



DualSun offers 100% low carbon panels. To make solar energy the best solution to reduce carbon footprint of the buildings. Competitiveness and reliability on Major Projects:

## FLASH 415 Half-Cut White



### OPTIMIZED PERFORMANCE

High performance monocrystalline cells. Anti-reflective glass guaranteeing high performance even in diffused light.

### WARRANTY

French manufacturer  
20 year of product warranty  
+5 years extension upon activation of warranties\*

Performance guarantees on the photovoltaic yield of 25 years

\* Conditions for activating guarantees on [dualsun.com](https://dualsun.com)



### QUALITY & SAFETY

CE marking  
Certified following IEC norms\*  
Salt mist corrosion test - IEC standard

\* IEC 61215 & 61730 n°Z2 103216 0008 Rev.02  
IEC 61701 n°Z2 103216 0009 Rev.00  
IEC 62716 n°Z2 103216 0010 Rev.00

### AESTHETIC & EASY TO INSTALL

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



### INDUSTRY OF THE FUTURE LABEL

Photovoltaic cells laminated in Asia for an optimized value chain  
Systematic audit of productions by third-party control office



### IDEAL PANEL FOR ROOF TYPES :

COMMERCIAL

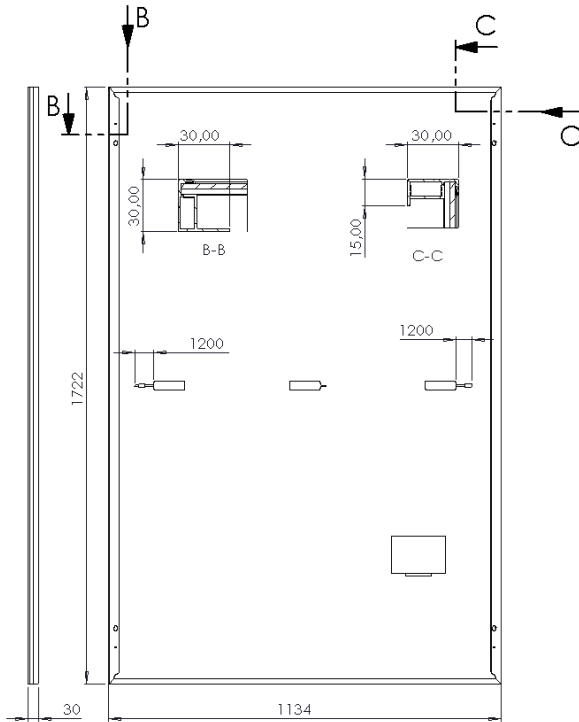


INDUSTRIAL





## Dimensions



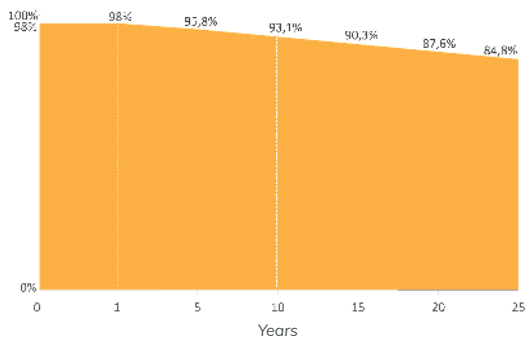
## Physical characteristics

Dim (L x W x t)	1722 mm x 1134 mm x 30 mm	
Weight	20 kg	
Number of cells	108 1/2	
Cell type	PERC Monocrystalline<	
Connectors	MC4 Original Stäubli	
Cable length	1200/1200 mm	
Junction box	IP68 - 3 diodes	
Maximum load	5400 Pa (Snow)	2400 Pa (Wind)
Frame / Backsheet	Black anodised aluminium / White	
ECS value	496 kg CO <sub>2</sub> /kWc-e	
Glass thickness	2,8mm	

## Operational characteristics

Temperature	-40°C / +85°C
Maximum system voltage	1500 VDC
Maximum reverse current	25 A
NMOT	42 +/- 3°C
Application class	II

## Linear power output warranty



## Photovoltaic characteristics

Nominal power	415 W
Output power tolerance	0/+3%
Module minimum guaranteed efficiency	21,3 %
Rated voltage ( $V_{mpp}$ )	31,27 V
Rated current ( $I_{mpp}$ )	13,29 A
Open circuit voltage ( $V_{oc}$ )	37,45 V
Short-circuit current ( $I_{sc}$ )	14,13 A

\* STC conditions (AM 1.5 - 1000 W / m<sup>2</sup> - 25 ° C)  
Measurement tolerance: +/- 3%

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



## Temperature coefficients

Voltage temperature coefficient ( $\mu V_{oc}$ )	-0,246 %/K
Current temperature coefficient ( $\mu I_{sc}$ )	0,0448 %/K
Power temperature coefficient ( $\mu P_{mpp}$ )	-0,33 %/K

V1.3 - September 2023  
DS415-108M10-02