



Shenzhen Megarevo Technology Co., Ltd.

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V1.7



ENERGY STORAGE PRODUCT AND SOLUTION

MAKEING ENERGY CLEANER AND MORE EFFICIENT



CONTENT

Company profile.....	01
Development path.....	03
Market layout.....	05
Solution.....	07
Product line.....	13
References case.....	37
Professional service.....	49

Company Profile

Shenzhen Megarevo Technology Co., Ltd. is a national high-tech enterprise focusing on the R & D, manufacturing and sales of energy storage inverters and systems. The company was founded in 2018 and headquartered in Guangming District, Shenzhen. The core team of the enterprise is composed of domestic leading technical talents and senior experts in power electronics technology.

Megarevo is focusing on four application scenarios: residential energy storage, C&I energy storage, microgrid and renewable energy power station. With the vision of "making energy more efficient and clean", Megarevo provides customers with standard energy storage products and customized solutions. At present, the company has four product lines including MEGA and REVO series converters, MPS microgrid products and RESS series system solutions. Relevant products have obtained international certifications such as CGC, CE, TUV, CSA, UL, G99, NRS and SAA. Based on the vision of "customer oriented", Megarevo will keep on investing technology innovation and provide customers with competitive and reliable products and services.

200+

Application case

800MW+

Delivery quantity

1GW

Annual capacity

22

patents and works



Development History

2018

- In July 2018, Shenzhen Megarevo Technology Co., Ltd was formally established;
- Launched MEGA series high power industrial and commercial energy storage converters in December 2018;

2019

- May 2019 won the best PCS Supplier award of China energy Storage Network;
- June 2019 received 43.2MW sales order from Guangzhou Rail Transit;
- The first REVO residential storage inverter was released in December 2019 and was quickly mass selling in the Southeast Asian market

2020

- In June 2020, the first all-in-one storage product was launched in Southeast Asia and Australian market ;
- October 2020 won the 2020 National renewable Energy solution award in the China renewable Investment Association;

2021

- In June 2021, won the best PCS Supplier award in China energy Storage Industry;
- Megarevo was officially recognized as the National High-tech Enterprise on July,2021;
- In August 2021, won the best High-power bidirectional converter award of East China Energy Storage Alliance;
- In November 2021, the first North American hybrid inverter was released, and passed UL certification;
- The market turnover exceeded 100 million RMB in December 2021;

2022

- Fully develop North America, Europe, Asia, Africa and Latin America market;
- Market performance is expected to exceed 300 million RMB;

 Cumulative delivery of inverters

800MW+



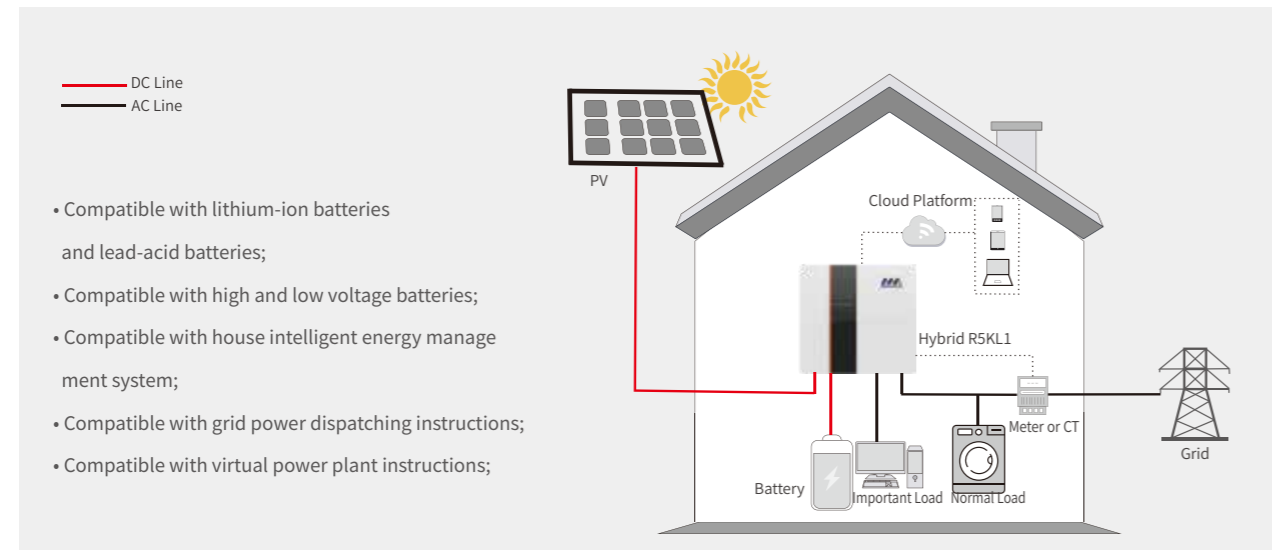
| Product solutions



Residential solution

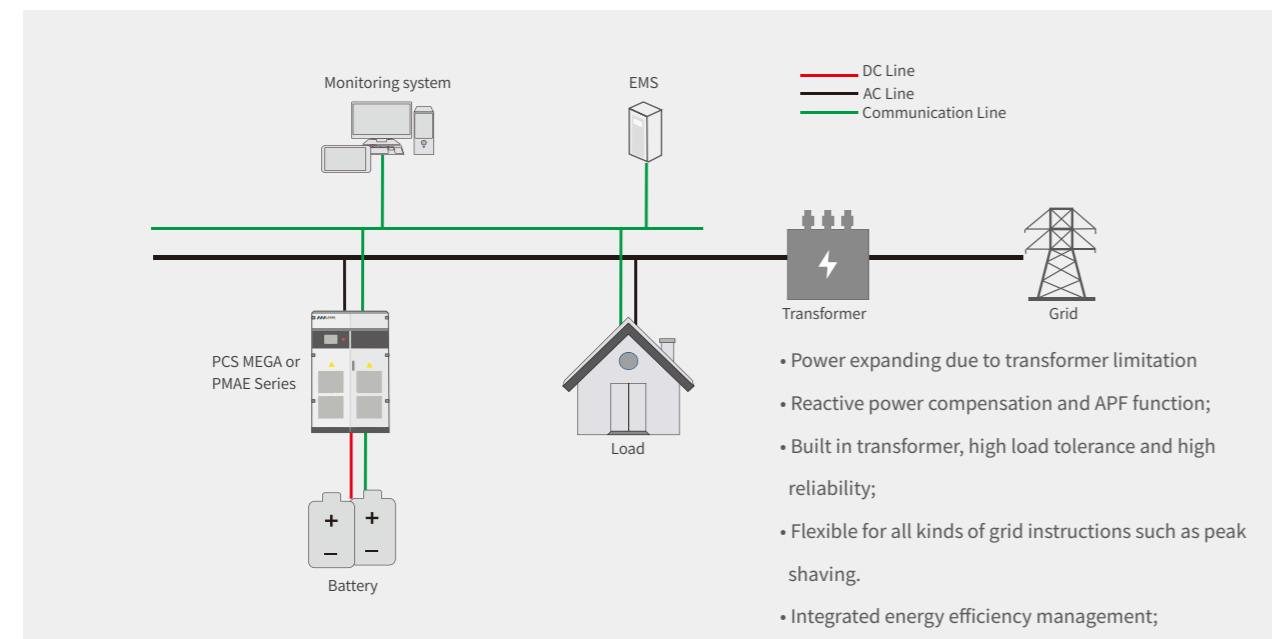
Residential BESS solutions

Based on the low-carbon concept, and thanks for the competitiveness of the energy storage technology, the commercial application of PV+ESS will be gradually realized in developed areas. Megarevo residential hybrid system solutions can quickly respond to EMS dispatching instructions, and form an intelligent and friendly power supply system with rooftop PV, making electricity safer. Megarevo system is designed to operate perfectly with the grid to realize uninterrupted power supply for the users.



C&I ESS solutions

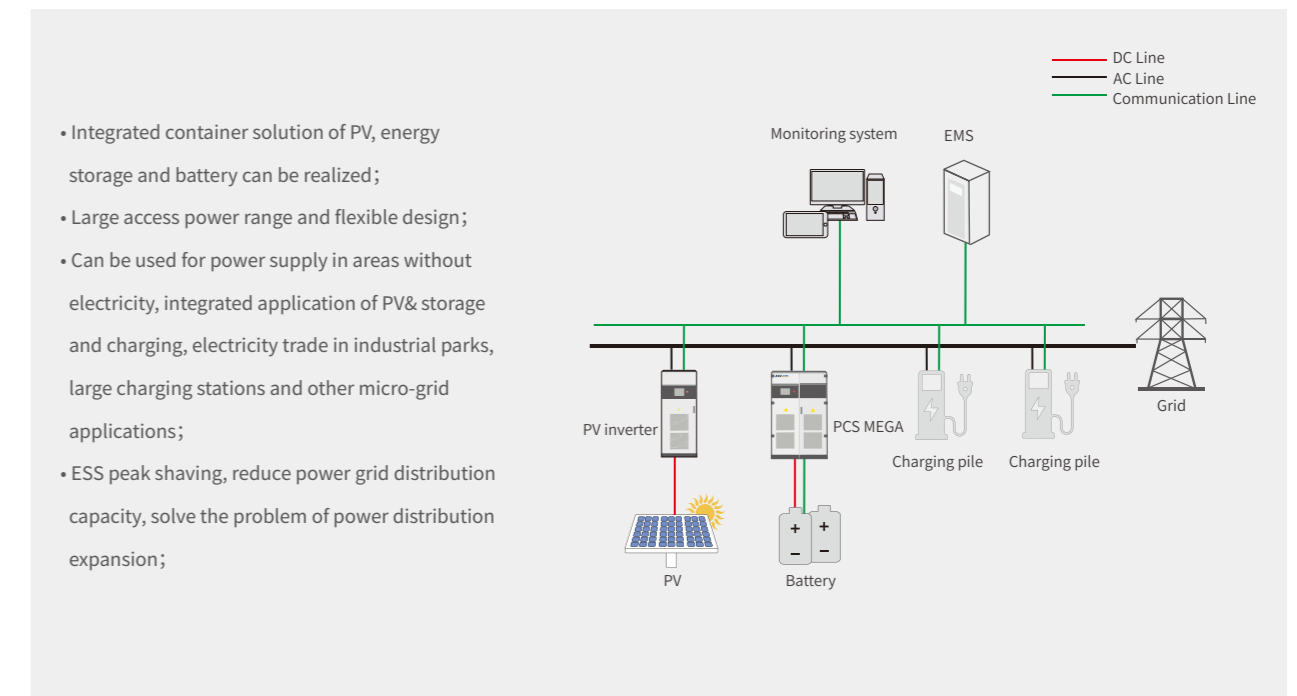
Industrial and commercial energy storage systems can not only realize peak shaving, but also reduce transformer capacity costs. MEGA energy storage systems can achieve 98.7% conversion efficiency, increase the return on investment (ROI) for users.



PV charging station solution

AC-BUS solutions

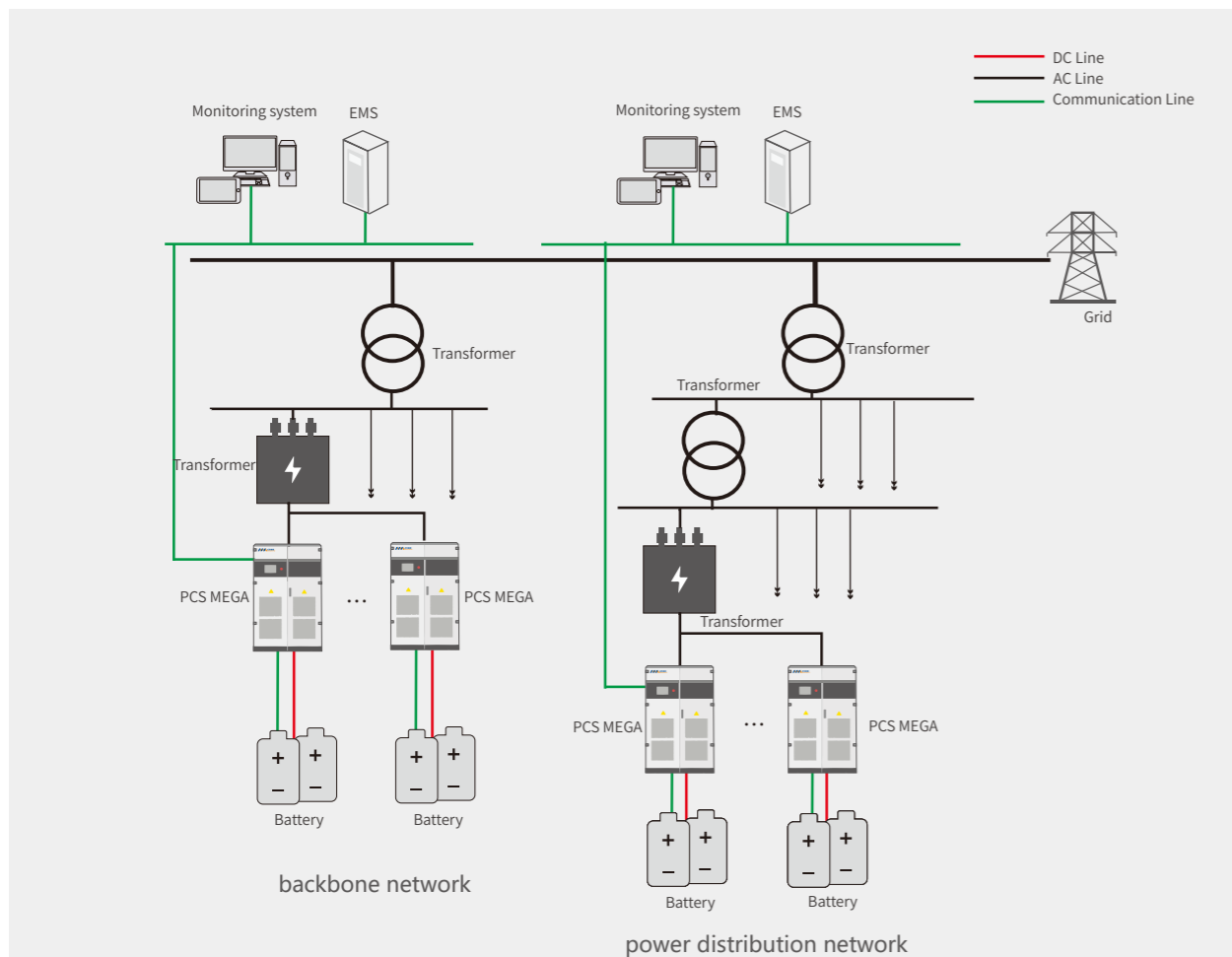
The AC bus of integrated PV & storage and charging power station is a common solution at present. The MEGA series inverters can be widely used in the charging station for system power expansion and multi-function power complementary scenarios.



Grid-side energy storage solution

Grid-side energy storage solution

With the large-scale installation of renewable energy, the power grid will face high pressure of reliability. Energy storage is considered to be the best way for this issue. The solution from Megarevo with millisecond response is well designed for grid power dispatching instructions.

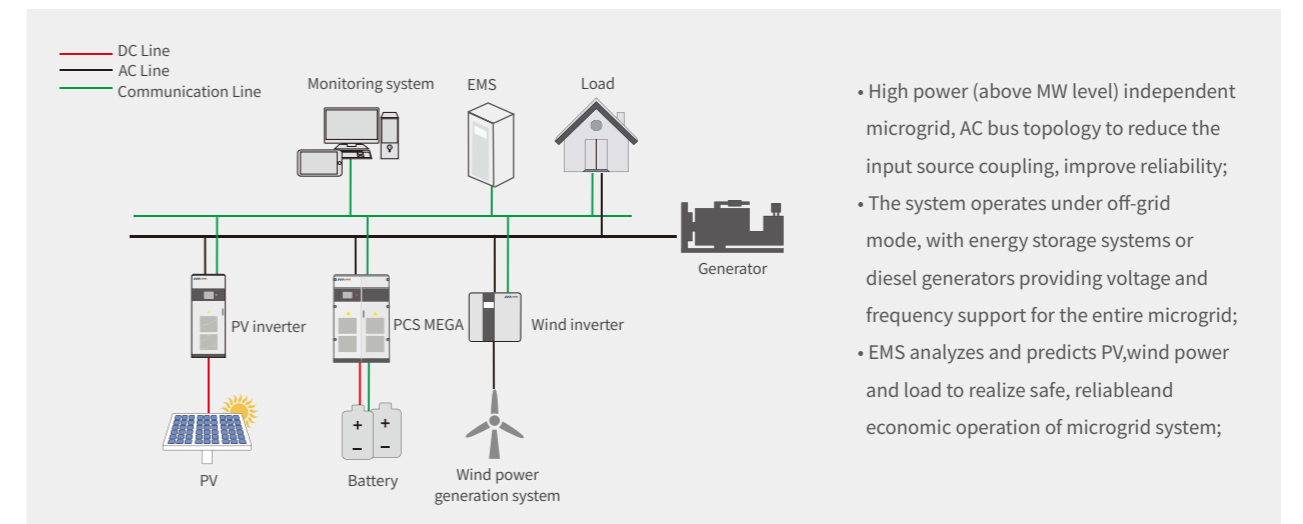


- Support IEC61850 communication protocol;
- Peak shaving and other grid instructions;
- Independent participation in grid power services;
- Secondary frequency modulation, AVC, rotary standby, cold standby, black start;

Microgrid solutions

Large microgrid off-grid solution

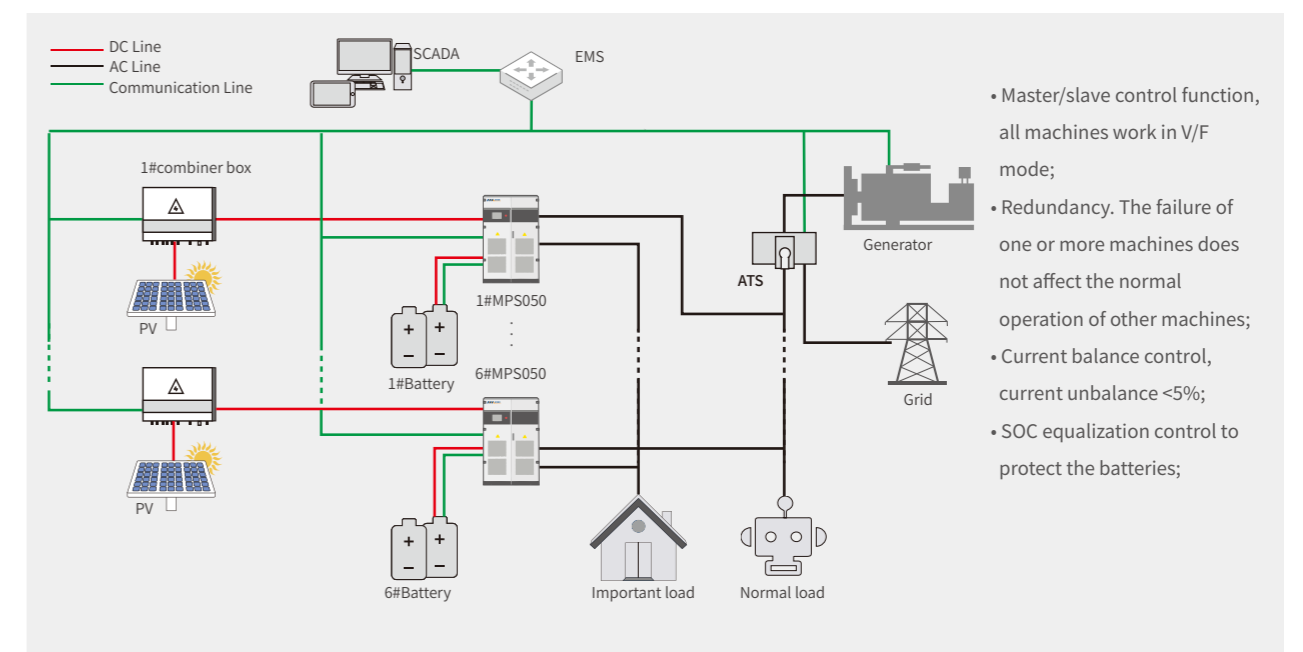
It is difficult to cover the traditional power grid in remote areas, but the local solar resources or wind resources are usually abundant. Megarevo can provide high-power (above MW level) independent micro-grid solution, which can combine various input power sources, improve the reliability of power supply, so that local residents can realize an independent off grid system.



- High power (above MW level) independent microgrid, AC bus topology to reduce the input source coupling, improve reliability;
- The system operates under off-grid mode, with energy storage systems or diesel generators providing voltage and frequency support for the entire microgrid;
- EMS analyzes and predicts PV, wind power and load to realize safe, reliable and economic operation of microgrid system;

Medium micro-grid solutions

The medium micro-grid solution adopts the outdoor cabinet structure, which is suitable for scenarios without power grid or unstable power grid. Multiple MPS are paralleled and redundant for each other, which improves the reliability of power supply while improving the load capacity of the system, supports dynamic capacity expansion and the mixing of old and new batteries.



- Master/slave control function, all machines work in V/F mode;
- Redundancy. The failure of one or more machines does not affect the normal operation of other machines;
- Current balance control, current unbalance <5%;
- SOC equalization control to protect the batteries;

Products Line

Residential product

Single-phase ESS hybrid inverter



- R3KL1
- R3K6L1
- R4KL1
- R4K6L1
- R5KL1
- R6KL1

Three phase ESS hybrid inverter



- R8KH3
- R10KH3
- R12KH3

American ESS split- phase inverter (battery voltage>80V)



- R6KH1NA
- R8KH1NA
- R10KH1NA
- R12KH1NA

American ESS split- phase inverter (battery voltage:48V)



- R5KLNA
- R6KLNA
- R8KLNA
- R10KLNA

Micro-grid/ grid products

Hybrid inverter



- MPS0030
- MPS0050
- MPS0100
- MPS0150
- MPS0250
- MPS0500

Power Conversion System



- MEGA0030TS
- MEGA0050TS
- MEGA0100TS
- MEGA0150TS
- MEGA0250TS
- MEGA0500TS
- MEGA0500
- MEGA0630

Container type energy storage booster



- MEGA1000-MV
- MEGA1260-MV
- MEGA2000-MV
- MEGA2500-MV

ESS

Storage battery cabinet



- E072B048
- E144B048

Outdoor cabinet type ESS



- ESS00100A-0030
- ESS00200A-0150

Container ESS



- ESSC0500A-1106

EMS, communication management machine and data acquisition stick



Single-phase ESS hybrid inverter



Luxury villa



Communication base station



Nomadic farm



Residential electricity

Product features:



Supports automatic battery switching;



Parallel available, intelligent BMS management;



Support diesel generator input source;



Input power source priority can be set by users;



Compatible with lead-acid and lithium-ion batteries;



Battery reverse connection protection, anti-power control function;

Technical specification	R3KL1	R3K6L1	R4KL1	R4K6L1	R5KL1	R6KL1
Input (PV)						
Max. power(kW)	4.6	4.6	6	6	7	7
Max. DC voltage(V)	550					
MPPT voltage range(V)	125~500					
Max.input current of single MPPT(A)	14					
MPPT tracker/strings	2/1					
AC output						
Rated output power(kVA)	3	3.6	4	4.6	5	6
Max. output current(A)	13	16	17.4	20	21.7	26
Grid voltage(range(V)	230/176~270					
Frequency (Hz)	50 /60					
PF	0.8lagging-0.8leading					
THDi	<3%					
AC output topology	L+N+PE					
Battery						
Battery voltage range(V)	40~58					
Max. charging voltage(V)	58					
Max. charge/discharge current(A)	95/62.2	95/75	95/83.3	95/95.8	95/104.2	95/110
Battery type	lithium /Lead-acid					
Communication interface	CAN/RS485					
EPS output						
Rated power (kVA)	3	3.6	4	4.6	5	6
Rated output voltage(V)	230					
Rated output current(A)	13	16	17.4	20	21.7	26
Rated frequency (Hz)	50 /60					
Automatic switching time (ms)	<20					
THDu	<2%					
Overload capacity	110%, 30S/120%, 10S/150%, 0.02S					
General data						
Battery chage/discharge efficiency	95.0%					
DC Max. efficiency	97.6%					
Europe efficiency	97.0%					
MPPT efficiency	99.9%					
Ingress protection	IP65					
Noise emission (dB)	<35					
Operation temperature	- 25°C~ 60°C					
Cooling	Natural					
Relative humidity	0 ~95% (non-condensing)					
Altitude	2,000m(>2,000 Derating)					
Dimensions W * D * H (mm)	550*200*515					
Weight (kg)	25					
Isolation transformer	No					
Self-consumption(W)	<3					
Display and communication						
Display	LCD					
Interface:RS485/Wifi/4G/ CAN/DRM	Yes/ Opt/ Opt/ Yes/ Yes					
Certificates	CE、TUV、SAA、NRS					

Three phase ESS hybrid inverter



Luxury villa



Communication base station



Nomadic farm



Residential electricity

Product features:



Compatible with lead-acid and lithium-ion batteries;



Support diesel generator input source;



IP65 protection, low noise < 35dB;



Battery reverse connection protection, anti-power control function



Input power source priority can be set by users;



Support full power discharge, automatic management of battery charge and discharge;

Technical specification	R8KH3	R10KH3	R12KH3
Input (PV)			
Max.power(kW)	10.4	13	15.6
Max. DC voltage(V)		1,000	
MPPT voltage range(V)		180-850	
Max.input current of single MPPT(A)		12.5	
MPPT tracker/strings	2/1	2/1	2/1
AC output			
Rated output power(kVA)	8.8	11	13.2
Max. output current(A)	12.7	15.9	19.1
Grid voltage/range(V)		400/360-440	
Frequency (Hz)		50 /60	
Power factor		0.8lagging-0.8leading	
THDi		<3%	
AC output topology		3W+N+PE	
Battery			
Battery voltage range(V)		125-600	
Max. charging voltage(V)		600	
Full battery voltage(V)	210	270	250
Max. charge/discharge current(A)	40	40	50
Battery type		lithium /Lead-acid	
Communication Interface		CAN/RS485	
EPS output			
Rated power(kVA)	8.8	11	13.2
Rated output voltage(V)		400	
Max. output current(A)	12.7	15.9	19.1
Rated frequency(Hz)		50 /60	
Automatic switching time(ms)		<20	
THDu		<2%	
Overload capacity		110%, 30S/120%, 10S/150%, 0.02S	
General data			
Battery charge /discharge efficiency	96.6%	96.7%	96.8%
DC Max. efficiency	97.9%	98.2%	98.2%
Europe efficienc	97.2%	97.5%	97.5%
MPPT efficiency	99.5%	99.5%	99.5%
Ingress protection		IP65	
Noise emission(dB)		<35	
Operation temperature		-25°C~ 60°C	
Cooling		Natural	
Relative Humidity		0 ~95% (non-condensing)	
Altitude		2,000m (>2,000 Derating)	
Dimensions W * D * H (mm)		530*200*600	
Weight(kg)		29	
Isolation transformer		No	
Self-consumption(W)		<3	
Display and communication			
Display		LCD	
Interface:RS485/Wifi/4G/ CAN/DRM		Yes/ Opt/ Opt/ Yes/ Yes	
Certificates		CE, TUV	

American ESS split- phase inverter (battery voltage > 80V)



Luxury villa



Communication base station



Nomadic farm



Residential electricity

Product features:



Support 100% unbalanced load capacity;



Compatible with lead-acid and lithium ion batteries and other battery access;



Support full power discharge, automatic management of battery charge and discharge;



Battery reverse connection protection,



Anti-power control function;



UL certification;

REVO residential Energy Storage inverters



Technical specification	R6KH1NA	R8KH1NA	R10KH1NA	R12KH1NA
Input (PV)				
Max. power(kW)	7.8	10.4	13	15.6
Max. DC voltage(V)	500			
MPPT voltage range(V)	125 - 500			
Max. Input current of single MPPT(A)	12			
MPPT tracker/strings	4/1			
AC output				
Rated output power(kVA)	6	8	10	12
Max. output current(A)	27.3	36.4	45.4	50
Grid voltage/range(V)	240/211~264			
Frequency (Hz)	50/60			
PF	0.8lagging-0.8leading			
THDi	< 3%			
AC output topology	L+N+PE			
Battery				
Battery voltage range(V)	85~400			
Max. charging voltage(V)	400			
Full battery voltage(V)	85	110	140	160
Max. charge/discharge current(A)	80/80			
Battery type	lithium /Lead-acid			
Communication Interface	CAN,RS485			
EPS output				
Rated power(kVA)	6	8	10	12
Rated output voltage(V)	220-240 /110-120			
Rated frequency(Hz)	50/60			
Automatic switching time(ms)	<20			
THDu	< 2%			
Overload capacity	110%,30S/120%,10S/150%,0.02S			
General data				
Max. efficiency	≥98.2%			
CEC efficiency	≥97.2%			
Ingress protection	IP65/NEMA 3R			
Noise emission(dB)	<25	<25	<29	<29
Operation temperature	-25°C~60°C			
Cooling	Natural			
Relative humidity	0 ~95% (non-condensing)			
Altitude	2,000m(>2,000 Derating)			
Weight(kg)	32			
Dimensions W * D * H (mm)	530* 200* 660			
Display and communication				
Display	LCD			
Interface:RS485/Wifi/4G/ CAN/DRM	Yes/ Opt/ Opt/ Yes/ Yes			
Standby power consumption at night(W)	< 2.5 (With the battery < 5)			
Isolation transformer	No			
Safety standard	UL1741SA all options, UL1699B, CSA 22.2			
EMC	FCC Part 15, Class B			
On-grid	IEEE 1547, IEEE 2030.5, Hawaii Rule 14H, Rule 21 Phase I,II,III			

American ESS split- phase inverter (battery voltage:48V)



Luxury villa



Communication base station



Nomadic farm



Residential electricity

Product features:



Support Parallel available;



Bypass current capacity up to 100A;



Support 100% unbalanced load capacity;



UL certification;

REVO residential Energy Storage inverters



Technical specification	R5KLNA	R6KLNA	R8KLNA	R10KLNA
Input (PV)				
Max. power(kW)	7.5	9	12	13
Max. DC voltage (V)	500			
MPPT voltage range(V)	120~500			
Max.Input current of single MPPT(A)	12			
MPPT tracker/strings	4/1			
AC output				
Rated output power(kVA)	5	6	8	10
Max. output current(A)	24	28.8	38.3	47.8
Ac output voltage(V)	120/240(split phase), 208(2/3 phase),230 (single phase)			
Frequency (Hz)	50/60			
PF	0.8lagging-0.8leading			
THDi	< 3%			
AC output topology	Split phase, 2/3 phase, single phase			
Battery				
Battery voltage range(V)	40~58			
Max. charging voltage(V)	58			
Max. charge/discharge current(A)	120/120	135/135	190/190	210/210
Battery type	lithium /Lead-acid			
Communication interface	CAN/RS485			
EPS output				
Rated power(kVA)	5	6	8	10
Rated output voltage(V)	120/240 (split phase), 208 (2/3 phase),230 (single phase)			
Rated output current(A)	24	28.8	38.3	47.8
Rated frequency(Hz)	50/60			
Automatic switching time(ms)	<20			
THDu	< 2%			
Overload capacity	125%,60S/150%,1S			
General data				
Max. efficiency	≥98.2%			
North american efficiency	≥97.2%			
Ingress protection	IP65/NEMA 3R			
Noise emission(dB)	<25	<29	<29	<29
Operation temperature	-25°C ~ 60°C			
Cooling	Natural			
Relative humidity	0 ~95% (non-condensing)			
Altitude	2,000m(>2,000 Derating)			
Dimensions W *D *H (mm)	430*220*710			
Weight(kg)	41			
Isolation transformer	No			
Self-consumption(W)	<3			
Display and communication				
Display	LCD, touch screen			
Interface:RS485/Wifi/4G/CAN/DRM	Yes			
Safety standard	UL1741SA all options, UL1699B, CSA 22.2			
EMC	FCC Part 15, Class B			
On-grid	IEEE 1547, IEEE 2030.5, Hawaii Rule 14H, Rule 21 Phase I,II,III,NRS			

Hybrid inverter



Villages without electricity



Off-grid island



Nomadic farm



Off-grid mine

Product features:

Friendly flexible

- Various working modes can be set flexibly;
- PV controller modular design, easy to expand;

Abundant configuration

- Integrated design, easy to integrate;
- Support simultaneous access of load, battery, power grid, diesel and PV;
- Built-in maintenance bypass switch, improve system availability;

Safe and reliable

- Built-in isolation transformer for high load adaptability;
- Perfect protection function for inverter and battery;
- Redundancy design for important functions;

Intelligent and efficient

- Support battery capacity and discharge time prediction;
- Smooth switching between on and off grid, uninterrupted supply of load;
- Operate with EMS to monitor system status in real time

MPS PV and battery configuration principles:

- Boost mode configuration principle - open voltage at low temperature at the limit of PV installation * number of PV panels in series \leq the lowest voltage of the battery;
- Buck mode configuration principle - the maximum power operating voltage at the extreme high temperature of PV installation \geq the highest voltage of the battery;
- The PV and battery configurations of MPS must comply with the above configuration principles;

MPS microgrid series



Technical specification	MPS0030	MPS0050	MPS0100	MPS0150	MPS0250	MPS0500
AC(on-grid)						
Max output power(kVA)	33	55	110	165	275	550
Rated power(kW)	30	50	100	150	250	500
Rated voltage(V)	400					
Rated current (A)	43	72	144	216	361	722
Voltage range(V)	320~460					
Rated frequency (Hz)	50/60					
Frequency range(Hz)	45~55/55~65					
THDi	<3%					
Power factor	1lagging~1leading					
AC connection	3W+N+PE					
Transformer ratio	100/400	200/400	270/400	270/400	270/400	315/400
AC(Off Grid)						
Max output power(kVA)	33	55	110	165	275	550
Rated power(kW)	30	50	100	150	250	500
Rated voltage(V)	400					
Rated current(A)	43	72	144	216	361	722
THDu	$\leq 1\%$ linear; or $\leq 5\%$ nonlinear					
Rated frequency(Hz)	50/60					
Overload capacity	110% long-term					
Photovoltaic input						
Max.PV input voltage(V)	1,000					
Max.PV power(kW)	60/120	60/120	120/180/240	120/180/240	300/360	600/660/720
MPPT voltage range(V)	250-850					
MPPT voltage range @full load (V)	450-850					
Battery						
Battery voltage range(V)	250~850	320~850	420~850	420~850	420~850	500~850
Max. charging power(kW)	60/120	60/120	120/180/240	120/180/240	300/360	600/660/720
General data						
Dimension W*D*H(mm)	800*800*1,900	800*800*1,900	1,200*800*2,050	1,200*800*2,050	(600*720*2,050)*1+ 1,200*800*2,050	(600*720*2,050)*2+ 2,800*1050*2,050
Weight(kg)	620/650	720/750	1,120/1,150/1,180	1,250/1,280/1,310	1,980/2,010	3,265/3,295/3,325
Operation temperature	-30°C ~ 55°C					
Relative humidity	0 ~95% non-condensing					
Ingress protection	IP20					
Noise emission(dB)	<70dB					
Altitude	5,000m(>3,000 Derating)					
Cooling	Air Cooling					
Display and communication						
Display	LCD touch-screen					
BMS communication	RS485, CAN					
EMS communication	RS485, TCP/IP					
Certificates	TUV,CE					

Power Conversion System (without isolation transformer)



PV charging station



Wind power storage



Combined thermal power FM



Grid-side storage

Product features:

Friendly flexible

- Wide battery voltage range, support multiple battery access;
- Reactive power, active power adjustable;
- Off-grid cold start function, support multi-machine parallel function;

Safe and reliable

- High performance DSP, optimized control circuit design, high reliable system;
- Patented control detection algorithm to ensure equipment failure diagnose
- AC/DC dual backup for auxiliary power supply;

Abundant configuration

- Integrated design for easy transportation and integration;
- Support RS485, CAN communication mode, can accept BMS instruction in real time;

Intelligent and efficient

- Highest power density, maximum efficiency of 98.7%;
- Low power consumption fan, with intelligent temperature control system;
- With grid-connected charging and discharging, off-grid independent inverter function;

Technical specification	MEGA0500	MEGA0630
DC(battery)		
Voltage range(V)	600~900	
Max. current (A)	935	1,179
AC(on-grid)		
Max output power(kVA)	550	693
Rate output power(kW)	500	630
Rated voltage(V)	400	
Voltage range(V)	320~460	
Rated current(A)	722	909
Max. output current (A)	800	1,000
Rated frequency (Hz)	50/60	
Frequency range(Hz)	45~55/55~Z65	
THDi	<3%	
Power factor	1lagging-1leading (Settable)	
AC connection	3W+PE	
AC(off grid)		
Rated voltage(V)	400	
THDu	<1% Linear <5% Nonlinear	
Rated frequency(Hz)	50/60	
Overload capacity	110% ~long-term	
General data		
Max. efficiency	98.7%	
Ingress protection	IP21	
Noise emission(dB)	<70	
Operating temperature	-30°C~ 55°C	
Cooling	Forced air	
Relative humidity	0 ~95% non-condensing	
Altitude	5000m(>3000 Derating)	
Dimension W * D * H (mm)	1,200*800*2,050	
Weight(kg)	950	
Transformer	No	
Self-consumption(W)	<10	
Display and communication		
Display	LCD touch-screen	
BMS communication	RS485, CAN	
EMS communication	RS485, TCP/IP	
Certificates	CE, CGC, TUV, L1HVRT	

Power Conversion System (with isolation transformer)



C&I energy storage



Wind power storage



PV charging station

Product features:



Friendly & flexible

- Wide battery voltage range, support multiple battery access;
- Reactive power, active power adjustable;
- Off-grid cold start function, support multimachine parallel function;



Abundant configuration

- Integrated design for easy transportation and integration;
- Integrated on and off-grid automatic switching components, saving users' system costs;
- Support RS485, CAN communication mode, can accept BMS instruction in real time;



Safe and reliable

- built-in isolation transformer, high load adaptability;
- AC/DC dual backup for auxiliary power supply;



Intelligent and efficient

- Highest power density, maximum efficiency of 97.5%;
- With grid-connected charging and discharging, off-grid independent inverter function;

MEGA Large C&I inverter series



Technical specification	MEGA0030TS	MEGA0050TS	MEGA0100TS	MEGA0150TS	MEGA0250TS	MEGA0500TS
DC(battery)						
Voltage range (V)	250~850	320~850	420~850	420~850	420~850	500~850
Max. Current (A)	137	178	270	405	673	1,128
AC(on-grid)						
Max output power(kVA)	33	55	110	165	275	550
Rate output power(kW)	30	50	100	150	250	500
Rated voltage(V)	400					
Voltage range(V)	320~460					
Rated current(A)	43	72	144	216	361	722
Max. output current(A)	48	80	159	238	397	794
Rated frequency (Hz)	50/60					
Frequency range (Hz)	45~55/55~65					
THDi	<3%					
Power factor	1lagging-1leading (Settable)					
AC connection	3W+N+PE					
AC(off grid)						
Rated voltage(V)	400					
THDu	<1% Linear <5% Nonlinear					
Rated frequency(Hz)	50/60					
Overload capacity	110% long-term					
General data						
Max. efficiency	96.3%	96.5%	97.1%	97.1%	97.3%	97.5%
Ingress protection	IP21					
Noise emission(dB)	<70					
Operating temperature	-30°C~ 55°C					
Cooling	Forced air					
Relative humidity	0 ~95% non-condensing					
Altitude	5,000m(>3,000 Derating)					
Dimension W*D*H (mm)	800*800*2,050	800*800*2,050	800*800*2,050	800*800*2,050	1,200*800*2,050	1,600*1,050*2,050
Weight(kg)	605	676	936	1,057	1,582	2,665
Transformer ratio	100/400	200/400	270/400	270/400	270/400	315/400
Self-consumption (W)	<10					
On/ Off grid switching	Automatic					
Display and communication						
Display	LCD touch-screen					
BMS communication	RS485, CAN					
EMS communication	RS485, TCP/IP					
Certificates	CE, CGC, TUV					

Container type energy storage booster



PV power station energy storage



Wind power storage



Combined thermal power FM



Grid-side storage

Product features:



Friendly & flexible

- system can be expanded to MW level by parallel;



Safe and reliable

- Support multiple battery input to improve battery cycle life;
- High switching frequency design, low current ripple and high power quality;



Abundant configuration

- Integrated multiple boost systems;
- Integrated ventilation system;



Intelligent and efficient

- Built-in EMS function to improve energy efficiency management;
- Latest IGBT module, high efficiency conversion;

Technical specification	ESSC1000A-MV35	ESSC1260A-MV35	ESSC2000A-MV35	ESSC2500A-MV35
DC(battery)				
Battery voltage range(V)	500-900			
AC(on-grid)				
Max. apparent power(kVA)	1,100	1,386	2,200	2,750
Rate output power(kW)	1,000	1,260	2,000	2,500
Rated voltage(kV)	35			
Voltage range(kV)	38.5±2×2.5% (6、10、22) optional			
Rated current(A)	16.5	20.8	33	41.2
Max. output current(A)	18.1	22.9	36.3	45.4
Rated frequency(Hz)	50/60			
Frequency range(Hz)	45-55/55-65			
THDi	<3%			
Power factor	1lagging-1leading (Settable)			
AC connection	3W+PE			
General data				
Max. efficiency	98%			
Ingress protection	IP54			
Noise emission(dB)	<75			
Operating temperature	-30°C~ 55°C			
Cooling	Temperature controlled forced air cooling			
Relative humidity	0 ~95% non-condensing			
Altitude	5,000m(>3,000 Derating)			
Dimension W*D*H (mm)	4,300*2,438*2,591	4,300*2,438*2,591	6,058*2,438*2,591	6,058*2,438*2,591
Weight(kg)	4,500	4,500	8,000	8,000
Transformer	No			
Self-consumption(W)	<20	<20	<40	<40
Booster transformer	Manual (default)/ Automatic (optional)			
Display and communication				
Display	LCD touch-screen			
BMS communication	RS485/CAN			
EMS communication	Modbus-Tcp, Modbus-RTU, RS485, TCP/IP			
Certificates	CE、CGC、TUV			

Storage battery cabinet



- Easy installation, simple connection;
- Compatible with CANbus/RS485 communication interface;
- Support battery expansion;
- System cycle life ≥ 10 years;



Luxury villa



Residential electricity



Nomadic farm



Communication base station

Technical specification	E072B048	E144B048
Total energy(kWh)	2.4/4.8/7.2	9.6/12/14.4
Nominal voltage(V)	48	48
Designed life	≥ 10 years (25 °C /77F)	≥ 10 years (25 °C/77F)
Discharge voltage(V)	45~ 54	45~ 54
Charging voltage(V)	52.5~ 54	52.5~54
Max. charging current(A)	25/50/75	100/120
Max. discharge current(A)	25/50/75	100/120
Storage temperature	-10°C ~+60°C	-10°C ~+60°C
Max. working altitude(m)	<4,000	<4,000
Relative humidity	10%~90%	10%~90%
Installation	GT-XL	GT-XL
Ingress protection	IP21	IP21
Operating temperature	-10°C ~+50°C (discharge) 0°C ~+50°C (charging)	-10°C ~+50°C (discharge) 0°C ~+50°C (charging)
Weight(kg)	83	163
Dimension W*D*H(mm)	520*350*680	520*350*1,200
Certificates	CE	CE

Outdoor cabinet type energy storage system



- Simple structure, small footprint, flexible layout, easy installation operation and maintenance;
- Built-in fire control, temperature control, system warning function for multiple security;
- Intelligent control system, can be connected to the local monitoring system for system control;
- IP54 design;



C&I user side



Power shortage areas



Off-grid island



Off-grid mine



Nomadic farm

Technical specification

DC data

Battery capacity (kWh)	100~200
Number of battery racks	1~2
BMS communication interface	RS485/CAN
DC voltage range(V)	420~850

AC data

Rated AC power(kW)	30~150
Max. AC power(kW)	30~150
Rated AC current(A)	43~216
Max. AC current(A)	48~238
DC current component	<0.5%
THDi	<0.3% (Rated power)
Rated grid voltage(V)	400
Allowable grid voltage range(V)	320~460
Rated grid frequency(Hz)	50/60
Allowable grid frequency range(Hz)	45~55/55~65
Power factor	1lagging-1leading
Isolation method	With the isolation

General Data

Ingress protection	IP54
Fire extinguishing system	Support
Operating temperature	-30°C~ 55°C
Dimension W*D*H (mm)	Customization*1,300*2,400
Weight (kg)	Customization
BMS communication mode	Modbus-RTU, CAN, RS485
EMS communication mode	Modbus-Tcp, Modbus-RTU,RS485, TCP/IP
PCS cooling way	Temperature control intelligent air cooling
Battery cooling way	Air conditioning cooling
Altitude	4,500m (>3,000 Derating)

Container storage system



PV charging station



Wind power storage



Combined thermal power FM



Grid-side storage

Product features:

Friendly & flexible

- Standardized design, easy for capacity expansion, easy for maintenance;
- Independent air flow design for high reliability;

Abundant configuration

- All kinds of power configuration for different projects
- Integrated monitoring system;

Safe and reliable

- Support battery management system and comprehensive thermal management;
- Realize the fault classification protection algorithm;

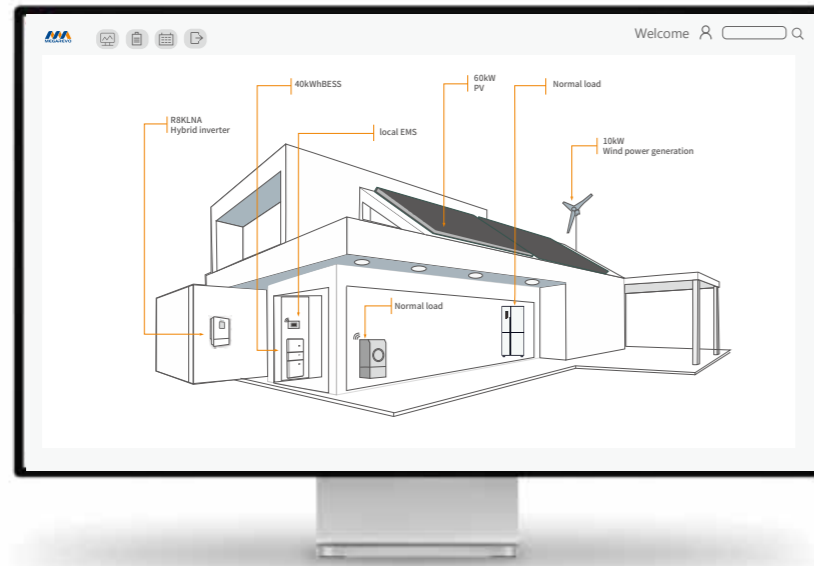
Intelligent and efficient

- Support real-time online monitoring of system status;
- Large capacity, long life, high discharge rate;

Technical specification		ESSC0500A-1106
DC data		
Battery capacity (MWh)		1,106
Number of battery racks		8
BMS communication interface		RS485/CAN
DC voltage range (V)		600~850
AC data		
Rated AC power(kW)		500
Max. AC power(kW)		550
Rated AC current(A)		722
Max. AC current(A)		800
DC current component		<0.5%
THDi		<0.3% (Rated power)
Rated grid voltage(V)		400
Allowable grid voltage range(V)		320~460
Rated grid frequency(Hz)		50/60
Allowable grid frequency range		45~55/55~65
Power factor		1lagging-1leading
Isolation method		No isolation
General data		
Ingress protection		IP54
Fire extinguishing system		support
Running time (full power)		2h
Operating temperature		-30°C~ 55°C
Dimension W*D*H (mm)		12,192*2,438*2,896
Weight (T)		3.5
PCS communication mode		RS485, CAN
PCS communication protocol		RS485, TCP/IP
PCS cooling way		Temperature control intelligent air cooling
Battery cooling way		Air conditioning cooling
Altitude		4,500m(>3,000 Derating)
Relative humidity		0 ~95% non-condensing

EMS (energy management system)

EMS is developed by Megarevo for a variety of application scenarios of energy storage systems. Through independent learning and data analysis, EMS can provide users with optimal charging and discharging operation strategies to help customers to improve the efficiency of clean energy and save energy cost. In addition, the EMS supports system monitoring and real-time fault alarms. can easily master the system charging state, battery voltage, temperature, auxiliary system status and other detailed information anytime and anywhere.



Perfect functions

- Support multiple communication protocols;
- Support 5-year historical data review;

Intelligent security

- More accurate and comprehensive monitoring;
- Real-time control of PCS and battery operation data;

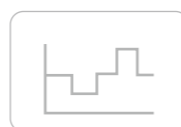
Easy & convenient

- User-friendly operation interface, simple and easy to operate;
- Support mobile APP/ wechat mini program for remote management;

Application Area



Microgrid system energy control



C&I peak cutting and valley filling energy control



PV charging station energy control



Frequency modulation peak modulation energy control

BR3000 communication management machine

BR3000 communication management machine adopts high-performance 4-core A9 processor, main frequency up to 1.4GHz, supports 2 10/100 adaptive industrial Ethernet interface, 4 serial communication interface (1 RS232/4 RS485), can be customized WIFI/CAN, large capacity SD memory card interface, built-in RTC, buzzer, etc. It can provide users with powerful computing capacity and flexible communication modes, small size and easy installation. Embedded with 512MB DDR3 SDRAM and 8G Flash memory, abundant communication ports are ideal for PV power station communication, power environment monitoring in computer rooms, ESS energy management and other applications.



- Supports 4 RS485, 1 RS232, 2 Ethernet, standard 4G, support WIFI/CAN customization;
- Linux operating system, perfect debugging software, convenient and flexible device access;

- Embedded WEB built-in database, data cloud platform, mobile phone Wechat mini program access
- Equipped with large capacity Flash and memory, supporting device data browsing and historical data report through embedded WEB;

Data acquisition stick



Data acquisition stick supports GPRS, WiFi, 4G, Ethernet and other communication modes. In addition, the bucket rod logger supports serial communications such as RS485/RS232/RS422/TTL. The multi-cover design makes it suitable for most inverters. By collecting the operating status of the inverter, rod loggers can effectively monitor the PV system over long periods of time, improve efficiency and significantly reduce administrative costs. With its extended features such as GNSS, shutdown alerts and bluetooth, stick logger enable quick configuration on site and simple plant operations.





Manila Project, Philippines

- 5 kW / 10 kWh
- Integrated light storage in residential areas (10kW PV)
- 2*R5KL1 hybrid inverter
- 2019.09
- Off-grid, backup power supply
- Outdoor installation

The project is located in a small town in Manila, Philippines. Due to the local climate and geographical conditions, the power quality is unstable and the electricity fee is high. In this project, Megarevo R5KL1 series hybrid inverter +10kWh lithium battery energy storage system, combined with the user's own 10kW rooftop PV, jointly create economic, stable and clean power supply for families. The system was installed in September 2019, and has been safe and stable for nearly 500 days. In addition to reduce the energy cost of residents, this system provide backup power for the home in the situation of power grid outages and natural disasters



Sichuan Ganzi Microgrid Project

- 150 kW / 391.68 kWh
- 1*MPS0150 (Hybrid inverter)
- 160kWP PV
- June 2021
- On-grid/off-grid, backup power supply

The project is located in Kangding Ta Gongbari Temple, Ganzi Tibetan Autonomous Prefecture, Sichuan province. With an average altitude of more than 3,500m, the area is sparsely populated and the power grid is weak. However, due to sufficient sunshine, 160kwp PV power generation modules are equipped there.

The average daily load of the project is 50kW. In order to ensure the continuity of power supply at night, Megarevo deployed a 150kW/ 391.68kWh microgrid system for the temple in June 2021. PCS adopts Megarevo's new-generation MPS0150 hybrid inverter, which makes friendly coordination between PV and battery through intelligent control algorithm, thus to provide electricity for temple.



Zhuhai Southern Power Grid Energy storage project

- 5MW/15.889MWh
- 2* Mega2500-MV
- December 2020
- Peak frequency modulation of power grid

Located in the beautiful coastal area of Hengqin, Zhuhai, the project is a peak shaving and frequency modulation project on the power grid side, with a total capacity of 5MW/15.889MWh. On the AC side, two sets of MEGA2500 20-foot booster integrated machines are used to support active and reactive power output and realize independent decoupling control of active and reactive power. The system was launched in December 2020 and has been running well so far.



Hunan 100MW/200MWh Peak and frequency modulation project

Located in The Miao Autonomous Region of Hunan Province, it belongs to the power grid side peak shaving and frequency modulation demonstration project built by the State Grid. 40 sets of 630kW MEGA series energy storage inverters are applied in this project, and the security and stability of the system is fully guaranteed by the unique patent control detection algorithm and high-performance DSP of Megarevo.

- 100MW/200MWh
- 40*MEGA0630+200MWh lithium battery
- February 2022
- Peak frequency modulation of power grid





Nanjing 150kW/200kWh microgrid Project



Xichang 60kW/200kWh microgrid Project



250kW/630kWh C&I ESS project in Austria



Winter Olympics 200kW/100kWh project



250kW/200kWh microgrid project of Zhejiang



Jamaica 7kW/20kWh residential ESS project



Beijing Capital Airport 100kW/430kWh hybrid project



Greece 5kW/10kWh residential ESS project



Jiangmen 5kW/10KWh hybrid Project



11kW/15KWh residential ESS project in South Africa



Pakistan 150kW/306kWh microgrid project



Ethiopia 600kW/1500kWh ESS project



Fuzhou 250kW/500kWh C&I ESS project



Yunfu Forest Farm 50kW/100kWh off-grid microgrid project



Hunan 100MW/200MWh grid side ESS project



Guangzhou 150kW/200kWh ESS project



Gac New Energy 1MW/2MWh C&I ESS project



Solomon Islands 30kW/60kWh microgrid project

| Professional Services

Pre-sales

- Provide free technical consultation;
- Design total solutions according to customer requirements;
- Determine the technical scheme and sign the technical agreement;

In sale

- Professional team on-site tracking;
- Support customer site inspection and project verification;
- Provide professional solution optimization suggestions;

After-sales

- Provide after-sales technical consultation and training services;
- Can improve the product according to customer requirements;
- Support remote product upgrade;
- Quick response from 30 aftersales centers around the world, 1h response, 8h emergency actions, 24h on-site treatment;