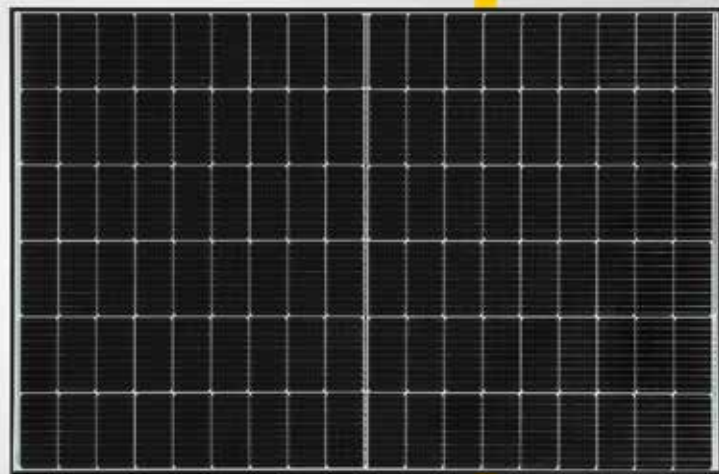




## Solar Modules MONOCRYSTALLINE



**TIER 1**  
BloombergNEF  
\*Q1 2023



**Mono S4** **MBB**  
Half-Cell-Module  
efficient energy generation



### **Mono S4** - Halfcut

405 W • 410 W • 415 W

- Half cell modules - High efficiency, high safety, high reliability
- Highly transparent self-cleaning glass
- High performance under low light conditions
- Resistant to environmental influences: Passed salt mist & ammonia test
- Multibusbar-technology
- Area utilization 214.26 W/m<sup>2</sup> at 415 W
- German warranty

# Mono S4 - Halfcut


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

Rated power	$P_{max}$	405 W	410 W	415 W
Sorting limits of performance		0/+3 %	0/+3 %	0/+3 %
Voltage	$U_{MPP}$	30,91 V	31,09 V	31,27 V
Open circuit voltage	$U_{OC}$	37,21 V	37,33 V	37,45 V
Current	$I_{MPP}$	13,11 A	13,20 A	13,29 A
Short-circuit current	$I_{SC}$	13,98 A	14,06 A	14,13 A
Efficiency		20,91 %	21,17 %	21,43 %

## Temperature data

Operating temperature		- 40° C ~ + 85° C
Nominal operating cell temperature		42° C ± 3° C
Power temperature coefficient	$T_k (P_{MPP})$	-0.330 %/°C
Voltage temperature coefficient	$T_k (U_{OC})$	-0.246 %/°C
Current temperature coefficient	$T_k (I_{SC})$	0.0448 %/°C

## Further information

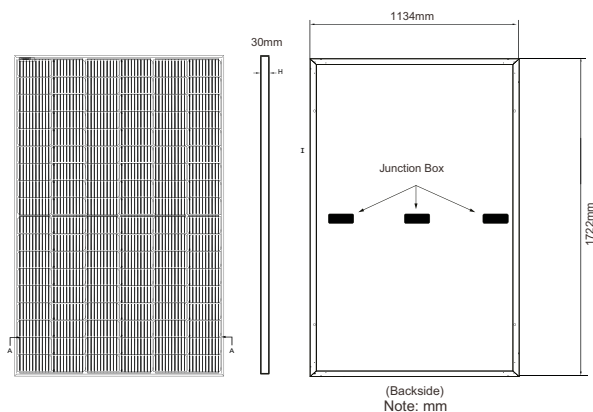
Number of cells	108 monocrystalline half cells (6 x 18)	
Size of cell	182 x 91 mm	
Module dimensions	1722 x 1134 x 30 mm	
Type of Frame	Anodized aluminium alloy	
Max. system voltage	1500 V	
Reverse current loading capability	25 A	
Glass thickness	3.2 mm	
Weight	21.2 kg	
Module connection	MC4 or similar, 4.0 mm <sup>2</sup> , cable length: (+) ≥ 1200 mm, (-) ≥ 1200 mm	
Junction box rating	IP68	
Allowable Hail Load	25 mm iceball with velocity of 23 m/s	
Snow load	5400 Pa $\hat{=}$ 550 kg/m <sup>2</sup>	

15-year product warranty, 25-year linear performance warranty according to our additional warranty conditions for solar power modules of the "Mono S4" 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.

### Mono S4 HC V XXX (half cell module)



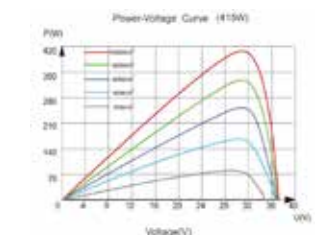
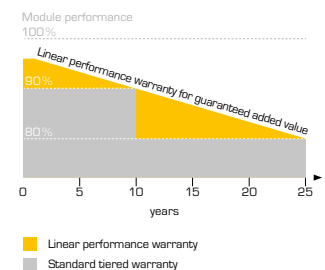
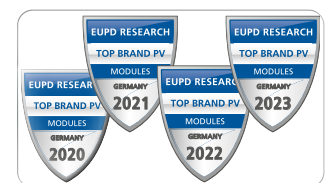
**Note:**  
Ensure correct polarity!

## Packaging Specifications

Truck	
Dimension pallet (L/W/H)	177/114/125 cm
Weight pallet	approx. 793 kg
Modules per pallet	36
Modules per truck	1008

## Shipment

Dimension pallet (L/W/H)	177/114/125 cm
Weight pallet	approx. 793 kg
Modules per pallet	36
Modules per container [40' HC]	936



Your specialist dealer:

**Solar Fabrik GmbH**  
Hermann-Niggemann-Str. 7-9  
63846 Laufach  
Deutschland

Telefon: +49 (0)6093 20770-0  
Telefax: +49 (0)6093 20770-99  
E-Mail: info@solar-fabrik.de  
Internet: [www.solar-fabrik.de](http://www.solar-fabrik.de)