



MBB Half-cell Bifacial Module (72)³⁰

TW535~560MBAP M10-144-D

PRODUCT FEATURES



High Power Output
Low LCOE



Maximum Power
560W*



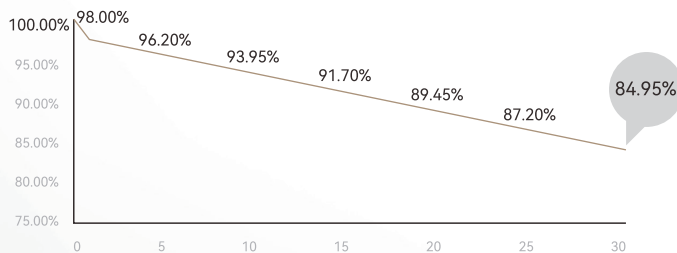
High
Reliability



Low
LID

POWER WARRANTY

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



12-year warranty for materials



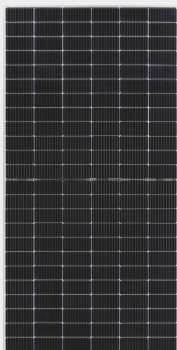
30-year warranty for linear power output

PRODUCT CERTIFICATIONS

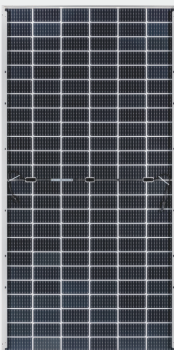
ISO9001: 2015/Quality Management System

ISO14001: 2015/Environment Management System

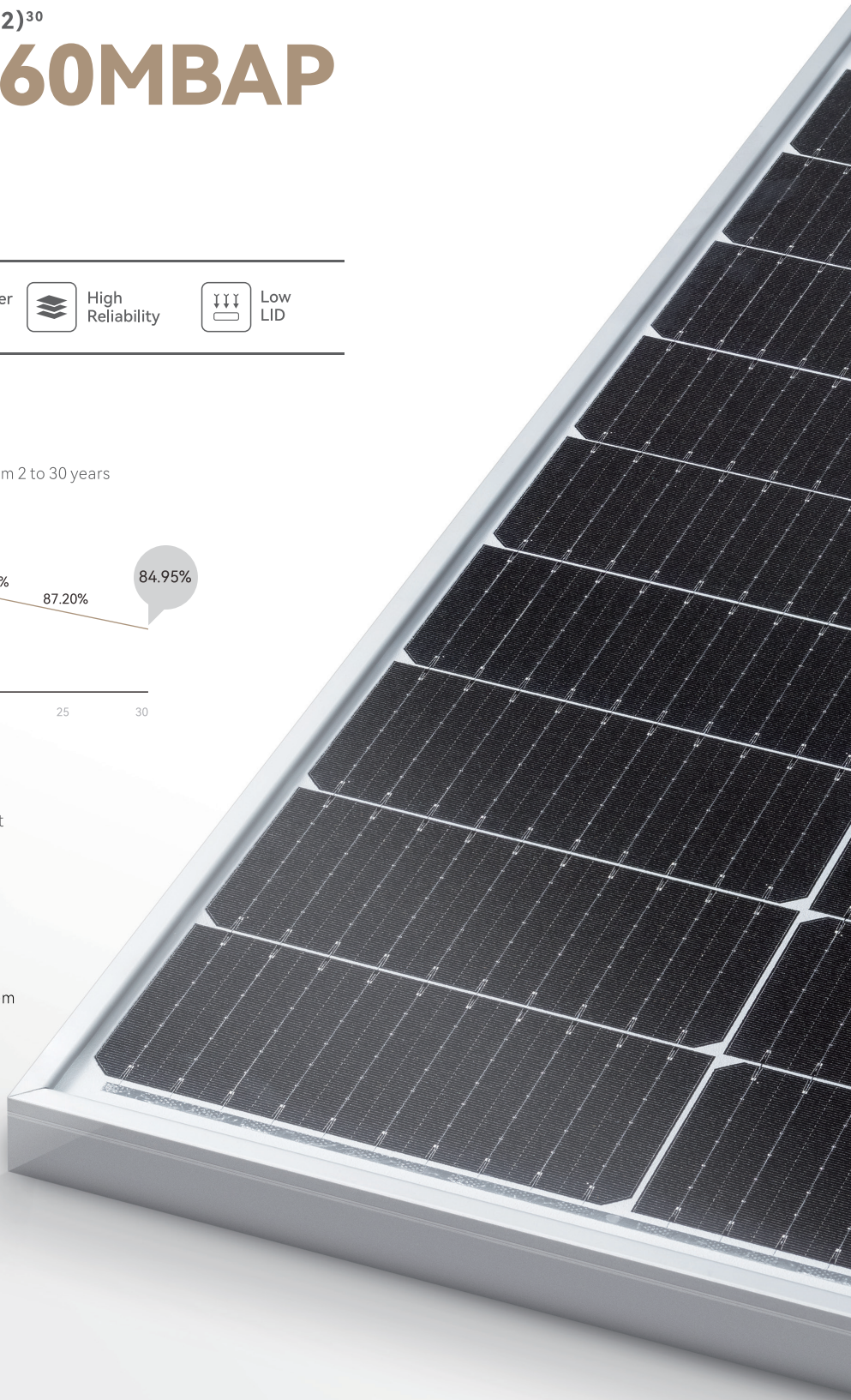
ISO45001: 2018/Occupational Health and Safety



Front



Rear



Electrical Characteristics (STC)

Module type: TW***MBAP-144-D

	535	540	545	550	555	560
Maximum power: Pm (W)	535	540	545	550	555	560
Open circuit voltage: Voc (V)	49.50	49.70	49.90	50.10	50.30	50.50
Short circuit current: Isc (A)	13.73	13.78	13.83	13.88	13.93	13.98
Voltage at maximum power point: Vm (V)	41.36	41.56	41.76	41.96	42.16	42.36
Current at maximum power point: Im (A)	12.94	13.00	13.05	13.11	13.16	13.23
Module efficiency: η (%)	20.7	20.9	21.1	21.1	21.5	21.7

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass1.5, Measuring tolerance: ±3%

Electrical Characteristics (NMOT)

Maximum power: Pm (W)	404.8	408.6	412.4	416.2	420.0	423.1
Open circuit voltage: Voc (V)	46.21	46.48	46.74	47.01	47.28	47.34
Short circuit current: Isc (A)	11.00	11.04	11.08	11.12	11.16	11.20
Voltage at maximum power point: Vm (V)	38.23	38.45	38.67	38.90	39.12	39.25
Current at maximum power point: Im (A)	10.58	10.62	10.66	10.70	10.74	10.78

NMOT: Irradiance 800W/m², 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)	561.8	567.0	572.3	577.5	582.8	588.0
	Module efficiency: η (%)	21.7	21.9	22.2	22.4	22.6	22.8
15%	Maximum power: Pm (W)	615.3	621.0	626.8	632.5	638.3	644.0
	Module efficiency: η (%)	23.8	24.0	24.3	24.5	24.7	24.9
25%	Maximum power: Pm (W)	668.8	675.0	681.3	687.5	693.8	700.0
	Module efficiency: η (%)	25.9	26.1	26.4	26.6	26.9	27.1

Mechanical Parameters

Cells	P-TPC
Orientation	144 (6×24)
Size	2278±2×1134±2×30mm
Weight	32.7kg
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 ² , Positive: 280mm, Negative: 280mm, length can be customized
Connector	MC4 Compatible or MC4 original
Wind/Snow Load	2400Pa/5400Pa
Packaging	36pcs per pallet, 720pcs per 40'HC

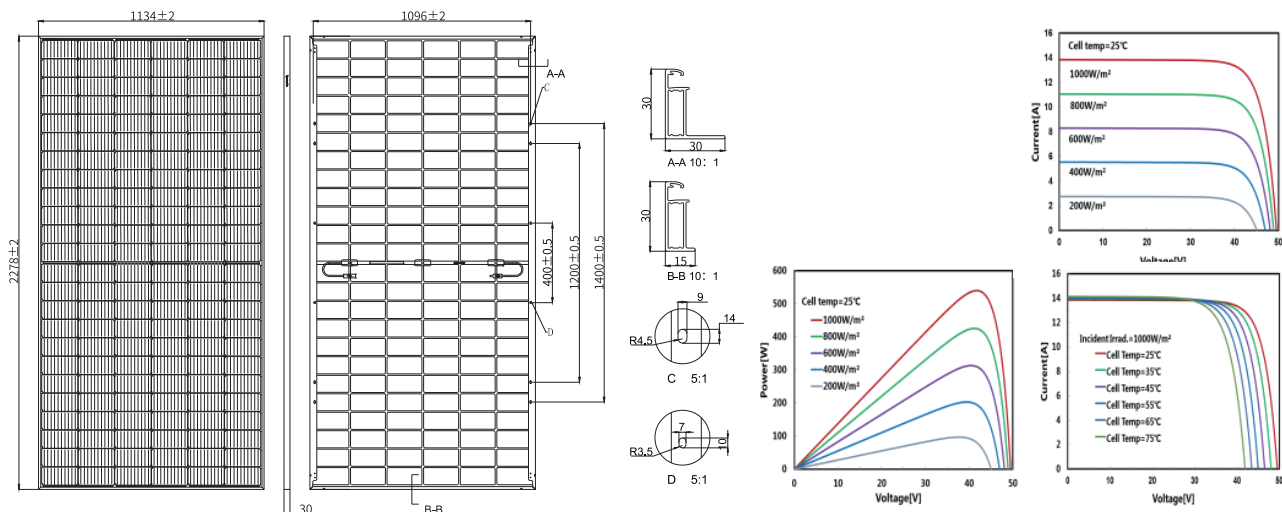
Operating Parameters

Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	30A
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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