



MBB Half-cell Bifacial Module (60)

# TW585~610MBCP G12-120-D

## PRODUCT FEATURES



High Power Output  
Low LCOE



Maximum Power  
610W\*



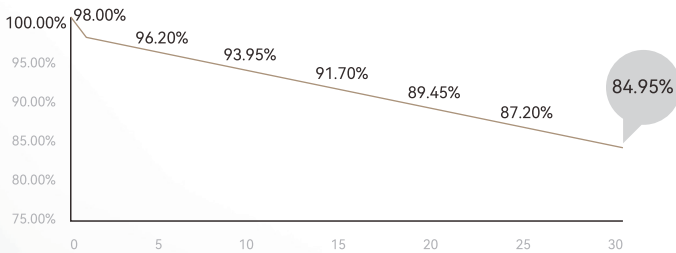
High  
Reliability



Low  
LID

## POWER WARRANTY

1st year <2%, 0.45% power degradation per year from 2 to 30 years



12-year warranty for materials



30-year warranty for linear power output

## PRODUCT CERTIFICATIONS

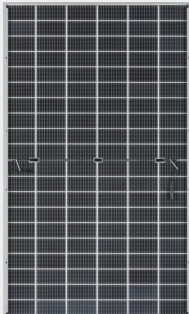
ISO9001: 2015/Quality Management System

ISO14001: 2015/Environment Management System

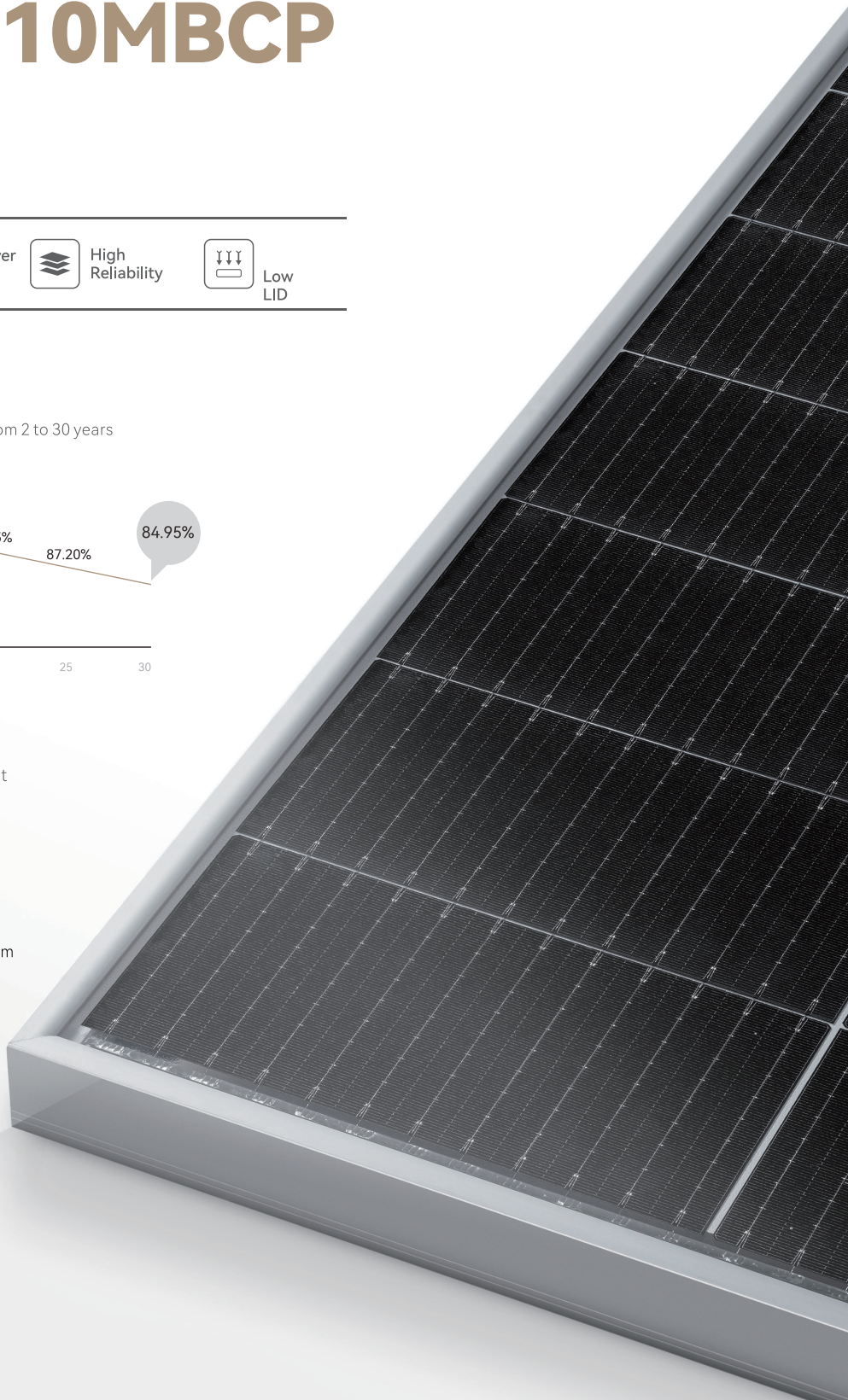
ISO45001: 2018/Occupational Health and Safety



Front



Rear



## Electrical Characteristics (STC)

Module type: TW\*\*MBCP-120-D

Maximum power: Pm (W)	585	590	595	600	605	610
Open circuit voltage: Voc (V)	41.04	41.24	41.44	41.64	41.84	42.04
Short circuit current: Isc (A)	18.30	18.36	18.41	18.46	18.52	18.57
Voltage at maximum power point: Vm (V)	33.95	34.15	34.35	34.55	34.75	34.95
Current at maximum power point: Im (A)	17.23	17.28	17.32	17.37	17.41	17.46
Module efficiency: $\eta$ (%)	20.7	20.8	21.0	21.2	21.4	21.6

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass1.5, Measuring tolerance:  $\pm$ 3%

## Electrical Characteristics (NMOT)

Maximum power: Pm (W)	442.6	446.4	450.2	454.0	457.7	461.5
Open circuit voltage: Voc (V)	38.66	38.84	39.03	39.22	39.41	39.60
Short circuit current: Isc (A)	14.76	14.80	14.84	14.88	14.93	14.97
Voltage at maximum power point: Vm (V)	31.67	31.86	32.05	32.23	32.42	32.60
Current at maximum power point: Im (A)	13.97	14.01	14.05	14.09	14.12	14.16

NMOT: Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20 °C, AM=1.5, Wind Speed 1m/s

## Electrical characteristics with different power bin(reference to different Irradiance ratio)

5%	Maximum power: Pm (W)	614.3	619.5	624.8	630.0	635.3	640.5
	Module efficiency: $\eta$ (%)	21.7	21.9	22.1	22.3	22.4	22.6
15%	Maximum power: Pm (W)	672.8	678.5	684.3	690.0	695.8	701.5
	Module efficiency: $\eta$ (%)	23.8	24.0	24.2	24.4	24.6	24.8
25%	Maximum power: Pm (W)	731.3	737.5	743.8	750.0	756.3	762.5
	Module efficiency: $\eta$ (%)	25.8	26.1	26.3	26.5	26.7	26.9

## Mechanical Parameters

Cells	P-TPC
Orientation	120 (6×20)
Size	2172±2×1303±2×35mm
Weight	34.8kg
Front Glass	2.0mm AR coated heat strengthened glass
Rear Glass	2.0mm heat strengthened glass
Frame	Anodized aluminum alloy frame
Junction Box	IP68, 3 diodes
Cable	4.0mm <sup>2</sup> , Positive: 280mm, Negative: 280mm, length can be customized
Connector	MC4 Compatible or MC4 original
Wind/Snow Load	2400Pa/5400Pa
Packaging	31pcs per pallet, 558pcs per 40'HC

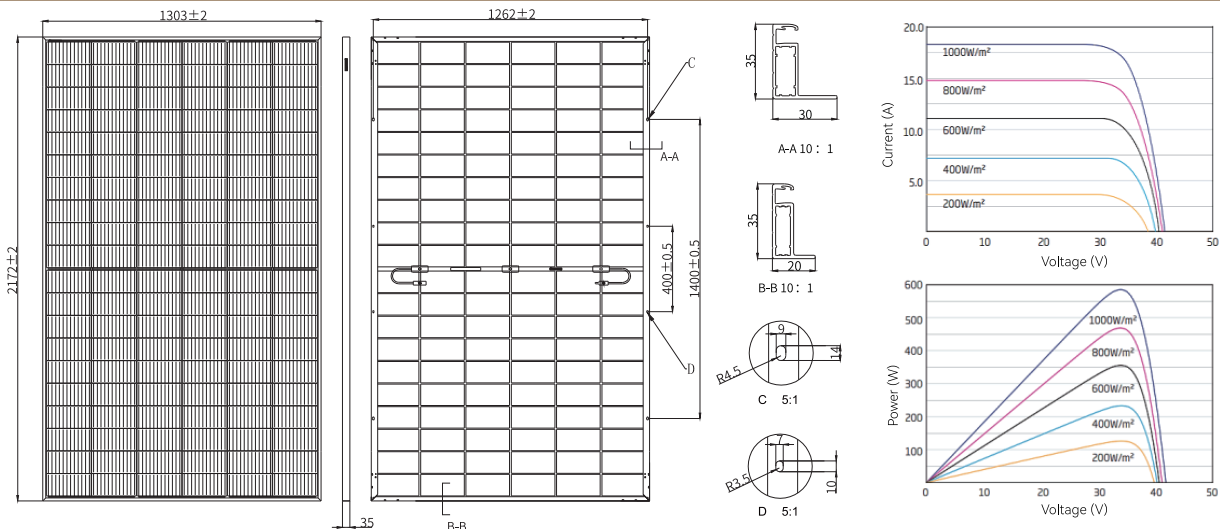
## Operating Parameters

Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	35A
Power Output Tolerance	0~+5W
Bifaciality	70±5%

## Temperature Ratings

Temperature Coefficient (Pmax)	-0.35%/°C
Temperature Coefficient (Voc)	-0.28%/°C
Temperature Coefficient (Isc)	+0.05%/°C
NMOT	45±2°C

## Drawings (Unit: mm)



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