

SOLAR'S MOST TRUSTED



REC ALPHA[®] PURE-RX

DATASHEET



450 - 470W
HETEROJUNCTION
TECHNOLOGY

22.6% MAX EFFICIENCY
>92% POWER IN YEAR 25
-0.24%/°C TEMPERATURE
COEFFICIENT OF P_{MAX}



ELIGIBLE

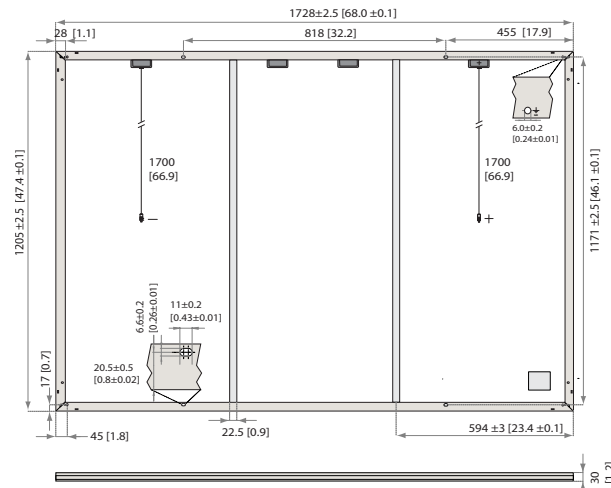
REC ALPHA® PURE-RX DATASHEET



Measurements in [inches] and mm

GENERAL DATA

Cell Type	88 half-cut bifacial REC heterojunction cells, with 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, IP68 rated, in accordance with IEC 62790:2020
Connectors	Stäubli MC4 PV-KBT4/KST4 (12 AWG) in accordance with IEC 62852:2014, IP68 only when connected
Cable	12 AWG solar cable, 66.9 in (1.70 m) + 66.9 in (1.70 m) in accordance with EN50618:2014
Dimensions	68.0 x 47.4 x 1.2 in (22.4 ft ²) / 1728 x 1205 x 30 mm (2.08 m ²)
Weight	50.0 lb / 22.7 kg
Origin	Made in Singapore



ELECTRICAL DATA

PRODUCT CODE*: RECXXXAA PURE-RX

Power Output - P _{MAX} (WP)	450	460	470
Watt Class Sorting - (W)	0/+10	0/+10	0/+10
Nominal Power Voltage - V _{MPP} (V)	54.3	54.9	55.4
Nominal Power Current - I _{MPP} (A)	8.29	8.38	8.49
Open Circuit Voltage - V _{OC} (V)	65.6	65.8	65.9
Short Circuit Current - I _{SC} (A)	8.81	8.88	8.95
Power Density (W/ft ²)	20.1	20.5	21.0
Panel Efficiency (%)	21.6	22.1	22.6

STC

Power Output - P _{MAX} (W _p)	343	350	358
Nominal Power Voltage - V _{MPP} (V)	51.2	51.7	52.2
Nominal Power Current - I _{MPP} (A)	6.70	6.77	6.86
Open Circuit Voltage - V _{OC} (V)	61.8	62.0	62.1
Short Circuit Current - I _{SC} (A)	7.11	7.17	7.23

NMOT

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.

TEMPERATURE COEFFICIENT*

P_{MAX} -0.24%/°C V_{OC} -0.24%/°C I_{SC} 0.04%/°C *The temperature coefficients stated are linear values

MODULE RATINGS

Module Operating Temperature [T98] [§]	176°F (80°C)
Min Environmental Temperature	-40°F (-40°C)
Nominal Module Operating Temperature	44 ± 2°C
Max Hail Rating [□]	45 mm @ 30.5 m/s
System Voltage	1000 V
Max Series Fuse Rating	25 A
Max Reverse Current	25 A

§ 98th percentile operating temperature
□ Based on third party testing

MAXIMUM TEST LOAD*

Front (4-Point)*	+7000 Pa (146 lbs/ft ²)
Rear (4-Point)*	-4000 Pa (84 lbs/ft ²)
Front (6-Point)**	+8000 Pa (167 lbs/ft ²)
Rear (6-Point)**	-6000 Pa (125 lbs/ft ²)

Design load = Test load / 1.5 (safety factor)

*IEC61730/UL61730 certified. Refer to installation manual.

**Internal testing. Refer to installation manual.

CERTIFICATIONS

ISO 14001; ISO 9001; IEC 45001; IEC 62941
IEC 61215:2021; IEC 61730:2023; 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 TS 63126 Level 1



WARRANTY

	Standard	REC ProTrust	
Installed by an REC	No	Yes	Yes
Certified Professional			
System Size	All	<25 kW	25-500 kW
Product ¹ 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%

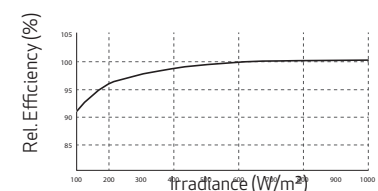
REC ProTrust Warranty applies only for i) REC panels installed by an REC Certified Solar Professional, and ii) panels have been registered by the installer with REC. Subject to System Size and further conditions. See www.recgroup.com for details.

DELIVERY INFORMATION

Panels per Pallet	33
Panels per 40 ft GP/high cube container	594 (18 Pallets)
Panels per 53 ft truck	792 (24 Pallets)

LOW LIGHT BEHAVIOR

Typical low irradiance performance of module at STC:



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