

# 440W MBB **LR** Series



Higher output power



Lower LCOE



Better mechanical loading tolerance



Less shading and lower resistive loss



12-year product warranty



25-year linear power output warranty

## Half-cell Module JAM54S30 LR 415-440

### Comprehensive Certificates

- IEC 61215, IEC 61730, UL 61215, UL 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems
- IEC 62941: 2019 Terrestrial photovoltaic (PV) modules - Quality system for PV module manufacturing

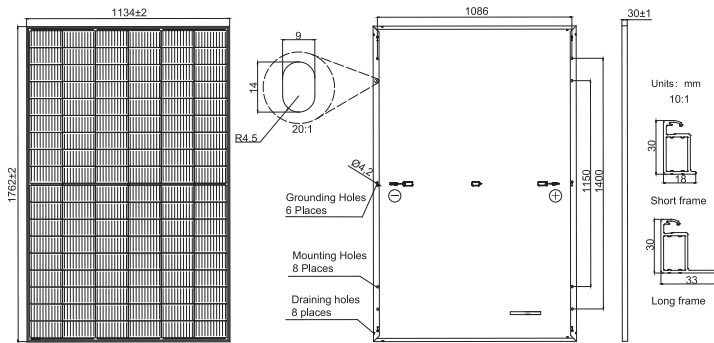




**440W**

**415-440**  
 JAM54S30

**LR**  
 Series



Remark: customized frame color and cable length available upon request

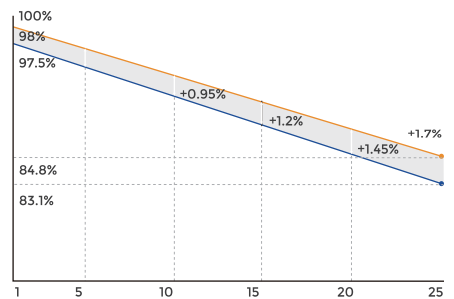
Cell	Mono
Weight	20kg
Dimensions	1762±2mm×1134±2mm×30±1mm
Cable Cross Section Size	4mm <sup>2</sup> (IEC), 12 AWG(UL)
No. of cells	108(6x18)
Junction Box	IP68, 3 diodes
Connector	QC 4.10-351/ MC4-EVO2A
Cable Length (Including Connector)	Portrait: 300mm(+)/400mm(-); 800mm(+)/800mm(-)(Leapfrog) Landscape: 1200mm(+)/1200mm(-)
Front Glass	2.8mm
Packaging Configuration	36pcs/Pallet, 936pcs/40ft Container

**ELECTRICAL PARAMETERS AT STC**

TYPE	JAM54S30 -415/LR	JAM54S30 -420/LR	JAM54S30 -425/LR	JAM54S30 -430/LR	JAM54S30 -435/LR	JAM54S30 -440/LR
Rated Maximum Power(Pmax) [W]	415	420	425	430	435	440
Open Circuit Voltage(Voc) [V]	37.55	37.73	37.91	38.09	38.27	38.45
Maximum Power Voltage(Vmp) [V]	30.92	31.11	31.30	31.49	31.68	31.86
Short Circuit Current(Isc) [A]	14.17	14.25	14.33	14.42	14.50	14.58
Maximum Power Current(Imp) [A]	13.42	13.50	13.58	13.65	13.73	13.81
Module Efficiency [%]	20.8	21.0	21.3	21.5	21.8	22.0
Power Tolerance	0~+5W					
Temperature Coefficient of Isc(α <sub>Isc</sub> )	+0.045% / C					
Temperature Coefficient of Voc(β <sub>Voc</sub> )	-0.275% / C					
Temperature Coefficient of Pmax(γ <sub>Pmp</sub> )	-0.350% / C					
STC	Irradiance 1000W/m <sup>2</sup> , cell temperature 25 C, AM1.5G					

**Superior Warranty**

0.55% Annual Degradation Over 25 years



- New linear power warranty
- Standard module linear power warranty

**ELECTRICAL PARAMETERS AT NOCT**

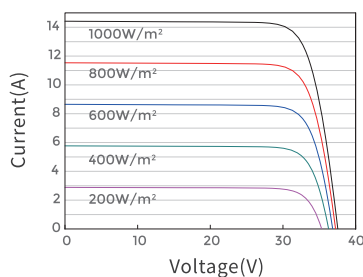
TYPE	JAM54S30 -415/LR	JAM54S30 -420/LR	JAM54S30 -425/LR	JAM54S30 -430/LR	JAM54S30 -435/LR	JAM54S30 -440/LR
Rated Max Power(Pmax) [W]	314	318	322	326	329	333
Open Circuit Voltage(Voc) [V]	35.53	35.70	35.87	36.04	36.21	36.38
Max Power Voltage(Vmp) [V]	29.26	29.44	29.62	29.80	29.98	30.15
Short Circuit Current(Isc) [A]	11.33	11.40	11.47	11.53	11.60	11.67
Max Power Current(Imp) [A]	10.74	10.80	10.86	10.92	10.99	11.05
NOCT	Irradiance 800W/m <sup>2</sup> , ambient temperature 20 C, wind speed 1m/s, AM1.5G					

**OPERATING CONDITIONS**

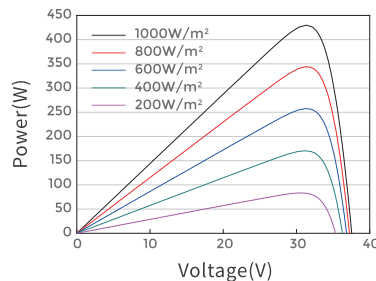
Maximum System Voltage	1000V/1500V DC
Operating Temperature	-40 C ~+85 C
Maximum Series Fuse Rating	25A
Maximum Static Load,Front*	5400Pa(112lb/ft <sup>2</sup> )
Maximum Static Load,Back*	2400Pa(50lb/ft <sup>2</sup> )
NOCT	45±2 C
Safety Class	Class II
Fire Performance	UL Type 1

**CHARACTERISTICS**

Current-Voltage Curve **JAM54S30-430/LR**



Power-Voltage Curve **JAM54S30-430/LR**



Current-Voltage Curve **JAM54S30-430/LR**

