



**12
BUSBAR**

FU 280 / 285 / 290 P Silk

Polycrystalline Photovoltaic Module - 60 Cells

FU 300 / 305 / 310 M Silk

Monocrystalline Photovoltaic Module - 60 Cells

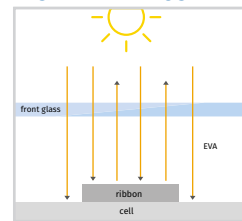
Engineered
in Italy



GENERAL FEATURES

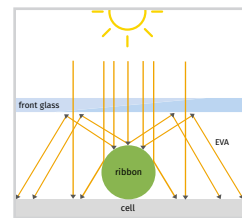
- **15-year product warranty**
- **12 busbar high-efficiency cells**
- **Less shades** thanks to the cylindrical ribbon
- **Increased current** thanks to the concentration effect of round ribbon
- **More kWh per kWp**
- Available also in **ALL BLACK** version
- **Reduced resistivity**
- **Less mechanical degradation** of the cell, lower risk of hot spot and micro cracks
- **Higher yield at low irradiance**

STANDARD BUSBAR



A high percentage of light is reflected externally from the ribbon

CYLINDRICAL RIBBON



Less reflected light and an increased current

GUARANTEES

Performance guarantee

Max power decrease **0.5%/year**

97% at the end of first year

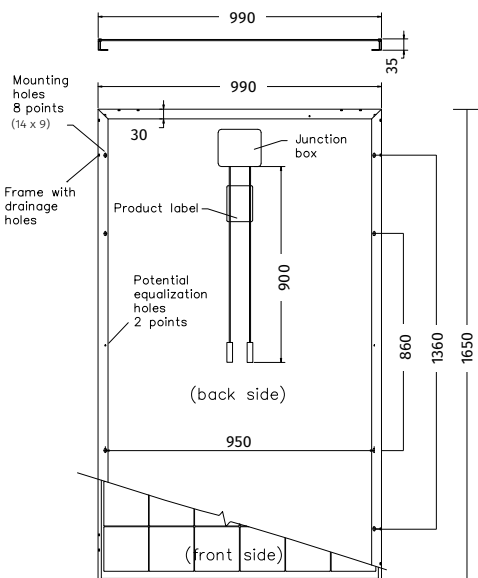
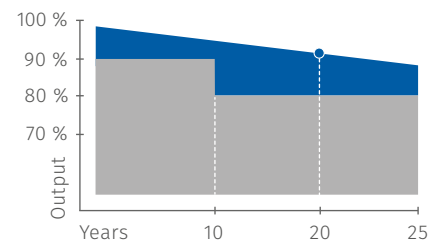
90% at the end of 20th year **NEW**

87% at the end of **25th year**

Product guarantee

15 YEARS **NEW**

■ Market standard performances
■ FuturaSun performances



ELECTRICAL DATA							
MODULE <i>Silk</i>	POLYCRYSTALLINE			MONOCRYSTALLINE			
		FU 280 P	FU 285 P	FU 290 P	FU 300 M	FU 305 M	FU 310 M
Standard Test Conditions STC: 1000 W/sqm - AM 1.5 - 25 °C - tolerance: Pmax (±3%), Voc (±4%), Isc (±5%)							
Module power (Pmax)	W	280	285	290	300	305	310
Open circuit voltage (Voc)	V	39.00	39.30	39.59	39.70	39.90	39.36
Short circuit current (Isc)	A	9.25	9.30	9.67	9.58	9.64	10.29
Maximum power voltage (Vmpp)	V	32.00	32.30	31.75	32.90	33.20	31.83
Maximum power current (Impp)	A	8.76	8.83	9.14	9.12	9.20	9.74
Module efficiency	%	17.10	17.40	17.75	18.30	18.60	18.98

Nominal Module Operating Temperature NOCT: 800 W/mq - T=45 °C - AM 1.5							
Module power (Pmax)	W	207	210	214	222	225	229
Open circuit voltage (Voc)	V	36.0	36.20	36.50	36.70	36.90	37.10
Short circuit current (Isc)	A	7.49	7.53	7.57	7.74	7.79	7.84
Maximum power voltage (Vmpp)	V	29.40	29.70	30	30.30	30.70	31
Maximum power current (Impp)	A	7.04	7.08	7.13	7.30	7.34	7.38

TEMPERATURE RATINGS			
MODULE <i>Silk</i>		FU 280 P / FU 285 P / FU 290 P	FU 300 M / FU 305 M / FU 310 M
Temperature coefficient Isc	%/°C	0.06	0.05
Temperature coefficient Voc	%/°C	-0.31	-0.30
Temperature coefficient Pmax	%/°C	-0.40	-0.39
NOCT *	°C	45 ± 2°C	45 ± 2°C
Operating temperature	°C	from -40 to +85	from -40 to +85

* Nominal Operating Cell Temperature

MECHANICAL SPECIFICATIONS	
Dimensions	1650 x 990 x 35 mm
Weight	17.9 kg
Glass	Tempered, transparent, 3.2 mm
Cell encapsulation	EVA (Ethylene Vinyl Acetate)
Cells	60 cells 156.75x156.75 mm
Backsheet	Composite multilayer film
Frame	Anodized aluminium frame with mounting and drainage holes
Junction box	IP 65/IP 67
Cables	Solar cable, length 900 mm assembled with MC4-combinable plugs
Maximum reverse current (Ir)	15 A
Maximum system voltage	1000 V (1500 V on request)
Maximum load (wind/snow)	5400 Pa (including safety factor 1.5)
Protection Class	II - accordance to IEC 61730

Authorized Dealer



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