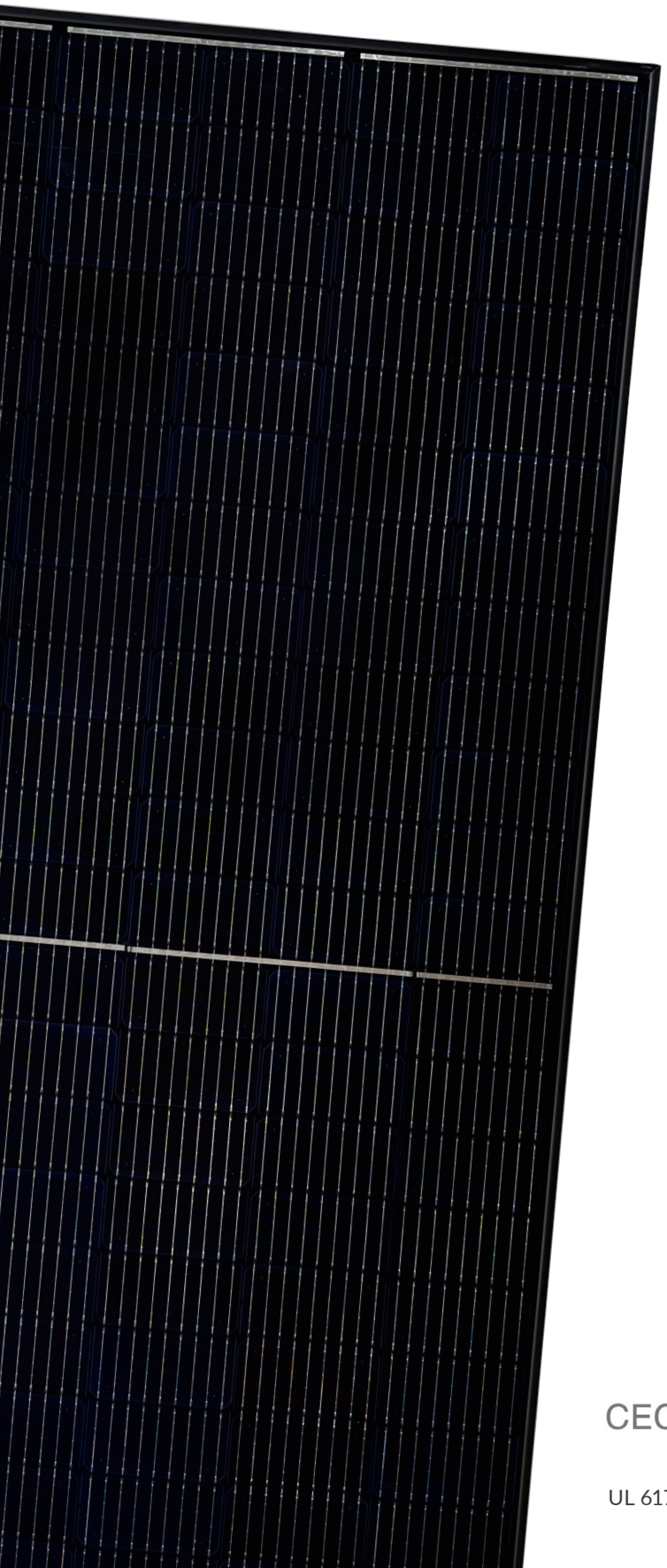
mSolar

144BB 440W HC Series

mSolar 9BB Half-Cell Black
Monocrystalline PERC PV Module



Excellent efficiency
9 busbar technology increases power by decreasing the distance between busbars and the finger grid line

Improved weak illumination response
More power output even in lower light conditions such as overcast days or off-peak sunlight hours

Anti PID
Panels rigorously tested to limit power degradation caused by 'stray' currents

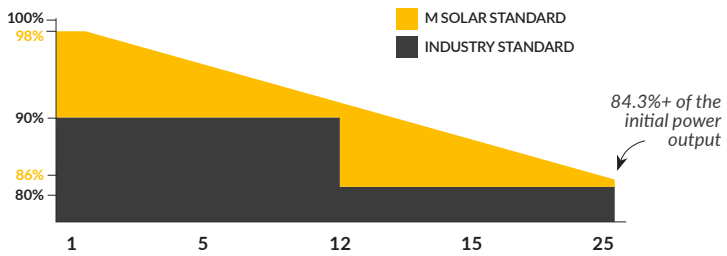
High wind and snow resistance
5,400 Pa Snow Load
2,400 Pa Wind Load

25-year warranty
M Solar modules are guaranteed to retain at least 84.3% of the initial power output

Appealing Aesthetics
Fully black module creates a sleek, uniform array

25-year product warranty, 25-year output warranty

0.5% annual degradation over 25 years



CEC

UL 61730 | IEC 61215 | IEC 61730

144BB 440W HC Series

msolar 9BB Half-Cell Black Monocrystalline PERC PV Module

Electrical Characteristics | STC*

Module Type	TXS6-435144BB	TXS6-440144BB	TXS6-445144BB
Nominal Power Watt Pmax (W)*	435	440	445
Power Output Tolerance Pmax (%)	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp (V)	40.8	41.0	41.2
Maximum Power Current Imp (A)	10.67	10.74	10.81
Open Circuit Voltage (V)	49.7	49.9	50.1
Short Circuit Current Isc (A)	11.26	11.33	11.40
Module Efficiency (%)	20.01	20.24	20.47

*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5

Electrical Characteristics | NMOT*

Maximum Power Watt Pmax (Wp)	325.2	328.9	332.7
Maximum Power Voltage Vmpp (V)	38.1	38.2	38.4
Maximum Power Current Impp (A)	8.54	8.60	8.66
Open Circuit Voltage Voc (V)	46.4	46.6	46.7
Short Circuit Current Isc (A)	9.09	9.15	9.21

*NMOT(Nominal module operating temperature): Irradiance 800W/m². Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s

Mechanical Data

Solar Cells	Mono PERC
Cells orientation	144 (6x24)
Module dimension	2,094x1,038x35mm (with frame)
Weight	24kg
Glass	3.2mm, High Transmission, AR Coated Tempered Glass
Junction Box	IP 68, 3 Diodes
Cables	4mm²; 1,200mm
Connectors	MC4-compatible

Temperature Ratings

NMOT	44°C±2°C
Temperature coefficient of Pmax	-0.36%/°C
Temperature coefficient of Voc	-0.29%/°C
Temperature coefficient of Isc	0.05%/°C

Working Conditions

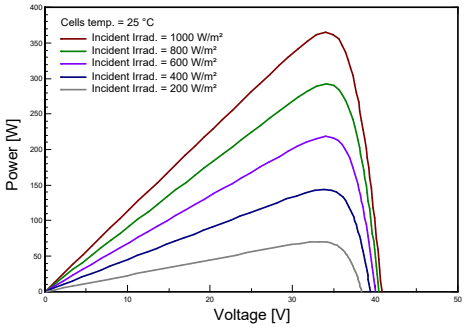
Maximum System Voltage	1500 V DC
Operating Temperature	-40°C ~+85°C
Maximum Series Fuse	20 A
Maximum Load (Snow/Wind)	5,400Pa / 2,400Pa
Fire Rating	Type 1

*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

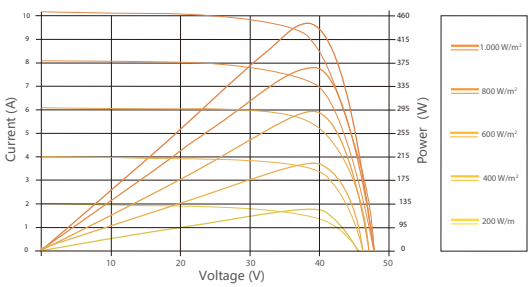
*Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.

**Please note, the 'Fire Class' Rating is designated for the full installed PV system, which includes, but is not limited to, the module, the type of mounting used, pitch and roof composition.

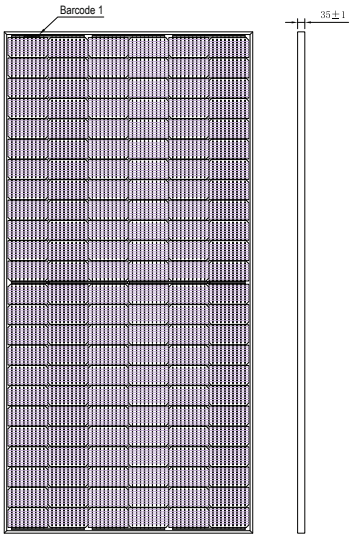
P-V Curves of PV Module (440W)



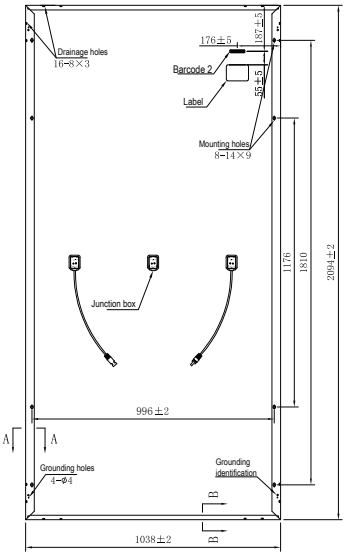
I-V Curves of PV Module (440W)



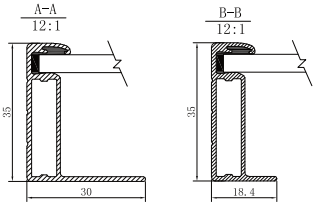
Dimensions (MM)



Front View



Back View



Packaging Details

31 Panels per pallet	Pallet Stack Weight 3,412 lbs. (1,548 kg)	Truck Weight 37,532 lbs. (17,024 kg)
22 Pallets per truck		

Note: please read safety and installation instructions before using this product. Subject to change without prior notice.