



ABS-I20GGS-M10

485W – 505W

Topcon Half Cut PV Module

Glass/Glass-Silver Frame

505W

MAXIMUM POWER OUTPUT

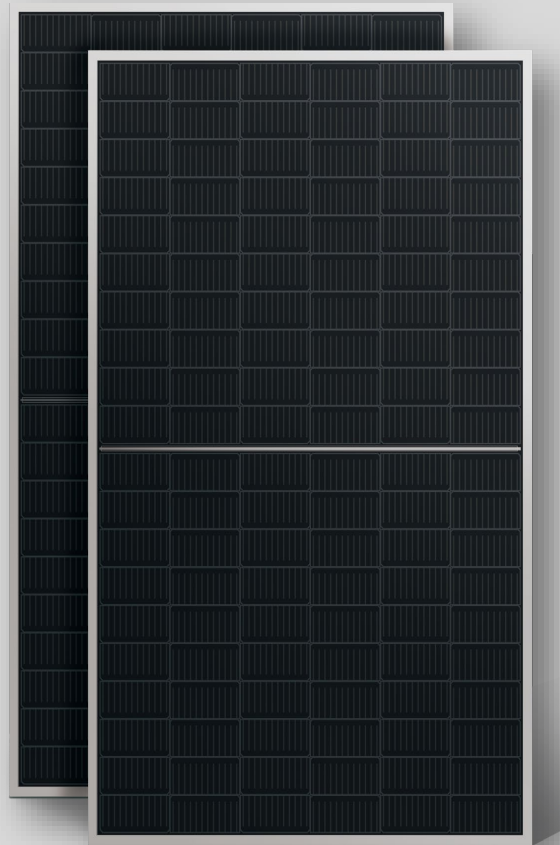
+10W

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 23.34%.



### 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

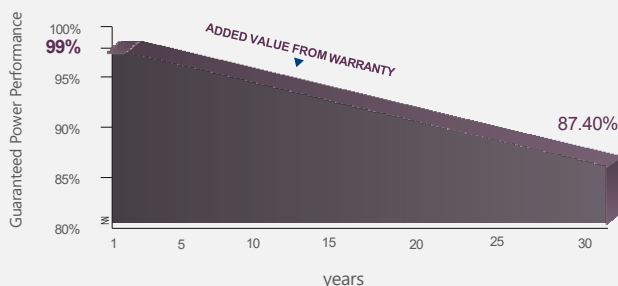
Lower temperature coefficient (Pmax):  
-0.30%/°C, increases energy yield in hot climate



### 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



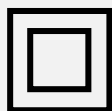
Off-Grid



Utility

## COMPREHENSIVE CERTIFICATES

IEC 61215 | IEC 61730 | IEC 61701 | IEC 62716 | IEC 60068-2-68



UL 61730 | MCS | 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-120GGS-M10-485-505W

## ENGINEERING DRAWINGS & TECHNICAL PARAMETERS



# BRONZE SOLAR

### 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-120GGS-M10-485	485	362.5	42.97	40.40	37.04	34.56	14.03	11.32	13.18	10.55	22.42%
ABS-120GGS-M10-490	490	366.3	43.11	40.53	37.16	34.67	14.08	11.36	13.29	10.64	22.65%
ABS-120GGS-M10-495	495	370.0	43.22	40.64	37.25	34.75	14.11	11.39	13.37	10.71	22.88%
ABS-120GGS-M10-500	500	373.7	43.31	40.72	37.33	34.83	14.13	11.40	13.45	10.77	23.11%
ABS-120GGS-M10-505	505	377.5	43.42	40.82	37.43	34.92	14.14	11.41	13.52	10.83	23.34%

\*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%''

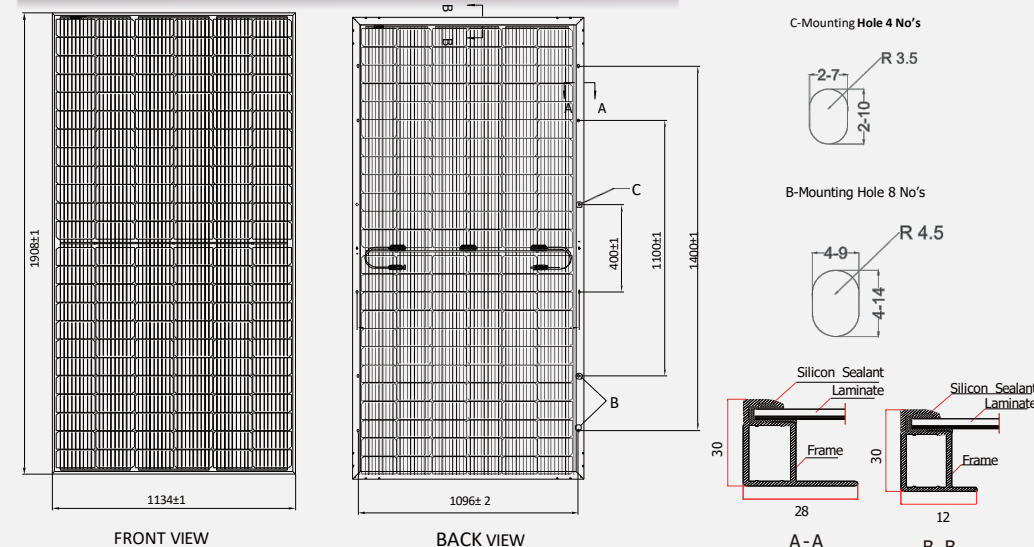
### BI-FACIAL OUTPUT-BACKSIDE POWER GAIN

Models		ABS-120GGS-M10-485	ABS-120GGS-M10-490	ABS-120GGS-M10-495	ABS-120GGS-M10-500	ABS-120GGS-M10-505
10%	Power	534	539	545	550	556
	Eff	24.66%	24.91%	25.17%	25.42%	25.67%
15%	Power	558	564	569	575	581
	Eff	25.78%	26.04%	26.31%	26.58%	26.84%
20%	Power	582	588	594	600	606
	Eff	26.90%	27.18%	27.45%	27.73%	28.01%
25%	Power	606	613	619	625	631
	Eff	28.02%	28.31%	28.60%	28.89%	29.17%

### MECHANICAL DATA

Solar Cell	Topcon 182.2 x 91.88 mm M10 ,16BB
No.of cells	120 (6x20)
Dimensions	1908 mm x 1134 mm x 30 mm ( 75.11" x 44.65" x 1.18" inch)
Weight	26 kg / 57.32 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	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, 864 pcs per 40' FT container ( Two pallets=One stack )

### DIMENSIONS OF PV MODULE (mm)



### OPERATING CONDITION

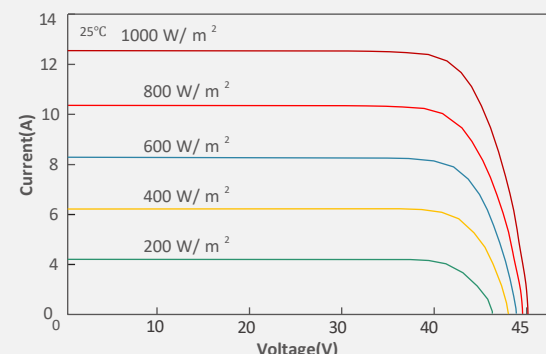
Mechanical Load	5400 Pa
Maximum System Voltage	1500VDC
Series Fuse Rating	25 A
Operating Temperature	-40 to 85 °C
Safety application class	Class II
Fire Rating	Class C

### TEMPERATURE CHARACTERISTICS

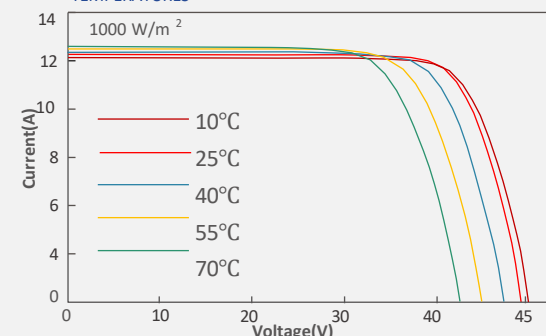
Nominal Module Operating Temperature	43°C ± 2°C
Temperature Coefficient of Isc	+0.05 % / °C
Temperature Coefficient of Voc	-0.25 % / °C
Temperature Coefficient of Pmax	-0.30 % / °C

### 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.