

SOLAR'S MOST TRUSTED



REC ALPHA PURE-R SERIES

PRODUCT SPECIFICATIONS

COMPACT PANEL SIZE

9 A PANEL CURRENT
COMPATIBLE WITH MLPE

430 WP
223 $\frac{W}{M^2}$



ELIGIBLE



LEAD FREE
ROHS COMPLIANT

EXPERIENCE



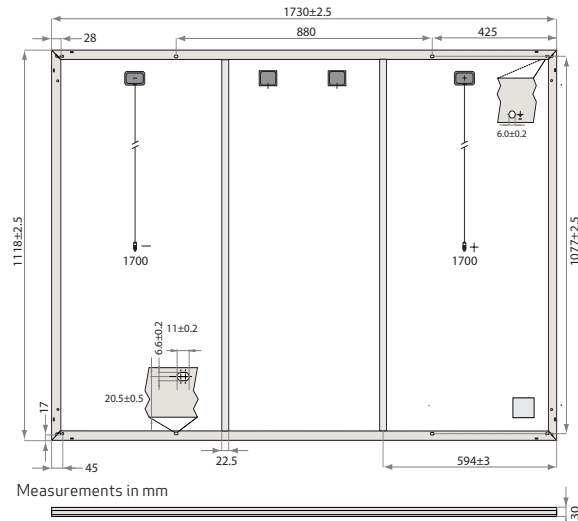
PERFORMANCE

REC ALPHA PURE-R SERIES

PRODUCT SPECIFICATIONS

GENERAL DATA

| | |
|---------------|--|
| Cell type: | 80 half-cut REC heterojunction cells with lead-free, gapless technology |
| 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: | 4-part, 4 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, 1.7 + 1.7 m in accordance with EN 50618 |
| Dimensions: | 1730 x 1118 x 30 mm (1.93 m ²) |
| Weight: | 21.5 kg |
| Origin: | Made in Singapore |



ELECTRICAL DATA

Product Code*: RECxxxAA Pure-R

| | 400 | 410 | 420 | 430 |
|--|-------|-------|-------|-------|
| Power Output - P _{MAX} (Wp) | 400 | 410 | 420 | 430 |
| Watt Class Sorting - (W) | 0/+10 | 0/+10 | 0/+10 | 0/+10 |
| Nominal Power Voltage - V _{MPP} (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/m ²) | 207 | 212 | 218 | 223 |
| Panel Efficiency (%) | 20.7 | 21.2 | 21.8 | 22.3 |
| Power Output - P _{MAX} (Wp) | 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 | 7.20 | 7.24 |

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.

MAXIMUM RATINGS

| | |
|--------------------------|-------------------------------------|
| Operational temperature: | -40 ... +85°C |
| System voltage: | 1000 V |
| Test load (front): | + 7000 Pa (713 kg/m ²)* |
| Test load (rear): | - 4000 Pa (407 kg/m ²)* |
| Series fuse rating: | 25 A |
| 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 |
| System Size | All | ≤25 kW 25-500 kW |
| Product Warranty (yrs) | 20 | 25 |
| Power Warranty (yrs) | 25 | 25 |
| Labor Warranty (yrs) | 0 | 10 |
| Power in Year 1 | 98% | 98% |
| Annual Degradation | 0.25% | 0.25% |
| Power in Year 25 | 92% | 92% |

The REC ProTrust Warranty is only available on panels purchased through an REC Certified Solar Professional installer. Warranty conditions apply. See www.recgroup.com for more details.

CERTIFICATIONS

| |
|---|
| IEC 61215:2016, IEC 61730:2016, UL 61730 |
| IEC 62804 PID |
| IEC 61701 Salt Mist |
| IEC 62716 Ammonia Resistance |
| ISO 11925-2 Ignitability (EN 13501-1 Class E) |
| IEC 62782 Dynamic Mechanical Load |
| IEC 61215-2:2016 Hailstone (35mm) |
| IEC 62321 Lead-free acc. to RoHS EU 863/2015 |
| IEC 61730-2:2016 Fire Class C (as per UL790) |
| ISO 14001, ISO 9001, IEC 45001, IEC 62941 |



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 |

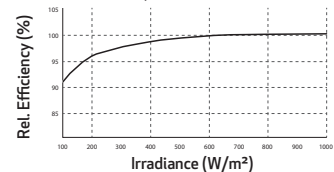
*The temperature coefficients stated are linear values

DELIVERY INFORMATION

| | |
|--|------------------|
| Panels per pallet: | 33 |
| Panels per 40 ft GP/high cube container: | 858 (26 pallets) |
| Panels per 13.6 m truck: | 924 (28 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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