YIY

Commercial & Industrial
Energy Storage Solutions

May energy and ecology be more harmonious

YIYEN HOLDING GROUP

YIYEN HOLDING GROUP is a high-tech company that focuses on researching and manufacturing power electronic technology，integrating design, research and development, manufacturing, sales and service. YIYEN is dedicated to reducing electricity costs, improving electricity efficiency, and providing core power equipment and system solutions for the energy Internet of Things.With electrochemical energy storage and energy efficiency management as its core industry, YIYEN provides energy-saving service for power system, communication system, financial system, education system, medical system, and large industrial and mining enterprises.

Energy storage and energy efficiency management are critical reducing carbon emissions and promoting sustainable development. YIYEN's mission is to help make energy and ecology more harmonious by providing advanced energy storage and power quality solutions which improve efficiency, reduce costs, and promote clean energy.YIYEN will always continue to devote ourselves to the research and development and manufacturing of power electronic technology, and be committed to delivering cutting-edge solutions helping customers meet their energy management goals while contributing to a more sustainable future for all.

300+
Staff

15+
Years Experience

30000m²+
Plant Area

3GWH+ / year
Delivered Capacity

50+
R&D Staff

BMS Platform
12V~1500V Voltage Class

100+
Intellectual Properties

130+
Export Countries

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APPLICATIONS

PRODUCTS

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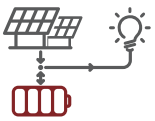
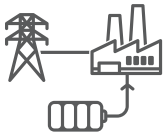
PHOTOVOLTAIC STORAGE INTEGRATED SYSTEM

• Overview

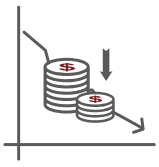
The photovoltaic storage integrated system combines photovoltaic power generation and electrochemical energy storage functions to provide safe, reliable, and efficient clean energy solutions for commercial and industrial users. This system reduces energy costs, enhances energy supply stability, reduces reliance on traditional power grids, and minimizes environmental impact by integrating solar power generation and energy storage technologies.



Self-consumption

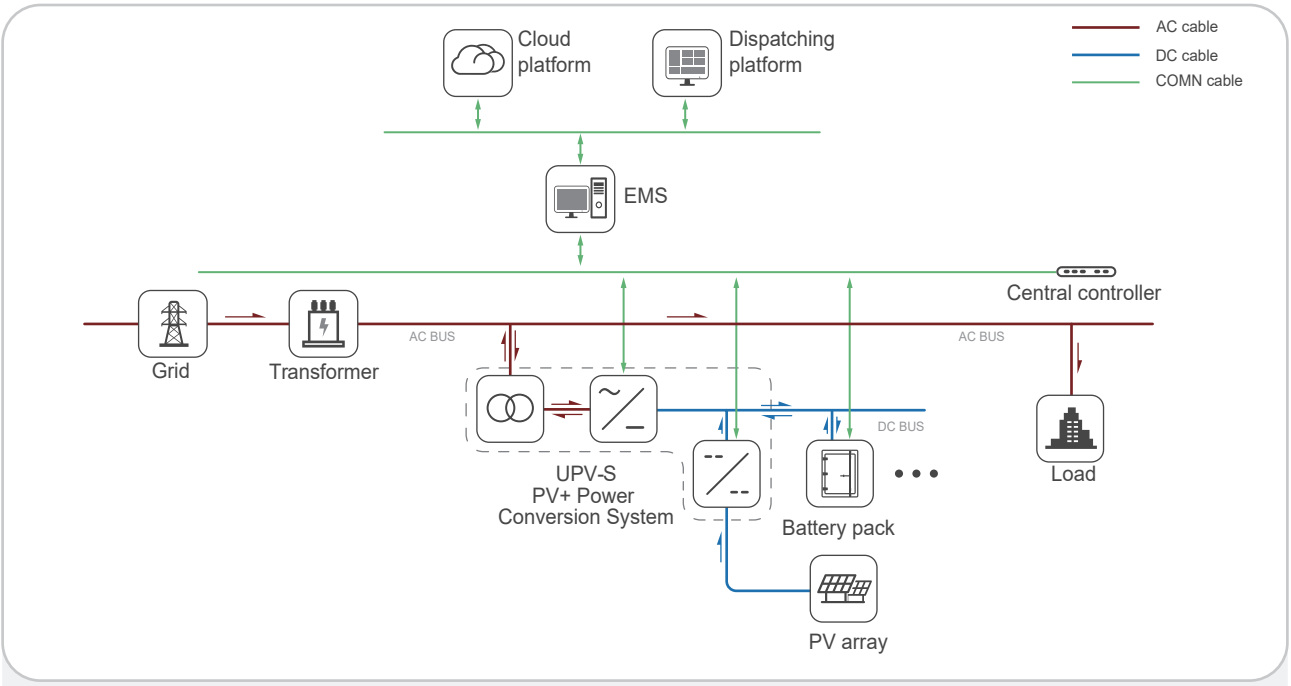


Time-of-use optimisation



Reduce electricity costs

• System Topology



Applications:

- Reduce power bills
- Stable energy supply
- Energy independence
- Power smoothing
- Backup power
- Grid support

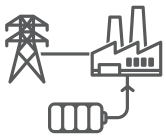
Yiyen delivers high-quality and high-performance Integrated Photovoltaic Storage Systems. Our solutions provide commercial and industrial users with a reliable, convenient, and environmentally friendly source of clean energy. Yiyen develops and manufactures all components of the system, including the solar controller (MPPT), energy storage equipment, Power Conversion System (PCS), battery management system (BMS), and energy management system (EMS), with a design that fully meets user needs and practical application scenarios.

ENERGY STORAGE POWER STATION

• Overview

Energy Storage Power Stations help businesses manage and optimize their electricity usage, improving energy efficiency and reducing costs. They store electricity during periods of low demand and release it during peak demand, balancing grid loads and providing backup power when needed. The system can also be enhanced for off-grid electricity usage by integrating diesel generators.

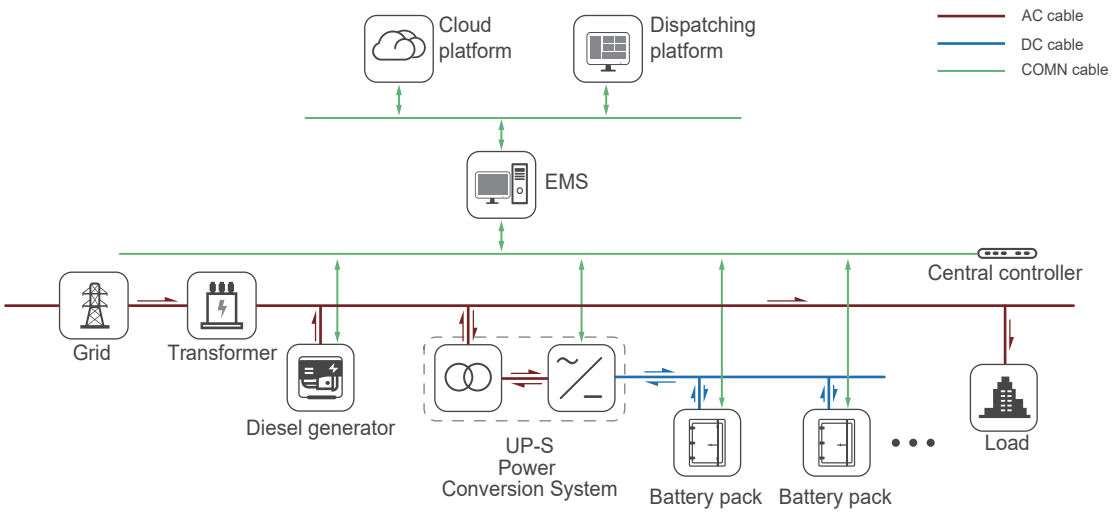
Capacity stability



Time-of-use optimisation

Reduce electricity costs

• System Topology



Applications:

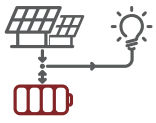
- Improve energy utilisation
- Electricity backup and stable supply
- Power quality improvement
- Participation in electricity market trading
- Improved grid stability

(BESS Hybrid Commercial and Industrial ESS)

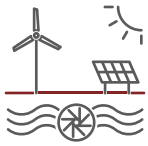
MICROGRID ESS

• Overview

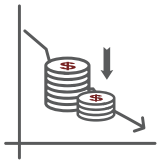
The microgrid energy storage system integrates renewable energy generation equipment and energy storage devices to provide an innovative energy management solution. It operates independently, disconnecting from the main power grid, allowing business owners to achieve autonomous power generation and energy management. This reduces reliance on the traditional power grid, enhancing the stability and reliability of power supply.



Self-consumption

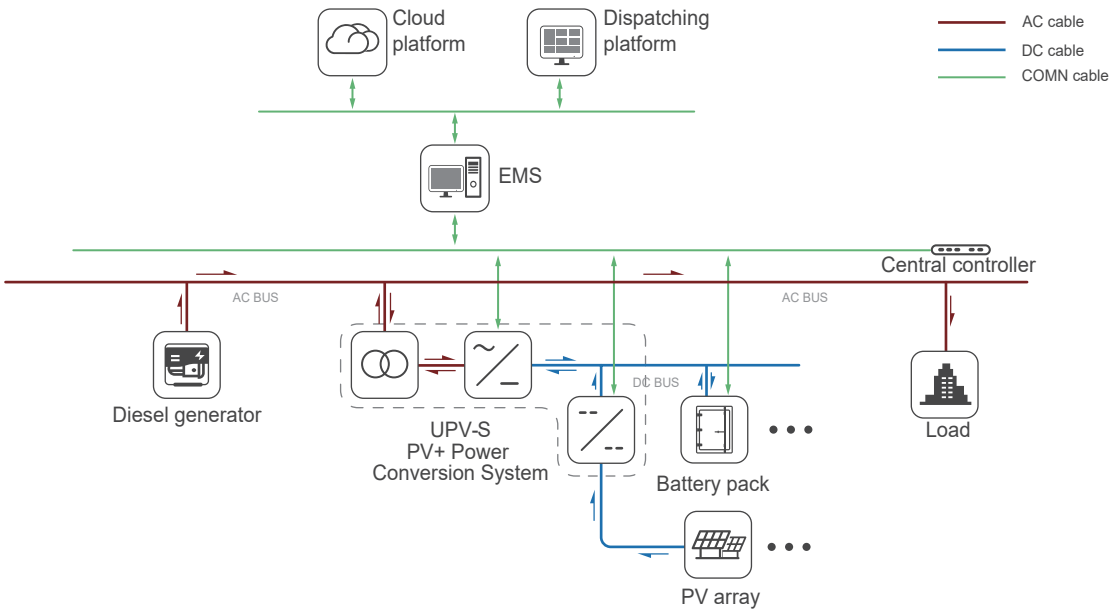


Time-of-use optimisation



Reduce electricity costs

• System Topology



Applications:

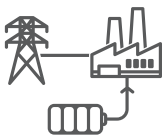
- Integration of renewable energy sources
- Reduction of energy costs
- Improvement of power quality
- Grid disconnection or off-grid
- Smart grid control

SOLAR ENERGY BESS CHARGING STATION

• Overview

The solar energy storage and charging system is an integrated energy solution that combines photovoltaic power generation, energy storage, and electric vehicle charging. By harnessing solar energy, this system reduces dependence on traditional energy sources and lowers carbon emissions. Additionally, intelligent management of energy storage devices balances the load on the power grid, improving energy efficiency and minimizing the impact of charging station load fluctuations on the grid.

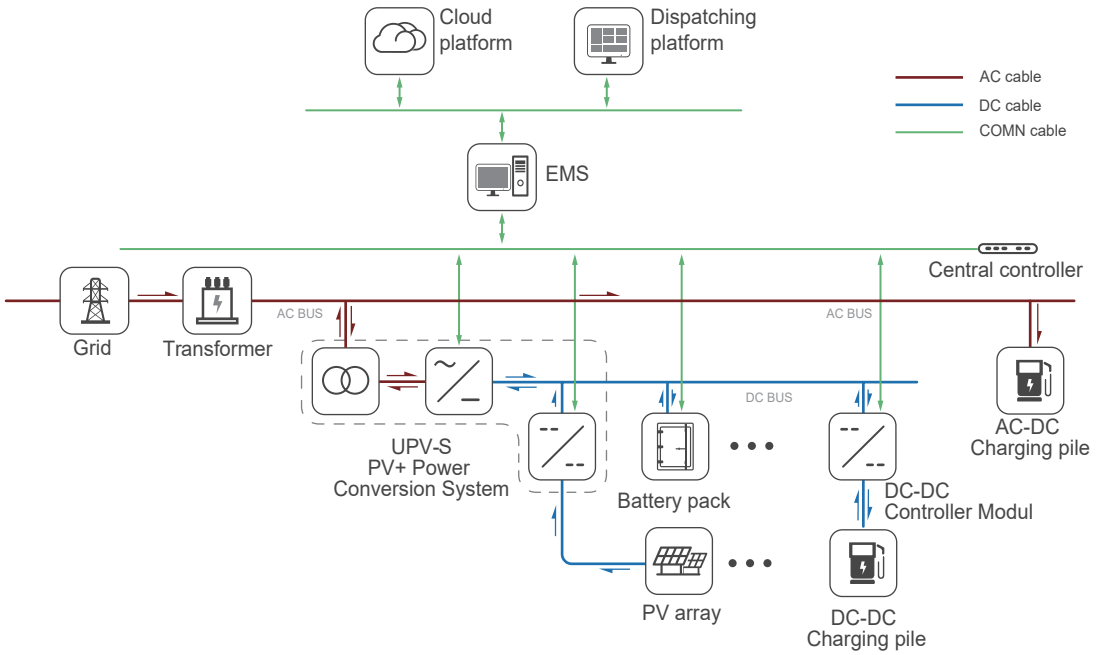
Capacity stability



Time-of-use optimisation

Ancillary services

• System Topology



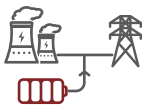
Applications:

- Utilization of renewable energy sources
- Energy storage
- Alleviation of grid load
- Emergency power supply
- Enhancement of energy security
- Intelligent energy management

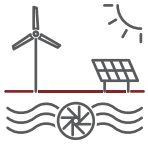
GENERATION-SIDE END

• Overview

Energy storage plants play an important role on the generation side by providing a buffer between electricity generation and consumption. They allow excess energy to be stored when demand is low and released when demand is high, which can help improve the efficiency and reliability of power generation.It can also help mitigate the impact of intermittent renewable energy sources such as wind and solar. By storing excess energy generated during periods of high production, energy storage power plants can help ensure a consistent supply of electricity when these sources are not producing.



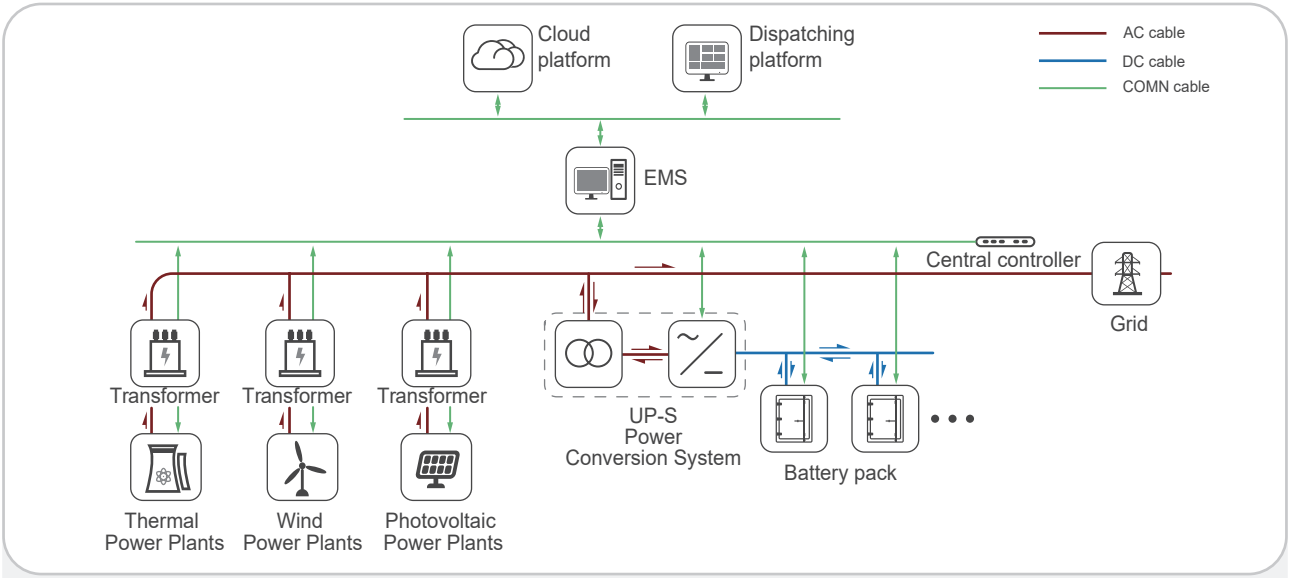
Load shifting



Renewable
energy integration

Capacity stability

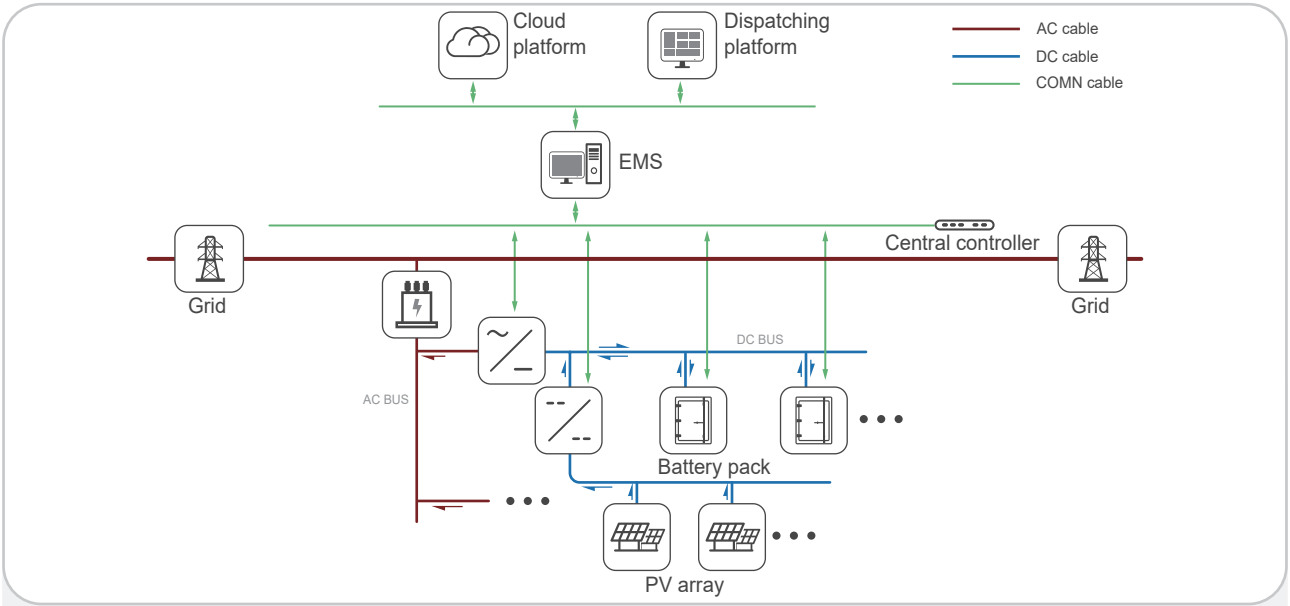
• Generation-Side Energy Storage



Applications:

- Frequency regulation
- Smoothing renewable energy fluctuations
- Improving power quality
- Enhancing grid frequency response speed
- Boosting power system scalability

• Integrated PV Energy Storage Station



Applications:

- Smoothing fluctuations in renewable energy
- Increasing energy utilization efficiency
- Enhancing response capability to grid frequency regulation
- Improving the stability of the power system

TRANSMISSION & DISTRIBUTION END

• Overview

A grid-scale energy storage plant plays a crucial role in improving the reliability and stability of the electricity grid. These power plants store excess energy during periods of low demand and release it during periods of high demand, helping to balance supply and demand on the grid. This can help reduce the need for expensive and less efficient peaking power plants, which are typically used only during periods of high demand.

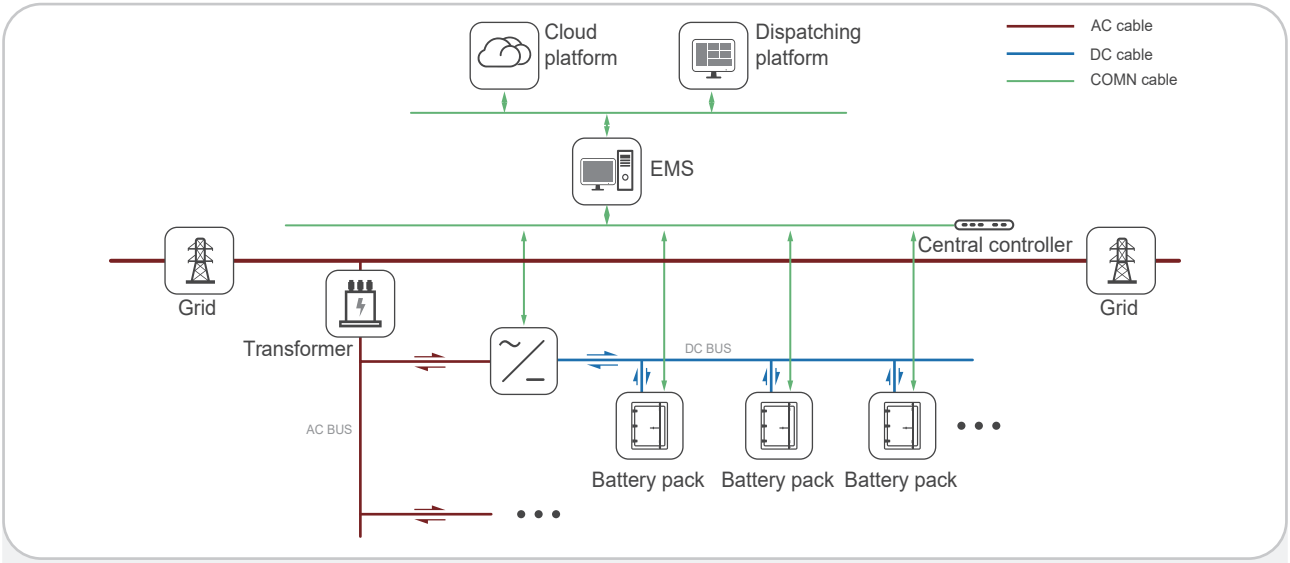
AGC

Peak shaving

Black start capability

Ancillary services

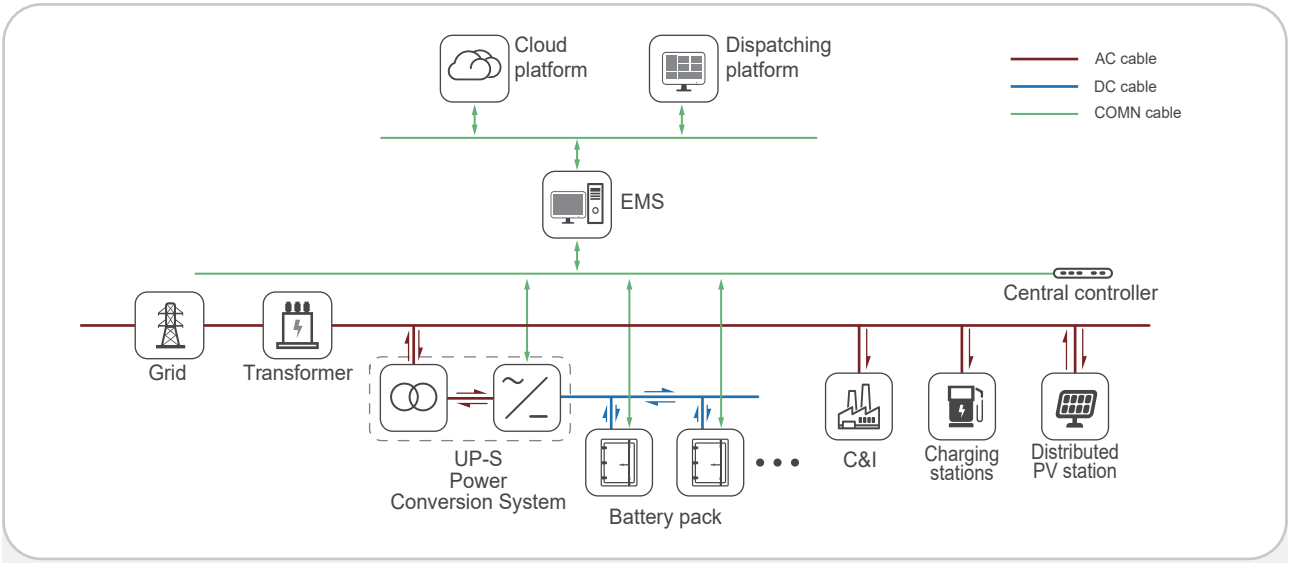
• Power Station ESS Solutions



Applications:

- Improving grid stability
- Addressing peak demand periods
- Reducing transmission losses
- Participating in power scheduling
- Enhancing system resilience
- Extending the lifespan of grid equipment

• Distributed Energy Storage System



Applications:

- Increasing the utilization of distributed energy resources
- Grid black start capability
- Enhancing the power system's resilience to disturbances
- Participating in power scheduling
- Reducing transmission losses

Demonstrations

- **Generation-Side Energy Storage**

  Load shifting Capacity Stability

  Frequency regulation

960KW 2.56MWH

- **Energy Storage Power Station**

  Peak shaving Load balancing

  Backup power

120KW 320KWH

- **Solar Energy BESS Charging Station**

  Reducing peak demand

300KW 645KWH PV60KWp

- **Energy Storage Power Station**

  Backup power

60KW 160KWH

- **Energy Storage Power Station**

  Backup power Load shifting

880KW 1.5MWH

Demonstrations

- **Photovoltaic Storage Integrated System**

  Load shifting Capacity Stability Self-Consumption

250KW 430KWH PV250KWp

- **Energy Storage Power Station**

  Peak shaving Backup power

60KW 80KWH

- **Photovoltaic Storage Integrated System**

  Load shifting Capacity Stability Self-Consumption

60KW 80WH +PV1000KWp

- **Energy Storage Power Station**

  Load shifting Backup power

300KW 645KWH

- **Energy Storage Power Station**

  Peak shaving Load balancing

  Backup power

250KW 430KWH

BESS

Hybrid Commercial and Industrial ESS

• Features

- All-in-one design with a high degree of integration.
- Modular design with optional modules of different sizes.
- Support for grid-connected and off-grid operation
- MPPT Solar controller available as an option
- IP54 class fire and explosion-proof housing
- Patented air duct design, intelligent air cooling, 3-5°C temperature difference of the battery core

• Applications

Self-Consumption

Off grid

Demand Charge

Back Up

DG+BESS

Micro-grid

Smooth output

Peak Shifting

• Technical Parameter

BESS Series Hybrid Commercial and Industrial ESS			
Model	60-120(-60)	60-160(-60)	100-160 (-60)
PCS DCspecification			
DC voltage range	400~850Vdc		
Max. DC current	140A	105A	165A
AC specificaiton			
AC output power	60KW	60KW	100KW
AC rated voltage	380Vac/400Vac		
Rated frequency	50Hz/60Hz		
AC rated current	91A/87A	91A/87A	152A/144A
Output THDi	≤3%		
AC PF	-1~+1		
MPPT(Optional)			
PV DC.Max Voltage	1000V		
MPPT Voltage Range	300-800V(The open-circuit voltage of the PV system is lower than the float voltage of the battery.)		
Number of MPPT paths	4		
Number of branch inputs	8		
Max. branch current	13A		
Voltage range	800V		
Rated current	80A		
Max. output current	104A		
Max. efficiency	>99%		
Battery system			
DC Voltage Range	403~518Vdc	492~633.6Vdc	492~633.6Vdc
Total Battery Capacity	128.97KWH	157.63KWH	
Cell	3.2V280AH		
Battery module	51.2Vdc 14.33KWH		
Battery module dimension(W*D*H)	250*547*763mm		
Battery Module Qty.	9S	11S	
General Data			
System highest efficiency	97.50%		
AC connection	3P3W/3P4W		
Cooling	Air conditioning cooling +intelligent air cooling		
Noise Level	70dBA@2m		
Temperature Range	-20°C ~ 45°C		
Protection Level	IP54		
Max elevation	≤2000m		
Humidity Range	0~100%(No condensing)		
Display	7'Color Touch Screen		
Upper Communication Mode	ModBusTCP/IP		
Communication Port	RS485,CAN,Ethernet		

Energon

Outdoor Energy Storage Battery Cabinet

• Features

- Multi level BMS built-in.
- IP54 fire and explosion proof cabinet.
- Scalable in power and capacity.
- Easy for on site installation.
- Fire proof devices in each modular and in the cabinet.

• Applications

Self-Consumption

Off grid

Demand Charge

Back Up

DG+BESS

Micro-grid

Smooth output

Peak Shifting

• Technical Parameter

Energon Series Outdoor Energy Storage Battery Cabinet	
Battery parameters	
Cell	3.2V 280AH
Battery type	LFP(LiFePO4)
Battery module	51.2V 280AH
Battery module Qty.	15
Battery cluster	768V 280AH
Battery cluster configuration	1P16S*15
Electrical parameter	
Nominal energy	215Kwh
Nominal voltage	768Vdc
System voltage range	672-852VDC
System charge/discharge rate	0.6C
Depth of charge and discharge	100%—10%
No. of cycles	6000
Balanced compensation power	1500W（25A）
Compensation methods	Dynamic real-time compensation
Recommended AC side power	125KW
Protection	
DC input/output	Disconnect switches+fuses
Electrical isolation	Inter - module controlled protection breakout
Fire protection systems	Two-stage aerosol fire module + Smoke sensors + Enclosure explosion - proof pressure relief device
General Data	
Communication	RS485/CAN/LAN/4G
Communication protocols	ModBusTCP/CAN
Working temperature range	-20 ～ 50℃ charge/0 ～ 50℃ Discharge
Relative humidity	0 ～ 95%(No condensing)
Cooling	Air cooling（air conditioner+fan）
Noise	≤65db
Max elevation	≤2000m
Degree of protection	IP54
Dimension(W*D*H)	1500*1500*2400mm
Weight	3.2T
Installation method	Cabinet floor mounting

UP-S

Three Phase Power Conversion System

• Features

- Maximum efficiency can reach 97.3%.
- Modular design ,easy for installation and depolymen.
- Bidirectional power conversion system with full fourquadrant operation.
- 62.5kW to 630kW by 1 to 10 power modules.
- Multi-string technology for better battery safety and performance.
- Multiple battery strings working in parallel or independently to allow easy power and energy expansion.
- Grid-support function built-in.
- Optional STS to achieve seamless switching between on-grid and off-grid.

• Applications

Self-Consumption

Off grid

Demand Charge

Back Up

DG+BESS

Micro-grid

Smooth output

Peak Shifting

• Technical Parameter

UP-S Series Power Conversion System						
Model	62.5KW	125KW	250KW	375KW	500KW	630KW
Utility-interactive Mode						
Battery voltage	600~900V					
DC max current	110A	220A	440A	660A	880A	1100A
AC voltage	400V±15%					
Max. AC current	100A	200A	400A	600A	800A	1000A
Nominal power	62.5KW	125KW	250KW	375KW	500KW	630KW
AC frequency	50Hz/60Hz±2.5Hz					
THDi	≤3%					
AC PF	-1~+1					
Stand-alone Mode						
Battery voltage	600~900V					
DC Max Current	110A	220A	440A	660A	880A	1100A
AC output voltage	400V±10%(±10% configurable)					
Max. AC output current	100A	200A	400A	600A	800A	1000A
Nominal AC output power	62.5KW	125KW	250KW	375KW	500KW	630KW
AC max power	68.75KW	137.5KW	275KW	412.5KW	550KW	693KW
Output THDu	< 3 % (Linear load)					
AC frequency	50Hz/60Hz±0.2%					
AC PF	-1~+1					
Other						
Peak efficiency	97.30%					
Protection	Overtemperature protection,AC over/under voltage protection,Over/under frequency protection,Emergency power off,AC phase reverse,Fan/relay failure,Over/under load protection,Ground faultcircuit Interrupter, Anti-islanding					
AC connection	3P4W					
Display	7"color touch screen					
Communication	RS485/CAN/ModBusTCP/IP/CAN/LAN					
Isolation(optional)	Built-in Transformer		Transformer			
Overload Capability	110%：10min ; 120%：1min					
Physical						
Cooling	Forced air cooling					
Noise	≤70dB					
Enclosure	IP20/IP54					
Max elevation	3000m/10000ft (>2000m/6500 feet derating)					
Operating ambient temperature	- 20°C～ 50°C (＞ 45°C derating)					
Humidity	0 ～ 95%(No condensing)					
Dimension(W*D*H)	850*2400*1600mm			1400*2400*1600mm		

UPV-S

Three Phase Solar+Storage Hybrid Inverters

• Features

- High stability, modular design support N+1.
- Bi-directional Power Conversion System.
- Built-in transformer.
- Support self-generation, micro-grid application.
- Supports on/off grid.
- Photovoltaic can be connected to a maximum of twice the capacity of the device.
- Dual-stage topology, wide battery voltage input range.
- With MPPT function to enhance system power generation.
- Self-contained solar storage operation strategy.
- Support communciation with BMS, EMS system.

• Applications

Self-Consumption
Off grid
Demand Charge
Back Up
DG+BESS
Micro-grid
Smooth output
Peak Shifting

• Technical Parameter

UPV-S Series Solar+Storage Hybrid Inverters										
Model	0.4-50KW	0.4-100KW	0.4-150KW	0.4-200KW	0.4-250KW	0.5-50KW	0.5-100KW	0.5-150KW	0.5-200KW	0.5-250KW
Stand-alone Mode										
AC output voltage	400V±10%(Controllable)					480V±10%(Controllable)				
AC output current	72A（Max 79A）	144A（Max 159A）	216A（Max 238A）	288A（Max 317A）	360A（Max 396A）	60A(Max 66A)	120A(Max 132A)	180A（Max 196A）	240A（Max 264A）	300A（Max 330A）
Nominal AC output power	50kW	100kW	150kW	200kW	250kW	50kW	100kW	150kW	200kW	250kW
AC Max Power	55kW	110kW	165kW	220kW	275kW	55kW	110kW	165kW	220kW	275kW
Output THDu	≤3%(Linear load)									
AC frequency	50/60Hz					60Hz				
AP PF	0.99/-1~1									
Overload Capability	120% 1min									
Battery voltage range	400~600V（Rated 512V）		600 ～ 900V			400~600V（Rated 512V）		600 ～ 900V		
Battery DC Max Current	120A	240A	275A	367A	458A	120A	240A	275A	367A	458A
PV Voltage Range	520~900V (MPPT 520V~800V)		300~800V			520~900V (MPPT 520V~800V)		300~800V		
PV DC Max Current	192A	384A	360A	480A	600A	192A	384A	360A	480A	600A
Utility grid-interactive Mode										
AC voltage range	400V±15%					480V±15%				
AC rated current	72A	144A	216A	288A	360A	60A	120A	180A	240A	300A
Nominal AC output power	50kW	100kW	150kW	200kW	250kW	50kW	100kW	150kW	200kW	250kW
AC frequency	50Hz / 60Hz±2.5Hz					60Hz±0.2%±2.5Hz				
Output THDI	≤3%									
AP PF	0.99/-1~1									
Battery voltage range	400~600V（Rated 512V）		600 ～ 900V			400~600V（Rated 512V）		600 ～ 900V		
Batter DC Max Current	120A	240A	275A	367A	458A	120A	240A	275A	367A	458A
PV Voltage Range	520~900V (MPPT 520V~800V)		300~800V			520~900V (MPPT 520V~800V)		300~800V		
PV DC. Max Current	192A	384A	360A	480A	600A	192A	384A	360A	480A	600A
Other										
Peak efficiency	≥96%		≥95.5%			≥96%		≥95.5%		
Protection	Overtemperature protection, AC over/under voltage protection, Over/under frequency protection,Emergency power off, AC phase reverse, Fan/relay failure, Over/under load protection, Ground faultcircuit Interrupter, Anti-islanding									
Configurable protection limits	Upper/Lower AC Voltage/Frequency limit, Battery end of discharge voltage.									
AC connection	3P4W									
Display	7"color touch screen									
Communication	RS485,CAN,Ethernet									
Isolation	Built-in Transformer									
Physical										
Cooling	Forced air cooling									
Noise	≤70dB									
Enclosure	IP20/IP54									
Max elevation	3000m/10000 feet (>2000m/6500 feet derating)									
Operating temp	-20°C～ 50°C (>45°C derating)									
Humidity	0~95% (No condensing)									
Size (W*H*D)	800*2200*1050mm		1350*2200*1050mm			800*2200*1050mm		1350*2200*1050mm		
Weight	/	/	1300kg	1650kg	2000kg	/	/	1300kg	1650kg	2000kg

UP-M

Power Conversion Module

• Features

- DSP+CPLD fully digital control core, modular design, easy to maintain and expand.
- Pure sine wave output, low current harmonic content, no pollution and no impact on the grid.
- Dual AC and DC power supply to meet the requirements of black start mode.
- Can be equipped with RS232/RS485, Ethernet and other communication interfaces to achieve remote data acquisition and monitoring.
- Supports EMS local controller for intelligent energy control.
- Bi-directional Power Conversion System.
- Compatible with 19-inch rack for easy integration and installation.
- Optional smart transfer switch for auto-backup.
- Optional STS to achieve seamless switching between on-grid and off-grid.
- Maximum efficiency can reach 97.3%.

• Applications

Self-Consumption

Off grid

Demand Charge

Back Up

DG+BESS

Micro-grid

Smooth output

Peak Shifting

• Technical Parameter

UP-M Series Power Conversion Module			
Model	30KW	62.5KW	100KW
Utility-interactive Mode			
Battery voltage	600~900V		
DC max current	50A	100A	170A
AC voltage	380V±15%		
Max.AC current	100A	200A	400A
Nominal power	30KW	62.5KW	100KW
AC frequency	50Hz/60Hz±2.5Hz		
THDi	≤3%		
AC PF	-1~+1		
Stand-alone Mode			
Battery voltage	650~950V		
DC Max Current	50A	220A	440A
AC output voltage	380V±15%		
Max.AC output current	50A	100A	170A
Nominal AC output power	30KW	62.5KW	100KW
AC max power	33KW	68.75KW	110KW
Output THDu	< 3 %(Linear load)		
AC frequency	50Hz/60Hz±2.5Hz		
AC PF	-1~+1		
Overload Capability	110%：10min ; 120%：1min		
Physical			
Cooling	Forced air cooling		
Noise	≤70dB		
Enclosure	IP20		
Max elevation	3000m/10000feet (>2000m/6500feet derating)		
Operating ambient temperature	-20℃～ 50℃ (＞ 45℃ derating)		
Humidity	0 ～ 95%(No condensing)		
Size (W*H*D)	560*230*650mm		
Weight	/	/	/
Other			
Peak efficiency	97.30%		
Protection	Overtemperature protection, AC over/under voltage protection, Over/under frequency protection,Emergency power off, AC phase reverse, Fan/relay failure, Over/under load protection, Ground faultcircuit Interrupter, Anti-islanding		
AC connection	3P4W		
Display	7"color touch screen(optional)(External connection)		
Communication	RS485/CAN/ModBusTCP/IP/CAN/LAN		

LFP-R 14.33KWH

LiFePO4 Battery Module

• Features

- 16PCS 280AH LiFePO4 cells
- 51.2Vdc 14.33KWH rated capacity.
- Long cycle life 6000 times.
- Unique automatic calibration active banlancing technology BMS syestem.
- Modular, can be compatible with a variety of housing.
- Standard CAN &RS485 communication port, can meet the require ment of several packages to connect in parallel, Master & Slave relationship, Monitor and other functions.Compatible with other brand inverters' communication protocols.

• Applications

Self-Consumption

Off grid

Demand Charge

Back Up

DG+BESS

Micro-grid

Smooth output

Peak Shifting

LFP-R 14.33kWh LiFePO4 Battery Module

Specification	
Model	LFP-R 51280H
Rated Voltage	51.2V
Rated Capacity	280Ah
Rated Energy	14.33KWH
Cell Configuration	16S1P
Battery Cell	3.2V280AH 16PCS(EVE LF280K)
Life cycles (80%SOH,25℃)	6000 Cycles
Standard Charge	
Operation temperature range ©charging	0~60°C
Rated charge voltage	56.8V
Max. charge voltage	57.6V
Overcharge protection	58.4V
Allowed MAX charge current	140A
Peak charge current	150A
Rated charge current	140A
Recommend charge current	≤140A
Standard Discharge	
Operation temperature range ©discharging	-30~60°C
Output Voltage Range	44.8~57.6Vdc
Recommend Working Range	46.4~56.8Vdc
Discharge Cut-off voltage	44.8V
Allowed MAX discharge current	280A
Peak discharge current	280A
Rated discharge current	140A
Recommend discharge current	≤140A

Mechanical Characteristics		
Dimension H*W*D	250*547*763mm	
Weight (N.W.)	103±3Kg	
Weight(G.W.)	103±3Kg	
Storage and Transportation Requirements		
Storage Temperature	Less than 1month	-20~45°C
	Less than 6month	-10-30°C
Storage Humidity		45~75%RH
SOC	Storage	60~75% SOC
	Transport	45~55% SOC

BD-DC

Bi-directional DC Controller Module

• Features

- Modular design for easy maintenance and expansion.
- Supports bi-directional energy flow, fast forward and reverse energy switching.
- Supports local EMS controller for intelligent energy control.
- Output voltage & current accuracy ±0.5%.
- Efficiency ≥95%.

• Technical Parameter

Bi-directional DC Controller Module	
High voltage side(DC busbar)	
Rated DC voltage	750V
DC voltage fluctuation coefficient	≤5%
Regulated voltage accuracy	±0.5%FS
Regulated current accuracy	±0.5%FS
Efficiency	≥95%(half to full load)
Rated DC current	80A
Rated DC power	60KW
Communication	RS485、CAN
Low voltage side(battery side)	
DC voltage range	200 ～ 680V
Rated DC voltage	600V
Regulated voltage accuracy	±0.5%FS
Regulated current accuracy	±0.5%FS
Ripple coefficient	≤0.5%
Rated current	100Adc
Rated DC power	60kW
General Data	
Protection Level	IP20
Temperature Range	-20~50℃
Dimension(W*D*H)	500*598*245mm
Humidity Range	0~95% (No condensing)
Cooling	Intelligent air cooling
Noise Level	<65dB
Altitude	＜ 2000m (>2000m Derating)

MPPT-M

Solar Controller Module

• Features

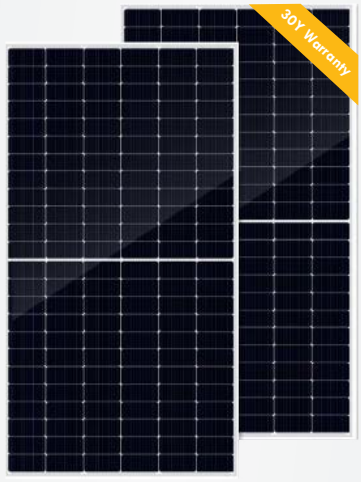
- Modular design for easy maintenance and expansion.
- Supports multiple inputs, easy and flexible configuration.
- Supports local EMS controller for intelligent energy control.
- Wide PV input range of 300V-800V.
- Efficiency ≥99%.

• Technical Parameter

Solar Controller Module	
Input	
Max. PV array voltage	1000V
MPPT voltage range	300-800V
Number of MPPT paths	4
Max. number of input strings per MPPT	2
Number of branch inputs	8
Max. branch current	13A
Output	
voltage range	800V (adjustable by the rear inverter)
Rated output current	80A
Max. output current	104A
Protection	
Reverse DC input protection	Yes
DC switches	Yes
Group string detection	Yes
Surge-protection	Class II (lightning protector)
Over-temperature protection	Yes (automatic derating)
Over-current protection	Yes
Over-voltage protection	Yes
General Data	
Max. efficiency	>99%
Power supply method	Self-powered
Cooling	Intelligent air cooling
Protection Level	IP20
Humidity Range	0~95%(No condensing)
Operating ambient temperature	-20~50℃
Storage ambient temperature	-25℃ -+70℃
Communication	RS485、CAN
Dimension(W*D*H)	500*568*155mm
DC input electronics type	MC4 (quick plug)
Inlet and outlet line methods	Rear in/out (with communication interface)

535W-550W Solar Panel

182M Half Cell



• Features

- Outstanding mechanical load resistance,2400 Pa wind load,5400 Pa snow load.
- Anti-PID(potential induced degradation),passed anti-PID test under 85% damp heat, 85% relative humidity for 96 hours.
- Passed salt mist corrosion test, ammonia corrosion test, dust&sand test, fire test, alcertified by TUV.
- Double electroluminescence (EL) tests.

• Technical Parameter

Electrical Performance

Model Type	535W-36MH		540W-36MH		545W-36MH		550W-36MH	
Dimensions (L/W/H)	2279*1134*35							
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Peak Power at STC (Pmax)	535	397.7	540	401.4	545	405.1	550	408
Maximum Power Voltage (Vmp)	41.6	38.62	41.76	38.78	41.93	38.93	42.13	39.09
Maximum Power Current (Imp)	12.84	10.3	12.93	10.35	13	10.41	13.06	10.46
Open Circuit Voltage (Voc)	49.5±3%	46.36±3%	49.7±3%	46.54±3%	49.9±3%	46.73±3%	50.1±3%	46.92±3%
Short Circuit Current (Isc)	13.61±3%	10.97±3%	13.72±3%	11.05±3%	13.81±3%	11.13±3%	13.9±3%	11.2±3%
Module Efficiency(%)	20.93		21.12		21.32		21.51	

Thermal Characteristics & Operating Conditions

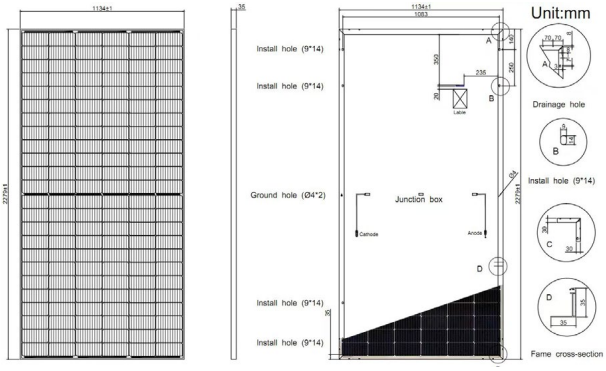
Maximum System Voltage(V)	1500V
Maximum Series Fuse Rating(A)	25A
Power Tolerance	0~+3%
Pmax Temperature Coefficients(W/°C)	-0.350%
Voc Temperature Coefficients(V/°C)	-0.250%
Iso Temperature Coefficients(A/°C)	+0.04%
NOCT Nominal Operafing Cell Temperature(°C)	45±2°C
Operating and Storage Temperature(°C)	-40°C+85°C

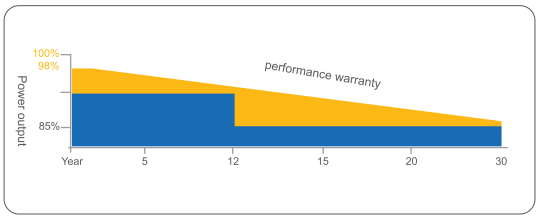
Thermal Characteristics & Operating Conditions

Front Cover(Material /Thickness)	low-iron tempered glass /3.2mm
Weight	27.00kg
Cell (Quantity/Type/Dimensions	182*91 N Type Mono
No.of Calls	144 (6*12)*2
Frame (Material)	Anodized Aluminium Alloy
Junction Box (Protection Degree)	IP68
Cable (Langth/Cross-Sedional Area	4mm²cable 35cm+mc4

Packaging Specifications

- 20FT container 10Packages/275PCS
- 40HQ container 20Packages/740PCS





STC Irradiance 1000W/m² Cell Temperature 25℃ AM=1.5
NOTC Irradiance 800W/m² Cell Temperature 20℃ AM=1.5

670W-700W Solar Panel

210M Half Cell , Topcon Technology

• Features

- Outstanding mechanical load resistance,2400 Pa wind load,5400 Pa snow load.
- Anti-PID(potential induced degradation),passed anti-PID test under 85% damp heat, 85% relative humidity for 96 hours.
- Passed salt mist corrosion test, ammonia corrosion test, dust&sand test, fire test, alcertified by TUV.
- Double electroluminescence (EL) tests.

• Technical Parameter

Electrical Performance

Model Type	670W-33MH		675W-33MH		680W-33MH		685W-33MH		690W-33MH		695W-33MH		700W-33MH	
Dimensions (L/W/H)	2384*1303*30													
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Peak Power at STC (Pmax)	670	503	675	506	680	510	685	514	690	517.5	695	521	700	525
Maximum Power Voltage (Vmp)	39.52	36.35	39.72	36.54	39.92	36.73	40.12	36.91	40.32	37.09	40.52	37.28	40.72	37.46
Maximum Power Current (Imp)	16.96	13.57	17.00	13.60	17.04	13.63	17.08	13.66	17.12	13.69	17.16	13.73	17.2	13.76
Open Circuit Voltage (Voc)	47.42±3%	43.63±3%	47.66±3%	43.85±3%	47.90±3%	44.06±3%	48.14±3%	44.28±3%	48.38±3%	44.51±3%	48.62±3%	44.73±3%	48.86±3%	44.95±3%
Short Circuit Current (Isc)	17.72±3%	14.18±3%	17.76±3%	14.21±3%	17.80±3%	14.24±3%	17.84±3%	14.27±3%	17.88±3%	14.30±3%	17.93±3%	14.34±3%	17.97±3%	14.38±3%
Module Efficiency(%)	21.57		21.73		21.90		22.06		22.22		22.38		22.54	

Thermal Characteristics & Operating Conditions

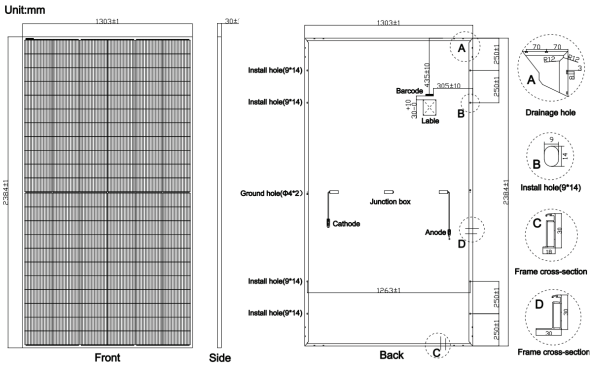
Maximum System Voltage(V)	1500/1000V
Maximum Series Fuse Rating(A)	25A
Power Tolerance	0~+3W
Pmax Temperature Coefficients(W/°C)	-0.240%
Voc Temperature Coefficients(V/°C)	-0.220%
Iso Temperature Coefficients(A/°C)	+0.047%
NOCT Nominal Operafing Cell Temperature(°C)	45±2°C
Operating and Storage Temperature(°C)	-40°C+85°C

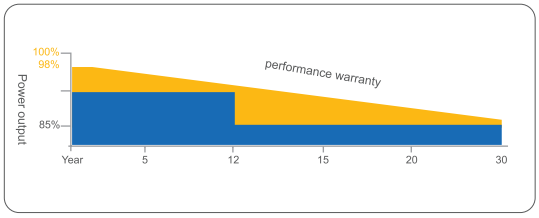
Thermal Characteristics & Operating Conditions

Front Cover(Material /Thickness)	low-iron tempered glass /3.2mm
Weight	33.90kg
Cell (Quantity/Type/Dimensions	210*105 N Type Mono
No.of Calls	132(12*11)
Frame (Material)	Anodized Aluminium Alloy
Junction Box (Protection Degree)	IP67/IP68 3diodes
Cable (Langth/Cross-Sedional Area	4mm²cable 35cm+mc4

Packaging Specifications

- 20FT container 5Packages/185PCS
- 40HQ container 18Packages/666PCS





STC Irradiance 1000W/m² Cell Temperature 25℃ AM=1.5
NOTC Irradiance 800W/m² Cell Temperature 20℃ AM=1.5

YIY

Energy Storage System
&
Power Quality System Provider

YIYEN HOLDING GROUP CO.,LTD

Tel: +86-577-27772199 27772139

Email: yiyen@yiyen.com

Website: www.yiyen.com

ESS Website: www.yiybess.com

WENZHOU YIYEN SUPPLY CHAIN MANAGEMENT CO.,LTD

Add: Rm.1301.Building 3.Headquarters Economic Park .No.6688 Xuyang Road. Yueqing City. 325600.Zhejiang

LISHUI YIYEN TECHNOLOGY CO.,LTD

Add:No.77,Xiang Long Road,Lian Du Zone,Lishui City,Zhejiang Province, China

KINMO PW CORPORATION

Contact Nos.: T 8251-0507 T 8251-0508

Mobile No.: +63977-840-7799

Email: kinmopw.ph@gmail.com

Main Office:1732 Jose Abad Santos St., Tondo Manila, Philippines

BGC Office:Unit 3C-1 Seibu Tower, 6th Ave., 24th St., BGC Taguig City

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