

BiMAX 5N

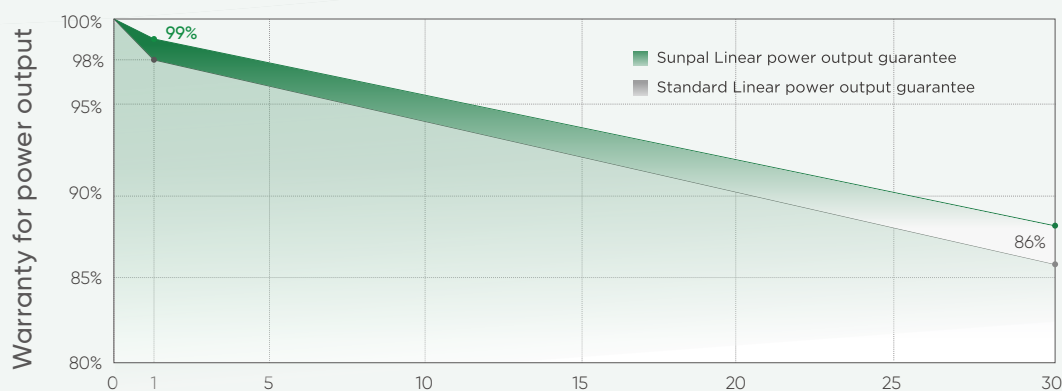
570-590W

**N-type TOPCon
Bifacial Dual Glass
Solar Module**

Quality Guarantee

25-year Materials Warranty

30-year Power Warranty



87.4%

22.84%^{Max}

Module Eff.

0~+5W

Positive Tolerance

Complete System and Product Certifications

IEC61215/IEC61730

ISO 9001: Quality Management System

ISO 14001: Environmental Management System

ISO 45001: Occupational Health and Safety Management System



* Specifications subject to technical changes and tests. Sunpal Solar reserves the right of interpretation.

Positive power tolerance (0~+5W) guaranteed

High module conversion efficiency (up to 22.84%)

Slower power degradation enabled by Low LID Mono TOPCON technology: first year <1%, 0.40% year 2-30

Solid PID resistance ensured by solar cell process optimization and careful module BOM selection

Reduced resistive loss with lower operating current

Higher energy yield with lower operating temperature

Reduced hot spot risk with optimized electrical design and lower operating current



Sunpal Power Co., Ltd.

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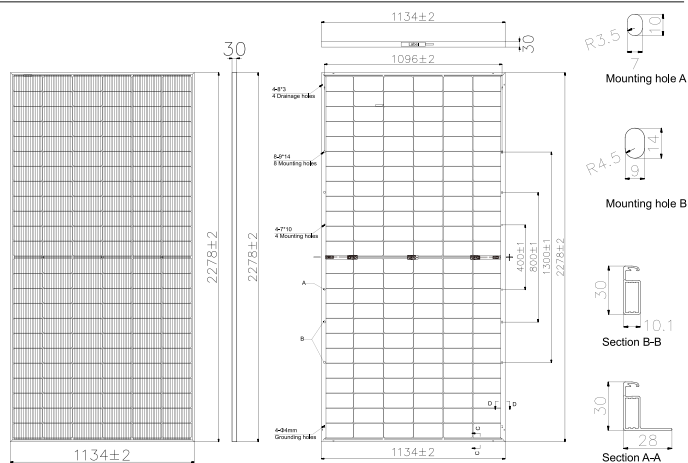
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MECHANICAL CHARACTERISTICS

Solar Cells	N-type Mono
No. of Cells	144 (6x24)
Dimensions	2278 x 1134 x 30mm
Weight	31.5kg
Front / Back Glass	2.0mm coated semi-tempered glass
Frame	Anodized aluminium alloy
Junction Box	Ip68 rated (3 by pass diodes)
	4.0mm ²
Output Cables	250mm (+) / 350mm (-)
	Length can be customized
Connectors	Mc4 compatible
Mechanical load test	Front 5400Pa / Rear 2400Pa



ELECTRICAL PARAMETERS

POWER CLASS	570		575		580		585		590	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum power (Pmax)	570W	429W	575W	433W	580W	437W	585W	441W	590W	445W
Open Circuit Voltage (Voc)	51.41V	48.69V	51.55V	48.82V	51.68V	48.96V	51.81V	49.09V	51.94V	49.23V
Short Circuit Current (Isc)	14.15A	11.41A	14.22A	11.47A	14.29A	11.53A	14.36A	11.59A	14.43A	11.65A
Voltage at Maximum power (Vmpp)	42.41V	39.36V	42.56V	39.51V	42.71V	39.66V	42.86V	39.80V	43.00V	39.95V
Current Maximum Power (Impp)	13.44A	10.90A	13.51A	10.96A	13.58A	11.02A	13.65A	11.08A	13.72A	11.14A
MODULE EFFICIENCY (%)	22.07%		22.26%		22.45%		22.65%		22.84%	

STC: Irradiance 1000W/m², cell temperature 25°C, AM1.5G NMOT: Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s, AM1.5G

BIFACIAL OUTPUT-REAR SIDE POWER GAIN

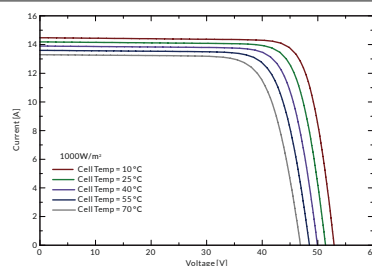
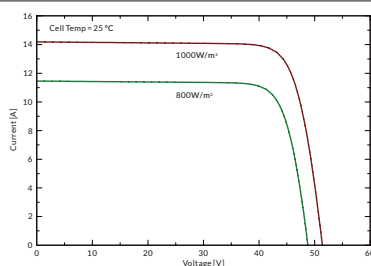
5%	Maximum power (Pmax)	599W	604W	609W	614W	620W
	Module Efficiency STC (%)	23.17%	23.37%	23.57%	23.78%	23.98%
15%	Maximum power (Pmax)	656W	661W	667W	673W	679W
	Module Efficiency STC (%)	25.37%	25.60%	25.82%	26.04%	26.27%
25%	Maximum Power (Pmax)	713W	719W	725W	731W	738W
	Module Efficiency STC (%)	27.58%	27.82%	28.07%	28.31%	28.55%

PACKING CONFIGURATION

Container	20'GP	40'HQ
Pieces per pallet	37	37
Pallets per container	5	20
Pieces per container	185	740

I-V CURVE

575ND/I-V



OPERATING CHARACTERISTICS

Operating Module Temperature	-40°C to +85°C
Maximum System Voltage	1500 DC (IEC)
Maximum Series Fuse Rating	30A
Power Tolerance	0/+5W

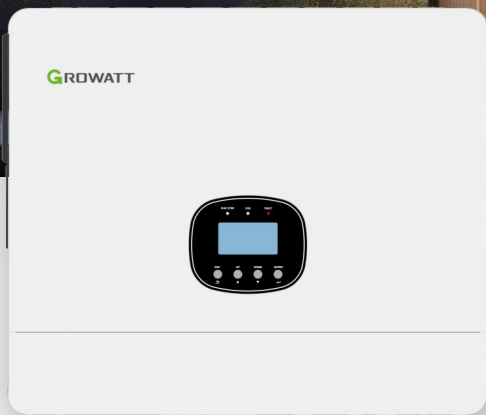
TEMPERATURE CHARACTERISTICS

Nominal Operating Temperature (NMOT)	45±2°C
Temperature Coefficient of Pmax	-0.29%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	+0.045%/°C

SPE 8000~12000 ES

Hybrid solar inverter

- Dual MPP trackers
- Maximum PV input voltage up to 550VDC
- Two AC input terminals with integrated transfer switch
- Featuring grid-tied function for peak shaving
- Support parallel operation for capacity expansion up to 108kW.
- Dual outputs for smart load management



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P O W E R
- I N G
T O M O R R O W

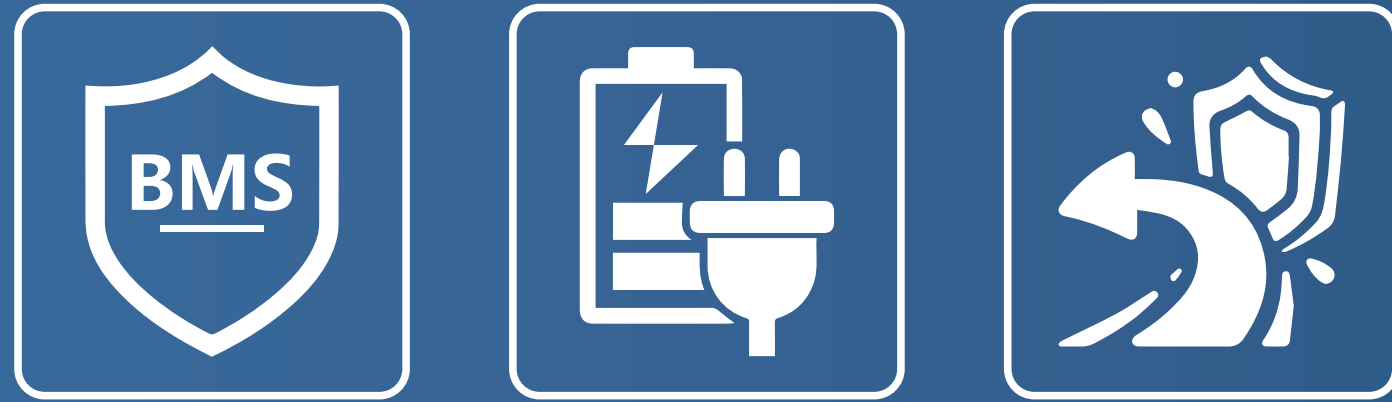
Datasheet	SPE 8000 ES	SPE 10000 ES	SPE 12000 ES
Input data (DC)			
Max. recommended PV power (for module STC)	10000W	12500W	15000W
Max. DC voltage		550V	
Start voltage		120V	
MPP voltage range		60V-480V	
No. of MPP trackers		2	
No. of PV strings per MPP tracker		1	
Max. input current per MPP tracker		27A	
Output data (AC)			
AC nominal power	8000W	10000W	12000W
Max. AC apparent power	8000VA	10000VA	12000VA
Nominal AC voltage		230V	
AC grid frequency		50/60Hz	
Output current	34.8A	43.5A	52.2A
Adjustable power factor		0.8leading...0.8lagging	
THDi		< 5%	
Max. conversion efficiency (PV/AC)		96.5%	
European efficiency @ vnominal (PV/AC)		95.5%	
Battery data (DC)			
Nominal DC voltage		48V	
Max charging and discharging current	190A/200A	220A/240A	250A/280A
Type of battery		Lithium/Lead-acid	
Backup power (AC)			
AC nominal output power	8000W	10000W	12000W
Nominal AC output voltage		230V	
Nominal AC output frequency		50/60Hz	
Switch time		<20ms@Single <30ms@Parallel	
Efficiency			
Peak. efficiency		96.5%	
European efficiency		95.5%	
General data			
Dimensions (W / H / D)		550/465/150mm	
Weight		21.5kg	
Operating temperature range		-10°C ... +50°C	
Noise emission (typical)		< 75dB	
Self-consumption		< 75W	
Topology		Tranformerless	
Cooling		DC fan	
Protection degree		IP20	
Relative humidity		5%~95% non-condensing	
Altitude		< 2000m	
Communication		WiFi/4G	
CE, NRS097			

Wall-Mounted

Energy Storage Battery



51.2V
M16S100-200BL-V₂



01 BATTERY FEATURES

- ◆ Original Grade A lithium iron phosphate battery cell has high safety and reliability
- ◆ The charging and discharging efficiency is high, and the number of cycles is more than 3500 times
- ◆ Compatible with most inverters on the market
- ◆ Supporting RS485 and CAN communication
- ◆ Modular design, can be expanded at any time to increase the energy of the system
- ◆ Supporting up to 15 batteries in parallel
- ◆ ON/OFF switch control output
- ◆ The LCD display monitors the operating status in real time

Product Description

Product Model	M16S100BL-V ₂	M16S200BL-V ₂
Cells In Series	16S	16S
Rated Energy (KWh)	5.12	10.24
Rated Voltage (V)	51.2	51.2
Charging Voltage (V)	58.4	58.4
Discharge Cut-off Voltage (V)	42	42
Standard Charge Current (A)	20	40
Maximum Charging Current (A)	100	100
Maximum Discharge Current (A)	100	100

Features

Cycle Life	≥ 3500 times @ 80% DOD, 25 °C	≥ 3500 times @ 80% DOD, 25 °C
Methods Of Communication	RS232/RS485/CAN	RS232/RS485/CAN
Charging Temperature	0~60°C	0~60°C
Discharge Temperature	-10~65°C	-10~65°C
How It Is Displayed	LCD display	LCD display
IP Protection	IP 21	IP 21

Conventional

Product Dimensions (L×W×Hmm)	440×150×560	520×150×680
Net Weight (Kg)	44	80
Packing Dimensions (L×W×Hmm)	525×340×645	595×316×755
Gross Weight (Kg)	50	98

02 FIELDS OF APPLICATION

Wall-Mounted Energy Storage LiFePO4 Battery, and the main use areas are as follows:

- Standby power
- Home energy storage
- Machine shop
- Solar storage ...

