



# SOLAR MODULE REC AE-US SERIES

## DATASHEET

REC205AE-US  
REC210AE-US  
REC215AE-US  
REC220AE-US  
REC225AE-US  
REC230AE-US

### UNCOMPROMISING QUALITY

The REC AE-US Series is a high-quality series of solar modules designed to meet exceptional standards for system and module performance. REC manufactures its own silicon, wafers, cells and modules and does extensive quality control throughout the complete production process. REC can be depended upon to provide a secure, steady supply of modules that are manufactured to the highest standards of quality from beginning to end.

The REC AE-US Series utilizes 60 high efficiency, multicrystalline 6.14 inch (156mm) square cells. The modules provide outstanding performance in low-light conditions due to their special glass treatment. The easy-access rear junction box has built-in bypass diodes to minimize the effects of shading. The laminate's Tedlar backing and anodized aluminium frame ensures many years of peak performance.

The modules are designed to withstand heavy snow and wind conditions.

### QUICK INSTALLATION

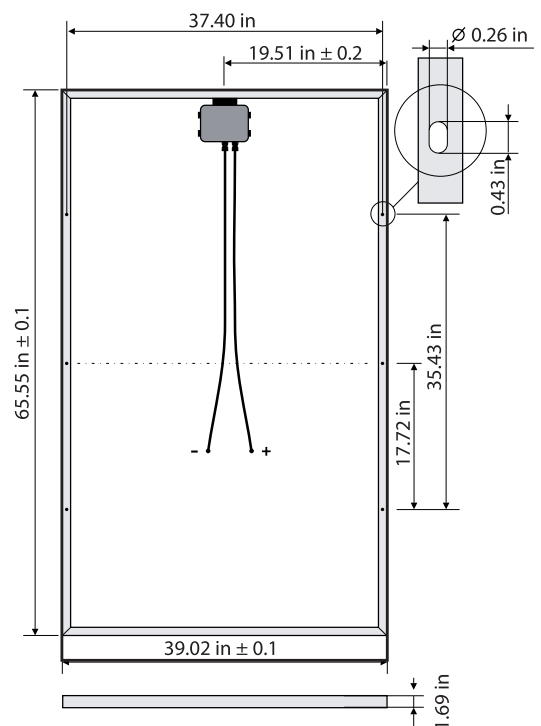
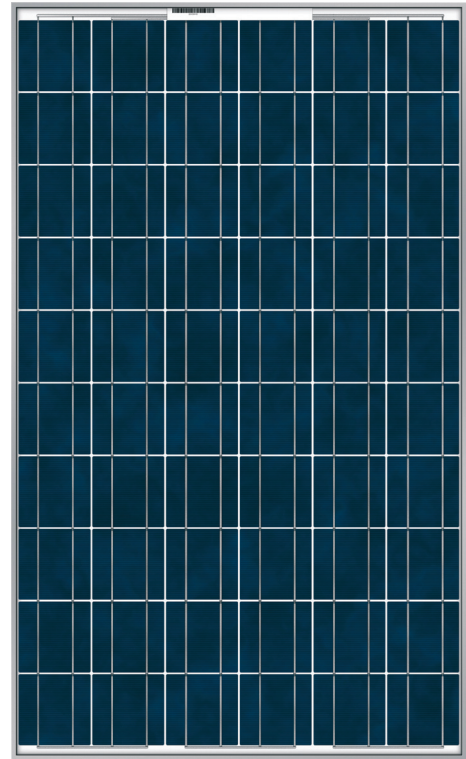
Multi-Contact Solarline MC4 locking connectors allow quick and easy inter-module connection, and system installation. The MC FlexSol double-insulated output wiring provides for safer array wiring, and makes the REC AE-US Series compatible with the use of transformerless inverter technology. This insures that the REC AE-US Series is ready today to work with tomorrow's inverter technologies.

### ENVIRONMENTALLY FRIENDLY PRODUCTS & PROCESSES

The REC AE-US Series generates reliable and environmentally friendly electricity. The cell and module production processes are designed to maximize recycling and reduce environmental impact. REC polysilicon is manufactured in the US (Moses Lake, WA and Butte, MT). REC wafers, cells and modules are manufactured in Scandinavia.

### FIRST-CLASS WARRANTY

The REC AE-US Series modules come with a guarantee of 90% of rated power output after 10 years and 80% of rated power output after 25 years. The modules have a 63-month limited warranty on materials and workmanship.



MODULE TYPE	REC AE-US SERIES					
MODEL	REC AE205-US	REC AE210-US	REC AE215-US	REC AE220-US	REC AE225-US	REC AE230-US
<b>ELECTRICAL DATA</b>						
Peak Power Watts - P <sub>mpp</sub> (Wp)	205	210	215	220	225	230
Power Output Tolerance - P <sub>mpp</sub> (%)	± 3	± 3	± 3	± 3	± 3	± 3
Maximum Power Voltage - V <sub>mpp</sub> (V)	28.1	28.2	28.3	28.7	29.1	29.4
Maximum Power Current - I <sub>mpp</sub> (A)	7.3	7.5	7.6	7.7	7.7	7.8
Open Circuit Voltage - Voc (V)	36.1	36.1	36.3	36.6	36.8	37.1
Short Circuit Current - Isc (A)	7.9	8.1	8.1	8.2	8.2	8.3
Temperature Coefficient of P <sub>mpp</sub> (%/°C)	- 0.452	- 0.452	- 0.452	- 0.452	- 0.452	- 0.452
Temperature Coefficient of Voc (%/°C)	- 0.34	- 0.34	- 0.34	- 0.34	- 0.34	- 0.34
Temperature Coefficient of Isc (%/°C)	0.074	0.074	0.074	0.074	0.074	0.074
Cell Efficiency (%)	14.0	14.4	14.7	15.1	15.4	15.8
Module Efficiency (%)	12.4	12.7	13.0	13.3	13.6	13.9
Max Series Fuse Rating (A)	15	15	15	15	15	15

Values at Standard Test Conditions STC (Air Mass AM1.5, Irradiance 1000 W/m<sup>2</sup>, Cell temperature 25 °C)

**NOCT (Nominal Operating Cell Temperature)** 47.5°C ± 2  
 The NOCT values are reached at an irradiance of 800 W/m<sup>2</sup>, at an ambient temperature of 68 °F [20 °C] and a wind speed of 1 m/s.

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%.

SIZE AND WEIGHT	REC AE-US SERIES	
Area	17.76 ft <sup>2</sup>	[1.65 m <sup>2</sup> ]
Length	65.55 in	[1665 mm]
Width	39.02 in	[991 mm]
Thickness with frame	1.69 in	[43 mm]
Weight	48.50 lbs	[22 kg]

#### OPERATION LIMITS

Module temperature range - 40... + 176°F [- 40... + 80°C]  
 Maximum System Voltage 600 V  
 Mechanical load 5400 Pa, equals 112.8 lbs/ft<sup>2</sup> [551 kg/m<sup>2</sup>]  
 Wind speed Rated for wind speed of up to 122 mph [197 km/h] with safety factor 3  
 Fire Rating: Class C

#### GENERAL

**Cells**  
 Multi-crystalline cells 156mm x 156mm, 60 in series per module

**Module**  
 Front High-transparency solar glass with antireflection surface treatment  
 Encapsulation EVA.  
 Backsheet TPT foil  
 Junction box Multi-Contact Solarline MC4  
 3 bypass diodes  
 Frame Clear anodized aluminum

**Connection**  
 2 x 61 inches [1.55 m] solar cables with MC4 connectors

Note: Specifications subject to change without notice.



#### CERTIFICATION / STANDARDS

Certified according to UL 1703 - 3rd edition

CEC/CSI listed



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