

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



PHOTOVOLTAIC FRONT FACE

- High performance monocrystalline cells cooled by water circulation
- Positive classification -0/+5 Wp
- 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



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DualQuickfit

DUALQUICKFIT®

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



INDUSTRY OF THE FUTURE LABEL

• CEC listed / UL 1703 in progress / ICC-SRCC in

Engineered in France : R&D center in Marseille Made in France (certificate FR-IMF-2019-198): DIN EN ISO 9001: 2015 certified factory in Jujurieux

COMPATIBLE PANEL FOR APPLICATIONS:				
DHW	HP	POOL		







WARRANTY

Product and labor warranty 10 years 25-year linear power output warranty

Refer to the DualSun warranty conditions

QUALITY & SAFETY

• IEC 61215 & 61730 in progress

• SOLARK KEYMARK in progress

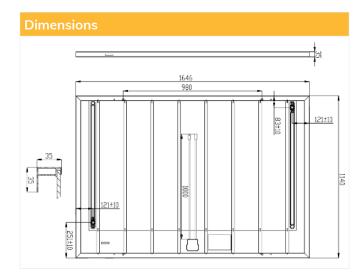
• CE marking

progress

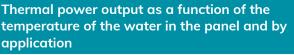


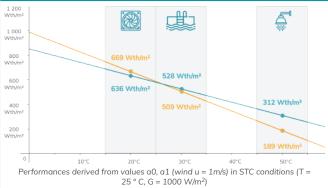
SPRING[®] 375 Shingle Black





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 EVO2 original			
Cable length	1000 mm			
Maximum load	5400 Pa (snow) / 2400 Pa (wind)			
Frame / Backsheet	Black anodised aluminium / Black			





Photovoltaic characteristics		
Nominal power	375 W	
Output power tolerance	0/+5W	
PV 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 / m ² - 25 $^{\circ}$ C		

Measurement tolerance: +/- 3%

Thermal characteristics					
Thermal power	629 W _{th} /m²*				
Gross area	1,876 m²				
Heat transfer liquid volume	5 L				
Max operating pressure	1,5 bar				
Pressure drop	Portrait	Landscape			
(Pa mmH20) at 32 L/h	59 6	167 17			
at 100 L/h	461 47	961 98			
Hydraulic inlet / outlet	DualQuickft® fitting				
	Non insulated	Insulated			
Stagnation temperature	70°C	75,6°C			
Optical efficiency a ₀	58,9 %**	58,2 %**			
Coefficient a ₁	16,0 W/K/m²**	10,8 W/K/m²**			
Coefficient a ₂	0 W/(m².K²)**	0 W/(m².K²)**			
* Thermal power calculated with wind $\mu = 0$ m/s DT = 0. G = 1000 W/m ²					

* Thermal power calculated with wind u = 0 m/s, DT = 0, $G = 1000 \text{ W/m}^2$ ** The coefficients a_0 , at_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 $a_2 = a_2 \text{ ys}^* u^4$ $a_1 = c_2 + c_2^* u^4$ $u^4 = u^2$

speed u = 1 m / s: $a_0 = n_0 - vs_6^* u$ '; $at_1 = c_1 + c_3^* u$ '; u '= u - 3



1.1 – 2021 DSTI375G1-360SBB5 / DSTN375G1-360SBB5