Silk® Rhino All Black

FuturaSun anticipate tomorrow



n-type | TECHNOLOGY INSIDE

430 W Maximum power

22 % Maximum efficiency

KEY BENEFITS AND FEATURES

- Power from **420** to **430 Watt**
- **High Hail resistance**, up to 50 mm hailstones diameter at 111 km/h
- Up to **7800 Pa snow load** resistance thanks to **two extra aluminum bars**
- 108 M10 **n-type** half-cut cells
- Increased **glass thickness**
- 1722 x 1134 x 30 mm

Performance guarantee

- **25-years** performance warranty with max power decrease from 2nd year **0.4%**/year
- **99%** at the end of first year
- **92%** at the end of 20th year
- **89%** at the end of 25th year

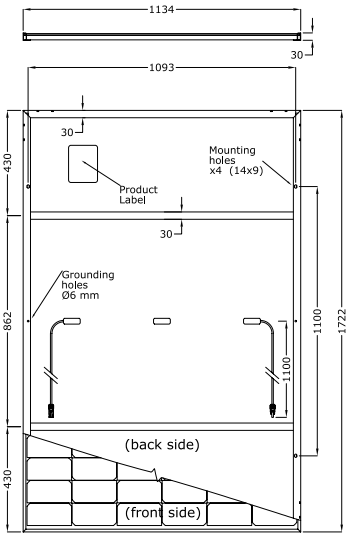
Product guarantees

- **15-year** product 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	1722 x 1134 x 30 mm
Weight	26 kg
Glass	High transmission, Low iron, Tempered, ARC, Thickness 4 mm
Cells	108 monocrystalline half-cut MBB n-type cells 182 x 91 mm
Frame	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 1100 mm or customized assembled with 4mm² compatible connectors
Backsheet	Composite Multilayer film - black
Maximum reverse current (Ir)	25 A
Maximum system voltage	1000 V (1500 V on request)
Mechanical load (snow)	Design load: 7800 Pa, (11700 Pa including safety factor 1.5)
Mechanical load (wind)	Design load: 5400 Pa, (8100 Pa including safety factor 1.5)



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

Electrical data - STC*		FU 420 M	FU 425 M	FU 430 M
Sorting tolerance	W	0/+5		
Module power (Pmax)	W	420	425	430
Open circuit voltage (Voc)	V	38.06	38.25	38.44
Short circuit current (Isc)	A	14.09	14.17	14.25
Maximum power voltage (Vmpp)	V	31.49	31.67	31.86
Maximum power current (Impp)	A	13.34	13.42	13.50
Module efficiency	%	21.50	21.80	22.00

Electrical data - NOCT**		FU 420 M	FU 425 M	FU 430 M
Module power (Pmax)	W	316	320	323
Open circuit voltage (Voc)	V	36.18	36.36	36.54
Short circuit current (Isc)	A	11.38	11.44	11.51
Maximum power voltage (Vmpp)	V	29.32	29.48	29.61
Maximum power current (Impp)	A	10.77	10.84	10.91

Temperature ratings

Temperature coefficient Isc	%/°C	0.045
Temperature coefficient Voc	%/°C	-0.25
Temperature coefficient Pmax	%/°C	-0.29
NOCT**	°C	45 ± 2
Operating temperature	°C	from -40 to +85

Certifications

Factory	ISO 9001 - 14001 - 45001
Product	IEC EN 61730 ongoing, IEC EN 61215 ongoing, Fire Class C, HW5 hail resistance class

Packaging

Quantity / Pallet	36 pcs
Container 40' HC	936 pcs / 26 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

EN_02

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

CE

For detailed information, please refer to the installation manual