

PRODUCT : RV120GGSM
 PRODUCT RANGE : 440 - 460W

RENEVOLT is a PV module manufacturing company, dedicated to provide customers dependable, affordable solar power. Our production line is sourced from ECOPROGETTI in Italy. Every piece of machinery in the production line has been upgraded to ensure higher output and constant output quality. The anticipated 200 MW facility will create crystalline PV modules that are incredibly reliable and efficient. Silicon technology with cell sizes ranging from 166 mm to 210 mm is used for multi-busbar panels. Using half-cut and one-third-cut cell technologies, the facility has the ability to produce Poly, mono-PERC, and TOPCON cells modules with power outputs ranging from 100 to 670 watt .

460W

MAXIMUM POWER OUTPUT

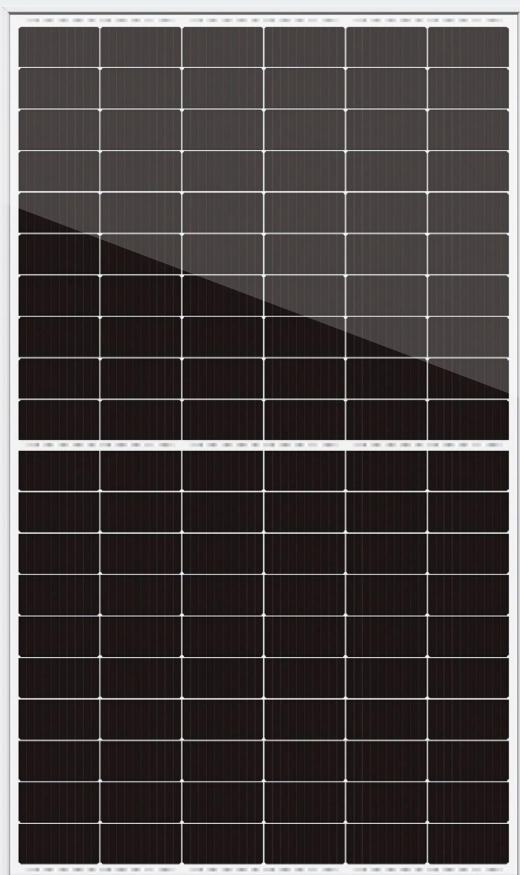
0~+5W

POSITIVE POWER TOLERANCE

21.3%

MAXIMUM EFFICIENCY

DUAL GLASS 120 HALF CUT BIFACIAL SOLAR PV MODULE



RENEVOLT ADVANTAGES



MADE IN UAE

Premium products 100% made in the Emirates.



A RELIABLE INVESTMENT

Products up to 670Wp, 25-Years of performance warranty.



ENCOURAGING INNOVATION

Innovative, prestigious, European production technology

KEY FEATURES



LOW SYSTEM COST

Higher yield per surface area, lower BOS costs higher power classes, and an efficiency rate of up to 22%.



EXTREME WEATHER RATING

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



ADVANCED MODULE TECHNOLOGY

ANTUM DUO combines cutting edge cell separation and innovative up to 16-busbar design with Q.ANTUM Technology.



ALL-WEATHER TECHNOLOGY Optimal

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



100% EL inline inspection

Better module reliability



ENDURING HIGH PERFORMANCE

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

THE IDEAL SOLUTION FOR



Residential



Commercial



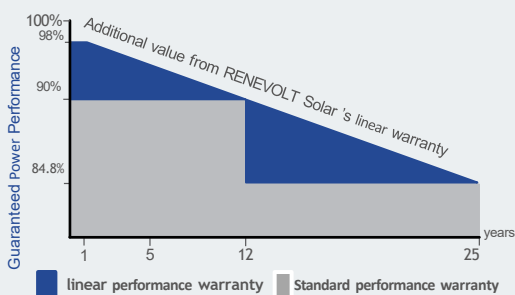
Off-Grid



Utility

INTERNATIONAL & NATIONAL CERTIFICATIONS

LINEAR PERFORMANCE WARRANTY



Product warranty
12
Years

Output warranty
25
Years



RV120GGSM440-460W

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 (nm)(%)
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
RV120GGSM440	440	333	41.08	38.45	34.33	32.46	13.71	10.97	12.82	10.26	20.34
RV120GGSM445	445	336	41.21	38.57	34.50	32.56	13.79	11.03	12.90	10.32	20.57
RV120GGSM450	450	340	41.33	38.68	34.67	32.76	13.87	11.10	12.98	10.38	20.80
RV120GGSM455	455	344	41.46	38.81	34.87	32.95	13.94	11.15	13.05	10.44	21.03
RV120GGSM460	460	348	41.58	38.92	35.07	33.14	14.01	11.21	13.12	10.50	21.26

*Standard Test Condition (STC): Cell Temperature 25 °C, Irradiance 1000 W/m², AM 1.5, Nominal module operating temperature (NMOT): Air mass AM 15, 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

Efficiency (%)	Power Output (W)	RV120GGSM440	RV120GGSM445	RV120GGSM450	RV120GGSM455	RV120GGSM460
		Module Efficiency (%)	23.4%	23.7%	23.9%	24.2%
20%	Power Output (W)	528	534	540	546	552
	Module Efficiency (%)	24.4%	24.7%	25.0%	25.2%	25.5%
25%	Power Output (W)	550	556	563	569	575
	Module Efficiency (%)	25.4%	25.7%	26.0%	26.3%	26.6%
30%	Power Output (W)	572	579	585	592	598
	Module Efficiency (%)	26.4%	26.7%	27.0%	27.3%	27.6%

MECHANICAL DATA

Solar Cell	Monocrystalline silicon 182 x 91 mm M10 ,10BB bifacial
No.of cells	120 (6×20)
Dimensions	1908 mm x 1134 mm x 35 mm 75.12" in x 44.65" in x 1.38" in
Weight	27.0 kg / 59.52 lbs.(±3%)
Front Glass	2 mm, High Transmission, Low Iron, Tempered ARC Glass
Cell Encapsulation	EVA (Ethylene-Vinyl-Acetate)
Back Glass	2.0mm, Heat strengthened glass
Frame	Silver Anodized Aluminum Alloy Type 6005T6 , Silver Color
Junction Box	IP68, 1500VDC, 3 Bypass Diodes
Connectors Type	IP68 MC4 Compatible
Cable	400mm (cable length can be customized), 4mm ²
Package Configuration	31 pcs Per Pallet, 744 pcs per 40' FT container (Two pallets=One stack)

OPERATING CONDITION

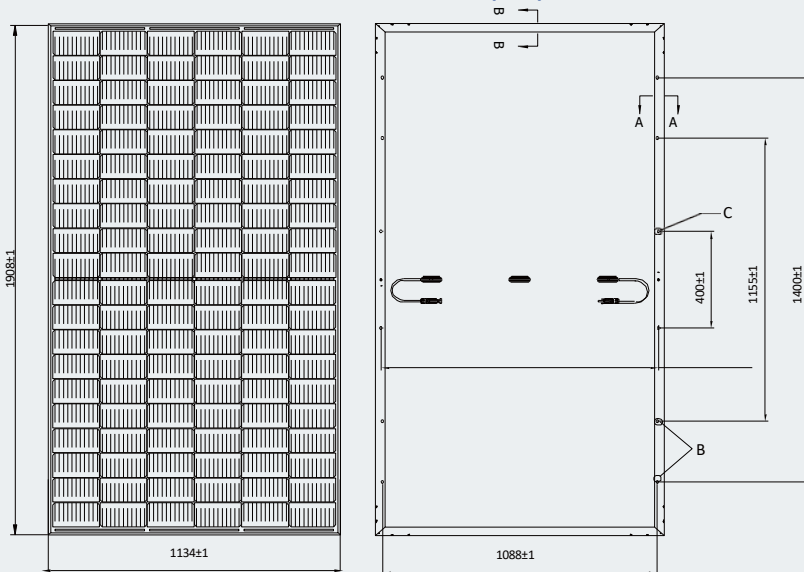
Mechanical Load	5400 Pa
Maximum System Voltage	1500VDC
Series Fuse Rating	25 A
Operating Temperature	-40 to 70 °C
Safety application class	Class II
Fire Rating	Class C

TEMPERATURE CHARACTERISTICS

Nominal Module Operating Temperature	45°C ± 2°C
Temperature Coefficient of Isc	0.050 % / °C
Temperature Coefficient of Voc	-0.26 % / °C
Temperature Coefficient of Pmax	-0.34 % / °C

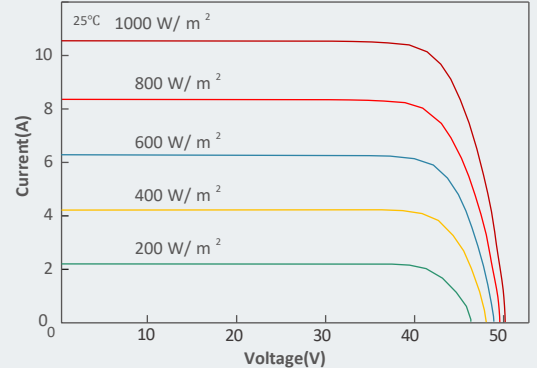
1 : With assembly tolerance of ± 2 mm [± 0.08"], 2 : With assembly tolerance of ± 0.8 mm [± 0.03"]

DIMENSIONS OF PV MODULE (mm)

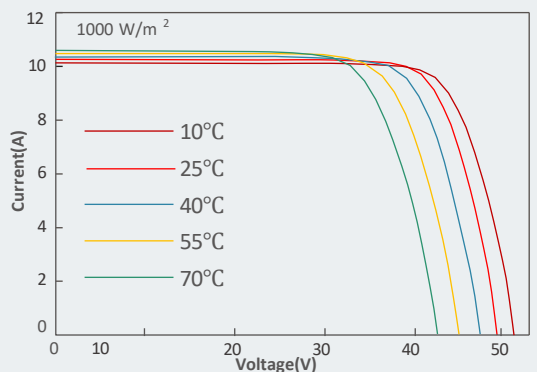


IV-CURVES

CURRENT-VOLTAGE CURVE UNDER DIFFERENT IRRADIANCE



CURRENT-VOLTAGE CURVE UNDER DIFFERENT WORKING TEMPERATURES



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

- ❖ The electrical data given here is for reference purpose only.
- ❖ Please confirm your exact requirements with the sales representative while placing your order.
- ❖ Refer installation Manual instructions & Renevolt warranty statement for terms & conditions.
- ❖ Renevolt Reserves the right to change the specifications without prior notice.

