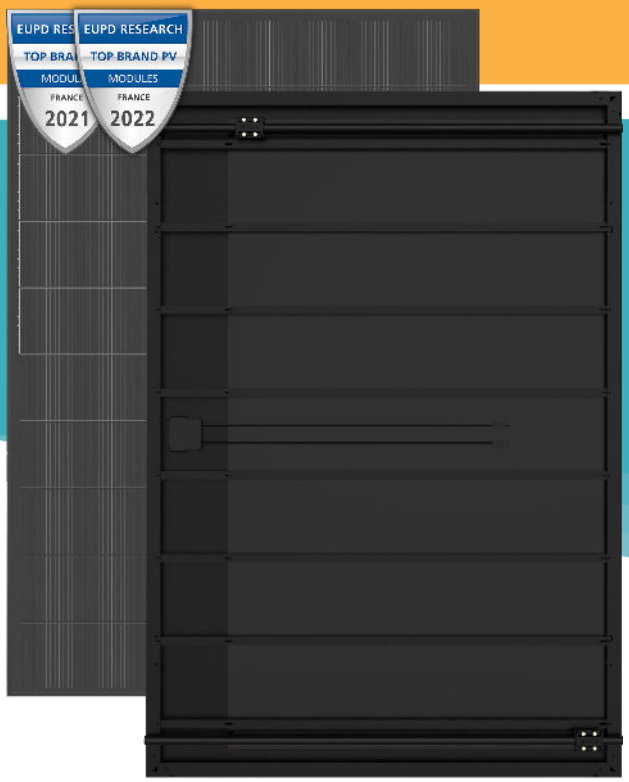
DUALSUN

French manufacturer of solar panels



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

SPRING® 375 Shingle Black

PHOTOVOLTAIC FRONT FACE

High performance monocrystalline cells cooled by water circulation

Anti-reflective glass ensuring high performance even in diffused light

Positive classification -0 / + 3%

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

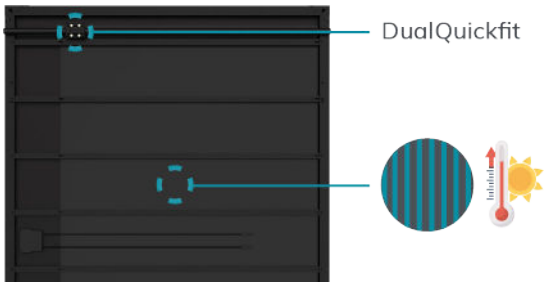
WARRANTY

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

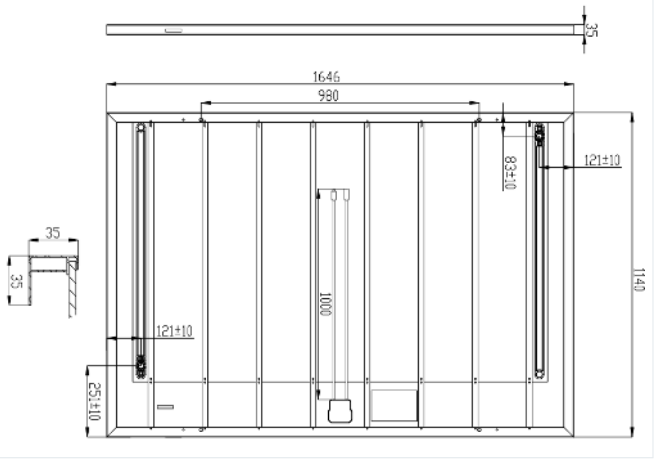
COMPATIBLE PANEL FOR APPLICATIONS:

DHW	HP	POOL

Recyclable panel

SPRING® 375 Shingle Black

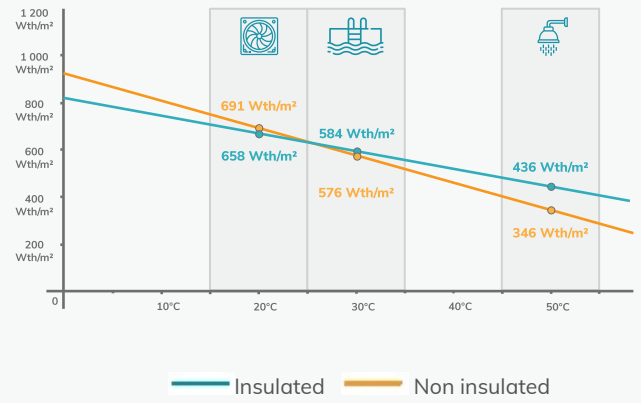
Dimensions



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 a0, a1 (wind u = 1 m / s) in STC conditions (T = 25 ° C, G = 1000 W / m²)

Photovoltaic characteristics

Nominal power	375 W
Photovoltaic yield at 25 years	84,8%
Output power tolerance	0 / +3%%
Module efficiency	20 %
Rated voltage (V_{mpp})	40,40 V
Rated current (I_{mpp})	9,28 A
Open circuit voltage (V_{oc})	48,90 V
Short-circuit current (I_{sc})	9,89 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 m²	
Heat exchanger volume		5 L	
Max operating pressure		1,5 bar	
Pressure drop		**Portrait**	**Landscape**
(Pa | mmH20)	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/m²**	7,4 W/K/m²**
Coefficient a_2		0 W/(m².K²)**	0 W/(m².K²)**

* Thermal power calculated with wind u = 0 m/s, DT = 0, G = 1000 W/m²

** 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 m/s: $a_0 = n_0 - c_6*u'$; $a_1 = c_1 + c_3* u'$; $u' = u - 3$**

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

v1.4 – June 2022
DSTI375G1-360SBB5 / DSTN375G1-360SBB5

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