



energetica
Future made in Austria

**From visions to reality,
from ideas to innovation,
from sun to energy.**

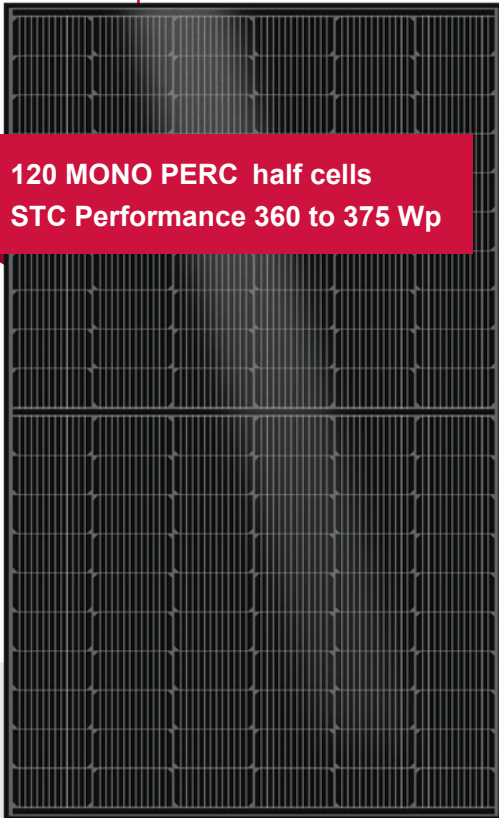
*From Austria.
For almost 30 years.*

 **M HC black**
CLASSIC

120 MONO PERC half cells
STC Performance 360 to 375 Wp

e ^{ISP®} M HC black
CLASSIC

120 MONO PERC half cells
STC Performance 360 to 375 Wp



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

12-busbar half cell technology for optimized shading, highest efficiency and improved reliability due to shorter electron paths.

e.STAK®

Strong, Stable and Sustainable.

The e.STAK stacking and packaging system from energetica ensures that the modules arrive at their destination stable and without microcracks: In the stack, the specially developed frame profiles of the modules interlock. In combination with the film, they form a stable unit.

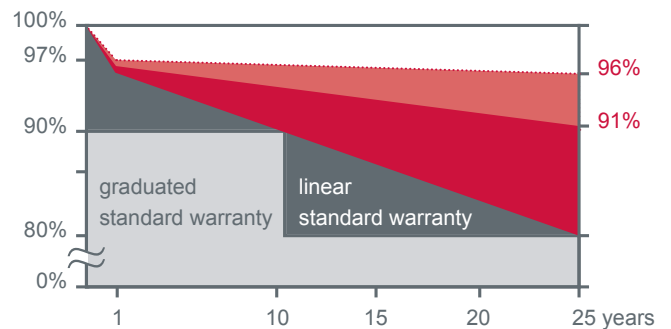
Slipping of the modules on the pallet becomes virtually impossible. The packaging material is reduced to the bare minimum. Moreover, the film used is made of biogenic plastic.

More power guaranteed.

The patented e.ISP technology increases the energy yield, and reduces the degradation (wear) of the cells. Extensive testing suggests that energetica PV modules - even after 25 years of operation - will perform at the impressive rate of 96 percent.

That's why, in addition to a 17-year product warranty, we offer a linear performance guarantee* of 91 percent of initial performance after 25 years.

**For details of the performance guarantee, see Energetica Approved Warranty in the first year 97% of the rated power and at least 91% of the rated power in the 25th year.*



- 96% expected performance after 25 years
- Energetica performance warranty
- Standard warranty

e.Classic M HC black Technical data

Electrical data (STC)

Type	360	365	370	375
Maximum power P_{Max} [Wp]	360.00	365.00	370.00	375.00
MPP voltage U_{MPP} [V]	34.09	34.37	34.65	34.98
MPP current I_{MPP} [A]	10.60	10.67	10.74	10.74
Open circuit voltage U_{OC} [V]	41.00	41.17	41.33	41.50
Short circuit current I_{SC} [A]	11.19	11.26	11.33	11.40
Module efficiency η_{Modul} [%]	19.48%	19.77%	20.06%	20.27%
Performance sorting [Wp]	0/+5	0/+5	0/+5	0/+5

These measurements are valid under standard test conditions STC. All electrical data $\pm 10\%$. Measurement uncertainty P_{MPP} (P_{Max}): $\pm 3\%$, (Airmass AM 1.5; radiation of $1000W/m^2$; cell temperature $25^\circ C$)

Electrical data (NMOT)

Type	360	365	370	375
Maximum power (P_{Max}) [Wp]	268.90	272.90	276.90	286.73
MPP voltage U_{MPP} [V]	32.00	32.26	32.52	32.98
MPP current I_{MPP} [A]	8.40	8.46	8.51	8.69
Open circuit voltage (V_{OC}) [V]	38.51	38.67	38.82	39.41
Short circuit current I_{SC} [A]	8.86	8.91	8.97	9.18

NMOT (Nominal Module Operating Temperature): Irradiance $800 W/m^2$, ambient temperature $20^\circ C$, wind speed $1 m/s$. All technical data $\pm 10\%$

Permissible operating conditions

Temperature range	$-40^\circ C$ to $+90^\circ C$
Maximum system voltage	1,000 V, 1,500 V upon request
Test load I_{max}	tested according to IEC up to 5.4 kPa snow / 2.4 kPa wind
Breaking load	$> 6.0 kPa$
Hail resistance	hailstone up to 25 mm \varnothing at 46 m/s v_{impact} hailstone up to 40 mm \varnothing at 27.5 m/s 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 %/ $^\circ C$
Tc open circuit voltage β	-0.26 %/ $^\circ C$
Tc maximum power γ	-0.33 %/ $^\circ C$
NMOT	$43.5^\circ C \pm 2$

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

Certifications / product tests	IEC 61215, IEC 61730
	IEC 62716 (Ammonia corrosion test)
	IEC 61701 (Salt mist corrosion test)
	EN 61000-4-2
	EN 61000-4-4
Module fire performance	EN 61000-4-5
	EN 61000-4-6
	Safety Class II
	PID, LID, LeTID
	Class C, Fire class 1 (Italy)

Warranties

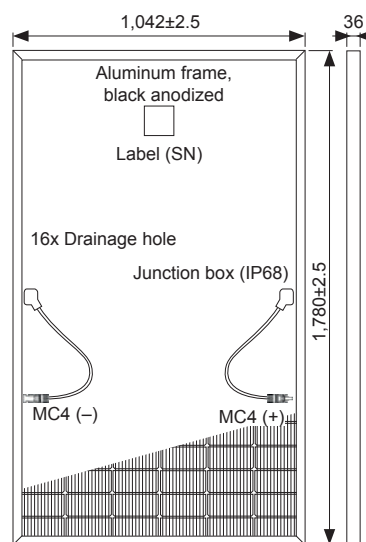
Product warranty	17 years
Output warranty of P_{MAX} (Measurement tolerance $\pm 3\%$)	25 years linear acc. warranty conditions

Mechanical Data

Dimensions (HxWxD)	1,780 x 1,042 x 36 mm
Weight	21 kg
Front glass	transparent tempered anti-reflective 3.2 mm glass
Backsheet	black 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 mm ² solar cable (+,-) 1,150 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

data sheet ▼





High-performance photovoltaic. Made in Austria

Energetica Photovoltaic Industries produces **high-performance photovoltaic modules** that are among the most technically advanced products in the industry worldwide. Energetica currently employs around **100 people** and the factory in **Liebenfels/Austria** is currently one of the most modern production facilities for PV modules in Europe.

The **manufacturing process is very climate-friendly**: a large part of the energy required for this comes from a **2.6 MW PV power plant on the factory premises**, which is equipped exclusively with energetica PV modules manufactured on site.



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Uncompromising and efficient.

Efficiency and elegant design. e.Classic M HC black was developed for users who focus on performance yielded paired with aesthetics. This is because energetica's most efficient Pure Black PV module to date enhances any building: 375 Wp with 120 monocrystalline half solar cells under 3.2 mm glass result in the highest performance and stability in its class.

A black back sheet and a black aluminum frame complete the look of the Pure Black design.