

SUNON PRO Series



MAIN FEATURES

- With 100A MPPT Solar Charge Controller Built-in
- With High PV Input Voltage Range(120-500VDC)
- Efficiently Work With or Without Battery
- With WIFI Function Optional
- With Touch Button on the LCD Display

Solar System Connection



IT CAN WORK WITH OR WITHOUT BATTERY

We can provide all kinds of solar solutions, according to your demands.

TECHNICAL PARAMETER

Model	SUNON PRO 3.5K	SUNON PRO 5.5K
The rated power	3500VA/3500W	5500VA/5500W
INPUT		
Voltage	230 VAC	
Selectable Voltage Range	170-280VAC(UPS), 90-280VAC(Appliances)	
Frequency Range	50Hz/60Hz (Auto sensing)	
OUTPUT		
AC Voltage Regulation (Batt. Model)	230VAC ± 5%	
Surge Power	7000VA	11000VA
Efficiency(Peak)	> 90%	
Transfer Time	10MS(UPS),20MS(Appliances)	
Wave form	Pure sine wave	
No load current	1.0A	1.1A
BATTERY		
Battery voltage	24VDC	48VDC
Low battery alarming voltage	22.0VDC	44.0VDC
Low battery cut off protection voltage	21VDC	42VDC
Low battery recovery voltage	23.0VDC	46.0VDC
Floating Charge Voltage	27VDC	54VDC
Overcharge Protection	32VDC	64VDC
MPPT SOLAR CHARGER & AC CHARGER		
Maximum PV Array Power	5000W	6000W
MPPT Range at Operation Vol.	120-450VDC	
Maximum PV Array Open Circuit Vol.	500VDC	
Number of MPPT trackers / Max output current	100A	
Maximum AC Charge Current	60A	
Maximum Charge Current	100A	
Maximum Efficiency	98%	
BEST PANEL CONFIGURATION		
Best Panel configuration	300Wp*9pcs*36V(2700Wp)*2Parallel	330Wp*9pcs*36V(2970Wp)*2Parallel
PHYSICAL		
Products Dimension, D*W*H(mm)	481mm*313mm*117mm	481mm*313mm*117mm
Packing size, D*W*H(mm)	543mm*394mm*204mm	543mm*394mm*204mm
Net Weight (kgs)	9.8KG	10.5KG
G.W. kg	11KG	11.7KG
OPERATING ENVIRONMENT		
Humidity	5% to 95% Relative Humidity (Non-condensing)	
Operation Temperature	0°C-50°C	

We can provide all kinds of solar solutions, according to your demands.

SUNPOLO 6KW ON/OFF GRID SOLAR INVERTER



MAIN FEATURES

- 120A Solar Charger+AC Charging current
- Communication: RS232,USB,RS485,WIFI
- Real Hybrid Can Feed to Grid
- Dual AC & 12Vdc Output
- Work with or without battery
- Touch Button and LCD
- Parallel up to 9pcs optional
- Built inside with BMS
- Wifi Monitor
- 6KW PV input (27A)
- USB On-the-go Function
- RGB Light

Three lighting effects:



Cycling:

Quickly scroll with a color of your choice in a continuous circular motion



Wheel:

Illuminates with twinkling lights in a color of your choice



Chasing:

Radiates your selected color upward from the bottom of the ring

User Programmable RGB lighting for different operation mode



Pink

Green

Sky Blue

Purple

Orange

Blue

TECHNICAL PARAMETER

MODEL	SUNPOLO 6KW
Basical information	
Max. PV Input Power	6000W
Rated AC Output Power	6000W
PV Input (DC)	
Nominal DC Volt/Max DC Voltage	360VDC/500VDC
Start-up Voltage/Initial Feeding Voltage	120VDC
MPPT Voltage Range	120-450VDC
No. of MPPT Tracker/Max. Input Current	1/27A
AC Input (AC)	
AC Start-up Voltage/Auto Restart Volt.	120Vac-140Vac/180Vac
Acceptable Input Voltage Range	90-280Vac or 170-280Vac
Max. AC Input Current	40A
Grid Output in Grid-Tie/Hybrid Operation (AC)	
Nominal Output Volt	220Vac/ 230Vac/240Vac, Single Phase dual AC output
Output Voltage Range	184V-265Vac or 195-253V (Selectable)
Nominal Output Current	26.0A
Power Factor	1
Max. Conversion Efficiency (DC/AC)	96%
Battery Mode Output (AC)	
Nominal Output Volt	230Vac dual AC output+ 1pc*12Vdc/10A max
Waveform	Pure sine wave
Efficiency(DC to AC)	93%
Battery & Charger	
Battery Type Supported	Lead Acid /VRLA/AGM/Deep Cycle/Gel/Flooded/Tubular/Lithium-Ion
Nominal Battery Voltage	48Vdc
Max Solar Charge Current	120A
Max AC Charge Current	120A
Max Total Charge Current	120A
General	
Physical	
Products Dimension,D X W X H (mm)	356*471*149
Product Net Weight(kgs)	13.5
Packing Dimension,D X W X H (mm)	535*425*2224, 1PC/CTN
Product Net Weight(kgs)	15
Parallel functions Optional	Yes, optional, max 9pcs
Communication Interface	RS232,USB,RS485,WIFI
Environment	
Humidity	5% to 95% Relative Humidity(Non-condensing)
Operating Temperature	-10°C to 50°C

SUNPOLO 8KW ON/OFF GRID SOLAR INVERTER



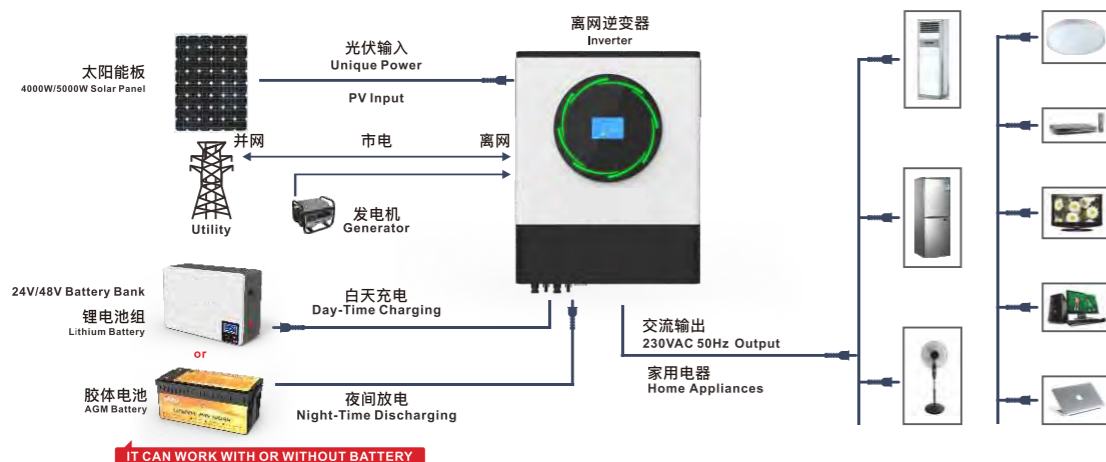
MAIN FEATURES

- 3 IN 1: MPPT INVERTER, ON GRID/OFF GRID/HYBRID.**
- Communication optional: USB/RS232/RS485/Dry-Contact/WIFI**
- Dual MPPT tracker inside (2pcs*18A), max PV input 8000W**
- Smart battery management, can work with LiFePO4**
- Works with & without battery**
- Real hybrid can feed into grid**
- Parallel up to 6pcs optional**
- RGB**
- Touch LCD screen**
- WIFI monitor optional**

Three lighting effects:



Solar System Connection



IT CAN WORK WITH OR WITHOUT BATTERY

TECHNICAL PARAMETER

MODEL	SUNPOLO 8KW
Basical information	
Max. PV Input Power	8000W
Rated AC Output Power	8000W
PV Input (DC)	
Max. DC Voltage	450VDC
MPPT Voltage Range	120-450VDC
No. of MPPT Tracker/Max. Input Current	2/18A (4000W*2)
AC Input (AC)	
AC Start-up Voltage/Auto Restart Volt.	120Vac-140Vac/180Vac
Acceptable Input Voltage Range	90-280Vac or 170-280Vac
Max. AC Input Current	63A
Grid Output in Grid-Tie / Hybrid Operation (AC)	
Nominal Output Volt	220Vac/230Vac/240Vac, Single Phase
Output Voltage Range	184V-265Vac or 195-253V (Selectable)
Nominal Output Current	34.8A
Power Factor	>0.9
Max. Conversion Efficiency (DC/AC)	96%
Battery Mode Output (AC)	
Nominal Output Volt	220Vac/230Vac/240Vac
Waveform	Pure sine wave
Efficiency(DC to AC)	93%
Battery & Charger	
Battery Type Supported	Lead Acid/VRLA/AGM/Deep Cycle/Gel/Flooded/Tubular/Lithium-Ion
Nominal Battery Voltage	48Vdc
Max Solar Charge Current	120A
Max AC Charge Current	120A
Max Total Charge Current	120A
General	
Physical	
Products Dimension,D X W X H (mm)	552*422*152
Product Net Weight(kgs)	18.4
Product Gross Weight(kgs)	20.5
Packing Dimension,D X W X H (mm)	700mm*510*mm*232mm, 1PC/CTN
Parallel functions Optional	Yes, optional, MAX. 6pcs
Communication Interface	RS232, USB, WIFI, TOUCH LCD
Environment	
Humidity	5% to 95% Relative Humidity(Non-condensing)
Operating Temperature	-10℃ to 50℃
Storage Temperature	-15℃ to 60℃



SK-P8 Mono Module 130W-170W 182MM



SK-P8 Mono Module 130W-170W 182MM

SK-130P8-36M SK-150P8-39M

SK-160P8-42M SK-170P8-45M

MONO HALF -CELL 9BB/10BB

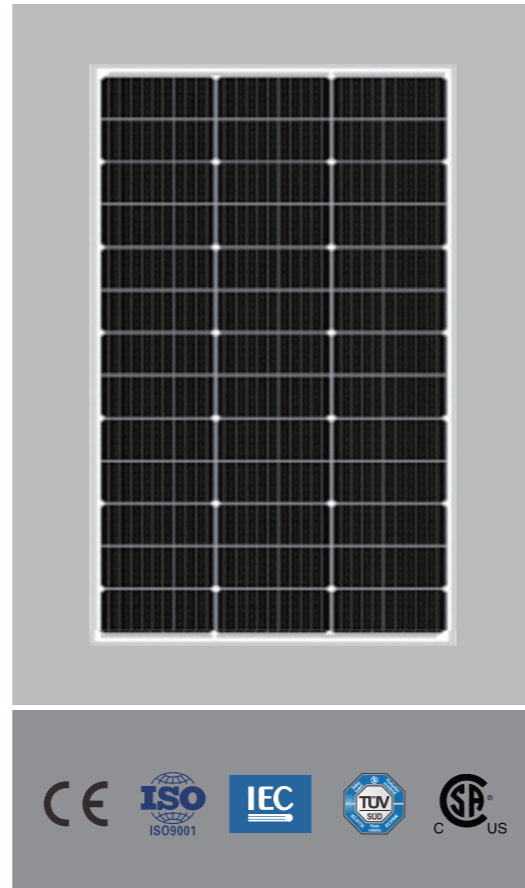
Representation	Product Name	Half-Cell	Solar Cell Type	Wattage	Silicon Type
EXAMPLE	SK-150P8-39M	39PCS	182 × 182 mm	150W	M:Monocrystalline

Features

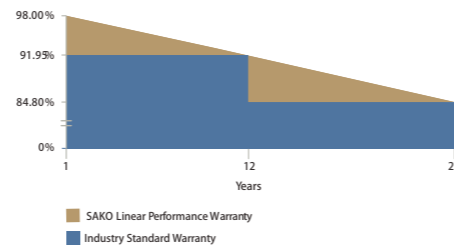
- High module conversion efficiency**
Module efficiency up to 19.32%
- 9BB/10BB Cell**
New circuit design, lower internal current, lower RS loss
- Excellent weak light performance**
More power output in weak light condition such as cloudy, morning and sunset
- Higher Durability against harsh environment**
Reliable quality leads to a better sustainability even in harsh environment
- Lower operating temperature**
Lower operating temperature and temperature coefficient increases the power output
- Anti- PID (Potential induced degradation)**
Excellent Anti-PID performance
- Lower LCOE**
2% more power generation, lower LCOE

Warning: Read the Installation and User Manual in its entirety before handling, installing, and operation smart Solar modules.

Note: This publication summarizes product warranty and Specifications which are subject to change without notice



25 Years Linear Warranty



25 Years output guarantee
12 Years quality assurance
5-year limited warranty of materials and workmanships.

ELECTRICAL PERFORMANCE

Electrical Parameters at Standard Test Conditions(STC)				
Module Type	SK-130P8-36M	SK-150P8-39M	SK-165P8-42M	SK-170P8-45M
Power Output (Pmax / W)	130W	150W	165W	170W
Power Output Tolerances	±3%	±3%	±3%	±3%
Module Efficiency (ηm)	18.00%	19.23%	19.32%	19.14%
Voltage at Pmax (Vmp / V)	20.58V	22.58V	24.32V	26.0V
Current at Pmax (Imp / A)	6.24A	6.64A	6.58A	6.52A
Open-circuit Voltage (Voc / V)	24.41V	26.45V	28.48V	30.52V
Short-circuit Current (Isc / A)	6.55A	6.99A	6.92A	6.86A

STC:1000W/m² irradiance, 25°C module temperature, AM1.5g Spectrum according to EN 60904-3.

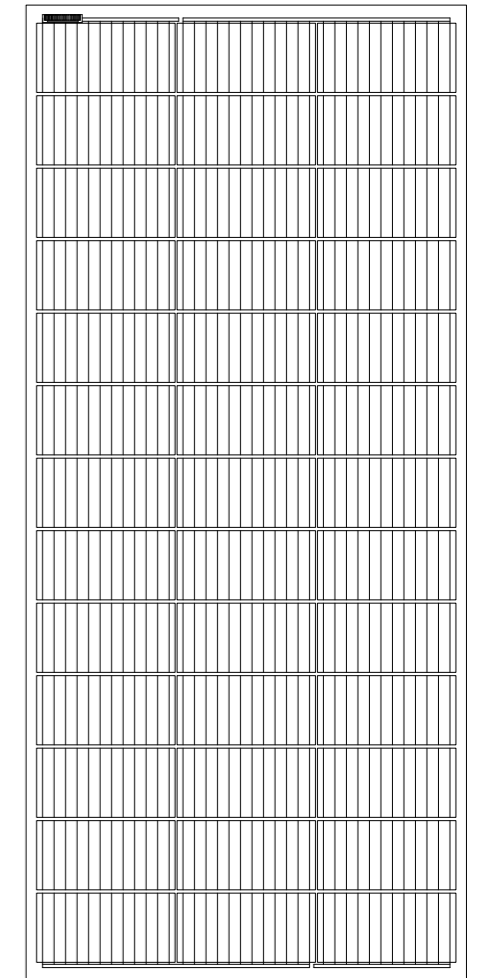
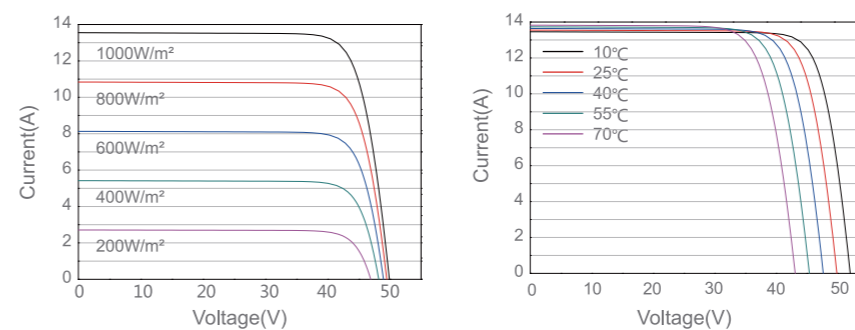
Operating Conditions	
Max.system voltage	1000Vdc
Max.series fuse rating	15A
Operating temperature range	-40°C to 85°C
Max.static load,front(e.g.,snow)	5400Pa
Max.static load,back(e.g.,wind)	2400Pa
Max.hailstone impact(diameter)	25mm/23m/s

Construction Materials				
182MM Mono Perc Cell(QTY)	36 cells	39 cells	42 cells	45 cells
Front cover(material/thickness)	low-iron tempered glass/3.2mm			
Frame(Materials)	anodized aluminum alloy/silver/clear			
Junction box(protection degree)	≥IP65			
Cable (length/cross-sectional area)	700mm/2.5mm ²			

General Characteristics				
Products Dimension(L/W/H)	1200*600*30mm	1300*600*30mm	1380*600*30mm	1480*600*30mm
Weight	8.0KGS	8.5KGS	8.5KGS	8.5KGS
QTY of per pallet	2pcs per carton	2pcs per carton	2pcs per carton	2pcs per carton
Packaging box dimensions	1210*610*70MM	1310*610*70mm	1490*610*70mm	1490*610*70mm
No. of pallets for 40HQ containers	2630PCS per 40HQ	2450PCS per 40HQ	2130PCS per 40HQ	2130PCS per 40HQ

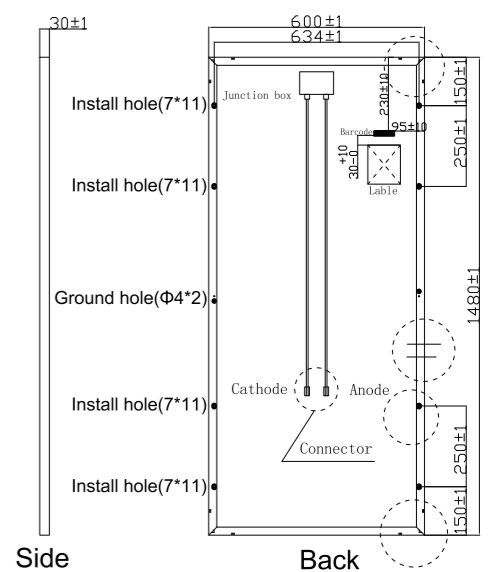
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I-V Curve



Front

Unit: mm



Side

Back



Monocrystalline Solar Module

Haitech

SK-530P8-144M SK-535P8-144M SK-540P8-144M

SK-545P8-144M SK-550P8-144M

MONO HALF -CELL 10BB

Representation	Product Name	Half-Cell	Solar Cell Type	Wattage	Silicon Type
EXAMPLE	SK-550P8-144M	144 PCS	182 × 182 mm	550W	M:Monocrystalline

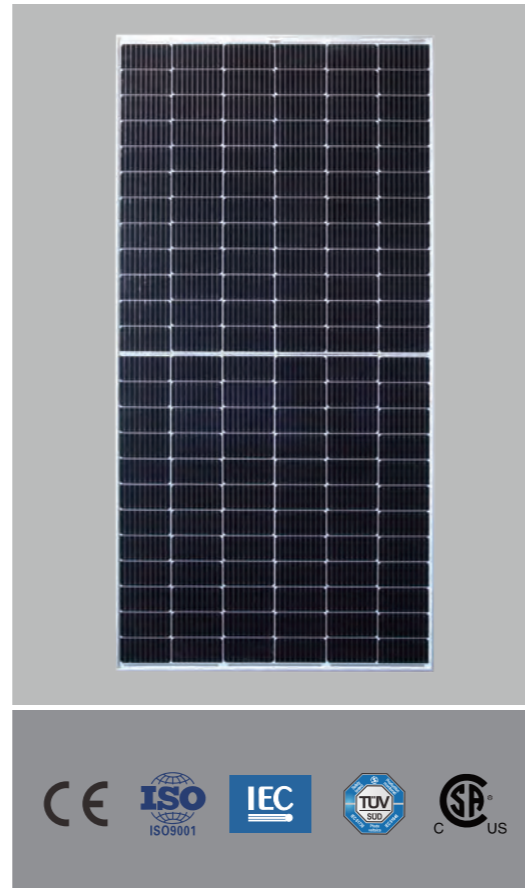
Features

- High module conversion efficiency**
Module efficiency up to 21.3%
- Half-cell Design**
Less energy loss caused by shading due to new cell string layout and lower cell connection power loss due to half-cell design.
- Excellent weak light performance**
More power output in weak light condition such as cloudy, morning and sunset
- Higher Durability against harsh environment**
Reliable quality leads to a better sustainability even in harsh environment
- Lower operating temperature**
Lower operating temperature and temperature coefficient increases the power output
- Anti- PID (Potential induced degradation)**
Excellent Anti-PID performance
- Lower LCOE**
2% more power generation, lower LCOE

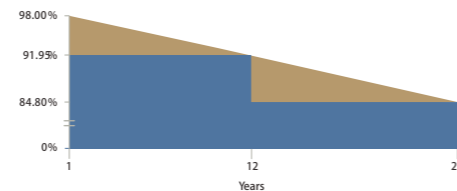


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25 Years Linear Warranty



25 Years output guarantee
12 Years quality assurance
5-year limited warranty of materials and workmanships.



Monocrystalline Solar Module

ELECTRICAL PERFORMANCE

Electrical Parameters at Standard Test Conditions(STC)					
Module Type	SK-530P8-144M	SK-535P8-144M	SKSK-540P8-144M	SK-545P8-144M	SK-550P8-144M
Power Output (Pmax / W)	530W	535W	540W	545W	550W
Power Output Tolerances	±3%	±3%	±3%	±3%	±3%
Module Efficiency (ηm)	20.50%	20.70%	20.89%	21.09%	21.30%
Voltage at Pmax (Vmp / V)	40.8V	41V	41.19V	41.38V	41.57V
Current at Pmax (Imp / A)	12.99A	13.05A	13.11A	13.17A	13.23A
Open-circuit Voltage (Voc / V)	48.81V	49.02V	49.21V	49.43V	49.62V
Short-circuit Current (Isc / A)	13.83A	13.88A	13.93A	13.98A	14.03A

STC:1000W/m² irradiance, 25°C module temperature, AM1.5g Spectrum according to EN 60904-3.
Average relative efficiency reduction of 3.3% at 200W/m² according to EN 60904-1.

Electrical parameters at NMOT (Irradiance 800 W/m ² , ambient temperature 20 °C, AM=1.5, wind speed 1 m)					
Module Type	SSK-530P8-144M	SK-535P8-144M	SK-540P8-144M	SK-545P8-144M	SK-550P8-144M
Power Output (Pmax / W)	394W	398W	402W	405W	409W
Voltage at Pmax (Vmp / V)	38.5V	38.6V	38.8V	38.9V	39.0V
Current at Pmax (Imp / A)	10.23A	10.3A	10.36A	10.42A	10.48A
Open-circuit Voltage (Voc / V)	46.1V	46.2V	46.4V	46.5V	46.7V
Short-circuit Current (Isc / A)	11.06A	11.12A	11.17A	11.23A	11.29A

Thermal Characteristics			
Normal operating cell temperature	NOCT	°C	45±2
Temperature coefficient of Pmax	γ	%/°C	-0.35
Temperature coefficient of Voc	βvoc	%/°C	-0.27
Temperature coefficient of Isc	αisc	%/°C	0.05
Temperature coefficient of Vmpp	βvmpp	%/°C	-0.42

Operating Conditions	
Max.system voltage	1500Vdc
Max.series fuse rating	20A
Operating temperature range	-40°C to 85°C
Max.static load, front(e.g., snow)	5400Pa
Max.static load, back(e.g., wind)	2400Pa
Max.hailstone impact(diameter)	25mm/23m/s

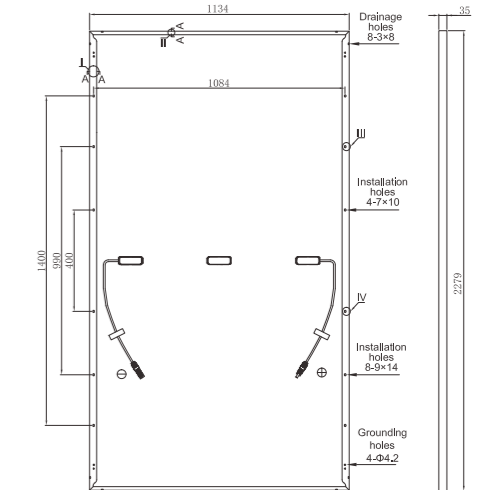
Construction Materials	
Front cover(material/thickness)	low-iron tempered glass/3.2mm
Cell(QTY)	144PCS Mono Perc (182MM)
Frame(Materials)	anodized aluminum alloy/silver/clear
Junction box(Protection degree)	≥IP65
Cable (length/cross-sectional area)	300mm/4mm ²

General Characteristics	
Products Dimension(L/W/H)	2279*1134*35mm
Weight	28.5KGS
QTY of per pallet	31pcs per pallet
Packaging box dimensions	2295*1095*1145MM
No. of pallets for 40HQ containers	20 Pallets (620PCS, GW: 940KGS)

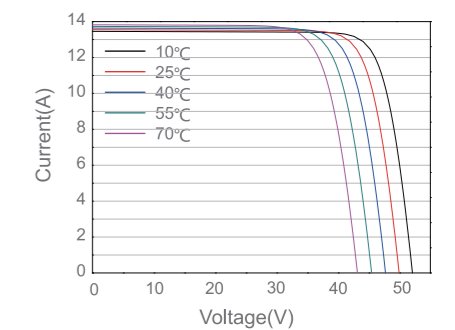
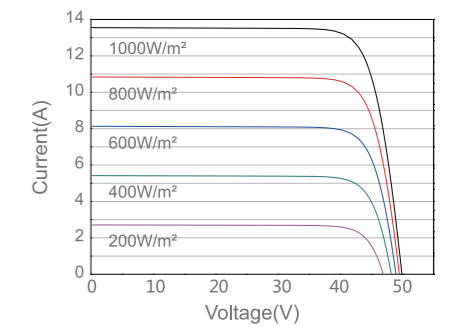
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Unit: mm












I-V Curve





Competitive Floor-standing Lithium Battery Pack With 5000 Cycles BYD Cells

Main Features

-  24V 48V LiFePO4 pack, Wall mounted design.
-  Brand cell BYD, Strong and reliable quality
-  Big discharge current up to 150A, suitable for inverter or solar system
-  Long life design, cells cycle time up to 5000 cycles, 5 years warranty, 10+ life design
-  With smart BMS system for all around protection
-  WiFi communication
-  LED display to show battery capacity
-  All around protection and unattended operation
-  BMS with SAKO SUNPOLO 6KW Solar Inverter Communication protocol

STORAGE SOLAR SYSTEM



Haitech

MODEL	Li-Wall25.6V200Ah	Li-Wall51.2V200Ah
Case design	Floor-standing	Floor-standing
Battery Type	LiFePO4	LiFePO4
Normal Battery Voltage(Vdc)	25.6V	51.2V
Normal Capacity (25°C 0.2C) (Ah)	200A	200A
Normal Capacity (25°C 0.2C) (WH)	5120WH	10240WH
Folat Charge Voltage(Vdc)	27.6V	55.2V
Operation Voltge range (Vdc)	22.4 ~ 29.2V	44.8 ~ 58.4V
Max Continuous Discharge Current(A)	100A	150A
Max Pulse Discharge Current(A)	150A 30 Sec	150A 30 Sec
Max Continuous Charge Current(A)	100A	100A
Cells brand	BYD	BYD
Cycle life (25°C, 0.2C, 100% DOD)	≧ 5000 Cycles	
Cell Equalizer Current(A)	1~5A Max.	
Terminal	M8	
Storage temperature	0°C ~ 30°C	
IP degree	IP 20	
Storage duration	6 months at 25°C	
Safety standard	UN38.3,MSDS	
Display	LED display	
Communication Port (Optional)	RS485/Wifi communication (Optional)	
PROTECTION		
Protection	Overcharge protection· Overdischarge protection· Overcurrent protection· Shortcircuit protection· Overtemperature protection	
AMBIENT		
Working Temperature	-10°C ~ +50°C	
Humidity	0~95% (no condensation)	
Sea Level(m)	≤1500	
DIMENSION		
LxWxH (products size, mm)	556*715*188	986*175*188
LxWxH (package size, mm)	640*802*260	1096*826*378
Weight(NW Kg)	74.0Kg	135.0Kg
Weight(GW Kg)	76.5Kg	145.0Kg

STORAGE SOLAR SYSTEM