FuturaSun®
anticipate tomorrow

**MULTI BUSBAR**

# FU 490 / 495 / 500 / 505 / 510 M SILK® Premium

## Monocrystalline Photovoltaic Module - 150 1/3 cut MBB cells

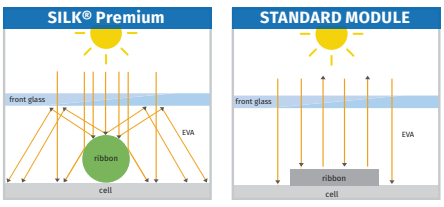
*Engineered in Italy*

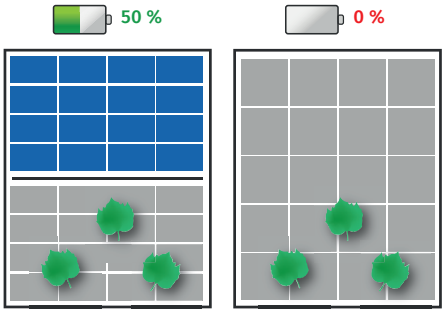
LIABILITY INSURANCE

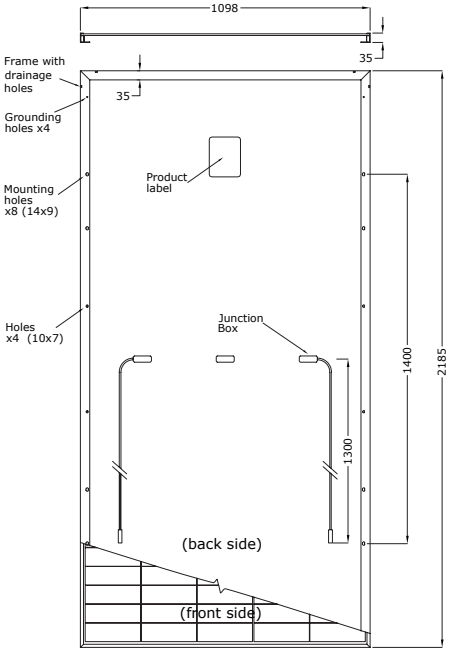
- IEC 61215:2016 - IEC 61730:2016 & Factory Inspection
- Fire Resistance - Class C

## GENERAL FEATURES

- **15-year product warranty**
- **150 Large area cells based on 210 mm silicon wafers and 1/3-cut cell technology**
- **Up to 21.25% module efficiency with high density interconnect technology**
- **Lower LCOE** (Levelized Cost Of Energy), **reduced BOS** (Balance Of System) cost, shorter payback time
- **Less shades and more reflected light** to the cell thanks to the round ribbon
- **2 independent section** design secures a higher energy yield in case of shading
- **Lower risk of micro cracks and hot-spot**
- **Improved low light performance**
- **Half cut design in combination with multi busbar** reduce operating current and internal resistance




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

## GUARANTEES

Performance guarantee

Max power decrease **0.5%**/year

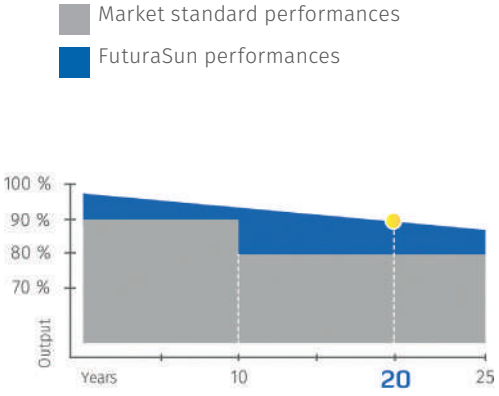
97% at the end of first year

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

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

Product guarantee

**15 YEARS** NEW



## ELECTRICAL DATA

| MODULE SILK® Premium | | FU 490 M SILK® Premium | FU 495 M SILK® Premium | FU 500 M Silk® Premium | FU 505 M SILK® Premium | FU 510 M SILK® Premium |
|---|---|---|---|---|---|---|
| *Standard Test Conditions STC: 1000 W/m² - AM 1.5 - 25 °C - tolerance: Pmax (±3%), Voc (±4%), Isc (±5%)* | | | | | | |
| Module power (Pmax) | W | 490 | 495 | 500 | 505 | 510 |
| Open circuit voltage (Voc) | V | 51.20 | 51.40 | 51.60 | 51.80 | 52.00 |
| Short circuit current (Isc) | A | 12.17 | 12.24 | 12.31 | 12.38 | 12.44 |
| Maximum power voltage (Vmpp) | V | 42.47 | 42.64 | 42.85 | 43.06 | 43.26 |
| Maximum power current (Impp) | A | 11.54 | 11.61 | 11.67 | 11.73 | 11.79 |
| Module efficiency | % | 20.42 | 20.63 | 20.84 | 21.05 | 21.25 |
| *Nominal Module Operating Temperature NMOT: 800 W/m² - T=45 °C - AM 1.5* | | | | | | |
| Module power (Pmax) | W | 371 | 375 | 379 | 382 | 386 |
| Open circuit voltage (Voc) | V | 48.40 | 48.60 | 48.80 | 49.00 | 49.2 |
| Short circuit voltage (Isc) | A | 9.77 | 9.83 | 9.89 | 9.94 | 9.99 |
| Maximum power voltage (Vmpp) | V | 40.00 | 40.20 | 40.40 | 40.60 | 40.7 |
| Maximum power current (Impp) | A | 9.26 | 9.32 | 9.37 | 9.43 | 9.49 |

## TEMPERATURE RATINGS

| | | |
|---|---|---|
| Temperature coefficient Isc | %/°C | 0.05 |
| Temperature coefficient Voc | %/°C | -0.26 |
| Temperature coefficient Pmax | %/°C | -0.35 |
| NMOT * | °C | 43 |
| Operating temperature | °C | from -40 to +85 |

**Nominal Module Operating Temperature*

## MECHANICAL SPECIFICATIONS

| | |
|---|---|
| Dimensions | 2185 x 1098 x 35 mm |
| Weight | 26.3 kg |
| Glass | High transmission, Low iron, Tempered, ARC, Transparent, 3.2 mm |
| Cell encapsulation | EVA (Ethylene Vinyl Acetate) |
| Cells | 150 monocrystalline 1/3 cut MBB PERC cells 210 x 70 mm |
| Backsheet | Composite multilayer film |
| Frame | Anodized aluminium frame with mounting and drainage holes |
| Junction box | Certified according to IEC 62790, IP 68 approved, 3 bypass diodes |
| Cables | Solar cable, length 1300 mm or customized assembled with MC4-compatible plugs |
| Maximum reverse current (Ir) | 20 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 |

Authorized Dealer

2022_150m_490-510_SILK_Premium_en

FuturaSun®
anticipate tomorrow

**FuturaSun srl**
Riva del Pasubio, 14 - 35013 Cittadella - Italy
Tel + 39 049 5979802 Fax + 39 049 0963081
**www.futurasun.com - info@futurasun.it**