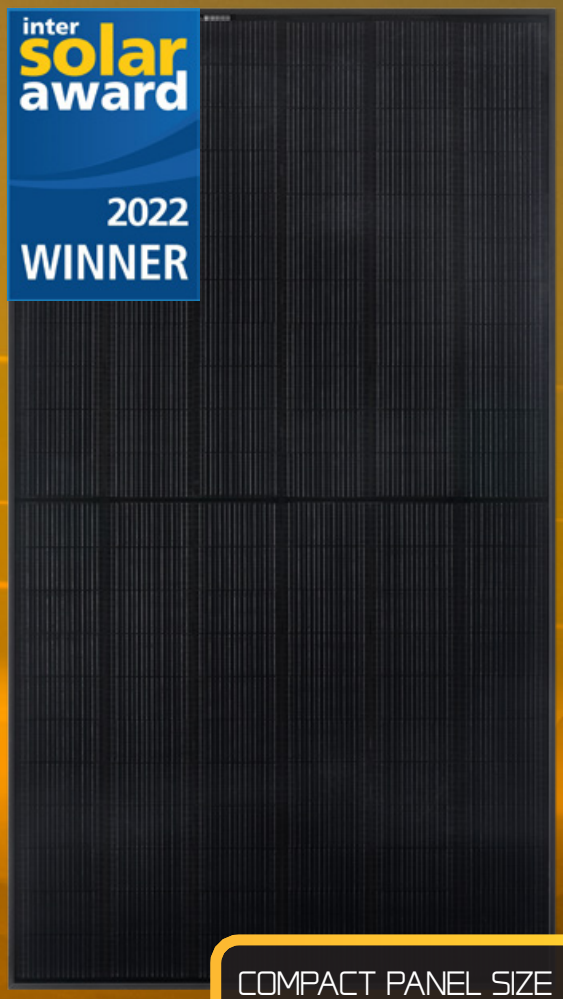
SOLAR'S MOST TRUSTED

REC



REC ALPHA® PURE SERIES

PRODUCT SPECIFICATIONS

COMPACT PANEL SIZE

410 WP

222 W/M²

PRODUCT
REC 25 YEAR ProTrust WARRANTY
PERFORMANCE
LABOR

ELIGIBLE

LEAD-FREE
ROHS COMPLIANT

EXPERIENCE
α
PERFORMANCE

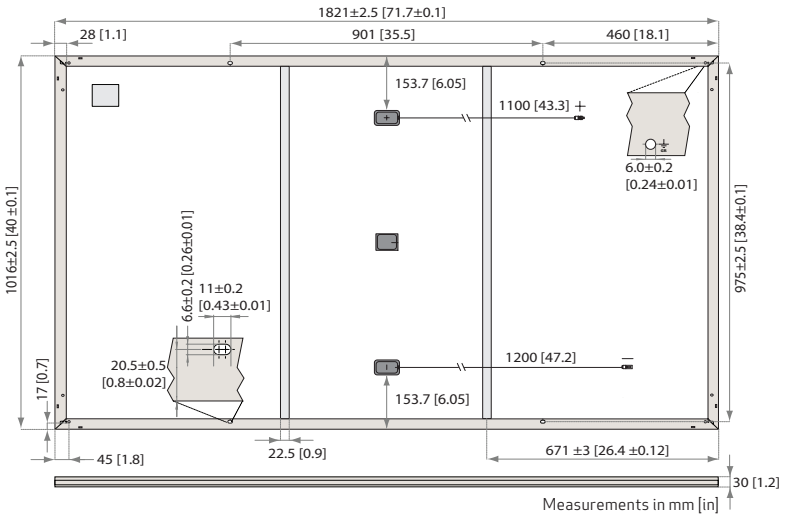
REC ALPHA PURE SERIES

PRODUCT SPECIFICATIONS

REC
SOLAR'S MOST TRUSTED

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 EN 12150
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:	Stäubli MC4 PV-KBT4/KST4 (4 mm²) 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 x 1016 x 30 mm (1.85 m²)
Weight:	20.5 kg
Origin:	Made in Singapore



ELECTRICAL DATA — Product Code*: RECxxxAA Pure

STC					
Power Output - P_{MAX} (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)	41.5	41.8	42.1	42.4	42.7
Nominal Power Current - I_{MPP} (A)	9.40	9.45	9.51	9.56	9.61
Open Circuit Voltage - V_{OC} (V)	48.6	48.7	48.8	48.9	49.0
Short Circuit Current - I_{SC} (A)	10.22	10.25	10.28	10.30	10.35
Power Density (W/m²)	211	214	216	219	222
Panel Efficiency (%)	21.1	21.4	21.6	21.9	22.2
NMOT					
Power Output - P_{MAX} (Wp)	297	301	305	309	312
Nominal Power Voltage - V_{MPP} (V)	39.1	39.4	39.7	40.0	40.2
Nominal Power Current - I_{MPP} (A)	7.59	7.63	7.68	7.72	7.76
Open Circuit Voltage - V_{OC} (V)	45.8	45.9	46.0	46.1	46.2
Short Circuit Current - I_{SC} (A)	8.20	8.24	8.28	8.32	8.36

Values at standard test conditions (STC: air mass AM 1.5, irradiance 1000 W/m², temperature 25°C), based on a production spread with a tolerance of P_{MAX}, V_{OC} & I_{SC} ±3% within one watt class. Nominal module operating temperature (NMOT: air mass AM 1.5, irradiance 800 W/m², temperature 20°C, windspeed 1 m/s). * Where xxx indicates the nominal power class (P_{MAX}) at STC above.

CERTIFICATIONS

IEC 61215:2016, IEC 61730:2016, 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, IEC 45001, IEC 62941	

Intertek
Lead-Free
take-e-way WEEE-compliant recycling scheme

TEMPERATURE RATINGS*

Nominal Module Operating Temperature:	44°C (±2°C)
Temperature coefficient of P_{MAX}:	-0.26 %/°C
Temperature coefficient of V_{OC}:	-0.24 %/°C
Temperature coefficient of I_{SC}:	0.04 %/°C

*The temperature coefficients stated are linear values

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%

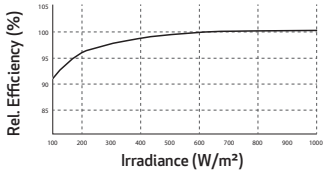
See warranty documents for details. Conditions apply

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 headquarters in Singapore, REC also has regional hubs in North America, Europe, and Asia-Pacific.

www.recgroup.com

Specifications subject to change without notice.

Ref: PM-DS-12-06-Rev-H 08.22

REC WARRANTY

REC's ProTrust Warranty package covers product, performance, and labor – and is exclusively offered by REC Certified Solar Professional installers. This means unprecedented savings, more economic security, and greater energy autonomy for consumers.

PRODUCT

Covers panel defects and promises superior quality for at least 20 years. All panels are eligible for a **+5 year product warranty extension**, as part of the REC ProTrust Warranty.

PERFORMANCE

Ensures that REC panels perform exactly as expected to – every year for 25 years. Higher warranted power and higher annual yields, enable greater ROI predictability.

LABOR

Unique to the REC ProTrust Warranty, this gives added protection in the unlikely event that an REC panel needs to be serviced.

The table below provides an overview of REC value-adding warranties by system size, applicable to all products:

REC warranty type	REC PROTRUST WARRANTY		REC'S LEADING STANDARD WARRANTY
Installer group	Exclusive to REC Certified Solar Professional installers		All installers
System size	<25 kW	25-500 kW	Any
Product Warranty (years)	25*	25*	20
Performance Warranty (years)	25	25	25
Labor Warranty (years)	25*	10*	0

*Installations must be registered via REC SunSnap app or REC ProPortal

The following table provides an overview of REC's 25-year Performance Warranty by product, applicable to panels delivered to REC customers on or after October 1, 2018:

Product Series	PERFORMANCE WARRANTY		
	Year 1 minimum power	Year 2-25 maximum annual degradation	Guaranteed % of nameplate power in year 25
REC Alpha	98.0%	0.25%	92.0%
REC N-Peak 2			
REC N-Peak		0.5%	86.0%
REC TwinPeak 4			
REC TwinPeak (60-cell format, excluding REC TwinPeak 4)	97.5%	0.7%	80.7%
REC TwinPeak (72-cell format)		0.5%	85.5%

(Except REC TwinPeak 4, other REC TwinPeak products not available in Germany)

Visit the REC Download Center for details of each product's warranty conditions: **www.recgroup.com/warranty**

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REC
www.recgroup.com

PRODUCT
REC
25 YEAR
PROTRUST
WARRANTY
LABOR
PERFORMANCE

REC
SOLAR'S MOST TRUSTED

REC CERTIFIED SOLAR PROFESSIONAL

CERTIFICATE FOR

SAVE A LOT SOLAR

REC RCSPS ARE RIGOROUSLY SELECTED BY REC TO REPRESENT OUR SOLAR PRODUCTS, COMBINING REC'S 25+ YEARS OF INDUSTRY EXPERIENCE WITH THE CHOSEN SOLAR COMPANY'S LOCAL EXPERTISE.

VALID THROUGH SEPTEMBER, 2024

REC CERTIFIED SOLAR PROFESSIONAL

VP Global Marketing &
Product Management