



**ABUNDANCE**  
RENEWABLE, SUSTAINABLE, CONSCIOUS

**ABS-I08GWS-M10**

**435W – 455W**

**Topcon Half Cut PV Module**

**Glass/White Back Sheet-Silver 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

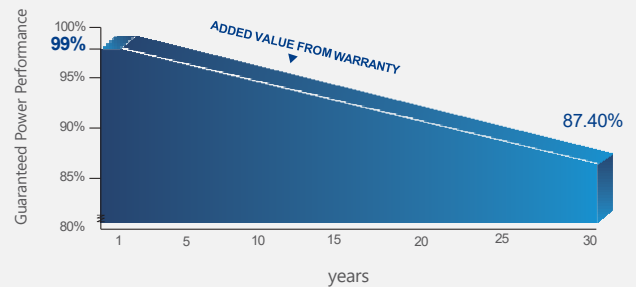


### ENDURING HIGH PERFORMANCE

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  
(1<sup>st</sup> year ≤ 1.0%, 2<sup>nd</sup>~30<sup>th</sup> 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-108GWS-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-108GWS-M10-435	435	325.2	38.67	36.36	33.33	31.10	14.03	11.32	13.18	10.55	22.28%
ABS-108GWS-M10-440	440	328.9	38.80	36.48	33.45	31.21	14.08	11.36	13.29	10.64	22.53%
ABS-108GWS-M10-445	445	332.6	38.90	36.57	33.53	31.28	14.11	11.39	13.37	10.71	22.79%
ABS-108GWS-M10-450	450	336.4	38.98	36.65	33.60	31.35	14.13	11.40	13.45	10.77	23.04%
ABS-108GWS-M10-455	455	340.1	39.08	36.74	33.69	31.43	14.14	11.41	13.52	10.83	23.30%

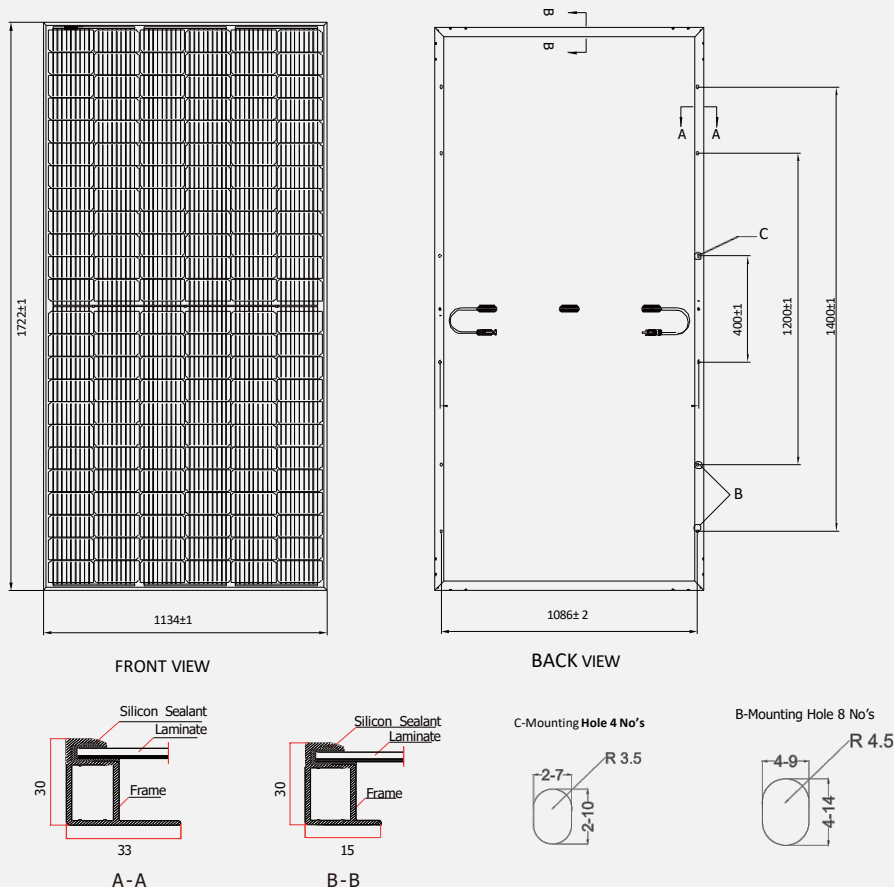
\*Standard Test Condition (STC): Cell Temperature 25 °C, Irradiance 1000 W/m<sup>2</sup>, AM 1.5, Nominal module operating temperature (NMOT): Air mass AM 1.5, Irradiance 800W/m<sup>2</sup>, temperature 20°C, windspeed 1 m/s. Reduction in efficiency from 1000W/m<sup>2</sup> to 200W/m<sup>2</sup> at 25°C: 3.5 ± 2%.

\*Values without tolerance are typical numbers. Measurement tolerance: ± 3%

### 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	21 kg / 46.30 lbs.(±3%)
Front Glass	3.20 mm, High Transmission, Low Iron, Tempered ARC Glass
Cell Encapsulation	EPE(Expanded polyethylene) & EVA (Ethylene-Vinyl-Acetate)
Back Sheet	White Back sheet
Frame	Silver Anodized Aluminum Alloy Type 6005T6, Silver Color
Junction Box	IP68, 1500VDC, 3 Bypass Diodes
Connectors Type	IP68 MC4 Compatible
Cable	400mm or 1300 mm, 4mm <sup>2</sup>
Package Configuration	36 pcs Per Pallet, 936 pcs per 40' FT container (Two pallets=One stack)

### DIMENSIONS OF PV MODULE (mm)



### OPERATING CONDITION

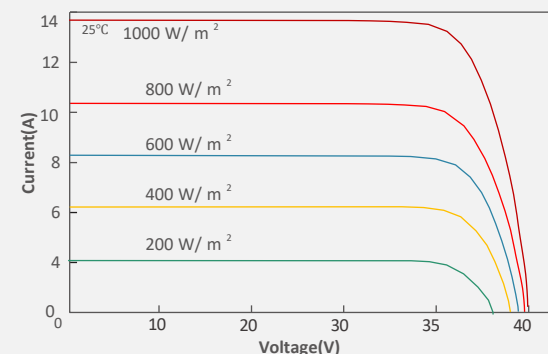
Mechanical Load	5400 Pa
Maximum System Voltage	1500VDC
Series Fuse Rating	25 A
Operating Temperature	-40 to 85 °C
Safety application class	Class II
Fire Rating	Class C

### TEMPERATURE CHARACTERISTICS

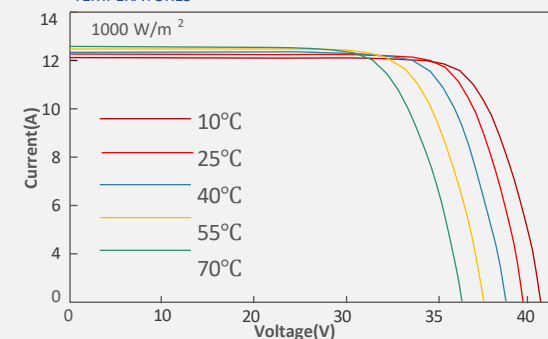
Nominal Module Operating Temperature	43°C ± 2°C
Temperature Coefficient of Isc	+0.05 % / °C
Temperature Coefficient of Voc	-0.25 % / °C
Temperature Coefficient of Pmax	-0.30 % / °C

### 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.