



ABS-132GWS-G12R

610W – 630W

Topcon Half Cut PV Module

Glass/White Back sheet-Silver Frame

630W

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).



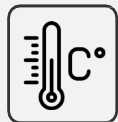
### ADVANCED MODULE TECHNOLOGY

Highest reliability & enhanced crack tolerance MBB module



### ALL-WEATHER TECHNOLOGY Optimal

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



### BETTER TEMPERATURE COEFFICIENT

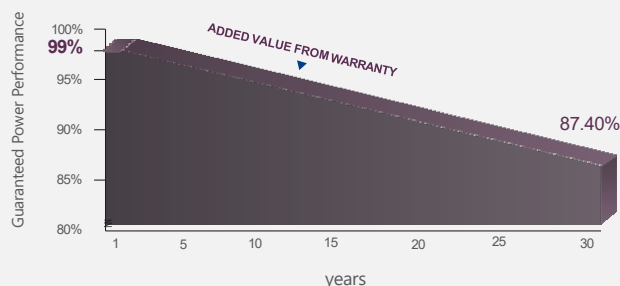
Lower temperature coefficient (Pmax): -0.30%/°C, increases energy yield in hot climate



### 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

## ADVANTAGES



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



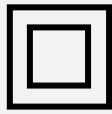
**A RELIABLE INVESTMENT**  
Products up to 725Wp, 30 years of performance warranty.



**ENCOURAGING INNOVATION**  
Innovative, prestigious, European production technology

## COMPREHENSIVE CERTIFICATES

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



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

# ABS-132GWS-G12R-610-630W

## ENGINEERING DRAWINGS & TECHNICAL PARAMETERS



### ELECTRICAL CHARACTERISTICS (STC/NOCT)

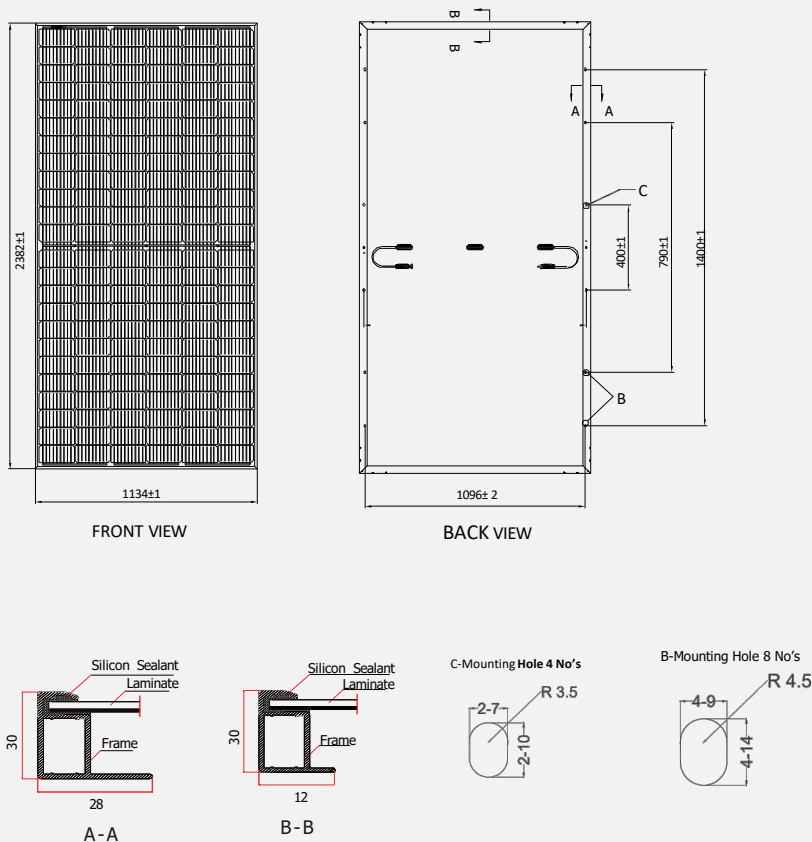
Models	Maximum Rating Power (Pmax) (W)		Open Circuit Voltage (Voc) (V)		Maximum Power Voltage (Vmp) (V)		Short Circuit Current (Isc) (A)		Maximum Power Current (Imp) (A)		Module Efficiency (EFF)(%)
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
ABS-132GWS-G12R-610	610	456.0	47.09	44.27	40.60	37.88	15.67	12.65	15.09	12.08	22.58%
ABS-132GWS-G12R-615	615	459.7	47.20	44.38	40.69	37.96	15.70	12.67	15.18	12.16	22.77%
ABS-132GWS-G12R-620	620	463.4	47.30	44.47	40.77	38.04	15.75	12.71	15.27	12.23	22.95%
ABS-132GWS-G12R-625	625	467.2	47.41	44.58	40.87	38.13	15.78	12.73	15.35	12.29	23.14%
ABS-132GWS-G12R-630	630	470.9	47.47	44.63	40.92	38.18	15.81	12.76	15.40	12.33	23.33%

\*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 x 105 mm G12R, 16BB
No. of cells	132 (6×22)
Dimensions	2382 mm x 1134 mm x 30 mm (93.77" x 44.64" x 1.18" inch)
Weight	29 kg / 63.94 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, 720 pcs per 40' FT container (Two pallets=One stack)

### DIMENSIONS OF PV MODULE (mm)



### OPERATING CONDITION

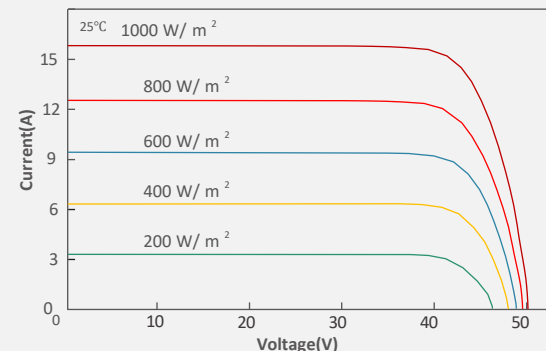
Mechanical Load	5400 Pa
Maximum System Voltage	1500VDC
Series Fuse Rating	30 A
Operating Temperature	-40 to 85 °C
Safety application class	Class II
Fire Rating	Class C

### TEMPERATURE CHARACTERISTICS

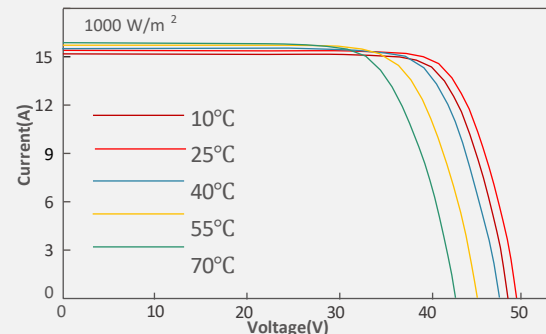
Nominal Module Operating Temperature	43°C ± 2°C
Temperature Coefficient of Isc	+0.05 % / °C
Temperature Coefficient of Voc	-0.25 % / °C
Temperature Coefficient of Pmax	-0.30 % / °C

### 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.