



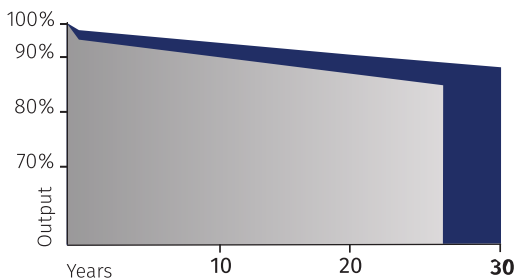
RISEWATER



FU 415/420/425/430 M Silk® Nova Duetto Bifacial MBB N-type half-cut cells

PERFORMANCE GUARANTEE

Max power decrease from 1st year 0.4%/year
99% at the end of first year
92% at the end of 20th year
87% at the end of 30th year



■ Market standard performances
■ FuturaSun performances

415 - 430 Wp

**POWER
RANGE**

-0.29 %/°C

**TEMPERATURE
COEFFICIENT**



**108 BIFACIAL
HALF-CUT
CELLS**

GENERAL FEATURES & KEY BENEFITS



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

• Up to 22 % module efficiency equal to 220 Wp/m²

• Two independent section design secures a higher energy yield under shaded conditions

• Up to 85% bifaciality factor

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



• Resistant to LID (Light Induced Degradation) and LeTID (Light and elevated Temperature Induced Degradation)

• Lower risk of micro-cracks and hot-spot

• 2+2 mm black framed glass-glass structure for optimal mechanical stability.

• Excellent temperature coefficient -0,29 %/°C



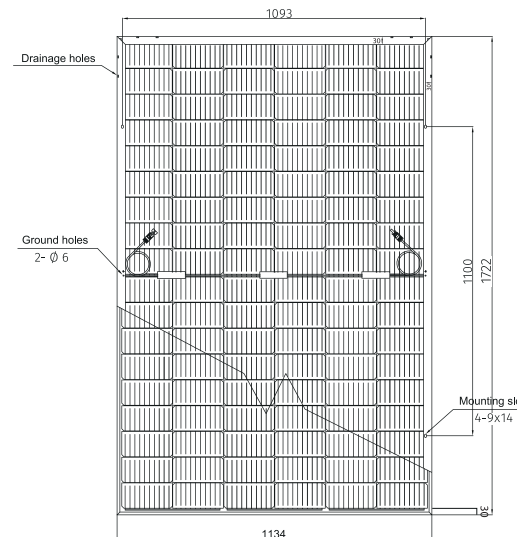
• Improved low light performance

• Increased light absorption



MECHANICAL SPECIFICATIONS

Dimensions	1722 x 1134 x 30 mm
Weight	25,4 kg
Glass	Front - 2.0 mm Solar glass with ARC Back - 2.0 mm Solar glass with white grid
Cells	108 half-cut bifacial 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 4mm ² compatible connectors
Maximum reverse current (I _r)	30 A
Maximum system voltage	1000 V (1500 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)
Protection Class	II - accordance to IEC 61730



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

ELECTRICAL DATA - STC*

		FU 415 M	FU 420 M	FU 425 M	FU 430 M
Module power (P _{max})	W	415	420	425	430
Open circuit voltage (V _{oc})	V	37.87	38.06	38.25	38.44
Short circuit current (I _{sc})	A	14.01	14.09	14.17	14.25
Maximum power voltage (V _{mpp})	V	31.30	31.49	31.67	31.86
Maximum power current (I _{mpp})	A	13.26	13.34	13.42	13.5
Module efficiency	%	21.3	21.5	21.8	22

ELECTRICAL DATA - NMOT**

		FU 415 M	FU 420 M	FU 425 M	FU 430 M
Module power (P _{max})	W	312	316	320	323
Open circuit voltage (V _{oc})	V	35.99	36.18	36.36	36.54
Short circuit current (I _{sc})	A	11.31	11.38	11.44	11.51
Maximum power voltage (V _{mpp})	V	29.19	29.32	29.48	29.61
Maximum power current (I _{mpp})	A	10.69	10.77	10.84	10.91

TEMPERATURE RATINGS

Temperature coefficient I _{sc}	%/°C	0.045
Temperature coefficient V _{oc}	%/°C	-0.25
Temperature coefficient P _{max}	%/°C	-0.29
NMOT**	°C	45 ± 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/m² - AM 1.5 - 25 °C - tolerance: P_{max} (±3%), V_{oc} (±4%), I_{sc} (±5%).

**Nominal Module Operating Temperature NMOT: 800 W/m² - T=45 °C - AM 1.5.

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

