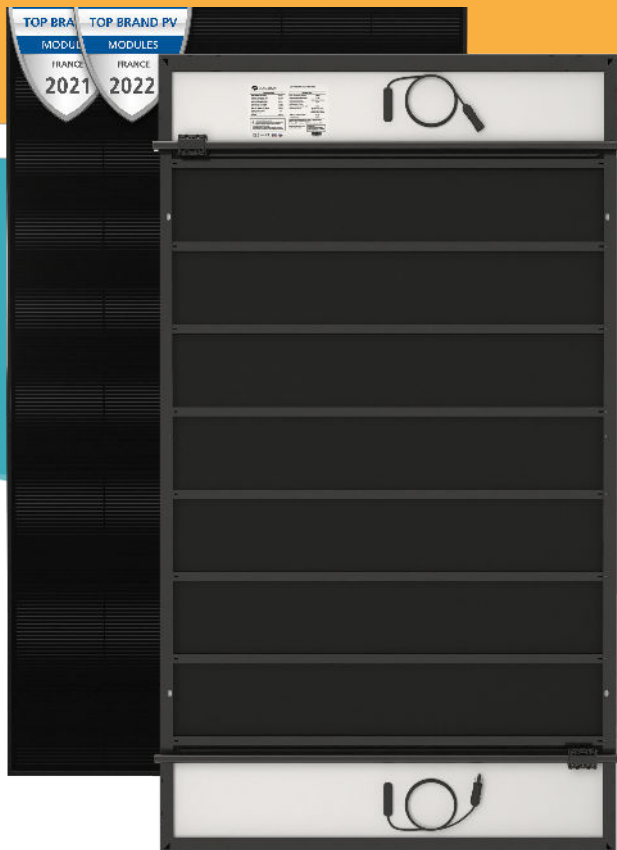


SPRING hybrid solar panel (PVT)[®] designed and manufactured in France (certified Made in France), produces both electricity and hot water.

SPRING[®] 425 Shingle Black



PHOTOVOLTAIC FRONT FACE

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



WARRANTY

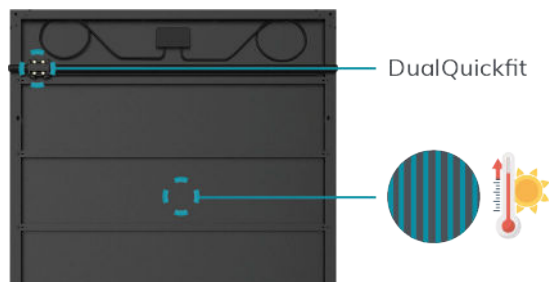
French manufacturer
10 year product warranty, starting from the activation of the warranty*
30 year linear performance warranty on photovoltaic performance

* Warranty activation conditions on dualsun.com

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



QUALITY & SAFETY



- IEC 61215 & 61730 DE 2-038845 + DE 2-039244
- SOLAR KEYMARK n°011-7S3167 P + n°011-7S3168 P
- UL 61730 (CSA certificate n° N°80150682)
- ICC-SRCC : No./10002165 / No./10002166

DUALQUICKFIT[®]

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



INDUSTRY OF THE FUTURE LABEL

Made in France (certificate FR-IMF-2023-375):
DIN EN ISO 9001: 2015 certified factory



COMPATIBLE PANEL FOR APPLICATIONS:

DHW



HP

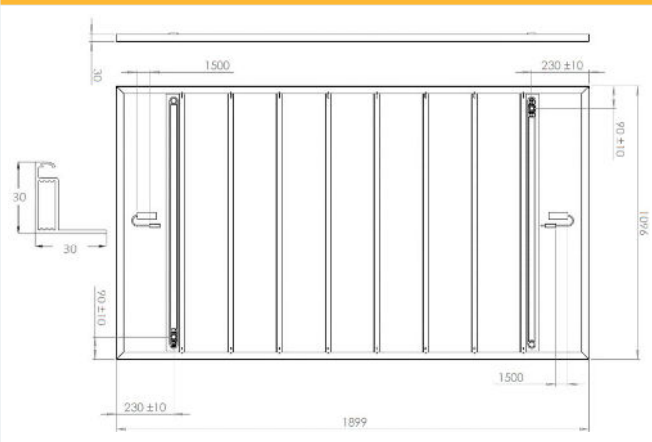


POOL





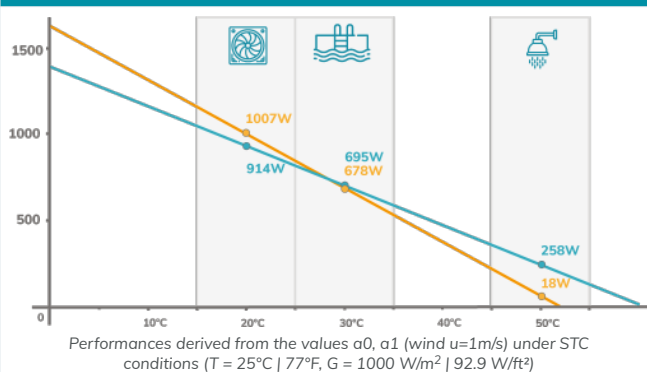
Dimensions



Physical characteristics

Length	74,76 inch (1899 mm)	
Width	43.15 inch (1096 mm)	
Thickness	1,18 inch (30 mm)	
	Non insulated	Insulated
Empty / full weight	(63,0 / 74,0 lbs)	(64,7 / 75,8 lbs)
Number of cells	320	
Cell type	PERC Monocrystalline	
Connectors	MC4 Original Stäubli	
Cable length	1500 mm (59 inch)	
Maximum load	Snow: 0.957 PSI (5400 Pa) Wind: 0.522 PSI (2400 Pa)	
Frame / Backsheet	Black anodised aluminium / Black	

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



Photovoltaic characteristics

Nominal power	425 W
Photovoltaic yield at 25 years	84,8%
Output power tolerance	0/+3%
Module minimum guaranteed efficiency	20,4 %
Rated voltage (V_{mpp})	36,0 V
Rated current (I_{mpp})	11,81 A
Open circuit voltage (V_{oc})	43,4 V
Short-circuit current (I_{sc})	12,56 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	25 A
NMOT	(113 +/-35,6°F)
Application class	II

* STC Conditions (AM 1,5 – 1000 W/m² | 92,9 W/ft² - 25°C | 77°F)
Measurement tolerance: +/- 3%

Thermal characteristics

Thermal power	418W _{th} /m ² 133Btu/ft ² *	869 W _{th} /panel
Collector area	21,53 ft ² (2,08 m ²)	
Heat exchanger volume	1,32 gal (5 L)	
Max operating pressure	21,7 PSI (1,5 bar)	
Pressure drop	Portrait	Landscape
inch H ₂ O	at 60 L/h 0,75 (19)	45 (1,77)
(mm H ₂ O)	at 100 L/h 47 (1,85)	3,86 (98)
	Non insulated	Insulated
Stagnation temperature	176°F (80°C)	194°F (90°C)
Optical efficiency a_0	40.5 %**	38.7 %**
Coefficient a_1	15.9 W/K/m ² **	10,5 W/K/m ² **
Coefficient a_2	0 W/(m ² .K ²)**	0 W/(m ² .K ²)**

* Calculated with wind speed $u = 0 \text{ m/s}$, $DT = 0$, $G = 1000 \text{ W/m}^2$
** 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 $u = 1 \text{ m/s}$: $a_0 = \eta_0 - \nu s_6^* u'$; $a_1 = c_1 + c_3^* u'$; $u' = u - 3$

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

