

PRODUCT : **RV144GGSM**
 PRODUCT RANGE : **535-555W**

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 .

555W

MAXIMUM POWER OUTPUT

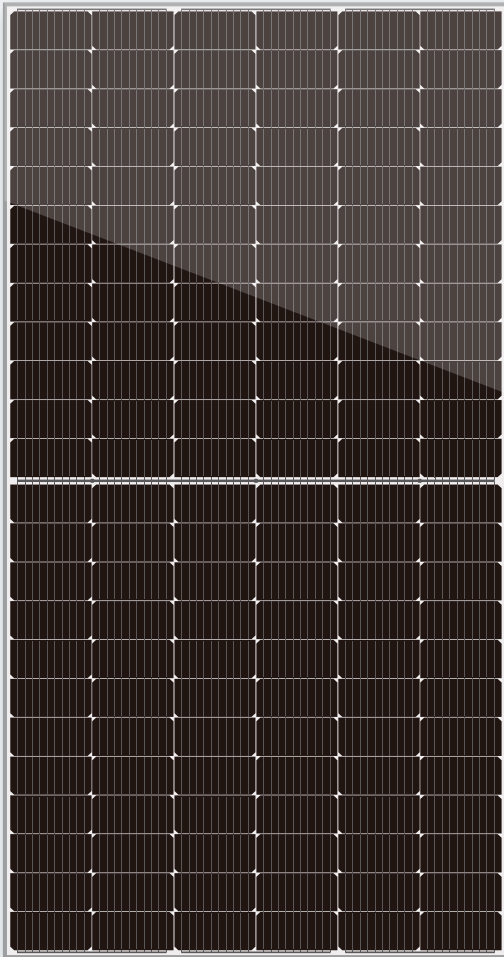
0~+5W

POSITIVE POWER TOLERANCE

21.5%

MAXIMUM EFFICIENCY

DUAL GLASS 144 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

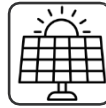
Innovative, prestigious, European production technology

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



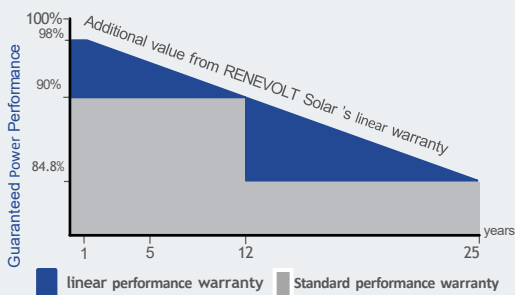
Off-Grid



Utility

INTERNATIONAL & NATIONAL CERTIFICATIONS

LINEAR PERFORMANCE WARRANTY



Product warranty
12
Years

Output warranty
25
Years



RV144GGSM535-555W

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	STC
RV144GGSM535	535	405	49.44	46.31	41.46	38.84	13.78	11.05	12.91	10.43	20.71%
RV144GGSM540	540	408	49.61	46.43	41.65	39.00	13.85	11.10	12.97	10.47	20.90%
RV144GGSM545	545	412	49.76	46.55	41.81	39.21	13.92	11.13	13.04	10.51	21.10%
RV144GGSM550	550	416	49.91	46.68	41.99	39.44	14.02	11.18	13.10	10.55	21.29%
RV144GGSM555	555	420	50.03	46.84	42.15	39.67	14.07	11.22	13.17	10.59	21.48%

*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%

BIFACIAL OUTPUT-REAR SIDE POWER GAIN

%		RV144GGSM535	RV144GGSM540	RV144GGSM545	RV144GGSM550	RV144GGSM555
		Power Output (W)	615	621	627	633
Module Efficiency (%)		23.8%	24.0%	24.3%	24.5%	24.7%
20%	Power Output (W)	642	648	654	660	666
	Module Efficiency (%)	24.9%	25.1%	25.3%	25.5%	25.8%
25%	Power Output (W)	669	675	681	688	694
	Module Efficiency (%)	25.9%	26.1%	26.4%	26.6%	26.9%
30%	Power Output (W)	696	702	709	715	722
	Module Efficiency (%)	26.9%	27.2%	27.4%	27.7%	27.9%

MECHANICAL DATA

Solar Cell	Bifacial Mono-crystalline silicon 182 x 91 mm M10 ,10BB	
No.of cells	144 (6x24)	
Dimensions	2278 mm x 1134 mm x 35 mm 1.38" inch	89.69" x 44.65" x
Weight	31 kg / 68.34 lbs. (±3%)	
Front Glass	2 mm, High Transmission, Low Iron, Semi- Tempered ARC Glass	
Cell Encapsulation	EVA (Ethylene-Vinyl-Acetate)	
Back Glass	2 mm, 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, 620 pcs per 40' FT container pallets=One stack)	(Two

OPERATING CONDITION

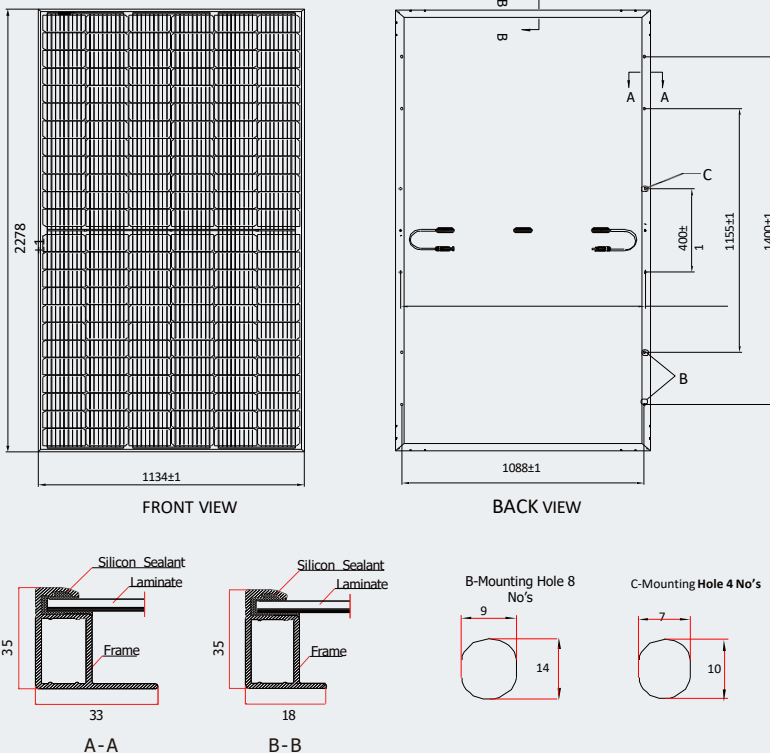
Mechanical Load	5400 Pa
Maximum System Voltage	1500VDC
Series Fuse Rating	25 A
Operating Temperature	-40 to 70 °C
Safety application class	Class II
Fire Rating	Class C

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

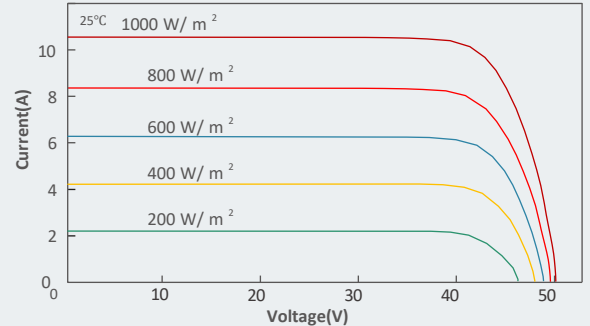
¹ : With assembly tolerance of ± 2 mm [± 0.08"]; ² : With assembly tolerance of ± 0.8 mm [± 0.03"]

DIMENSIONS OF PV MODULE (mm)

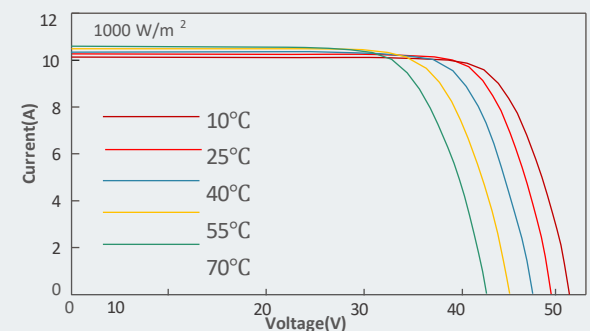


IV-CURVES

CURRENT-VOLTAGE CURVE UNDER DIFFERENT IRRADIANCE



CURRENT-VOLTAGE CURVE UNDER DIFFERENT WORKING TEMPERATURES



- ❖ The 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 & Renewolt warranty statement for terms & conditions.
- ❖ Renewolt Reserves the right to change the specifications without prior notice.

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

