WORLD OF SUN & WIND POWER

(WORLD OF SUNPOWER)

JHB:081 339 5681
ROS:076 752 5092
CPT:065 147 6680
DBN:062 163 1618
ZIM:+263 77 2874939

Deye

1x DEYE 20KW HV INVERTER
8x DEYE 5.1KWH BOS G HV BATTERY
1x DEYE HVB750V/100 CLUSTER CONTROL
1x DEYE HV 3U 12 RACK
36x 550W JA SOLAR PANELS

***Also we do side Visit, Installation and Commissioning**

20KW

R299,000 Incl Vat

www.worldofsunand windpower.co

Three Phase Hybrid Inverter

SUN-5/6/8/10/12/15/20/25K-SG01HP3-EU-AM2

- 100 — 100% unbalanced output, each phase
- AC couple to retrofit existing solar system
- 10 — Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 50 — Max. charging/discharging current of 50A
- H — High voltage battery, higher efficiency
- 6 — 6 time periods for battery charging/discharging
- Support storing energy from diesel generator

Deye

Stock Code: 605117.SH

Technical Data

Model	SUN-5K-SG01 HP3-EU-AM2	SUN-6K-SG01 HP3-EU-AM2	SUN-8K-SG01 HP3-EU-AM2	SUN-10K-SG01 HP3-EU-AM2	SUN-12K-SG01 HP3-EU-AM2	SUN-15K-SG01 HP3-EU-AM2	SUN-20K-SG01 HP3-EU-AM2	SUN-25K-SG01 HP3-EU-AM2
Battery Input Data								
Battery Type	Lithium-ion							
Battery Voltage Range (V)	160-700							
Max. Charging Current (A)	30	30	37					50
Max. Discharging Current (A)	30	30	37					50
Charging Strategy for Li-ion Battery	Self-adaption to BMS							
Number of Battery Input	1							
PV String Input Data								
Max. PV Input Power (W)	6500	7800	10400	13000	15600	19500	26000	32500
Max. PV Input Voltage (V)	1000							
Start-up Voltage (V)	180							
MPPT Voltage Range (V)	150-850							
Rated PV Input Voltage (V)	600							700
Max. Operating PV Input Current (A)	20+20				26+20		26+26	
Max. Input Short-Circuit Current (A)	30+30				39+30		39+39	
No. of MPP Trackers/ No. of Strings per MPP Tracker	2/1+1				2/2+1		2/2+2	
AC Input/Output Data								
Rated AC Input/Output Active Power (W)	5000	6000	8000	10000	12000	15000	20000	25000
Max. AC Input/Output Apparent Power (VA)	5500	6600	8800	11000	13200	16500	22000	27500
Rated AC Input/Output Current (A)	7.6/7.3	9.1/8.7	12.2/11.6	15.2/14.5	18.2/17.4	22.8/21.8	30.4/29	37.9/36.3
Max. AC Input/Output Current (A)	8.4/8	10/9.6	13.4/12.8	16.7/16	20/19.2	25/24	33.4/31.9	41.7/39.9
Max. Continuous AC Passthrough (grid to load) (A)	40				80			
Peak Power (off-grid) (W)	1.5 times of rated power, 10s							
Power Factor Adjustment Range	0.8 leading to 0.8 lagging							
Rated Input/Output Voltage/Range (V)	220/380V, 230/400V 0.85Un-1.1Un							
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65							
Grid Connection Form	3L+N+PE							
Total Current Harmonic Distortion THDi	<3% (of nominal power)							
DC Injection Current	<0.5% In							
Efficiency								
Max. Efficiency	97.6%							
Euro Efficiency	97.0%							
MPPT Efficiency	>99%							
Equipment Protection								
Integrated	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection DC Terminal Insulation Impedance Monitoring, DC Component Monitoring, Ground Fault Current Monitoring Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch Overvoltage Load Drop Protection, Residual Current (RCD) Detection, Surge protection level							
Surge Protection Level	TYPE II(DC), TYPE II(AC)							
Interface								
Communication Interface	RS485/RS232/CAN							
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)							
General Data								
Operating Temperature Range (℃)	-40 to +60°C, >45°C Derating							
Permissible Ambient Humidity	0-100%							
Permissible Altitude	2000m							
Noise (dB)	≤55							
Ingress Protection(IP) Rating	IP 65							
Inverter Topology	Non-Isolated							
Over Voltage Category	OVC II(DC), OVC III(AC)							
Cabinet Size (WxHxD mm)	408×638×237 (Excluding Connectors and Brackets)							
Weight (kg)	30.5							
Type of Cooling	Natural Cooling	Intelligent Air Cooling						
Warranty	5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy							
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105							
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2							

Deye **Ningbo Deye Inverter Technology Co., Ltd.**
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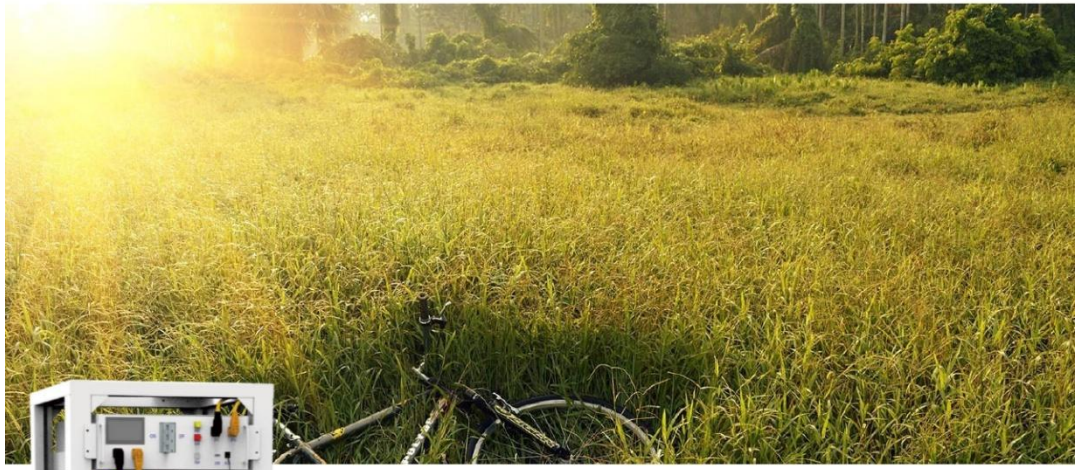
BOS-G



- **Convenient**

Quick installation standard of 19-inch embedded designed module is comfortable for installation and maintenance.

- **Safe and reliable**

Cathode material is made from LiFePO4 with safety performance and long cycle life, The module has less self-discharge, up to 6 months without charging it on shelf, no memory effect, excellent performance of shallow charge and discharge.

- **Intelligent BMS**

It has protection functions including over-discharge, over-charge, over-current and over-high or low temperature. The system can automatically manage charge and discharge state and balance current and voltage of each cell.

- **Eco-friendly**

The whole module is non-toxic, non-polluting and environmentally friendly.

- **Flexible configuration**

Multiple battery modules can be in parallel for expanding capacity and power. Support USB upgrade, wifi upgrade(optional), remote up grade(Compatible with Deye inverter).

- **Wide temperature**

Working temperature range is from -20°C to 55°C, with excellent discharge performance and cycle life.

Deye

Technical Data

Model		BOS-G		
Main Parameter				
Cell Chemistry		LiFePO4		
Module Energy(kWh)		5.12		
Module Nominal Voltage (V)		51.2		
Module Capacity(Ah)		100		
Battery Module Qty in series. (Optional)		3 (Min)	8 (Standard US Cluster)	12 (Standard EU Cluster)
System Nominal Voltage (V)		153.6	409.6	614.4
System Operating Voltage (V)		124.8~175.2	332.8~467.2	499.2~700
System Energy (kWh)		15.36	40.96	61.44
System Usable Energy (kWh) [1]		13.8	36.86	55.29
Charge/Discharge [2] Current (A)	Recommend	50		
	Nominal	100		
	Peak Discharge (2 mins, 25°C)	125		
Working Temperature(°C)		Charge: 0~55/Discharge: -20~55		
Status Indicator		Yellow: Battery High Voltage Power On Red: Battery System Alarm		
Communication Port		CAN2.0/RS485		
Humidity		5~85%RH		
Altitude		≤2000m		
IP Rating of Enclosure		IP20		
Dimension (W/D/H,mm)		589*590*1640		589*590*2240
Weight Approximate (kg)		258	434	628
Installation Location		Rack Mounting		
Storage Temperature(°C)		0~35		
Recommend Depth of Discharge		90%		
Cycle Life		25±2°C, 0.5C/0.5C,EOL70%≥6000		
Warranty [3]		10years		
Certification		CE/IEC62619 / UL1973 / UL9540A / UN38.3		

1 DC Usable Energy, test conditions: 90% DOD, 0.2C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

2 The current is affected by temperature and SOC.

3 The warranty is due whichever reached first of warranty period or life cycle power.

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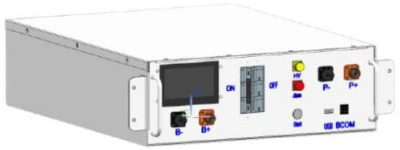
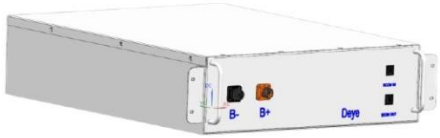
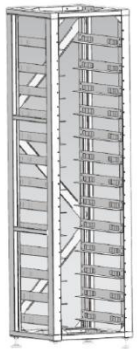
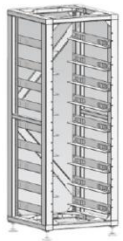
System Components

Model	Description
HVB750V/100A-EU	High Voltage Battery cluster control box conforming to European or British Standards
Operating Voltage 120 ~ 750Vdc Nominal Charge/Discharge Current 100A Max.Charge/Discharge Current 125A DC Input Rating 12±2%V/4.15A Operating Temperature Range -20~65°C Ingress Protection IP20 Dimension (W/D/H) 440*570*150mm Weight Approximate 15.5kg	
HVB750V/100A-US	High Voltage Battery cluster control box conforming to North American Standard
Operating Voltage 120 ~ 750Vdc Nominal Charge/Discharge Current 100A Max.Charge/Discharge Current 125A DC Input Rating 12±2%V/4.15A Operating Temperature Range -20~65°C Ingress Protection IP20 Dimension (W/D/H) 440*570*150mm Weight Approximate 17kg	
High voltage box Standard configuration: ① 120 ohm terminal resistance ② 140mm communication cable ③ 220mm power cable ④1.5m power cable（US Version） 2.1m power cable（EU Version） ⑤Power plug	
BOS-GM5.1	5.12 kwh battery module
Battery Type LiFePO4(LFP) Nominal Voltage 51.2Vdc Rated Capacity 100Ah Rated Energy 5.12kWh Nominal Charge/Discharge Current 100A Peak.Discharge Current 125A Charge Temperature 0~55°C Discharge Temperature -20℃ ~ 55°C Storage Temperature 0℃ ~ 35°C Ingress Protection IP20 Dimension (W/D/H) 440*570*133mm Weight Approximate 44kg	
Battery module Standard configuration: ①110mm communication cable ② 200mm power cable	
EPCable5.0(Optional)	Standard 5-meter power cable connected to the positive pole of the external PCS
1000V/4AWG cable	
ENCable5.0(Optional)	Standard 5-meter power cable connected to the negative pole of the external PCS
1000V/4AWG cable	

System Components

Model	Description
EPWR Cable5.0(Optional)	Standard 5-meter cable connected to external 12VDC power supply
	
ECOM Cable5.0(Optional)	Standard 5-meter communication cable connected to the external device
	
3U-HRACK(Optional)	Standard 19inch rack, caninstall 12 pcs batteries and 1 pcs High Voltage Battery cluster control box
Dimension (W/D/H) Weight Approximate	589*590*2240mm 85kg
	
3U-LRACK(Optional)	Standard 19inch rack, caninstall 8 pcs batteries and 1 pcs High Voltage Battery cluster control box
Dimension (W/D/H) Weight Approximate	589*590*1640mm 65kg
	

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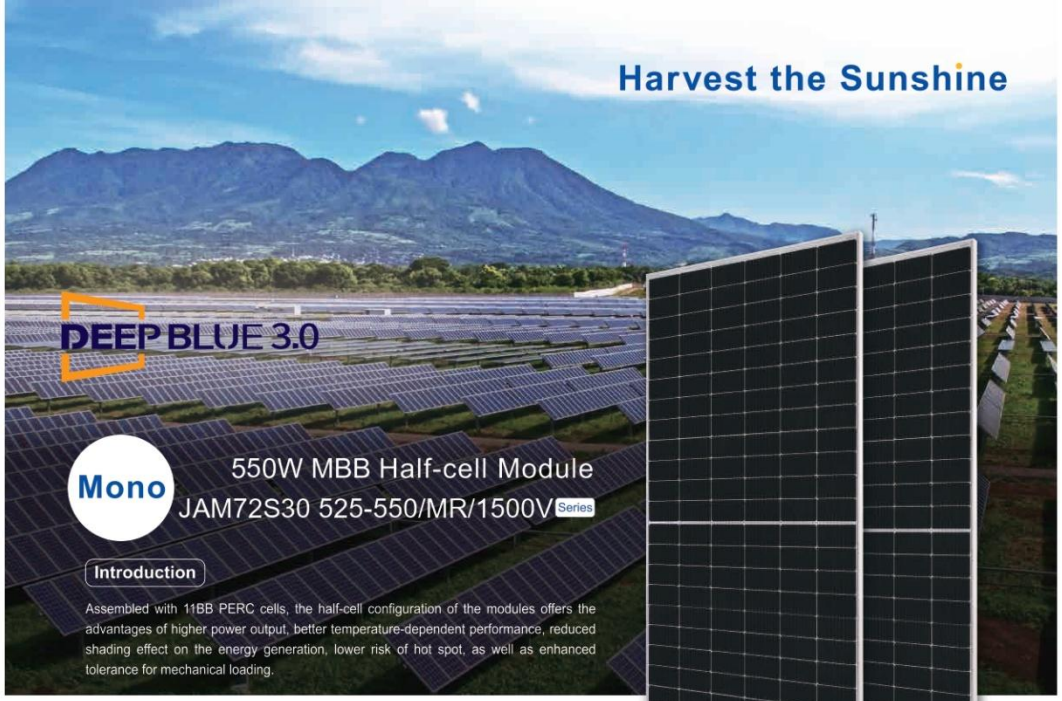
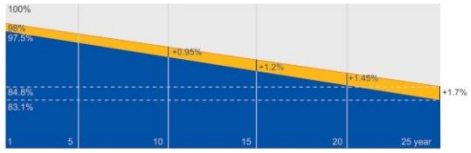


- Higher output power
- Lower LCOE
- Less shading and lower resistive loss
- Better mechanical loading tolerance

Superior Warranty

- 12-year product warranty
- 25-year linear power output warranty

0.55% Annual Degradation Over 25 years



New linear power warranty ■ Standard module linear power warranty

Comprehensive Certificates

- IEC 61215, IEC 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems

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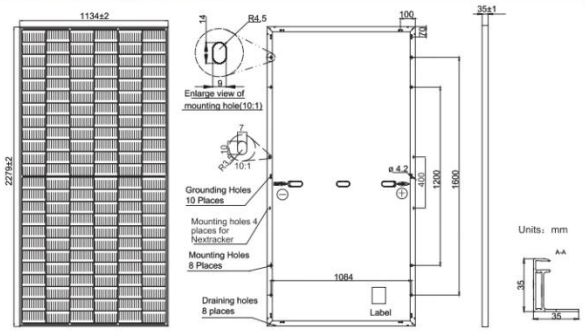
MECHANICAL DIAGRAMS



Remark: customized frame color and cable length available upon request

SPECIFICATIONS

Cell	Mono
Weight	28.6kg±3%
Dimensions	2279±2mm×1134±2mm×35±1mm
Cable Cross Section Size	4mm²（IEC），12 AWG(UL)
No. of cells	144(6×24)
Junction Box	IP68, 3 diodes
Connector	Genuine MC4-EVO2 QC 4.10-35/45
Cable Length (Including Connector)	Portrait: 300mm(+)/400mm(-); Landscape: 1300mm(+)/1300mm(-)
Country of Manufacturer	China/Vietnam

ELECTRICAL PARAMETERS AT STC

TYPE	JAM72S30 -525/MR/1500V	JAM72S30 -530/MR/1500V	JAM72S30 -535/MR/1500V	JAM72S30 -540/MR/1500V	JAM72S30 -545/MR/1500V	JAM72S30 -550/MR/1500V
Rated Maximum Power(Pmax) [W]	525	530	535	540	545	550
Open Circuit Voltage(Voc) [V]	49.15	49.30	49.45	49.60	49.75	49.90
Maximum Power Voltage(Vmp) [V]	41.15	41.31	41.47	41.64	41.80	41.96
Short Circuit Current(Isc) [A]	13.65	13.72	13.79	13.86	13.93	14.00
Maximum Power Current(Imp) [A]	12.76	12.83	12.90	12.97	13.04	13.11
Module Efficiency [%]	20.3	20.5	20.7	20.9	21.1	21.3
Power Tolerance	0~+5W					
Temperature Coefficient of Isc(α_Isc)	+0.045%/℃					
Temperature Coefficient of Voc(β_Voc)	-0.275%/℃					
Temperature Coefficient of Pmax(γ_Pmp)	-0.350%/℃					
STC	Irradiance 1000W/m², cell temperature 25℃, AM1.5G					

Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer.They only serve for comparison among different module types.
Measurement tolerance at STC: Pmax ±3 %, Voc ±3% and Isc ±4%.

ELECTRICAL PARAMETERS AT NOCT

TYPE	JAM72S30-525 /MR/1500V	JAM72S30-530 /MR/1500V	JAM72S30-535 /MR/1500V	JAM72S30-540 /MR/1500V	JAM72S30-545 /MR/1500V	JAM72S30-550 /MR/1500V
Rated Max Power(Pmax) [W]	397	401	405	408	412	416
Open Circuit Voltage(Voc) [V]	46.05	46.18	46.31	46.43	46.55	46.68
Max Power Voltage(Vmp) [V]	38.36	38.57	38.78	38.99	39.20	39.43
Short Circuit Current(Isc) [A]	10.97	11.01	11.05	11.09	11.13	11.17
Max Power Current(Imp) [A]	10.35	10.39	10.43	10.47	10.51	10.55
NOCT	Irradiance 800W/m², ambient temperature 20℃,wind speed 1m/s, AM1.5G					

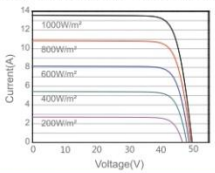
*For NexTracker installations, Maximum Static Load, Front is 2000Pa while Maximum Static Load, Back is2000Pa .

OPERATING CONDITIONS

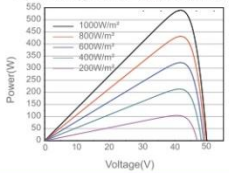
Maximum System Voltage	1500V DC (IEC)
Operating Temperature	-40℃~+85℃
Maximum Series Fuse Rating	25A
Maximum Static Load,Front* Maximum Static Load,Back*	3600Pa, 1.5 1600Pa, 1.5
NOCT	45±2℃
Safety Class	Class Ⅱ
Fire Performance	UL Type 1

CHARACTERISTICS

Current-Voltage Curve JAM72S30-540/MR/1500V



Power-Voltage Curve JAM72S30-540/MR/1500V



Current-Voltage Curve JAM72S30-540/MR/1500V