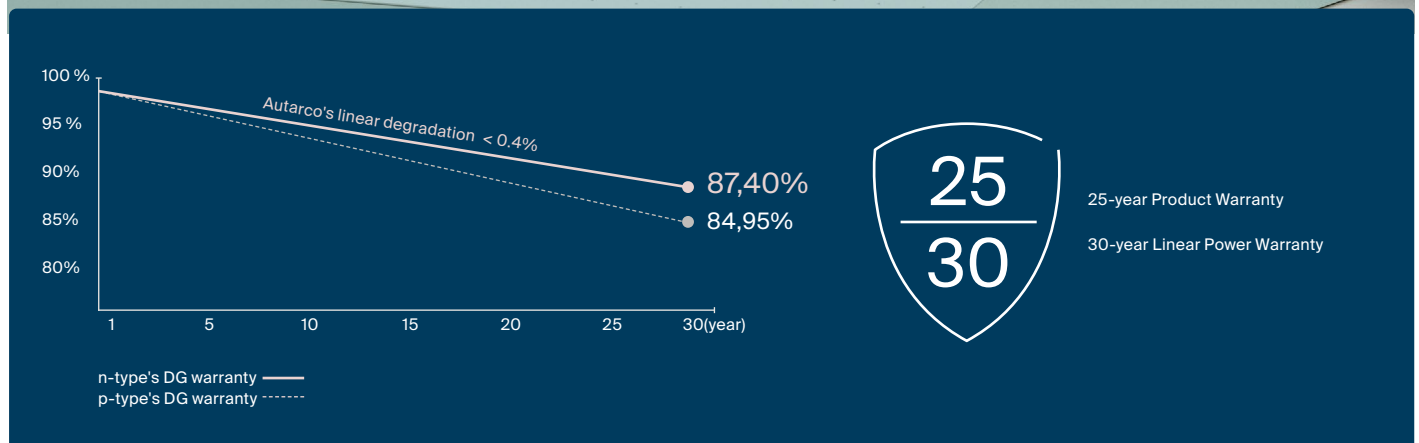
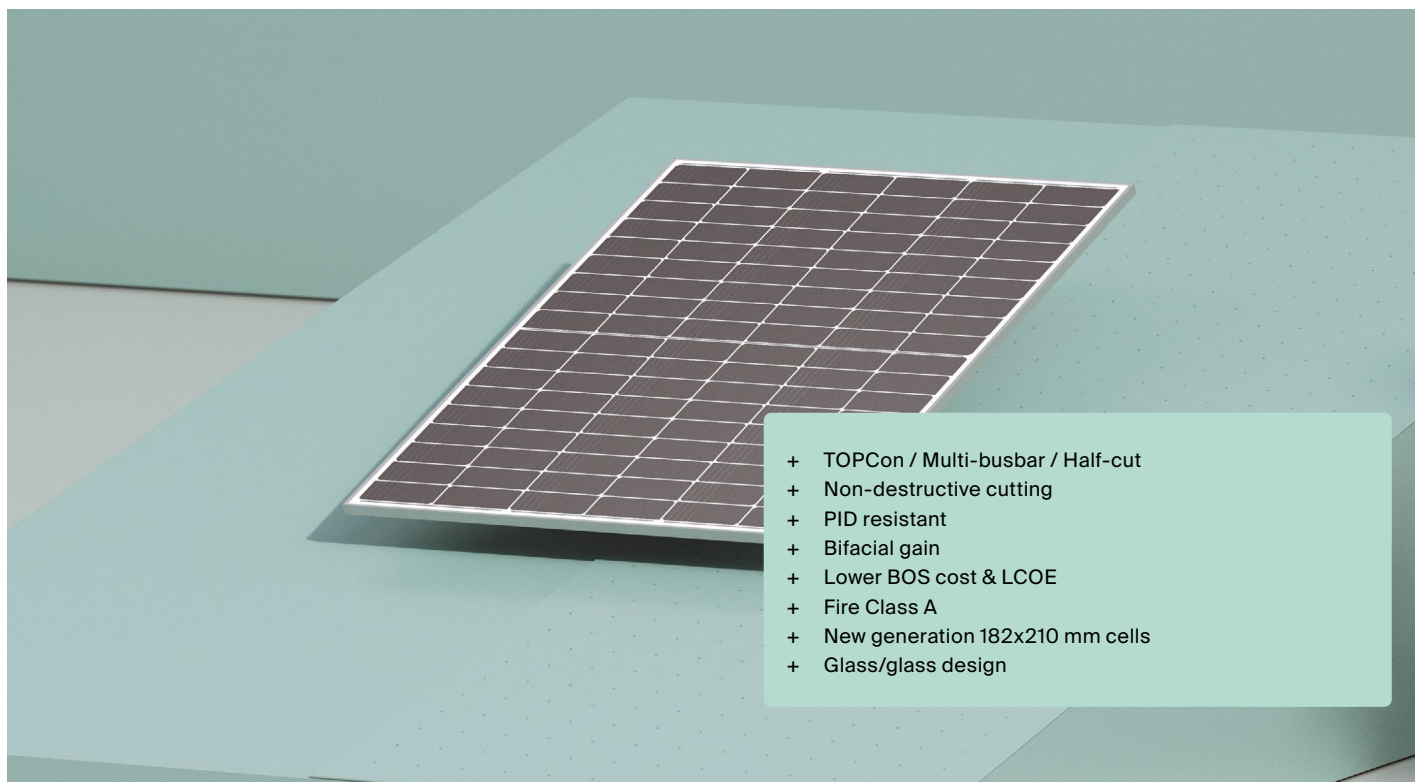


TBY

Series solar panels

Reach full potential



435~455W

Power Range

0~+3W

Power Tolerance

22.8%

Max Module Efficiency

≤ 1.0%

First Year Power Degradation

≤ 0.4%

Year 2-30 Power Degradation

Electrical specification

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

Rated output (P _{mp} / W _p)	440	445	450	455	460
Open circuit voltage (V _{oc} / V)	36.09	36.25	36.42	36.58	36.74
Short circuit current (I _{sc} / A)	15.47	15.57	15.68	15.78	15.88
Rated voltage (V _{mp} / V)	30.06	30.20	30.33	30.47	30.60
Rated current (I _{mp} / A)	14.64	14.74	14.83	14.93	15.03
Module efficiency	22.0%	22.3%	22.5%	22.8%	23.0%

BNPI: Irradiance front 1000W/m², rear 135W/m² Cell Temperature 25 °C, AM=1.5

Rated output (P _{mp} / W _p)	485	490	495	500	505
Open circuit voltage (V _{oc} / V)	36.10	36.26	36.42	36.58	36.74
Short circuit current (I _{sc} / A)	17.13	17.23	17.33	17.42	17.52
Rated voltage (V _{mp} / V)	30.07	30.20	30.34	30.47	30.61
Rated current (I _{mp} / A)	16.13	16.22	16.32	16.41	16.50

Temperature ratings

Temp. coefficient (P _{mp})	-0.29% / °C
Temp. coefficient (I _{sc})	+0.043% / °C
Temp. coefficient (V _{oc})	-0.25% / °C
Nominal module operating temperature (NMOT)	43°C (+/- 2°C)

Operating parameters

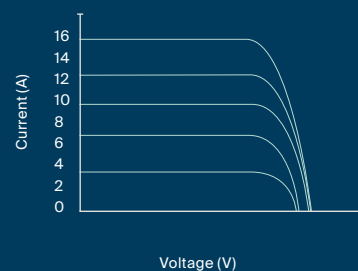
No. of diodes	3
Junction Box IP rating	IP 68
Max. series fuse rating	25A
Max. system voltage (IEC/UL)	1500V _{dc}

Mechanical specifications

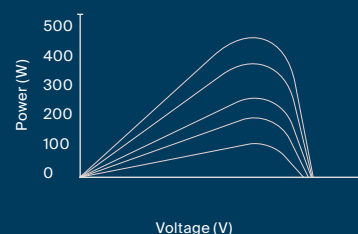
Dimensions (W x H x D)	1762 x 1134 x 30mm
Cells	96, N type mono-crystalline, in a 6 x 16 matrix connected in series
Frame technology	Aluminum, black anodized
Construction	Encapsulant: EVA
TBY455BF.1	Front: 2 mm glass Backsheet: 2 mm glass
Cable length (IEC/UL)	1200 mm
Cable diameter (IED/UL)	4 mm ² / 12 AWG
① 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	25mm hail @ 30.7m/s
Fire performance	Class A (IEC61215)
Module weight	
TBY455BF.1	24.4 kg
Packing unit	36 pcs / pallet
Weight of packing unit	
TBY455BF.1	923 kg
Quantity per 40'HQ container	936 pcs

Curve

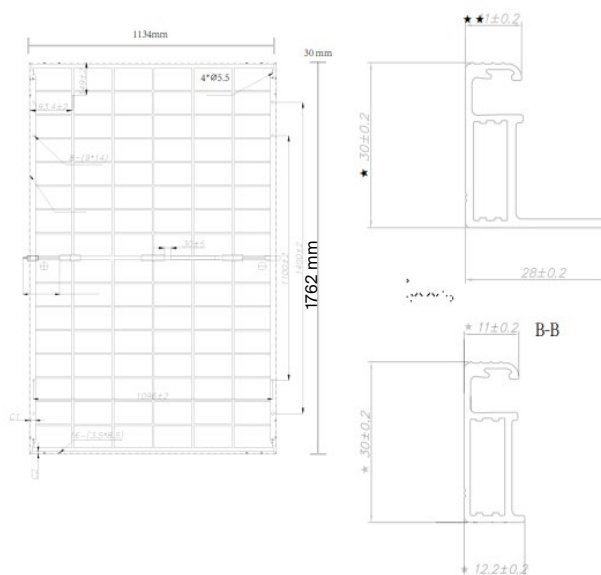
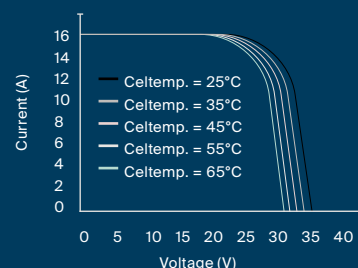
Current-Voltage (445W)



Power-Voltage (445W)



Current-Voltage (440W) (445W)



① Refer to Autarco installation manual or contact technical department.
Maximum Mechanical Test Load=1.5×Maximum Mechanical Design Load.

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Please contact our company to use the latest version for contract.