

# Harvest the Sunshine

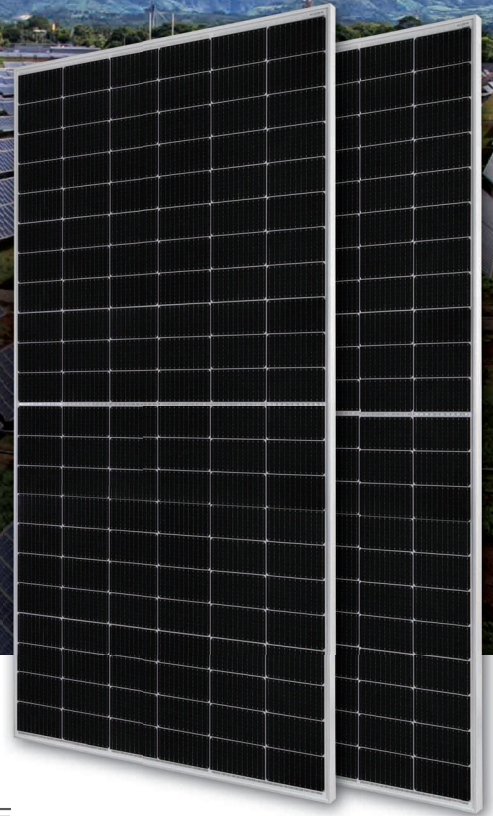
## DEEP BLUE 3.0

Mono

505W MBB Half-cell Module  
JAM66S30 480-505/MR/1500V Series

### Introduction

Assembled with 11BB PERC cells, the half-cell configuration of the modules offers the advantages of higher power output, better temperature-dependent performance, reduced shading effect on the energy generation, lower risk of hot spot, as well as enhanced tolerance for mechanical loading.



Higher output power



Lower LCOE



Less shading and lower resistive loss

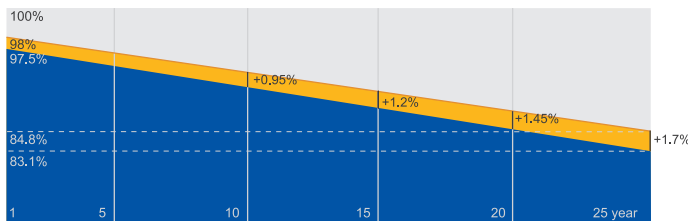


Better mechanical loading tolerance

### 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



# JA SOLAR

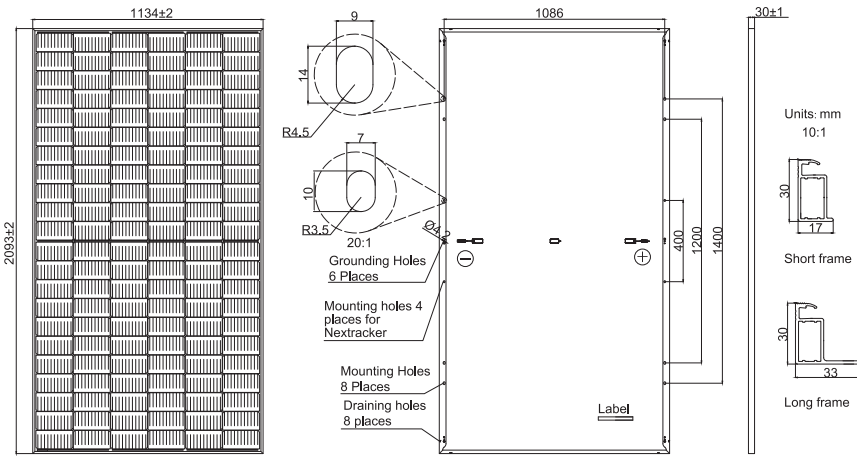
[www.jasolar.com](http://www.jasolar.com)

Specifications subject to technical changes and tests.  
JA Solar reserves the right of final interpretation.



**MECHANICAL DIAGRAMS**

**SPECIFICATIONS**



Cell	Mono
Weight	26.3kg
Dimensions	2093±2mm×1134±2mm×30±1mm
Cable Cross Section Size	4mm <sup>2</sup> (IEC) , 12 AWG(UL)
No. of cells	132(6×22)
Junction Box	IP68, 3 diodes
Connector	Stäubli MC4-EVO2A/MC4-EVO2 QC Solar QC 4.10-351
Cable Length (Including Connector)	Portrait: 200mm(+)/300mm(-); Landscape: 1200mm(+)/1200mm(-)
Country of Manufacturer	China/Vietnam

Remark: customized frame color and cable length available upon request

**ELECTRICAL PARAMETERS AT STC**

TYPE	JAM66S30 -480/MR/1500V	JAM66S30 -485/MR/1500V	JAM66S30 -490/MR/1500V	JAM66S30 -495/MR/1500V	JAM66S30 -500/MR/1500V	JAM66S30 -505/MR/1500V
Rated Maximum Power(Pmax) [W]	480	485	490	495	500	505
Open Circuit Voltage(Voc) [V]	45.07	45.20	45.33	45.46	45.59	45.72
Maximum Power Voltage(Vmp) [V]	37.62	37.81	37.99	38.17	38.35	38.53
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 [%]	20.2	20.4	20.6	20.9	21.1	21.3
Power Tolerance				0~+5W		
Temperature Coefficient of Isc( $\alpha_{Isc}$ )				+0.045%/°C		
Temperature Coefficient of Voc( $\beta_{Voc}$ )				-0.275%/°C		
Temperature Coefficient of Pmax( $\gamma_{Pmp}$ )				-0.350%/°C		
STC	Irradiance 1000W/m <sup>2</sup> , cell temperature 25°C, 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**

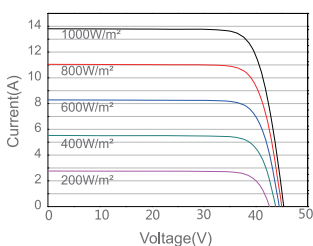
**OPERATING CONDITIONS**

TYPE	JAM66S30-480 /MR/1500V	JAM66S30-485 /MR/1500V	JAM66S30-490 /MR/1500V	JAM66S30-495 /MR/1500V	JAM66S30-500 /MR/1500V	JAM66S30-505 /MR/1500V		
Rated Max Power(Pmax) [W]	363	367	370	374	378	382	Maximum System Voltage	1500V DC
Open Circuit Voltage(Voc) [V]	42.15	42.30	42.43	42.58	42.72	42.86	Operating Temperature	-40°C~+85°C
Max Power Voltage(Vmp) [V]	35.54	35.67	35.76	35.84	35.93	36.02	Maximum Series Fuse Rating	25A
Short Circuit Current(Isc) [A]	10.99	11.06	11.13	11.20	11.27	11.34	Maximum Static Load,Front* Maximum Static Load,Back*	3600Pa, 1.5 1600Pa, 1.5
Max Power Current(Imp) [A]	10.21	10.28	10.36	10.44	10.52	10.60	NOCT	45±2°C
NOCT	Irradiance 800W/m <sup>2</sup> , ambient temperature 20°C, wind speed 1m/s, AM1.5G						Safety Class	Class II
							Fire Safety Class	Class C

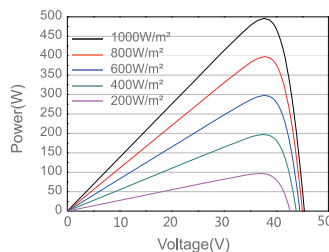
\*For Nexttracker Installations, Maximum Static Load Please Take Compatibility Approve Letter Between JA Solar And Nexttracker For Reference

**CHARACTERISTICS**

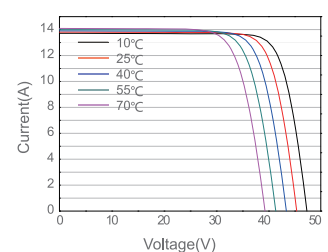
Current-Voltage Curve JAM66S30-495/MR/1500V



Power-Voltage Curve JAM66S30-495/MR/1500V



Current-Voltage Curve JAM66S30-495/MR/1500V



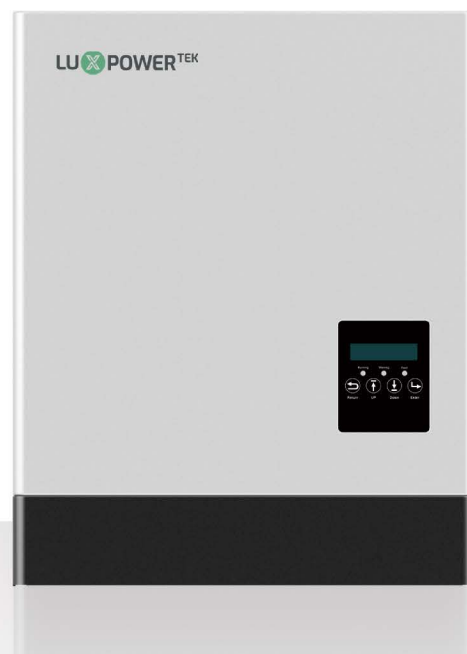
# HYBRID SERIES

## Single Phase

# LXP 3-6k



- **Single phase/Unbalanced 3-Phase**
- **Support up to 10pcs in parallel**
- **Intelligent charge features**
  - Weather forecast compensation
  - Update electricity price automatically
  - Economize charging/discharging schedule automatically
- **Unique monitoring platform**
  - Free APPs on smartphone (Android/iOS) & PC (Web)
- **Integrated UPS module**
  - On/off grid seamless switching under 20ms
- **Wide battery compatible list**
- **Plug & Play (AC and PV port)**



## SpecifiCation

INPUT (PV DC)	LXP 3000W	LXP 3600W	LXP 4000W	LXP 4600W	LXP 5000W	LXP 6000W
Max. PV array power(W)	6600	7000	7000	8000	8000	8000
Rated PV input voltage(V)	360					
Number of independent MPPT inputs	2					
PV input voltage range(V)	100~550					
MPPT voltage range(V)	120~500					
Start-up voltage(V)	140					
Max. PV input current per MPPT(A)	13					
Max. PV short-circuit current input per MPPT(A)	20					
<b>Battery</b>						
Compatible battery type	Lithium-ion/Lead-Acid					
Rated battery voltage(V)	48					
Battery voltage range(V)	48-60					
Max. charging voltage(V)	60					
Max. charging/discharging current(A)	66				80	
Max. charging/discharging power(W)	3600				4000	
Force wake up battery from PV function	YES					
<b>Grid</b>						
Rated AC voltage(V)	230					
Rated AC frequency(HZ)	50/60					
Rated AC output current(A)	13	15.6	17.4	20	21.7	26
Rated AC output power(W)	3000	3600	4000	4600	5000	6000
Max. AC input current(A)	31.3	31.3	31.3	34.7	34.7	34.7
Max. AC input power(W)	7200				8000	
PF	0.99(Adjustable from 0.8 leading to 0.8 lagging)					
THDI	<3%					
Rated AC current of BYPASS relays(A)	40					
<b>UPS</b>						
Rated output power with Solar(W)	3000	3600	4000	4600	5000	6000
Rated output power without Solar(W)	3000	3600	4000	4000	4000	4000
Rated output voltage(V)	230					
Rated output current(A)	13	15.6	17.4	17.4	17.4	17.4
Rated output frequency(Hz)	50/60					
Surge power, duration	4500W, 30S					
Switching time(UPS)	20ms					
Wave form	Sine wave					
THDV	<5%					
<b>Efficiency</b>						
Max. MPPT efficiency	99.0%					
Max. efficiency	97.3%					
EU efficiency	97.0%					
Max. charging efficiency	94.5%					
Max. discharging efficiency	94.5%					
<b>Protection</b>						
Over current/voltage protection	YES					
Anti-islanding protection	YES					
AC Short-circuit current protection	YES					
Leakage current protection	YES					
Ground fault monitoring	YES					
Grid monitoring	YES					
DC switch	YES					
DC surge protection Type III	YES					
AC surge protection Type III	YES					
<b>General</b>						
Dimensions(W*H*D)	455*565*181mm/17.9*22.2*7.1inch					
Weight	20kg/44.1lbs					
Ingress protection rating	IP65					
Operating environment temperature range	-25~60°C					
Storage temperature range	-40~65°C					
Relative humidity	0~95%					
Display & Communication interface	LCD, RS485/Wi-Fi/CAN					
Warranty	5 years					
Cooling method	Natural					
Topology	Transformer-less					
Altitude	2000m					
Noise emission(typical)	<25dB					
<b>Standards &amp; Certification</b>						
IEC 62109-1/2, IEC 62040, IEC 62477, EN 61000, IEC 60068, EN 62920, AS4777.2, NRS 097, EN 50549, RD1699, RD413, RD647, UNE 217001, NT5 TYPE A, CEIO-21, CEIO-16, VDE-AR-N 4105, UTE C15-712-1/XP C15-712-3/VFR 2019, G98, G99						

SERIE IBRIDA

# TriP2-LB-3P 5-20K (Trifase)

- Supporta carichi trifase sbilanciati per una maggiore compatibilità con applicazioni miste residenziali o commerciali
- Max. 3 MPPT con 3 stringhe, ingresso FV massimo: 30 kW
- Compatibile con sistemi a batteria a bassa tensione da 48 V
- Supporta il controllo indipendente dell'esportazione in rete per ogni fase
- Gestione dei tempi di utilizzo, 8 fasce orarie per carica e scarica
- Supporta fino a 10 unità in parallelo per funzionamento on-grid e off-grid
- Porta GEN dedicata per
  - Controllo automatico GEN
  - Funzione carico intelligente
  - Funzione di accoppiamento AC



Bassa tensione



Modello	TriP2-LB-3P 5K	TriP2-LB-3P 6K	TriP2-LB-3P 8K	TriP2-LB-3P 10K	TriP2-LB-3P 12K	TriP2-LB-3P 15K	TriP2-LB-3P 20K	
<b>Ingresso (PV DC)</b>								
Potenza massima di ingresso PV (W)	7500	9000	12000	15000	18000	22500	30000	
Tensione di ingresso nominale PV (V)	690							
Numero di ingressi MPPT indipendenti	3 / (1:1:1)							
Tensione massima di ingresso PV (V)	1000							
Intervallo di tensione MPPT (V)	200 ~ 900							
Tensione di avvio (V)	100							
Corrente massima di ingresso PV per MPPT (A)	20 / 20 / 20							
Corrente massima di cortocircuito di ingresso PV per MPPT (A)	25 / 25 / 25							
<b>Batteria</b>								
Tipo di batteria compatibile	Litio-Ione / PbAcido							
Tensione nominale della batteria (V)	40 - 60							
Corrente massima di carica / scarica (A)	125	150	200	220	250	250	250	
Potenza massima di carica / scarica (W)	5000	6000	8000	10000	12000	12000	12000	
Strategia di carica per batterie Li-ion	Auto-adattamento al BMS							
<b>Rete</b>								
Tensione nominale AC (V)	3L / N / PE, 230 / 400Vac							
Frequenza nominale AC (Hz)	50 / 60							
Potenza nominale di uscita AC (W)	5000	6000	8000	10000	12000	15000	20000	
Corrente nominale di uscita AC (A)	7.20	8.70	11.60	14.50	17.40	21.70	29.00	
Corrente massima di ingresso AC (A)	9	10.9	14.5	18.1	21.8	27.1	36.25	
Fattore di potenza (FP)	0,99 (Regolabile da 0,8 in anticipo a 0,8 in ritardo)							
Distorsione armonica totale (THDI)	< 3%							
Corrente continua massima di passaggio AC (A)	30					50		70
<b>GEN</b>								
Tensione nominale del generatore (V)	3L / N / PE, 230 / 400Vac							
Frequenza nominale del generatore (Hz)	50 / 60							
Corrente di ingresso nominale del generatore (A)	30							
Potenza di ingresso nominale del generatore (W)	20700							
<b>UPS</b>								
Potenza di uscita nominale (W)	5000	6000	8000	10000	12000	15000(FV+Batteria)	20000(FV+Batteria)	
Tensione di uscita nominale (V)	3L / N / PE, 230 / 400Vac							
Corrente di uscita nominale (A)	7.20	8.70	11.60	14.50	17.40	21.70	29.00	
Frequenza di uscita nominale (Hz)	50 / 60							
Potenza di picco, durata	1,5 × potenza nominale per 5 min							
Tempo di commutazione	10ms							
Forma d'onda	Onda sinusoidale							
THDV	< 3%							
<b>Efficienza</b>								
Massima efficienza	97.7%							
Massima efficienza di carica / scarica	94.0%							
<b>Protezione</b>								
Protezione contro la polarità inversa PV	Sì							
Protezione contro sovraccarico / sovratensione	Sì							
Protezione anti-isola	Sì							
Protezione contro cortocircuito AC	Sì							
Protezione contro corrente di fuga	Sì							
Monitoraggio della rete	Sì							
Interruttore DC	Sì							
Protezione contro l'ingresso	Sì							
Protezione contro le sovratensioni DC	Tipo III							
Protezione contro le sovratensioni AC	Tipo III							
<b>Generale</b>								
Dimensioni (L × A × P)	480 × 703 × 258mm / 18.9 × 27.7 × 10.2 in							
Peso	53 kg / 116.8 lbs							
Classe di protezione	IP66							
Intervallo di temperatura ambiente di funzionamento (°C)	-25~+60°C, Riduzione di potenza >45°C							
Intervallo di temperatura di stoccaggio (°C)	-25 ~ +60							
Umidità relativa	0 ~ 100%							
Display & Interfaccia di comunicazione	Schermo a colori touch, RS485 / Wifi / CAN							
Garanzia	5 / 10 anni							
Metodo di raffreddamento	Raffreddamento intelligente							
Topologia	Senza trasformatore							
Altitudine massima di funzionamento (m)	2000							
Emissione acustica (dB)	50							
<b>Norme e certificazioni</b>								

# PSHIELD



## Features



IP65 enclosure & Built-in heating system, designed for outdoor use & extreme weather.



1C rate continuous charge/discharge



Second level protection, robust applications



Parallel up to 32 modules



Ultra safe LFP material, 10 year warranty.



DC Breaker built-in



Handy monitor & flexible remote upgrade.



Active balancing charging, low self consumption



Smart BMS management for longer lifespan

Model	PSHIELD
Cell Type	LFP
Rated Energy	5.12kWh
Rated Capacity	100Ah
Rated Voltage	51.2V
Charge Voltage	57.2V
Max. Charge / Discharge Current	100A
Discharge Peak Current	105A / 15s, 150A / 0.5s
Parallel	Up to 32 units parallelable w/o extra device needed, slave battery drops offline or come back alive does not affect system running
IP Level	IP65
Dimension (W × H × D)	500 × 650 × 167 mm / 19.7 × 25.6 × 6.6 in
Weight	60 kg / 132.3 lbs
Communication	CAN / RS485
Humidity	5% ~ 85%RH (No condensation)
Work Temperature	-20°C~ +55°C, heating system built-in
Storage Temperature	-10°C~ +35°C
Remote Maintenance	Handy monitor & flexible remote upgrade, Original firmware backup to prevent upgrade failure
Warranty *	10 years, 6000 cycles
Certification	CE; UN38.3; IEC62619
Protection	Over charge/discharge/current/voltage/temperature protection Short circuit protection, Reverse connection protection Charge balance, Low SOC protection

@25°C, 90% DOD. 0.5C testing condition