

FOCUS ON FOLDABLE AND MOBILE-PV & BESS



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AMPORA TECHNOLOGY CO., LTD.

FOCUS ON FOLDING & MOBILE SOLAR-STORAGE SYSTEMS

Focus on foldable and mobile-PV & BESS

ABOUT US AMPORA

Founded in 2024, Ampora Technology Co., Ltd. is based in Delin Industrial Park, Ehu Town, Xishan District, Wuxi. We focus on emerging new energy R&D, covering PV equipment, energy storage systems, lighting towers and new energy equipment. Focused on the full PV and energy storage industrial chain, we are an innovative enterprise integrating R&D, production, sales and system services.

2024 **FOUNDED**

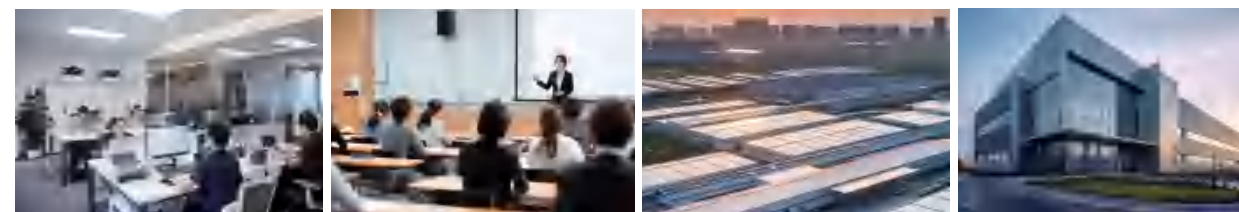
Ampora Technology specializes in container-style mobile PV cabins and deployment vehicles, integrating high-efficiency PV modules and energy storage systems. With rapid deployment, grid access and intelligent O&M, our units provide stable clean power for disaster rescue, military missions, remote areas, oil & gas fields and exploration sites. We serve emergency authorities, power grids, transportation, communications and energy sectors via equipment sales and maintenance services. Its high mobility, low cost and eco-friendly features support low-carbon development and reliable off-grid power supply.

20⁺ **PATENTS**

Technological innovation is Ampora's core competitiveness. We have built an efficient R&D and production system, with a professional team focusing on core PV and energy storage technologies to drive product upgrading. The company holds over 20 patents, covering PV equipment optimization, energy storage efficiency improvement and new energy equipment innovation, laying a solid technical foundation for product iteration.

3000^{M²} **AREA**

Ampora relies on a 3,000 ^m exclusive industrial base to underpin R&D and production. With an integrated layout of laboratories and workshops, the base enables efficient collaboration between R&D and mass production, accelerating the conversion of innovation into high-quality products. Supported by this facility, we optimize the supply chain, strictly control product quality, and provide solid hardware assurance for reliable new energy equipment and systems.



GLOBAL PARTNERS



COOPERATIVE COUNTRIES **15+** | COOPERATIVE ENTERPRISES **35+** | COOPERATIVE PROJECTS **56+**

Currently, our business has expanded to over 15 countries worldwide, cooperating with more than 35 high-quality enterprises and delivering over 56 benchmark projects. With mature technical strength and a comprehensive service system, we are steadily expanding in the global new energy market, providing customers with reliable and efficient green energy solutions.

GLOBAL HUB | 3000 M²

Our business covers 15+ countries, partners with 35+ high-quality enterprises, and has completed 56+ benchmark projects. Backed by mature technology and sound services, we expand globally and provide reliable green energy solutions.

01

Integrated Containerized Solar Power Generation System

- Easy installation
- Simple maintenance
- Environmentally friendly
- Affordable price

The Solar PV Container is a highly integrated mobile energy system, integrating PV power generation, energy storage, power conversion and intelligent control. With a modular, plug-and-play design, it is easy to deploy, eco-friendly, stable, reliable and cost-effective, meeting off-grid and temporary power needs (e.g., field operations, emergency rescue, remote areas).



MP20HQ120KW

Photovoltaic Power

120kW

Customizable available

MP40HQP240KW

Photovoltaic Power

240kW

Customizable available



Mining and Military Applications

Adaptable for mining and field military use, it enables fast modular deployment, stable off-grid power, lower costs and carbon emissions.



Emergency Areas

Delivers off-grid emergency power for disaster areas. Fast deployed, it supplies stable electricity for rescue communication and medical devices.



Construction and Industrial Sites

Supports temporary off-grid power for construction and factories, featuring flexible setup, easy operation and eco-efficiency.



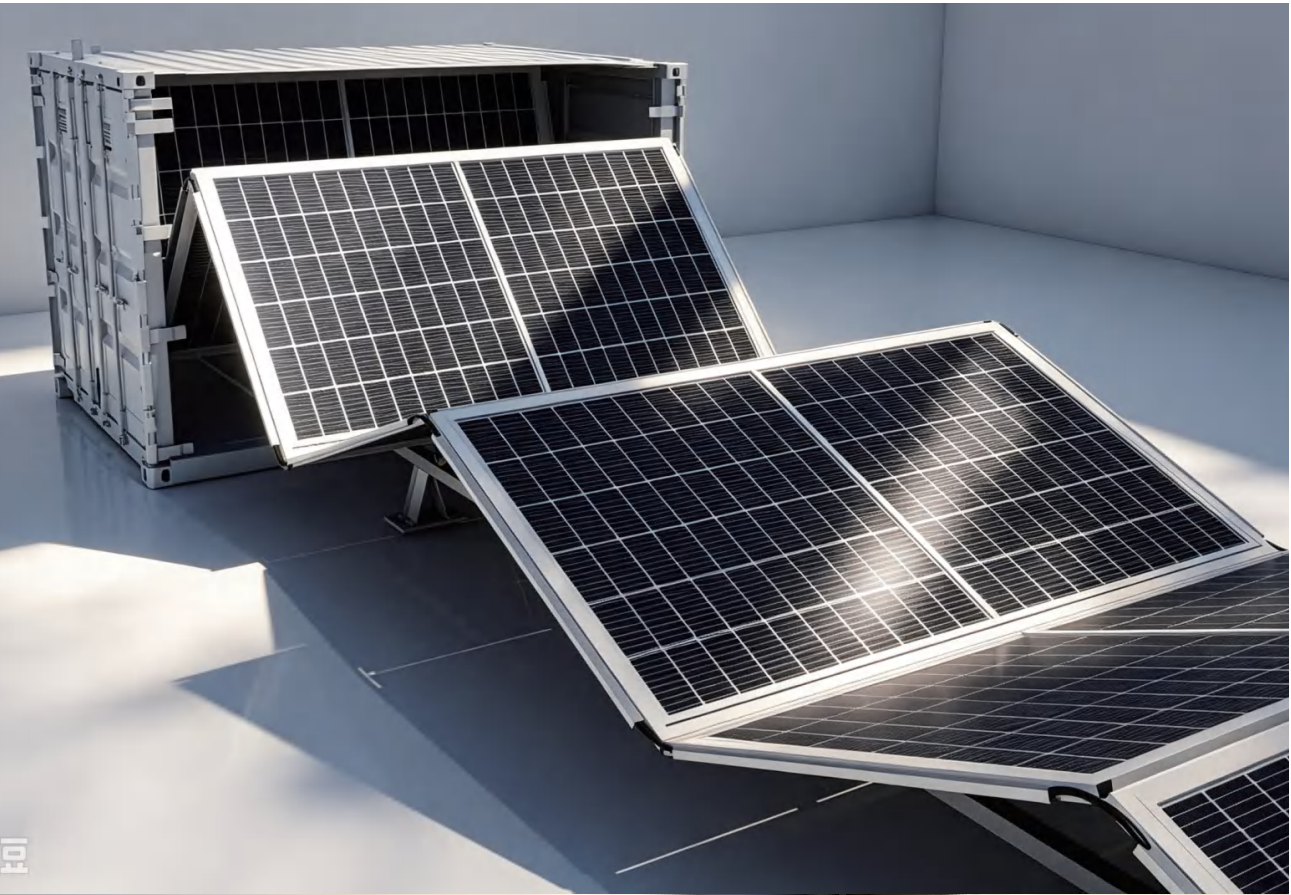
Oilfields and Mining Areas

Ideal for oilfield and mining operations, it delivers self-sufficient power, withstands harsh environments and enables low-carbon production.

MODEL: M-POWER-Solar PV Container

MP08GP24KW

Integrated with 36 high-efficiency Topcon modules, delivering 24kW power output, this system supports one-click deployment and plug-and-play operation. Featuring a mobile, all-in-one design for easy installation, it serves as a sustainable clean energy solution.



Product Advantages



Mobile
Flexible &
Easy to Transport



Integrated Design
All Components
in One Container



Plug-and-Play
Easy Modular Installation



Renewable
Sustainable Clean Energy

Technical Parameters

Model		MP08GP24KW
Container	Container Model	408GP
	External Size (L*W*H/mm)	2900*2260*2200
Solar Panel	Model	Topcon
	Maximum Power (Pmax/Wp)	650-670
	Size (mm)	2382*1134*30
	Quantity (pcs)	36
Bracket	Deployment Angle (°)	±15(10~20)
	Bracket Quantity (sets)	36
	Whole Unfold Size (L*W*H/m)	44.8*2*0.65
DC Cable	Preinstallation	PV1-F1*4

MODEL: M-POWER-Solar PV Container

MP10HQ58KW

Featuring 92 high-efficiency Topcon modules for 58kW peak power, this 10HQ all-in-one container supports rapid, plug-and-play deployment. With flexible brackets, it delivers stable, sustainable power for off-grid and emergency use.



Product Advantages

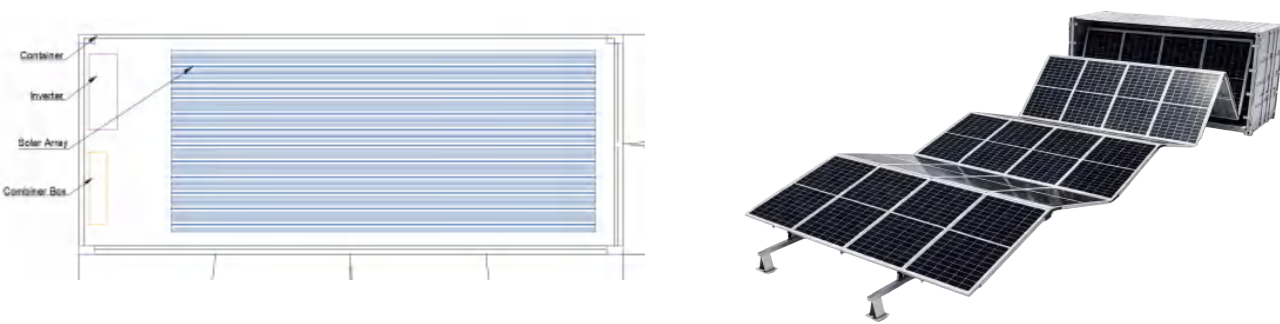
Technical Parameters

Model		MP10HQ58KW
Container	Container Model	10HQ
	External Size (L*W*H/mm)	2991*2438*2896
Solar Panel	Model	Topcon
	Maximum Power (Pmax/Wp)	650-670
	Size (mm)	2382*1134*30
	Quantity (pcs)	92
Bracket	Deployment Angle (°)	±15(10~20)
	Bracket Quantity (sets)	46
	Whole Unfold Size (L*W*H/m)	110.4*2.4*1.1
DC Cable	Preinstallation	PV1-F1*4

MODEL: M-POWER-Solar PV Container

MP20HQ120KW

MP20HQ120KW Solar PV Container is a lightweight mobile energy station for small and medium scenarios. It integrates 184 high-efficiency Topcon modules in a 20HQ standard container, with supports adjustable by $\pm 15^\circ$. Compact and easy to deploy, it supports plug-and-play and rapid grid connection. It outputs steady 120kW clean power, delivering zero-carbon power solutions for infrastructure and emergency use.



Product Advantages



Mobile
Flexible &
Easy to Transport



Integrated Design
All Components
in One Container



Plug-and-Play
Easy Modular Installation



Renewable
Sustainable Clean Energy

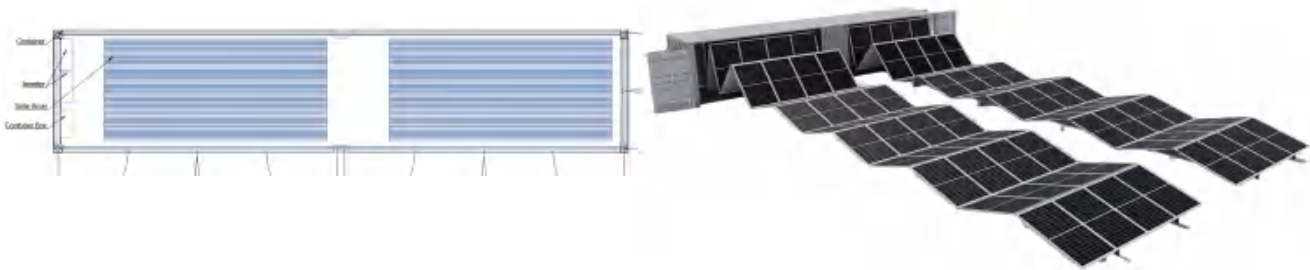
Technical Parameters

Model		MP20HQ120KW
Container	Container Model	20HQ
	External Size (L*W*H/mm)	6058*2438*2896
Solar Panel	Model	Topcon
	Maximum Power(Pmax/Wp)	650-670
	Size (mm)	2384*1134*30
	Quantity (pcs)	184
Interver (optional)	Inverter Model	On-grid/Hybrid
Bracket	Deployment Angle (°)	± 15 (10~20)
	Bracket Quantity (sets)	46
	Whole Unfold Size (L*W*H/m)	115*6*1.3
DC cable	Preinstallation	PV1-F 1*4

MODEL: M-POWER-Solar PV Container

MP40HQ240KW

MP40HQP240KW Solar PV Container is an integrated mobile energy station. It integrates 368 high-efficiency Topcon modules and inverters inside a 40HQ container.
With $\pm 15^\circ$ adjustable brackets, plug-and-play design and easy mobility, it deploys quickly in narrow sites.
Ready for immediate grid connection, it supplies 240kW clean power, providing zero-carbon sustainable power for outdoor projects and infrastructure.



Product Advantages



Mobile
Flexible &
Easy to Transport



Integrated Design
All Components
in One Container



Plug-and-Play
Easy Modular Installation



Renewable
Sustainable Clean Energy

Technical Parameters

Model		MP40HQ240KW
Container	Container Model	40HQ
	External Size (L*W*H/mm)	12192*2438*2896
Solar Panel	Model	Topcon
	Maximum Power (Pmax/Wp)	650-670
	Size (mm)	2384*1134*30
	Quantity (pcs)	368
Interver (optional)	Inverter Model	On-grid/Hybrid
Bracket	Deployment Angle (°)	± 15 (10~20)
	Bracket Quantity (sets)	92
	Whole Unfold Size (L*W*H/m)	115*12.2*1.3
DC Cable	Preinstallation	PV1-F 1*4

Aluminum Alloy Brackets



Surface Anti-Corrosion

Anodized finish, 800+h salt spray resistance, acid/alkali resistant

Material Weight

2.7 g/cm³, 35% lighter than steel, low installation load

Mechanical Properties

160-220 MPa tensile strength, crack & peel resistant

Service Life

25-30 years outdoor life, virtually maintenance-free

Processing & Appearance

Precision extruded, clean cuts, refined appearance

Galvanized Steel Brackets



Surface Anti-Corrosion

Hot-dip galvanized, 200-300h salt spray resistance, prone to rust in humidity

Material Weight

7.85 g/cm³, heavy weight, increases long-term load pressure

Mechanical Properties

High rigidity, prone to zinc coating peeling when bent

Service Life

10-15 years outdoor life, requires periodic touch-up painting

Processing & Appearance

Welded/bent, unprotected cuts prone to yellowing/powdering

Energy Storage Selection / Customization

Energy Storage Overview

Integrated smart cabinet with lithium cells, BMS, PCS & safety systems. Ideal for peak shaving, backup power and multi-scenario use.

Custom Solutions

Fully customizable capacity, voltage, size and functions to meet your unique needs.

Professional Matching

Precise component matching for seamless integration and stable, efficient operation.

Exclusive Consultation

One-on-one support from selection to after-sales, helping you choose the best solution.



02

Portable Solar Lighting & Monitoring System

- Easy installation
- Simple maintenance
- Environmentally friendly
- Affordable price

This all-in-one multi-functional system integrates solar power supply, intelligent lighting and high-definition monitoring. No external power connection needed, it absorbs solar energy via high-efficiency panels to convert it into electricity, enabling zero-energy-consumption and eco-friendly operation.

<https://www.ampora-tech.com/>



Container Loading
20ft Standard Container

10units

Container Loading
40ft Standard Container

20units



Adjustable Panel Angle

The specially designed durable solar panel mounting bracket supports angle adjustment and rotation. Users can adjust the solar panel angle according to the sun's direction for more efficient solar energy utilization.



User-Centered Design

The swappable lithium battery design accommodates customers who prefer to use their own LFP (Lithium Iron Phosphate) batteries.



Dimmable LED Lights

This portable tower is equipped with high-efficiency LED lights with dimming sensors, enabling energy-saving lighting.



Surveillance Solution

The portable tower can be equipped with cameras, security personnel access, and remote monitoring functions, suitable for construction sites and various events.

03

Solar-Storage Integrated Container

- Easy installation
- Simple maintenance
- Environmentally friendly
- Affordable price

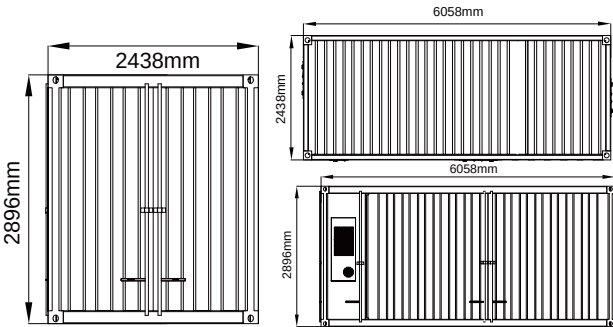
A pre-engineered modular microgrid integrating PV, storage, inverters, and optional backup generators. Pre-wired in a 20ft container for all-weather durability, easy transport, lower costs, and enhanced safety. The solar array mounts directly on the container via brackets.



-  Mobile
-  Plug & Play
-  Pre-Fabricated

-  Expandable
-  Cost-Effective
-  Renewable

Inverter	
Model	60KW
Type	Hybrid
Quantity (sets)	1
Rated AC Voltage (V)	380/400V, 3W+N+PE
AC Grid Frequency Range (Hz)	50/60(optional)
Weight (kg)	88
Working Temperature(°C)	5°C~+60°C (when exceeding +45°C~+60°C, linearly derate to 60%)
Communication	RS485/WIFI/CAN/DRM (Optional: Bluetooth/Local Area Network/Meter)



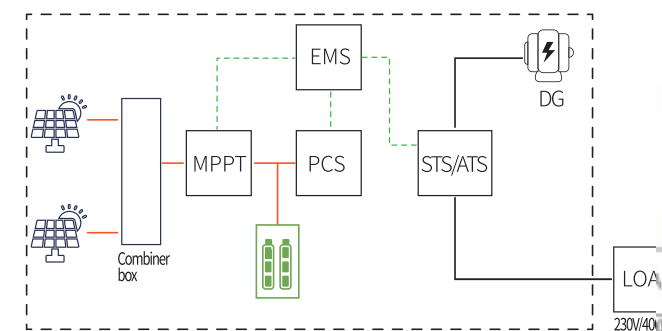
Whole Configuration		
PV & ESS Integrated Container	Model	MP20HQ110KW/241kwh
	Solar Array Capacity (Pmax/kWp)	110
	Total Weight (t)	16
	Unfold Size (L*W*H/m)	110.4*4.7*1.1
	Fold Size (L*W*H/m)	4.8*1.9*2.44

Container		Solar Panel		Bracket	
Model	20HQ	Model	Topcon	Material	Aluminum Alloy
External Size (L*W*H/mm)	6058x2438x2591	Maximum Power (Pmax/Wp)	650-670	Single Bracket Size(mm)	4726x2103x30
Weight (t)	2.2	Size (mm)	2382x1134x30	Panel Quantity For Single Frame	4
		Weight (kg)	28.5	Bracket Quantity	44
		Quantity (pcs)	176		

型号: PV-ESS + Diesel Gen All-in-One Container

MP20HQ78KW/128KWH

This product integrates foldable PV modules, solar-storage inverters, batteries and diesel generators in a standard 20ft container, minimizing on-site design and wiring. Ideal for off-grid, temporary and remote applications, it enables rapid deployment, reliable power supply and flexible adaptation to various environments, with easy transport and expandable PV arrays for higher output.



Product Advantages

- Containerized Integration**
Standard size, easy transport & setup
- Intelligent Control**
EMS boosts efficiency, stable power
- Dual-source Supply**
PV-diesel hybrid, reliable power
- Flexible Expansion**
Parallel connection, multi-scenario use

Technical Parameters

System parameter	
Model	MP78-60
PV capacity	78kWp
Inverter power	60kW
Battery capacity	128kWh
DG power	75kVA

Foldable PV parameter	
PV module size	2382*1134*30mm
PV module Weight	28.5kg
PV module Number	120pieces
PV module Pmax	650Wp
PV module Voc	53.9V
PV module Isc	15.29A
PV Brand	LONGI

General parameter	
Container Dimensions (W*D*H)	6058*2438*2896mm
Expanded size (W*L)	3800*8800mm
Weight (approx.)	20000kg

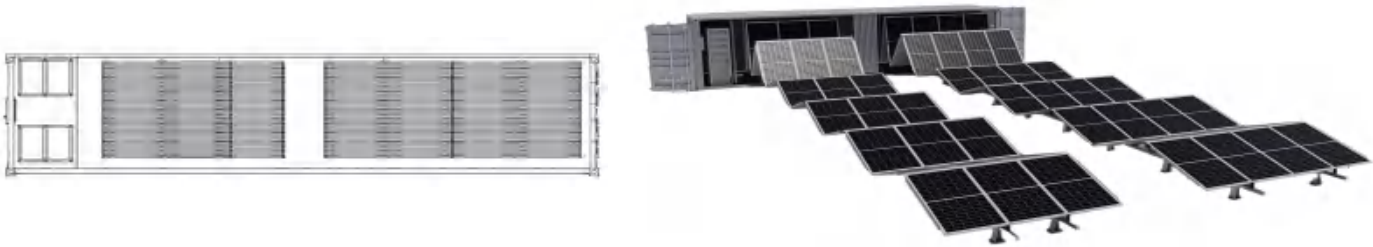
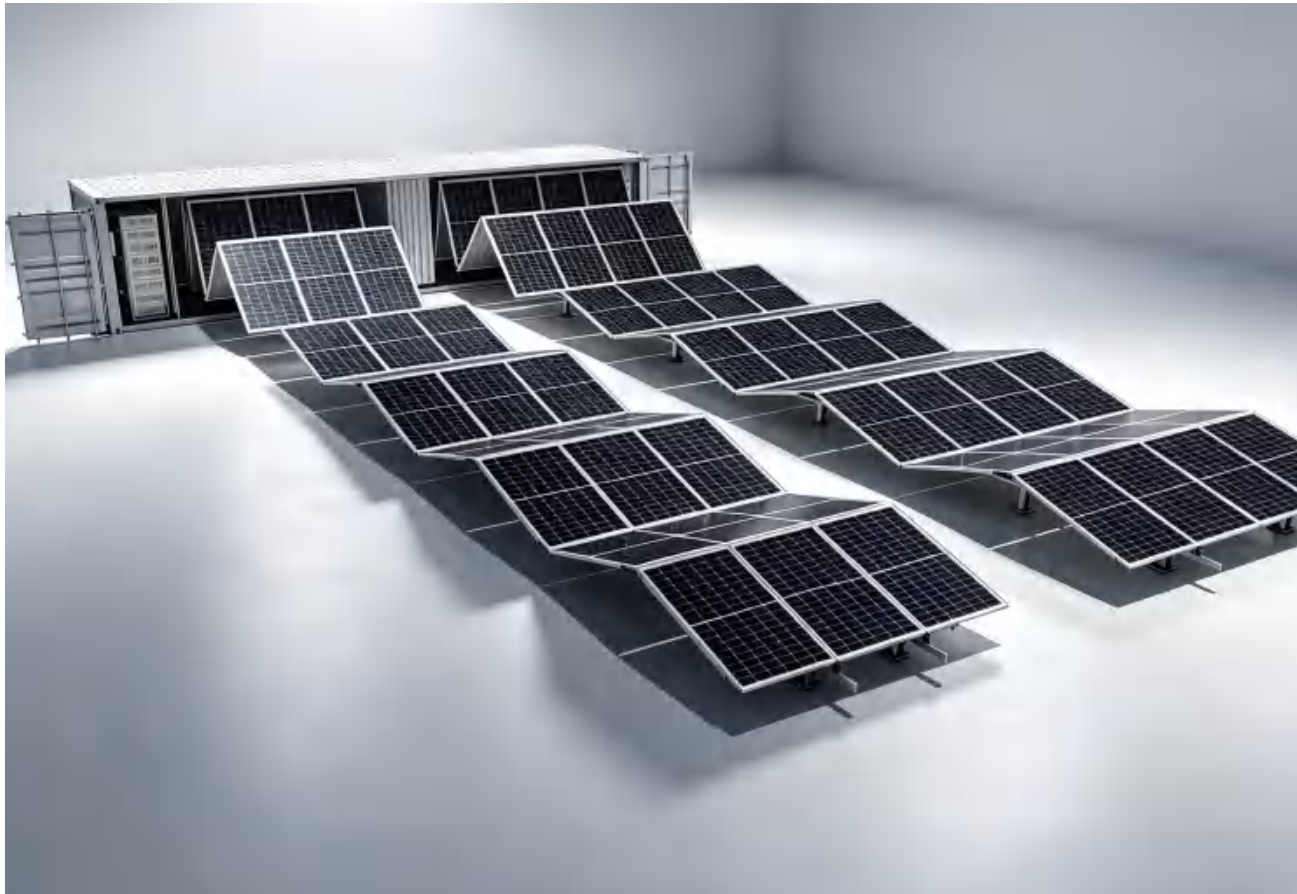
System parameter	
Rated AC Output Active Power	60kW
Max AC Output Apparent Power	66kVA
Peak Power(oof-grid)	"1.1×Pr continuous operation; 1.1-1.25×Pr, 100s; 1.25-1.5×Pr, 300ms"
Rated AC Output Current	87A
Max AC Output Current	95.7A
Power Factor Adjustment Range	0.8 leading to 0.8 lagging
Rated Output Voltage/Range	230/400V 0.85Un-1.1Un
Rated Output Grid Frequency/Range(Hz)	50/45-55Hz,60/55-65Hz
Grid Connection Form	3L+N+PE
Inverter Brand	Porta

Diesel Generator	
Generator Brand	WEICHA
Generator Model	WPG66-16
Rated capacity(PRP)	75kW
Rated Power	60kW

型号: M-POWER-Solar PV Container

MP40HQ200KW/261kWh

Built on a standard 40HQ container for all-in-one integration. It features a 200kWp high-efficiency PV array, 261kWh LiFePO₄ energy storage and two 100kW hybrid inverters. Factory pre-assembled and pre-tested. Foldable steel brackets, no civil works required. Supplied for sea transport. Ready for use after quick on-site unfolding. Suitable for mines, temporary construction sites and emergency power supply. Fast deployment, movable and reusable. It cuts lengthy construction cycles to satisfy off-grid power demands.



Product Advantages



Mobile
Flexible &
Easy to Transport



Integrated Design
All Components
in One Container



Plug-and-Play
Easy Modular Installation



Renewable
Sustainable Clean Energy

Technical Parameters

Battery		Package	
Model	SKTESS261	Package Products Model	MP40HQ200KW/261kWh
Battery Type	LiFePO ₄	Solar Array Capacity (P _{max} / kWp)	200
Battery Capacity(Ah)	261	Total Weight (Tons)	30
Nominal Voltage	819.2V	Unfolded Footprint (L×W×H/m)	112.6*12.2
Battery Packs Number	16		
Weight (kg)	1808(+5)	Solar Panel	
Dimension	1768 (+300) *810*1259.8mm	Module Type	650w
Inverter		Product Dimensions(mm)	2382x1134x30
Module Type	Growatt	Weight(Kg)	28.5
Inverter Type	Hybrid	Quantity of solar panels (pcs))	308
Quantity of inverters (sets)	2	Bracket	
Power	100KW	Material	Q235B
Container		Single Bracket Dimension (mm)	1726*2447*30
Type of Container	40HQ	Number of single frame installation panels	4/3
External Dimensions (L×W×H/mm)	12192*2438*2896	Quantity of bracket (page)	44
Container Weight (Tons)	7		

04

Case Studies

- Easy installation
- Simple maintenance
- Environmentally friendly
- Affordable price

56+ projects, 40+ special scenarios. From oilfields and remote sites to infrastructure and disaster relief, our fast-deploy, smart O&M solutions deliver customized clean power for diverse industries.



Applicable to

40+

Special Scenarios

Cooperation Projects

56+

Customized Services Available

Factory Overview



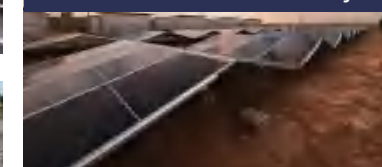
Abu Dhabi Project



Germany Project



Saudi Arabia Oilfield Project



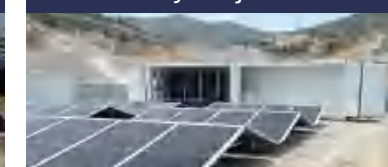
Saudi Arabia Oilfield Project



Austria Mine Site Project



Italy Project



Installation Guide



PART1 Laying and Calibrating Rails

Installers use professional tools to lay and carefully calibrate the rails, adjusting level and spacing to ensure precise positioning of the solar panels.



PART2 Deploying the Array

The construction team unfolds and assembles the prefabricated photovoltaic modules one by one, fixing them according to the design layout to complete the main structure of the power station.



PART3 Wiring and Commissioning

Technicians complete cable connections, test voltage and continuity with instruments, and perform repeated debugging to ensure stable and safe circuit operation.



PART4 Energizing and Commissioning

After completing all installation steps, the system is switched on. The photovoltaic system starts up and begins transmitting clean electricity to the grid.

Operation & Maintenance



01 Smart O&M Customizable Options

Fully automated operation significantly reduces labor input and lowers maintenance costs. It continuously ensures module light transmittance, stably improving the power generation efficiency and revenue of large-scale power stations.



02 Basic O&M Customizable Options

Manual cleaning offers controllable costs and a low learning curve, suitable for small-scale power stations or emergency maintenance. Regular cleaning avoids efficiency loss caused by dust accumulation, steadily maintaining power generation efficiency and operational benefits.

Q & A Frequently Asked Questions

Q: Can we integrate the solar power container with our own diesel generator? Does it need a separate controller/micro-grid?

A: Yes, it can be integrated with customer's existing diesel generator by ATS/STS, all depends on the specific situation.

Q: How many hours does it take when we fully unfold and fold the solar array? And how many worker we need meanwhile?

A: Unfolding duration: Around 2-3 hours and folding duration: around 1-2 hours; workers: 3-6. It depends on the specific container.

Q: Is the folding structure stable? Is there a maximum repetition limit for unfolding and folding? What's the material of the slide rail (steel or aluminum)?

A: The maximum repetition limit of the operations in the existing solution is around 10 times. We will re-design the structure to meet the requests for the more times if you need. It's Zinc-aluminum-magnesium alloy.

Q: How many solutions for wind resistance?

A: After all folding frames are fully unfolded and fixed at the head and tail ends, insert lock pins into the square holes on the frames at the hinge side. The lock pins are connected to ground anchors via steel wire ropes. A wire rope tensioner is installed on each rope to adjust the tension in due time.

For muddy ground or grassland, the ground anchors are driven directly into the soil.

For cement ground, the steel wire ropes are hung on hooked expansion bolts, which are drilled and fixed into the cement floor.

Q: Could you provide the parameters of wind-resistance?

A: Estimated wind resistance: up to Grade 12.

Q: How about the transportation?

A: Modules are secured in folding frames. When retracted, frames are locked with upper limit pins. Frames are elevated on wooden blocks to suspend wheels and prevent deformation. The outermost modules are covered with shockproof foam to protect the glass.

Q: Ground Flatness Requirements for Installation.

A: The solar modules are installed inside the folding frame. When the modules are folded and retracted into the container, limit lock pins are arranged on the top of the container to fix each frame. These pins lock the spacing between every single frame.

After the frame assembly is fully secured, wooden cushion blocks are placed underneath the frame to lift the wheels off the ground. This keeps the wheels suspended and prevents axle deformation caused by jolting during transportation.

For the outermost modules, shockproof foam is laid to cover the module glass, so as to avoid collision and damage to the modules.

Q: Is there any flatness requirement for the installation ground?

A: The maximum allowable level height difference between two transverse support bases is ± 5 cm, with the transverse spacing of the two bases about 2.4 m.

For two longitudinal support bases, the maximum allowable level height difference is ± 10 cm, and the longitudinal spacing is about 3.54 m.

The overall unfolded length of the frame is approximately 90–100 m. Taking the container foundation ground as the reference point, the allowable total ground height difference over the full 100 m length is ± 50 cm.

Q: Is there instruction video?

A: Yes, please scan the QR to watch the unfolding and folding details in our website. And we also provide the technical support, including but not limited graphic tutorials, video tutorials and other related services.



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