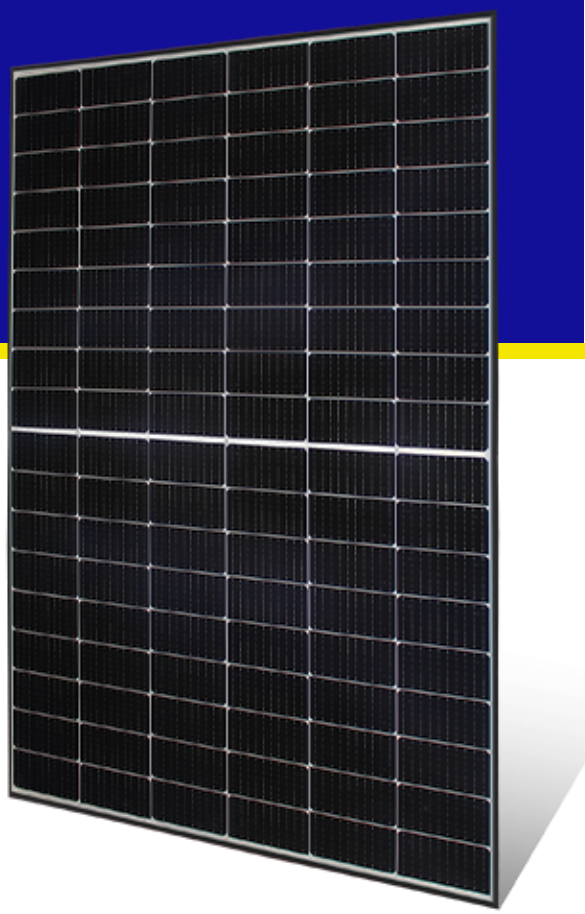
RENOGY

TOPCON MONOCRYSTALLINE SOLAR PANEL

POWER OUTPUT RANGE 420 - 430WP



KEY FEATURES

Renogy's TOPCon solar panels are engineered for exceptional performance and reliability, offering a high module efficiency of 22.02%, making them a top choice for both residential and commercial solar systems. With a positive tolerance power of up to 5%, these panels ensure maximum energy output, even in real-world conditions. Backed by a 10-year manufacturer defects warranty, Renogy's TOPCon solar panels provide peace of mind with long-term durability and reliability, helping you harness solar energy with confidence and efficiency.

- High module efficiency up to 22.02%
- Power output range 420 - 430 Wp
- 100% EL Testing
- Mechanical Load up to 5400 Pa
- Positive power tolerance +5%
- IEC EN 61215-1,-1-1,-2
  IEC EN 61730-1,-2

WARRANTY

15 15-Year Materials and Workmanship Warranty

25 25-Year Limited 80% Output Power

For more detailed information, please refer to Renogy's warranty policy.

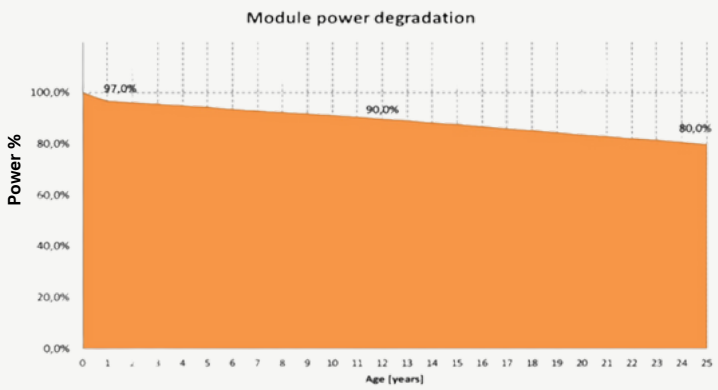
MECHANICAL DATA		
Dimensions	mm	1722 x 1134 x 30 (H x W x D)
Weight	kg	20.2
Solar Cells		108 cells, mono-Si, 182x91 mm +/-1mm
Cells Encapsulation		POE(Polyolefin Elastomer) / Ethylene vinyl acetate (EVA)
Front		Tempered solar glass 3.2mm
Back		Composite polyester film
Frame		Anodized aluminium frame with twin-wall profile and drainage holes
Junction Box		min. IP68 with 3 bypass diodes
Cable and Connections		Solar cable 4mm², length 1100mm, MC4 compatible connections

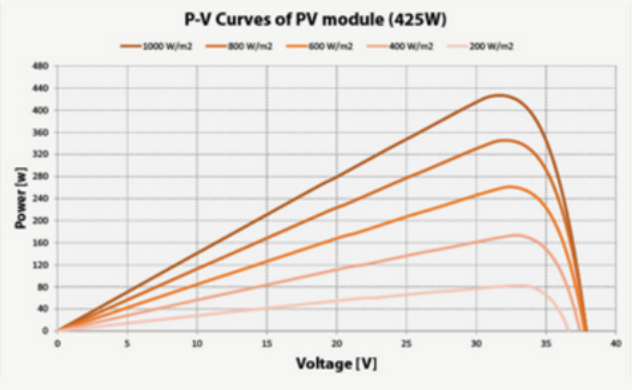
Electrical Parameters at Standard Test Conditions (STC)				
MODEL		RSP420DC-108-EHCM10	RSP425DC-108-EHCM10	RSP430DC-108-EHCM10
Peak Power	W	420	425	430
Peak Power Tolerance	W		-0 / +5%	
Short Circuit Current Isc	A	14.15	14.23	14.31
Open Circuit Voltage Voc	V	37.89	38.07	38.25
Rated Current Impp	A	13.40	13.48	13.56
Rated Voltage Vmpp	V	31.36	31.55	31.73
Current and Voltage Tolerance	%		±3	
Module Efficiency	%	21.51	21.76	22.02

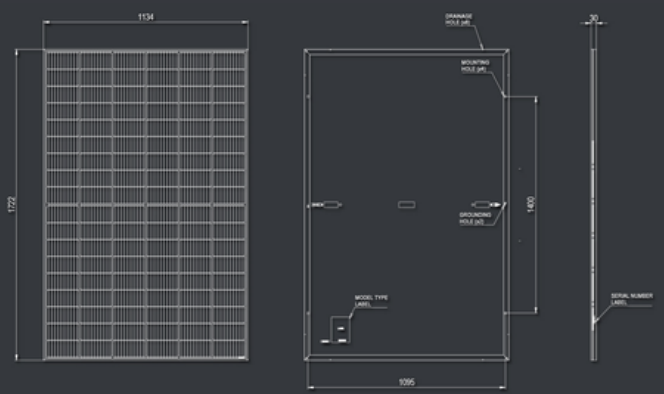
STC: 1000W/㎡ irradiance, 25℃ cell temperature, AM1.5g spectrum according to EN 60904-3
Average relative efficiency reduction of 3.4% at 200W/㎡ according to EN 60904-1

Electrical Parameters at Nominal Module Operating Temperature (NMOT)				
MODEL		RSP420DC-108-EHCM10	RSP425DC-108-EHCM10	RSP430DC-108-EHCM10
Peak Power	W	318	321.8	325.6
Peak Power Tolerance	W		-0 / +5%	
Short Circuit Current Isc	A	11.43	11.50	11.56
Open Circuit Voltage Voc	V	36.0	36.2	36.3
Rated Current Impp	A	10.67	10.73	10.78
Rated Voltage Vmpp	V	29.8	30.0	30.2

NMOT: Module operating parameters at 800 W/㎡ irradiance, 20℃ ambient temperature, 1m/s wind speed







OPERATING CONDITIONS	
Temperature Range	-40 to 85
Max. System Voltage	1500
Max. Series Fuse Rating	25
Limiting Reverse Current	20
Max. Surface Load Capacity	5400Pa
Resistance Against Hail	Max. diameter of 25 mm with impact speed 23 m/s

THERMAL CHARACTERISTICS	
Temperature Coefficient of Pmpp	-0.316%/k
Temperature Coefficient of Isc	0.045%/k
Temperature Coefficient of Voc	-0.249%/k