SC-460	SC-550
Modules/Pallet	36 Pieces	36 Pieces	31 Pieces
Modules/40'Container	936 Pieces	864 Pieces	682 Pieces

MAXIMUM RATING

MODEL	SC-410	SC-460	SC-550
Output Tolerance	0~+5W	0~+5W	0~+5W
Operating Temperature	-40°C~+85°C	-40°C~+85°C	-40°C~+85°C
Wind Load/Snow Load	2400pa/5400pa	2400pa/5400pa	2400pa/5400pa
Fuse Current	20A	20A	20A

Project case

Manila Project in Philippines

Jamaica household solar storage project

Hybrid Solar Storage System in Jamaica

iHome Series

System Configuration	5kW System	6kW System	8kW System
PV Module	6kW~7kW	8kW~9kW	10kW~11kW
No. PV modules (pcs)-e.g.,550W	12	16	20
Effective Roof Area Approx.	30㎡-35㎡	40㎡-45㎡	50㎡-60㎡
Inverter	5kW*1set	6kW*1set	8kW*1set
Battery	5kWh-10kWh	5kWh-10kWh	10kWh-25kWh
Cable set	1set	1set	1set
Mounting Structure set	1set	1set	1set
Cloud & APP	1set	1set	1set
Combiner box	Optional	Optional	Optional
Power Generation	17-20kWh/Day 6350-7410kWh/Year	23-26kWh/Day 8470-9530kWh/Year	29-32kWh/Day 10590-11650kWh/Year
Carbon Dioxide Emission Reduction	Reduce carbon dioxide 7.4 ton per year	Reduce carbon dioxide 9.5 ton per year	Reduce carbon dioxide 11.6 ton per year

System Configuration	10kW System	12kW System	15kW System
PV Module	12kW~14kW	15kW~17kW	18kW~20kW
No. PV modules (pcs)-e.g.,550W	22/24/26	28/30/32	34/36/38
Effective Roof Area Approx.	65㎡-75㎡	80㎡-95㎡	95㎡-115㎡
Inverter	10kW*1set	12kW*1set	15kW*1set
Battery	10kWh-25kWh	10kWh-25kWh	10kWh-25kWh
Cable set	1set	1set	1set
Mounting Structure set	1set	1set	1set
Cloud & APP	1set	1set	1set
Combiner box	Optional	Optional	Optional
Power Generation	35-41kWh/Day 12700-14820kWh/Year	44-50kWh/Day 15880-18000kWh/Year	52-58kWh/Day 19050-21170kWh/Year
Carbon Dioxide Emission Reduction	Reduce carbon dioxide 14.8 ton per year	Reduce carbon dioxide 17.9 ton per year	Reduce carbon dioxide 21.1 ton per year

•Take Berlin, Germany as a reference. The annual peak sunshine hours are 1253h
•Each 1kWh generated reduce 0.997kg of CO_2
Note: Larger capacity systems can be configured according to demand.