

SOLAR'S MOST TRUSTED



REC ALPHA[®] PURE-R SERIES

DATASHEET



LEAD-FREE
ROHS COMPLIANT

COMPACT PANEL SIZE

9 A MODULE CURRENT
COMPATIBLE WITH MLPE

400-430 W_P

HETEROJUNCTION TECHNOLOGY

22.3% MAX. EFFICIENCY

-0.24% /K TEMP. COEFF. P_{MAX}

92% MIN. POWER IN YEAR 25



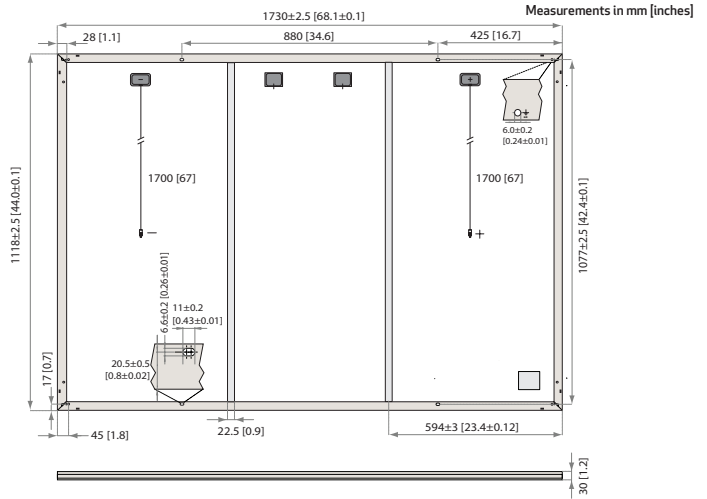
ELIGIBLE

REC ALPHA® PURE-R SERIES

DATASHEET

GENERAL DATA

Cell Type	80 half-cut bifacial REC heterojunction cells, with lead-free, gapless technology
Glass	0.13 in 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 (12AWG) in accordance with IEC 62852, IP68 only when connected
Cable	12 AWG solar cable, 66.9 in + 66.9 in in accordance with EN50618
Dimensions	68.1 x 44 x 1.2 in (20.8 ft ²)
Weight	47.4 lb
Origin	Made in Singapore



ELECTRICAL DATA

PRODUCT CODE*: RECxxxAA Pure-R

	400	410	420	430
Power Output - P _{max} (W _p)	400	410	420	430
Watt Class Sorting - (W)	0/+10	0/+10	0/+10	0/+10
Nominal Power Voltage - V _{MPP1} (V)	48.8	49.4	50.0	50.5
Nominal Power Current - I _{MPP} (A)	8.20	8.30	8.40	8.52
Open Circuit Voltage - V _{OC} (V)	58.9	59.2	59.4	59.7
Short Circuit Current - I _{SC} (A)	8.80	8.84	8.88	8.91
Power Density (W/ft ²)	19.2	19.7	20.2	20.7
Panel Efficiency (%)	20.7	21.2	21.8	22.3

CERTIFICATIONS

- IEC 61215:2021; IEC 61730:2016; UL 61730
- ISO 11925-2 Ignitability (EN 13501-1 Class E)
- IEC 62716 Ammonia Resistance
- IEC 61701 Salt Mist (SM6)
- IEC 61215:2016 Hailstone (35mm)
- UL 61730 Fire Type 2
- IEC 62321 Lead-free acc. to RoHS EU 863/2015
- ISO 14001; ISO 9001; IEC 45001; IEC 62941



Declare.

Living building challenge compliant

	305	312	320	327
Power Output - P _{max} (W _p)	305	312	320	327
Nominal Power Voltage - V _{MPP} (V)	46.0	46.6	47.1	47.6
Nominal Power Current - I _{MPP} (A)	6.64	6.70	6.80	6.88
Open Circuit Voltage - V _{OC} (V)	55.5	55.8	56.0	56.3
Short Circuit Current - I _{SC} (A)	7.11	7.16	7.2	7.24

Values at standard test conditions (STC: air mass AM1.5, irradiance 1000 W/m², temperature 77°F (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 AM1.5, irradiance 800 W/m², temperature 68°F (20°C), windspeed 3.3 ft/s (1 m/s)). *Where xxx indicates the nominal power class (P_{max}) at STC above.

MAXIMUM RATINGS*

Operational Temperature	-40 °F - 185 °F
System Voltage	1000 V
Maximum Test Load (front)	+7000 Pa (146 lb/ft ²)
Maximum Test Load (rear)	-4000 Pa (83.4 lb/ft ²)
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)

TEMPERATURE RATINGS*

Nominal Module Operating Temperature	44 °C ± 2 °C
Temperature coefficient of P _{max}	-0.24% / K
Temperature coefficient of V _{OC}	-0.24% / K
Temperature coefficient of I _{SC}	0.04% / K

*The temperature coefficients stated are linear values

DELIVERY INFORMATION

Panels per Pallet	33
Panels per 40 ft GP/high cube container	858 (26 Pallets)

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.

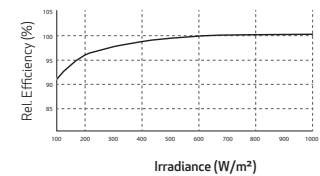
WARRANTY

	Standard	REC ProTrust	
Installed by an REC Certified 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%

REC ProTrust Warranty applies only for i) REC panels installed by an REC Certified Solar Professional, and ii) panels have been registered by the installer with REC. Subject to System Size and further conditions. See www.recgroup.com for details.

LOW LIGHT BEHAVIOR

Typical low irradiance performance of module at STC:



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Specifications subject to change without notice.

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