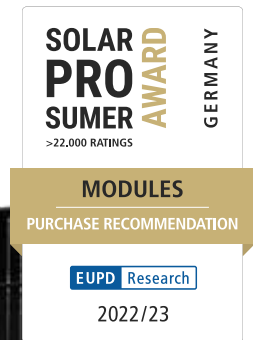


# Mono S4 Halfcut | Innovation Powerline N

415 W / 420 W / 425 W

The Solar Fabrik Mono S4 Innovation Powerline N module with a max. system voltage of 1500V is a double-glass module with bifacial monocrystalline half-cell technology.

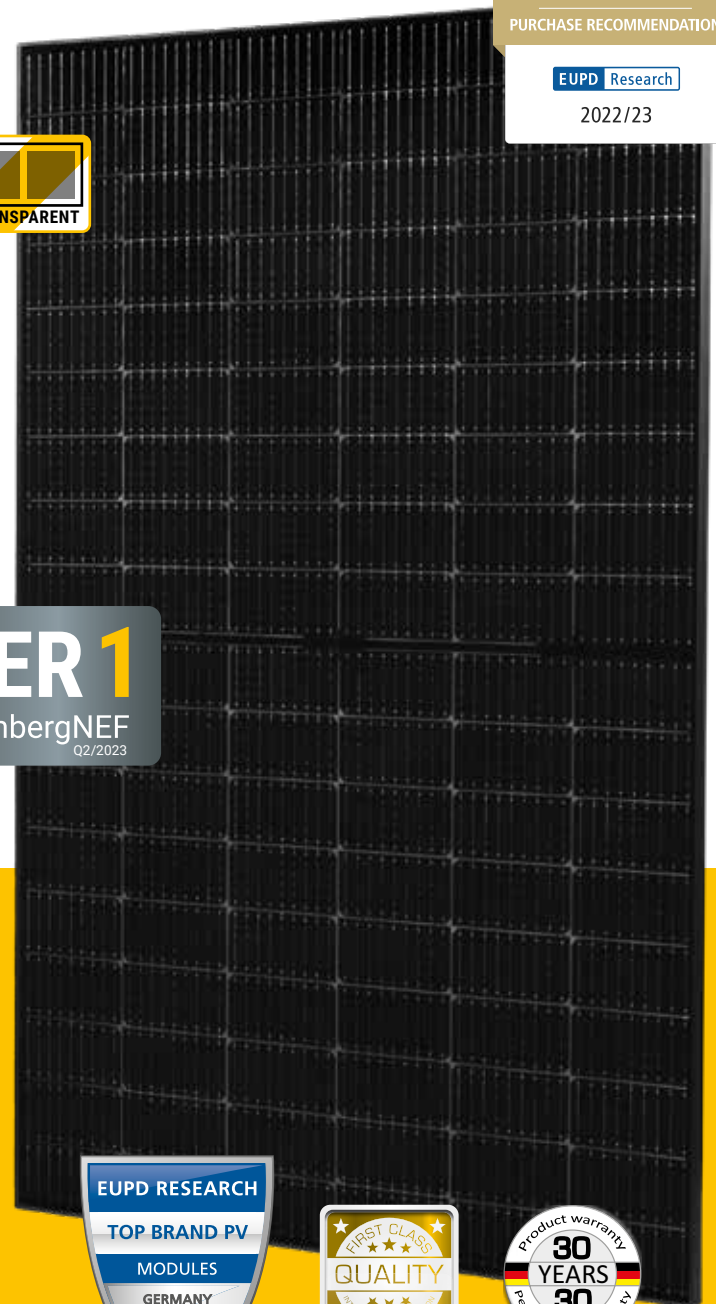
- + Half cell modules – High efficiency, high safety, high reliability
- + Highly transparent self-cleaning glass
- + Bifacial cells – up to 30% higher energy yield due to transparent reverse side
- + N-Type cell technology
- + Resistant to environmental influences: Passed salt mist & ammonia test
- + Multibusbar-technology
- + Area utilization 217.64 W/m<sup>2</sup> at 425 W
- + German warranty



The Mono S4 Innovation N module is characterised by N-type cell technology. The wafers of the N-type module are negatively charged on the bottom and positively charged on the top. This gives the module a lower temperature coefficient and thus higher yields. By separating the cells into two equal parts (half-cut technology), the module achieves a higher output than a full-cell module. The current flow in the cell is halved and the power loss is thus reduced.

Bifacial cells achieve up to 30% higher energy yields due to a transparent rear side.

The multibusbar technology enables even higher performance, higher reliability and higher (electrical) stress capacity of the modules.



# Mono S4 Halfcut | Innovation Powerline N

## 415 W / 420 W / 425 W



### Electrical data under STC (Standard Test Conditions: 1000 W/m<sup>2</sup>, 25 °C, AM 1.5)

Parameter	Symbol	415 W	420 W	425 W
Rated power	$P_{max}$	415 W	420 W	425 W
Sorting limits of performance		0/+3 %	0/+3 %	0/+3 %
Voltage	$U_{MPP}$	31.68 V	32.02 V	32.35 V
Open circuit voltage	$U_{OC}$	38.45 V	38.48 V	38.54 V
Current	$I_{MPP}$	13.10 A	13.12 A	13.14 A
Short-circuit current	$I_{SC}$	13.77 A	13.78 A	13.79 A
Efficiency		21.30 %	21.50 %	21.80 %

### Temperature data

Operating temperature		- 40° C ~ + 85° C
Nominal operating cell temperature		42° C ± 2° C
Power temperature coefficient	$T_K (P_{MPP})$	- 0.300 %/°C
Voltage temperature coefficient	$T_K (U_{OC})$	- 0.250 %/°C
Current temperature coefficient	$T_K (I_{SC})$	0.045 %/°C

### Further information

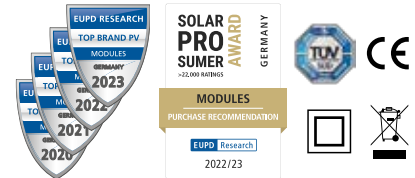
Number of cells	108 N-Type bifacial monocrystalline half cells (6 x 18)
Module dimensions	1722 x 1134 x 30 mm
Type of Frame	Anodized aluminium alloy
Max. system voltage	1500 V
Reverse current loading capability	30 A
Glass thickness	Frontside/Backside: 2.0 mm/2.0 mm
Weight	approx. 23.7 kg
Module connection	MC4 or similar, 4.0 mm <sup>2</sup> , cable length: (+) ≥ 1200 mm, (-) ≥ 1200 mm
Junction box rating	IP68
Allowable Hail Load	5 mm iceball with velocity of 23 m/s
Snow load	5400 Pa = ^ 550 kg/m <sup>2</sup>



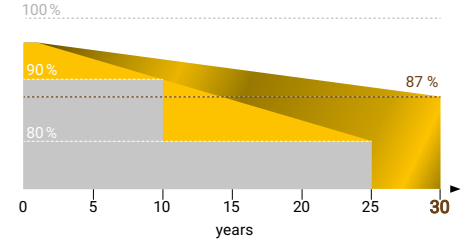
30 years product warranty, 30 years linear performance warranty according to our additional warranty conditions for solar power modules of the "Mono S4 Innovation Powerline N" product series, which we will gladly send you. Due to the tolerance of the anti-reflective coating, colour differences in the solar modules may occur. Subject to technical modifications with corresponding follow-up certifications. Errors excepted. Illustration similar.

### Logistic

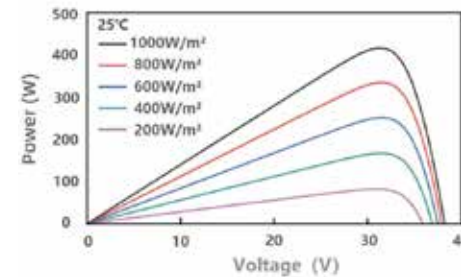
Dimension pallet (L/W/H)	177/114/125 cm
Weight pallet	approx. 883 kg
Modules per pallet	36
Modules per truck	1008
Modules per Container [40' HC]	936



### Module performance



- Linear performance warranty for FIRST CLASS Quality Solar Modules
- Linear performance warranty
- Standard tiered warranty



Your specialist dealer:

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