

PRODUCT DATASHEET

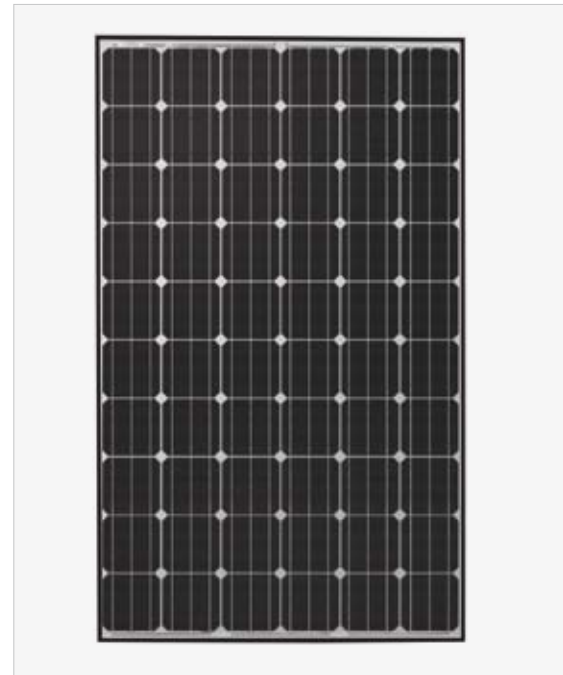
REW PREMIUM PLUS UM 60 BLACK FRAME



**+ 9% POSITIVE
ADDED PERFORMANCE!**

**UP TO 20% MORE YIELD THAN
CONVENTIONAL MODULES!**

**40 YEAR GUARANTEE
ON 80% OF THE PERFORMANCE!**



Similar image | Subject to modifications/technical improvements

PREMIUM PLUS™ HIGHEST YIELD GUARANTEED FOR MANY DECADES

With the PREMIUM PLUS™ module series, REW SOLAR® have now positioned ourselves to deliver the leading high-performance, silicon-crystal-based module. Research and development have enabled this module to attain the highest yields, which means that now we are probably the first company worldwide to be able to offer silicon modules with a performance tolerance which is always between +7% and +12%. Yield risk therefore no longer exists. With this module, less favourable customer projects are now achieving the highest yields.

Our PREMIUM series is manufactured on fully automated production lines built by the leading European plant builder. Quality control is carried out by independent specialists who ensure that our customers benefit long term from top industrial performance. After 10 years we still guarantee 95% of the nominal performance, after 30 years 90% are guaranteed and after 40 years we continue to guarantee 80% of the nominal rates. After that we still expect highly respectable returns for many years to come. This constitutes a level of customer protection unparalleled on the market today.

The PREMIUM PLUS™ module series bears the performance and safety certificates from world recognised test institutes and is in full conformity with all relevant National and International standards. Mechanical load resistance, electrical safety and long-lasting durability are constantly guaranteed. On top of that every module gets Flash & Electroluminescence tested for performance and hairline cracks.

THE ADVANTAGES:

- Only positive performance of +7% to +12%
- Unique performance guarantee of 40 years
- 6 Bypass diodes
- Fully automated module production
- Electroluminescence & Flash tests on every single module
- Highly efficient German engineering
- Production monitoring by the technical inspection bodies TÜV Rheinland and MCS

ELECTRIC PARAMETERS

REW Premium	225 UM60	230 UM60	235 UM60	240 UM60
Rated power (P _{mpp})* [W]	225	230	235	240
Rated voltage (U _{mpp}) [V]	30,4	30,5	30,6	30,8
Rated current (I _{mpp}) [A]	8,06	8,2	8,35	8,45
Open-circuit voltage (U _{oc}) [V]	37,2	37,6	37,8	38,0
Short circuit current (I _{sc}) [A]	8,6	8,7	8,82	8,98
Cell Efficiency [%]	17,1	17,4	17,8	18,2
10y Performance warranty on 95%	214 W _p	219 W _p	223 W _p	228 W _p
30y Performance warranty on 90%	203 W _p	207 W _p	212 W _p	216 W _p
40y Performance warranty on 80%	180 W _p	184 W _p	188 W _p	192 W _p

* Availability of the performance class will be checked on enquiry

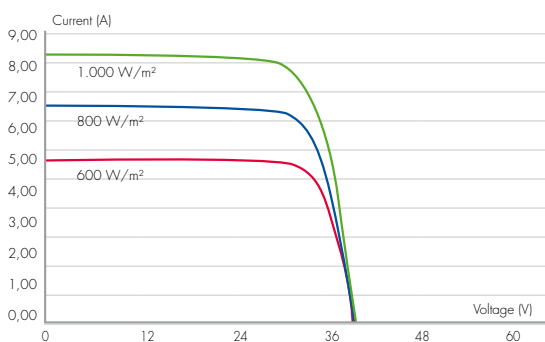
Power tolerance	+7% to +12%
Cell type	monocrystalline
max. system voltage [V]	1.000 (EU) / 600 (USA)
Operating Temperature	- 40° C to + 85° C

Temperature coefficient α (U _{oc})	- 0,300% / ° C
Temperature coefficient P _{max}	- 0,413% / ° C
Temperature coefficient β (I _{sc})	0,040% / ° C
NOCT	45 ± 2° C

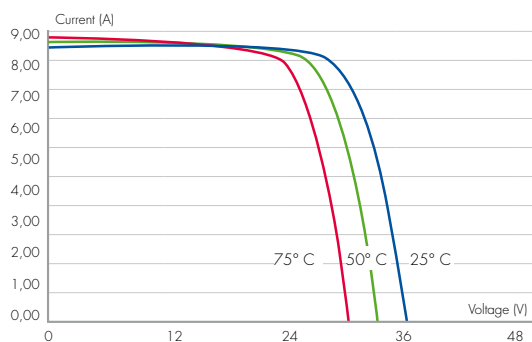
Performance figures under standard test conditions: Radiation strength 1.000 W/m², Air Mass 1.5, cell temperature 25° C. Deviation from U_{mpp} [V], I_{mpp} [A], U_{oc} [V] and I_{sc} [A] of ±10%.

CHARACTERISTIC CURVE

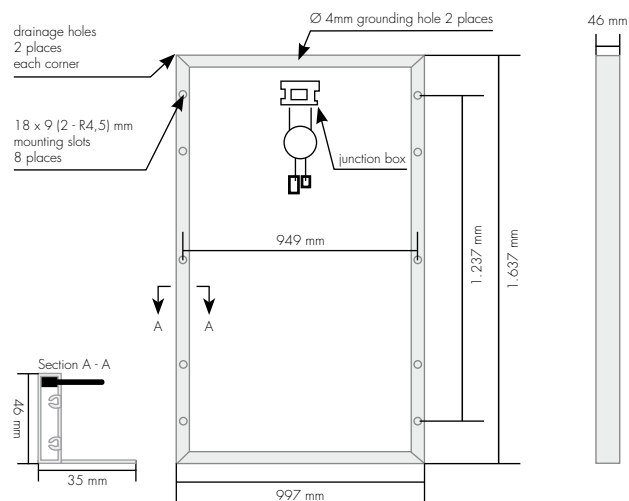
IV Curves at different irradiance



IV Curves at different temperature



TECHNICAL DRAWING



Data subject to amendment. As a result of constant development and production improvements, the specifications and information in this technical data sheet may be amended without prior announcement.

MECHANICAL PARAMETERS

Outer dimensions (L x W x H)	1.637 x 997 x 46 mm
Cell dimensions	156 x 156 mm
Number of cells	60 (6 x 10)
Weight	19 kg

WARRANTY (MINIMUM CAPACITY)

Performance warranty on 95%**	12 years
Performance warranty on 90%**	30 years
Performance warranty on 80%**	40 years
Product warranty	10 years

** of the module's rated power. According to our terms of warranty.

TESTED CONFORMITY ACC. TO:
IEC 61215, IEC 61730, CE, ISO 9001, MCS

