

SOLAR'S MOST TRUSTED



REC ALPHA[®] PURE SERIES

DATASHEET

inter
solar
award

2022
WINNER



LEAD-FREE
ROHS COMPLIANT

COMPACT PANEL SIZE

390-410 W_P

HETEROJUNCTION TECHNOLOGY

222 W/M² POWER DENSITY

92% MIN. POWER IN YEAR 25

-0.24%/°C TEMP. COEFF. P_{MAX}



ELIGIBLE

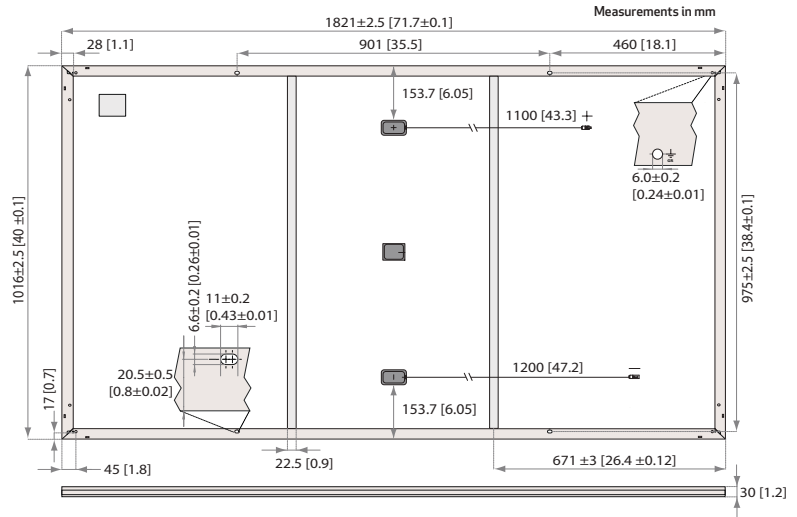
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DATASHEET



GENERAL DATA

Cell Type	132 half-cut bifacial REC heterojunction cells, with lead-free technology
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	3-part, 3 bypass diodes, lead-free IP68 rated, in accordance with IEC 62790
Connectors	Stäubli MC4 PV-KBT4/KST4 (4 mm ²) in accordance with IEC 62852, IP68 only when connected
Cable	4 mm ² solar cable, 1.1 m + 1.2 m in accordance with EN50618
Dimensions	1821 x 1016 x 30 mm (1.85 m ²)
Weight	20.5 kg
Origin	Made in Singapore



ELECTRICAL DATA

PRODUCT CODE*: RECxxxAA Pure

Power Output - P _{max} (W _p)	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 _{MPP} (A)	9.61	9.64	9.67	9.69	9.72
Open Circuit Voltage - V _{OC} (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/m ²)	211	214	216	219	222
Panel Efficiency (%)	21.1	21.4	21.6	21.9	22.2

Power Output - P _{max} (W _p)	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 _{MPP} (A)	7.77	7.79	7.82	7.83	7.85
Open Circuit Voltage - V _{OC} (V)	45.6	45.8	46.0	46.3	46.6
Short Circuit Current - I _{SC} (A)	8.38	8.39	8.40	8.41	8.42

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} & I_{SC} ±3% within one watt class. Nominal module operating temperature (NMOT: air mass AM1.5, irradiance 800 W/m², temperature 20°C, windspeed 1 m/s). * Where xxx indicates the nominal power class (P_{max}) at STC above.

MAXIMUM RATINGS*

Operational Temperature	-40 °C - 85 °C
System Voltage	1000 V
Maximum Test Load (front)	+7000 Pa (713 kg/m ²)
Maximum Test Load (rear)	-4000 Pa (407 kg/m 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% / °C
Temperature coefficient of V _{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)

CERTIFICATIONS

IEC 61215:2016; IEC 61730:2016; UL 61730
IEC 62804 PID
IEC 62782 Dynamic Mechanical Load
ISO 11925-2 Ignitability (EN 13501-I Class E)
IEC 62716 Ammonia Resistance
IEC 61701 Salt Mist (SM6)
IEC 61215:2016 Hailstone (35 mm)
IEC 62321 Lead-free acc. to RoHS EU 863/2015
ISO 14001; ISO 9001; IEC 45001; IEC 62941



Declare.

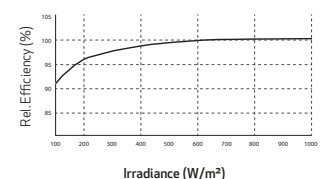
WARRANTY

	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 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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Specifications subject to change without notice.

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