

Energy meets quality.

The Heckert Solar GmbH is committed to the production of PV modules with an outstanding quality as regards output and life span. To fulfill this promise, the production has been continuously improved. The results are high quality modules 100% "Made in Germany", which, from a technical point of view as well as for quality reasons, show exceptionally high standards.

In order to achieve these high standards Heckert Solar accepts longer production times than what is customary within the PV industry. State of the art production lines, dedicated and qualified employees, more than 100 test stations and many years of know-how ensure genuine German quality and high yield stability over a long period of time. Heckert Solar grants 11 years of product warranty and has thus reached the top position in the pv industry. In addition the module manufacturer provides 25 years performance warranty.



10 good reasons to go with Heckert Solar:

1 High-quality raw materials and well-established suppliers

Starting with the supplier selection, Heckert Solar makes high demands which are, indeed, required for the fabrication of a superior product. Heckert Solar uses only high-quality material from well-established suppliers.

In the area of system-relevant components like inverters, mounting systems or wiring we also cooperate exclusively with the market leaders.

2. Professional know-how and extensive experience as regards production

Fully automatic production lines ensure a consistently high product quality and a careful handling of all components. The cell handling by using a rotary indexing table reduces the movement of the sensitive cells to only 2, instead of the customary 6-8 times. Thus, mechanical stress and the risk of micro-cracks in the cell is minimized.

3. Use of temperature-controlled soldering

Heckert Solar has introduced an unique and innovative soldering method, enabling a gentle and stress free soldering of the entire string at once. The actual soldering process is performed under constant temperature control and lasts about 5 times longer as does the industry standard and has the advantage of exposing the strings to a much lower thermal load as usual. Due to this, unnecessary thermal stresses already are avoided in the warm-up phase of the material. Pre- and post-heating cycles integrated in the soldering process provide an excellent soldering quality. The risk of micro-cracks in the cell is minimized dramatically. Additionally integrated in the soldering process are automatic controls of cell position and string connection as well as crack, burst and print control of the cells.

4. Increased degree of cross-linking of EVA foils ensures high protection of cells

Again, Heckert Solar invests more time. Due to longer lamination periods we achieve cross-linking rates of up to 85%. Usual rates are 70-75%. The optimized cross-linking rates result in a more durable and stable encapsulation and impede moisture penetration.

5. Smart junction box by Tyco Electronics

Another core element of the modules is the junction box supplied by Tyco Electronics. TE uses the 2-component injection-moulding technology. A high dimensional protection

circuit preventing hot-spot effects in the PV module ensures the life span of the entire PV system additionally. Finally, the junction box features a pressure equalizing membrane inside. To complete the sealing, Heckert Solar roughs off the rims of the junction box in an additional production step by plasma nitriding. In addition with the use of a polymer instead of silicone glue this results in a temperature-insensitive connection which ensures the tightness over the complete life span of the solar module (IP65).

6. Innovative glueing technology

Laminate and frame are connected permanently with special 2-component glue. Pull-off forces effected by snow or ice can be prevented. In addition, the condition of the special glue ensures a higher stability and effectively prevents water from entering the module compound. Further advantages of this special glueing technology are a very good weather-, ageing- and UV-resistance, an excellent edge sealing and high bonding strength.

7. Plus-sorting up to +4,99Wp

Our flasher with grade AAA provides precise measurement results. Each module delivered by Heckert Solar has a plus tolerance of up to 4.99 Wp. This means, you always get more power than you have paid for.

8. Performance and temperature coefficient and degradation of the cells.

Modules by Heckert Solar showcase a lower coefficient of performance and temperature than monocrystalline modules. In case of rising temperature the output drops less and still stays at a high level especially at full load in the summer months. Another advantage of the Heckert Solar modules is the low degradation (natural loss of power over the years). In the long term, polycrystalline modules offer better yields and they generally are not subject to the initial degradation of up to 5% which can occur with monocrystalline solar modules.

9. Excellent performance at weak light

Heckert Solar modules have been developed in Germany for Central European weather conditions. Their proven excellent performance at weak light leads to above-average yields even at poor weather conditions (e.g. cloudy skies).

10. Heckert Solar is one of the best performing companies in Germany

As a family-owned company Heckert Solar benefits from short decision paths, a lean management and personal interest in the success of the company. The competencies focus exclusively on the photovoltaic development and production. With an equity ratio of roundabout 75% Heckert Solar is in a good financial position and stands out from other German manufacturers. This is one of the reasons why the financial analyst Bisnode Germany (formerly known as Hoppenstedt Credit Information) for the fourth time in a row awarded Heckert Solar the Top Rating certificate which confirms that the company ranks among the top 5% in Germany as regards creditworthiness.



Conclusion:

For over 13 years Heckert Solar manufactures premium solar modules in Chemnitz, Germany and has realized several 1,000 projects in Germany and beyond. More than 1,000 customers are convinced of the quality of our PV modules.