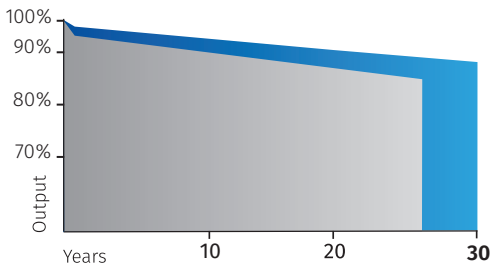


## FU 415/420/425/430/435 MVS Velvet Plus Bifacial Heterojunction half-cut cells

### PERFORMANCE GUARANTEE

Max power decrease from 2<sup>nd</sup> year 0.4%/year  
99% at the end of first year  
91% at the end of 20<sup>th</sup> year  
88% at the end of 30<sup>th</sup> year



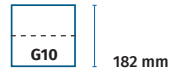
■ Market standard performances  
■ FuturaSun performances

**415 - 435 Wp**

**POWER  
RANGE**

**-0.26 %/°C**

**TEMPERATURE  
COEFFICIENT**



**108 BIFACIAL  
HJT HALF-CUT  
MBB CELLS**

### GENERAL FEATURES & KEY BENEFITS



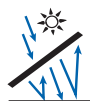
· 30-year performance guarantee & 15-year product warranty

· Half-cut design in combination with multi-busbar reduces operating current and internal resistance



· Superior module efficiency up to 22.28 % equal to 222.8 Wp/m<sup>2</sup>

· Excellent temperature coefficient -0.26 %/°C



· Up to 90% bifaciality factor

· Mechanically strong thanks to the dual glass configuration that moreover reduces the risk of microcracks



· Better colour uniformity, particularly on the rear

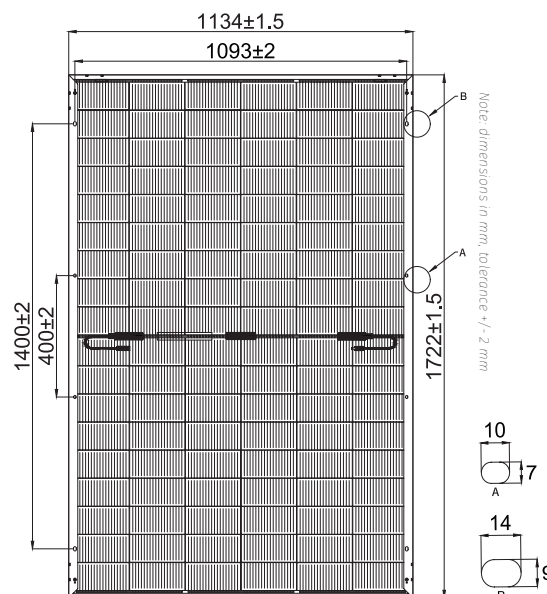
· Resistant to LID (Light Induced Degradation)

· Improved low light performance



## MECHANICAL SPECIFICATIONS

Dimensions	1722 x 1134 x 30 mm
Weight	26 kg
Glass	Front - 2.0 mm Solar glass with ARC Back - 2.0 mm Solar glass white grid
Cells	108 half-cut bifacial HJT cells 182 x 91 mm
Bifaciality	85 ± 5 %
Frame	Black anodized aluminium frame with mounting and drainage holes
Junction box	Certified according to IEC 62790, IP67/ IP68 approved, 3 bypass diodes
Cables	Solar cable, length 1100 mm or customized assembled with 4 mm <sup>2</sup> compatible connectors
Maximum reverse current (I <sub>r</sub> )	25 A
Maximum system voltage	1500 V
Mechanical load (snow)	Design load: 3600 Pa 5400 Pa (including safety factor 1.5)
Mechanical load (wind)	Design load: 1600 Pa 2400 Pa (including safety factor 1.5)
Protection Class	II - accordance to IEC 61730



## ELECTRICAL DATA - STC\*

		FU 415 MVS	FU 420 MVS	FU 425 MVS	FU 430 MVS	FU 435 MVS
Module power (P <sub>max</sub> )	W	415	420	425	430	435
Open circuit voltage (V <sub>oc</sub> )	V	39.63	39.89	40.17	40.40	40.67
Short circuit current (I <sub>sc</sub> )	A	12.94	12.99	13.04	13.10	13.15
Maximum power voltage (V <sub>mpp</sub> )	V	32.71	33.00	33.23	33.49	33.75
Maximum power current (I <sub>mpp</sub> )	A	12.69	12.73	12.79	12.84	12.89
Module efficiency	%	21.25	21.51	21.76	22.02	22.28

## BIFACIAL STANDARD TEST CONDITIONS - BSTC\*\*

		FU 415 MVS	FU 420 MVS	FU 425 MVS	FU 430 MVS	FU 435 MVS
Module power (P <sub>max</sub> )	W	460	465	470	475	480
Open circuit voltage (V <sub>oc</sub> )	V	39.63	39.89	40.17	40.40	40.67
Short circuit current (I <sub>sc</sub> )	A	14.34	14.38	14.42	14.47	14.51
Maximum power voltage (V <sub>mpp</sub> )	V	32.71	33.00	33.23	33.49	33.75
Maximum power current (I <sub>mpp</sub> )	A	14.05	14.08	14.14	14.18	14.23

## TEMPERATURE RATINGS

Temperature coefficient I <sub>sc</sub>	%/°C	0.04
Temperature coefficient V <sub>oc</sub>	%/°C	-0.24
Temperature coefficient P <sub>max</sub>	%/°C	-0.26
NOCT	°C	44 ± 2
Operating temperature	°C	from -40 to 85

## PACKAGING INFORMATION

Quantity / Pallet	36 pcs
Container 40' HQ	936 pcs / 26 pallets

\*Standard Test Conditions STC, 1000 W/m<sup>2</sup> - AM 1.5 - 25 °C - tolerance: P<sub>max</sub> (±3%), V<sub>oc</sub> (±4%), I<sub>sc</sub> (±5%).

\*\*Bifacial Standard Test Conditions (BSTC) Front side irradiation 1000 Wp / sqm Back side reflection irradiation 135 Wp / sqm Ambient temperature 25 °C.

Notice: All data and specifications are preliminary and subject to change without notice.

