



ABUNDANCE
RENEWABLE, SUSTAINABLE, CONSCIOUS

ABS-I08GGB-M10

435W – 455W

Topcon Half Cut PV Module

Glass/Glass-Black Frame

455W MAXIMUM POWER OUTPUT

+10W OUTPUT POSITIVE TOLERANCE
Guaranteed 0~+10W positive tolerance ensures power output reliability.

23.3% MAXIMUM EFFICIENCY



KEY FEATURES



LOW SYSTEM COST

Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 23.30%.



EXTREME WEATHER RATING

High-tech aluminum alloy frame, certified for high snow (5400 Pa) and wind loads (2400 Pa).



ADVANCED MODULE TECHNOLOGY

Highest reliability & enhanced crack tolerance MBB module



ALL-WEATHER TECHNOLOGY Optimal

Yields, whatever the weather, with low-light and temperature behaviour.



BETTER TEMPERATURE COEFFICIENT

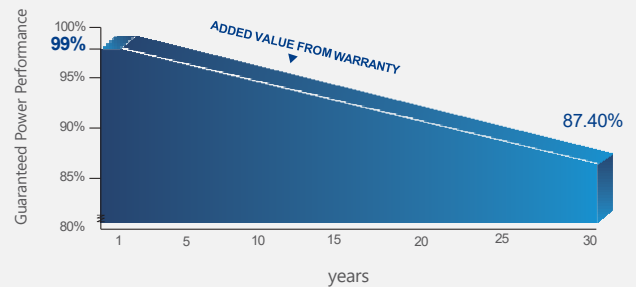
Lower temperature coefficient (Pmax):
-0.30%/°C, increases energy yield in hot climate



ENDURING HIGH PERFORMANCE

Anti LID and Anti PID Technology. Under long-term production safety conditions, the limited power degradation caused by the PID effect is guaranteed.

LINEAR PERFORMANCE WARRANTY



Product warranty
30
Years

30-year Warranty for Extra Linear Power Output

Product warranty
12
Years

12-year Warranty for Materials and Processing
(1st year ≤ 1.0%, 2nd~30th years ≤ 0.40% / year)

THE IDEAL SOLUTION FOR



Residential



Commercial



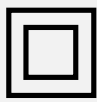
Off-Grid



Utility

COMPREHENSIVE CERTIFICATES

IEC 61215 | IEC 61730 | IEC 61701 | IEC 62716



UL 61730 | CEC | ISO 9001 | ISO 14001 | ISO 45001

ADVANTAGES



MADE IN UAE
Premium products are 100% made in the Emirates.



A RELIABLE INVESTMENT
Products up to 725Wp, 30 years of performance warranty.



ENCOURAGING INNOVATION
Innovative, prestigious, European production technology

ABS-108GGB-M10-435-455W

ENGINEERING DRAWINGS & TECHNICAL PARAMETERS



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ELECTRICAL CHARACTERISTICS (STC/NOCT)

Models	Maximum Rating Power (Pmax) (W)		Open Circuit Voltage (Voc) (V)		Maximum Power Voltage (Vmp) (V)		Short Circuit Current (Isc) (A)		Maximum Power Current (Imp) (A)		Module Efficiency (EFF)(%)
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
ABS-108GGB-M10-435	435	325.2	38.67	36.36	33.33	31.10	14.03	11.32	13.18	10.55	22.28%
ABS-108GGB-M10-440	440	328.9	38.80	36.48	33.45	31.21	14.08	11.36	13.29	10.64	22.53%
ABS-108GGB-M10-445	445	332.6	38.90	36.57	33.53	31.28	14.11	11.39	13.37	10.71	22.79%
ABS-108GGB-M10-450	450	336.4	38.98	36.65	33.60	31.35	14.13	11.40	13.45	10.77	23.04%
ABS-108GGB-M10-455	455	340.1	39.08	36.74	33.69	31.43	14.14	11.41	13.52	10.83	23.30%

*Standard Test Condition (STC): Cell Temperature 25 °C, Irradiance 1000 W/m², AM 1.5, Nominal module operating temperature (NMOT): Air mass AM 1.5, Irradiance 800W/m², temperature 20°C, windspeed 1 m/s. Reduction in efficiency from 1000W/m² to 200W/m² at 25°C: 3.5 ± 2%
*Values without tolerance are typical numbers. Measurement tolerance: ± 3%

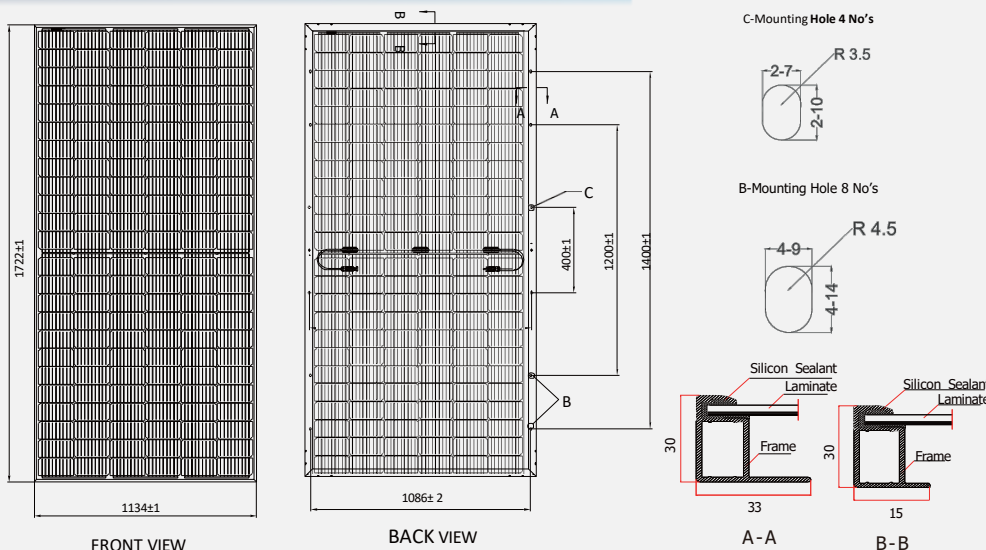
BI-FACIAL OUTPUT-BACKSIDE POWER GAIN

Models		ABS-108GGB-M10-435	ABS-108GGB-M10-440	ABS-108GGB-M10-445	ABS-108GGB-M10-450	ABS-108GGB-M10-455
10%	Power	479	484	490	495	501
	Eff	24.50%	24.79%	25.07%	25.35%	25.63%
15%	Power	500	506	512	518	523
	Eff	25.62%	25.91%	26.21%	26.50%	26.80%
20%	Power	522	528	534	540	546
	Eff	26.73%	27.04%	27.35%	27.65%	27.96%
25%	Power	544	550	556	563	569
	Eff	27.85%	28.17%	28.49%	28.81%	29.13%

MECHANICAL DATA

Solar Cell	Topcon 182.2 x 91.88 mm M10 ,16BB
No.of cells	108 (6x18)
Dimensions	1722 mm x 1134 mm x 30 mm (67.80" x 44.65" x 1.18" inch)
Weight	23 kg / 50.70 lbs.(±3%)
Front Glass	2.0 mm, High Transmission, Low Iron, Tempered ARC Glass
Cell Encapsulation	EPE(Expanded polyethylene) & EVA (Ethylene-Vinyl-Acetate)
Back Glass	2.0 mm Semi Tempered Glass with Glaze
Frame	Black Anodized Aluminum Alloy Type 6005T6 , Black Color
Junction Box	IP68, 1500VDC, 3 Bypass Diodes
Connectors Type	IP68 MC4 Compatible
Cable	400mm or 1300 mm, 4mm ²
Package Configuration	36 pcs Per Pallet, 936 pcs per 40' FT container (Two pallets=One stack)

DIMENSIONS OF PV MODULE (mm)



OPERATING CONDITION

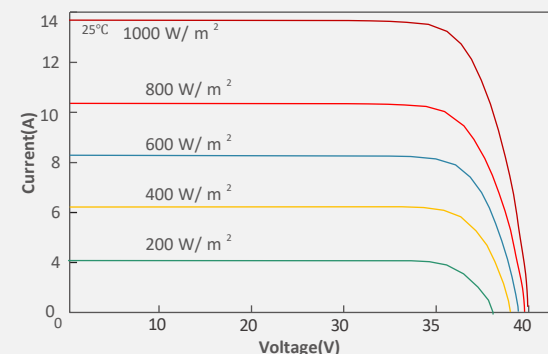
Mechanical Load	5400 Pa
Maximum System Voltage	1500VDC
Series Fuse Rating	25 A
Operating Temperature	-40 to 85 °C
Safety application class	Class II
Fire Rating	Class C

TEMPERATURE CHARACTERISTICS

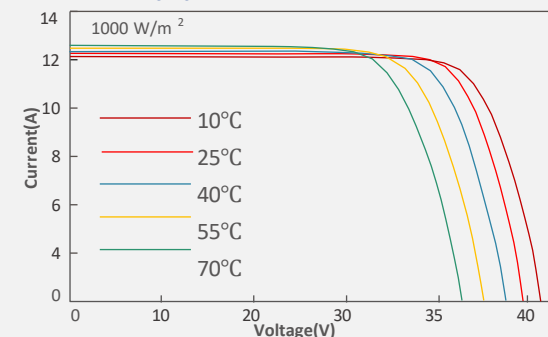
Nominal Module Operating Temperature	43°C ± 2°C
Temperature Coefficient of Isc	+0.05 % / °C
Temperature Coefficient of Voc	-0.25 % / °C
Temperature Coefficient of Pmax	-0.30 % / °C

IV-CURVES

CURRENT-VOLTAGE CURVE UNDER DIFFERENT IRRADIANCE



CURRENT-VOLTAGE CURVE UNDER DIFFERENT WORKING TEMPERATURES



The Graphs are for reference purpose only. Please consult Abundance technical team for further clarifications.