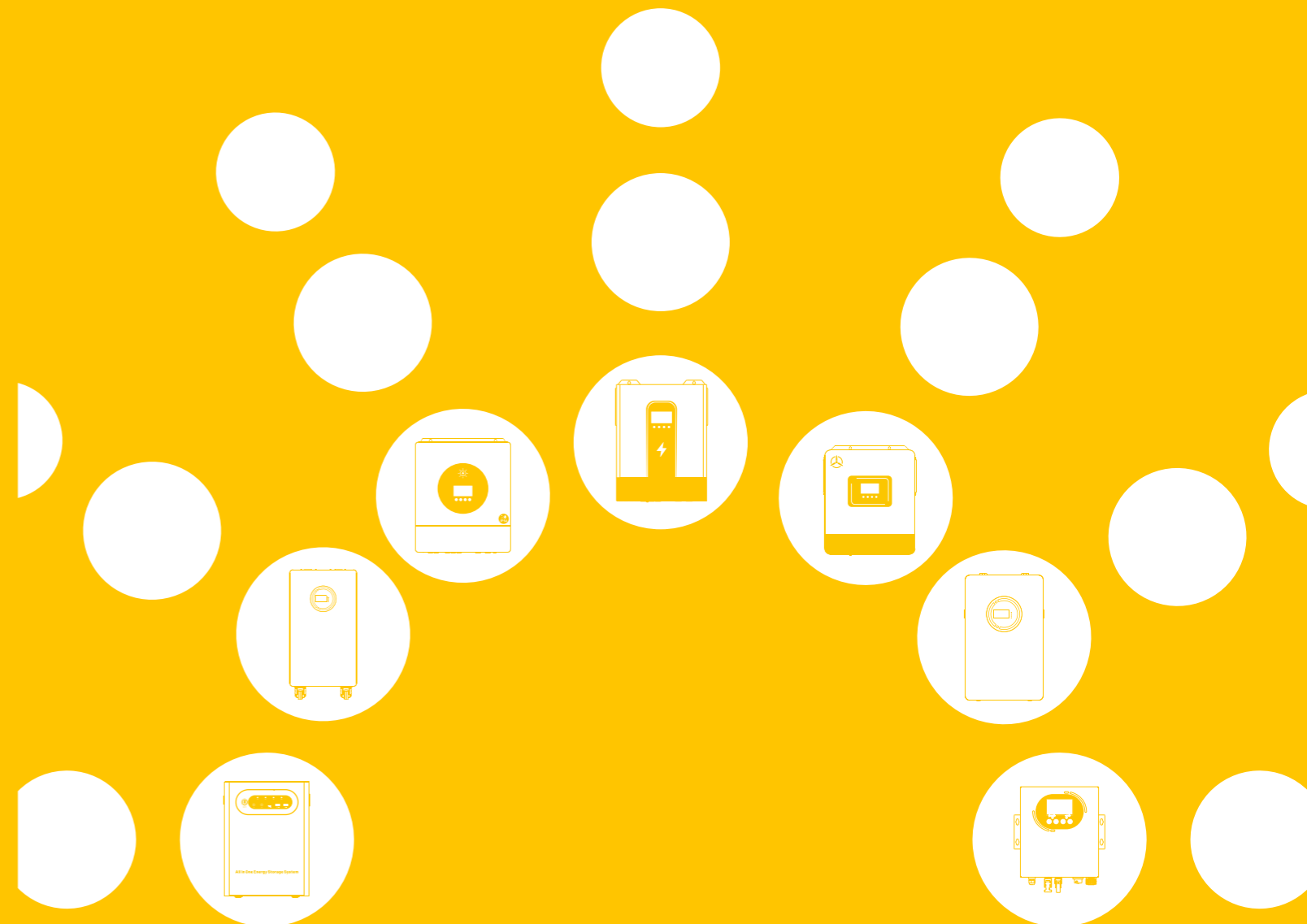


PRODUCT CATALOGUE

Solar Inverter/Lithium Battery/ESS/MPPT Heating Controller



CONTENTS

Hybrid Solar Inverter

P
03-32

Lithium Battery

P
35-38

Energy Storage System

P
41-44

MPPT Solar Water Heating Controller

P
47-50

Battery Charge Controller

P
51-52

Monitoring System

P
53-54



Hybrid Solar Inverter



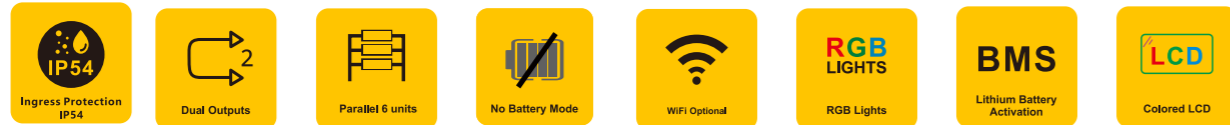
IP54 Solar Inverters-MWPT Series

11KW 220V / 230Vac Output

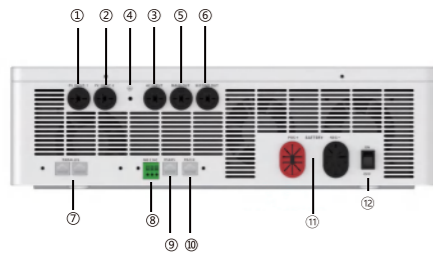


Features

- IP54 design
- Dual AC output
- Built-in 2 MPPT
- Parallel max up to 6 units
- Lithium battery activation function by PV or Utility
- Compatible work with LiFePO4 battery via RS485
- Pure Sine Wave
- Power factor 1.0
- PV Input 500Vdc Max
- Built-in MPPT 160A
- Capable to work without battery
- Detachable dust cover for harsh environment
- WIFI remote monitoring optional
- Support multiple output priority: SUB,SBU,SUF
- EQ function to optimize battery performance and extend lifecycle

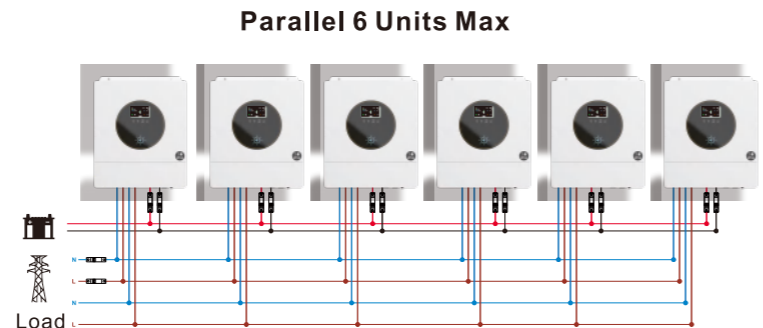


Bottom view



- Solar input - 1
- Solar input - 2
- AC input
- Grounding
- AC Main output
- AC Second output
- Parallel
- Dry contact
- RS485 communication port
- RS232 communication port
- Battery input
- Power on / off switch

Parallel



RGB Light Indicator



Working Mode



Technical Data

MODEL	MWP11000T-48PL
Capacity	11000VA/11000W
Parallel Capability	YES, 6units
Lithium Battery Activation	YES
Battery Wake-up Function	YES
AC INPUT	
Nominal Voltage	230VAC
Acceptable Voltage Range	170-280VAC(For personal Computer);90-280VAC(For Home Appliances)
Frequency	50/60 Hz (Auto sensing)
AC OUTPUT	
Nominal Voltage	220/230VAC±5%
Surge Power	22000VA
Frequency	50/60 Hz
Waveform	Pure Sinewave
Transfer Time	10ms(For personal Computer);20ms(For Home Appliances)
Peak Efficiency (PV to INV)	96%
Peak Efficiency (Battery to INV)	93%
Overload Protection	5s@ >=140% load; 10s@100%~140% load
Crest Factor	3:1
Admissible Power Factor	0.6~1 (inductive or capacitive)
BATTERY	
Battery Voltage	48Vdc
Floating Charge Voltage	54Vdc
OverCharge Protection	63Vdc
Charging Method	CC/CV
Solar Charger & AC Charger	
Solar Charger TYPE	MPPT
Max.PV Array Power	11000W(5500W*2)
Max. PV Array Open Circuit Voltage	500VDC
PV Array MPPT Voltage Range	60VDC~500VDC
Max. Solar Input Current	27A*2
Max. Solar Charge Current	160A
Max. AC Charge Current	120A
Max. Charge Current(AC+PV)	160A
PHYSICAL	
Dimensions, D x W x H(mm)	567.8x470x134.5
Package Dimensions, D x W x H(mm)	675x555x220
Net Weight (Kgs)	18
Gross weight(Kgs)	19
Communication Interface	RS232+RS485+Dry contact
ENVIRONMENT	
Operating Temperature Range	-10°C ~ 55°C
Storage Temperature	-15°C ~ 60°C
Humidity	5% to 95% Relative Humidity (Non-condensing)
Enclosure Protection	IP54

Product specifications are subject to change without further notice.

IP54 Solar Inverters-EWPT Series

4.2/6.2KW 220V / 230Vac Output

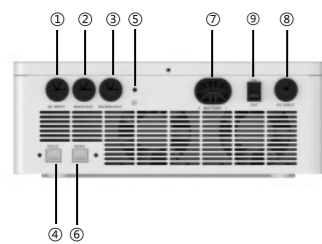


Features

- IP54 design
- Dual output for smart load management
- Lithium battery activation function by PV or Utility
- Compatible work with LiFePO4 battery via RS485
- PV Input 500Vdc Max
- Built-in MPPT 120A
- Capable to work without battery
- Detachable dust cover for harsh environment
- WIFI remote monitoring optional
- Support multiple output priority: UTL, SOL, SBU, SUB
- EQ function to optimize battery performance and extend lifecycle

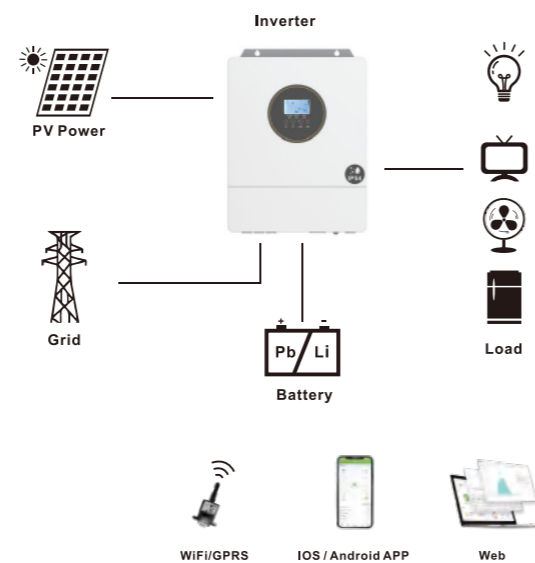


Bottom view



1. AC input
2. Main output
3. Second output
4. RS232 communication port
5. Grounding
6. RS485 communication port
7. Battery input
8. PV input
9. Power on / off switch

System Diagram



Technical Data

MODEL	EWP4200T-24L	EWP6200T-48L
Capacity	4200VA/4200W	6200VA/6200W
Parallel Capability	NO	NO
Lithium Battery Activation	YES	YES
Battery Wake-up Function	YES	YES
AC INPUT		
Nominal Voltage	230VAC	
Acceptable Voltage Range	170-280VAC(For personal Computer);90-280VAC(For Home Appliances)	
Frequency	50/60 Hz (Auto sensing)	
AC OUTPUT		
Nominal Voltage	220/230VAC±5%	
Surge Power	8200VA	12400VA
Frequency	50/60 Hz	
Waveform	Pure Sinewave	
Transfer Time	10ms(For personal Computer);20ms(For Home Appliances)	
Peak Efficiency (PV to INV)	96%	
Peak Efficiency (Battery to INV)	93%	
Overload Protection	5s@ > =140% load; 10s@100%~140% load	
Crest Factor	3:1	
Admissible Power Factor	0.6~1 (inductive or capacitive)	
BATTERY		
Battery Voltage	24Vdc	48Vdc
Floating Charge Voltage	27Vdc	54Vdc
OverCharge Protection	32Vdc	63Vdc
Charging Method	CC/CV	
Solar Charger & AC Charger		
Solar Charger TYPE	MPPT	
Max.PV Array Power	6200W	9000W
Max. PV Array Open Circuit Voltage	500VDC	
PV Array MPPT Voltage Range	60VDC~500VDC	
Max. Solar Input Current	27A	27A
Max. Solar Charge Current	120A	120A
Max. AC Charge Current	120A	120A
Max. Charge Current(AC+PV)	120A	120A
PHYSICAL		
Dimensions, D x W x H(mm)	441x334x125.5	441x334x125.5
Package Dimensions, D x W x H(mm)	545x405x210	545x405x210
Net Weight (Kgs)	8.5	9
Gross weight(Kgs)	9.5	10
Communication Interface	RS232+RS485	
ENVIRONMENT		
Operating Temperature Range	-10°C ~ 55°C	
Storage Temperature	-15°C ~ 60°C	
Humidity	5% to 95% Relative Humidity (Non-condensing)	
Enclosure Protection	IP54	

Product specifications are subject to change without further notice.

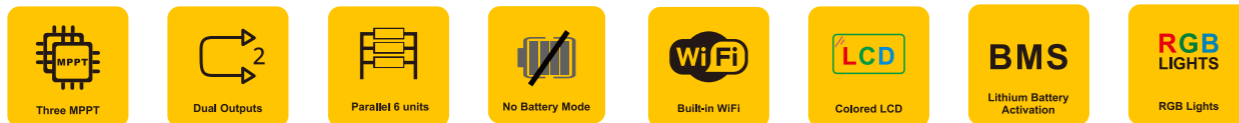
IP21 Solar Inverters-MT Series

12KW 220V / 230Vac Output

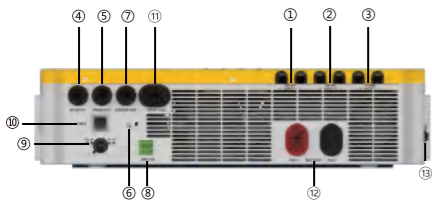


Features

- Dual AC output
- Built-in 3 MPPT
- Parallel max up to 6 units
- Lithium battery activation function by PV or Utility
- Compatible work with LiFePO4 battery via RS485
- Pure Sine Wave
- Power factor 1.0
- PV Input 550Vdc Max
- Built-in MPPT 200A
- Capable to work without battery
- Detachable dust cover for harsh environment
- WIFI remote monitoring optional
- Support multiple output priority: SUB, SBU, SUF
- EQ function to optimize battery performance and extend lifecycle

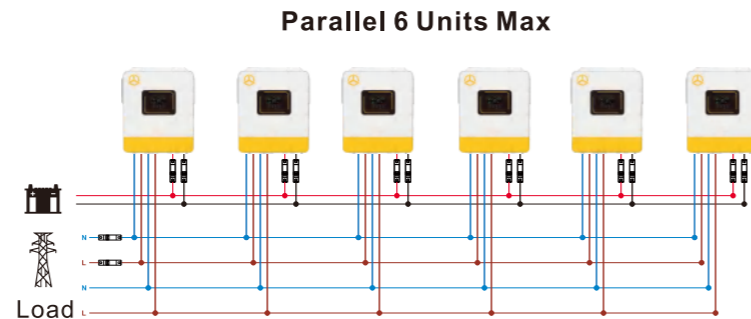


Bottom view

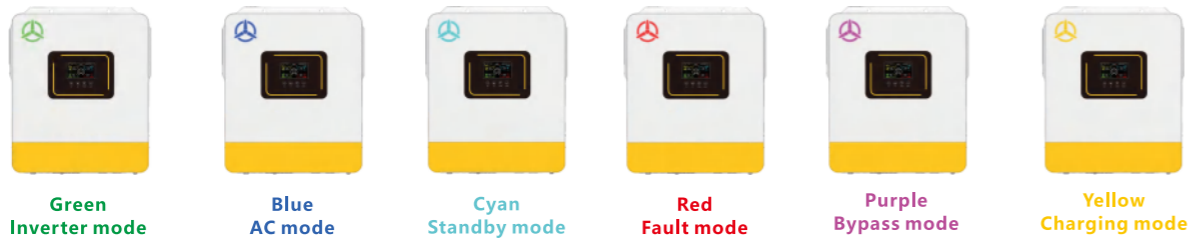


- Solar input - 1
- Solar input - 2
- Solar input - 3
- AC input
- AC Main output
- Grounding
- AC Second output
- Dry contact
- Built-in WiFi
- RS485 communication port
- Parallel
- Battery input
- Power on / off switch

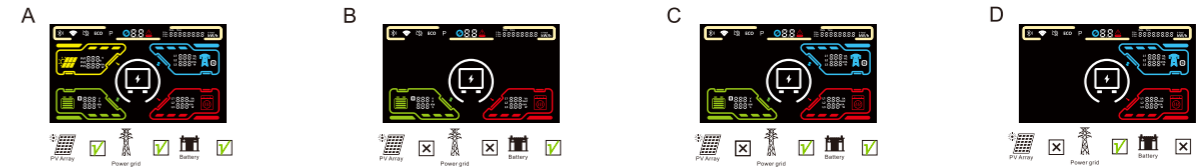
Parallel



RGB Light Indicator



Working Mode



Technical Data

MODEL	M12000T-48PL Plus
CAPACITY	12KVA/12KW
Maximum PV Input Power	18KW
Twin AC Output Function	YES
Maximum Main Output Power	12KVA/12KW
Maximum Second Output Power	6KVA/6KW
Maximum Total Output Power	12KVA/12KW
Parallel Capability	YES, 6units
Lithium Battery Communication	YES(RS485)
Lithium Battery Activation	YES(By PV or Utility)
Built-in WIFI	YES
INPUT	
Nominal Voltage	230VAC
Acceptable Voltage Range	170-280VAC;(For personal Computer);90-280VAC;(For Home Appliances)
Frequency	50/60 Hz (Auto sensing)
OUTPUT	
Nominal Voltage	230
Surge Power	24000VA
Frequency	50/60 Hz
Waveform	Pure Sine wave
Transfer Time	10ms;(For personal Computer);20ms;(For Home Appliances)
Peak Efficiency (PV to INV)	96%
Peak Efficiency (Battery to INV)	93%
Overload Protection	5s@ >=140% load; 10s@110%~140% load
Crest Factor	3:1
Admissible Power Factor	0.6~1 (inductive or capacitive)
BATTERY	
Battery Voltage	48VDC
Maximum Discharge Current	220A
Floating Charge Voltage	54VDC
OverCharge Protection	63VDC
Charging Method	CC/CV
Solar Charger & AC Charger	
Solar Charger TYPE	MPPT
Max.PV Array Power	6000W*3 (18000W)
Max. PV Array Open Circuit Voltage	550VDC
PV Array MPPT Voltage Range	60VDC~550VDC
Max. Solar Input Current	27*3 (60A Max)
Max. Solar Charge Current	200A
Max. AC Charge Current	140A
Max. Charge Current	200A
PHYSICAL	
Dimensions, D x W x H(mm)	560x477x125
Package Dimensions, D x W x H(mm)	656X555X210
Net Weight (Kgs)	15.5
Gross weight(Kgs)	19.5
Communication Interface	CAN/RS232/RS485/DRY CONTACT
LCD	YES
ENVIRONMENT	
Operating Temperature Range	-10°C to 55°C
Storage temperature	-15°C~ 60°C
Humidity	5% to 95% Relative Humidity (Non-condensing)
Ingress Protection	IP21

Product specifications are subject to change without further notice.

IP21 Solar Inverters-MT Series

8.5 / 11KW 220V / 230Vac Output

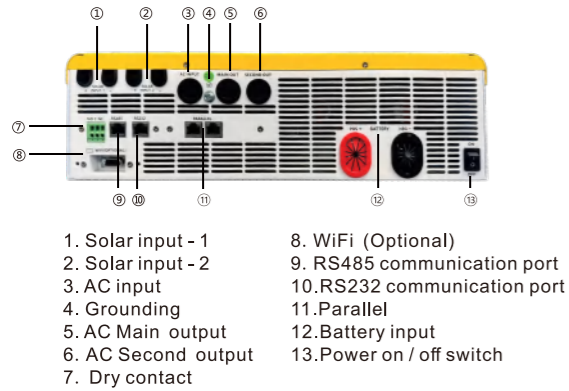
Features



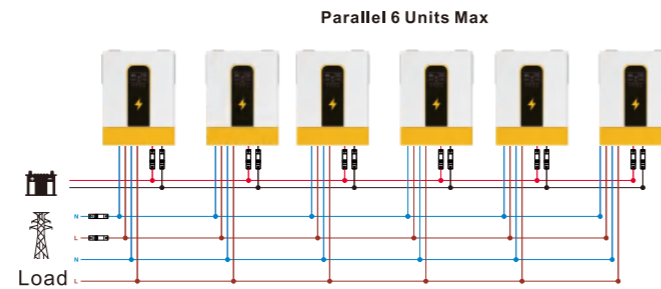
- Dual AC output
- Built-in 2 MPPT
- Parallel max up to 6 units
- Lithium battery activation function by PV or Utility
- Compatible work with LiFePO4 battery via RS485
- Pure Sine Wave
- Power factor 1.0
- PV Input 500Vdc Max
- Built-in MPPT 140A/160A
- Capable to work without battery
- Detachable dust cover for harsh environment
- WIFI remote monitoring optional
- Support multiple output priority: SUB, SBU, SUF
- EQ function to optimize battery performance and extend lifecycle



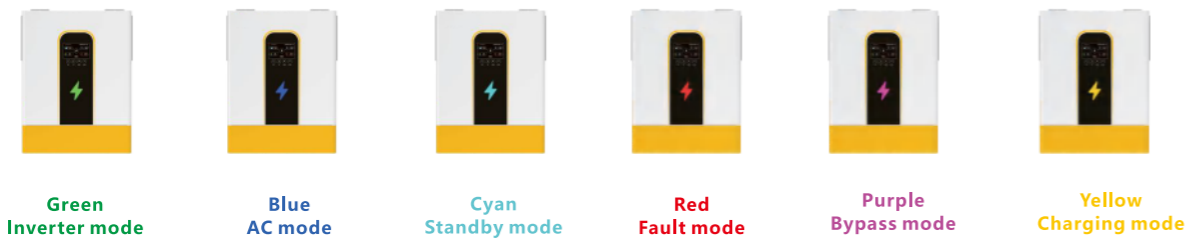
Bottom view



System Diagram



RGB Light Indicator



Working Mode



Technical Data

MODEL	M8500T-48PL Pro	M11000T-48PL Pro	M11000T-48PL -W Plus
CAPACITY	8.5KVA/8.5KW	11KVA/11KW	11KVA/11KW
Maximum PV Input Power	10KW	11KW	11KW
Twin AC Output Function	YES		
Maximum Main Output Power	8.5KVA/8.5KW	11KVA/11KW	11KVA/11KW
Maximum Second Output Power	5KVA/5KW	5.5KVA/5.5KW	5.5KVA/5.5KW
Maximum Total Output Power	8.5KVA/8.5KW	11KVA/11KW	11KVA/11KW
Parallel Capability	YES, 6units	YES, 6units	YES, 6units
Lithium Battery Communication	YES(RS485)	YES(RS485)	YES(RS485)
Lithium Battery Activation	YES(By PV or Utility)	YES(By PV or Utility)	YES(By PV or Utility)
Built-in WIFI		Optional	YES
INPUT			
Nominal Voltage	230VAC		
Acceptable Voltage Range	170-280VAC(For personal Computer);90-280VAC(For Home Appliances)		
Frequency	50/60 Hz (Auto sensing)		
OUTPUT			
Nominal Voltage	220/230/240VAC		
Surge Power	17000VA	22000VA	22000VA
Frequency	50/60 Hz		
Waveform	Pure Sine wave		
Transfer Time	10ms(For personal Computer);20ms(For Home Appliances)		
Peak Efficiency (PV to INV)	94%		
Peak Efficiency (Battery to INV)	93%		
Overload Protection	5.5s@ >=140% load; 10.5s@110%~140% load		
Crest Factor	3:1		
Admissible Power Factor	0.6~1 (inductive or capacitive)		
BATTERY			
Battery Voltage	48VDC	48VDC	48VDC
Maximum Discharge Current	180A	220A	220A
Floating Charge Voltage	54VDC	54VDC	54VDC
OverCharge Protection	63VDC	63VDC	63VDC
Charging Method	CC/CV	CC/CV	CC/CV
Solar Charger & AC Charger			
Solar Charger TYPE	MPPT	MPPT	MPPT
Max.PV Array Power	5000W*2	5500W*2	5500W*2
Max. PV Array Open Circuit Voltage	500VDC	500VDC	500VDC
PV Array MPPT Voltage Range	60VDC~500VDC	60VDC~500VDC	60VDC~500VDC
Max. Solar Input Current	18A*2	18A*2	27*2
Max. Solar Charge Current	140A	160A	160A
Max. AC Charge Current	120A	120A	120A
Max. Charge Current	140A	160A	160A
PHYSICAL			
Dimensions, D x W x H(mm)	544.5x414.5x123	544.5x414.5x123	544.5x414.5x123
Package Dimensions, D x W x H(mm)	637x495x214	637x495x214	637x495x214
Net Weight (Kgs)	14.4	14.8	16.3
Gross weight(Kgs)	16.95	16.95	18.4
Communication Interface	RS232/RS485/Dry-contact		WiFi/RS485/Dry-contact
LCD	YES		
ENVIRONMENT			
Operating Temperature Range	-10°C to 55°C		
Storage temperature	-15°C~ 60°C		
Humidity	5% to 95% Relative Humidity (Non-condensing)		
Ingress Protection	IP21		

Product specifications are subject to change without further notice.

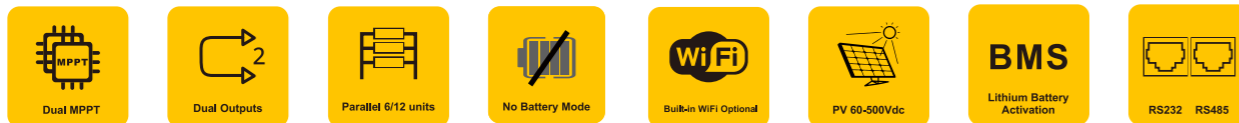
IP21 Solar Inverters-MT Series

6.2/8.5/11KW 220V / 230Vac Output



Features

- Dual Outputs
- Built-in 2 MPPT
- Parallel max up to 6 units
- Lithium battery activation function by PV or Utility
- Compatible work with LiFePO4 battery via RS485
- Pure Sine Wave
- Power factor 1.0
- PV Input 500Vdc Max
- Built-in MPPT 120A/140A/160A
- Capable to work without battery
- Detachable dust cover for harsh environment
- WIFI remote monitoring optional
- Support multiple output priority: SUB,SBU,SUF
- EQ function to optimize battery performance and extend lifecycle



Bottom view

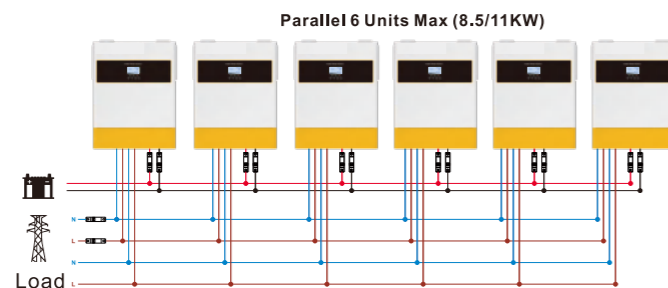


8.5/11KW

6.2KW

- Solar input - 1
- Solar input - 2
- AC input
- Grounding
- AC Main output
- AC Second output
- Dry contact
- WiFi (Optional)
- RS485 communication port
- RS232 communication port
- Parallel
- Battery input
- Power on / off switch

- AC input
- AC output
- PV input
- Battery input
- Grounding
- RS485 communication port
- Power on/off switch
- RS232 communication port
- Parallel communication port



Technical Data

MODEL	M6200-48PL	M8500T-48PL	M11000T-48PL
CAPACITY	6.2KVA/6.2KW	8.5KVA/8.5KW	11KVA/11KW
Maximum PV Input Power	6.5KW	10KW	11KW
Twin AC Output Function	NO	YES	YES
Maximum Main Output Power	6.2KVA/6.2KW	8.5KVA/8.5KW	11KVA/11KW
Maximum Second Output Power	NO	5KVA/5KW	5.5KVA/5.5KW
Maximum Total Output Power	6.2KVA/6.2KW	8.5KVA/8.5KW	11KVA/11KW
Parallel Capability	YES, 12 units	YES, 6 units	YES, 6 units
Lithium Battery Communication	YES(RS485)	YES(RS485)	YES(RS485)
Lithium Battery Activation	YES(By PV or Utility)	YES(By PV or Utility)	YES(By PV or Utility)
Built-in WIFI	Optional		
INPUT			
Nominal Voltage	230VAC		
Acceptable Voltage Range	170-280VAC(For personal Computer);90-280VAC(For Home Appliances)		
Frequency	50/60 Hz (Auto sensing)		
OUTPUT			
Nominal Voltage	220/230/240VAC		
Surge Power	12400VA	17000VA	22000VA
Frequency	50/60 Hz		
Waveform	Pure Sine wave		
Transfer Time	10ms(For personal Computer);20ms(For Home Appliances)		
Peak Efficiency (PV to INV)	96%		
Peak Efficiency (Battery to INV)	93%		
Overload Protection	5s@ > =140% load; 10s@110%~140% load		
Crest Factor	3:1		
Admissible Power Factor	0.6~1 (inductive or capacitive)		
BATTERY			
Battery Voltage	48VDC	48VDC	48VDC
Maximum Discharge Current	135A	180A	220A
Floating Charge Voltage	54VDC	54VDC	54VDC
OverCharge Protection	63VDC	63VDC	63VDC
Charging Method	CC/CV	CC/CV	CC/CV
Solar Charger & AC Charger			
Solar Charger TYPE	MPPT	MPPT	MPPT
Max.PV Array Power	6500W*2	5000W*2	5500W*2
Max. PV Array Open Circuit Voltage	500VDC	500VDC	500VDC
PV Array MPPT Voltage Range	60VDC~500VDC	60VDC~500VDC	60VDC~500VDC
Max. Solar Input Current	27A*2	18A*2	18A*2
Max. Solar Charge Current	120A	140A	160A
Max. AC Charge Current	80A	120A	120A
Max. Charge Current	120A	140A	160A
PHYSICAL			
Dimensions, D x W x H(mm)	457x314.5x131	544.5x414.5x123	544.5x414.5x123
Package Dimensions, D x W x H(mm)	637x495x214	637x495x214	637x495x214
Net Weight (Kgs)	9.6	14.4	15.8
Gross weight(Kgs)	10.7	16.4	16.9
Communication Interface	RS232/RS485	RS232/RS485/Dry-contact	RS232/RS485/Dry-contact
LCD	YES		
ENVIRONMENT			
Operating Temperature Range	-10°C to 55°C		
Storage temperature	-15°C~ 60°C		
Humidity	5% to 95% Relative Humidity (Non-condensing)		
Ingress Protection	IP21		

Product specifications are subject to change without further notice.

IP21 Solar Inverters-EMT Series

3.6/4.2/6.2/11KW 220V / 230Vac Output

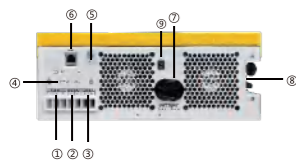


Features

- Dual output for smart load management
- Lithium battery activation function by PV or Utility
- Compatible work with LiFePO4 battery via RS485
- PV Input 500Vdc Max
- Built-in MPPT 100A/120A
- Capable to work without battery
- Detachable dust cover for harsh environment
- WIFI remote monitoring optional
- Support multiple output priority: UTL,SOL,SBU,SUB
- EQ function to optimize battery performance and extend lifecycle

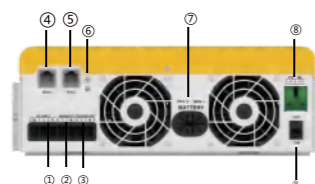


Bottom view



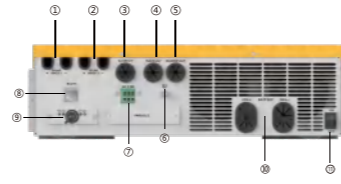
3.6KW

1. AC input
2. Main output
3. Second output
4. RS232 communication port
5. Grounding
6. RS485 communication port
7. Battery input
8. PV input
9. Power on / off switch



4.2/6.2KW

1. AC input
2. Main output
3. Second output
4. RS485 communication port
5. RS232 communication port
6. Grounding
7. Battery input
8. PV input
9. Power on / off switch



11KW

1. Solar input - 1
2. Solar input - 2
3. AC input
4. AC output
5. AC output
6. Grounding
7. Dry contact
8. RS485 communication port
9. Built-in WiFi
10. Battery input
11. Power on / off switch

Technical Data

MODEL	EM3600T-24L	EM4200T-24L	EM6200T-48L	EM11000T-48L
PHASE	1-Phase In /1-Phase Out			
Maximum PV Input Power	4000W	6200W	9000W	11000W
Maximum Main Output Power	3600VA/3600W	4200VA/4200W	6200VA/6200W	11000VA/11000W
Maximum Second Output Power	3600VA/3600W	4200VA/4200W	6200VA/6200W	5500VA/5500W
Maximum Total Output Power	3600VA/3600W	4200VA/4200W	6200VA/6200W	11000VA/11000W
Parallel Capability	NO	NO	NO	NO
Lithium Battery activation	YES (By PV or Utility)	YES (By PV or Utility)	YES (By PV or Utility)	YES (By PV or Utility)
Lithium Battery communication	YES(RS485)	YES(RS485)	YES(RS485)	YES(RS485)
WIFI	Optional			
AC INPUT				
Nominal Voltage	230VAC			
Acceptable Voltage Range	170-280VAC(For personal Computer);90-280VAC(For Home Appliances)			
Frequency	50/60 Hz (Auto sensing)			
AC OUTPUT				
Nominal Voltage	220/230VAC±5%			
Surge Power	7200VA	8400VA	12400VA	22000VA
Frequency	50/60 Hz			
Waveform	Pure Sine wave			
Dual Outputs	Yes			
Transfer Time	10ms(For personal Computer);20ms(For Home Appliances)			
Peak Efficiency	94%			
Overload Protection	5s@ > =140% load; 10s@100%~140% load			
Admissible Power Factor	0.6~1 (inductive or capacitive)			
BATTERY				
Battery Voltage	24VDC	24VDC	48VDC	48VDC
Floating Charge Voltage	27VDC	27VDC	54VDC	54VDC
OverCharge Protection	33VDC	33VDC	63VDC	63VDC
Charging Method	CC/CV	CC/CV	CC/CV	CC/CV
SOLAR CHARGER & AC CHARGER				
Solar Charger TYPE	MPPT			
Max.PV Array Power	4000W	6200W	9000W	11000W
Max. PV Array Open Circuit Voltage	500VDC			
PV Array MPPT Voltage Range	30VDC~500VDC	60VDC~500VDC	60VDC~500VDC	60VDC~500VDC
Max. Solar Input Current	1 / 15A	1/27A	1/27A	2 / 27A
Max. Solar Charge Current	100A	120A	120A	160A
Max. AC Charge Current	80A	120A	120A	120A
Max. Charge Current	100A	120A	120A	160A
PHYSICAL				
Dimensions, D x W x H(mm)	371.8x327x106.2	371.8x342x116.5	540x403x122	
Package Dimensions,D x W x H(mm)	470x388x180	478x408x195	637x495x214	
Net Weight (Kgs)	6.7	7.9	14.8	
Gross weight(Kgs)	7.5	8.9	15.6	
Communication Interface	RS485(RJ45)/RS232(DB9)	RS485(RJ45)/RS232(RJ45)	Builtin WIFI version: RS485(RJ45)	
ENVIRONMENT				
Operating Temperature Range	-10°C to 50°C			
Storage temperature	-15°C~ 60°C			
Humidity	5% to 95% Relative Humidity (Non-condensing)			
Ingress Protection	IP21			

Product specifications are subject to change without further notice.

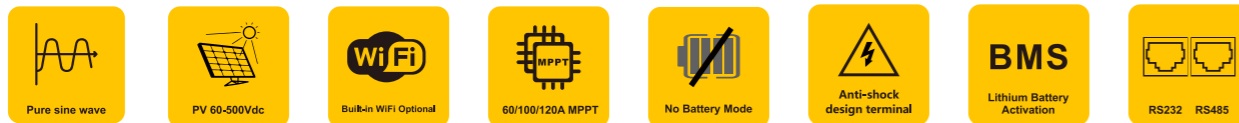
IP21 Solar Inverters-EM Series

2.5 / 3.5 / 8.5 / 11KW 220V / 230Vac Output

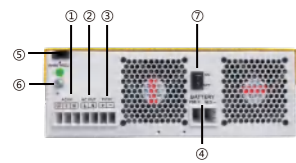
Features



- Lithium battery activation function by PV or Utility
- Compatible work with lifepo4 battery via RS485
- Pure sine wave
- Power factor 1.0
- PV input Voltage 60Vdc-500Vdc
- Built-in MPPT 60A/ 100A/120A
- Capable to work without battery
- Detachable dust cover for harsh environment
- WIFI remote monitoring optional
- Support multiple output priority: UTL, SOL, SBU, SUB
- EQ function to optimize battery performance and extend lifecycle

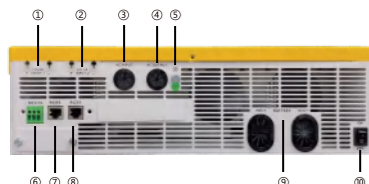


Bottom view



2.5/3.5KW

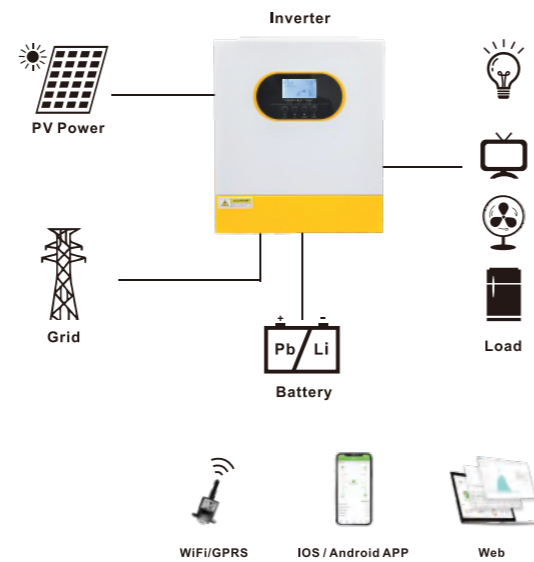
1. AC input
2. AC output
3. PV input
4. Battery input
5. RS232 / RS485 communication port
6. Grounding
7. Power on/off switch



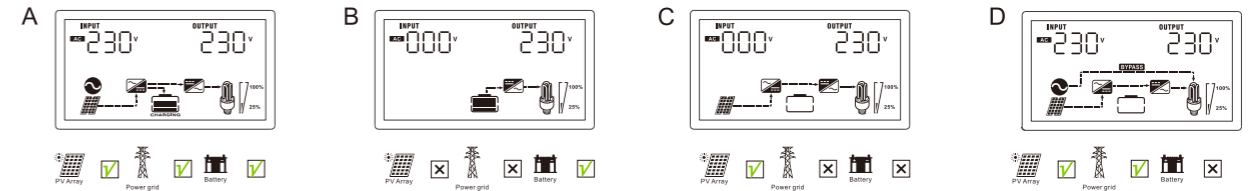
8.5/11KW

1. Solar input - 1
2. Solar input - 2
3. AC input
4. AC output
5. Grounding
6. Dry contact
7. RS485 communication port
8. RS232 communication port
9. Battery input
10. Power on / off switch

System Diagram



Working Mode



Technical Data

MODEL	EM2500-24L	EM3500-24L	EM8500-48L	EM11000-48L
Capacity	2.5KVA/2.5KW	3.5KVA/3.5KW	8.5KVA/8.5KW	11KVA/11KW
Parallel Capability	NO	NO	NO	NO
Lithium Battery activation	YES (By PV only)	YES (By PV or Utility)	YES (By PV or Utility)	YES (By PV or Utility)
Lithium Battery communication	YES(RS485)			
Built-in WIFI	Optional			
INPUT				
Nominal Voltage	230VAC			
Acceptable Voltage Range	170-280VAC(For personal Computer);90-280vac(For Home Appliances)			
Frequency	50/60 Hz(Auto sensing)			
OUTPUT				
Nominal Voltage	220/230VAC±5%			
Surge Power	5000VA	7000VA	17000VA	22000VA
Frequency	50/60Hz			
Waveform	Pure Sine wave			
Transfer Time	10ms(For personal Computer);20ms(For Home Appliances)			
Peak Efficiency(PV to INV)	96%			
Peak Efficiency(Battery to INV)	93%			
Overload Protection	5s@>= 140% load; 10s@110%~140% load			
Crest Factor	3:1			
Admissible Power Factor	0.6~1 (inductive or capacitive)			
BATTERY				
Battery Voltage	24VDC	24VDC	48VDC	48VDC
Floating Charge Voltage	27VDC	27VDC	54VDC	54VDC
OverCharge Protection	32VDC	32VDC	63VDC	63VDC
Charging Method	CC / CV			
SOLAR CHARGER & AC CHARGER				
Solar Charger Type	MPPT			
Max.PV Array Power	3000W	4000W	5000W*2	5500W*2
Max.PV Array Open Circuit Voltage	500VDC			
PV Array MPPT Voltage Range	60VDC~500VDC			
Max.Solar Input Current	15A	15A	18A*2	18A*2
Max.Solar Charge Current	100A	100A	140A	160A
Max.AC Charge Current	60A	80A	120A	120A
Max.Charge Current (PV+AC)	100A	100A	140A	160A
PHYSICAL				
Dimensions,D x W x H(mm)	361.8x310x106	361.8x310x106	544.5x414.5x122.5	544.5x414.5x122.5
Package Dimensions,D x W x H(mm)	560x375x185	560x375x185	637x495x214	637x495x214
Net Weight(Kg)	6.0	6.2	14.4	14.8
Gross weight(Kgs)	6.7	6.9	15.65	16.05
Communication Interface	RS232+RS485		RS232+RS485+ DRY CONTACT	
ENVIRONMENT				
Operating Temperature Range	(-10°C to 55°C)			
Storage Temperature	(-15°C ~ 60°C)			
Humidity	5% to 95% Relative Humidity (Non-condensing)			
Ingress Protection	IP21			

Product specifications are subject to change without further notice.

IP21 Solar Inverters-CM Series

1.5 / 2.5/3.5KW 220V / 230Vac Output



CM-N

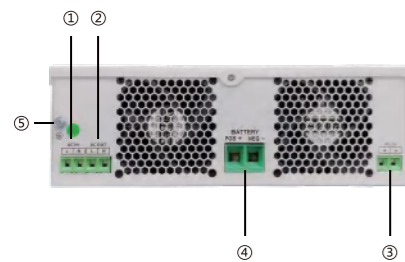
CM-S

Features

- Lithium battery activation function, which can be triggered by PV
- Pure Sine Wave
- PV Input 500Vdc Max
- Built-in MPPT 60A-100A
- Detachable dust cover for harsh environment
- Wifi remote monitoring optional
- Support multiple output priority: UTL,SOL,SBU,SUB
- EQ function to optimize battery performance and extend lifecycle

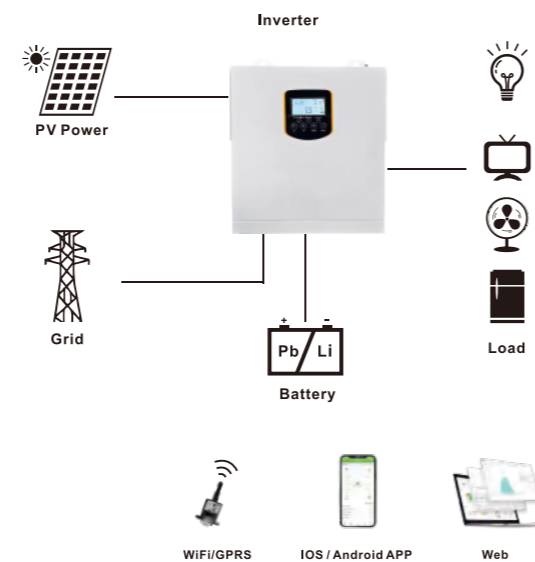


Bottom view



1. AC input
2. AC output
3. PV input
4. Battery input
5. Grounding

System Diagram



Technical Data

MODEL	CM1500-12S	CM1500-12N	CM2500-12S	CM2500-12N	CM2500-24S	CM2500-24N	CM3500-24S	CM3500-24N
Capacity	1500VA/1500W		2500VA/2500W		2500VA/2500W		3500VA/3500W	
Parallel Capability	NO		NO		NO		NO	
Lithium Battery Activation	YES(By PV)	NO	YES(By PV)	NO	YES(By PV)	NO	YES(By PV)	NO
Lithium battery Communication	NO		NO		NO		NO	
INPUT								
Nominal Voltage	230VAC							
Acceptable Voltage Range	170-280VAC(For personal Computer);90-280VAC(For Home Appliances)							
Frequency	50/60 Hz (Auto sensing)							
OUTPUT								
Nominal Voltage	220/230VAC±5%							
Rated Power	1500VA/1500W		2500VA/2500W		2500VA/2500W		3500VA/3500W	
Battery Mode Power	1200VA/1200W		2500VA/2500W		2500VA/2500W		3000VA/3000W	
Surge Power	3000VA		5000VA		5000VA		7000VA	
Frequency	50/60 Hz							
Waveform	Pure Sine wave							
Transfer Time	10ms(For personal Computer);20ms(For Home Appliances)							
Peak Efficiency (PV to INV)	96%							
Peak Efficiency (Battery to INV)	93%							
Overload Protection	5s@ > = 140% load; 10s@100%~140% load							
Crest Factor	3:1							
Admissible Power Factor	0.6~1 (inductive or capacitive)							
BATTERY								
Battery Voltage	12Vdc				24Vdc			
Floating Charge Voltage	13.5Vdc				27Vdc			
OverCharge Protection	16.5Vdc				32Vdc			
Charging Method	CC/CV							
SOLAR CHARGER & AC CHARGER								
Solar Charger TYPE	MPPT							
Max.PV Array Power	2000W		2500W		3000W		4000W	
Max. PV Array Open Circuit Voltage	500VDC							
PV Array MPPT Voltage Range	30VDC~500VDC							
Max. Solar Input Current	15A							
Max. Solar Charge Current	100A		120A		100A		100A	
Max. AC Charge Current	60A		120A		60A		60A	
Max. Charge Current(AC+PV)	100A		120A		100A		100A	
PHYSICAL								
Dimensions, D x W x H(mm)	334x293x98.5							
Package Dimensions, D x W x H(mm)	402x368x174							
Net Weight (Kgs)	4.0		4.4		4.4		4.4	
Gross weight(Kgs)	4.9		5.25		5.25		5.25	
Communication Interface	RJ45 For WiFi							
ENVIRONMENT								
Operating Temperature Range	-10°C to 55°C							
Storage temperature	-15°C~ 60°C							
Humidity	5% to 95% Relative Humidity (Non-condensing)							
Ingress Protection	IP21							

Product specifications are subject to change without further notice.

IP21 Solar Inverters-CMT Series

4.2 /6.2KW 220V / 230Vac Output

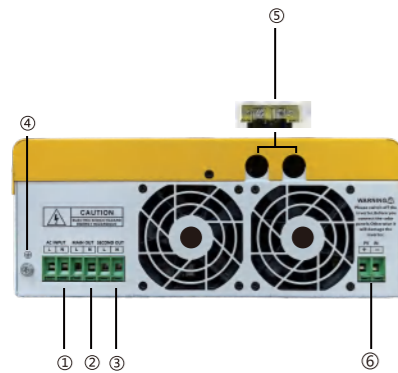


Features

- Dual AC output
- Lithium battery activation function, which can be triggered by PV
- Pure Sine Wave
- PV Input 500Vdc Max
- Built-in MPPT 100A-120A
- Detachable dust cover for harsh environment
- Wifi remote monitoring optional
- Support multiple output priority: UTL,SOL,SBU,SUB
- EQ function to optimize battery performance and extend lifecycle

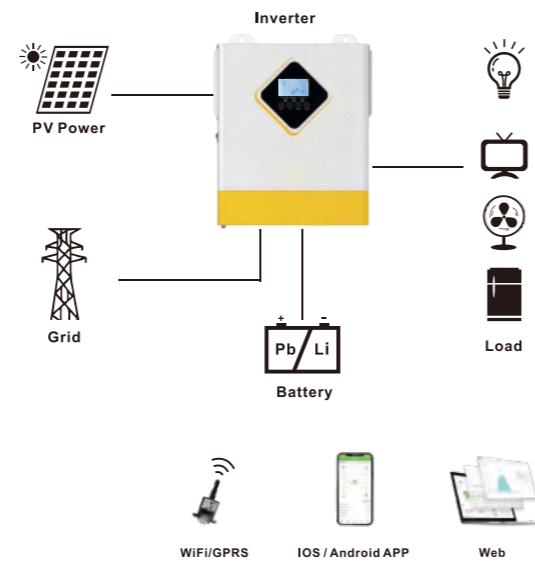


Bottom view



1. AC input
2. AC output
3. AC Second output
4. Grounding
5. Battery input
6. PV input

System Diagram



Technical Data

MODEL	CM4200T-24S	CM6200T-48L
PHASE	1-Phase In /1-Phase Out	1-Phase In /1-Phase Out
Maximum PV Input Power	6200W	9000W
Maximum Main Output Power	4200VA/4200W	6200VA/6200W
Maximum Second Output Power	4200VA/4200W	6200VA/6200W
Maximum Total Output Power	4200VA/4200W	6200VA/6200W
Parallel Capability	NO	NO
Lithium Battery activation	YES (By PV)	YES (By PV)
Lithium Battery communication	NO	YES(RS485)
WIFI	Optional	
AC INPUT		
Nominal Voltage	230VAC	
Acceptable Voltage Range	170-280VAC(For personal Computer);90-280VAC(For Home Appliances)	
Frequency	50/60 Hz (Auto sensing)	
AC OUTPUT		
Nominal Voltage	220/230VAC±5%	
Surge Power	8400VA	12400VA
Frequency	50/60 Hz	
Waveform	Pure Sine wave	
Dual Outputs	Yes	
Transfer Time	10ms(For personal Computer);20ms(For Home Appliances)	
Peak Efficiency	94%	
Overload Protection	5s@ > =140% load; 10s@100%~140% load	
Admissible Power Factor	0.6~1 (inductive or capacitive)	
BATTERY		
Battery Voltage	24VDC	48VDC
Floating Charge Voltage	27VDC	54VDC
OverCharge Protection	33VDC	63VDC
Charging Method	CC/CV	CC/CV
SOLAR CHARGER & AC CHARGER		
Solar Charger TYPE	MPPT	
Max.PV Array Power	6200W	9000W
Max. PV Array Open Circuit Voltage	500VDC	
PV Array MPPT Voltage Range	60-500VDC	
Max. Solar Input Current	1 / 27A	1 / 27A
Max. Solar Charge Current	100A	120A
Max. AC Charge Current	80A	80A
Max. Charge Current	100A	120A
PHYSICAL		
Dimensions, D x W x H(mm)	368.5x304.5x114	
Package Dimensions, D x W x H(mm)	450x385x205	
Net Weight (Kgs)	7.5	8
Gross weight(Kgs)	8.5	9
Communication Interface	RS232(RJ45)	RS485(RJ45)/RS232(RJ45)
ENVIRONMENT		
Operating Temperature Range	-10°C to 50°C	
Storage temperature	-15°C~ 60°C	
Humidity	5% to 95% Relative Humidity (Non-condensing)	
Ingress Protection	IP21	

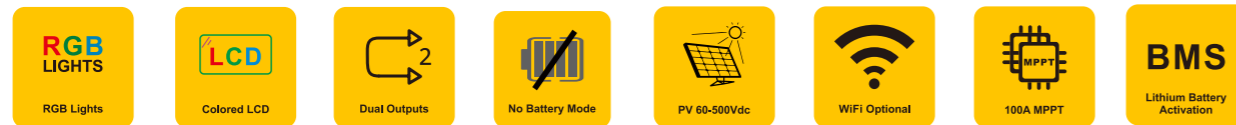
Product specifications are subject to change without further notice.

IP21 Solar Inverters-EMT Pro Series

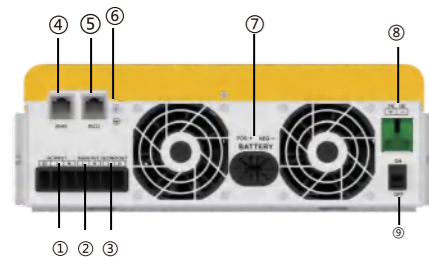
4.2 / 6.2KW 220V / 230Vac Output



- Dual output for smart load management
- Lithium battery activation function by PV or Utility
- Colored LCD with RGB lights
- Compatible work with LiFePO4 battery via RS485
- PV Input 500Vdc Max
- Built-in MPPT100A
- Capable to work without battery
- Detachable dust cover for harsh environment
- Built-inWIFI remote monitoring optional
- Support multiple output priority:UTL,SOL,SBU,SUB
- EQ function to optimize battery performance and extend lifecycle



Bottom view



1. AC input
2. Main output
3. Second output
4. RS485 communication port
5. RS232 communication port
6. Grounding
7. Battery input
8. PV input
9. Power on / off switch

RGB Light Indicator



Working Mode



Technical Data

MODEL	EM4200T-24L-II Pro	EM6200T-48L-II Pro
PHASE	1-Phase In /1-Phase Out	1-Phase In /1-Phase Out
Maximum PV Input Power	6200W	9000W
Maximum Main Output Power	4200VA/4200W	6200VA/6200W
Maximum Second Output Power	4200VA/4200W	6200VA/6200W
Maximum Total Output Power	4200VA/4200W	6200VA/6200W
Parallel Capability	NO	NO
Lithium Battery activation	YES (By PV or Utility)	YES (By PV or Utility)
Lithium Battery communication	YES(RS485)	YES(RS485)
WIFI	Optional	
AC INPUT		
Nominal Voltage	230VAC	
Acceptable Voltage Range	170-280VAC(For personal Computer);90-280VAC(For Home Appliances)	
Frequency	50/60 Hz (Auto sensing)	
AC OUTPUT		
Nominal Voltage	220/230VAC±5%	
Surge Power	8400VA	12400VA
Frequency	50/60 Hz	
Waveform	Pure Sine wave	
Dual Outputs	Yes	
Transfer Time	10ms(For personal Computer);20ms(For Home Appliances)	
Peak Efficiency(PV to INV)	96%	
Overload Protection	5s@ > =140% load; 10s@110%~140% load	
Admissible Power Factor	0.6~1 (inductive or capacitive)	
BATTERY		
Battery Voltage	24VDC	48VDC
Floating Charge Voltage	27VDC	54VDC
OverCharge Protection	33VDC	63VDC
Charging Method	CC/CV	CC/CV
SOLAR CHARGER & AC CHARGER		
Solar Charger TYPE	MPPT	
Max.PV Array Power	6200W	9000W
Max. PV Array Open Circuit Voltage	500VDC	
PV Array MPPT Voltage Range	60VDC~500VDC	60VDC~500VDC
Max. Solar Input Current	1 / 27A	1 / 27A
Max. Solar Charge Current	120A	120A
Max. AC Charge Current	120A	120A
Max. Charge Current	120A	120A
PHYSICAL		
Dimensions, D x W x H(mm)	371.8x342x116.5	371.8x342x116.5
Package Dimensions, D x W x H(mm)	450x385x205	450x385x205
Net Weight (Kgs)	7.6	9
Gross weight(Kgs)	8.5	9.9
Communication Interface	RS485(RJ45)/RS232(RJ45)	
LCD	Colorful Screen+RGB Light	
ENVIRONMENT		
Operating Temperature Range	-10°C to 50°C	
Storage temperature	-15°C~ 50°C	
Humidity	5% to 95% Relative Humidity (Non-condensing)	

Product specifications are subject to change without further notice.

IP21 Solar Inverters-EMT Pro Series

3.6 / 6.2/8.5/11KW 220V / 230Vac Output

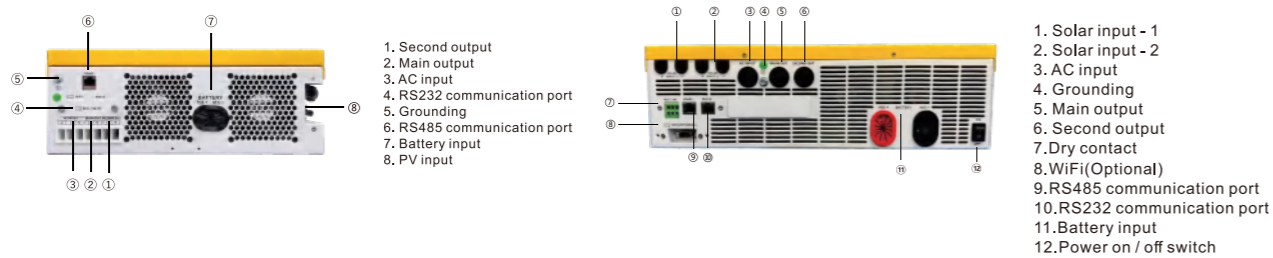
Features



- Dual output for smart load management
- Lithium battery activation function by PV or Utility
- Colored LCD with RGB lights
- Compatible work with LiFePO4 battery via RS485
- PV Input 500Vdc Max
- Built-in MPPT 100/120A/140/160
- Capable to work without battery
- Detachable dust cover for harsh environment
- WIFI remote monitoring optional
- Support multiple output priority: UTL,SOL,SBU,SUB,SUF
- EQ function to optimize battery performance and extend lifecycle



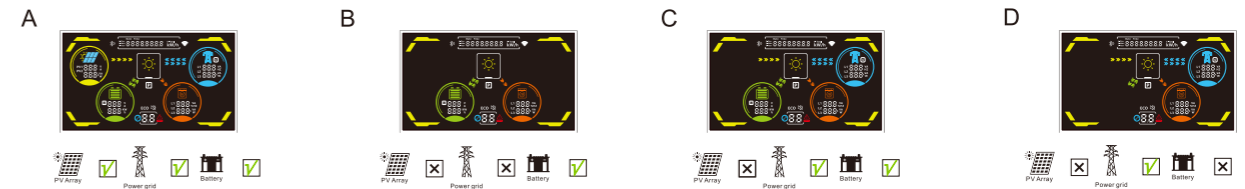
Bottom view



RGB Light Indicator



Working Mode



Technical Data

MODEL	EM3600T-24L Pro	EM6200T-48L Pro	EM8500T-48L Pro	EM11000T-48L Pro
PHASE	1-Phase In /1-Phase Out			
Maximum PV Input Power	4000W	6500W	1000W	11000W
Maximum Main Output Power	3600VA/3600W	6200VA/6200W	8500VA/8500W	1100VA/1100W
Maximum Second Output Power	3600VA/3600W	6200VA/6200W	8500VA/8500W	5500VA/5500W
Maximum Total Output Power	3600VA/3600W	6200VA/6200W	8500VA/8500W	1100VA/1100W
Parallel Capability	NO	NO	NO	NO
Lithium Battery activation	YES (By PV or Utility)	YES (By PV or Utility)	YES (By PV or Utility)	YES (By PV or Utility)
Lithium Battery communication	YES(RS485)	YES(RS485)	YES(RS485)	YES(RS485)
Built-in WIFI	Optional			
AC INPUT				
Nominal Voltage	230VAC			
Acceptable Voltage Range	170-280VAC(For personal Computer);90-280VAC(For Home Appliances)			
Frequency	50/60 Hz (Auto sensing)			
AC OUTPUT				
Nominal Voltage	220/230VAC±5%			
Surge Power	7200VA	12400VA	17000VA	22000VA
Frequency	50/60 Hz			
Waveform	Pure Sine wave			
Dual Outputs	Yes			
Transfer Time	10ms(For personal Computer);20ms(For Home Appliances)			
Peak Efficiency	94%			
Overload Protection	5s@ > =140% load; 10s@110%~140% load			
Admissible Power Factor	0.6~1 (inductive or capacitive)			
BATTERY				
Battery Voltage	24VDC	48VDC	48VDC	48VDC
Floating Charge Voltage	27VDC	54VDC	54VDC	54VDC
OverCharge Protection	33VDC	63VDC	63VDC	63VDC
Charging Method	CC/CV	CC/CV	CC/CV	CC/CV
SOLAR CHARGER & AC CHARGER				
Solar Charger TYPE	MPPT			
Max.PV Array Power	4000W	6500W	5000W*2	5500W*2
Max. PV Array Open Circuit Voltage	500VDC			
PV Array MPPT Voltage Range	30VDC~500VDC	60VDC~500VDC	60VDC~500VDC	60VDC~500VDC
Max. Solar Input Current	1 / 15A	1 / 27A	18A*2	18A*2
Max. Solar Charge Current	100A	120A	140A	160A
Max. AC Charge Current	80A	80A	120A	120A
Max. Charge Current	100A	120A	140A	160A
PHYSICAL				
Dimensions, D x W x H(mm)	368x312x105.5	438x312x122	544.5x414.4x122.7	544.5x414.4x122.7
Package Dimensions, D x W x H(mm)	470x382x180	540x390x210	637x495x214	637x495x214
Net Weight (Kgs)	6.7	9.3	14.5	14.8
Gross weight(Kgs)	7.9	10.5	16.4	16.7
Communication Interface	RS485(RJ45)/RS232(DB9)		RS232+RS485+DRY CONTACT	
LCD	Colorful Screen+RGB Light			
ENVIRONMENT				
Operating Temperature Range	-10°C to 55°C			
Storage temperature	-15°C~ 60°C			
Humidity	5% to 95% Relative Humidity (Non-condensing)			
Ingress Protection	IP21			

Product specifications are subject to change without further notice.

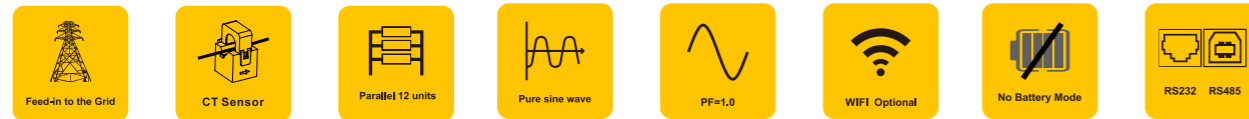
IP21 Solar Inverters-GM Series

6.2KW 220 / 230Vac Output (On/ Off Grid Hybrid/With CT Sensor)

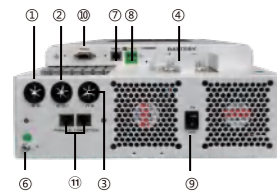


Features

- Self-consumption and Feed-in to the grid
- Programmable multiple operation modes :Grid-tie , off-grid and grid-tie with backup
- Backflow prevention via external CT sensor and grid connection function
- Parallel operation up to 12 units in 1phase or 3phase
- Direct Plug WIFI Dongle Supported
- Output power factor 1.0
- High PV input voltage range 500Vdc Max
- Built-in MPPT solar controller 120A
- WIFI remote monitoring optional
- Detachable dust cover for harsh environment
- User-adjustable charging current and voltage
- Programmable supply priority for PV , Battery or Grid
- Support multiple output priority: SBU / SUB / SUF / ZEC
- EQ function to optimize battery performance and extend lifecycle

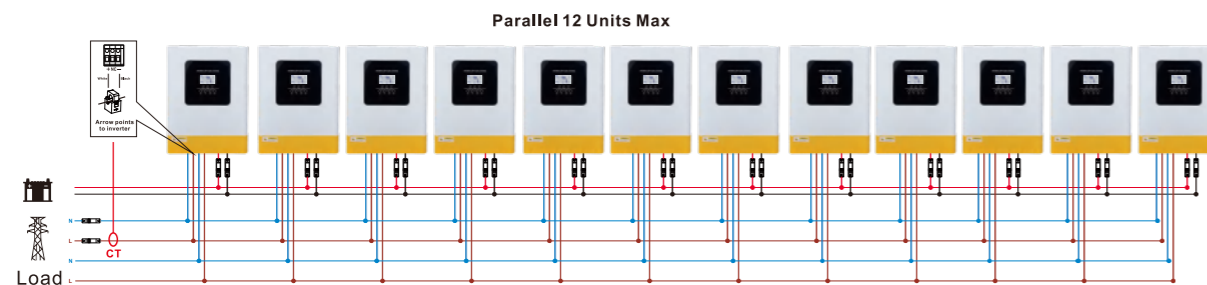
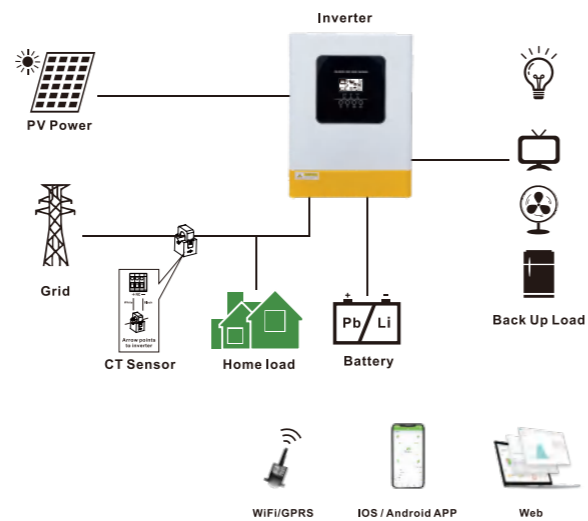


Bottom view



1. AC input
2. AC output
3. PV input
4. Battery input
6. Grounding
7. RS485 communication port
8. AC grid current sensor
9. Power on/off switch
10. RS232 communication port
11. Parallel communication port

System Diagram



Technical Data

MODEL	GM6200 - 48PL
Phase	1-Phase In / 1-Phase Out
Maximum PV input power	6500W
Parallel Function	YES,12 Units
Rated output power	6200VA/6200W
Lithium battery activation	Yes (By PV or Utility)
Lithium battery communication	Yes
Built-in WIFI	Optional
GRID-TIE OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	360VDC / 500VDC
Start-up Voltage / Initial Feeding Voltage	150VDC / 120VDC
MPPT Voltage Range	60VDC~500VDC
Number of MPP Trackers / Maximum Input Current	1/27A
GRID OUTPUT (AC)	
Nominal Output Voltage	220 / 230 / 240VAC
Output Voltage Range	170-280VAC or 90-280VAC
Nominal Output Current	27A
Power Factor	0.6~1 (inductive or capacitive)
Maximum Conversion Efficiency (DC/AC)	94%
OFF-GRID OPERATION	
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	100Vac / 90Vac
Acceptable Input Voltage Range	170-280VAC or 90-280VAC
Maximum AC Input Current	40A
PV INPUT (DC)	
Maximum DC Voltage	500VDC
MPPT Voltage Range	60VDC~500VDC
Number of MPP Trackers / Maximum Input Current	1/27A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	220/230/240VAC
Output Waveform	Pure Sine wave
Efficiency (DC to AC)	94%
HYBRID OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	360VDC/500VDC
Start-up Voltage / Initial Feeding Voltage	150VDC/120VDC
MPPT Voltage Range	60VDC~500VDC
Number of MPPT Trackers / Maximum Input Current	1/27A
GRID OUTPUT (AC)	
Nominal Output Voltage	220/230/240VAC
Output Voltage Range	170-280VAC or 90-280VAC
Nominal Output Current	27A
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	100Vac/90Vac
Acceptable Input Voltage Range	170-280VAC or 90-280VAC
Maximum AC Input Current	40A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	48VDC
Efficiency (DC to AC)	94%
BATTERY & CHARGER	
Nominal DC Voltage	48VDC
Maximum Solar Charging Current	120A
Maximum AC Charging Current	80A
Maximum Charging Current	120A
GENERAL	
PHYSICAL	
Dimension, D x W x H (mm)	456.8x314.7x131
Package Dimensions, D x W x H(mm)	540x390x210
Net Weight (kgs)	9.6
Gross weight(Kgs)	10.9
Communication Port	RS232+RS485+ External CT Port
ENVIRONMENT	
Humidity	5%~95% Relative Humidity (Non-condensing)
Operating Temperature	-10°C~55°C
Ingress Protection	IP21

Product specifications are subject to change without further notice.

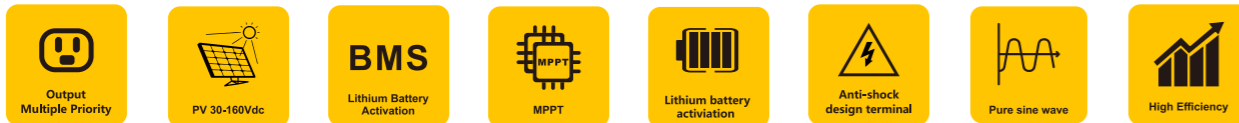
IP21 Solar Inverters-CML Series

1/2KW PV30-160Vdc

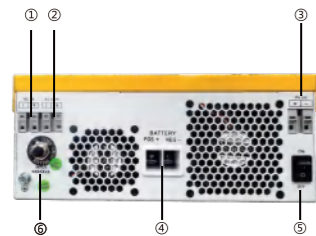


Features

- Lithium battery activation by PV & Utility
- Pure Sine Wave
- PV Input 160Vdc Max
- Built-in MPPT 40A
- Detachable dust cover for harsh environment
- Support multiple output priority: UTL,SOL,SBU
- EQ function to optimize battery performance and extend lifecycle

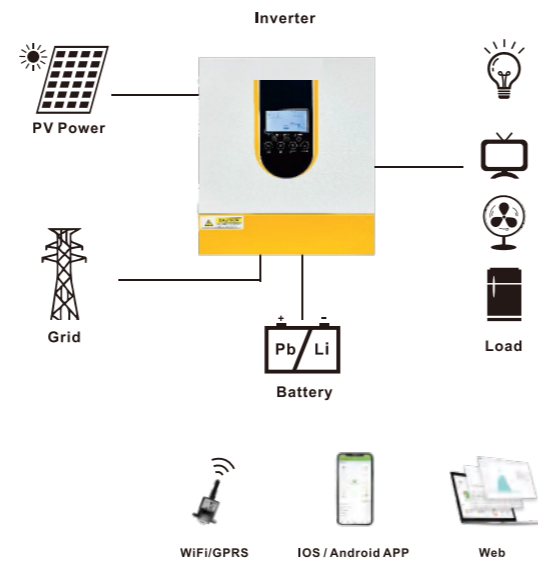


Bottom view



1. AC input
2. AC output
3. PV input
4. Battery input
5. On/off Switch
6. Breaker

System Diagram



Technical Data

MODEL	CML1000-12	CML2000-24
Capacity	1000VA/1000W	2000VA/2000W
Parallel Capacity	NO	
Lithium Battery Activation	YES(By Pv or Utility)	
INPUT		
Nominal Voltage	230VAC	
Acceptable Voltage Range	170-280VAC(For personal Computer); 90-280VAC(For Home Appliances)	
Frequency	50/60 Hz (Auto sensing)	
OUTPUT		
Nominal Voltage	220/230VAC±5%	
Surge Power	2000VA	4000VA
Frequency	50/60 Hz	
Waveform	Pure Sine wave	
Transfer Time	10ms(For personal Computer); 20ms(For Home Appliances)	
Peak Efficiency (PV to BAT)	96%	
Peak Efficiency (Battery to INV)	93%	
Overload Protection	5s@ > = 140% load; 10s@100%~140% load	
Crest Factor	3:1	
Admissible Power Factor	0.6~1 (inductive or capacitive)	
BATTERY		
Battery Voltage	12Vdc	24V
Floating Charge Voltage	13.5Vdc	27V
OverCharge Protection	15.5Vdc	31V
Charging Method	CC/CV	
Solar Charger & AC Charger		
Solar Charger TYPE	MPPT	
Max.PV Array Power	600W	1200W
Max. PV Array Open Circuit Voltage	160VDC	
PV Array MPPT Voltage Range	30VDC-160VDC	
Max. Solar Input Current	30	
Max. Solar Charge Current	40A	40A
Max. AC Charge Current	40A	40A
Max. Charge Current(AC+PV)	80A	80A
PHYSICAL		
Dimensions, D x W x H(mm)	317.7x258x106	
Package Dimensions, DxWxH(mm)	384*339*174	
Net Weight (Kgs)	4.0	4.2
Gross weight(Kgs)	4.9	5.4
ENVIRONMENT		
Operating Temperature Range	-10°C ~ 55°C	
Storage temperature	-15°C ~ 60°C	
Humidity	5% to 95% Relative Humidity (Non-condensing)	
Ingress Protection	IP21	

Product specifications are subject to change without further notice.

IP21 Solar Inverters-LVM Series

3 KW/ 24V 3KW/48V 110V / 120Vac Output

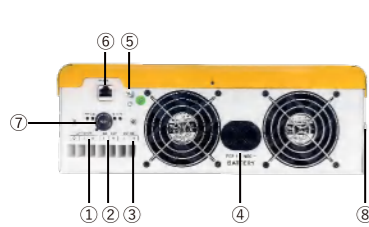
Features



- Compatible work with lifepo4 battery via RS485
- Parallel operation with up to 12 units in 1phase/3phase / split phase
- Pure sine wave
- Power factor 1.0
- PV input 500Vdc Max
- Built-in MPPT 80A/100A
- Capable to work without battery
- Detachable dust cover for harsh environment
- WIFI remote monitoring optional
- EQ function to optimize battery performance and extend lifecycle

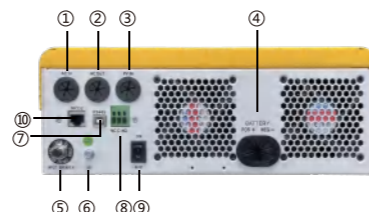


Bottom view



LVM3000-24L

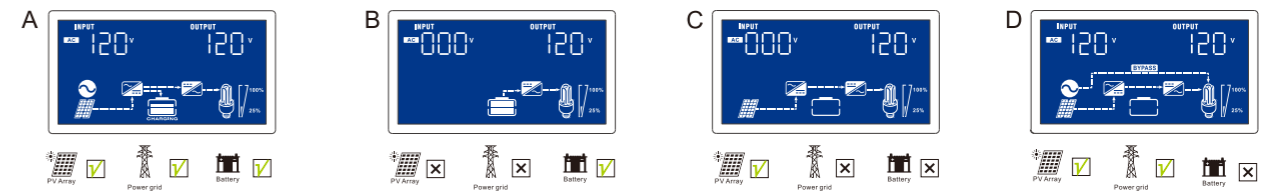
1. AC input
2. AC output
3. PV input
4. Battery input
5. Grounding
6. RS485 communication port
7. WIFI communication port
8. Power on/off switch
9. Dry contact



LVM3000-48PL

1. AC input
2. AC output
3. PV input
4. Battery input
5. Circuit breaker
6. Grounding
7. RS485 communication port
8. Dry contact
9. Power on/off switch
10. RS232 communication port

Working Mode



Technical Data

MODEL	LVM3000-24L	LVM3000-48PL
Capacity	3KVA/3KW	3KVA/3KW
Parallel Capability	NO	YES, 12 Units
Split phase operation	NO	YES, need at least 2 units parallel
Built-in WIFI	YES	NO
INPUT		
Nominal Voltage	110/120VAC	
Acceptable Voltage Range	95-140VAC(For personal Computer);65-140VAC(For Home Appliances)	
Frequency	50/60 Hz(Auto sensing)	
OUTPUT		
Nominal Voltage	110/120VAC±5%	
Surge Power	6000VA	
Frequency	50/60Hz	
Waveform	Pure Sine wave	
Transfer Time	10ms(For personal Computer);20ms(For Home Appliances)	
Peak Efficiency(PV to INV)	97%	
Peak Efficiency(Battery to INV)	93%	
Overload Protection	5s@ >= 140% load; 10s@110%~140% load	
Crest Factor	3:1	
Admissible Power Factor	0.6~1 (inductive or capacitive)	
BATTERY		
Battery Voltage	24VDC	48VDC
Floating Charge Voltage	27VDC	54VDC
OverCharge Protection	32VDC	63VDC
Charging Method	CC/CV	
Solar Charger & AC Charger		
Max.PV Array Power	4000W	5000W
Solar Charger Type	MPPT	
Max.PV Array Open Circuit Voltage	500VDC	
PV Array MPPT Voltage Range	60VDC~450VDC	
Max.Solar Input Current	27A	18A
Max.Solar Charge Current	100A	80A
Max.AC Charge Current	60A	60A
Max.Charge Current	100A	80A
PHYSICAL		
Dimensions,D x W x H(mm)	371.8x327x114.5	446.7x330x123
Package Dimensions,D x W x H(mm)	467x383x178	540x390x210
Net Weight(Kg)	6.9	11
Gross weight(Kgs)	7.8	12
Communication Interface	Dry contact+RS485+WIFI	RS485/RS232/Dry-contact
ENVIRONMENT		
Operating Temperature Range	-10°C to 50°C	
Storage Temperature	-15°C ~ 50°C	
Humidity	5% to 95% Relative Humidity(Non-condensing)	
Ingress Protection	IP21	

Product specifications are subject to change without further notice.

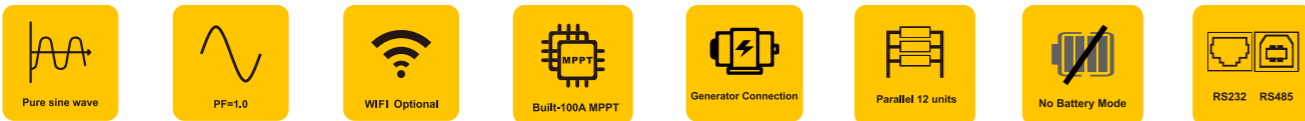
IP21 Solar Inverters-RM Series

3 KW PV 500Vdc 110 / 120Vac Output
5.5KW PV 500Vdc 220 / 230Vac Output

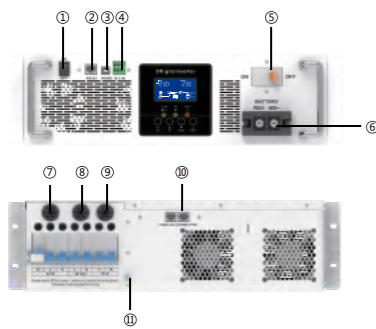
Features



- Pure sine wave
- Power factor 1.0
- PV input 500Vdc Max
- Built-in MPPT 100A
- Capable to work without battery
- Detachable dust cover for harsh environment
- WIFI remote monitoring optional
- Compatible work with lifepo4 battery
- Support multiple output priority: UTL, SOL, SBU, SUB
- Parallel operation up to 12 units in 1phase or 3phase
- EQ function to optimize battery performance and extend lifecycle

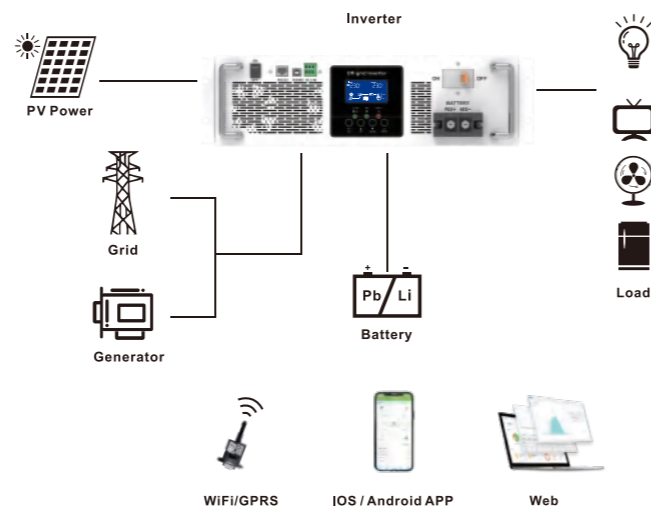


Bottom view

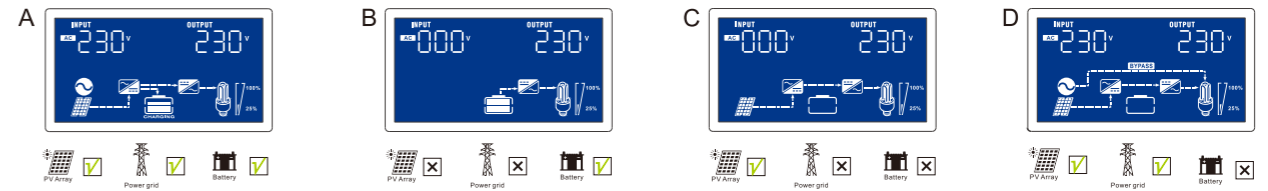


1. Power on/off switch
2. RS232 communication port
3. RS485 communication port
4. Dry contact
5. Battery breaker
6. Battery input
7. AC input
8. AC output
9. PV input
10. Parallel communication port
11. Grounding

System Diagram



Working Mode



Technical Data

MODEL	LVRM3000 - 48PL	RM5500 - 48PL
Capacity	3KVA/3KW	5.5KVA/5.5KW
Parallel Capability	YES,12 Units	
Lithium Battery communication	YES(RS485)	YES(RS485)
INPUT		
Nominal Voltage	110/120VAC±5%	220/230VAC±5%
Acceptable Voltage Range	170-280VAC(For personal Computer);90-280vac(For Home Appliances)	
Frequency	50/60 Hz(Auto sensing)	
OUTPUT		
Nominal Voltage	110/120VAC±5%	220/230VAC±5%
Surge Power	6000VA	11000VA
Frequency	50/60Hz	
Waveform	Pure Sine wave	
Transfer Time	10ms(For personal Computer);20ms(For Home Appliances)	
Peak Efficiency(PV to INV)	97%	
Peak Efficiency(Battery to INV)	93%	
Overload Protection	5s@>=140% load; 10s@110%~140% load	
Crest Factor	3:1	
Admissible Power Factor	0.6~1 (inductive or capacitive)	
BATTERY		
Battery Voltage	48VDC	48VDC
Floating Charge Voltage	53VDC	54VDC
OverCharge Protection	63VDC	63VDC
Charging Method	CC / CV	
SOLAR CHARGER & AC CHARGER		
Solar Charger Type	MPPT	
Max.PV Array Power	5000W	5500W
Max.PV Array Open Circuit Voltage	500VDC	
PV Array MPPT Voltage Range	60VDC~500VDC	
Max.Solar Input Current	18A	18A
Max.Solar Charge Current	80A	100A
Max.AC Charge Current	60A	60A
Max.Charge Current	80A	100A
PHYSICAL		
Dimensions,D x W x H(mm)	130.8x482.6x478.5	
Package Dimensions,D x W x H(mm)	220x520x545	
Net Weight(Kg)	14	13.8
Gross weight(Kgs)	15	14
Communication Interface	RS485/ RS232 / Dry-contact	RS485/ RS232 / Dry-contact
ENVIRONMENT		
Operating Temperature Range	(-10°C to 55°C)	
Storage Temperature	(-15°C ~ 60°C)	
Humidity	5% to 95% Relative Humidity (Non-condensing)	
Ingress Protection	IP21	

Product specifications are subject to change without further notice.



Lithium Battery

Lithium Battery -PB Series

12.8V 314AH 4019.2WH/25.6V 100AH 2560WH/51.2V 100AH 5120WH

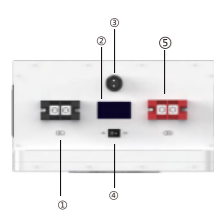
Features



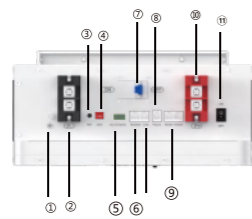
- IP54 design
- Multi-protections
- 6000 times Deep cycle design
- With builtin BMS protection
- Suitable for residential backup system
- 10 Years+ life span design
- Parallel to 16pcs Max(Only for 24V/48V)
- BMS matched with mainstream inverter brands (Only for 24V/48V)



Side view

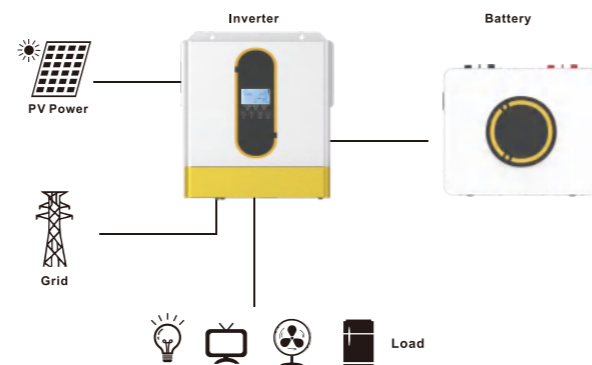


1. Negative Terminal
2. Display
3. COM Port
4. Power Switch
5. Positive Terminal



1. Grounding
2. Negative Terminal
3. RESET
4. ADS
5. Dry Contacts
6. CAN/RS485 communication port
7. Circuit Breaker
8. RS232 communication port
9. RS485 Communication port (Parallel port)
10. Positive Terminal
11. Power Switch

System Diagram



Appearance



Technical Data

Model	PB12314	PB24100	PB48100
Total(WH)	4019.2	2560	5120
Nominal Voltage(V)	12.8	25.6	51.2
Battery Cell Energy(Ah)	314	100	100
Discharge voltage(V)	14.6~10	29.2~20	58.4~40
Charge voltage(V)	14.6	29.2	58.4
Max.Charge current(A)	200	100	100
Max.Discharge current(A)	200	100	100
Communication port	RS485/CAN-BUS	RS232/RS485/CAN-BUS	RS232/RS485/CAN-BUS
Scalable	/	16	16
Altitude	<2000M		
Humidity	<95% RH		
Operating temperature(°C)	-10~50		
Storage Temperature(°C)	0~35		
Depth of discharge(DOD)	80%		
Cycle life	6000 cycle @ 80% DOD 25°C		
Design life	10 years		
Installation	Wall mount		
Weight(kg)	38	23	45
Dimension(L*W*H)mm	365*200*305	365*180*380	365*180*595
Ingress Protection	IP54		

Product specifications are subject to change without further notice.

Lithium Battery -PB Series

25.6V 314AH 8038.4WH/51.2V 314AH 16076.8WH

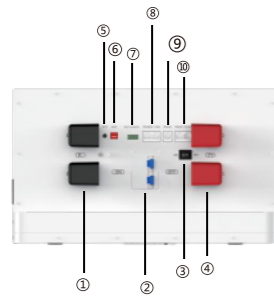
Features



- IP54 design
- Multi-protections
- 6000 times Deep cycle design
- With builtin BMS protection
- Suitable for residential backup system
- 10 Years+ life span design
- Parallel to 16pcs Max
- BMS matched with mainstream inverter brands

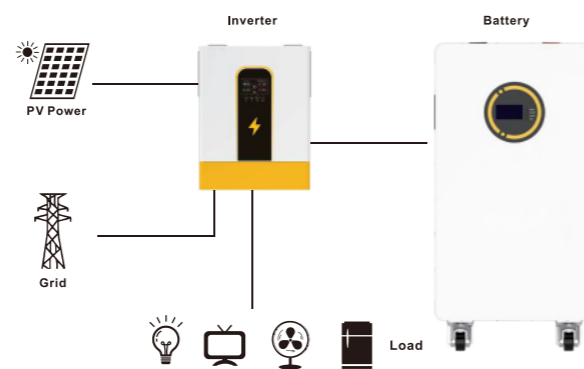


Side view



1. Negative Terminal
2. Circuit Breaker
3. Power Switch
4. Positive Terminal
5. RESET
6. ADS
7. Dry Contacts
8. CAN/RS485 communication port
9. RS232 communication port
10. RS485 Communication port (Parallel port)

System Diagram



Appearance



Technical Data

Model	PB24314	PB48314
Total(WH)	8038.4	16076.8
Nominal Voltage(V)	25.6	51.2
Battery Cell Energy(Ah)	314	314
Discharge voltage(V)	29.2~20	58.4~40
Charge voltage(V)	29.2	58.4
Max.Charge current(A)	200	200
Max.Discharge current(A)	200	200
Communication port	RS232/RS485/CAN-BUS	
Scalable	16	
Altitude	<2000M	
Humidity	<95% RH	
Operating temperature(°C)	- 10~50	
Storage Temperature(°C)	0~35	
Depth of discharge(DOD)	80%	
Cycle life	6000 cycle @ 80% DOD 25°C	
Design life	10 years	
Installation	On Floor	
Weight(kg)	88	140
Dimension(L*W*H)mm	430*250*460	430*250*750
Ingress Protection	IP54	

Product specifications are subject to change without further notice.



Energy Storage System

Energy Storage System—ESS Series

500W+1004.8WH/1000W+2009.6WH

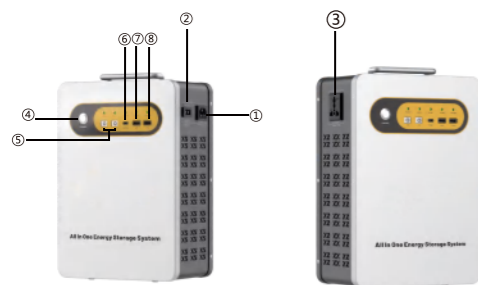
Features



- 6 in 1 design. Inverter, MPPT, AC charger, DC 12V output, USB and Type C.
- Wall mount and on desk design
- Builtin BMS protection
- Builtin lithium battery, longer span life
- User friendly
- Plug and play
- Multi-protections



Side view



1. AC Input
2. PV Input
3. AC Output
4. Power switch
5. 12VDC output port
6. TYPE-C
7. USB-1
8. USB-2

System Diagram



Technical Data

MODEL	ESS-P500	ESS-P1000
Inverter / Charger		
Rated AC Output Power	500W	1000W
Output Voltage Waveform	Pure Sine Wave	
Output Voltage	185~230VAC 50Hz	
Low DC Warning Point	<19%	< 19%
Low DC Cut-off Voltage	2.9Vdc	5.8Vdc
Low DC Warning Return Voltage	>20%	>20%
Charging Power(Utility and solar together)	500W Max.	800W Max
Bulk Charging Voltage	3.6Vdc	7.2Vdc
Float Charging Voltage	3.5Vdc	7.0Vdc
AC Input		
Nominal Input Voltage	230Vac	
Low Loss Voltage	90Vac±7	
Low Loss Return Voltage	100Vac±7	
High Loss Voltage	280Vac±7	
High Loss Return Voltage	270Vac±7	
Max. AC Input Voltage	300Vac	
Nominal Input Frequency	45~65Hz	
AC Charging Power	500W Max	800W Max
Solar Input		
Nominal PV Voltage	30Vdc	38Vdc
PV Array MPPT Voltage Range	11-55V	
Max. PV Array Open Circuit Voltage	56Vdc	56Vdc
Solar Charging Power	300W Max	550W Max
Lithium Iron Battery		
Capacity	1004.8Wh	2009.6Wh
Nominal Battery Voltage	3.2Vdc	6.4Vdc
Lithium Battery Cell	314Ah	
Max. Charge Current	220A	220A
Max. Discharge Current	220A	220A
Operation Voltage Range	2.9Vdc~3.6Vdc	5.8Vdc~7.2Vdc
Operation Temperature	-10°C+50°C	
DC Output		
DC Output Socket	2PCS*USB charger, 2PCS* 12V DC Power JACK, 1PCS* Type C	
Display Function		
LED Indicator	5PCS* indicators	
Protection		
Protection	Overcharge protection, Overdischarge protection Overcurrent protection. Shortcircuit protection. Overtemperature protection	
ENVIRONMENT		
Noise(dB)	< 40dB (1 meter)	
Working Temperature	-10°C~+50°C	
Humidity	5~95% (no condensation)	
Altitude	< 2000	
Dimension		
Products size (L*W*H)	345*260*150mm	345*360*150
Package size(L*W*H)	410*290*220mm	410*390*220mm
Weight(NW Kg)	11kg	21kg
Weight(GW Kg)	12kg	23kg

Product specifications are subject to change without further notice.

Energy Storage System—ESS Series

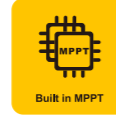
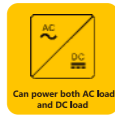
2500W+4019.2WH / 4000W+8038.4WH

5000W+5120WH / 6000W+16076.8WH

Features



- 6 in 1 design. Inverter, MPPT, AC charger, DC 12V output, USB and Type C.
- Builtin BMS protection
- Builtin lithium battery, longer span life
- User friendly
- Plug and play
- Multi-protections



Side view



1. AC Output
2. AC Input
3. Circuit Breaker
4. Power Switch
5. PV Input

System Diagram



Technical Data

Model	ESS-H2500	ESS-V4000	ESS-H5000	ESS-V6000
Output power (KW))	2500	4000	5000	6000
Total(WH)	4019.2WH	8038.4WH	5120WH	16076.8WH
Nominal Voltage(V)	12.8V	25.6V	51.2V	51.2V
Battery Cell Energy	314AH	314AH	100AH	314AH
Photovoltaic input (PV)				
Maximum power of PV	2000W	5000W	6500W	7000W
MPPT maximum voltage	500VDC			
Maximum charging current	100A			
MPPT voltage range	30VDC-500VDC	60VDC-500VDC	60VDC-500VDC	60VDC-500VDC
Exchange Input (AC)				
Rated voltage	230VAC			
Voltage range	170-280 VAC (For Personal Computers); 90-280 VAC (For Home Appliances)			
Input frequency	50Hz/60Hz			
Maximum current	100A			
Exchange output (AC)				
Rated output power	2500VA/2500W	4000VA/4000W	5000VA/5000W	6000VA/6000W
Rated output power	230VAC±5%			
Output frequency	50Hz/60Hz			
Output waveform	Pure sine wave			
Switch time	10ms(For personal Computer);20ms(For Home Appliances)			
Communication port	RS232			
Storage Temperature(°C)	0~35			
Altitude	<2000M			
Humidity	<95% RH			
Operating temperature(°C)	- 10~50			
Depth of discharge(DOD)	80%			
Cycle life	Battery 6000 cycle 80% DOD 25°C			
Installation	Wall mount	On floor	Wall mount	On floor
Weight(kg)	31	96	59.5	154.5
Dimension(L*W*H)mm	365*180*380	430*250*460(550)	365*180*595	430*250*750(840)
Ingress Protection	IP21			

Product specifications are subject to change without further notice.



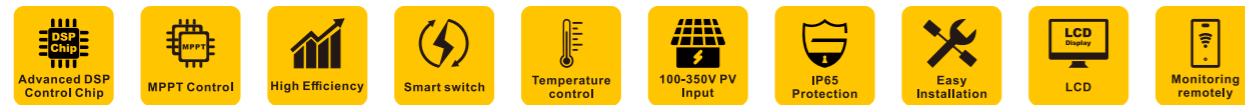
**MPPT Solar
Water Heating
Controller**

MPPT Solar Water Heating Controller

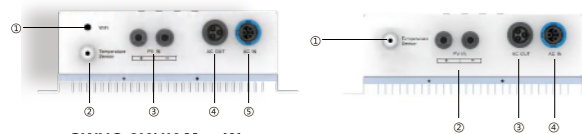
SWHC-3K/4K Max SWHC-3K/4K Max-W (IP65)

Features

- Maximum power point tracking technology (MPPT Technology)
- Advanced DSP control chip, smart control
- Solar heating priority, automatic grid switching when solar insufficient
- IP65 Design, indoor and outdoor applications
- Water Temperature Detection
- The highest water temperature setting for grid heating and PV heating
- Manual Grid Heating Switch
- WiFi monitoring (SWHC-3K/4K Max-W)



Bottom view



- SWHC-3K/4K Max-W**
1. WiFi monitoring
 2. Temperature Sensor
 3. PV input
 4. AC output
 5. AC input

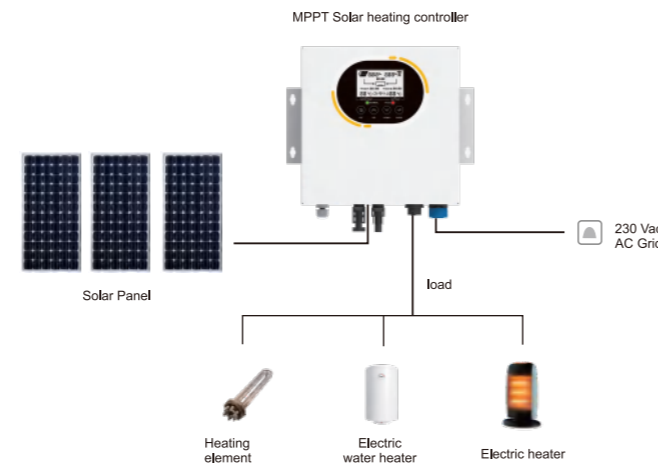
- SWHC-3K/4K Max**
1. Temperature Sensor
 2. PV input
 3. AC output
 4. AC input



SWHC-3/4K Pro

- 1.AC Input
- 2.AC Output
- 3.Temperature Sensor
- 4,PV Input

System Diagram



Technical Data

Model	SWHC-3K MAX	SWHC-4K MAX	SWHC-3K MAX-W	SWHC-4K MAX-W	SWHC-4K Pro
Scope of application	The MPPT water heating controller is only suitable for heating resistance heating components through solar power, and the controller load can only be used to connect resistance equipment or AC heaters with AC grid heating power within 230V/4000 watts.				
Photovoltaic characteristics					
Solar Max. input power	3000W	4000 W	3000W	4000 W	4000 W
Solar input current	≤ 15 A	≤ 20 A	≤ 15 A	≤ 20 A	≤ 20 A
Solar input voltage range	115Vdc-300Vdc	160 Vdc~ 350 Vdc	115Vdc-300Vdc	160 Vdc~ 350 Vdc	160 Vdc~ 350 Vdc
MPPT operating voltage range	90Vdc-280Vdc	120 Vdc~ 340 Vdc	90Vdc-280Vdc	120 Vdc~ 340 Vdc	120 Vdc~ 340 Vdc
MPPT efficiency	>99%				
Solar heating output voltage range	0~260 Vac				
Solar heating output current range	≤ 15A	≤ 20 A	≤ 15A	≤ 15A	≤ 15A
AC characteristics					
AC heating rated power	4000 W				
AC rated voltage	230 Vac				
AC working voltage range	180 Vac~260 Vac				
AC rated current	≤20 A				
Load requirement					
Load	load ≤ 230V/4000W the resistance value > 13 ohms				
Machine characteristics					
LCD Display	YES				
Max Water temperature	Settable (30-80°C)				
WIFI	NO		YES		NO
Temperature sensor	YES(4M)				
Machine dimensions	258*190*84.5mm	258*190*84.5mm	258*190*84.5mm	258*190*84.5mm	258*190*84.5mm
Package dimensions	305*244*162mm	305*244*162mm	305*244*162mm	305*244*162mm	305*244*162mm
Net weight	2.75KG	2.75KG	2.8KG	2.8KG	2.6KG
Gross weight	3.1KG	3.1 KG	3.2KG	3.2 KG	2.95 KG
Ingress Protection	IP65				IP33

Product specifications are subject to change without further notice.

MPPT Solar Water Heating Controller

SWHC-4K (IP65)



Features

- Maximum power point tracking technology
- Efficiency > 99%
- Advanced DSP control chip, smart control
- High voltage 350Vdc Max
- Low energy consumption
- Low temperature working
- IP65 design

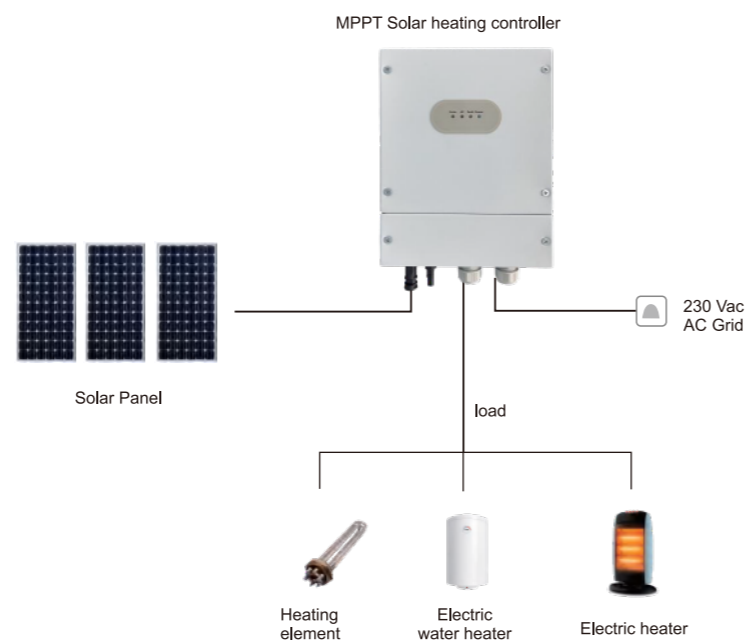


Detail view



1. Solar heating indicator
2. AC heating indicator
3. Fault indicator
4. Power indicator
5. PV input
6. AC output
7. AC input

System Diagram



Technical Data

MODEL	SWHC-4K
Scope of application	The MPPT water heating controller is only suitable for heating resistive load through solar power, and the controller can only be used to connect resistive equipment or AC water heaters with utility heating power within 230V/4000 watts.
PHOTOVOLTAIC CHARACTERISTICS	
Solar Max. input power	4000 W
Solar input current	≤ 20 A
Solar input voltage range	160 Vdc ~ 350 Vdc
MPPT operating voltage range	120 Vdc ~ 340 Vdc
MPPT efficiency	> 99%
Solar heating output voltage range	0 Vac ~ 260 Vac
Solar heating output current range	≤ 20 A
AC CHARACTERISTICS	
AC heating rated power	4000 W
AC rated voltage	230 Vac
AC working voltage range	180 Vac ~ 260 Vac
AC rated current	≤ 20A
LOAD REQUIREMENT	
Load	load ≤ 230V/4000W the resistance value > 13 ohms
MACHINE CHARACTERISTICS	
Machine dimensions	255*201.4*93mm
Package dimensions	366*275*173mm
Net weight	3 KG
Gross weight	3.6 KG
Ingress Protection	IP65

Product specifications are subject to change without further notice.

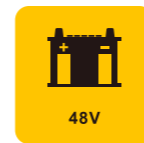
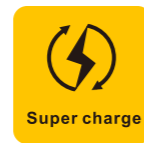
Battery charge controller

5120W100A AC Charger 48Vdc

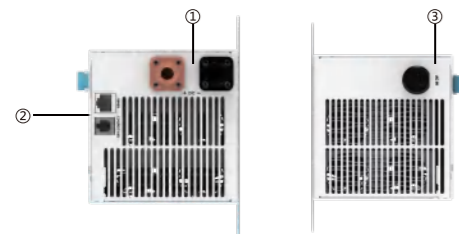


Features

- Charging super fast
- Smart to trigger Generator to charge through dry contact
- User friendly, no wiring design
- Clean power to charge battery
- Built-in DC breaker

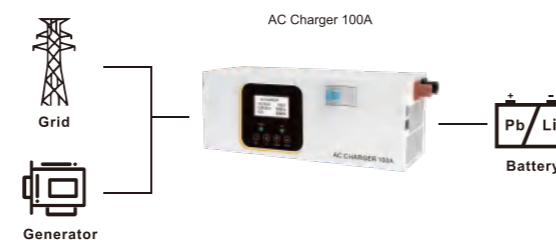


Bottom view



1. Battery quick connector
2. Dry contact/BMS ports
3. AC quick connector

System Diagram



Technical Data

AC MODEL	ACC5120-48L
Max Charging Current	100Amp
AC Input Voltage	90-264VAC
AC Frequency	50/60Hz
Nominal battery Voltage	48Vdc (43-57dc adjustable)
Rated Power	5120W
Max Efficiency	94%
GENERAL SPECIFICATIONS	
Communication port	RS485(RJ45)+DRY CONTACT(RJ11)
Operating Temperature Range	-10°C to 55°C
Storage temperature	-15°C ~ 60°C
Humidity	5% to 95% Relative Humidity (Non-condensing)
Ingress Protection	IP21
Dimension(D*W*H), mm	332x122x125
Net Weight, kg	5.9

Product specifications are subject to change without further notice.

Monitoring System

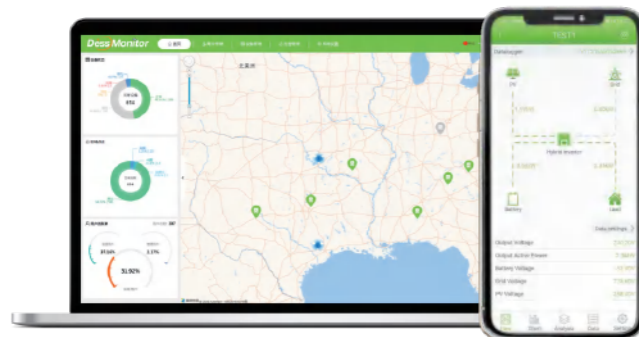
Wi-Fi Plug Pro / GPRS Plug Pro / 4G Plug Pro

Plug gable data logger can support Wi-Fi, GPRS, 4G, NB-IOT and other communication modes. Through DB9,RJ-45 and other connection modes, it is perfectly compatible with inverter, energy storage system, It can support the remote control, remote debugging, remote upgrading and other functions of the device, and can view the working status and power generation of the device in real time, so as to provide users with a complete remote, low-cost and visual monitoring solution.






Energy Storage Management Platform

Energy storage management platform, provides users with application services such as data collection, analysis, calculation, storage, alarm push, etc. Users can view the data of energy storage device through PC web page and mobile APP interface, and operate under the guidance of truly demand and voltage regulation.



 DessMonitor

Technical Data

Product Model	Wi-Fi Plug Pro	GPRS Plug Pro	4G Plug Pro
Product picture			
ESSENTIAL PARAMETERS			
Dimensions	51*45*27mm	51*45*27mm	51*45*27mm
Weight	60g	60g	60g
Protection class	IP65	IP65	IP65
Installation mode	Fixed to the equipment via screws	Fixed to the equipment via screws	Fixed to the equipment via screws
Rated voltage	DC 5~12V	DC 5~12V	DC 5~12V
Maximum current	800mA(5V)	2A(5V)	2A(5V)
External port	Db9/Aviation joint/RJ-45	Db9/Aviation joint/RJ-45	Db9/Aviation joint/RJ-45
Indicator lights	4	4	4
Operation temperature	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C
Storage temperature	-40°C~+90°C	-40°C~+90°C	-40°C~+90°C
COMMUNICATION PARAMETERS			
Local communication	RS-232/RS-485/TTL	RS-485/RS-232/TTL	RS-485/RS-232/TTL
Public network access	Wi-Fi	GPRS	GPRS/TD-SCDMA/WCDMA/LTE
Baud rate	9600bps (default)	9600bps (default)	9600bps (default)
Working frequency	2.412GHz~2.484GHz	EGSM900/GSM880/DCS1800/PCS1900	FDD LTE:B1/B3/B8 TDD LTE:B38/B39/B40/B41 TDSCDMA:B34/B39 WCDMA:B1/B8 GSM:900/1800
Communication standard	IEEE802.11b/g/n	GPRS multi-slot class 10 IS-95A/B IS-2000	LTE-Advanced/WirelessMAN-Advanced(802.16m)
Maximum transmission rate	72Mbps	85.6Kbps	150Mbps
Communication distance	100m (open environment)	Carrier network	Carrier network
Antenna gain	2.7dBi	2.5dBi	2.5dBi
Antenna	External antenna(extend antenna optional)	External antenna(extend antenna optional)	External antenna(extend antenna optional)
SIM card	--	Nano card or chip card	Nano card or chip card
OTHER PARAMETERS			
Watchdog	Software watchdog +hardware watchdog	Software watchdog +hardware watchdog	Software watchdog +hardware watchdog
Device layer communication protocol	Modbus-RTU	Modbus-RTU	Modbus-RTU
Networking layer communication protocol	Modbus-TCP	Modbus-TCP	Modbus-TCP
Parameters setting mode	Message/remote server	Message/remote server	Message/remote server
Firmware update mode	Remote server	Remote server	Remote server
Number of connected devices	1	1	1

Product specifications are subject to change without further notice.