REC ALPHAα SERIES

380 WP POWER

EXPERIENCE α PERFORMANCE

SOLAR'S MOST TRUSTED

REC

ELIGIBLE FOR

PRODUCT

REC 25 YEAR ProTrust WARRANTY

PERFORMANCE
The REC Alpha Series is a revolutionary hybrid solar panel which unites the leading cell technology to create the world's most powerful and reliable 60-cell panel:

- High power density maximizes energy generation from limited spaces - up to 20.2 W/ft²
- The most advanced cell structure for highest efficiency performance
- Over 20% more power than conventional panels
- More savings from your roof

**Heterojunction cells**
- Combine the best of crystalline and thin-film technologies
- Most efficient cell architecture for high performance

**N-type technology = more power**
- No LID protects panel from initial power loss
- You get the power you pay for

**Unique Advanced Cell Connections**
- Eliminates invasive soldering process for better build quality
- Reduces thermal stress on the cells for long-term durability
- Great aesthetics

**Higher light transmission**
- Special anti-reflective glass increases light transmission for higher power

**Guaranteed better durability**
- Super-strong frame withstands up to 7000 Pa
- Better protection against harsh weather
- Improves cell life for long-lasting high power

**Stunning appearance**
- Uniform look fits seamlessly on your roof
- Practically-invisible connections for the best choice for your home

**Highest power density of 20.2 W/ft²**
- Highest power density on a 60-cell panel
- Pack in more power in limited or restricted spaces
- Generate more clean energy

**Higher efficiency at the hottest times**
- Leading temperature coefficient for more production when the sun shines strongest
- Better performance in hot climates

**REC's iconic Twin Design**
- Reduces internal resistance for more power and reliability
- Improved output when shaded

**Environmentally-friendly**
- Energy-efficient manufacturing processes minimize carbon footprint
- Colossal 81% reduced lead content, only 0.02% by weight

**Industry-leading quality**
- Made in REC's state of the art, energy efficient facility in Singapore
- Highly automated production improves efficiency and reliability
- Lowest warranty claims rate in solar
GREATER YIELDS FROM DAWN TO DUSK

The REC Alpha Series packs in more energy than ever before. With no LID, a leading temperature coefficient and the highest 60-cell power density, it is ideal for the best energy yields and making the most of available rooftop space.

Optimum use of rooftop space is key to a good solar installation. The REC Alpha Series allows you to pack in as much power generation as possible, generating more energy and more savings on your bills.

+20% MORE WITH THE REC ALPHA SERIES!

16 x conventional
310 Wp panels:
System size = 5 kW

16 x REC Alpha Series
380 Wp:
System size = 6 kW

The comparison is clear: even in a regular residential installation, the REC Alpha Series gives you 1 kW more power than conventional panels for more energy and more savings.

15% MORE WARRANTED POWER AFTER 25 YEARS

The lowest claims rate in the industry justifies leading warranty terms. REC’s warranty offering reflects this leadership and supports our premium product quality.

Exclusively offered by REC Certified Solar Professionals, the REC ProTrust Warranty gives enhanced product and labor coverage*, ensuring peace of mind and a lifetime of high power generation:

- 25 years performance warranty
- 25 years product warranty
- Up to 25 year labor warranty

*Conditions apply. See www.recgroup.com/protrust for more details

MAXIMIZE SYSTEM POWER FOR MAXIMUM SAVINGS

A 6 kW REC Alpha Series installation generates over 7,200 kWh of clean energy per year, cutting the CO₂ emissions of a home by 4.7 tons per year*, equivalent to:

- 6 acres of forest per year
- 84 trees planted and grown over 10 years
- CO₂ sequestered by 12,500 m in a family car
- Charging a phone 650,000 times
- Saves 2.8 tons of coal burnt for power
- 2 tons of waste recycled instead of entering landfill

Values may vary dependent on location
### GENERAL DATA

- **Cell type:** 120 half-cut cells with REC heterojunction cell technology
- **Glass:** 0.13 in (3.2 mm) solar glass with anti-reflection surface treatment
- **Backsheet:** Highly resistant polymeric construction
- **Frame:** Anodized aluminum (black)
- **Junction box:** 3-part, 3 bypass diodes, IP67 rated in accordance with IEC 62790

### ELECTRICAL DATA

<table>
<thead>
<tr>
<th>STC</th>
<th>Power Output - P_{max} (Wp)</th>
<th>360</th>
<th>365</th>
<th>370</th>
<th>375</th>
<th>380</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nominal Power Voltage - V_{mpp} (V)</td>
<td>36.7</td>
<td>37.1</td>
<td>37.4</td>
<td>37.8</td>
<td>38.1</td>
</tr>
<tr>
<td></td>
<td>Nominal Power Current - I_{mpp} (A)</td>
<td>9.82</td>
<td>9.85</td>
<td>9.9</td>
<td>9.94</td>
<td>9.98</td>
</tr>
<tr>
<td></td>
<td>Open Circuit Voltage - V_{oc} (V)</td>
<td>43.9</td>
<td>44</td>
<td>44.1</td>
<td>44.2</td>
<td>44.3</td>
</tr>
<tr>
<td></td>
<td>Short Circuit Current - I_{sc} (A)</td>
<td>10.49</td>
<td>10.52</td>
<td>10.55</td>
<td>10.58</td>
<td>10.61</td>
</tr>
<tr>
<td></td>
<td>Power Density (W/sq ft)</td>
<td>19.15</td>
<td>19.41</td>
<td>19.68</td>
<td>19.94</td>
<td>20.21</td>
</tr>
<tr>
<td></td>
<td>Panel Efficiency (%)</td>
<td>20.6</td>
<td>20.9</td>
<td>21.2</td>
<td>21.4</td>
<td>21.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NMOIT</th>
<th>Power Output - P_{max} (Wp)</th>
<th>274</th>
<th>278</th>
<th>282</th>
<th>286</th>
<th>289</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nominal Power Voltage - V_{mpp} (V)</td>
<td>34.6</td>
<td>35</td>
<td>35.2</td>
<td>35.6</td>
<td>35.9</td>
</tr>
<tr>
<td></td>
<td>Nominal Power Current - I_{mpp} (A)</td>
<td>7.93</td>
<td>7.96</td>
<td>8</td>
<td>8.03</td>
<td>8.06</td>
</tr>
<tr>
<td></td>
<td>Open Circuit Voltage - V_{oc} (V)</td>
<td>41.4</td>
<td>41.5</td>
<td>41.6</td>
<td>41.6</td>
<td>41.7</td>
</tr>
<tr>
<td></td>
<td>Short Circuit Current - I_{sc} (A)</td>
<td>8.47</td>
<td>8.5</td>
<td>8.52</td>
<td>8.55</td>
<td>8.57</td>
</tr>
</tbody>
</table>

### MAXIMUM RATINGS

- **Operational temperature:** -40...+85°C
- **Maximum system voltage:** 1000 V
- **Design load (+):** snow 4666 Pa (97.5 lbs/sq ft)
- **Maximum test load (+):** 7000 Pa (146 lbs/sq ft)
- **Design load (-):** wind 2666 Pa (55.6 lbs/sq ft)
- **Maximum test load (-):** 4000 Pa (83.5 lbs/sq ft)
- **Max series fuse rating:** 25 A
- **Max reverse current:** 25 A

### TEMPERATURE RATINGS*

- **Nominal Module Operating Temperature:** 44°C (+2°C)
- **Temperature coefficient of P_{max}:** -0.26 %/°C
- **Temperature coefficient of V_{oc}:** -0.24 %/°C
- **Temperature coefficient of I_{sc}:** 0.04 %/°C

The temperature coefficients stated are linear values.

### LOW LIGHT BEHAVIOUR

Typical low irradiance performance of module at STC.

### CERTIFICATIONS

- IEC 62804 PID
- IEC 61701 Salt Mist
- IEC 62716 Ammonia Resistance
- UL 1703 Fire Type Class 2
- IEC 62782 Dynamic Mechanical Load
- IEC 61215-2:2016 hailstone (35mm)
- AS4040.2 NCC 2016 Cyclic Wind Load

### WARRANTY

- **Installed by an REC Certified Solar Professional:**
  - **System Size:** All ≤25 kW, 25-500 kW
  - **Product Warranty (yrs):** No, 20, 25
  - **Power Warranty (yrs):** 25, 25, 25
  - **Labor Warranty (yrs):** 0, 25, 10
  - **Power in Year 25:** 92% (10%)
  - **Annual Degradation:** 0.25% (0.25%)
  - **Power in Year 20:** 92% (0.25%)

### ELECTRICAL DATA

- **Product Code:** RECxxxxAA
- **Power Output - P_{max} (Wp):**
  - 360
  - 365
  - 370
  - 375
  - 380
- **Watt Class Sorting - (W):** -0/+5
- **Nominal Power Voltage - V_{mpp} (V):**
  - 36.7
  - 37.1
  - 37.4
  - 37.8
  - 38.1
- **Nominal Power Current - I_{mpp} (A):**
  - 9.82
  - 9.85
  - 9.9
  - 9.94
  - 9.98
- **Open Circuit Voltage - V_{oc} (V):**
  - 43.9
  - 44
  - 44.1
  - 44.2
  - 44.3
- **Short Circuit Current - I_{sc} (A):**
  - 10.49
  - 10.52
  - 10.55
  - 10.58
  - 10.61
- **Power Density (W/sq ft):**
  - 19.15
  - 19.41
  - 19.68
  - 19.94
  - 20.21
- **Panel Efficiency (%):**
  - 20.6
  - 20.9
  - 21.2
  - 21.4
  - 21.7

### NMOIT

- **Power Output - P_{max} (Wp):**
  - 274
  - 278
  - 282
  - 286
  - 289
- **Nominal Power Voltage - V_{mpp} (V):**
  - 34.6
  - 35
  - 35.2
  - 35.6
  - 35.9
- **Nominal Power Current - I_{mpp} (A):**
  - 7.93
  - 7.96
  - 8
  - 8.03
  - 8.06
- **Open Circuit Voltage - V_{oc} (V):**
  - 41.4
  - 41.5
  - 41.6
  - 41.6
  - 41.7
- **Short Circuit Current - I_{sc} (A):**
  - 8.47
  - 8.5
  - 8.52
  - 8.55
  - 8.57

### IRRADIANCE PERFORMANCE

Typical low irradiance performance of module at STC.

*Values at standard test conditions (STC: air mass AM1.5, irradiance 10.75 W/sq ft (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 (NMOIT: air mass AM1.5, irradiance 800 W/m², temperature 68°F (20°C), wind speed 3.3 ft/s (1 m/s)). Where xxx indicates the nominal power class (P_{max}) at STC above.*

**Note:** Specifications subject to change without notice.

**REC Group** is an international pioneering solar energy company dedicated to empowering consumers with clean, affordable solar power in order to facilitate global energy transitions. Committed to quality, innovation, and an industry-leading warranty, REC offers photovoltaic modules with leading high quality backed by the lowest known warranty claims rate in the industry. Founded in Norway in 1996, REC employs 2,000 people and produces 1.8 GW of solar panels annually. With over 10 GW installed worldwide, REC is empowering more than 16 million people with clean solar energy. REC Group is a Bluestar Elkem company with headquarters in Norway, operational headquarters in Singapore, and regional bases in North America, Europe, and Asia-Pacific.