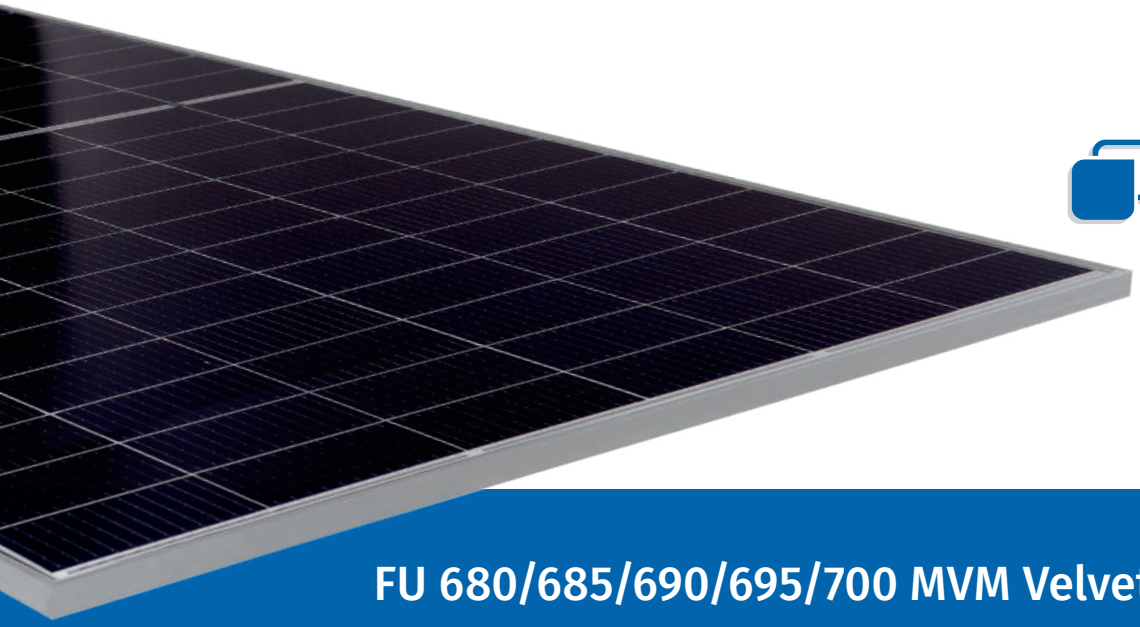


FuturaSun®
anticipate tomorrow

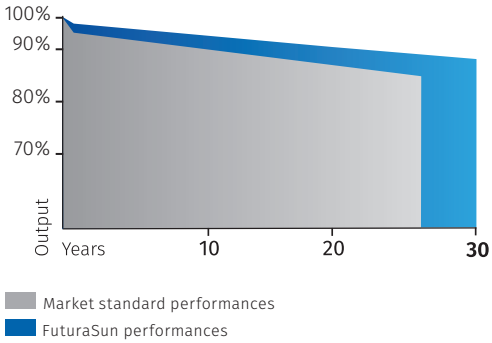
Velvet
Heterojunction

FU 680/685/690/695/700 MVM Velvet Premium Max

Bifacial Heterojunction half-cut cells

PERFORMANCE GUARANTEE

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



CERTIFICATIONS

IEC 61215:2016 - IEC 61730:2016
Fire Resistance - Class C

680 - 700 Wp
POWER RANGE

-0.26 %/°C
TEMPERATURE COEFFICIENT

G12 — 210 mm
132 BIFACIAL HJT HALF-CUT MBB CELLS

GENERAL FEATURES & KEY BENEFITS

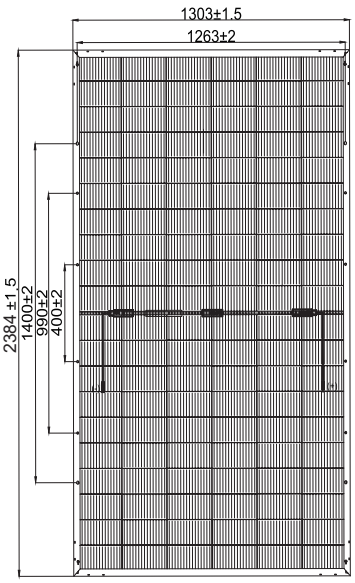
- **30-year** performance guarantee & **15-year** product warranty
- **Half-cut design** in combination with **multi-busbar** reduces operating current and internal resistance
- **Superior module efficiency** up to **22.5%** equal to 225.0 Wp/m²
- **Excellent temperature coefficient** -0.26 %/°C
- Up to **85% bifaciality** factor
- **Mechanically strong** thanks to the **dual glass** configuration that moreover reduces the risk of microcracks
- **Better colour uniformity**, particularly on the back side, thanks to TCO layers
- **Resistant to LID** (Light Induced Degradation)
- **Improved** low light **performance**

TÜV SÜD CE

For detailed information, please refer to the installation manual

MECHANICAL SPECIFICATIONS

Dimensions	2384 x 1303 x 35 mm
Weight	38.7 kg
Glass	Front - 2.0 mm Solar glass with ARC Back - 2.0 mm Solar glass with white grid
Cells	132 half-cut bifacial HJT cells 210 x 105 mm
Bifaciality	80 ± 5 %
Frame	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 200 mm or customized assembled with 4 mm² compatible connectors
Maximum reverse current (Ir)	30 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



Note: dimensions in mm, tolerance +/- 2 mm

ELECTRICAL DATA - STC*		FU 680 MVM	FU 685 MVM	FU 690 MVM	FU 695 MVM	FU 700 MVM
Module power (Pmax)	W	680	685	690	695	700
Open circuit voltage (Voc)	V	49.51	49.65	49.81	49.99	50.14
Short circuit current (Isc)	A	17.19	17.26	17.32	17.37	17.42
Maximum power voltage (Vmpp)	V	41.5	41.66	41.79	41.97	42.12
Maximum power current (Impp)	A	16.39	16.45	16.52	16.56	16.62
Module efficiency	%	21.9	22.1	22.2	22.4	22.5

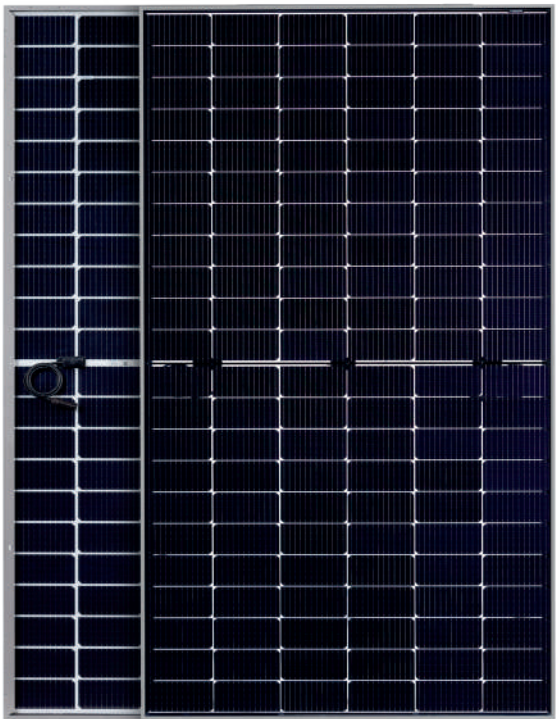
BIFACIAL STANDARD TEST CONDITIONS - BSTC**		FU 680 MVM	FU 685 MVM	FU 690 MVM	FU 695 MVM	FU 700 MVM
Module power (Pmax)	W	750	756	761	767	772
Open circuit voltage (Voc)	V	49.51	49.65	49.82	49.97	50.14
Short circuit current (Isc)	A	18.95	19.05	19.1	19.18	19.21
Maximum power voltage (Vmpp)	V	41.48	41.66	41.82	41.94	42.12
Maximum power current (Impp)	A	18.09	18.15	18.21	18.29	18.33

TEMPERATURE RATINGS

Temperature coefficient Isc	%/°C	0.04
Temperature coefficient Voc	%/°C	-0.24
Temperature coefficient Pmax	%/°C	-0.26
NOCT	°C	44 ± 2
Operating temperature	°C	from -40 to +85

PACKAGING INFORMATION

Quantity / Pallet	31 pcs
Container 40' HQ	527 pcs / 18 pallets



**Standard Test Conditions STC: 1000 W/m² - AM 1.5 - 25 °C - tolerance: Pmax (±3%). Voc (±4%). Isc (±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.

FuturaSun® anticipate tomorrow
Riva del Pasubio, 14 35013 Cittadella (PD) Italy
Tel + 39 049 5979802 | www.futurasun.com
info@futurasun.it