



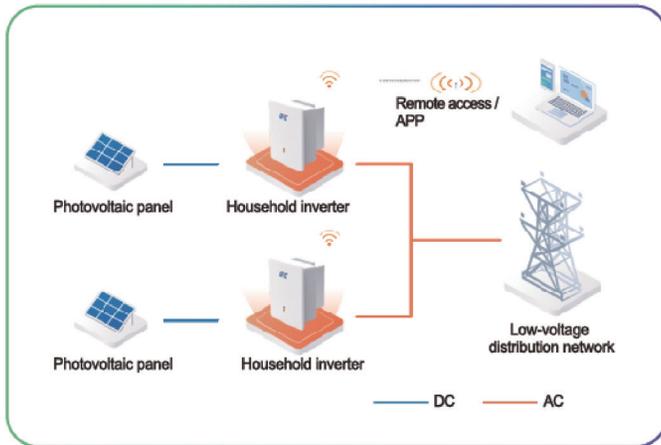
UNICONTOR
TECHNOLOGY

ABOUT UNC

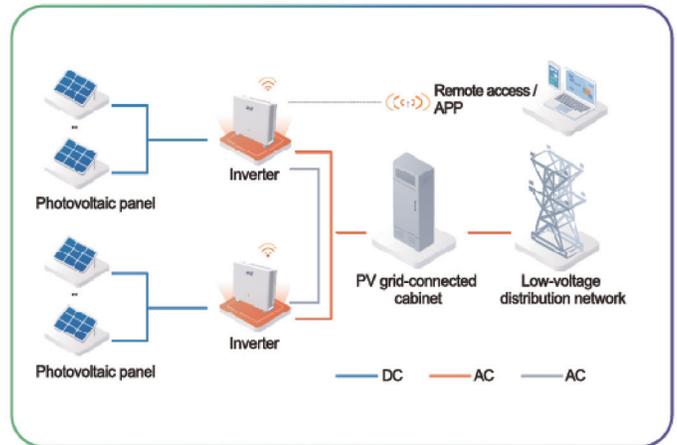
Founded in 2021, Qingdao UNC Technology Co., Ltd. is headquartered in Qingdao, Shandong Province. As a hightech enterprise based on the new energy industry, it focuses on studying the power electronic conversion technology of new energypower supply (photovoltaic, energy storage, etc.) equipments integrating independent innovation, research and development production, sales, and service. Its products include household Energy Storage Converter, Photovoltaic Inverter, Energy Storage POS, etc., facing both domestic market and international markets (Europe, America, Brazil, india, Southeast Asia, etc.). All the core members of the team own more than 10-years experience in power electronicsdual control, structure, electrical and other related majors whose technical reserves cover numerous felds in photovoltaic.energy storage,charging, smart microgrid, DC power grids, and more.



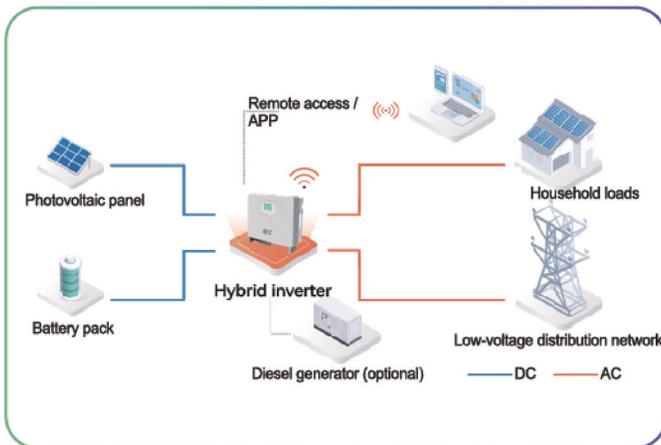
SOLUTIONS



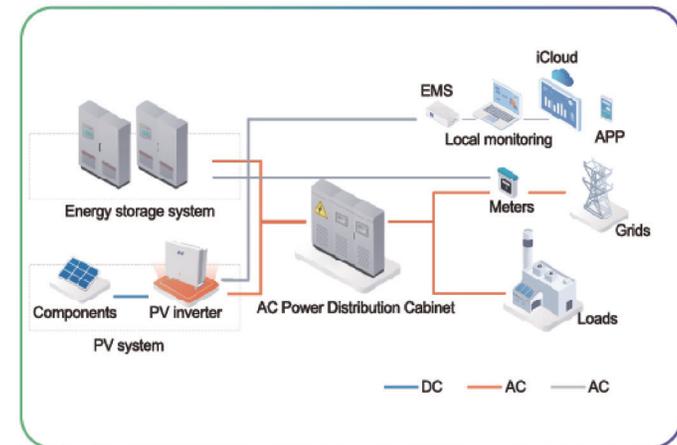
Household photovoltaic solutions



Industrial and commercial photovoltaic solutions



Residential energy storage solution



Energy storage solution



Single Phase Hybrid Inverter

Product Features

- Up to 120A max charge/discharge current
- Up to 15A MPPT current input to support high-power solar panels
- Support off-grid application of diesel generators
- UPS level switching time (<10ms) supporting critical loads all the time
- Flexible schedule for inverter charging and discharging time



Product Model	ESS1-3K1P-02-LV	ESS1-3.6K1P-02-LV	ESS1-4.6K1P-02-LV	ESS1-5K1P-02-LV	ESS1-6K1P-02-LV
Input DC(PV)					
Recommended max. PV power	5KW	5.5KW	8KW		
Max. input voltage	580V				
Rated input voltage	350V				
Start-up voltage	120V				
MPPT voltage range	90-520V		120-520V		
Max. input current	15A/15A				
Max. short circuit current	22.5A/22.5A				
MPPT number/Max. input strings number	2/2				
Input/Output oc(Battery)					
Battery type	Lead-acid/Li-ion				
Battery voltage range	42-58V				
Max. charge/discharge power	3KW		5KW		
Max. charge/discharge current	72A		120A		
Communication Mode	RS485/CAN				
Output Ac					
Rated output power	3KW	3.6KW	4.6KW	5KW	6KW
Max. output power	3.3KW	4KW	4.6KW	5.5KW	6.6KW
Max. apparent output power	3.3KVA	4KVA	4.6KVA	5.5KVA	6.6KVA
Rated output current	13.6A	16.4A	20.9A	22.7A	27.3A
Max. output current	15.1A	18.2A	23.2A	25.2A	30A
Switch time of grid-connected and off-grid	<10ms				
Rated grid output voltage/frequency	L/N/PE 220V/230V 50Hz/60Hz				
Power factor	0.8 leading ...0.8 lagging				
THDv (@linear load)	<3%				
THDi	<2%				
Input AC					
Max. apparent input power	3.3KVA	4KVA	4.6KVA	5.5KVA	6.6KVA
Max. input current	15.1A	18.2A	23.2A	25.2A	30A
Rated grid input voltage/frequency	L/N/PE 220V/230V 50Hz/60Hz				
Efficiency					
Max. efficiency	97.50%				
Standard					
Safety	IEC62109-1/-2				
EMC	EN61000-6-1/ EN61000-6-3				
Basic parameters					
Dimensions (W*H*D)	362mmx546mmx252mm				
Cooling concept	Natural				
Weight	21.5KG				
Degree of protection	IP66				
Operating ambient temperature	-25~+60 °C (>45 derating)				
Max.operation attitude	3000m				
communication Mode	RS485/WIFI/GPRS/LAN				

Three Phase Hybrid Inverter

Product Features

- UPS level switching time (<10ms) supporting critical loads all the time
- Support three-phase imbalance on backup output port
- 2 MPPT and 4 DC input; Max 26A DC input current
- Flexible schedule for inverter charging and discharging time
- Degree of protection:IP66



Product Model	ESS1-8K3P-02-HV	ESS1-10K3P-02-HV	ESS1-12K3P-02-HV
Input DC(PV)			
Recommended max. PV power	12KW	15KW	18KW
Max. input voltage	1000V		
Rated input voltage	600V		
Start-up voltage	200V		
MPPT voltage range	200-850V		
Max. input current	26A/26A		
Max. short circuit current	39A/39A		
MPPT number/Max. input strings number	2/4		
Input/Output DC(Battery)			
Battery type	Li-ion		
Battery voltage range	180V-600V		
Max. charge/discharge power	8KW		10KW
Max. charge/discharge current	30A		
Communication Mode	RS485/CAN		
Outout Ac			
Rated output power	8KW	10KW	12KW
Max. output power	8.8KW	11KW	13.2KW
Max. apparent output power	8.8KVA	11KVA	13.2KVA
Rated output current	12.1A	15.2A	18.2A
Max. output current	13.4A	16.7A	20A
Switching time of grid-connected and off-grid	<10ms		
Rated grid output voltage/frequency	3L/N/PE 380V/400V 50Hz/60Hz		
Power factor	0.8 leading ... 0.8 lagging		
THDv (@linear load)	<3%		
THDi	<2%		
Input AC			
Max. apparent input power	8.8KVA	11KVA	13.2KVA
Max. input current	13.4A	16.7A	20A
Rated grid input voltage/frequency	3L/N/PE 380V/400V 50Hz/60Hz		
Efficiency			
Max. efficiency	98.10%		
Standard			
Safety	IEC62109-1/-2		
EMC	EN61000-6-1/ EN61000-6-3		
System Data			
Dimensions (W*H*D)	556mmx482mmx196mm		
Cooling concept	Natural		
Weight	27.5kg		
Degree of protection	IP66		
Operating ambient temperature	-25 ~ +60°C (>45 derating)		
Max. operation attitude	3000m		
Communication Mode	RS485/WIFI/GPRS/LAN		

Single Phase Hybrid Inverter



Product Features

- Up to 208A max charge/discharge current
- Up to 44A of MPPT current input to support high-power solar panels
- Supports pure off grid applications with generator
- Support intelligent load and motor load connection
- Degree of protection:IP66
- UPS level switching time (<10ms) supporting critical loads all the time

Product Model	ESS2-6K1P-02-LV	ESS2-8K1P-02-LV	ESS2-10K1P-02-LV
Input DC(PV)			
Recommended max. PV power	9KW	12KW	15KW
Max. input voltage	500V		
Rated input voltage	360V		
MPPT voltage range	90-425V		
Max. input current	44A/21A		
Mppt number/Max.input strings number	2/3		
Input/Output DC(Battery)			
Battery type	Lead-acid/Li-Ion		
Battery voltage range	40-60V		
Max. charge/discharge power	6KW	8KW	10KW
Max. charge/discharge current	142A	190A	208A
Communication mode	RS485/CAN		
Charging curve	Three-paragraph		
AC(Off Grid)			
Max. output power	6KW	8KW	10KW
Switch time of grid-connected and off-grid	<10ms		
THDi	<2%(Linear load)		
AC(On Grid)			
Rated output power	6KW	8KW	10KW
Rated grid output voltage	L/N/PE, 220V/230V		
Rated grid output frequency	50Hz/60Hz		
Max. output current	30A	40A	50A
Power factor	>0.99((Lead 0.8 ~ lag 0.8)		
THDi	<2%(Full load)		
Efficiency			
Max. efficiency	>97.5%		
Protection function			
Island protection	Available		
Input Protection for reverse connection	Available		
AFCI protection	Optional		
System Data			
Maximum number of parallel machines	16		
Communication Port	RS485/Wi-Fi(Optional)/4G(Optional)/LAN(Optional)		
Dimensions	620*350*196 mm		
Weight	25.7kg		27kg
Operating ambient temperature	-40~+60℃(>45℃Reduction)		
Degree of protection	IP66		
Cooling concept	Natural		Intelligent air-cooled

Three Phase Hybrid Inverter

Product Features

- Up to 50A max charge/discharge current
- IP66 high ingress protection
- UPS level switching time (<10ms) supporting critical loads all the time
- Support three-phase imbalance on backup output port
- Supports up to 16 parallel machines
- Supports pure off grid applications with generator



Product Model	ESS2-12K3P-02-HV	ESS2-15K3P-02-HV	ESS2-20K3P-02-HV
Input DC(PV)			
Recommended max. PV power	18KW	22.5KW	30KW
Max. input voltage	1000V		
Rated input voltage	620V		
MPPT voltage range	200V-850V		
Continuous input current	32A/32A		
MPPT number/Max. input strings number	2/4		
Batteries			
Input/Output DC(Battery)	Lithium batteries		
Battery voltage range	120V-600V		
Max. charge/discharge power	12KW	15KW	20KW
Max. charge/discharge current	50A		
Communication mode	RS485/CAN		
Charging curve	Three-paragraph		
AC(Off Grid)			
Max. output power	12KW	15KW	20KW
Switch time of grid-connected and off-grid	<10ms		
THDi	<2%(Linear load)		
AC(On Grid)			
Rated output power	12KW	15KW	20KW
Rated grid output voltage	3L/N/PE, 380V/400V		
Rated grid output frequency	50Hz/60Hz		
Max. output current	20A	25A	33.3A
Max. input current	27.3A	34.1A	45.5A
Power factor	>0.99(Lead 0.8 ~ lag 0.8)		
THDi	<2%(Full load)		
Efficiency			
Max. efficiency	>97.5%		
MPPT efficiency	>99.5%		
Protection function			
Island protection	Available		
Input Protection for reverse connection	Available		
100% three-phase unbalanced load	Available		
AFCI protection	Optional		
System Data			
Maximum number of parallel machines	16		
Communication Port	RS485/Wi-Fi(Optional)/4G(Optional)/LAN(Optional)		
Dimensions	567*497*237mm		
Weight	29kg		31.6kg
Operating ambient temperature	-40 ~ +60°C (>45°C Reduction)		
Degree of protection	IP66		
Cooling concept	Natural		Intelligent air-cooled

MIC Series Inverter

Product Features

- Pure sine wave solar inverter(off Grid)
- Power factor 1.0
- WIFI&GPRS available for IOS and Android
- Inverter can run without battery
- One-key restoration to factory Settings
- Automatic activation with built-in lithium battery
- Built-in 120A MPPT solar charge
- High PV input voltage range(90~500VDC)
- Built-in anti-dust kit for harsh environment
- Smart battery charge design to optimize battery life
- Dual AC Output



Product Model	MIC-3.6KW	MIC-4.2KW	MIC-6.2KW
Maximum PV Input Power	6200W	6200W	6500W
Rated Output Power	3800W/3800VA	4200W/4200VA	6200W/6200VA
Maximum Solar Charging Current	120A		
Photovoltaic Parameters			
Nominal Voltage/Maximum Voltage	360VDC/500VDC		
Start-up Voltage/Initial Feeding Voltage	90VDC/120VDC		
MPPT Voltage Range	90~450VDC		
MPPT Tracks The Number Of Input Channels/Maximum input Current	1/18A	1/18A	1/22A
AC Parameters			
Norminal Output Voltage, Frequency	120V 50Hz	220/230/240VAC 50/60Hz	
Norminal Output Current	30A	18.2A	27.0A
Acceptable Input Voltage Range	90-280VAC or 170-280VAC 50/60Hz		
Maximum Input Current	30A	30A	40A
Efficiency			
Maximum Conversion Efficiency(Solar to AC)	98%		
Two Load Output Power			
Full Load	3600W	4200W	6200W
Maximum Main Load	3600W	4200W	6200W
Max Second Load(battery mode)	1400W	1400W	2067W
Battery Mode Output(AC)			
Nominal Output Voltage	120V 50Hz	220/230/240VAC 50/60Hz	
Output Waveform	Pure sine wave		
Efficiency(DC to AC)	94%		
Battery/charging			
Battery Nominal Supply Voltage	24VDC	24VDC	48VDC
Maximum Solar Charging Current	120A		
Maximum AC Charging Current	100A		
General Physical			
Dimension D*W*H(mm)	423*334*110		
Net Weight(Kgs)	8.5	8.5	10
Communication Port	RS232/WIFI/GPRS		
Operate Temperature	-10~50°C		

MASS Series Inverter

Product Features

- Pure sine wave solar inverter(off Grid)
- Power factor 1.0
- WIFI&GPRS available for IOS and Android
- Inverter can run without battery
- One-key restoration to factory Settings
- Automatic activation with built-in lithium battery
- Built in 160A(7.2kw/8.2kw)/180A(10.2kw)
- High PV input voltage range(90~500VDC)



Product Model	MASS-7.2KW	MASS-8.2KW	MASS-10.2KW
Maximum PV Input Power	8200W	8200W	10200W
Rated Output Power	7200W/7200VA	8200W/8200VA	10200W/10200VA
Maximum Solar Charging Current	160A	160A	160A
Photovoltaic Parameters			
Nominal Voltage/Maximum Voltage	360V/500V		
Start-up Voltage/Initial Feeding Voltage	90V/120V		
MPPT Voltage Range	90V-450V		
MPPT Tracks The Number Of input Channels/Maximum input Current	1/18A	2/18A	
AC Output			
Norminal Output Voltage、 Frequency	220/230/240VAC 50/60Hz		
Norminal Output Current	31.3A	35.6A	44.3A
Acceptable Input Voltage Range	90-280VAC or 170-280VAC 50/60Hz		
Maximum Input Current	50A		
Efficiency			
Maximum Conversion Efficiency(Solar to AC)	98%		
Two Load Output Power			
Full Load	7200W	8200W	10200W
Maximum Main Load	7200W	8200W	10200W
Max Second Load(battery mode)	2400W	2733W	3400W
Battery Mode Output(Ac)			
Nominal Output Voltage	220/230/240VAC		
Output Waveform	Pure sine wave		
Efficiency(DC to AC)	94%		
Battery/charging			
Battery Nominal Supply Voltage	48VDC	48VDC	48VDC
Maximum Solar Charging Current	160A		180A
Maximum AC Charging Current	140A		160A
General Physical			
Dimension D*W*H(mm)	530*420*160		
Net Weight(Kgs)	14.5	14.5	15
Communication Port	RS232/RS485/WIFI/GPRS		
Operate Temperature	-10~50°C		

PV and battery all-in-one

Product Feature

- Up to 120A max charge/discharge current
- of MPPT current input to power solar panels
- Support off-grid application of diesel generator
- UPS level switching time (<10ms) supporting critical loads all the time
- Support grid connected operation
- Flexible schedule the inverter charging and discharging time.



Product Model	ESS1-4.6K1P-02-LV-F-AIO	ESS1-5K1P-02-LV-F-AIO	ESS1-6K1P-02-LV-F-AIO
Input DC(PV)			
Recommended max. PV power	8kW		
Max. input voltage	580V		
Rated input voltage	350V		
Start-up voltage	120V		
MPPT voltage range	120-520V		
Max.input current	15A/15A		
Max. short circuit current	22.5A/22.5A		
MPPT number/Max. input strings number	2/2		
Input/output Dc(Battery)			
Battery voltage range	42-58V		
Max. charge/discharge power	5kW		6kW
Max. charge/discharge current	100A		120A
Communication	RS485/CAN		
Output Ac(inverter)			
Rated output power	4.6kW	5kW	6kW
Max. output power	4.6kW	5.5kW	6.6kW
Max. apparent output power	4.6kVA	5.5kVA	6.6kVA
Rated output current	20.9A	22.7A	27.3A
Max. output current	23.2A	25.2A	30A
Back-up switch time	< 10ms		
Rated grid output voltage/frequency	L/N/PE 220V/230V 50Hz/60Hz		
Power factor	0.8leading...0.8 lagging		
THDV	< 2%		
THDi	< 2%		
Input AC			
Max. input power	10kW		
Max.apparent input power	10kVA		
Max.input current	50A		
Rated grid input voltage/frequency	L/N/PE 220V/230V 50Hz/60Hz		
System Data			
Dimensions (W*H*D)	610*256*436mm		
Cooling concept	Forced-air		
Ingress protection	IP65		
Operating ambient temperature	-25°C~+60°C (> 45 derating)		
Max. operation altitude	3000m		
Communication	RS485/WIFI/GPRS		
Battery Data			
Battery type	Li-ion		
Battery module capacity	5.12kWh		
Maximum number of parallelizable modules	4		
Single module cycle life	≥6000		
Maximum charging/discharging current per module	100A/100A		
Dimensions(W*H*D)	610*230*436mm		
Cooling concept	Forced-air		
Ingress protection	IP65		
Operating ambient temperature	-25°C~+60°C (> 45 derating)		
Max.operation altitude	3000m		
Communication	RS485/WIFI/GPRS		

PV and battery all-in-one

Product Feature

- Up to 120A max charge/discharge current
- Input to support high-power solar panels
- Support off-grid application of diesel generator
- UPS level switching time(<10ms) supporting critical loads all the time
- Support grid connected operation
- Flexible schedule the inverter charging and discharging time



Product Model	ESS1-4.6K1P-02-LV-F-AIO	ESS1-5K1P-02-LV-F-AIO	ESS1-6K1P-02-LV-F-AIO
Input DC(PV)			
Recommended max. PV power	8kW		
Max. input voltage	580V		
Rated input voltage	350V		
Start-up voltage	120V		
MPPT voltage range	120-520V		
Max.input current	15A/15A		
Max. short circuit current	22.5A/22.5A		
MPPT number/Max. input strings number	2/2		
Input/output Dc(Battery)			
Battery voltage range	42-58V		
Max. charge/discharge power	5kW		
Max. charge/discharge current	100A		120A
Communication	RS485/CAN		
Output Ac(inverter)			
Rated output power	4.6kW	5kW	6kW
Max. output power	4.6kW	5.5kW	6.6kW
Max. apparent output power	4.6kVA	5.5kVA	6.6kVA
Rated output current	20.9A	22.7A	27.3A
Max. output current	23.2A	25.2A	30A
Back-up switch time	< 10ms		
Rated grid output voltage/frequency	L/N/PE 220V/230V 50Hz/60Hz		
Power factor	0.8leading...0.8 lagging		
THDV	< 2%		
THDi	< 2%		
Input AC			
Max. input power	10kW		
Max.apparent input power	10kVA		
Max.input current	50A		
Rated grid input voltage/frequency	L/N/PE 220V/230V 50Hz/60Hz		
System Data			
Dimensions (W*H*D)	610*256*436mm		
Cooling concept	Forced-air		
Ingress protection	IP65		
Operating ambient temperature	-25℃~+60℃ (> 45 derating)		
Max. operation altitude	3000m		
Communication	RS485/WIFI/GPRS		
Battery Data			
Battery type	Li-ion		
Battery module capacity	5.12kWh		
Maximum number of parallelizable modules	4		
Single module cycle life	≥6000		
Maximum charging/discharging current per module	100A/100A		
Dimensions(W*H*D)	610*230*436mm		
Cooling concept	Naturel		
Ingress protection	IP65		
Operating ambient temperature	-25℃~+60℃ (> 45 derating)		
Max.operation altitude	3000m		
Communication	RS485/WIFI/GPRS		



Cabinet BESS

Product Model	ESS1-100K/232kWh
Rated AC power	100KW
Max. AC power	110KW
Nominal grid voltage	832V
Rated grid frequency	50Hz/60Hz
DC Component	<0.5%IN
Cell type	LFP
Single battery PACK power	46.5kWh
Number of battery packs	5
System capacity	232kWh
Run time	2h
Cycle Life	≥6000
Max. efficiency	99.03%
Dimensions (W*H*D)	1000*2100*1280mm
Weight	2.6T
Isolation method	Transformer free isolation
Ingress protection	IP54
Operating Temperature	Charging: 0~50℃ Discharging: -25℃~60℃
Cooling method	Forced-air
Communication Mode	RS485,CAN,LAN



battery pack (Rack-Mounted)

Product Model	RES-10RT	RES-20RT
CELL		
Energy Capacity	51.2V106AH	51.2V125AH
Cell Specifications	LiFePO4	
Cell Configuration	16S1P	16S1P
MODULES		
Charging Cut-off Voltage	56V	
Standard Charge Current	50A	
Discharging Cut-off Voltage	45V	
Standard Discharge Current	100A	
Communication Mode	RS485/RS232/CAN	
BMS	Over-voltage,Low-voltage,Temperature control Overload and AC short circuit protection,Surge protection	
Operating Temperature	Charging temperature 0°C-45°C	
Cycle Life	>5,000 Cycles	
Warranty	5 Years	
Dimension(W/D/H)	OEM	
Net Weight	/	
Other Function(Optional)	Bluetooth APP	



battery pack (Floor Installation)

Product Model	RES-5F/1	RES-5FT/1-6
MODULES		
Energy Capacity	5427Wh	5427-32552Wh
Cell Specifications	LiFePO4	
Cell Configuration	16S1P	16S1P
Number of Power Modules	1	1-6
Charging Cut-off Voltage	58.4V	58.4V
Standard Charge Current	50A	50A
Discharging Cut-off Voltage	40A	40A
Standard Discharge Current	100A	100A
Communication Mode	RS485/RS232/CAN	
BMS	Over-voltage,Low-voltage,Temperature control Overload and AC short circuit protection,Surge protection	
Operating Temperature	Charging temperature 0°C-45°C Discharging temperature-10°C~45°C	
Cycle Life	>5,000 Cycles	
Warranty	5 Years	
Dimension(W/D/H)	380*170*570mm	Optional
Net Weight	47.5±0.5KG	Optional
Other Function(Optional)	Bluetooth APP	



battery pack (Wall-Mounted)

Product Model	M16S100BL-V	M16S200BL-V
Energy Capacity	5120Wh	10240Wh
Cell Specifications	LiFePO4	LiFePO4
Charging Voltage	58.4V	58.4V
Standard Charge Current	20A	40A
Max.Continuous Charging Current	100A	100A
Discharging Cut-off Voltage	42V	42V
Standard Discharge Current	20A	20A
Continuous Discharge Current	100A	100A
Communication Mode	RS485/CAN	RS485/CAN
BMS	Over-voltage,Low-voltage, Temperature control, Overload and AC short circuit protection, Surge protection	Over-voltage,Low-voltage, Temperature control, Overload and AC short circuit protection, Surge protection
Operating Temperature	Charging temperature 0°C-60°C Discharging temperature-10°C-65°C	Charging temperature 0°C-60°C Discharging temperature-10°C-65°C
Degree of protection	IP65	IP65
Cycle Life	>6000 Cycles	>6000 Cycles
Dimension(W/D/H)	445*170*560mm	445*206*675mm
Net Weight	41KG	76KG

Modular Energy Storage Converter

Product Features

- Three-level modular design, bidirectional energy conversion, on-demand deployment
- Peak shaving and valley filling, local automatic operation, no wearing parts
- Modular N+1 redundancy



Productmodel	PCS1-100K
DC side parameters	
DC voltage range	580-950V
Maximum input current	175A
Parameters of AC grid connection	
Rated AC power	100KVA
maximum power	110KVA
Rated grid voltage	400V ± 15%
Rated grid frequency	50Hz/60Hz ± 2.5Hz
Alternating current harmonics	<3% (at rated power)
DC component of AC current	<0.5%In
power factor	± 1
AC off-grid parameters	
Rated AC power	400V ± 15%
Alternating voltage harmonic	<3% (linear load)
DC voltage component	<0.5%Un (linear load balance)
Rated grid frequency/grid frequency range	50Hz/45-55Hz
System parameter	
Mode of isolation	Non isolated
Maximum efficiency	98.50%
Cooling mode	Forced air cooling
Protection class	IP20
Dimension (W * H * D) mm	485 * 220 * 780mm
Mode of communication	
Host computer communication mode	ModBusRTU.CAN2 .0
Communication interface	RS485/CAN

Tower crane energy storage converter



Product Features

- Switching time between on-grid and off-grid: <20ms
- Maximum efficiency>99.1%
- Support parallel operation, support diesel-electric connection, weak grid connection SCR<1.5

Productmodel	PCS1-250K	PCS1-500K	PCS1-630K
DC side parameters			
DC voltage range	580-950V		
Maximum input current	459A	175A	1155A
Parameters ofAC grid connection			
Rated AC power	250KVA	500KVA	630KVA
Maximum power	275KVA	550KVA	693KVA
Rated grid voltage	400V ± 15%		
Rated grid frequency	50Hz/60Hz ± 2.5Hz		
Alternating current harmonics	<3% (at rated power)		
DC component ofAC current	<0.5%In		
power factor	± 1		
AC off-grid parameters			
Rated AC power	400V ± 15%		
Alternating voltage harmonic	<3% (linear load)		
DC voltage component	<0.5%Un (linear load balance)		
Rated grid frequency/grid frequency range	50Hz/45-55Hz		
System parameter			
Mode of isolation	Non isolated		
Maximum efficiency	98.5%	98.50%	99.10%
Cooling mode	Forced air cooling		
Protection class	IP20		
Dimension (W * H * D) mm	800 * 1900 * 800mm	485 * 220 * 780mm	1100 * 1900 * 900mm
Mode of communication			
Host computer communication mode	ModBusTCP/RTU, CAN2 .0		
Communication interface	Network port, RS485, CAN		

Tower crane type liquid flow energy storage converter



Product Features

- High dynamic response, full load switching time as low as 10ms;
Supports multi-machine parallel operation and can be expanded to 2MW;
- Seamless switching between on-grid and off-grid, quick response, ensuring continuous and uninterrupted power supply to critical loads
- Active and reactive power are adjusted independently to improve power quality;

Productmodel	PCS1-250KL	PCS1-500KL	PCS1-630KL	PCS1-800KL
DC side parameters				
DC voltage range	0 – 900V			
Maximum input current	459A	917A	1155A	1467A
Parameters ofAC grid connection				
Rated AC power	250KVA	500KVA	630KVA	800KVA
Maximum power	275KVA	550KVA	693KVA	880KVA
Rated grid voltage	400V ± 15%			
Rated grid frequency	50Hz/60Hz ± 2.5Hz			
Alternating current harmonics	<3% (at rated power)			
DC component ofAC current	<0.5In			
power factor	± 1			
AC off-grid parameters				
Rated AC power	400V ± 15%			
Alternating voltage harmonic	<3% (linear load)			
DC voltage component	<0.5Un (linear balanced load)			
Rated grid frequency/grid frequency range	50Hz/45–55Hz			
System parameter				
Mode of isolation	Non isolated			
Maximum efficiency	98.5%	98.7%	99.1%	99.1%
Cooling mode	Forced air cooling			
Protection class	IP20			
Dimension (W * H * D) mm	900 * 1 900 * 800mm	900* 2000* 900mm	1100* 2000* 900mm	1200* 2000*900mm
Mode of communication				
Host computer communication mode	ModBusTCP/RTU, CAN2 .0			
Communication interface	Network port, RS485, CAN			

AC type equalizer

Product Features

- Can accept EMS dispatch of vanadium liquid battery system, communication methods include RS485, CAN, Ethernet, etc.
- Automatic online balancing, scheduling balancing and other working modes Communication function with BMS to enhance system protection fault tolerance mechanism
- Subsystem AC and DC side protection function, can set the power, current, voltage and other information of the equalizer limit, IP65 outdoor protection design, C5 anti-corrosion design, convenient for additional installation under existing projects



Productmodel	SOC1-040K3P-450V
Parameters at AC side	
Alternating current capacity	40kVA
RatedAC active capacity	40kW
RatedAC output voltage	380V(customizable)
Output range ofAC voltage	-7%~10%
Power factor regulation range	0.9 (Leading) ~0.9 (lagging)
Frequency at AC side	50Hz ± 2Hz
Short-circuit breaking capacity ofAC side	≥ 35kA
AC withstand voltage level	2500V
Automatic recognition ofAC phase sequence	Yes
DC side parameters	
DC charging and discharging operating voltage range	150-450V
Rated DCinput current	280A
Maximum DCinput current	310A
DC side short circuit breaking capacity	≥20kA
Overall parameters	
Ratedpower	40kW
Maximum efficiency	>97.5% (excluding transformer)
No load loss	≤0.8% (Rated power) (excluding transformer)
Overload capacity	Long-term 110% overload, 120% overload for 10min
Requirements for parallel and off-grid	Grid-connected P/Q mode
Protection class	IP65
Corrosion protection grade	C5
Overall dimensions (W * H * D)	≤800*2200*800mm
Weight	≤1000kg
Communication interface	Network port, RS485, CAN

DC type equalizer

Product Features

- Can accept EMS dispatch of vanadium liquid battery system, communication methods include RS485, CAN, dry contact, etc.
- Bidirectional operation, automatic online balancing, scheduling balancing, and other working modes
- Communication function with BMS, enhancing system protection fault tolerance mechanism IP54 outdoor protection design, convenient for additional installation under existing projects



Productmodel	DC300V-200VDC-20kW	DC300V-200VDC-30kW
High pressure parameter		
HV side voltage range	300-850Vdc	
Rated current at HV side	60A	80A
Low voltage parameter		
LV side voltage range	200-850Vdc	
Rated current at LV side	100A	133A
Ripple of DC voltage at LV side	<2%	
Ripple of DC current at LV side	<5%	
Low-voltage side voltage stabilization accuracy	<±5% f.s.	
Low-voltage side current stabilization accuracy	<±7% f.s.	
Withstand voltage level	2500Vrms/50Hz	
Short-circuit breaking capacity at high and low voltage sides	≥20kA	
Function description		
Constant power charge and discharge function	Yes (constant low voltage side)	
Constant voltage charge and discharge function	Yes	
Constant current charge and discharge function	Yes	
On-line switching of constantvoltage, constant current and constantpowermodes	Yes	
HV side droop function	Yes	
Battery interlocking dry contact	Yes	
System parameter		
Rated power	20KW	30KW
Maximum efficiency	>98.5%	
No load loss	≤0.8% (rated power)	
Overload capacity	Long-term 110% overload, 120% overload for 10min	
Protection class	IP54	
Communication interface	RS485、CAN	

Micro energy storage intelligent compensation terminal

Product Features

- Voltage management can stabilize the terminal voltage around 220V;
- The construction period is short, and the construction can be completed within 2 hours to quickly solve the problem;
- High reliability design, overload protection, overcurrent, and multiple short circuit protections;
- Flexible energy storage configuration, which can flexibly adjust the energy storage capacity according to the application scenario;
- High protection design, IP65 protection and extended service life;
- Remote maintenance, supporting remote monitoring and local monitoring operations;



Productmodel	ESS1-6K1P-02-LV
Parameters at AC side	
Maximum allowable input power	8kW
Maximum input voltage	580V
MPPT voltage rang	90-520V
Maximum input current	15A/15A
Number of MPPT	2
Battery parameters	
Type of battery	lithium battery
Battery capacity	5kWh * 2 sets
Battery voltagerange	42-58V
Maximum charge and discharge power	5kW
Maximum charge and discharge current	120A
Alternating current parameter	
Ratedpower	6kW
Rated voltage/power	L/N/PE 220V 50Hz
Power factor	0.8 Leading - 0.8 lagging
Total currentharmonic distortion	< 3%
Basic parameters	
Dimensions (W * H * T)	568mm*1146mm*340mm
Cooling mode	Natural cooling
Weight (without battery)	5-6kg
Protection class	IP65
Service ambient temperature	-25~+60℃ (>45℃ derating)
Maximum altitude above sea level	3000m
Mode of communication	RS485/WIFI/GPRS

DC type equalizer

Product Features

- With the goal of load balancing and heavy load transfer, power is regulated to achieve flexible DC interconnection in low-voltage areas;
- It can realize load transfer in low-voltage areas and improve the reliability of power supply in the areas.
- The DC busbar builds a DC distribution network, which enables load clustering and reduces conversion links;
- It has protection functions such as voltage protection, over-current protection, over-temperature protection, and lightning protection to ensure safe and stable operation of the equipment.



Productmodel	UNC-FIADA-500-500	UNC-FIADA-250-250
Alternating current side		
Rated power (kVA)	500	250
Wiring mode	Three-phase three-wire, non-isolated	
Output overload capacity (kW)	1.1Times 10min, 1.2 times 60s	
Allowable grid voltage (Vac)	400V ± 15%	
Allowable grid frequency (Hz)	50/60 ± 2.5Hz	
Total current harmonic distortion	≤ 3% (rated power)	
Ripple factor of voltage	≤ 1% (off-grid linear load)	
power factor	0.9 Leading~0.9 lagging, continuously adjustable	
DC side		
Rated DC power (kW)	500	250
DC voltage output range (Vdc)	Rated voltage 750Vdc (600~850)	
Maximum output current (A)	916	550
Voltage stabilization accuracy	≤ ± 1%	
Current stabilization accuracy	≤ ± 3% (rated power)	
System parameter		
Dimension (W x H x D mm)	2200*2200*1400	2000*2200*1400
Weight (kg)	2600	1800
Protection class	IP54	
Allowable ambient temperature(°C)	-25~ 60 (>45 °C for derating)	
Cooling mode	Air cooled	
Allowable relative humidity	0~95% (without condensation)	
Allowable altitude above sea level	3000m (>2000m for derating)	
EMERGENCY STOP (ESD)	Yes	
Display and communication		
Display	touch screen	
Communication interface	ModBusTCP/RTU, CAN2.0	
Control power supply	AC/DC power supply	

Three-phase photovoltaic inverter 10–25K

Product Features

- Maximum efficiency 98.5%
- MPPT current 32A, suitable for high-power components IP66 high protection level
- Adaptive complex power grid
- Intelligent remote monitoring and maintenance to improve operation and maintenance efficiency
- Support anti-backflow control



Productmodel	RSI-10K3P	RSI-12K3P	RSI-13K3P	RSI-15K3P	RSI-17K3P	RSI-20K3P	RSI-23K3P	RSI-25K3P
DC input								
Maximum allowable input power	12kW	14.5kW	15.6kW	18kW	20.4kW	24kW	27.6kW	30kW
Maximum input voltage	1000V							
Rated input voltage	600V							
Starting voltage	180V							
MPPT voltage range	16–900V							
Maximum input current	16A/16A							
Maximum short circuit current	25A/25A							
Number of MPPT/maximum number of PV string	2/2							
Alternating current output								
Rated output power	10kW	12kW	13kW	15kW	17kW	20kW	23kW	25kW
Maximum apparent power	11kVA	13.2kVA	14.3kVA	16.5kVA	18.7kVA	22kVA	25.3kVA	27.5kVA
Maximum active power	11kVA	13.2kVA	14.3kVA	16.5kVA	18.7kVA	22kVA	25.3kVA	27.5kVA
Rated output current	15.2A	18.2A	19.8A	22.8A	25.8A	30.4A	34.9A	38.0A
Maximum output current	16.7A	20.1A	21.7A	25.1A	28.4A	33.5A	38.4A	41.8A
Rated grid voltage	3L/N/PE, 220/380V							
Rated grid frequency	50Hz							
Power factor	> 0.99 (0.8 lead–0.8 lag)							
Total voltage harmonic distortion	<3% rated power							
Efficiency								
Maximum efficiency	98.30%		98.40%		98.50%			
Efficiency in China	97.60%		97.70%		97.90%			
Protect								
Input DC switch	have							
Anti-island protection	have							
Output overcurrent protection	have							
Output short circuit protection	have							
DC reverse connection protector	have							
Protection against surge	have							
Insulation impedance detection	have							
Temperature protection	have							
DC arc fault protection	have							
Basic parameters								
Dimensions (W * H * T)	406mmx468mmx198mm							
Weight	20kg				22kg			
Protection class	IP66							
Mode of isolation	Without transformer							
Self-consumption at night	< 1W							
Cooling mode	Natural cooling				Intelligent redundant air cooling			
Operating temperature/humidity	–25~+60°C/0~100%							
Maximum altitude above sea level	3000m							
Grid connection standard	NB/T 32004							
Safety Regulations/EMC Standards	IEC 62109-1/-2, IEC 61000-6-1/-2/-3/-4, NB/T 32004							
Display & Communication								
Display	Bluetooth & LED indicator, LCD display (optional)							
Mode of communication	RS485, WIFI (optional), GPRS (optional)							

Three-phase photovoltaic inverter 25K-50K

Product Features

- Maximum MPPT current 40A, suitable for high power and double-sided groups
- Built-in PID repair function to improve the power generation performance of components
- IP66 high protection level
- Quick-plug terminal design, simple and fast wiring
- OTA online firmware remote upgrade, worry-free system update



Product model	TSI-30K3P-03-CN	TSI-33K3P-03-CN	TSI-36K3P-03-CN	TSI-40K3P-03-CN	TSI-50K3P-03-CN	TSI-60K3P-03-CN
DC input						
Maximum allowable input power	45kW	49.5kW	54kW	60kW	70kW	80kW
Maximum input voltage	1100V					
Rated input voltage	620V					
Starting voltage	250V					
MPPT voltage range	200-1000V					
Maximum input current	32A*3			32/32/32/40A		32/32/32/40A
Maximum short circuit current	50A*3			50A*4		50A*5
Number of MPPT/maximum number of PV string	3/6			4/8		5/10
Alternating current output						
Rated output power	30kW	33kW	36kW	40kW	50kW	60kW
Maximum apparent power	33kVA	36.3kVA	39.6kVA	44kVA	55kVA	66kVA
Maximum active power	33kW	36.3kW	39.6kW	44kW	55kW	66kW
Rated output current	45.6A	50.1A	54.7A	60.8A	72.5A	85.9A
Maximum output current	50.2A	55.1A	60.2A	66.9A	79.7A	95.6A
Rated grid voltage	3L/N/PE, 400V (voltage range 320V~480V)					
Rated grid frequency	50Hz (allowable frequency range 45-55Hz)					
power factor	> 0.99 (0.8 lead~0.8 lag)					
Total voltage harmonic distortion	<3% rated power					
Efficiency						
Maximum efficiency	98.60%		98.40%		98.50%	
Efficiency in China	98.00%		97.70%		97.90%	
Protect						
Leakage current protection	have					
Anti-island protection	have					
DC reverse connection protection	have					
AC short circuit protection	have					
DC switch	have					
Lightning protection	Class II AC/Class II DC					
Insulation impedance detection	have					
Overvoltage level	Class II AC/Class II DC					
Basic parameters						
Dimensions (W * H * T)	585mmx490mmx260mm				675mmx590mmx275mm	
weight	32kg				50kg	
Protection class	IP66					
Mode of isolation	Without transformer					
Self-consumption at night	< 1W					
Cooling mode	Intelligent air cooling					
Operating temperature/humidity	-25~+60°C/0~100% (non-condensing)					
Safety Regulations/EMC Standards	4000m					
Grid connection standard	NB/T 32004					
Safety Regulations/EMC Standards	IEC 62109-1/-2, IEC 61000-6-1/-2/-3/-4, NB/T 32004					
Display&Communication						
Display	LED+APP					
Mode of communication	RS485/4G					

Three-phase photovoltaic inverter 80K-110K

Product Features

- Maximum efficiency 98.7%, ultra-low starting voltage, ultra-wide voltage range
- Supports 1.5 times DC over-capacity, adapts to high current components up to 20A High protection level IP66, intelligent air cooling, low noise
- Supports DC arc intelligent detection (optional) Possess adaptability to weak power grids
- One-time frequency modulation, P-F, Q-U and other operating modes



Product number	TSI-80K3P-03-CN	TSI-100K3P-03-CN	TSI-110K3P-03-CN
DC input			
Maximum allowable input power	120kW	150kW	165kW
Maximum input voltage	1100V		
Starting voltage	180V		
Rated input voltage	580V		
MPPT voltage range	200V~1000V		
Number of MPPT	8	8	8
Maximum number of PV string	2	2	2
Maximum input current	40A*4+32A*4	40A*4+32A*4	40A*4+32A*4
Maximum short circuit current	50A*8	50A*8	50A*8
AC output			
Rated output power	80kW	100kW	110kW
Maximum apparent power	88kVA	110kVA	121kVA
Maximum output current	3*128A	3*160A	3*176A
Rated grid voltage	3/N/PE,400V		
Voltage range of power grid	300V ~ 480V		
Rated grid frequency	50Hz		
Grid frequency range	45Hz ~ 55Hz		
Power factor	>0.99 (0.8 leading ~ 0.8 lagging)		
THDi	< 3%		
DC Component	< 0.5%		
Efficiency			
Maximum efficiency	98.7%	98.7%	98.7%
Efficiency in Europe	98.1%	98.1%	98.1%
Efficiency in China	98.1%	98.1%	98.1%
System			
DC reverse protection	Available		
Communication short circuit protection	Available		
AC output overcurrent	Available		
Over Voltage Protection	Available		
Insulation impedance protection	Available		
Residual current (RCD)	Available		
Surge protection	Level II lightning protection		
Island protection	Available		



QINGDAO UNICONVTOR TECHNOLOGY CO., LTD.

Tel:+86 532 85612972

Add:115 Jifu Road,Chengyang District,Qingdao,Shandong Province

E-mail:support@unc-energy.com

Website:www.unc-energy.com