



# SOLAR MODULE REC SOLAR PREMIUM

## DATASHEET

### Product-Types:

REC Solar Premium 210 Wp  
REC Solar Premium 215 Wp  
REC Solar Premium 220 Wp  
REC Solar Premium 225 Wp  
REC Solar Premium 230 Wp  
REC Solar Premium 235 Wp

### UNCOMPROMISING QUALITY

The REC Solar Premium is a very high quality series of solar modules designed to meet system demand with exceptional performance. Rigorous quality control via automated camera inspection systems is applied throughout the production process; from cells to modules. The multicrystalline solar cells within each module are optimized for low light conditions and increased light absorption. The surfaces of the cells are acidic etched, providing optimal cell efficiency. The high quality modules have an innovative design that minimizes or reduces shading effects in order to achieve maximum performance. A power output tolerance of  $\pm 5\%$  guarantees minimum mismatch losses. User manual and mounting system information are available upon request.

### QUICK INSTALLATION

The REC Solar Premium allows quick and easy installation. The modules are equipped together with MC FlexSol solar cables, together with MC III connectors for problem-free inter-module connection.

### ENVIRONMENTALLY FRIENDLY PRODUCTS & PROCESSES

The REC Solar Premium series generate reliable and environmentally friendly electricity. The cell and module production processes are designed to maximize recycling and reduce environmental impact. REC's wafers, cells and modules are produced within Scandinavia and our activities are therefore subject to very high standards of regulation regarding environmental issues.

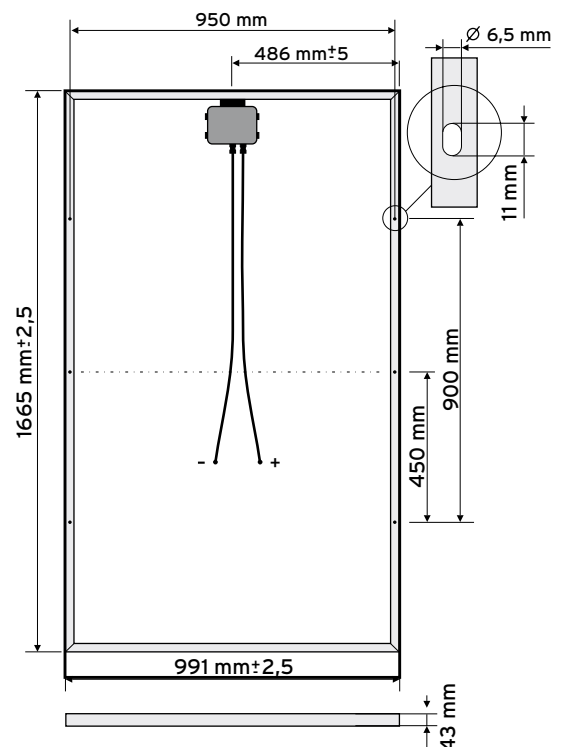
### CUSTOMER SATISFACTION GUARANTEE

The REC Solar Premium module comes with a guarantee of 90% of rated power output for 10 years and 80% of rated power output for 25 years. Furthermore it comes with a 5 year limited warranty on materials and workmanship.

Further warranty information is available on request.

### 5400 Pa\*

Tested for mechanical load (according to extended mechanical load test). Suitable for heavy snow and wind conditions. \*equals 551 kg/m<sup>2</sup> mechanical load.



MODULE TYPE	REC SOLAR PREMIUM					
CELL TYPE	210 Wp Multicrystalline	215 Wp Multicrystalline	220 Wp Multicrystalline	225 Wp Multicrystalline	230 Wp Multicrystalline	235 Wp Multicrystalline
<b>ELECTRICAL DATA</b>						
Nominal Power P <sub>mpp</sub> (Wp)	210	215	220	225	230	235
Power Output Tolerance P <sub>mpp</sub> (%)	±5	±5	±5	±5	±5	±5
Maximum Power Voltage V <sub>mpp</sub> (V)	28	28.3	28.7	29.1	29.4	29.8
Maximum Power Current I <sub>mpp</sub> (A)	7.5	7.6	7.7	7.7	7.8	7.9
Open Circuit Voltage Voc (V)	36.1	36.3	36.6	36.8	37.1	37.4
Short Circuit Current Isc (A)	8.1	8.1	8.2	8.2	8.3	8.3
Temperature Coefficient of P <sub>mpp</sub> (% / °C)	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
Temperature Coefficient of Voc (mV / °C)	-121	-121	-121	-121	-121	-121
Temperature Coefficient of Isc (mA / °C)	6	6	6	6	6	6
Cell Efficiency (%)	14.4	14.7	15.1	15.4	15.8	16.1
Module Efficiency (%)	12.7	13.0	13.3	13.6	13.9	14.2
Diodes	3 x 12 A	3 x 12 A	3 x 12 A	3 x 12 A	3 x 12 A	3 x 12 A
Fill Factor FF (%)	72	73	73	74	75	75
Values at Standard Test Conditions STC (Air Mass AM 1.5, Irradiance 1000 W/m <sup>2</sup> , Cell temperature 25 °C)						
Performance measurements at different low irradiance levels: 800 W/m <sup>2</sup> = -19.6%, 500 W/m <sup>2</sup> = -49.8%, 200 W/m <sup>2</sup> = -80.6%.						
<b>NOCT = 43°C ± 2</b> The NOCT (nominal operating cell temperature) is the cell temperature reached at an irradiance of 800 W/m <sup>2</sup> , at an ambient temperature of 20 °C and a wind speed of 1 m/s.						

SIZE AND WEIGHT	REC SOLAR PREMIUM
Area (m <sup>2</sup> )	1.65
Length (mm)	1665
Width (mm)	991
Thickness with frame (mm)	43
Weight (kg)	22

#### OPERATION LIMITS

Maximum System Voltage: 1000 V  
 Module temperature range: - 40... + 80 °C  
 Maximum load: 180 kg/m<sup>2</sup> (according to IEC 61215) and security factor 3.  
 Stormproof: wind speed of up to 197 km/h, equals 1800 Pa and security factor 3.

#### SPECIFIC DATA

##### Cells

Multicrystalline, acidic etched cells produced by REC ScanCell AS; 156mm x 156mm, full square, 60 per module, well suited even for low-light conditions.

##### Module

Front: high-transparency solar glass with antireflection surface treatment.  
 Encapsulation: EVA.  
 Backsheet: Tedlar.  
 Junction box: easy access, 3 bypass diodes.  
 Frame: anodized aluminum.

##### Connection

2 x 0.94 m solar cables with MC III connectors.



#### CERTIFICATION / STANDARDS

REC Solar Premium Modules are TÜV tested on IEC 61215 accredited and Safety Class II (TÜV-Spec 931/2.572.9) accredited.



For further information contact your local distributor or visit our web site:  
[www.recgroup.com](http://www.recgroup.com)