

Perfect in association with hybrid SPRING® panels

The FLASH® Black solar panel by DualSun is designed for self-consumption projects without compromising on aesthetics and performance in order to maintain all the elegance of the building

## FLASH® 320 Black



### OPTIMIZED PERFORMANCE

High performance monocrystalline cells  
Positive classification -0/+5 Wp  
Anti-reflective glass ensuring high performance even in diffused light

### WARRANTY

French manufacturer  
25-year linear power output warranty  
20 years product warranty, 25 years in option\*  
(product and labour)

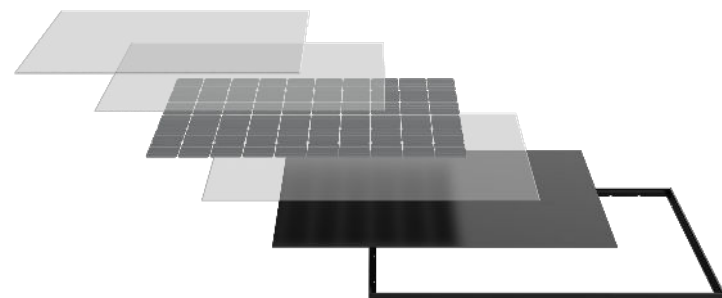


\* Please refer to DualSun Premium Warranty Terms



### AESTHETIC & EASY TO INSTALL

Sleek and attractive design  
Mechanical resistance up to 5400 Pa  
Compatible with all roof installation systems



### QUALITY & SAFETY

CE marking  
Certification according to IEC standards\*  
Salt mist corrosion test - IEC standard

\* IEC 61215 & 61730 n°Z2 103216 0006 Rev.01  
IEC 61701 n°Z2 103216 0007 Rev.00 (salt mist)  
UL1703 n°80035968, CEC listed

### RELIABILITY AND COMPETITIVENESS

The DualSun FLASH® photovoltaic panel is manufactured according to very strict specifications, and each production batch is systematically audited by a specialized third-party control office.



### INDUSTRY OF THE FUTURE LABEL

Engineered in France :  
R&D center in Marseille

### IDEAL PANEL FOR ROOF TYPES:

RESIDENTIAL



COMMERCIAL

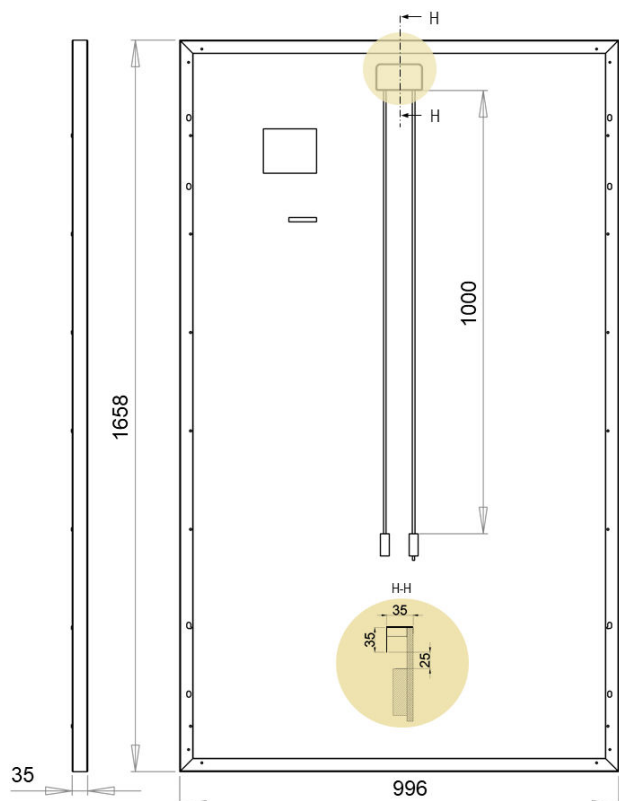


INDUSTRIAL



Recyclable panel

## Dimensions



## Physical characteristics

Length	1658 mm
Width	996 mm
Thickness	35 mm
Weight	19,5 kg
Number of cells	60
Cell type	PERC Monocrystalline
Connectors	MC4 / MC4 compatible
Cable length	900 mm
Junction box	IP67 - 3 diodes
Maximum load	5400 Pa (snow) / 2400 Pa (wind)
Frame / Backsheet	Black anodised aluminium / Black

## Operational characteristics

Temperature	-40°C to +85°C
Maximum system voltage	1000 VDC
Maximum reverse current	20 A
NMOT	45 +/- 2°C
Application class	Class II

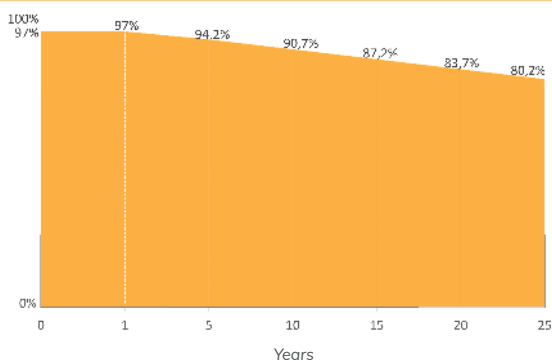
## Photovoltaic characteristics

Nominal power	320 W
Output power tolerance	0 / +5W
Module efficiency	19,38 %
Rated voltage ( $V_{mpp}$ )	33,13 V
Rated current ( $I_{mpp}$ )	9,66 A
Open circuit voltage ( $V_{oc}$ )	40,43 V
Short-circuit current ( $I_{sc}$ )	10,19 A

\* STC conditions (AM 1.5 - 1000 W / m<sup>2</sup> - 25 ° C)

Measurement tolerance: +/- 3%

## Linear power output warranty



Find the installation instructions and mounting systems in our resource area:



## Temperature coefficients

Voltage temperature coefficient ( $\mu V_{oc}$ )	-0,29 %/°K
Current temperature coefficient ( $\mu I_{sc}$ )	0,05 %/°K
Power temperature coefficient ( $\mu P_{mpp}$ )	-0,36 %/°K