COMMITTED TO WIND & SOLAR HYBRID POWER SYSTEM SOLUTIONS

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ELEGE
ENERGY

ELEGE NEW ENERGY COMPANY PRESENTATION

COMPANY PROFILE

Elege New Energy (Zhangjiagang) Co., Ltd , is mainly engaged in 100W-200KW wind turbines, wind turbines for street lighting, vertical axis wind turbines, horizontal axis wind turbines, wind and solar hybrid street lighting systems, new energy field monitoring systems, decentralized household power supply systems, scenic lighting systems, etc. One-stop service. It has strong competitive advantages in product quality, technical support, and after-sales service. Products are exported to Europe, America, the Middle East, Southeast Asia and other regions, and are deeply affirmed and trusted by customers. We always adhere to the concept of "integrity, development, innovation", and hope to cooperate with domestic and foreign customers for a win-win situation.

Make family energy more efficient -our home energy storage system can convert solar energy into electrical energy and store it to provide your family with reliable and clean energy. Not only that, our energy storage system can also supply energy to the power grid when supply and demand in the energy market is imbalanced to help you earn benefits. Let's contribute to environmental protection and energy conservation, so that the family is more comfortable and efficient!

We focus on providing efficient and reliable energy storage solutions for home users, which can not only meet the electricity needs of your family, but also provide you with all -round services such as energy management and electricity cost savings. Let us customize the best quality energy storage solutions for you by in -depth understanding of your home power consumption. Choose us, choose wise, convenient, and energy -saving lifestyle!s such as solar energy and energy storage, and contribute to providing sustainable energy development for the societ.

MISSION OF COMPANY

Heroes create myth; technologies change life

ENTERPRISE SPIRIT

Dare to innovate,
Dare to reform,
Dare to forge ahead,
Dare to struggle

TALENT CONCEPT

Talent Philosophy of Company To ensure employees who are both virtuous and talented; to train employees who are virtuous but untalented; to supervise employees who are talented but not virtuous; not to hire employees who are neither virtuous nor talented!

BUSINESS PHILOSOPHY

People oriented, honesty engaged, customer respected, and harmony cherished

VALUES

Loyalty is a great wisdom, dedication is a virtue; a high aim will brings a good future.

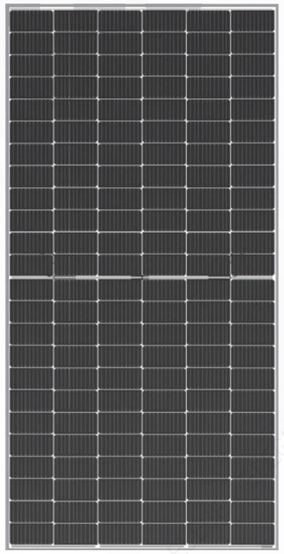
COMPANY HONOR

CE UN38.3 RoHS

For more patents, please consult relevant personnel >>>

CONTENTS

390W-410W
M10 HALF CELL MONO



Performance characteristics

180 CELL
MBB MONO PERC

21.01%
MAXIMUM EFFICIENCY

0 to +5W
POSITIVE POWER TOLERANCE

TEMPERATURE RATINGS		MAXIMUN RATING	
Nominal Operating Cell Temperature(NOCT)	45±2°C	Operat onal Temperature	-40 to +85°C
Temperature Coefficient of PMAX	-0.348%/°C	Maximum System Voltage	1500V DC
Temperature Coefficient of Voe	-0.282%/°C	Max Series Fuse Rating	25A
Temperature Coefficient of Isc	+0 05%/°C	Mechanical Load	5400pa
		Wind Load	2400pa

Technical parameters

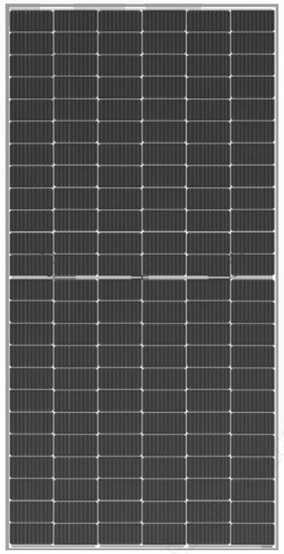
Module Type		54M390HM10		54M395HM10		54M400HM10		54M405HM10		54M410HM10	
Test Environment		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
MaximumPower	PMAx(W)	390	290.25	395	293.97	400	297.69	405	301.41	410	305.13
MaximumPowerVoltage	VMPP(V)	30.17	28.07	30.36	28.25	30.55	28.42	30.74	28.60	30.93	28.78
MaximumPower Current	IMPP(A)	12.93	10.34	13.02	10.41	13.1	10.48	13.12	10.49	13.26	10.60
Open Circuit Voltage	Voc(V)	36.55	34.50	36.78	34.72	37 01	34.93	37.24	35.15	37.47	35.37
Short Circuit Current	Isc(V)	13.61	10.99	13.70	11 07	13.79	11.13	13.81	11.25	13.96	11.27
Tolerance	(W)	0-+5		0-+5		0-+5		0-+5		0-+5	
Module Efficiency	(%)	19.98		20.24		20.5		20.75		21.01	

STC:Irradiance 1000 W/m² ,Cell Temperature 25°C,Air Mass AM1.5 according to EN 60904-3.Average efficiency reduction fo 4.5% at 200W/m² according to EN 60904-1

NOCT: Irradiance at 800 W/m',Ambient Temperature 20°C,Wind Speed lm/s

MECHANICAL DATA		
Solar Cells	MBB Mono PERC 182x91mm	
Cell Orientation	108 Cells (6 x 18)	
Module Dimensions	1723x1133x35mm	
Weight	21.5kg	
Glass	3.2mm Low-Iron Tempered Suede Glass	
Backsheet	White	
Frame	Silver Anodized Aluminium Alloy(Black Available)	
J-Box	IP 68 Rated	
Cables	Photovoltaic Technology Cable 4.0mm',350mm	
Connector	EV02 or EV02 Compatible	
PACKAGING CONFIGURATION	Modules per Box:31 Pieces	Modules per 40'Container:720 Pieces

435W-455W
M10 HALF CELL MONO



Performance characteristics

120 CELL
M10 MBB MONO PERC

20.05%
MAXIMUM EFFICIENCY

0 to +5W
POSITIVE POWER TOLERANCE

TEMPERATURE RATINGS		MAXIMUN RATING	
Nominal Operating Cell Temperature(NOCT)	45±2°C	Operat onal Temperature	-40 to +85°C
Temperature Coefficient of PMAX	-0.348%/°C	Maximum System Voltage	1500V DC
Temperature Coefficient of Voe	-0.282%/°C	Max Series Fuse Rating	25A
Temperature Coefficient of Isc	+0 05%/°C	Mechanical Load	5400pa
		Wind Load	2400pa

Technical parameters

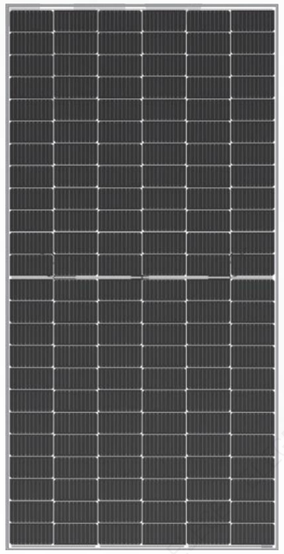
Module Type		60M435HM10		60M440HM10		60M445HM10		60M450HM10		60M455HM10	
Test Environment		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
MaximumPower	PMAx(W)	435	323.74	440	327.46	445	331.18	405	334.9	455	338.63
MaximumPowerVoltage	VMPP(V)	34.16	31.78	34.21	31.83	34.26	31.87	31.92	28.60	34.36	31.97
MaximumPower Current	IMPP(A)	12.74	10.19	12.87	10.29	12.99	13.12	13.12	10.49	13.25	10.6
Open Circuit Voltage	Voc(V)	41.38	39 06	41.44	39.12	41.50	39.17	41.56	39.23	41.62	39.29
Short Circuit Current	Isc(V)	13.41	10.83	13.55	10.94	13.67	11.04	13.81	11.15	13.95	11.26
Tolerance	(W)	0-+5		0-+5		0-+5		0-+5		0-+5	
Module Efficlency	(%)	20.13		20.36		20.5		20.75		20 05	

STC:Irradiance 1000 W/m² ,Cell Temperature 25°C,Air Mass AM1.5 according to EN 60904-3.Average efficiency reduction fo 4.5% at 200W/m² according to EN 60904-1

NOCT: Irradiance at 800 W/m',Ambient Temperature 20°C,Wind Speed lm/s

MECHANICAL DATA		
Solar Cells	MBB Mono PERC 182x91mm	
Cell Orientation	120 Cells (6 x 20)	
Module Dimensions	1908 x 1133 x 35mm	
Weight	24kg	
Glass	3.2mm Low-iron Tempered Suede Glass	
Backsheet	White	
Frame	Silver Anodized Aluminium Alloy(Black Available)	
J-Box	IP 68 Rated	
Cables	Photovoltaic Technology Cable 4.0mm',350mm	
Connector	EV02 or EV02 Compatible	
PACKAGING CONFIGURATION	Modules per Box:31 Pieces	Modules per 40'Container:744 Pieces

530W-550W
M10 HALF CELL MONO



Performance characteristics

144 CELL
M10 MBB MONO PERC

21.3%
MAXIMUM EFFICIENCY

0 to +5W
POSITIVE POWER TOLERANCE

TEMPERATURE RATINGS		MAXIMUN RATING	
Nominal Operating Cell Temperature(NOCT)	45±2°C	Operat onal Temperature	-40 to +85°C
Temperature Coefficient of PMAX	-0.348%/°C	Maximum System Voltage	1500V DC
Temperature Coefficient of Voe	-0.282%/°C	Max Series Fuse Rating	25A
Temperature Coefficient of Isc	+0 05%/°C	Mechanical Load	5400pa
		Wind Load	2400pa

Technical parameters

Module Type		TJ-72M530HM10		TJ-72M535HM10		TJ-72M540HM10		TJ-72M545HM10		TJ-72M550HM10	
Test Environment		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
MaximumPower	PMAx(W)	530	394.44	535	398.16	540	401.88	545	405.61	550	409.33
MaximumPowerVoltage	VMPP(V)	40.47	37.65	40.6	37 77	40.73	37.89	40.86	38 02	40.99	38.14
MaximumPower Current	IMPP(A)	13.1	10.48	13.18	10.54	13.26	10.6	13.34	10.67	13.42	10.73
Open Circuit Voltage	Voc(V)	49 02	46.27	49.18	46.43	49.34	46.58	49.5	46.73	49.65	46.87
Short Circuit Current	Isc(V)	13.79	11.14	13.87	11 2	13.96	11.27	14 04	11.34	14.13	11.41
Tolerance	(W)	0-+5		0-+5		0-+5		0-+5		0-+5	
Module Efficlency	(%)	20.5		20.7		20.9		21.1		21.3	

STC:Irradiance 1000 W/m² ,Cell Temperature 25°C,Air Mass AM1.5 according to EN 60904-3.Average efficiency reduction fo 4.5% at 200W/m² according to EN 60904-1

NOCT: Irradiance at 800 W/m',Ambient Temperature 20°C,Wind Speed lm/s

MECHANICAL DATA		
Solar Cells	MBB Mono PERC 182x91mm	
Cell Orientation	144 Cells (6 x 24)	
Module Dimensions	2278 x 1133 x 35mm	
Weight	28kg	
Glass	High Transparency.Anti-Reflective.AR Coated and Heat Tempered Solar Glass -3.2mm	
Backsheet	White	
Frame	Silver Anodized Aluminium Alloy(Black Available)	
J-Box	IP 68 Rated	
Cables	Photovoltaic Technology Cable 4.0mm',350mm	
Connector	EV02 or EV02 Compatible	
PACKAGING CONFIGURATION	Modules per Box:31 Pieces	Modules per 40'Container:620 Pieces

EL-S1

EL-S2

EL-S3

EL-S4

- Low start-up wind speed, small size, beautiful appearance and low vibration during operation;
- Use the humanized flange installation design, which is convenient for installation and maintenance;
- The blades are made of nylon fiber, with low starting wind speed and high wind energy utilization coefficient;
- The generator adopts the magnet-bearing rotor alternator of Amway technology, equipped with a special rotor design, which effectively reduces the resistance torque of the generator, which is only 1/3 of the ordinary motor, and at the same time makes the wind wheel and generator more powerful. for good matching characteristics;
- Adopt maximum power tracking intelligent microprocessor control to effectively adjust current and voltage;

Model	EL-S-100W	EL-S-200W	EL-S-300W	EL-S-400W	EL-S-500W	EL-S-600W	EL-S-700W	EL-S-800W
Rated power	100W	200W	300W	400W	500W	600W	700W	800W
Maximum power	110W	220W	330W	440W	550W	660W	770W	880W
Rated voltage	12/24V	12/24V	12/24V	12/24V	12/24V	12/24V	12/24V	12/24V
Start-up wind speed	3.0m/s	3.0m/s	3.0m/s	3.0m/s	3.0m/s	3.0m/s	3.0m/s	3.0m/s
Rated wind speed	14m/s	14m/s	14m/s	14m/s	14m/s	14m/s	14m/s	14m/s
Survival wind speed	40m/s	40m/s	40m/s	40m/s	40m/s	40m/s	40m/s	40m/s
Number of blades	3/5/6/8 pieces							
Blade material	nylon fiber							
Body material	aluminium alloy							
Generator	three phase AC permanent magnet generator/maglev generator							
Control system	electromagnetic brake							
Yaw mode	automatic windward angle							
Lubrication mode	self lubrication							
Tower form	guyed tower/independent tower							
Working temperature	-40°C-80°C							

HORIZONTAL AXIS WIND TURBINE

EL-M1

EL-M2

EL-M3

EL-M4

EL-M5

- Low starting wind speed, small size, and beautiful appearance.
- Use humanized flange installation design for easy installation and maintenance:
- The aluminum alloy body and wind turbine blades are made of nylon fiber material, with optimized aerodynamic exterior color design and structural design. The starting wind speed is low, the wind energy utilization coefficient is high, and the annual power generation is increased:
- The generator adopts a patented permanent magnet rotor AC generator with a special rotor design, effectively reducing the positive torque of the generator, which is only 1/3 of that of a regular motor. At the same time, the wind turbine and generator have better matching characteristics, ensuring the reliability of unit operation.

Model	EL-M-1KW	EL-M-2KW
Rated power	1000W	2000W
Maximum power	1100W	2200W
Rated voltage	12/24/48V	12/24/48V
Start-up wind speed	3m/s	3m/s
Rated wind speed	14m/s	14m/s
Survival wind speed	40m/s	40m/s
Number of blades	3/5 pieces	
Blade material	nylon fiber	
Body material	aluminium alloy	
Generator	three phase AC permanent magnet generator/maglev generator	
Control system	electromagnetic brake	
Yaw mode	automatic windward angle	
Lubrication mode	self lubrication	
Tower form	guyed tower/independent tower	
Working temperature	-40°C-80°C	

L SERIES

- Low starting wind speed, small size, strong visual appeal, and low assistance for walking dance;
- Adopting humanized flange installation design to ensure safety
Installation and maintenance;
- Retain the alloy body and use high-quality fiberglass blades,
The anti-corrosion performance blocks noise, making it both aesthetically pleasing and durable. The color of the drum can be customized according to customer requirements;
- A motor that utilizes patented technology from an unprocessed rotor AC generator. Equipped with a ball holding design.
Effectively reduce the positive torque of the generator. Only one-third of that of a regular electric motor. Meanwhile, wind turbines and generators have better matching characteristics. The reliability of mechanical long-distance travel.
- Adopting maximum power cost tracking intelligent microprocessor control. Effective current and voltage

Model	EL-L-3KW	EL-L-4KW	EL-L-5KW	EL-L-7KW	EL-L-8KW
Rated power	3KW	4KW	5KW	7KW	8KW
Maximum power	3.3KW	4.4KW	5.5KW	7.7W	8.8KW
Rated voltage	24/48V	24/48V	48/96/120V	96/120/220v	120/220V
Start-up wind speed	3m/s	3m/s	3m/s	3m/s	3m/s
Rated wind speed	14m/s	14m/s	14m/s	14m/s	14m/s
Survival wind speed	45m/s	45m/s	45m/s	45m/s	45m/s
Number of blades	3 pieces				
Blade material	nylon fiber				
Body material	aluminium alloy				
Generator	three phase AC permanent magnet generator/maglev generator				
Control system	electromagnetic brake				
Yaw mode	automatic windward angle				
Lubrication mode	self lubrication				
Tower form	guyed tower/independent tower				
Working temperature	-40°C-80°C				

G SERIES

- Low start up speed,3 blades ,high wind energy utilization.
- Easy installation, tube or flange connection optional.
- Application of precision injection molding for blades, matched with optimized aerodynamic shape and structure which enhance the wind energy utilization and annual output.
- Body of casting aluminum alloy, with 2 bearings swivel , making it survive stronger wind and run more safely.
- The generator using patented magnetic bearing alternator, coupled with a special stator design, effectively reduce the resistance torque of the generator, while the wind wheel and the generator has a more good matching characteristics, the unit running reliability.
- It is ideally suited for the leisure sector and is known for charging batteries for boats, gazebos, cabins or mobile homes, as well as for green windmills, home, corporate and industrial energy supplements.

Model	EL-G-8KW	EL-G-10KW	EL-G-15KW	EL-G-20KW	EL-G-30KW	EL-G-40KW
Rated power	8KW	10KW	15KW	20KW	30KW	40KW
Maximum power	8.8KW	11KW	16KW	22KW	33KW	44KW
Rated voltage	120/220V	120/220V	120/220V	120/220V	120/220V	220V
Start-up wind speed	3m/s	3m/s	3m/s	3m/s	3m/s	3m/s
Rated wind speed	14m/s	14m/s	14m/s	14m/s	14m/s	14m/s
Survival wind speed	40m/s	40m/s	40m/s	40m/s	40m/s	40m/s
Number of blades	3 pieces					
Blade material	nylon fiber					
Body material	aluminium alloy					
Generator	three phase AC permanent magnet generator/maglev generator					
Control system	electromagnetic brake					
Yaw mode	automatic windward angle					
Lubrication mode	self lubrication					
Tower form	guyed tower/independent tower					
Working temperature	-40°C-80°C					

ET

• Low starting wind speed, small size, strong visual appeal, and low assistance for walking dance;

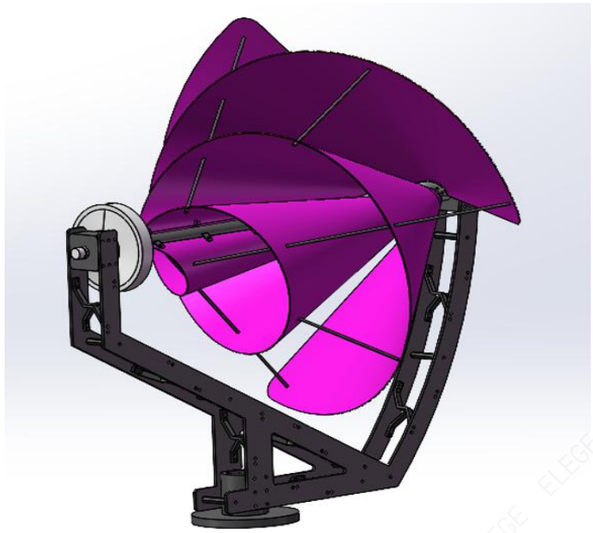
• Rotation radius. Because of its design structure and special operating principle, it has a smaller radius of rotation than other types of wind turbines, it saves space, while improving efficiency;

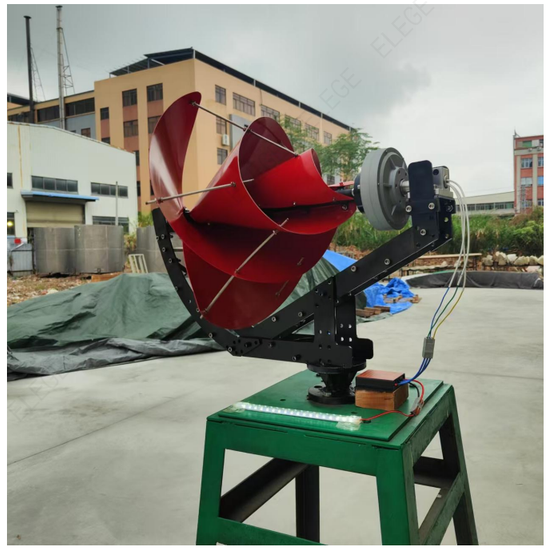
• Operation and maintenance. Direct drive type permanent magnet generator, without gear box and steering mechanism, regularly(usually every six months) check the connection of the running parts;

• Appliacation. The turbine could be installed near facilities, such as residences, parks, schools, building rooftops, roads and walking street, etc;

Model	ET-500	ET-1000	ET-1500	ET-2000
Rated power	500W	1000W	1500W	2000W
Maximum power	550W	1100W	1650W	2200W
Optional voltage	12/24V	12/24/48V	24/48/V	24/48/V
Start-up wind speed	2m/s	2m/s	2m/s	2m/s
Rated wind speed	14m/s	14m/s	14m/s	14m/s
Leaf material	FRP/Composite material			
Number of blades	2 pieces			
Body material	aluminium alloy			
Generator	Coreless 3 phase AC generator			
Control system	electromagnetic brake			
Lubrication mode	self lubrication			
Tower form	guyed tower/independent tower			
Working temperature	-40°C-80°C			

ECO





• This new turbine is easy to install on the roof of a house, just like installing a solar panel. It
reaches its peak power generation efficiency at wind speeds of 5 meters per second.
• The design of this new wind turbine solves the problems of efficiency and noise. Its shape
is like a nautilus shell, and it automatically points to the best position of the wind like a
pennant to achieve maximum production. According to CTO Marinus, the maximum yield is
80%, which is much higher than other wind turbines.
•The new turbine captures the wind's kinetic energy by twisting it and reducing its speed to
near-zero wind levels, converting it into mechanical energy. The effect of wind speed on the
rotor is maximized, and boosted by the wind's acceleration on the rotorcraft.

Model	ECO-80W	ECO-120W	ECO-150W	ECO-400W	ECO-800W	ECO-1500W
Rated power	80W	120W	150W	400W	800W	1500W
Maximum power	88W	122W	155W	440W	880W	1550W
Optional voltage	24/48V	24/48V	24/48V	24/48V	24/48V	24/48V
Start-up wind speed	1.5m/s	1.5m/s	1.5m/s	1.5m/s	1.5m/s	1.5m/s
Rated wind speed	14m/s	14m/s	14m/s	14m/s	14m/s	14m/s
Leaf material	FRP/Composite material					
Number of blades	3 pieces					
Body material	aluminium alloy					
Generator	Coreless 3 phase AC generator					
Control system	electromagnetic brake					
Lubrication mode	self lubrication					
Tower form	guyed tower/independent tower					
Working temperature	-40°C-80°C					

EL-H1

EL-H2

EL-H3

EL-H4

VERTICAL AXIS WIND TURBINE

Features

H-type

- Safety The vertical blade is adopted, and the main stress point isconcentrated on the hub, so the problems of blade falling off, fractureand blade flying out have been better solved.
- Noise Horizontal plane rotation and blade design based on the principle ofaircraft wing are adopted to reduce the noise to a level that can notbe measured in the natural environment.
- Wind resistance The principle of horizontal rotation and vertical flat blade makes itless subject to wind pressure and can resist super typhoon.
- Turning radius Because of its different design structure and operation principle, ithas smaller turning radius than other forms of wind powergeneration, saves space and improves efficiency.
- Generation curve characteristicsThe start-up wind speed is lower than that of other types of windturbines, and the rising range of power generation is relatively gentle.Therefore, within the wind speed range of 5 - 8m, its powergeneration is 10%- 30% higher than that of other types of windturbines.
- Utilization wind speed range The special control principle is adopted to expand its suitableoperating wind speed range to 2.5 ~ 25m / s, maximize the use ofwind resources, obtain greater total power generation, and improvethe economy of wind power equipment.
- Braking deviceThe blade itself has speed protection and is also equipped withelectromagnetic brake.

Model	EL-H1-500W	EL-H2-1000W	EL-H3-2000W	EL-H3-3000W	EL-H4-5000W
Rated power	500W	1000W	2000W	3000W	5000W
Maximum power	550W	1100W	2200W	3300W	5500W
Rated voltage	12/24V	12/24V	24/48V	24/48V	48/96/220V
Start-up wind speed	2.5m/s	2.5m/s	2.5m/s	2.5m/s	2.5m/s
Rated wind speed	14m/s	14m/s	14m/s	14m/s	14m/s
Survival wind speed	40m/s	40m/s	40m/s	40m/s	40m/s
Number of blades	3/5 pieces				
Body material	aluminium alloy				
Generator	three phase AC permanent magnet generator/maglev generator				
Control system	electromagnetic brake				
Yaw mode	automatic windward angle				
Lubrication mode	self lubrication				
Tower form	guyed tower/independent tower				
Working temperature	-40°C-80°C				

EX Series

VERTICAL AXIS WIND TURBINE

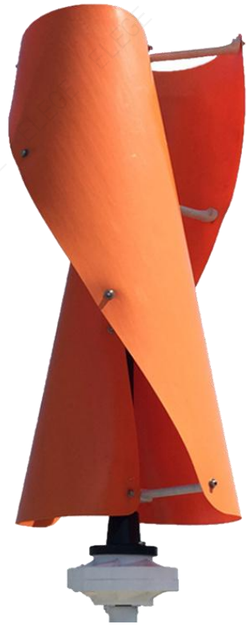
X-type

Features

- Curved blade design,utilizes wind resource effectively and obtainsahigher power generation.
- Coreless generator, Horizontal rotation and aircraft wing designreduce the noise to an unperceivable levelin naturalenvironmentWind resistance.
- Horizontal rotation and trianqular doublefulcrum design make it only bear a small wind pressure even instrong wind.
- Rotation radius. smaller rotation radius than other types of windturbines,spaceis saved while efficiencyimproved.
- Effective wind speed range. special control principle expendedthe wind speed to 2.5 ~ 25m/s, utilizes wind resource effectivelyand obtains ahiqher power generation.

Model	EL-EX-300W	EL-EX-800W	EL-EX-1000W	EL-EX-2000W
Rated power	300W	800W	1000W	2000W
Maximum power	330W	880W	1100W	2200W
Rated voltage	12/24V	12V/24V	24/48V	24/48V
Start-up wind speed	1.3 m/s	1.3 m/s	1.3 m/s	1.3 m/s
Rated wind speed	14m/s	14m/s	14m/s	14m/s
Cut-in wind speed	3.5m/s	3.5m/s	3.5m/s	3.5m/s
Number of blades	3 pieces			
Body material	glass/basalt			
Generator	Coreless Disc Generator			
Control system	electromagnetic brake			
Yaw mode	automatic windward angle			
Lubrication mode	self lubrication			
Tower form	guyed tower/independent tower			
Working temperature	-40~+80°C			

EV Series



VERTICAL AXIS WIND TURBINE

Features

- rich colors, the blade can be white, orange, yellow, blue green, mixed colors, and any other colors.
- a variety of voltage options, 3-phase AC output, suitable for 12V, 24V, 48V battery
- integrated blade design, to ensure higher rotational stability, low noise.
- coreless generator means lower starting torque, lower starting wind speed, longer service life.
- speed limit protection, no matter how high the wind speed, the speed is kept below 300, which can prevent the controller from overload. Complete set of fasteners and installation tools are included in the package.
- Long service life, the turbine can work 10-15 years under non-normal natural environment.

V-type

Model	EL-EV-500W	EL-EV-1000W	EL-EV-1500W	EL-EV-2000W
Rated power	500W	1000W	1500W	2000W
Maximum power	550W	1100W	1650W	2200W
Rated voltage	12/24V	12/24V	12/24/48V	24-220V
Start-up wind speed	1.3 m/s	1.3 m/s	1.3 m/s	1.3 m/s
Rated wind speed	10m/s	10m/s	11m/s	11m/s
Cut-in wind speed	3.5m/s	3.5m/s	3.5m/s	3.5m/s
Number of blades	2 pieces			
Body material	glass/basalt			
Generator	Coreless 3 phase AC generator			
Control system	Electromagnet			
Yaw mode	automatic windward angle			
Lubrication mode	self lubrication			
Tower form	guyed tower/independent tower			
Working temperature	-40~+80°C			

ER Series









VERTICAL AXIS WIND TURBINE

Features

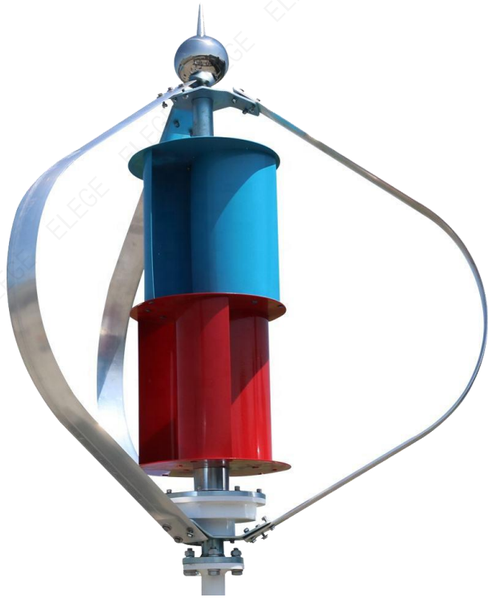
- the use of nylon glass fiber has better flexibility, better solve the blade falling off, breaking, flying out and other problems.
- Noise based on the principle of aircraft wing horizontal plane rotation and blade design, reduce the noise to the natural environment can not be measured horizontal wind resistance horizontal rotation design principle makes it less affected by wind pressure, can resist super typhoon due to its different design structure and operating principle, its turning radius is smaller than other forms of wind power generation.
- Save space and improve efficiency. The starting wind speed is lower than that of other forms of wind turbines, the rise of power generation is gentle, and the stability is good.
- the use of wind speed range using a special control principle, the suitable operating wind speed range is expanded to 2.5 ~ 25m/s, in the maximum use of wind resources at the same time to obtain greater total power generation, improve the economy of wind power equipment. The brake blade itself has speed protection and can be configured with mechanical manual and electronic automatic braking.

R-type




Model	EL-ER-100W	EL-ER-200W	EL-ER-300W	EL-ER-400W
Rated power	100W	200W	300W	400W
Maximum power	150W	220W	330W	440W
Rated voltage	12/24V	12/24V	12/24V	12/24V
Start-up wind speed	2 m/s	2 m/s	2 m/s	2 m/s
Rated wind speed	14m/s	14m/s	14m/s	14m/s
Cut-in wind speed	3.5m/s	3.5m/s	3.5m/s	3.5m/s
Number of blades	5 pieces			
Body material	nylon fiber			
Generator	three phase AC permanent magnet generator/maglev generator			
Control system	electromagnetic brake			
Yaw mode	automatic windward angle			
Lubrication mode	self lubrication			
Tower form	guyed tower/independent tower			
Working temperature	-40°C-80C			

EQ Series

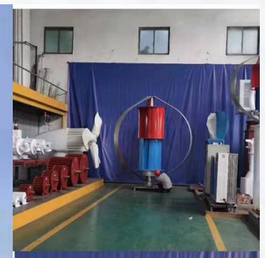


VERTICAL AXIS WIND TURBINE

Features

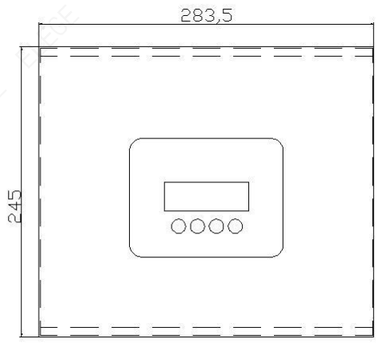
- Safety: vertical blade and triangular double fulcrum design. The main stress points are concentrated in the hub, which better solves the problems of blade falling off, breaking and flying out.
- Using horizontal rotation and blade design based on the principles of aircraft wings, noise is reduced to levels that cannot be measured in the natural environment. Wind resistance
The integral blade is made of aluminum alloy. Horizontal rotation and triangular double fulcrum design principle, so that it is not affected by wind pressure, can resist super typhoons, improve efficiency.
- The starting wind speed of the generation curve is lower than that of other types of wind turbines, and the generating capacity is 10% ~ 30% higher than that of other types of wind turbines. The range of wind speed suitable for operation is expanded to 2.5 ~ 25m/s, which maximizes the use of wind resources while obtaining greater total power generation, improving the economy of wind power equipment. The blade itself has speed protection. Mechanical manual braking and electronic automatic braking can be set in typhoon-free areas and super typhoon areas.

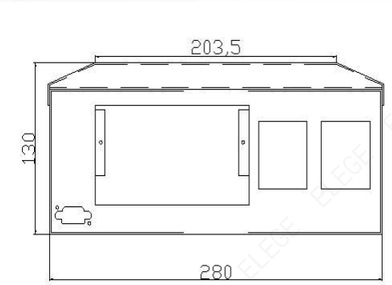
Q-type

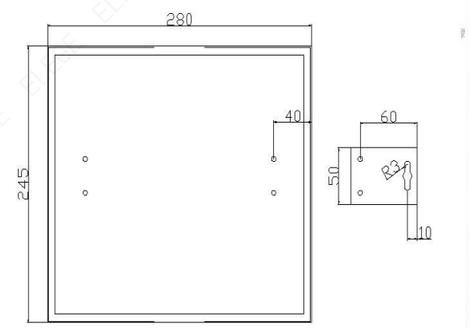


Model	EL-EQ-500W	EL-EQ-1000W	EL-EQ-2kW	EL-EQ-5KW	EL-EQ-10KW
Rated power	500W	1000W	2000W	5000w	10kw
Maximum power	550W	1100W	2200W	5500w	11kw
Rated voltage	12/24V	12/24/48V	24/48V	48/96/220V	220/380V
Start-up wind speed	3m/s	3m/s	3m/s	3m/s	3m/s
Rated wind speed	14m/s	14m/s	14m/s	14m/s	14m/s
Survival wind speed	40m/s	40m/s	40m/s	40m/s	40m/s
Number of blades	3 pieces				
Body material	Aluminium alloy				
Generator	three phase AC permanent magnet generator/maglev generator				
Control system	electromagnetic brake				
Yaw mode	automatic windward angle				
Lubrication mode	self lubrication				
Working temperature	-40°C-80C				

SOLAR CHARGE CONTROLLER







FEATURES:

- Solar charging method MPPT or PWM
- the maximum current of the battery intelligent current limit
- the controller has a battery and solar dual power supply function, if the battery loss of power, solar power supply to start the controller.
- charging circuit with hardware protection function, the use of relays as the final switch to ensure maximum safety of the system to carry the voltage and current and other parameters.
- Key LCD multi-level menu display, intelligent key setting
- the controller internal circuit board dark coated with three anti-varnish can be dust-proof, moisture-proof, anti-static.

RS232 full signal serial port or RS485 communication electric port

Controller parameter

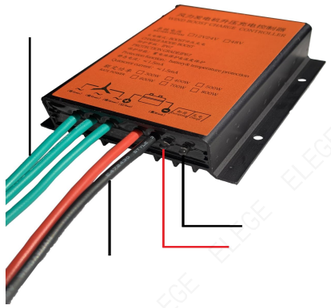
Solar rated current	40A~100A		
Rated battery voltage	48V	96V	120V
Solar maximum access voltage	160V	360V	360V
Undervoltage protection voltage(Low)	40.8V(Settable)	80.0V(Settable)	102.0V(Settable)
Undervoltage return voltage(Rlow)	46.5V(Settable)	92.0V(Settable)	115.0V(Settable)
Overvoltage protection voltage(Full)	58.8V(Settable)	117.0V(Settable)	144.0V(Settable)
Overvoltage return voltage(RFull)	52.8V(Settable)	105.0V(Settable)	130.0V(Settable)
Float charging voltage(Flot)	54.0V(Settable)	108.0V(Settable)	135.0V(Settable)
Solar charging method	PWM/MPPT		
Display method	LCD (Liquid Crystal Display)		
Display content	Battery: voltage, charging current, power, etc.; Solar: voltage, charging current. System: status, power generation, abnormal phenomenon code, etc.		
Operating temperature and humidity range	-20~+55℃/35~85%RH(but no condensation)		
Static power consumption	≤3W		
Protection type	Battery: over-voltage protection, under-voltage protection, anti-reverse connection, external switch protection, etc. Solar: solar external switch protection. Load: Overload protection.		
Controller size	245mm*283.5mm*130mm		
Controller net weight	8kg		
Communication function	RS232/RS485/GPRS		

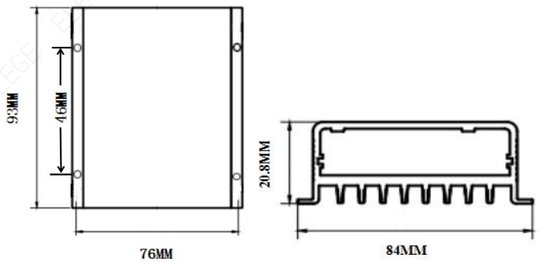
Water proof wind generator boost charge controller

1.Features

- Aluminum housing for better cooling, IP67 protection
- Over charge protection, electronic short circuit protection.
- The controller has high temperature protection function
- Indicator lights indicate the states of the system.
- Boost charging function. It can charging in the breeze.

2.Appearance and Size





3.Safety information

- Please do not immerse the controller in the corrosive liquid, which will damage the controller and produce harmful gas.
- While connecting the system, the voltage may exceed human safety voltage, please use insulation tools, and keep your hands dry.
- If battery is connected reversely, that will damage the controller's fuse. Please avoid reverse the battery.
- Battery storage a lot of energy, if battery is short circuited, that will be danger. It is recommended to connect fuse in series to prevent short circuit protection.
- The battery may produce flammable gas, please stay away from the spark.

4. Electrical Connection

5.State Indication

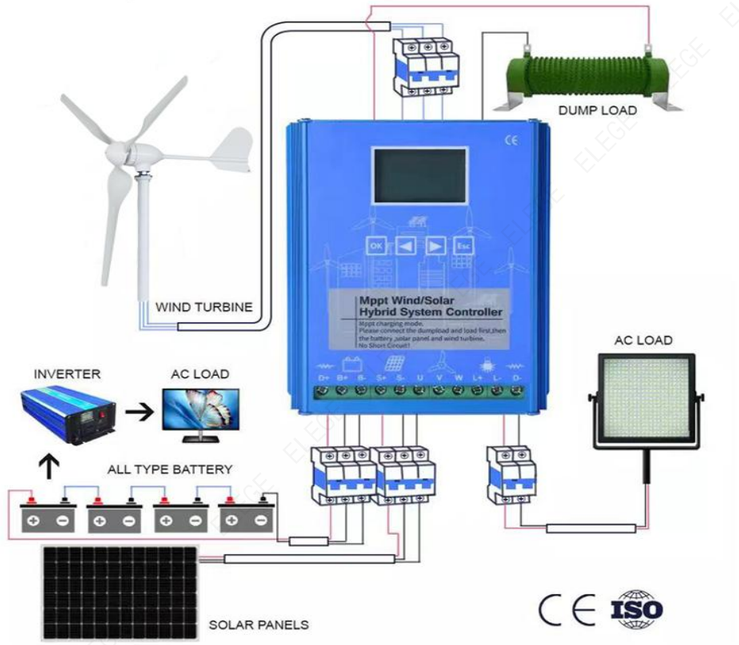
Indicator	Item	State	Function
Green LED	Wind charge	off	1: Wind not connect,2: No wind
		ON	Wind charging
Red LED	Wind brake	OFF	Controller working
		ON	Battery high voltage or high temperature

6.Parameters

System voltage	DC12V/24V/48V
Quiescent power drain	≤15mA
Wind start charging voltage	6V，12V，24V
Working temperature	-35℃ ~ 70℃
Over temperature voltage	14.4V/28.8V/58.6V
Over temperature recoveryvoltage	13.6V/27.6V/57.4V
Shell material	Aluminum
Water proof grade	IP67
Suitable battery	Lead acidbattery/ Gel battery/ Lithium battery

Note: If you use the controller with Lithium, please tell us your Lithium parameters firstly. The wind generator will dump load if the controller's temperature is high.

Wind & Solar Hybrid Controller



FEATURES

- fan breeze charging, MPPT boost intelligent regulation;
- fan PW infinitely unload, external unloader, solar intelligent disconnect charging
- controller dual power supply function: battery + solar power.
- LCD display battery, fan, solar energy, load voltage and current information, some parameters can be set;
- the load output a variety of work modes adjustable.
- high-performance stable chip control;
- the controller internal circuit board spraying three anti-varnish can be dustproof, moisture-proof, anti-static;
- complete menu display and operation, humanized design of the browsing interface, to facilitate the operation;
- perfect protection function; 09, perfect protection function;

Technical parameters

System rated voltage	12V, 24V,12/24v/48V
The above three parameters must be full.Right foot condition	(Fan rated power + photovoltaic rated power)/system rated voltage ≤40A
	Fan rated power/system rated voltage≤ 25A
	Photovoltaic rated power/system rated voltage ≤ 25A
No load current (DC)	≤0.05A
Power-taking mode of controller	Battery or photovoltaic panel take electricity
Control mode	Fan MPPT boost charging anction, pWM unloading function, PWM overcurrent limiting function
Load	Multiple working modes are available: pure light control mode, normally open mode, light control + time control mode (four-time period + morning light)
Display mode	LCD liquid crystal, Chinese display, clear and intuitive, clear at a glance
Display parameters	Voltage, battery power, current, power, load mode, temperature, etc.
Protection type	Solar cell anti-reverse charging protection, battery open circuit protection, battery reverse connection protection,
	over current and over power Soft automatic brake protection, overload protection, etc.
Heat-dissipating method	Aluminum profile heat dissipation self-cooling
Working temperature and humidity range	-20～+55#/35～85% RH (but no condensation)
Net weight/gross weight	2.35KG/2.85KG
Product Size/package size	167*145.5*61.8mm/360*250*120mm

Wind & Solar Hybrid Controller

Functions and features

- Adaptive impedance matching between wind turbine and load to maximize energy utilization. Wind turbines, batteries and loads all have internal resistance. According to the impedance matching principle, only when the input impedance is equal to the output impedance, the power utilization is maximized and the maximum power is obtained. To protect the wind turbine from over speed, over voltage and over current, the maximum speed, maximum voltage and maximum current of the wind turbine can be set.
- Intelligent limit the maximum battery current

The maximum capacity of the battery can be set by this controller. Based on the set maximum capacity, the controller can calculate the maximum charging current so that the battery will be protected. When the wind turbine voltage is lower than the battery voltage, the controller can perform boost charging. When the wind turbine voltage is higher than the battery voltage, the generator adjusts to buck charging to improve the wind energy utilization.

- USB function

Record the working data of the controller through USB disk. Users can analyze the data on PC. Realize the monitoring, data storage and analysis of the whole system. Program can be upgraded through serial interface. Connect PC and controller through serial interface. You can set parameters on PC and controller at the same time. The software is free, easy to operate, and requires no installation.

- Anemometer function

Wind speed can be displayed on LCD for easy observation.

Parameter information

Rated voltage of battery	24V、48V、72V、96V、 120V、(one out of five) (customizable)
Maximum photovoltaic access voltage	180V below 96V, 350V above 96V (except for special parameters)
Maximum connection voltage of wind	180V below 96V, 350V above 96V (except for special parameters
Wind unloading way	Internal resistance unloading and external resistance unloading (different power corresponds to different unloading methods, subject to the actual situation)
Dump load control mode	Over rotate speed limiting, Over voltage limiting, Over Current limiting, PWM
Wind charging mode	MPPT(boost)、MPPT(buck)、MPPT （boost&buck）、PWM(optional)
Photovoltaic charging mode	PWM
Display mode	LCD
Load	NO
Display content	Battery: voltage;charging current; Percentage of battery power. Wind: voltage; charging current; rotate speed; output current; output power. System: state; generated energy; error code.
Operating temperature and humidity range	- 20~ + 55℃/35~85%RH(Non-condensing)
Static power consumption	≤3W
Additional function	RS232、RS485、GPRS 、Anemometer (one out of four, need to purchase)

SEI 4-12KW

Product Features

- Support parallel connection of 6 devices
- Time segmented charging and discharging
- MPPT tracking efficiency up to 99.9%
- Support BMS communication and BMS dual activation for lithium-ion batteries
- Charging current up to 200A
- Comprehensive security protection from hardware to software
- Easy to install and use

Technical parameters

Model	SEI-4K-SP	SEI-4.6K-SP	SEI-5K-SP SEI-5.5K-SP	SEI-6K-SP
Off grid output				
Rated output power	4,000W	4,600W	5,500W	6,000W
Rated output voltage	230Vac，Single phase/three-phase in parallel operation			
Grid connected output				
Rated output power	4,000W	4,600W	5,500W	6,000W
Maximum apparent power	8,000VA	9,200VA	11,000VA	12,000VA
Rated current for AC output	17.4A	20A	24A	26A
AC output maximum current	19.1A	22A	26.4A	28.6A
Rated output voltage	230Vac，Single phase/three-phase in parallel operation			
Battery				
Battery Type	Lead acid batteries/Lithium ion batteries/User defined			
Rated battery voltage	48Vdc			
Battery voltage range	40～60Vdc			
Maximum AC charging current	60A			
Maximum generator charging current	60A			
Maximum hybrid charging current	100A			
Photovoltaic input				
MPPT channels	2			
Maximum input power	3,000W+3,000W	3,500W+3,500W	4,000W+4,000W	4,500W+4,500W
Maximum input current	16A+16A			
Maximum open circuit voltage	500Vdc+500Vdc			
Municipal power/generator input				
Input voltage range	90～280Vac			
Input frequency range	50/60Hz			
Bypass overload current	40A			
Basic parameters				
Number of compatible machines	1~6 platform			
size	556*345*182mm			
weight	20kg			
Protection level	IP65			
Working temperature range	-25~60℃ (>45℃ Reduced amount)			
Cooling method	Heat sink+intelligent air cooling			
Warranty period	5 years			
Communication parameters				
Built in interface	RS485 / CAN / USB / Dry contact point			
External module (optional)	Wi-Fi / GPRS			

SPI 8-12KW

Product Features

- -SP model can connect 6 devices in parallel
- Support dual activation of lithium-ion battery BMS
- Dual MPPT, efficiency up to 99.9%
- Beautiful appearance, easy installation, and convenient use
- Charging current up to 260A
- Comprehensive security protection from hardware to software
- 400V three-phase power system, suitable for large equipment

Technical parameters

Model	SPI-8K-H3	SPI-10K-H3	SPI-12K-H3
Inverter output			
Rated output power	8,000W	10,000W	12,000W
peak power	16,000W	20,000W	24,000W
Rated output voltage	400Vac，three-phase		
Motor load capacity	5HP	6HP	
output frequency	50/60Hz		
Output voltage waveform	Pure sine wave		
Conversion time	10ms（Typical values）		
Battery			
Battery Type	Lithium ion battery/Lead acid battery/User defined		
Rated battery voltage	48Vdc		
Battery voltage range	40～60Vdc		
Maximum photovoltaic charging current	180A	220A	260A
Maximum mains/generator charging current	100A	120A	120A
Maximum hybrid charging current	180A	220A	260A
Photovoltaic input			
MPPT channels	2		
Maximum photovoltaic input power	6,000W+6,000W	7,500W+7,500W	9,000W+9,000W
Maximum input current	22A+22A		
Maximum open circuit voltage	800Vdc+800Vdc		
MPPT voltage range	200～650Vdc		
Municipal power/generator input			
Municipal power/generator input	Phase voltage 170~280V，Line voltage 305~485V		
Input frequency	50/60Hz		
Bypass overload phase current	23A	29A	35A
Basic parameters			
size	620*445*130mm		
weight	27kg		
Protection level	IP20，Indoor only		
Operating temperature range	-10~55℃,>45℃ Derating		
Cooling method	Air Cooling		
Warranty time	18 months		
Communication parameters			
Built-in interface	RS485 / CAN / USB / Dry Contact		
External module (optional)	Wi-Fi / GPRS		

HSI 3-5.5KW

Product Features

- The 5500P model can connect up to 6 devices in parallel
- Supports remote monitoring
- MPPT tracking efficiency up to 99.9%
- Supports lithium-ion battery BMS communication and BMS dual activation
- Maximum photovoltaic charging current up to 100A
- With comprehensive safety protection from hardware to software
- Easy to install and easy to use

Technical parameters

Model	HSI 3000S	HSI 3000U
Inverter output		
Rated output power	3,000W	
Peak Power	6,000VA	
Rated output voltage	230Vac，Single Phase	120Vac，Single Phase
Motor load capacity	2HP	
Output frequency	50Hz/60Hz	
Output voltage waveform	Pure sine wave	
Conversion time	10ms (Typical Value)	
Battery		
Battery Type	Lithium-ion battery/lead-acid battery/user-defined	
Rated battery voltage	24V	
Battery voltage range	20～33Vdc	
Maximum photovoltaic charging current	60A	60A
Maximum AC/generator charging current	80A	40A
Maximum hybrid charging current	140A	100A
Photovoltaic input		
MPPT number	1	
Maximum photovoltaic input power	1,600W	
Maximum input current	40A	
Maximum open circuit voltage	108Vdc	
MPPT voltage range	30～90Vdc	
Municipal power/generator input		
Input voltage range	UPSpattern：170～280Vac; APLpattern：90～280Vac	90～140Vac
Input frequency	50/60Hz	
Bypass overload current	30A	40A
currency		
size	378*280*103mm	
weight	6.8kg	
Protection level	IP20, Indoor only	
Working temperature range	-10℃~55℃	
Cooling method	Air cooling	
Warranty period	18个月	
signal communication		
Built in interface	RS485 / USB / Dry contact point	
External module (optional)	Wi-Fi / GPRS	

Three Phase String Inverter (LV)

SUN-10K-G03-LV SUN-12/15K-G02-LV SUN-10/12/15/18/20/21K-G04-LV

Product Features

- 120V/208V, 127V/220V, 133V/230Vand 50/60Hz,Three phase system
- 2 MPP trackers, Max. efficiency up to 98.6%
- Zero export application, VSG application
- String intelligent monitoring (optional)
- Wide output voltage range
- Anti-PID function (Optional)

Technical parameters

Model	SUN-10K -G03-LV	SUN-12K -G02-LV	SUN-15K -G02-LV	SUN-10K -G04-LV	SUN-12K -G04-LV	SUN-15K -G04-LV	SUN-18K -G04-LV	SUN-20K -G04-LV	SUN-21K -G04-LV
Input Side									
Max. DC Input Power (kW)	13	15.6	19.5	13	15.6	19.5	23.4	26	27.3
Max. DC Input Voltage (V)	800								
Start-up DC Input Voltage (V)	250								
MPPT Operating Range (V)	200-700								
Max. DC Input Current (A)	32+32			32+32			40+40		
Max. Short Circuit Current (A)	48+48			48+48			60+60		
No.of MPP Trackers	2			2			2		
No.of StringsperMPP Tracker	3+3			2+2			3+3		
Output Side									
Rated Output Power (kW)	10	12	15	10	12	15	18	20	21
Max. Active Power (kW)	11	13.2	16.5	10	12	15	18	20	21
Rated Output Voltage/Range (V)	3L/N/PE 127V/220V 0.85Un-1.1Un (this may vary with grid standards)			3L/N/PE 120V/208V, 127V/220V, 133V/230V 0.85Un-1.1Un (this may vary with grid standards)					
Rated Grid Frequency (Hz)	60			50/60					
Operating Phase	Three Phase								
Rated AC Grid Output Current (A)	26.2	31.5	39.4	27.8/26.3/25.1	33.4/31.5/30.1	41.7/39.4/37.6	50/47.3/45.2	55.6/52.5/50.2	58.4/55.2/52.7
Max. AC Output Current (A)	28.9	34.6	43.3	27.8/26.3/25.1	33.4/31.5/30.1	41.7/39.4/37.6	50/47.3/45.2	55.6/52.5/50.2	58.4/55.2/52.7
Power Factor Adjustment Range	0.8 leading to 0.8 lagging								
Total Harmonics Current Distortion (THDi)	<3%								
DC Injection Current (mA)	<0.5%								
Efficiency									
Max. Efficiency	98.6%								
Euro Efficiency	98%								
MPPTEfficiency	>99%								
Protection									
DC Reverse-Polarity Protection	Yes								
AC Short Circuit Protection	Yes								
AC Output Overcurrent Protection	Yes								
Output Overvoltage Protection	Yes								
Insulation Resistance Protection	Yes								
Ground Fault Monitoring	Yes								
Anti-islanding Protection	Yes								
Temperature Protection	Yes								
Integrated DC Switch	Yes								
Remote Software Upload	Yes								
Remote Change of Operating Parameters	Yes								
Surge protection	DC Type II / ACType II								
General Data									
Cabinet Size (WxHxD mm)	362×577×215 (Excluding Connectors and Brackets)								
Weight (kg)	23								
Topology	Transformerless								
Internal Consumption	<1W (Night)								
Running Temperature	-25 to +65℃, >45℃ Derating								
Ingress Protection	IP65								
Noise Emission (Typical)	≤40 dB						≤50 dB		
Cooling Concept	Smart Cooling								
Permissible Altitude (m)	2000								
Warranty	5 Years								
Grid Connection Standard	NBR 16149, NBR 16150, EN 50549, RD 140								
Operating Surroundings Humidity	0-100%								
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2								
Features									
Display	LCD1602								
Interface	RS485/RS232/Wifi/LAN								

Three Phase String Inverter (LV)

SUN-10/12/15K-G05-LV

Product Features

- 120V/208V, 127V/220V, 133V/230Vand 50/60Hz,Three phase system
- 2 MPP trackers, Max. efficiency up to 98.6%
- Zero export application, VSG application
- String intelligent monitoring (optional)
- Wide output voltage range
- Anti-PID function (Optional)

Technical parameters

Model	SUN-10K-G05-LV	SUN-12K-G05-LV	SUN-15K-G05-LV
Input Side			
Max. DC Input Power (kW)	13	15.6	19.5
Max. DC Input Voltage (V)	800		
Start-up DC Input Voltage (V)	250		
MPPT Operating Range (V)	200-700		
Max. DC Input Current (A)	26+26		
Max. Short Circuit Current (A)	39+39		
No.of MPP Trackers	2		
No.of StringsperMPP Tracker	2		
Output Side			
Rated Output Power (kW)	10	12	15
Max. Active Power (kW)	10	12	15
Rated Output Voltage/Range (V)	3L/N/PE 120V/208V, 127V/220V, 133V/230V 0.85UN-1.1UN		
Rated Grid Frequency (Hz)	50/60		
Operating Phase	Three phase		
Rated AC Grid Output Current (A)	27.8/26.3/25.1	33.4/31.5/30.1	41.7/39.4/37.6
Max. AC Output Current (A)	27.8/26.3/25.1	33.4/31.5/30.1	41.7/39.4/37.6
Power Factor Adjustment Range	0.8 leading to 0.8 lagging		
Grid Current THD	<3%		
DC Injection Current (mA)	<0.5%		
Grid Frequency Range	57-62		
Efficiency			
Max. Efficiency	98.6%		
Euro Efficiency	98%		
MPPTEfficiency	>99%		
Protection			
DC Reverse-Polarity Protection	Yes		
AC Short Circuit Protection	Yes		
AC Output Overcurrent Protection	Yes		
Output Overvoltage Protection	Yes		
Insulation Resistance Protection	Yes		
Ground Fault Monitoring	Yes		
Anti-islanding Protection	Yes		
Temperature Protection	Yes		
Integrated DC Switch	Yes		
Remote software upload	Yes		
Remote change of operating parameters	Yes		
Surge protection	DC Type II / ACType II		
General Data			
Size (mm)	362W×527H×220D (Excluding connectors and brackets)		
Weight (kg)	20		
Topology	Transformerless		
Internal Consumption	<1W (Night)		
Running Temperature	-25 to +60℃, >45℃ Derating		
Ingress Protection	IP65		
Noise Emission (Typical)	≤50 dB		
Cooling Concept	Smart cooling		
Max. Operating Altitude Without Derating	4000m		
Warranty	5 years		
Grid Connection Standard	NBR 16149, NBR 16150, EN 50549, RD 140		
Operating Surroundings Humidity	0-100%		
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2		
Features			
Display	LCD1602		
Interface	RS485/RS232/Wifi/LAN		

Three Phase String Inverter (LV)

SUN-20/25/30K-G02-LV SUN-23/25/30K-G03-LV

Product Features

- 120V/208V, 127V/220V, 133V/230Vand 50/60Hz,Three phase system
- Max. 4 MPP trackers, Max. efficiency up to 98.7%
- Zero export application, VSG application
- String intelligent monitoring (optional)
- Wide output voltage range
- Anti-PID function (Optional)

Technical parameters

Model	SUN-20K-G02-LV	SUN-25K-G02-LV	SUN-30K-G02-LV	SUN-23K-G03-LV	SUN-25K-G03-LV	SUN-30K-G03-LV
Input Side						
Max. DC Input Power (kW)	26	32.5	39	29.9	32.5	39
Max. DC Input Voltage (V)	800					
Start-up DC Input Voltage (V)	250					
MPPT Operating Range (V)	200-700					
Max. DC Input Current (A)	40+40	40+40+40	40+40+40+40	40+40+40		40+40+40+40
Max. Short Circuit Current (A)	60+60	60+60+60	60+60+60+60	60+60+60		60+60+60+60
No.of MPP Trackers	2	3	4	3		4
No.of StringsperMPP Tracker	3+3	3+3+3	3+3+3+3	3+3+3		3+3+3+3
Output Side						
Rated Output Power (kW)	20	25	30	23	25	30
Max. Active Power (kW)	22	27.5	33	23	25	30
Rated Output Voltage/Range (V)	3L/N/PE 127V/220V 0.85Un-1.1Un (this may vary with grid standards)			3L/N/PE 120V/208V, 127V/220V, 133V/230V 0.85Un-1.1Un (this may vary with grid standards)		
Rated Grid Frequency (Hz)	60			50/60		
Operating Phase	Three Phase					
Rated AC Grid Output Current (A)	52.5	65.6	78.7	63.9/60.4/57.7	69.5/65.7/62.7	83.4/78.8/75.2
Max. AC Output Current (A)	57.8	72.2	86.6	63.9/60.4/57.7	69.5/65.7/62.7	83.4/78.8/75.2
Power Factor Adjustment Range	0.8 leading to 0.8 lagging					
Total Harmonics Current Distortion (THDi)	<3%					
DC Injection Current (mA)	<0.5%					
Efficiency						
Max. Efficiency	98.7%					
Euro Efficiency	98%					
MPPTEfficiency	>99%					
Protection						
DC Reverse-Polarity Protection	Yes					
AC Short Circuit Protection	Yes					
AC Output Overcurrent Protection	Yes					
Output Overvoltage Protection	Yes					
Insulation Resistance Protection	Yes					
Ground Fault Monitoring	Yes					
Anti-islanding Protection	Yes					
Temperature Protection	Yes					
Integrated DC Switch	Yes					
Remote Software Upload	Yes					
Remote Change of Operating Parameters	Yes					
Surge Protection	DC Type II / ACType II					
General Data						
Cabinet Size (WxHxD mm)	647.5×537×303.5 (Excluding Connectors and Brackets)					
Weight (kg)	44.5					
Topology	Transformerless					
Internal Consumption	<1W (Night)					
Running Temperature	-25 to +65℃, >45℃ Derating					
Ingress Protection	IP65					
Noise Emission (Typical)	≤50 dB					
Cooling Concept	Smart Cooling					
Permissible Altitude (m)	2000					
Warranty	5 Years					
Grid Connection Standard	NBR 16149, NBR 16150, EN 50549, RD 140					
Operating Surroundings Humidity	0-100%					
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2					
Features						
Display	LCD1602					
Interface	RS485/RS232/Wifi/LAN					

Three Phase String Inverter (LV)

SUN-33/35/40/45/50K-G-LV

Product Features

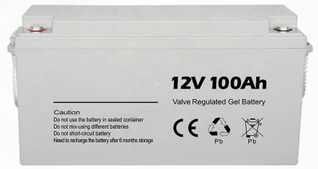
- 120V/208V, 127V/220V, 133V/230Vand 50/60Hz,Three phase system
- Max. 4 MPP trackers, Max. efficiency up to 98.7%
- Zero export application, VSG application
- String intelligent monitoring (optional)
- Wide output voltage range
- Anti-PID function (Optional)

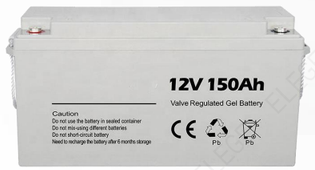
Technical parameters

Model	SUN-35K-G02-LV	SUN-40K-G-LV	SUN-45K-G-LV	SUN-50K-G-LV	SUN-33K-G-LV	SUN-35K-G-LV	SUN-40K-G-LV	SUN-45K-G-LV	SUN-50K-G-LV
Input Side									
Max. DC Input Power (kW)	45.5	52	58.5	65	42.9	45.5	52	58.5	65
Max. DC Input Voltage (V)	800								
Start-up DC Input Voltage (V)	250								
MPPT Operating Range (V)	200-700								
Max. DC Input Current (A)	30+30+30+30	40+40+40+40							
Max. Short Circuit Current (A)	45+45+45+45	60+60+60+60							
No.of MPP Trackers	4								
No.of StringsperMPP Tracker	3+3+3+3	4+4+4+4			3+3+3+3		4+4+4+4		
Output Side									
Rated Output Power (kW)	35	40	45	50	33	35	40	45	50
Max. Active Power (kW)	38.5	44	49.5	55	33	35	40	45	50
Rated Output Voltage/Range (V)	3L/N/PE 127V/220V 0.85Un-1.1Un (this may vary with grid standards)				3L/N/PE 120V/208V, 127V/220V, 133V/230V 0.85Un-1.1Un (this may vary with grid standards)				
Rated Grid Frequency (Hz)	60				50/60				
Operating Phase	Three Phase								
Rated AC Grid Output Current (A)	91.9	104.9	118.1	131.2	91.7/86.7/82.8	97.3/91.9/87.8	111.2/105/100.3	125/118.2/112.8	138.9/131.3/125.4
Max. AC Output Current (A)	101.1	115.5	129.9	144.4	91.7/86.7/82.8	97.3/91.9/87.8	111.2/105/100.3	125/118.2/112.8	138.9/131.3/125.4
Power Factor Adjustment Range	0.8 leading to 0.8 lagging								
Total Harmonics Current Distortion (THDi)	<3%								
DC Injection Current (mA)	<0.5%								
Efficiency									
Max. Efficiency	98.7%								
Euro Efficiency	98.3%								
MPPTEfficiency	>99%								
Protection									
DC Reverse-Polarity Protection	Yes								
AC Short Circuit Protection	Yes								
AC Output Overcurrent Protection	Yes								
Output Overvoltage Protection	Yes								
Insulation Resistance Protection	Yes								
Ground Fault Monitoring	Yes								
Anti-islanding Protection	Yes								
Temperature Protection	Yes								
Integrated DC Switch	Yes								
Remote Software Upload	Yes								
Remote Change of Operating Parameters	Yes								
Surge Protection	DC Type II / ACType II								
General Data									
Cabinet Size (WxHxD mm)	700×575×297 (Excluding Connectors and Brackets)								
Weight (kg)	60								
Topology	Transformerless								
Internal Consumption	<1W (Night)								
Running Temperature	-25 to ++65℃, >45℃ Derating								
Ingress Protection	IP65								
Noise Emission (Typical)	≤50 dB	≤55 dB			≤55 dB		≤55 dB		
Cooling Concept	Smart Cooling								
Permissible Altitude (m)	2000								
Warranty	5 Years								
Grid Connection Standard	NBR 16149, NBR 16150, EN 50549, RD 140								
Operating Surroundings Humidity	0-100%								
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2								
Features									
Display	LCD 240 × 160								
Interface	RS485/RS232/Wifi/LAN								

GEL BATTERY

GBP-L1 Model Series Rack Type Lithium Iron Phosphate Battery





Product introduction

Belongs to a development classification of lead-acid battery, the simplest practice is to add a gelling agent in sulfuric acid, so that sulfuric acid electroliquid into a colloidal state. Electrohydraulic cells in a colloidal state are usually called colloidal cells.It uses flat plate plate and special lead paste formula, colloidal electrolyte, no liquid stratification, do not need balanced charging, self-discharge rate is stronger than the ordinary lead-acid battery, battery deep discharge capacity greatly exceeds the ordinary battery, the adaptability to temperature is also greatly strengthened.

Performance characteristics

- Using dilute sulfuric acid as electrolyte, no flammability, high safety
- It has the longest industrialization time, so it has the most mature technology, stability and applicability
- Wide range of operating temperature and current, good storage performance

Technical parameters

Module Type	GBP12V-100AH	GBP12V-150AH	GBP12V-200AH	GBP12V-250AH
NominalVoltage(V)	12V			
Nominalcapacity(AH)	100AH	150AH	200AH	250AH
Battery Type	Lead-Acid			
Material	High Pure Lead			
Warranty	3 Years	3 Years	3 Years	3 Years
Cycle life	2000 Times	2000 Times	2000 Times	2000 Times
Size	405*173*231mm	482*171*240mm	525*268*220mm	525*268*220mm
Weight	65kg	65kg	65kg	65kg
Apllication	Solar Energy Storage Sysytem			
OEM/ODM	Accepatable			

The above data are for reference only and are subject to change without prior notice. Special voltage can be customized.

LIFEPO4 LITHIUM BATTERY

Wall mounted lithium battery

Product introduction

Wall-mounted home energy storage is a compact, lightweight home energy storage battery that can store electricity converted from renewable energy sources such as solar and wind energy for use in the home. Compared with traditional energy storage equipment, wall-mounted home energy storage has the advantages of small size, easy installation, beautiful appearance and so on, which is suitable for small households

Performance characteristics

- High volume-to-energy ratio, reducing space occupation
- High mass-to-energy ratio, saving load-bearing requirements
- High energy conversion efficiency, saving energy consumption
- Easier to use Special structure design, easy to install
- High temperature adaptability

Technical parameters

Model	GBP48-100W	GBP48-200W	GBP51.2-100W	GBP51.2-200W
Nominal voltage (V)	48		51.2	
Nominal capacity (Ah)	100	200	100	200
Nominal energy (kWh)	4.8	9.6	5.12	10.24
Working voltage range (V)	42~54.75		44.8~58.4	
Recommended charging voltage (V)	51.75		55.2	
Recommended discharge cut-off voltage (V)	45		48	
Standard charging/discharging current(A)	0.5C			
Maximum continuous charge/discharge current (A)	1C（Customizable）			
Applicable temperature (℃)	-30～60(recommend10～35)			
Allowable humidity range(%RH)	85			
Storage temperature (℃)	-20～65(recommend10～35)			
Protection level	IP20			
Cooling method	Natural air cooling/intelligent fan			
Maximum size (depth * width * height)mm	687*450*186	682*465*276	687*450*186	682*465*276
weight (kg)	46	89	49	93

Note: The above data is for reference only and subject to change without prior notice. Customization requirements for Bluetooth, 1C charging and discharging require communication with engineers.

LIFEPO4 LITHIUM BATTERY

Stacked lithium Battery

Product introduction

This product is composed of high-quality lithium iron phosphate cells (by series and parallel) and advanced BMS management system. It can be used as an independent DC power supply or as a "basic unit" to form a variety of energy storage lithium battery power systems. High reliability and longer life. It can be used as backup power supply of communication base station, backup power supply of digital center, household energy storage power supply, industrial energy storage power supply, etc. It can be seamlessly connected with main equipment such as UPS and photovoltaic power generation.

Performance characteristics

- Small size and light weight
- Maintenance-free
- Standard cycle life is more than 5000 times
- Accurately estimate the state of charge of the battery pack, that is,the remaining power of the battery, to ensure that the power of the battery pack is maintained within a reasonable range
- Multiple in parallel, easy for expand
- Easy for installation and maintenance

Technical parameters

Model	GBP24-100R	GBP24-200R	GBP48-100R	GBP48-200R	GBP51.2-100R	GBP51.2-200R
Nominal voltage(V)	25.6		48		51.2	
Nominal capacity(Ah)	100	200	100	200	100	200
Nominal energy(kWh)	2.56	5.12	4.8	9.6	5.12	10.24
Working voltage range(V)	22.4~29.2		42~54.75		44.8~58.4	
Recommended charging voltage(V)	27.6		51.75		55.2	
Recommended discharge cut-off voltage(V)	24		45		48	
Standard charge/discharge current(A)	0.5C					
Maximum continuous charge/discharge current(A	1C（Customizable）					
Applicable temperature(℃)	-30～60（recommend10～35）					
Allowable humidity range(%RH)	85					
Storage temperature(℃)	-20～65（recommend10～35）					
Protection level	IP20					
Cooling method	Natural air cooling/smart fan					
Cycle times	80% DOD 下 5000+number					
Maximum size (depth*width*height)mm	689*495*162		689*495*162	682*510*246	689*495*162	682*510*246
weight(kg)	28	49	46	89	49	93

Note: The above data is for reference only and subject to change without prior notice. Customization requirements for Bluetooth, 1C charging and discharging require communication with engineers.

ENERGY STOPAGE SYSTEM CONTAINER

GBP Lithium battery cluster energy storage system

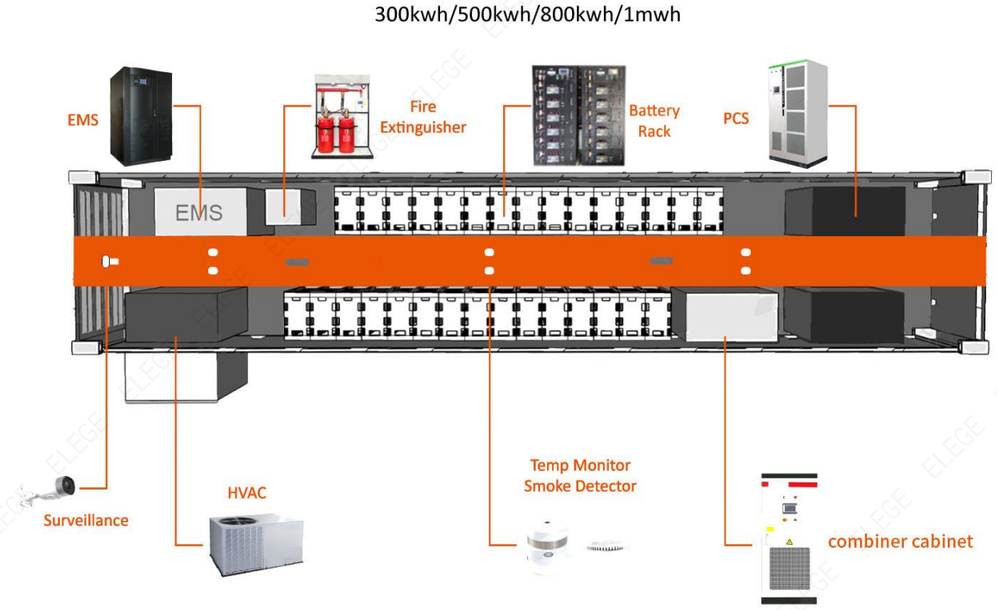
Product introduction

The container energy storage system includes: energy storage battery system, PCS booster system, fire fighting systemmonitoring system, etc. It is widely used in scenarios such as power securily, back-up power, peak shaving and valey flling ,newenergy consumption and grid load smoothing, etc.

Performance characteristics

- Flexible configuration of battery system types and capacities according to customer requirements
- The PCS has a modular architecture, simple maintenance and flexible configuration, allowing for multiple parallel machines
- Support parallel and off-grid operation mode, seamless switching, black start support
- EMS unattended svstem, locally controlled. cloud-monitored operation, with highly customized features
- Various modes including peak and valley reduction, demand response. backilow prevention, back-up power. commandresponse. etc.
- Complete gas fire extinquishing system and automatic fire monitoring and alarm system with audible and visual alarm and faultuploading
- Complete thermal and temperature control svstem to ensure that the baterv comnartment temnerature is within the ontimum operating range
- Access control system with remote control and local operation.

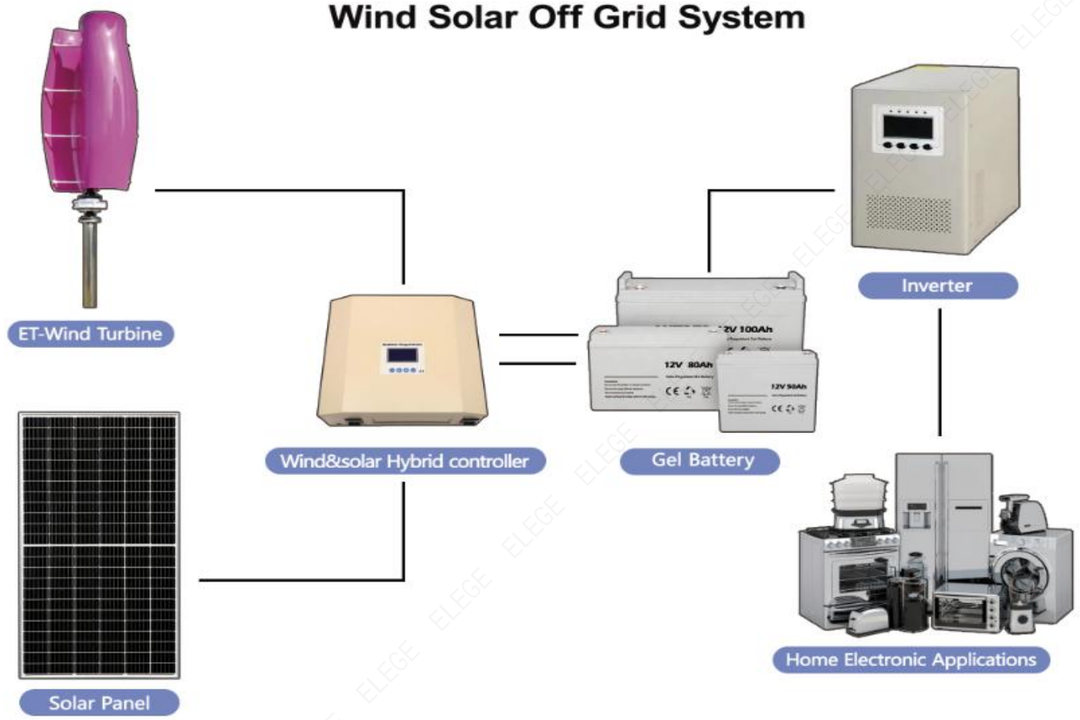
Energy storage container structure distribution map



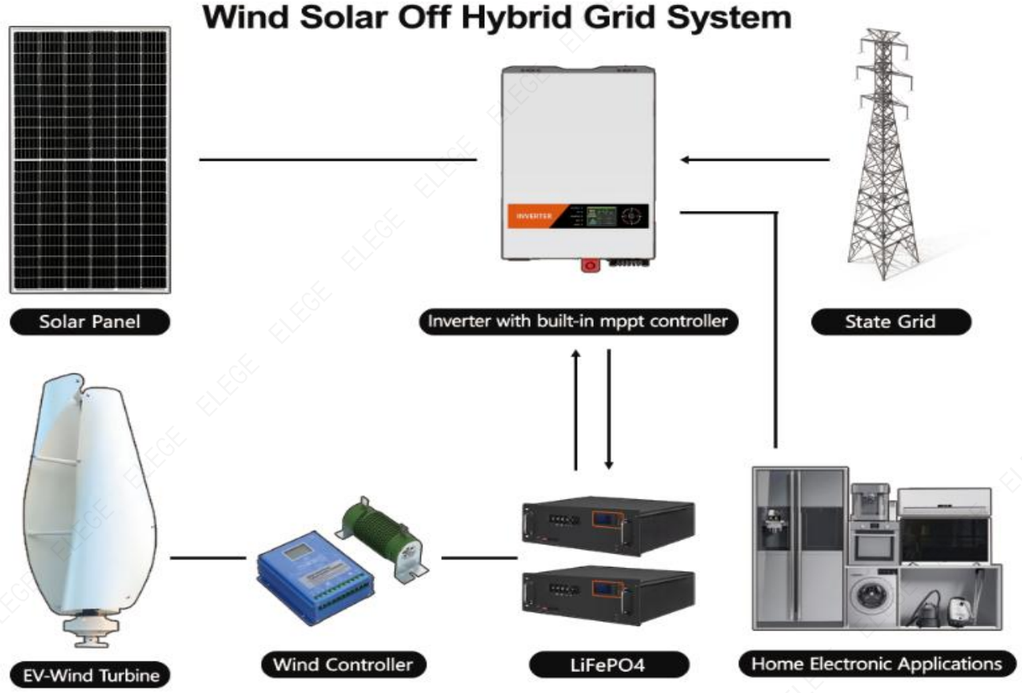
Model	20ft	40ft
Output volt	400V/480V	
Grid frequency	50/60Hz(+2.5Hz)	
Output power	50-300kW	250-630kW
Bat capacity	200-600kWh	600-2MWh
Bat type	LiFePO4	
Size	Inside size (L*W*H):5.898*2.352*2.385	Inside size (L*W*H)::12.032*2.352*2.385
	Outside size (L*WH):6.058*2.438*2.591	Outside size (L*WH):12.192*2.438*2.591
Protection level	IP54	
Humidity	0-95%	
Altitude	3000m	
Working temperature	-20~50C	
Bat volt range	500-850V	
Max. DC current	500A	1000A
Connect method	3P4W	
Power factor	-1~1	
Communication method	RS485.CAN.Ethernet	
Isolation method	Low frequency isolation with transformer	

Remarks: The above data are for reference only and are subject to change without prior notice. Special voltage can be customized.

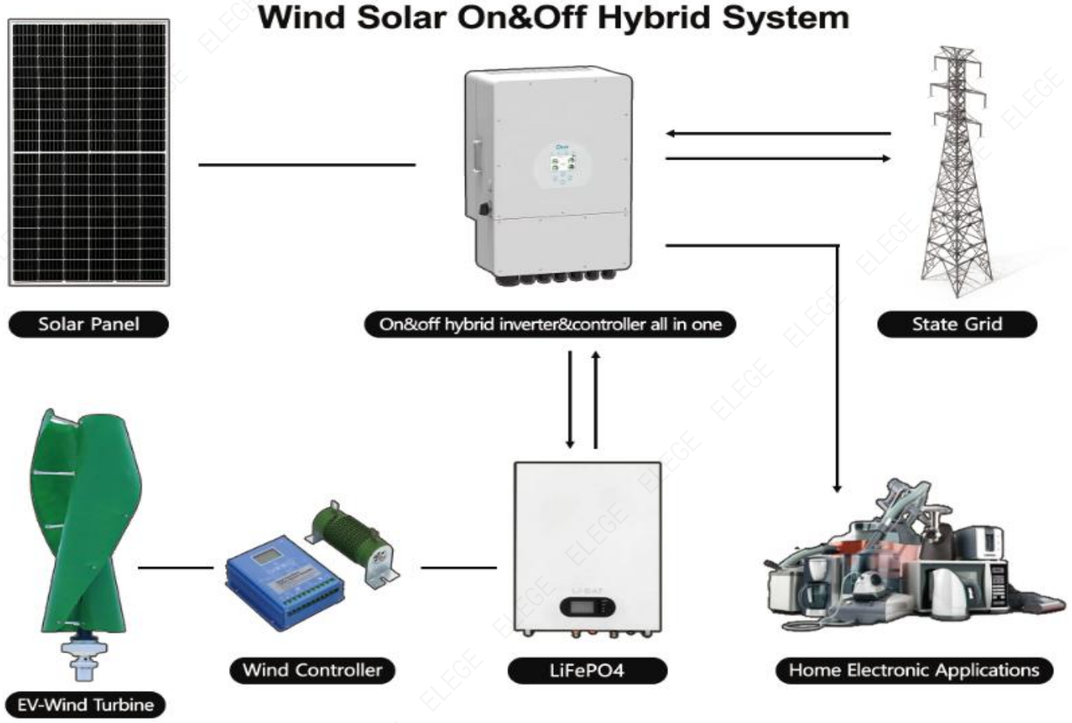
Wind Solar Off Grid System



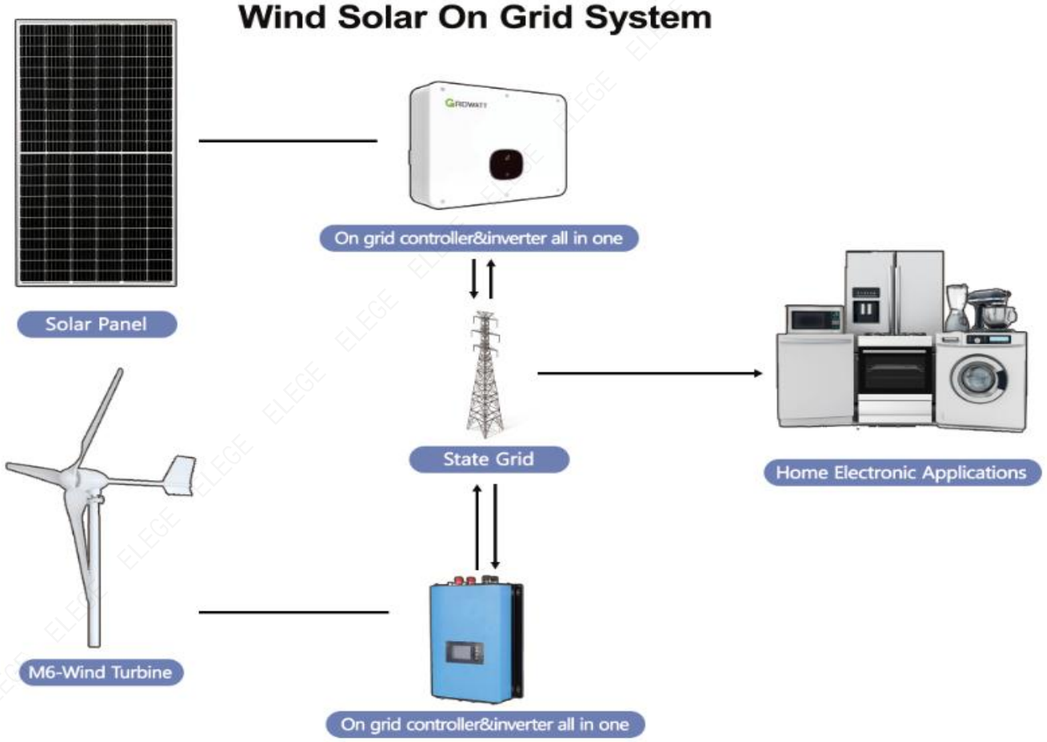
Wind Solar Off Hybrid Grid System



Wind Solar On&Off Hybrid System



Wind Solar On Grid System



Engineering Cases

Solar Home Energy Storage System

wind solar hybrid monitor + street lamp system

Engineering Cases

Wind solar hybrid system

THE BROAD MARKETING NETWORK

The broad marketing network, with the support of professional technology, characteristic of system plan, fast response time, the product covered more than 30 countries and areas in the world.

ELEGE New Energy “Service Support Center” establishes a complete set of service system. The center consists of many professional engineers and builds up different teams for different types of customers. “Service Support Center” has good operation and assurance mechanism, and keeps on focusing the management target on the fast response for customers.