## QUALITY MANUFACTURING

REC products and production processes are certified according to multiple industry standards by independent third parties, solidifying the fact that REC meets the highest quality standards for a long-lasting product and performance:



Quality System for PV Module Manufacturing

ISO 9001: 2015

Quality Management System





### QUALITY OF TESTING

REC uses its own test lab to ensure high quality during product development and as a part of continuous quality review.

The test lab is certified by VDE to TDAP standards, underlining the high quality of test processes as well as REC's all-round exactitude in the measurement and the calibration of test equipment. This means that at every stage, REC products are tested to the highest levels of accuracy.



### ment. This means EC products are rels of accuracy.

## ENVIRONMENT + SAFETY

The first consideration for REC is always to ensure the health and safety of its production and products for employees, for customers and for the environment. To ensure all REC production facilities meet the highest standards, our factories have been certified to:

ISO 14001: 2015

Environmental Management Systems

OHSAS 18001: 2007

Occupational Health and Safety Management



### REC WARRANTY

The best warranty is one you neverhave to use, and to support REC's high quality, the REC ProTrust Warranty is a premium warranty package that protects our customers in case of a claim.

Offered exclusively by trained REC Certifed Solar Professional installers, the unique coverage of the REC ProTrust Warranty gives you greater savings, economic security, and more energy autonomy.



### RODUCT

Coverspanel defects and promises superior quality for at least 20 years. All panels are eligible for a + 5 year product warranty extension as part of the REC ProTrust Warranty.

Ensures that REC panels perform exactly as expected, PERFORMANCE every year for 25 years. Higher warranted power and annual yield, enables greater ROI predictability.

LABOR

Unique to the REC ProTrust Warranty, this gives added protection in the unlikely event of servicing being required.

The table below prov	ides an overview of	The table below provides an overview of REC's leading warranty by system size:	nty by system size:
REC warranty type	REC PROTRUST WARRANTY	TWARRANTY	RECSTANDARD WARRANTY
Installer group	Exclusive to REC Certified Solar Professional installers	CCertifiedSolar al installers	All installers
Systemsize	<25kW	25-500 kW	All
Product Warranty	25 years*	25 years*	20 years
Labor Warranty	25 years*	10 years*	
Performance Warranty	Minimum power in year 1	Year 2-25 maximum annual degradation	Guaranteed % of power in year 25
REC Alph∝ <sup>®</sup> Pure		0 25%	02.0%
REC N-Peak 2	98.0%	c.P.U.	() () ()
REC TwinPeak 4		0.5%	86.0%

\*Cortain conditions may apply Installations must be registered via REC SunSnapappor REC Certified Solar Professional Purtatio bevailed Visit www.recgroup.com/warranty for fur their details.











## SALT MIST RESISTANCE

against salt mist. breakdown if not properly protected panel. This can potentially lead to panel discoloration and degradation in a solar environments increases the chance of The higher concentration of salt in coastal

salt mist conditions. highestprotection againstenvironmenta All REC panels pass the IEC 61701 Severity Level 6 standard, ensuring the



### 35 MM HAIL RESISTANCE

of a hailstone up to 35 mm in diameter of 25 mm diameter at 7.5 g. and 20.7 g mass. This far surpasses the including the ability to resist the impact panels, breaking the glass and other resistance offered by most competitors REC panels are certified to IEC 61215 components which can lead to power loss Hail can cause significant damage to solar





### environmental conditions, can have a major impact on the performance of a solar panel Strong winds, as well as other common long-term

DYNAMIC MECHNICAL LOAD

reliability under the different forces seer strong winds and verifies a panel's high REC certifies all of its panels to IEC 62782, which simulates the effect of in real life weather conditions





### AMMONIA RESISTANCE

and buildings, including solar panels. leads to corrosion of surrounding objects it can cause a chemical reaction which in livestock barns. In high concentration Ammonia is a caustic gas that can develop

All REC panels have passed the IEC 62716 the atmosphere. nigh levels of ammonia concentration in test standard, which ensures resistance to





### RESISTANCE TO FIRE

and local ignitability standards, including protect against this, REC certifies its practices or defective connections. To is generally a result of poor installation solar panels to all relevant international Fire is incredibly rare in solar panels, and

- UL 790 (modified acc. to UL 61730)
- UNI 8457 & UNI 9174 (UNI 9177)

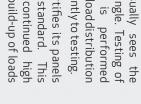




### NON-UNIFORM LOADS

A solar installation usually sees the panels installed on an angle. Testing of can affect a panel differently to testing. horizontally meaning the load distribution the panels however, is performed

that are unevenly spread. performance under the build-up of loads determines a panel's continued high to the IEC 62938 standard. For this reason, REC certifies its panels





### CYCLIC WIND LOADS

PID RESISTANCE

dangerous projectiles. buildings and turn common objects into Cyclones can cause incredible damage to

cyclone testing centre, guaranteeing certifies its panels to AS 40404.2 and the worst of conditions. the panels to ensure they can withstand thorough and comprehensive testing of NCC 2016 LHL at Australia's premier To ensure safety in cyclone regions, REC





# TOP PERFORMER RATING

through a series of exacting tests. manufacturers and their products put testing program sees numerous solar The annual PVEL independent panel

DNV·GL

rated as a Top Performer, demonstrating the lasting quality promise we make to our customers. Every year since 2016, REC has been

> DNV-GL 10º PERFORME





RELIABILITY SCORECARD



PV MODULE



panels pass an enhanced IEC 62804 PID

its panels were PID-free. Today, all REC of the first manufacturers to ensure all of By using unique technology, REC was one of humidity.

by high voltages, temperatures, and levels caused by leakage currents and heightened power loss phenomenon at system level Potential Induced Degradation (PID) is a

certification, ensuring the highest leve

of resistance.