SOLAR'S MOST TRUSTED





REC ALPHOONS

PURE SERIES

PRODUCT SPECIFICATIONS



410 WP 222 W/M²





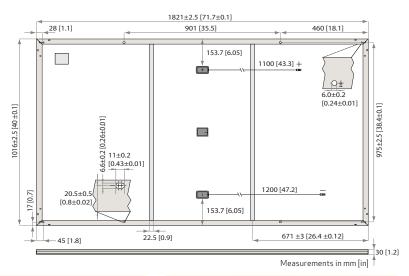


## REC ALPHA PURE SERIES

## PRODUCT SPECIFICATIONS



GENERAL DATA			
Cell type:	132 half-cut REC heterojunction cells with lead-free, gapless technology, 6 strings of 22 cells in series		
Glass:	3.2 mm solar glass with anti-reflective surface treatment in accordance with EN12I50		
Backsheet:	Highly resistant polymer (black)		
Frame:	Anodized aluminum (black)		
Junction box:	3-part, 3 bypass diodes, lead-free IP68 rated, in accordance with IEC 62790		
Connectors:	$St\"{a}ubli\ MC4\ PV-KBT4/KST4\ (4\ mm^2)$ in accordance with IEC 62852, IP68\ only when connected		
Cable:	4 mm² solar cable, 1.1 m + 1.2 m in accordance with EN 50618		
Dimensions:	$1821 \times 1016 \times 30 \text{ mm} (1.85 \text{ m}^2)$		
Weight:	20.5 kg		
Origin:	Made in Singapore		



ELECTRICAL DATA	Product	Product Code*: RECxxxAA Pure			
Power Output - P <sub>MAX</sub> (Wp)	390	395	400	405	410
Watt Class Sorting - (W)	0/+5	0/+5	0/+5	0/+5	0/+5
Nominal Power Voltage - $V_{MPP}(V)$	40.6	41.0	41.4	41.8	42.2
Nominal Power Current - I <sub>MPP</sub> (A)	9.61	9.64	9.67	9.69	9.72
Open Circuit Voltage - V <sub>OC</sub> (V)	48.4	48.6	48.8	49.1	49.4
Short Circuit Current - $I_{SC}$ (A)	10.38	10.39	10.40	10.41	10.42
Power Density (W/m²)	211	214	216	219	222
Panel Efficiency (%)	21.1	21.4	21.6	21.9	22.2
Power Output - P <sub>MAX</sub> (Wp)	297	301	305	308	312
Nominal Power Voltage - $V_{MPP}(V)$	38.3	38.6	39.0	39.4	39.8
Nominal Power Current - I <sub>MPP</sub> (A)	7.77	7.79	7.82	7.83	7.85
Open Circuit Voltage - V <sub>OC</sub> (V)	45.6	45.8	46.0	46.3	46.6
Short Circuit Current - I <sub>SC</sub> (A)	8.38	8.39	8.40	8.41	8.42

Values at standard test conditions (STC: air mass AM 1.5, irradiance  $1000 \, \text{W/m}^2$ , temperature  $25^{\circ}\text{C}$ ), based on a production spread with a tolerance of  $P_{\text{Max}}$ ,  $V_{\text{Oc}} \& 1_{\text{Sc}} \pm 3\%$  within one watt class. Nominal module operating temperature (NMOT: air mass AM 1.5, irradiance  $800 \, \text{W/m}^2$ , temperature  $20^{\circ}\text{C}$ , windspeed 1 m/s).\* Where xxx indicates the nominal power class ( $P_{\text{Max}}$ ) at STC above.

MAXIMUM RATINGS	
Operational temperature:	-40+85°C
Maximum system voltage:	1000 V
Maximum test load (front):	+7000 Pa (713 kg/m²)*
Maximum test load (rear):	-4000 Pa (407 kg/m²)*
Max series fuse rating:	25 A
Max 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%
The REC ProTrust Warranty is	s only availal	hle on nan	els nurchased

through an REC Certified Solar Professional installer. Warranty conditions apply. See www.recgroup.com for more details.

CERTIFICATIONS	
IEC 61215:2016, IEC 6	51730:2016, UL 61730
IEC 62804	PID
IEC 61701	Salt Mist
IEC 62716	Ammonia Resistance
ISO 11925-2	Ignitability (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, I	EC 45001, IEC 62941











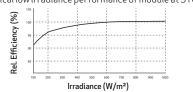
TEMPERATURE RATINGS*	
NominalModuleOperatingTemperature:	44°C (±2°C)
Temperature coefficient of $P_{MAX}$ :	-0.24 %/°C
Temperature coefficient of $V_{\text{oc}}$ :	-0.24 %/°C
Temperature coefficient of $I_{SC}$ :	0.04 %/°C

\*The temperature coefficients stated are linear values

DELIVERY INFORMATION	
Panels per pallet:	33
Panels per 40 ft GP/high cube container:	792 (24 pallets)
Panels per 13.6 m truck:	924 (28 pallets)
Panels per 53 ft truck:	891 (27 pallets)

## **LOW LIGHT BEHAVIOUR**

Typical low irradiance performance of module at STC:



Available from:

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 and solar panels it manufactures are considered in Norway with operational content of the solar materials and solar panels it manufactures. Headquartered in Norway with operational content of the solar materials and solar panels it manufactures. Headquartered in Norway with operational content of the solar materials and solar panels it manufactures. Headquartered in Norway with operational content of the solar panels it manufactures are content of the solar panels in the solar panels $head quarters \, in \, Singapore, REC \, also \, has \, regional \, hubs \, in \, North \, America, Europe, \, and \, Asia-Pacific.$ 

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