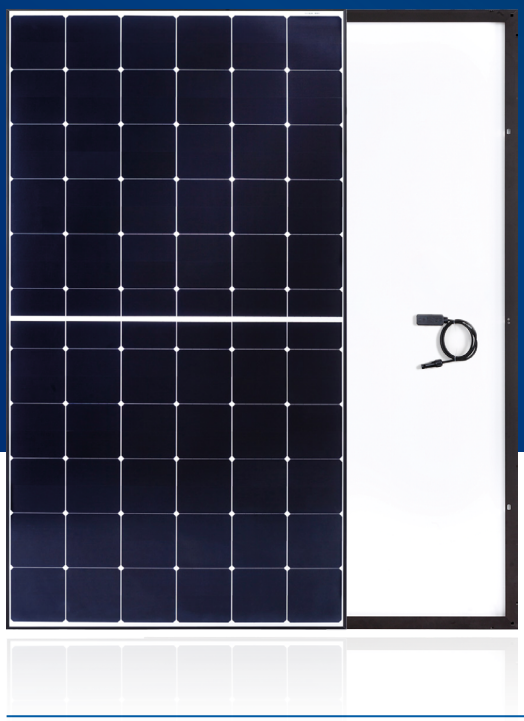
ZEBRA Pro

FuturaSun®
anticipate tomorrow



IBC | TECHNOLOGY INSIDE

430 W Maximum power

21.84 % Maximum efficiency

KEY BENEFITS AND FEATURES

- Power from **420** to **430 Watt**
- 132 M6 **IBC ZEBRA** half-cut cells
- Excellent temperature coefficient **-0.29 %/˚C**
- **Best** in class **efficiency** with reduced hot-spot risk
- **Black frame** and white backsheet
- 1895 x 1039 x 30 mm

Performance guarantee

- **25-year** performance warranty with max power decrease from 2nd year **0.25%**/year
- 1st year degradation **< 1.0%**
- **99%** at the end of 1th year
- **93%** at the end of 25th year

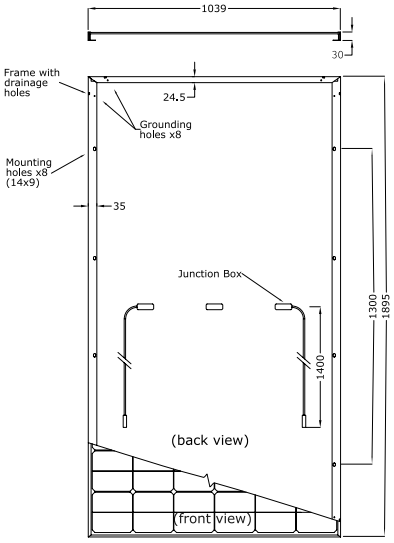
Product guarantees

- **25-year** product and performance warranty
- Third-party product **liability** insurance
- All FuturaSun's modules are designed and guaranteed by the **Italian** headquarters

All images shown are for illustration purpose only, product appearance may vary according to the installation, light and ambient reflection.

Mechanical Specifications

Dimensions	1895 x 1039 x 30 mm
Weight	21 kg
Glass	High transmission, Low iron, Tempered, ARC, Thickness 3.2 mm
Cells	132 N-Type half-cut IBC cells 166 x 83 mm
Frame	Black anodized aluminium frame with mounting and drainage holes
Junction boxes	Certified according to IEC 62790, IP 68 approved, 3 bypass diodes
Cables	Solar cable, length 1400 mm or customized assembled with 4mm² compatible connectors
Backsheet	Composite Multilayer film - white
Maximum reverse current (Ir)	20 A
Maximum system voltage	1500 V (1000 V on request)
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)



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

Electrical data - STC*		FU 420 M	FU 430 M
Sorting tolerance	W	0/+5	
Module power (Pmax)	W	420	430
Open circuit voltage (Voc)	V	45.91	46.13
Short circuit current (Isc)	A	11.66	11.87
Maximum power voltage (Vmpp)	V	38.74	39.16
Maximum power current (Impp)	A	10.85	10.99
Module efficiency	%	21.3	21.84

Electrical data - NOCT**		FU 420 M	FU 430 M
Module power (Pmax)	W	316	324
Open circuit voltage (Voc)	V	44.00	44.20
Short circuit current (Isc)	A	9.41	9.57
Maximum power voltage (Vmpp)	V	36.20	36.60
Maximum power current (Impp)	A	8.73	8.86

Temperature ratings

Temperature coefficient Isc	%/°C	0.046
Temperature coefficient Voc	%/°C	-0.246
Temperature coefficient Pmax	%/°C	-0.29
NOCT**	°C	42
Operating temperature	°C	from -40 to +85

Certifications

Factory	ISO 9001 - 14001 - 45001
Product	IEC EN 61215, IEC EN 61730, Fire Class C, Class 1 UNI9177, RETIE

Packaging

Quantity / Pallet	36 pcs
Container 40' HC	900 pcs / 25 pallets

The information included in this module datasheet is subject to change without notice and is provided for informational purposes only. No contractual rights are established or should be inferred because of user's reliance on the information contained in this module datasheet. Please refer to the appropriate module user guide and module product specification document for more detailed technical information regarding module performance, installation and use.

*Standard Test Conditions STC: 1000 W/m² - AM 1.5 - 25 °C - tolerance: Pmax (±3%). Voc (±4%). Isc (±5%)
**Nominal Operating Cell Temperature NOCT: 800 W/m² - T=45 °C - AM 1.5
Notice: All data and specifications are preliminary and subject to change without notice.

EN_03

FuturaSun® anticipate tomorrow
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For detailed information, please refer to the installation manual