

SOLAR'S MOST TRUSTED



# REC ALPHA PURE-R SERIES

## PRODUCT SPECIFICATIONS

COMPACT PANEL SIZE

9 A PANEL CURRENT  
COMPATIBLE WITH MLPE

430 WP  
223  $\frac{W}{M^2}$



ELIGIBLE



LEAD FREE  
ROHS COMPLIANT

EXPERIENCE



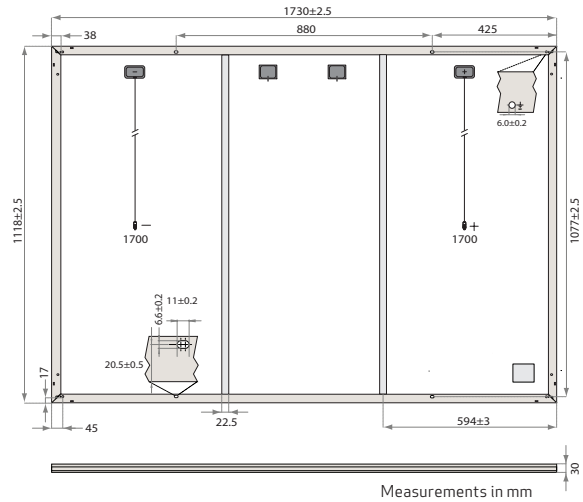
PERFORMANCE

# REC ALPHA PURE-R SERIES

## PRODUCT SPECIFICATIONS

### GENERAL DATA

Cell type:	80 half-cut REC heterojunction cells with lead-free, gapless technology
Glass:	3.2 mm solar glass with anti-reflective surface treatment in accordance with EN 12150
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:	4 mm <sup>2</sup> solar cable, 1.7 + 1.7 m in accordance with EN 50618
Dimensions:	1730 x 1118 x 30 mm (1.93 m <sup>2</sup> )
Weight:	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/m <sup>2</sup> )	212	218	223
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 1000 W/m<sup>2</sup>, temperature 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 20°C, windspeed 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 (713 kg/m <sup>2</sup> )*
Test load (rear):	- 4000 Pa (407 kg/m <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
ISO 11925-2	Ignitability (EN 13501-1 Class E)
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 40 ft GP/high cube container:	858 (26 pallets)

### LOW LIGHT BEHAVIOUR

Typical low irradiance performance of module at STC:

