

REC ALPHA® PURE-RX

DATASHEET



PURE STRENGTH

55 MM HAIL RESISTANT*

+7000 PA / -4000 PA
WITH 4 POINT CLAMPING

+10000 PA / -6000 PA
WITH 6 POINT CLAMPING

450 - 475W
HETEROJUNCTION
TECHNOLOGY

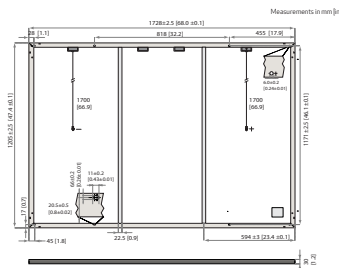
228 $\frac{W}{m^2}$ POWER DENSITY
>92% POWER IN YEAR 25
-0.24%/°C TEMPERATURE
COEFFICIENT OF P_{max}



REC ALPHA® PURE-RX DATASHEET

GENERAL DATA

Cell Type	88 half-cut bifacial REC heterojunction cells, with gapless technology in accordance with EN12150
Glass	3.2 mm 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
Connectors	IP68 rated, in accordance with IEC 62790:2020 Stabli MC4 PV-KBT4/KST4 (4 mm ²)
Cable	in accordance with IEC 62852:2014, IP68 only when connected 4 mm ² solar cable, 150 m + 150 m
Dimensions	in accordance with EN50618:2014 1728 x 1205 x 30 mm (2.08 m ²)
Weight	22.7 kg
Origin	Made in Singapore



ELECTRICAL DATA

	450	455	460	465	470	475
Power Output - P_{max} (W _p)	450	455	460	465	470	475
Watt Class Sorting - (W)	0/+5	0/+5	0/+5	0/+5	0/+5	0/+5
Nominal Power Voltage - V_{mp} (V)	54.3	54.6	54.9	55.2	55.4	55.5
Nominal Power Current - I_{mp} (A)	8.29	8.34	8.38	8.43	8.49	8.56
Open Circuit Voltage - V_{oc} (V)	65.6	65.6	65.7	65.7	65.7	65.7
Short Circuit Current - I_{sc} (A)	8.81	8.84	8.88	8.91	8.95	9.00
Power Density (W/m ²)	216	219	221	223	226	228
Panel Efficiency (%)	21.6	21.9	22.1	22.3	22.6	22.8

STC

NMOT

Power Output - P_{max} (W _p)	342	346	350	354	358	361
Nominal Power Voltage - V_{mp} (V)	51.2	51.5	51.7	52.0	52.2	52.3
Nominal Power Current - I_{mp} (A)	6.70	6.74	6.77	6.81	6.86	6.91
Open Circuit Voltage - V_{oc} (V)	61.8	61.8	61.9	61.9	61.9	61.9
Short Circuit Current - I_{sc} (A)	7.12	7.14	7.18	7.20	7.23	7.27

Values at standard test conditions (STC: air mass AM1.5, irradiance 1000 W/m², temperature 25°C), based on a production spread with a tolerance of P_{max} , V_{oc} <±3% within one watt class. Nominal module operating temperature (NMOT: air mass AM1.5, irradiance 800 W/m², temperature 20°C, wind speed 1 m/s). *Where not indicated the nominal power class (P_{max}) at STC above.

TEMPERATURE COEFFICIENTS*

P_{max} -0.24%/°C	V_{oc} -0.24%/°C	I_{sc} 0.04%/°C
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*Available while stocks last

MODULE RATINGS

Module Operating Temperature [T ₈₀]	80°C
Min Environmental Temperature	-40°C
Nominal Module Operating Temperature	44 ± 2°C
Max Hail Rating†	55 mm @ 33.9 m/s
System Voltage	1000 V
Max Series Fuse Rating	25 A
Max Reverse Current	25 A

† 98th percentile operating temperature
*Iowa PVEL H55 test result

MAXIMUM TEST LOAD*

Front (4-Point)*	+7000 Pa (714 kg/m ²)
Rear (4-Point)*	-4000 Pa (408 kg/m ²)
Front (6-Point)**	+10000 Pa (1020 kg/m ²)
Rear (6-Point)**	-6000 Pa (612 kg/m ²)

*Design load = test load / 1.5 (safety factor)

**IEC 61730/UL 6730 certified. Refer to installation manual.

*Nominal loading. Refer to installation manual.

CERTIFICATIONS

ISO 14001:ISO9001:IEC 45001:IEC 62941	
IEC 61215:2021/IEC 61730:2023/UL 61730	
IEC 61730	Fire Class C
ISO 1925-2	Ignitability (EN 13501-1 Class E)
EN 13501-5	Roof Fire Performance (B _{roof} T2)
IEC 62716	Ammonia Resistance
IEC 61701	Salt Mist (SM6)
IEC 61215:2021	Hailstone (35 mm)
UL 61730	Fire Type 2
IEC TS 63126	Level 1



WARRANTY

	Standard	REC Pro Trust
Installed by an REC Certified Professional	No	Yes
System Size	All	<25 kW 25-500 kW
Product Warranty (yrs)	20	25
Power Warranty (yrs)	25	25
Labor Warranty (yrs)	0	25
Power in Year 1	98%	98%
Annual Degradation	0.25%	0.25%
Power in Year 25	92%	92%

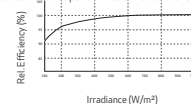
REC Pro Trust Warranty applies only for REC panels installed by an REC Certified Solar Professional, and if panels have been registered by the installer with REC. Subject to System Size and further conditions. See www.recgroup.com for details.

DELIVERY INFORMATION

Panels per Pallet	33
Panels per 40 ft GP/High cube container	594 (18 Pallets)
Panels per 13.6 m truck	660 (20 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.

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