

SOLAR'S MOST TRUSTED



# REC ALPHA PURE-R SERIES

## PRODUCT SPECIFICATIONS

COMPACT PANEL SIZE

9 A MODULE CURRENT  
COMPATIBLE WITH MLPE

430 WP  
20.7  $\frac{W}{FT^2}$   
22.3% EFFICIENCY



LEAD-FREE  
ROHS COMPLIANT

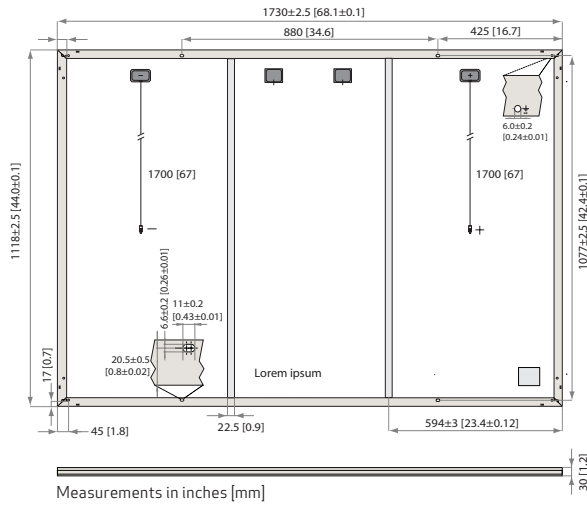
EXPERIENCE  
 $\alpha$   
PERFORMANCE

# REC ALPHA PURE-R SERIES

## PRODUCT SPECIFICATIONS

### GENERAL DATA

Cell type:	80 half-cut REC bifacial, heterojunction cells with lead-free, gapless technology
Glass:	0.13in(3.2mm)solar glass with anti-reflective surface treatment in accordance with EN12150
Backsheet:	Highly resistant polymer (black)
Frame:	Anodized aluminum (black)
Junction box:	4-part, 4 bypass diodes, lead-free IP68 rated, in accordance with IEC 62790
Connectors:	Stäubli MC4 PV-KBT4/KST4 (4 mm <sup>2</sup> ) in accordance with IEC 62852, IP68 only when connected
Cable:	12 AWG (4 mm <sup>2</sup> ) PV wire, 67 + 67 in (1.7 + 1.7 m) in accordance with EN 50618
Dimensions:	68.1 x 44.0 x 1.2 in (20.77 ft <sup>2</sup> ) / 1730 x 1118 x 30 mm (1.93 m <sup>2</sup> )
Weight:	47.4 lbs (21.5 kg)
Origin:	Made in Singapore



### ELECTRICAL DATA

### Product Code\*: RECxxxAA PURE-R

	410	420	430
Power Output - P <sub>MAX</sub> (Wp)	410	420	430
Watt Class Sorting - (W)	0/+10	0/+10	0/+10
Nominal Power Voltage - V <sub>MPP</sub> (V)	49.4	50.0	50.5
Nominal Power Current - I <sub>MPP</sub> (A)	8.30	8.40	8.52
Open Circuit Voltage - V <sub>OC</sub> (V)	59.2	59.4	59.7
Short Circuit Current - I <sub>SC</sub> (A)	8.81	8.89	8.97
Power Density (W/ft <sup>2</sup> )	19.7	20.2	20.7
Panel Efficiency (%)	21.2	21.8	22.3
Power Output - P <sub>MAX</sub> (Wp)	312	320	327
Nominal Power Voltage - V <sub>MPP</sub> (V)	46.6	47.1	47.6
Nominal Power Current - I <sub>MPP</sub> (A)	6.70	6.78	6.88
Open Circuit Voltage - V <sub>OC</sub> (V)	55.8	56.0	56.3
Short Circuit Current - I <sub>SC</sub> (A)	7.12	7.18	7.24

Values at standard test conditions (STC: air mass AM1.5, irradiance 10.75 W/sq ft (1000 W/m<sup>2</sup>), temperature 77°F (25°C), based on a production spread with a tolerance of P<sub>MAX</sub>, V<sub>OC</sub> & I<sub>SC</sub> ±3% within one watt class. Nominal module operating temperature (NMOT: air mass AM1.5, irradiance 800 W/m<sup>2</sup>, temperature 68°F (20°C), windspeed 3.3 ft/s (1 m/s). \*Where xxx indicates the nominal power class (P<sub>MAX</sub>) at STC above.

### MAXIMUM RATINGS

Operational temperature:	-40 ... +85°C
System voltage:	1000 V
Test load (front):	+ 7000 Pa (146 lbs/ft <sup>2</sup> )*
Test load (rear):	- 4000 Pa (83.5 lbs/ft <sup>2</sup> )*
Series fuse rating:	25 A
Reverse current:	25 A

\* See installation manual for mounting instructions.  
Design load = Test load / 1.5 (safety factor)

### WARRANTY

	Standard	REC ProTrust
Installed by an REC Certified Solar Professional	No	Yes Yes
System Size	All	≤25 kW 25-500 kW
Product Warranty (yrs)	20	25 25
Power Warranty (yrs)	25	25 25
Labor Warranty (yrs)	0	25 10
Power in Year 1	98%	98% 98%
Annual Degradation	0.25%	0.25% 0.25%
Power in Year 25	92%	92% 92%

See warranty documents for details. Conditions apply

### CERTIFICATIONS (PENDING)

IEC 61215:2016, IEC 61730:2016, UL 61730
IEC 62804 PID
IEC 61701 Salt Mist
IEC 62716 Ammonia Resistance
UL 61730 Fire Type Class 2
IEC 62782 Dynamic Mechanical Load
IEC 61215-2:2016 Hailstone (35mm)
IEC 62321 Lead-free acc. to RoHS EU 863/2015
ISO 14001, ISO 9001, IEC 45001, IEC 62941



### TEMPERATURE RATINGS\*

Nominal Module Operating Temperature:	44°C (±2°C)
Temperature coefficient of P <sub>MAX</sub> :	-0.26 %/°C
Temperature coefficient of V <sub>OC</sub> :	-0.24 %/°C
Temperature coefficient of I <sub>SC</sub> :	0.04 %/°C

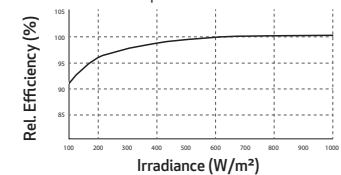
\*The temperature coefficients stated are linear values

### DELIVERY INFORMATION

Panels per pallet:	33
Panels per 53 ft truck:	858 (26 pallets)

### LOW LIGHT BEHAVIOUR

Typical low irradiance performance of module at STC:



Founded in 1996, REC Group is an international pioneering solar energy company dedicated to empowering consumers with clean, affordable solar power. As Solar's Most Trusted, REC is committed to high quality, innovation, and a low carbon footprint in the solar materials and solar panels it manufactures. Headquartered in Norway with operational headquarters in Singapore, REC also has regional hubs in North America, Europe, and Asia-Pacific.



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