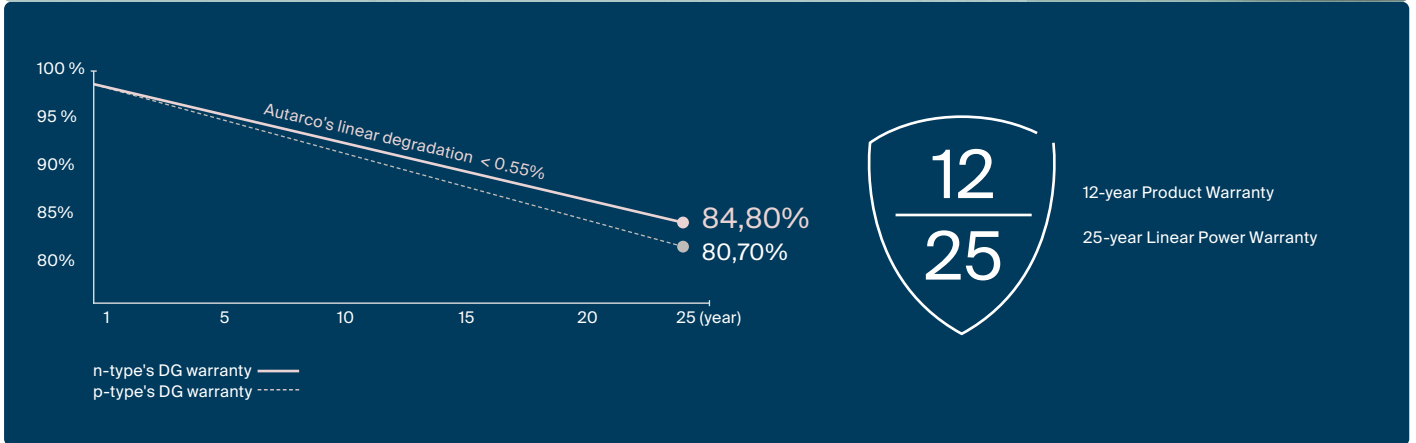
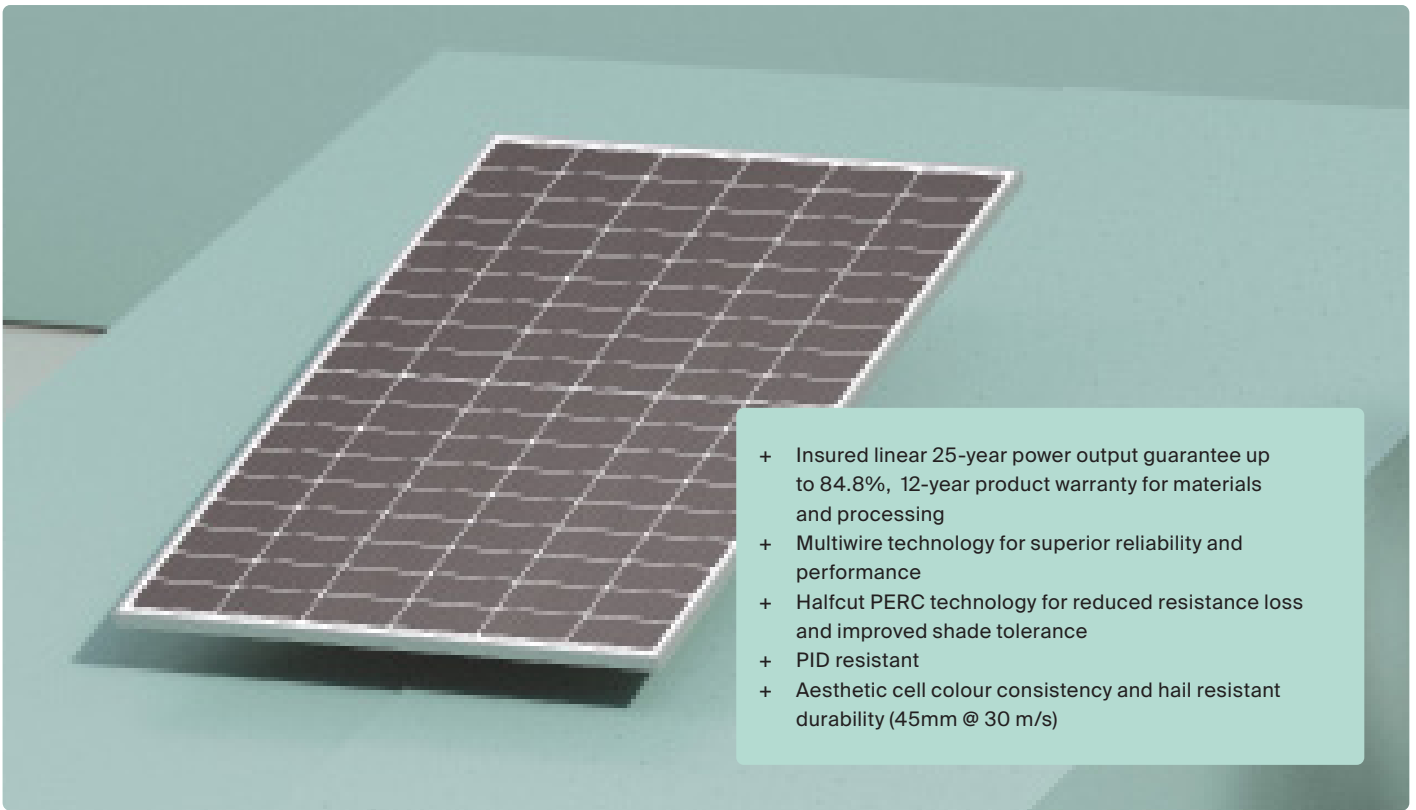


MHL

Series solar panels

Reach your full potential



450~460W

Power Range

0~+5W

Power Tolerance

21.3%

Max Module Efficiency

≤ 2.0%

First Year Power Degradation

≤ 0.55%

Year 2-25 Power Degradation

Electrical specification

STC: Irradiance 1000W/m², Cell Temperature 25 °C, AM=1.5

Rated output (P _{mpp} / W _p)	450	455	460
Open circuit voltage (V _{oc} / V)	41.45	41.65	41.85
Short circuit current (I _{sc} / A)	13.71	13.81	13.91
Rated voltage (V _{mpp} / V)	34.83	35.00	35.17
Rated current (I _{mpp} / A)	12.92	13.00	13.08
Module efficiency	20.8%	21.1%	21.3%

NMOT: Irradiance 800W/m², Ambient Temperature 20 °C, AM=1.5, Wind Speed 1m/s

Rated output (P _{mpp} / W _p)	336.3	340.0	343.8
Open circuit voltage (V _{oc} / V)	39.17	39.36	39.55
Short circuit current (I _{sc} / A)	11.12	11.20	11.29
Rated voltage (V _{mpp} / V)	32.46	32.62	32.78
Rated current (I _{mpp} / A)	10.36	10.42	10.49

Temperature ratings

Temp. coefficient (P _{mpp})	-0.34% / °C
Temp. coefficient (I _{sc})	+0.04% / °C
Temp. coefficient (V _{oc})	-0.25% / °C
Nominal module operating temperature (NMOT)	41°C (+/- 2°C)

Operating parameters

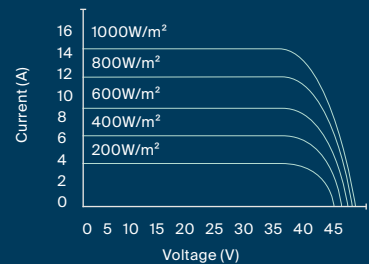
No. of diodes	3
Junction Box IP rating	IP 68
Max. series fuse rating	25 A
Max. system voltage (IEC/UL)	1500V _{DC}

Mechanical specifications

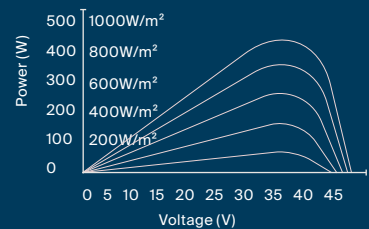
Dimensions (W x H x D)	1903 x 1134 x 30mm
Cells	120 cells, P type mono-crystalline, in a 6 x 20 matrix connected in series
Frame technology	Aluminum
Construction	Front: 3.2mm glass (coated)
Cable length (IEC/UL)	1200mm
Cable diameter (IED/UL)	4 mm ² / 12 AWG
Max. mechanical test load	5400 (front) / 2400 Pa (back)
Connector type (IEC/UL)	MC4-EVO2A
Operating temperature	-40°C to 85°C
Passed hail test	45mm hail @ 30.7m/s
Fire performance	Class C (IEC) or Type 2 (UL)
Module weight	23.9 kg
Packing unit	36 pcs / box (Subject to sales contract)
Weight of packing unit	903 kg
Quantity per 40'HQ container	864 pcs

Curve

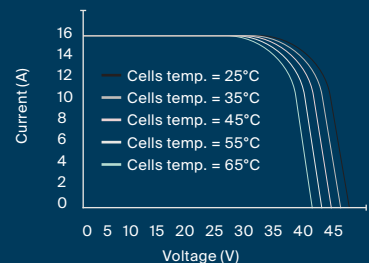
Current-Voltage (455W)



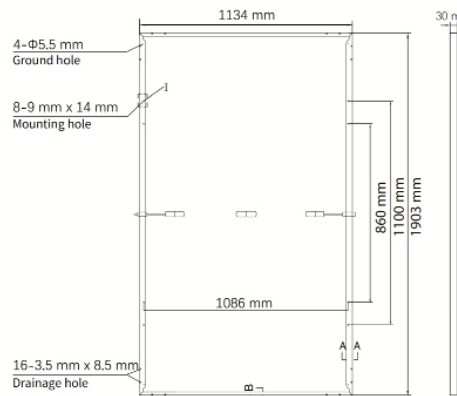
Power-Voltage (455W)



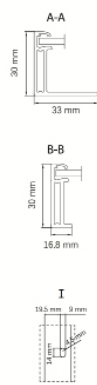
Current-Voltage (455W)



Solar panel



Frame cross section



Refer to Autarco installation manual or contact technical department. Maximum Mechanical Test Load=1.5×Maximum Mechanical Design Load.

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