

HIGH PERFORMANCE SOLAR MODULES

REC PEAK ENERGY PLUS SERIES

REC Peak Energy Plus modules combine high performance at higher temperatures and in low light conditions with the longlasting quality and power output that REC is known for. The multicrystalline modules with innovative backside passivation technology provide more energy per watt peak, producing more electricity from dawn to dusk.



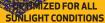
OPTIMIZED FOR HIGHER TEMPERATURES



ENERGY PAYBACK TIME OF ONE YEAR

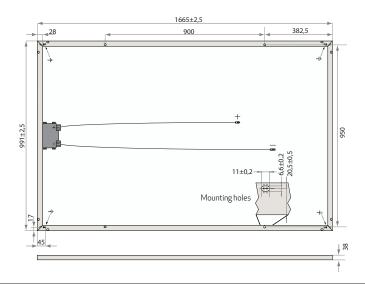








REC PEAK ENERGY PLUS SERIES



ELECTRICAL DATA @ STC	REC235PE PLUS	REC240PE PLUS	REC245PE PLUS	REC250PE PLUS	REC255PE PLUS
Nominal Power-P _{MPP} (Wp)	235	240	245	250	255
Watt Class Sorting - (W)	0/+5	0/+5	0/+5	0/+5	0/+5
Nominal Power Voltage - V _{MPP} (V)	29.5	29.9	30.2	30.3	30.6
Nominal Power Current - I _{MPP} (A)	8.12	8.18	8.23	8.29	8.34
Open Circuit Voltage - V _{oc} (V)	36.6	37.2	37.5	37.7	38.0
Short Circuit Current - I _{SC} (A)	8.70	8.75	8.79	8.84	8.89
Module Efficiency (%)	14.2	14.5	14.8	15.1	15.5

Analysed data demonstrates that 99.7% of modules produced have current and voltage tolerance of $\pm 3\%$ from nominal values. Values at standard test conditions STC (airmass AM 1.5, irradiance 1000 W/m², cell temperature 25°C). At low irradiance of 200 W/m² (AM 1.5 and cell temperature 25°C) at least 97% of the STC module efficiency will be achieved.

ELECTRICAL DATA @ NOCT	REC235PE PLUS	REC240PE PLUS	REC245PE PLUS	REC250PE PLUS	REC255PE PLUS
Nominal Power - P _{MPP} (Wp)	180	184	187	190	193
Nominal Power Voltage - V _{MPP} (V)	27.6	28.0	28.3	28.5	28.8
Nominal Power Current - I _{MPP} (A)	6.53	6.56	6.60	6.65	6.68
Open Circuit Voltage - V _{oc} (V)	34.6	35.1	35.4	35.6	35.8
Short Circuit Current - I _{SC} (A)	6.99	7.03	7.06	7.11	7.14

 $Nominal\ cell\ operating\ temperature\ NOCT\ (800\ W/m^2, AM1.5, windspeed\ 1\ m/s, ambient\ temperature\ 20^\circ C).$

15.5% EFFICIENCY

YEAR PRODUCT WARRANTY

25 YEAR LINEAR POWER OUTPUT WARRANTY

TEMPERATURE RATINGS

 $\begin{tabular}{lll} Nominal Operating Cell Temperature (NOCT) & 46.9 °C ($\pm 2 °C)$ \\ Temperature Coefficient of P_{MPP} & $-0.36 \%/°C$ \\ Temperature Coefficient of V_{OC} & $-0.26 \%/°C$ \\ Temperature Coefficient of I_{SC} & $0.022 \%/°C$ \\ \hline \end{tabular}$

GENERAL DATA	
Cell Type	60 REC PE multi-crystalline cells 3 strings of 20 cells - 4 by-pass diodes
Glass	3.2 mm solar glass with anti-reflection surface treatment
Back Sheet	Double layer highly resistant polyester
Frame	Anodized aluminium (silver)
Junction box	IP67
Cable	4 mm 2 solar cable, 0.90 m $+1.20$ m
Connectors	Hosiden 4mm² (HSC 2009/2010) MC4 connectable

MAXIMUM RATINGS	
Operational Temperature	-40 +80°C
Maximum System Voltage	1000 V
Maximum Snow Load (IEC)	550 kg/m² (5400 Pa)
Maximum Wind Load (IEC)	244 kg/m² (2400 Pa)
Max Series Fuse Rating	25 A
Max Reverse Current	25 A

CERTIFICATION





IEC 61215 & IEC 61730, IEC 62716 (ammonia resistance) & IEC 61701 (salt mist - severity level 6).



WARRANTY

10 year product warranty 25 year linear power output warranty (max. degression in performance of 0.7% p.a.)

MECHANICAL DATA

 $\begin{array}{lll} Dimensions & 1665 \times 991 \times 38 \, mm \\ Area & 1.65 \, m^2 \\ Weight & 18 \, kg \end{array}$

Note! Specifications subject to change without notice.

REC is a leading vertically integrated player in the solar energy industry. Ranked among the world's largest producers of polysilicon and wafers for solar applications and a rapidly growing manufacturer of solar cells and modules, REC also engages in project development activities in selected PV segments. Founded in Norway in 1996, REC is an international solar company employing about 3,200 people worldwide with revenues of about EUR 1.7 billion in 2011.



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