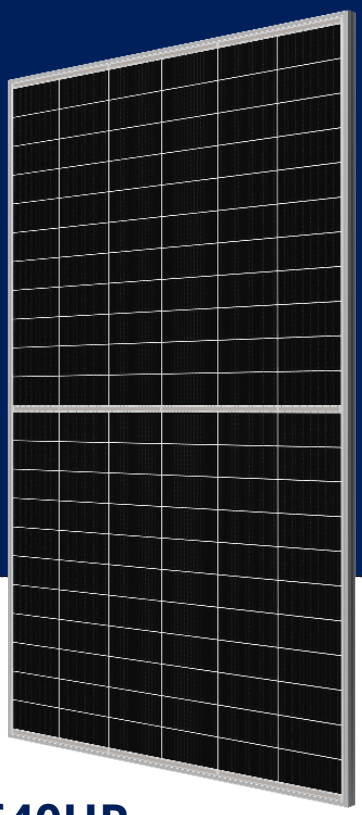
Mesquite
Modules



Low Carbon Module

Anti-hail Bifacial HJT
MQ6.2-66HB-620|625|630|635|640HP

MORE POWER

640 W — Module power up to 640 W
Module efficiency up to 23.7 %

EXTRA POWER — Up to 90% Power Bifaciality,
more power from the back side

No B-O LID, excellent anti-LeTID & anti-PID performance. Low power degradation, high energy yield

Lower temperature coefficient (Pmax): -0.255%/°C, increases energy yield in hot climate

CO_2 — Lower energy consumption & carbon emissions, shorter carbon payback time

MORE RELIABLE

Tested up to ice ball of 55 mm diameter according to IEC 61215 standard

Fire Class A and Type 30 certified

*** — Heavy snow load up to 5400 Pa,
enhanced wind load up to 4000 Pa*

15 Years **Enhanced Product Warranty on Materials and Workmanship***

30 Years **Linear Power Performance Warranty***

1st year power degradation no more than 1%
Subsequent annual power degradation no more than 0.35%

*According to the applicable Mesquite Limited Warranty Statement.

MANAGEMENT SYSTEM CERTIFICATES

ISO 9001: 2015 / Quality management system
ISO 14001: 2015 / Standards for environmental management system
ISO 45001: 2018 / International standards for occupational health & safety
IEC 62941: 2019 / Photovoltaic module manufacturing quality system

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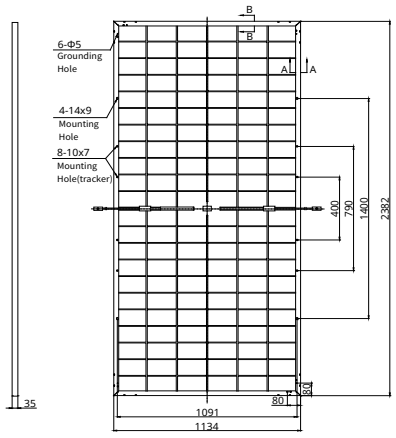
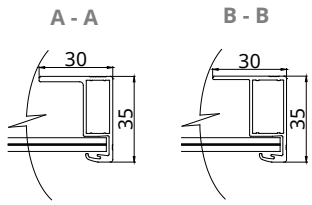
ENGINEERING DRAWING (mm)

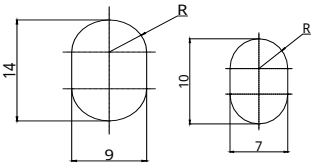
Rear View



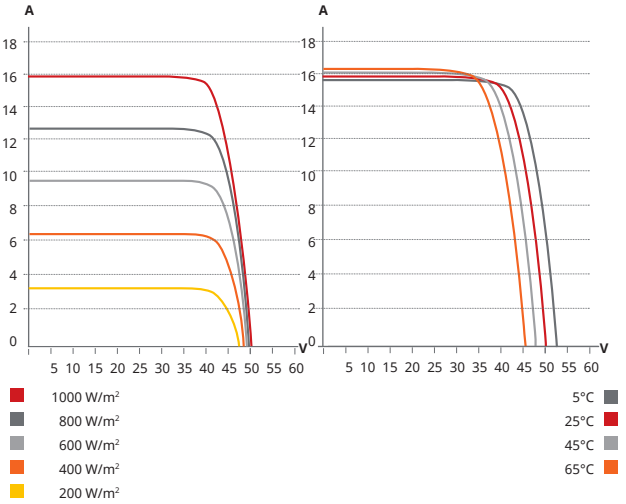
Frame Cross Section



Mounting Hole



MQ6.2-66HB-635HP / I-V CURVES



ELECTRICAL DATA (STC*) | MQ6.2-66HB-xxxHP (xxx=620-640)

		Nominal Max. Power (Pmax)	Opt. Operating Voltage (Vmp)	Opt. Operating Current (Imp)	Open Circuit Voltage (Voc)	Short Circuit Current (Isc)	Module Efficiency
620		620 W	42.6 V	14.58 A	50.1 V	15.65 A	23.0%
Bifacial Gain**	5%	651 W	42.6 V	15.31 A	50.1 V	16.43 A	24.1%
	10%	682 W	42.6 V	16.04 A	50.1 V	17.22 A	25.2%
	20%	744 W	42.6 V	17.50 A	50.1 V	18.78 A	27.5%
625		625 W	42.6 V	14.69 A	50.1 V	15.75 A	23.1%
Bifacial Gain**	5%	656 W	42.6 V	15.42 A	50.1 V	16.54 A	24.3%
	10%	688 W	42.6 V	16.16 A	50.1 V	17.33 A	25.5%
	20%	750 W	42.6 V	17.63 A	50.1 V	18.90 A	27.8%
630		630 W	42.6 V	14.79 A	50.2 V	15.82 A	23.3%
Bifacial Gain**	5%	662 W	42.6 V	15.53 A	50.2 V	16.61 A	24.5%
	10%	693 W	42.6 V	16.27 A	50.2 V	17.40 A	25.7%
	20%	756 W	42.6 V	17.75 A	50.2 V	18.98 A	28.0%
635		635 W	42.7 V	14.88 A	50.3 V	15.92 A	23.5%
Bifacial Gain**	5%	667 W	42.7 V	15.62 A	50.3 V	16.72 A	24.7%
	10%	699 W	42.7 V	16.37 A	50.3 V	17.51 A	25.9%
	20%	762 W	42.7 V	17.86 A	50.3 V	19.10 A	28.2%
640		640 W	42.7 V	14.99 A	50.4 V	16.01 A	23.7%
Bifacial Gain**	5%	672 W	42.7 V	15.74 A	50.4 V	16.81 A	24.9%
	10%	704 W	42.7 V	16.49 A	50.4 V	17.61 A	26.1%
	20%	768 W	42.7 V	17.99 A	50.4 V	19.21 A	28.4%

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.
** Bifacial Gain: The additional gain from the back side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

ELECTRICAL DATA (NMOT*) | MQ6.2-66HB-xxxHP (xxx=620-640)

	Nominal Max. Power (Pmax)	Opt. Operating Voltage (Vmp)	Opt. Operating Current (Imp)	Open Circuit Voltage (Voc)	Short Circuit Current (Isc)
620	472 W	40.5 V	11.65 A	47.6 V	12.61 A
625	476 W	40.5 V	11.74 A	47.6 V	12.69 A
630	479 W	40.5 V	11.83 A	47.7 V	12.74 A
635	483 W	40.6 V	11.90 A	47.8 V	12.82 A
640	487 W	40.6 V	11.99 A	47.9 V	12.90 A

* Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

MECHANICAL DATA

Specification	Data
Cell Type	HJT cells
Cell Arrangement	132 [2 x (11 x 6)]
Dimensions	2382 × 1134 × 35 mm (93.8 × 44.6 × 1.38 in)
Weight	40.6 kg (89.5 lbs)
Front Glass	2.5 mm glass with anti-reflective coating
Back Glass	2.5 mm glass
Frame	Anodized aluminium alloy
J-Box	IP68, 3 bypass diodes
Cable	4.0 mm² (IEC), 12 AWG (UL)
Cable Length (Including Connector)	300 mm (11.8 in) (+) / 200 mm (7.9 in) (-) or customized length*
Connector	T6 or MC4-EVO2A
Per Pallet	31 pieces
Per Container (40' HQ)	558 pieces or 434 pieces (only for US & Canada)

* For detailed information, please contact your local Mesquite sales and technical representatives.

ELECTRICAL DATA

Operating Temperature	-40°C ~ +85°C
Max. System Voltage	1500 V (IEC/UL)
Module Fire Performance	TYPE 30 (UL 61730) or CLASS A (IEC61730)
Max. Series Fuse Rating	35 A
Protection Class	Class II
Power Tolerance	0 ~ + 10 W
Power Bifaciality*	85 %

* Power Bifaciality = $Pmax_{rear}$ / $Pmax_{front}$, both $Pmax_{rear}$ and $Pmax_{front}$ are tested under STC, Bifaciality Tolerance: ± 5 %

TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.255 % / °C
Temperature Coefficient (Voc)	-0.230 % / °C
Temperature Coefficient (Isc)	0.044 % / °C
Nominal Module Operating Temperature	41 ± 3°C

PARTNER SECTION

* The specifications and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement. Mesquite reserves the right to make necessary adjustment to the information described herein at any time without further notice. Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.

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