

Have sun!

With IBC TopFix 200 incl. 3rd rail

**Highest mechanical stability (8,000 Pa)**



#### Extended performance warranty

Guaranteed higher long-term electricity profits owed to TOPCon technology.



#### Higher low light output

Even in low light conditions, for example at dusk and on cloudy days, increased power production is ensured.



#### Optimized temperature coefficient

More power generation at hot temperatures by TOPCon technology.



#### Multi-busbar technology

Reduced power and shading losses by using of 16 cell connectors.

Product datasheet

# IBC MonoSol 430 - 445 MS10-HC-N GEN2

Efficiency and high-performance in combination.

Online shop:

Find our products and further information here.

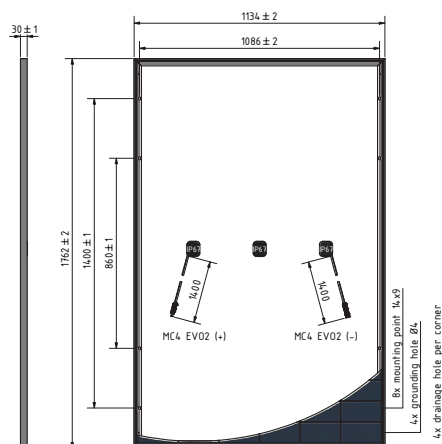


#### You also benefit from:

- a positive power tolerance (-0/+3%)
- increased mechanical stability (5,400 Pa)
- a German guarantor
- 100% proved quality
- a 30-year performance warranty
- a 15-year product warranty



Have sun!



IBC MonoSol	430 MS10-HC-N GEN2	435 MS10-HC-N GEN2	440 MS10-HC-N GEN2	445 MS10-HC-N GEN2
Article number	2002800125 2002800133	2002800126 2002800134	2002800127 2002800135	2002800128 2002800136

Electrical data (STC) <sup>3</sup>				
STC Power P <sub>max</sub> (Wp)	430	435	440	445
STC Nominal Voltage U <sub>mp</sub> (V)	32.38	32.59	32.81	33.02
STC Nominal Current I <sub>mp</sub> (A)	13.28	13.35	13.41	13.48
STC Open Circuit Voltage U <sub>oc</sub> (V)	38.95	39.16	39.38	39.59
STC Short Circuit Current I <sub>sc</sub> (A)	13.73	13.8	13.86	13.93
Module Efficiency (%)	21.52	21.77	22.02	22.27
Power Tolerance (%)	-0/+3	-0/+3	-0/+3	-0/+3

Electrical data (NMOT)				
NMOT (°C)	45	45	45	45
800 W/m <sup>2</sup> NMOT AM 1.5 Power P <sub>max</sub> (Wp)	323	327	331	335
800 W/m <sup>2</sup> NMOT AM 1.5 Nominal Voltage U <sub>mp</sub> (V)	30.1	30.33	30.56	30.76
800 W/m <sup>2</sup> NMOT AM 1.5 Open Circuit Voltage U <sub>oc</sub> (V)	37.0	37.2	37.41	37.61
800 W/m <sup>2</sup> NMOT AM 1.5 Short Circuit Current I <sub>sc</sub> (A)	11.09	11.14	11.19	11.25
Relative Efficiency Reduction at 200 W/m <sup>2</sup> (%)	3.0	3.0	3.0	3.0

Temperature coefficient (linear)				
Tempcoeff I <sub>sc</sub> (%/°C)	0.046	0.046	0.046	0.046
Tempcoeff U <sub>oc</sub> (mV/°C)	-97.38	-97.9	-98.45	-98.98
Tempcoeff P <sub>mp</sub> (%/°C)	-0.3	-0.3	-0.3	-0.3

Operating conditions	
Max. System Voltage (V)	1500
Application Class	A
Reverse Current I <sub>r</sub> (A)	25
Fuse protection from parallel strings	2
Protection class	II (DIN EN 61140)
Fire protection	Class C (IEC 61730-ANSI/UL790)

Mechanical properties	
Dimensions (L × W × H in mm)	1762 × 1134 × 30
Weight (kg)	22.0
Max. Test load, Push/Pull (Pa)	5400/2400
Max. Design load <sup>2</sup> , Push/Pull (Pa)	3600/1600
Front sheet (mm)	3.2 (low-iron photovoltaic glass and anti-reflective coating)
Frame	anodized aluminium, sturdy hollow-chamber frame
Cells	12 × 9 mono-crystalline silicon cells
Connection type	Stäubli MC4-Evo 2A

Warranties and certification		
Product warranty	15 years <sup>1</sup>	
Performance warranty	30 years <sup>1</sup>	
Annual degradation	year 1	1,0%
	year 2-30	0,4%
Certification	IEC 61215, IEC 61730-1/-2, ISO 9001, ISO 14001, OHSAS 18001	

Packaging information	
Number of modules per pallet	36
Number of pallets per truck	28
Dimensions incl. pallet (L × W × H in mm)	1792 x 1120 x 1249
Gross weight incl. double pallet (kg)	831
Stackability per pallet	2-fold

1) The linear power and product warranty are only valid for installations within Europe and Japan. The warranty requires installation according to the valid installation instructions. Standard test conditions: 1000 W/m<sup>2</sup> irradiation with a spectral distribution of AM 1.5 and a cell temperature of 25°C, 800 W/m<sup>2</sup>, NOCT. Information according to EN 60904-3 (STC). All values according to DIN EN 50380. Errors and changes reserved. The precise conditions and content can be taken from the respectively valid version of the product and power warranty, which you can obtain from your IBC Premium Partner.

2) Loads according to IEC 61215-2:2016, max. design load

3) Measurement tolerances +/- 3% at STC: 1000 W/m<sup>2</sup>, 25 +/- 2 °C, AM 1.5

Your Premium Partner