

BIFACIAL MODULE WITH DUAL GLASS

AL9-650~670MBG-E1

P-Type /Positive power tolerance of 0~+3%/Max module efficiency 21.57%

- Suitable for ground power plants and distributed projects
- Advanced module technology delivers superior module efficiency
 - Gallium-doped Wafer · Non destructive cutting · MBB half-cut
- Excellent power generation performance
 - Excellent IAM and Weak light response · Low temperature ratings
 - 0.45% linear Power decline
- High module quality ensures long-term reliability
 - Strict selected material · Advanced technology · Leading standard
- Ultra-hydrophilic self-cleaning coating techniques

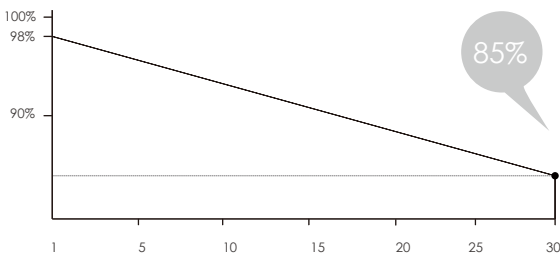


Complete System and IEC Product Certification

IEC 61215(2016), IEC 61730(2016) ISO9001: 2015: Quality Management System ISO14001: 2015: Environment Management System ISO45001:2018: Occupational Health and Safety Management System

12-year Material & Workmanship

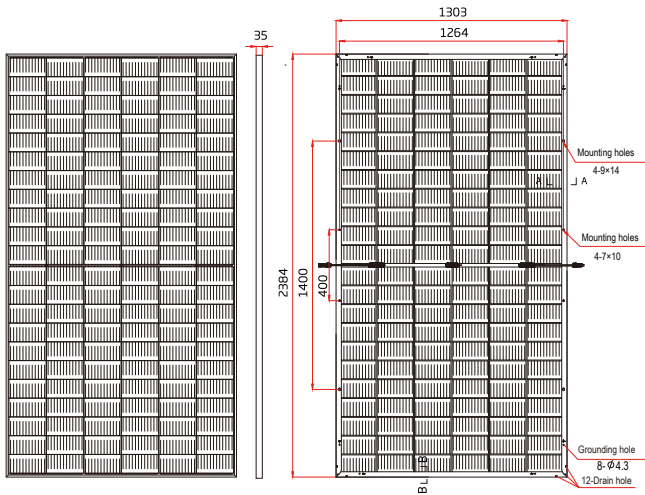
30-year Linear Power Output



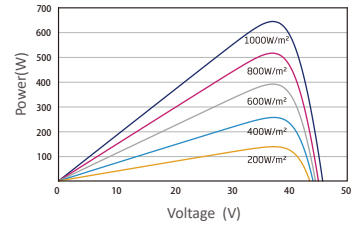
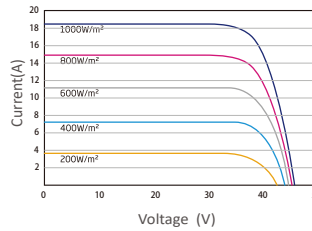
30-Year excess linear power output warranty

AL9-650~670MBG-E1

BIFACIAL MODULE WITH DUAL GLASS



Drawing Only for Reference



Electrical Characteristics STC	AL9-650MBG-E1	AL9-655MBG-E1	AL9-660MBG-E1	AL9-665MBG-E1	AL9-670MBG-E1
Maximum Power (Pmax)	650W	655W	660W	665W	670W
Power Tolerance	0~+5W	0~+5W	0~+5W	0~+5W	0~+5W
Module Efficiency	20.92%	21.09%	21.25%	21.41%	21.57%
Maximum Power Current (Imp)	17.27A	17.31A	17.35A	17.39A	17.43A
Maximum Power Voltage (Vmp)	37.70V	37.90V	38.10V	38.30V	38.50V
Short Circuit Current (Isc)	18.35A	18.40A	18.45A	18.50A	18.55A
Open Circuit Voltage (Voc)	45.50V	45.70V	45.90V	46.10V	46.30V

Values at Standard Test Conditions STC(AM1.5, Irradiance 1000W/m, Cell Temperature 25°C)

Electrical Characteristics NMOT	AL9-650MBG-E1	AL9-655MBG-E1	AL9-660MBG-E1	AL9-665MBG-E1	AL9-670MBG-E1
Maximum Power (Pmax)	492W	495W	499W	504W	509W
Maximum Power Current (Imp)	14.01A	14.05A	14.10A	14.16A	14.23A
Maximum Power Voltage (Vmp)	35.10V	35.20V	35.40V	35.60V	35.80V
Short Circuit Current (Isc)	14.79A	14.83A	14.87A	14.91A	14.95A
Open Circuit Voltage (Voc)	42.90V	43.00V	43.20V	43.40V	43.60V

NMOT(Nominal module operating temperature) , Irradiance of 800W/m, AM1.5, Ambient Temperature 20 °C, wind Speed 1m/s.

Electrical Characteristics with 21% rear side power gain	AL9-650MBG-E1	AL9-655MBG-E1	AL9-660MBG-E1	AL9-665MBG-E1	AL9-670MBG-E1
Maximum Power (Pmax)	786.5W	792.6W	798.6W	804.7W	810.7W
Maximum Power Current (Imp)	20.90A	20.95A	20.99A	21.04A	21.09A
Maximum Power Voltage (Vmp)	37.70V	37.90V	38.10V	38.30V	38.50V
Short Circuit Current (Isc)	22.20A	22.26A	22.32A	22.39A	22.45A
Open Circuit Voltage (Voc)	45.50V	45.70V	45.90V	46.10V	46.30V

Mechanical Characteristics

Cell Type	MonoP-Type, 210x210(±1)mm, 132(6x22)Half-Cut cells
Glass	2mm+2mm, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminum Alloy
Junction Box	1P68 Rated, With Bypass Diodes
Dimension	2384×1303×35mm
Output Cable	4 mm2 (EU),300 mm,length can be customized
Weight	38.7kg
Installation Hole Location	See Drawing Above

Packing Information

Container	40' HQ
Pallets per Container	18
Pieces per Container	558

Characteristics

Temperature Coefficient of Voc	-0.27%/°C
Temperature Coefficient of Isc	+0.04%/°C
Temperature Coefficient of Pmax	-0.35%/°C
Nominal Operating Cell Temperature (NOCT)	45°C ± 2°C

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.

Maximum Ratings

Operating Temperature	-40°C~+85°C
Maximum System Voltage	1500VDC
Maximum Series Fuse Rating	35A

