



Engineered  
in Italy

**GLASS/  
GLASS**

## FU 320 / 325 / 330 M Duetto

Monocrystalline Photovoltaic Module - 60 cells - glass/glass



### GENERAL FEATURES

- **Black framed glass-glass structure** with strong load capacity
- **30-years performance guarantee**
- **Dual glass reduces micro-cracking, snail trails, corrosions** caused by moisture, sand and salt mist
- **Lightweight tempered 2x2 mm safety glass** for optimal mechanical stability and transparency
- Maximum **fire resistance**
- Quality control with **electroluminescence (EL) tests** on each module

### CERTIFICATIONS

- > **IEC 61215:2016 - IEC 61730:2016 & Factory Inspection\***
- > **Fire Resistance - Class 1**
- > **Salt Corrosion Resistance**  
IEC 61701
- > **Ammonia Corrosion**  
IEC 62716
- > **Dust and Sand Resistance**  
IEC 60068-2-68

NEW

### GUARANTEES

Duetto Performance guarantee

**30 YEARS** NEW

Max power decrease **0.5%/year**

97% at the end of first year

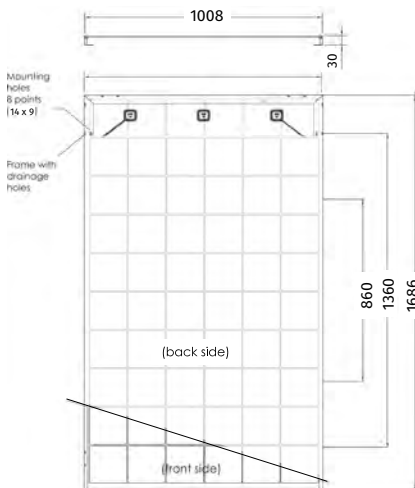
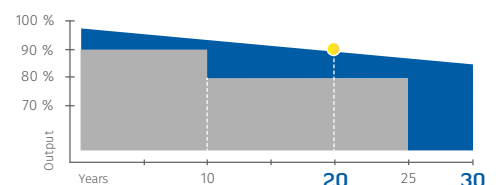
**90% at the end of 20<sup>th</sup> year**

**85% at the end of 30<sup>th</sup> year** NEW

Product guarantee

**15 YEARS** NEW

■ Market standard performances  
■ FuturaSun Duetto linear performances



Note: dimensions in mm  
tolerance +/- 2 mm

## ELECTRICAL DATA

MODULE Duetto		FU 320 M	FU 325 M	FU 330 M
<i>Standard Test Conditions STC: 1000 W/sqm - AM 1.5 - 25 °C - tolerance: Pmax (±3%), Voc (±4%), Isc (±5%)</i>				
Module power (Pmax)	W	320	325	330
Open circuit voltage (Voc)	V	41.24	41.44	41.66
Short circuit current (Isc)	A	9.88	9.96	10.04
Maximum power voltage (Vmpp)	V	33.68	33.93	34.17
Maximum power current (Impp)	A	9.51	9.58	9.66
Module efficiency	%	19.18	19.48	19.78

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

Module power (Pmax)	W	235.11	238.60	242.29
Open circuit voltage (Voc)	V	38.04	38.22	38.43
Short circuit current (Isc)	A	8.12	8.19	8.26
Maximum power voltage (Vmpp)	V	30.48	30.71	30.92
Maximum power current (Impp)	A	7.71	7.77	7.84

## TEMPERATURE RATINGS

Temperature coefficient Isc	%/°C	0.0344
Temperature coefficient Voc	%/°C	-0.273
Temperature coefficient Pmax	%/°C	-0.389
NMOT **	°C	45
Operating temperature	°C	from -40 to +85

\* Certification on going

\*\* Nominal Module Operating Temperature

## MECHANICAL SPECIFICATIONS

Dimensions	1686 x 1008 x 30 mm
Weight	22 kg
Glass	Tempered, transparent, 2 x 2 mm
Cell encapsulation	EVA (Ethylene Vinyl Acetate)
Cells	60 monocrystalline full square PERC cells 158.75x158.75 mm
Frame	Anodized black aluminium frame with mounting and drainage holes
Junction box	Certified according to IEC 62790, IP 68 approved
Cables	Solar cable, length 600 mm assembled with MC4-combinable plugs
Maximum reverse current (Ir)	20 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



**FuturaSun srl**  
Riva del Pasubio, 14 - 35013 Cittadella - Italy  
Tel + 39 049 5979802 Fax + 39 049 0963081  
[www.futurasun.com](http://www.futurasun.com) - [info@futurasun.it](mailto:info@futurasun.it)