energetica
PHOTOVOLTAIC INDUSTRIES

Innovation. Power. Sustainability.

From Austria
for more than 25 years.

e.Classic M HC

120 MONO PERC halfcells. STC Performance 370 to 390 Wp.

Data sheet

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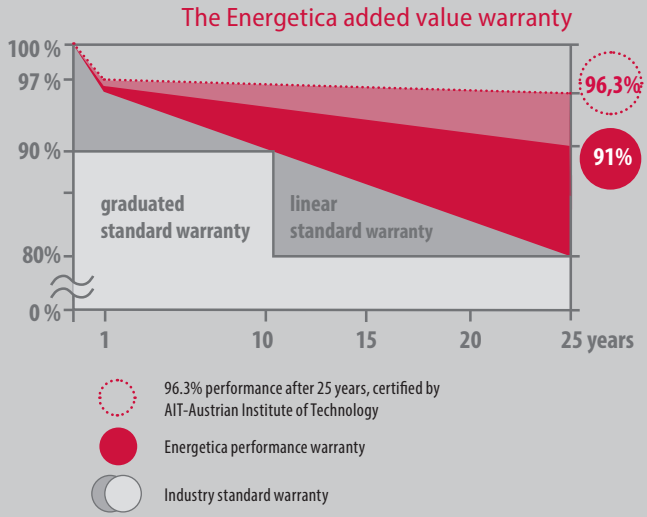
Innovation. Power. Sustainability. From Austria for more than 25 years.

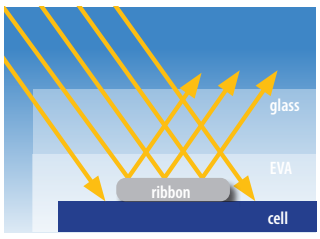
Energetica Photovoltaic Industries GmbH is an Austrian photovoltaic technology company based in Liebenfels.
25 years of industry experience result in our high-tech product portfolio, which is developed, tested and manufactured in a climate-neutral manner in one of the world's most modern 4.0 production facilities for PV modules.

More performance guaranteed.

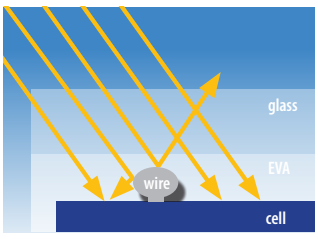
As top-class products, Energetica PV modules are characterized by maximum performance and a very long service life. Our patented e.ISP technology not only increases the energy yield compared to conventional modules, but also reduces the degradation (wear and tear) of the cells.
Based on extensive test series, the AIT-Austrian Institute of Technology certifies the performance of Energetica modules at an impressive 96.3 percent even after 25 years.
Therefore, in addition to a 17-year product warranty, we also offer a linear performance warranty* of 91 percent of the initial performance after 25 years.

* Details of the performance warranty (value-added warranty) see Energetica Approved Warranty in the first year 97% of the nominal output and at least 91% of the nominal output in the 25th year.





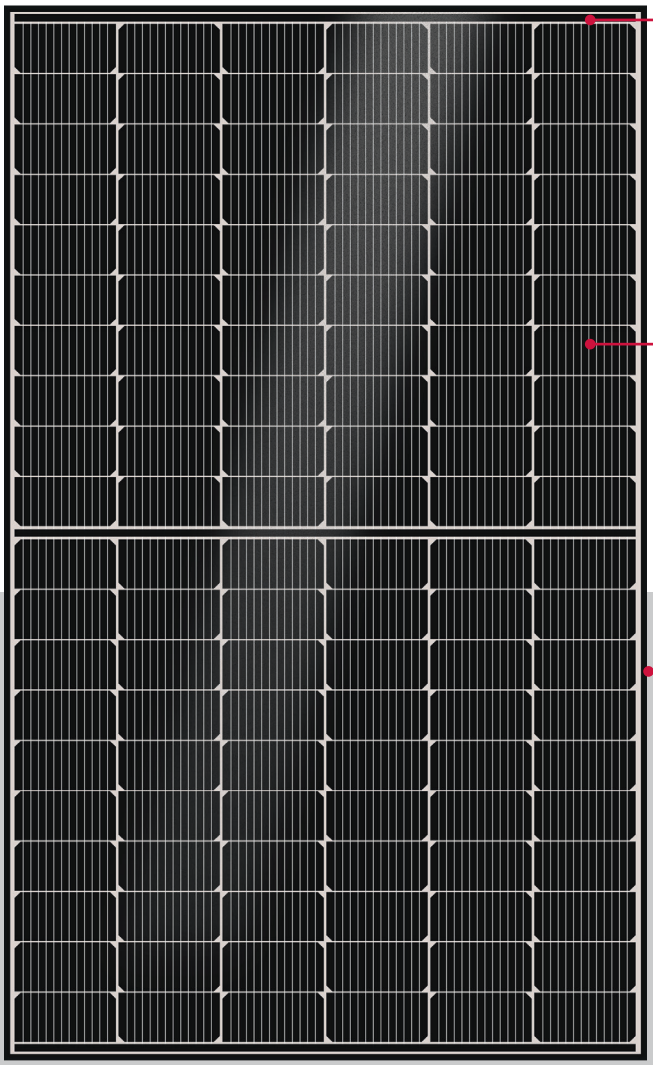
Standard busbar technology



12-busbar technology

Pioneering technologies

The new e.Classic series uses 12-busbar technology. Here, the generated energy is dissipated via 12 ultra-thin wires instead of via wide collecting bars as was previously the case.
The result: the cell surface is used more effectively and the energy yield increases with the same module size.



e.ISP®-TECHNOLOGY

e.ISP (Energetica Integrated Shadow Protection) improves the efficiency of the modules and optimizes their energy yield in sunny and shaded conditions.

12-BB-TECHNOLOGY

Optimized for shading, highest efficiency and improved reliability .

e.STAK®-FRAME

Energetica's robust stacking and packaging system e.STAK® guarantees safe transport and protects the environment with our biogenic packaging.

e.Classic M HC

Photovoltaic module with 120 MONO PERC half cells. STC Performance 370 to 390 Wp

Uncompromising. Efficient. Classic.

Uncompromising efficiency and classic design. e.Classic M HC was developed for applications where the highest performance must be achieved in the smallest area. This is exactly where the elegant e.Classic M HC can show its strengths to the full.
The most efficient module currently available from Energetica achieves up to 390 Wp with 120 monocrystalline half-solar cells behind 3.2 mm glass, as well as the highest power and stability in its class.
In addition, there is a highly reflective back sheet and a black aluminum frame.

e.Classic M HC

Technical data

energetica PHOTOVOLTAIC INDUSTRIES

Electrical data (STC)

Type	370	375	380	385	390
Maximum power P_{Max} [Wp]	370,00	375,00	380,00	385,00	390,00
Open circuit voltage U_{OC} [V]	41,33	41,50	41,70	41,89	41,93
MPP voltage U_{MPP} [V]	34,65	34,98	34,80	34,94	35,03
MPP current I_{MPP} [A]	10,74	10,74	10,92	11,02	11,16
Short circuit current I_{SC} [A]	11,33	11,40	11,69	11,80	11,95
Module efficiency η_{Modul} [%]	20,00%	20,27%	20,54%	20,81%	21,08%
Performance sorting [Wp]	0/+5	0/+5	0/+5	0/+5	0/+5

These measurements are valid under standard test conditions STC. All electrical data ±10%. Measurement uncertainty P_{MPP} (P_{Max}): +/- 3%, (Airmass AM 1,5; radiation of 1000W/m2; cell temperature 25°C)

Electrical data (NMOT)

Type	370	375	380	385	390
Maximum power (P_{Max}) [Wp]	279,13	286,73	294,42	302,22	310,12
MPP voltage U_{MPP} [V]	32,54	32,98	33,42	33,86	34,30
MPP current I_{MPP} [A]	8,58	8,69	8,81	8,93	9,04
Open circuit voltage (V_{OC}) [V]	38,88	39,41	39,93	40,46	40,98
Short circuit current I_{SC} [A]	9,06	9,18	9,30	9,43	9,55

NMOT (Nominal Module Operating Temperature): Irradiance 800 W/m², ambient temperature 20 °C, wind speed 1 m/s. All technical data +/- 10 %

Electrical data (Low Irradiance)

Type	370	375	380	385	390
Maximum power (P_{Max}) [Wp]	70,87	72,80	74,76	76,74	78,74
MPP voltage U_{MPP} [V]	33,37	33,83	34,28	34,73	35,18
MPP current I_{MPP} [A]	2,12	2,15	2,18	2,21	2,24
Open circuit voltage (V_{OC}) [V]	38,74	39,26	39,79	40,31	40,83
Short circuit current I_{SC} [A]	2,24	2,27	2,30	2,33	2,37

Permissible operating conditions

Temperature range	-40°C bis +90°C
Maximum system voltage	1.000 V, 1500 V auf Anfrage
Test $load_{max}$ / Breaking load	tested according to IEC up to 5.4 kPa snow/2.4 kPa wind / >6.0 kPa
Bruchbelastung	> 6.0 kPa
Hail resistance	hailstone up to 25 mm Ø at 165,6 km/h v_{impact} hailstone up to 40 mm Ø at 95 km/h v_{impact}
maximum reverse current	16 A*

*In any case, due to the integrated active electronics, it must be ensured that there are no reverse currents greater than 16 A.

Temperature coefficient (Tc)

Tc short circuit current α	**0,05 %/K**
Tc open circuit voltage β	**-0,26 %/K**
Tc maximum power γ	**-0,33 %/K**
NMOT	**43,5°C +/- 2**

Note: This data sheet is a legally binding document and, along with the assembly instructions, is part of the proper documentation according to OVE EN 50380. Due to constant technical innovation, R&D and improvements, the above specifications are subject to change accordingly. Energetica Industries has the sole right to make these changes at any time without notice. The data given is without guarantee. Product representations are symbolic images and can partly differ from the original in terms of appearance and data.

Certifications and warranties

Certifcations	IEC 61215, IEC 61730 IEC 62716 (Ammonia corrosion test) IEC 61701 (Salt mist corrosion test) ISO 9001, ISO 14001, ISO 45001 EN 61000-4-2 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 Safety Class II PID, LID, LeTID
Module fire performance	Class C, Fire class 1 (Italy)
Product warranty	17 years
Output warranty of P_{MAX} (Measurement tolerance ± 3%)	25 years linear acc. warranty conditions

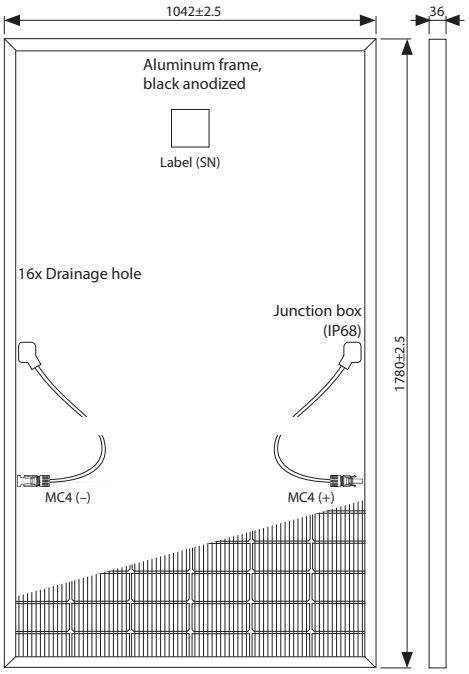
Mechanical Data

Dimensions HxWxD	1780 x 1042 x 36 mm
Weight	21 kg
Front glass	transparent tempered anti-reflective glass 3,2 mm
Backsheet	highly reflective PET
Frame	black anodized aluminum
Cells	20 X 6 high efficiency solar half cells (166 x 83 mm)
Cell type	mono PERC, 12 busbars
Bypass control	active electronics at string level
Modul connector	4 mm² solar cabel (+,-) 1150 mm
Connectors	multi-contact MC4, IP68
Origin	Made in Austria

Paletts / Truck load

Pieces per palett	30
Pieces per truck	840

All indicated dimensions in mm



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