

n-type

TECHNOLOGY
INSIDE

590 W 22.84 %

Maximum power

Maximum efficiency

KEY BENEFITS AND FEATURES



Power from **570 to 590 Watt**



144 M10 **n-type** half-cut cells



The **new standard** in photovoltaic technology



High efficiency and enhanced low light performance



Excellent temperature coefficient **-0.29%/°C**



2278 x 1134 x 35 mm

Performance guarantee

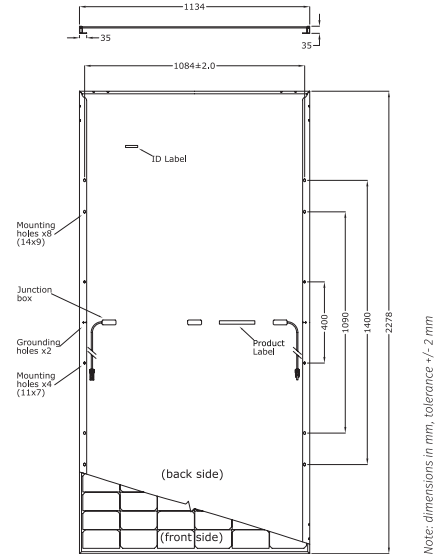
- **25-years** performance warranty with max power decrease from 2nd year **0.4%/year**
- **99%** at the end of first year
- **91.4%** at the end of 20th year
- **89.4%** at the end of 25th year

Product guarantees

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

Mechanical Specifications

Dimensions	2278 x 1134 x 35 mm
Weight	28.2 kg
Glass	High transmission, Low iron, Tempered, ARC, Thickness 3.2 mm
Cells	144 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 4mm², length 1400 mm or customized with connectors type Suzhou Xtong PV-XT101.2
Backsheet	Composite Multilayer film - white
Maximum reverse current (Ir)	25 A
Maximum system voltage	1500 V
Mechanical load (snow)	Design load: +1600 Pa, (+2400 Pa including safety factor 1.5)
Mechanical load (wind)	Design load: -1600 Pa, (-2400 Pa including safety factor 1.5)



Electrical data - STC^{*} FU570MV Silk Nova FU575MV Silk Nova FU580MV Silk Nova FU585MV Silk Nova FU590MV Silk Nova

Sorting tolerance	W	0~+5				
Module power (Pmax)	W	570	575	580	585	590
Open circuit voltage (Voc)	V	50.72	50.86	51.00	51.14	51.28
Short circuit current (Isc)	A	14.32	14.40	14.48	14.56	14.64
Maximum power voltage (Vmpp)	V	42.05	42.20	42.35	42.49	42.64
Maximum power current (Impp)	A	13.56	13.63	13.70	13.77	13.84
Module efficiency	%	22.06	22.26	22.45	22.64	22.84

Electrical data - NOCT^{**} FU570MV Silk Nova FU575MV Silk Nova FU580MV Silk Nova FU585MV Silk Nova FU590MV Silk Nova

Module power (Pmax)	W	429	433	436	440	444
Open circuit voltage (Voc)	V	48.19	48.31	48.45	48.59	48.73
Short circuit current (Isc)	A	11.56	11.63	11.69	11.75	11.82
Maximum power voltage (Vmpp)	V	39.5	39.59	39.68	39.78	39.89
Maximum power current (Impp)	A	10.86	10.93	11.00	11.07	11.13

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
Module (T98) max	°C	70

Certifications

Factory	ISO 9001 - 14001 - 45001
Product	IEC 61215, IEC 61730, Fire ratig Class C

Packaging

Quantity / Pallet	31 pcs
Container 40' HC	620 pcs / 20 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
Product Made in P.R.C
AUS_01