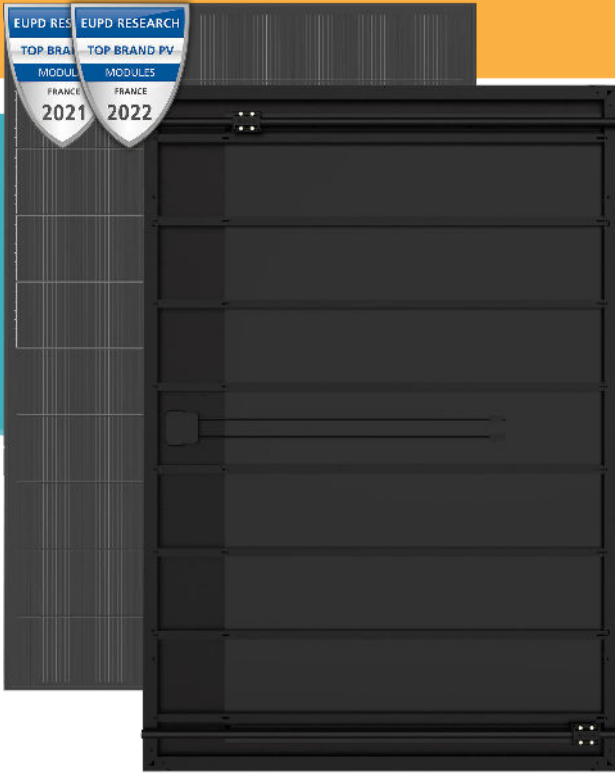


SPRING hybrid solar panel (PVT)[®] designed and manufactured in France (certified Made in France), produces both electricity and hot water.

SPRING[®] 400 Shingle Black



PHOTOVOLTAIC FRONT FACE

High performance monocrystalline cells cooled by water circulation
Anti-reflective glass ensuring high performance even in diffused light

THERMAL REAR FACE

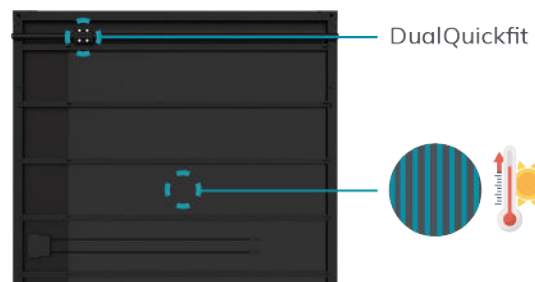
Hot water production thanks to an ultra-thin patented heat exchanger completely integrated into the panel
DualBoost[®] : Photovoltaic efficiency boost by cooling cells



WARRANTY

French manufacturer
10 year product warranty, starting from the activation of the guarantees*
25 year linear performance warranty on photovoltaic performance

* Warranty activation conditions on dualsun.com



QUALITY & SAFETY

- CE marking
- IEC 61215 & 61730 n°16828 Rev.0
- SOLAR KEYMARK n°16826 + n°16827 Rev.1
- CEC listed / UL 1703 in progress / ICC-SRCC n°10002137

DUALQUICKFIT[®]

Patented Plug & Play hydraulic connection system for faster and more reliable installation of the SPRING[®] panel



INDUSTRY OF THE FUTURE LABEL

Engineered in France :
R&D center in Marseille
Made in France (certificate FR-IMF-2022-293/294):
DIN EN ISO 9001: 2015 certified factory

COMPATIBLE PANEL FOR APPLICATIONS:

DHW



HP

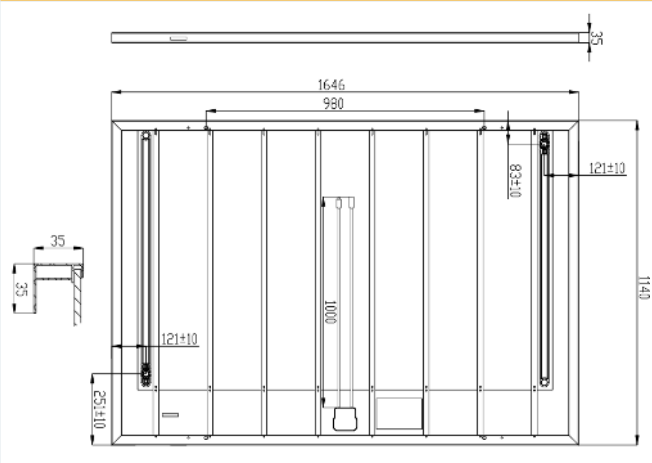


POOL





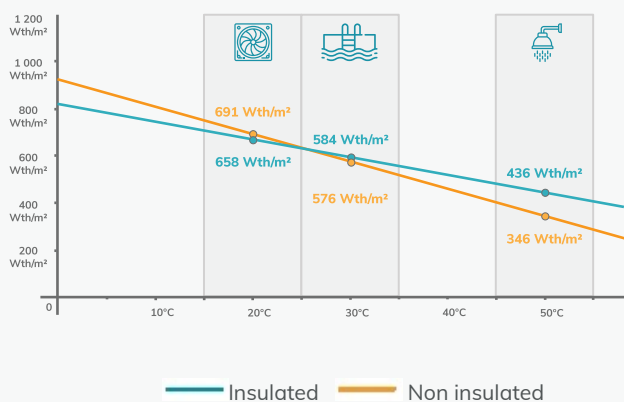
Dimensions



Physical characteristics

Length	1646 mm	
Width	1140 mm	
Thickness	35 mm	
	Non insulated	Insulated
Empty / full weight	26,3 / 31,3 kg	27,1 / 32,1 kg
Number of cells	360	
Cell type	PERC Monocrystalline	
Connectors	MC4 / MC4 compatible	
Cable length	1000 mm	
Maximum load	5400 Pa (snow) / 2400 Pa (wind)	
Frame / Backsheet	Black anodised aluminium / Black	

Thermal power output as a function of the temperature of the water in the panel and by application



Performances derived from the values a_0 , a_1 (wind $u = 1 \text{ m/s}$) in STC conditions ($T = 25 \text{ °C}$, $G = 1000 \text{ W/m}^2$)

Photovoltaic characteristics

Nominal power	400 W
Photovoltaic yield at 25 years	84,8%
Output power tolerance	+/- 3%%
Module efficiency	21,3 %
Rated voltage (V_{mpp})	41,00 V
Rated current (I_{mpp})	9,76 A
Open circuit voltage (V_{oc})	49,50 V
Short-circuit current (I_{sc})	10,12 A
Voltage temperature coefficient (μV_{oc})	-0,27 %/°K
Current temperature coefficient (μI_{sc})	0,04 %/°K
Power temperature coefficient (μP_{mpp})	-0,34 %/°K
Maximum system voltage	1500 VDC
Maximum reverse current	20 A
NMOT	42,3 +/- 2°C
Application class	Class II

* STC conditions (AM 1.5 - 1000 W/m² - 25°C)
Measurement tolerance: +/- 3%

Thermal characteristics

Thermal power	660 W _{th} /m ² *	
Collector area	1,876 m ²	
Heat exchanger volume	5 L	
Max operating pressure	1,5 bar	
Pressure drop	Portrait	Landscape
(Pa mmH2O)	at 60 L/h 186 19	441 45
	at 100 L/h 461 47	961 98
Hydraulic inlet / outlet	DualQuickft® fitting	
	Non insulated	Insulated
Stagnation temperature	80°C	90°C
Optical efficiency a_0	63,3 %**	62,1 %**
Coefficient a_1	11,5 W/K/m ² **	7,4 W/K/m ² **
Coefficient a_2	0 W/(m ² .K ²)**	0 W/(m ² .K ²)**

* Thermal power calculated with wind $u = 0 \text{ m/s}$, $DT = 0$, $G = 1000 \text{ W/m}^2$

** The coefficients a_0 , a_1 and a_2 result from EN 9806: 2017 certification tests for solar collectors without glazing carried out by KIWA for a wind speed $u = 1 \text{ m/s}$: $a_0 = n_0 - c_6 \cdot u$; $a_1 = c_1 + c_3 \cdot u$; $u' = u - 3$

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



v1.4 – June 2022

DSTI400G1-360SBB5 / DSTN400G1-360SBB5