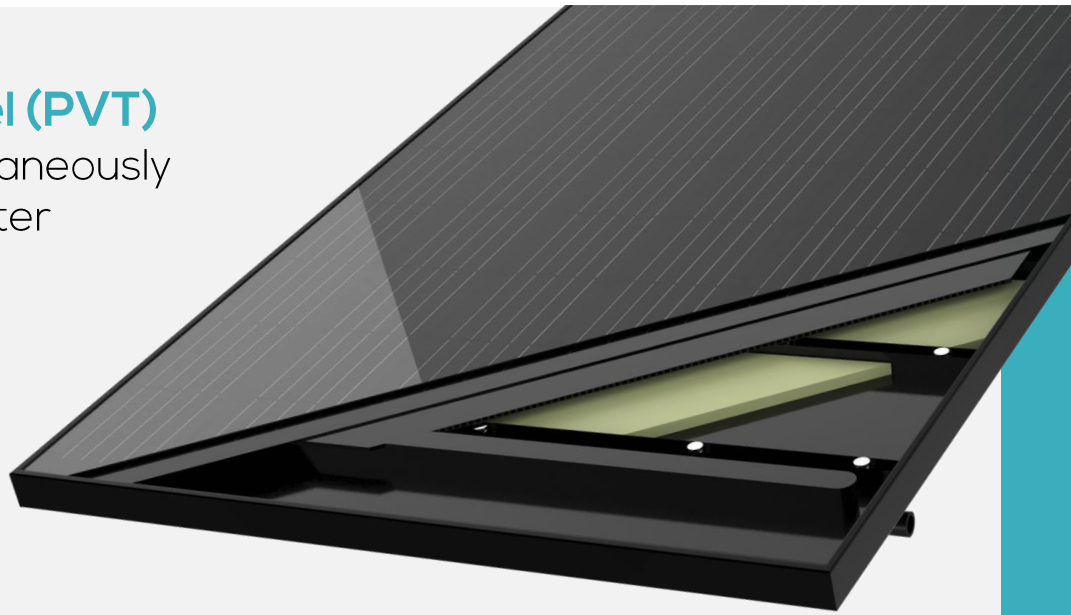


**A hybrid solar panel (PVT)**  
that generates simultaneously  
electricity and hot water



**PHOTOVOLTAIC**

High-efficiency monocrystalline cells,  
cooled by water circulation on backside of panel

Anti-reflective glass ensuring high  
performance even in diffuse light

Positive classification -0 / + 5 Wp  
Nominal PV power : 315 Wp

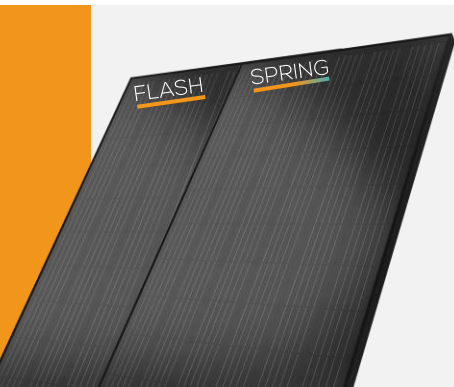
**THERMAL**

Ultra-thin heat exchanger, completely integrated into  
panel (DualHeat® patented design)

Excellent heat transfer between photovoltaic frontside  
and water circulation on backside, for an increased  
photovoltaic efficiency (DualBoost® effect)

Thermal power output : 632 W/m<sup>2</sup> \*

\* Performances measured during Solar Keymark certification



Same elegant and attractive design

Same electrical characteristics

Compatible with the roof mounting systems of the most distributed brands

List of the compatible mounting systems available on DualSun website -  
Professional Area

Portrait and landscape installation

Mechanical load up to 5,400 Pa



**25 years linear PV power warranty**  
**10 year product and labour costs warranty\*\***

\*\*Please refer to Premium DualSun Warranty Terms

Spring Non-Insulated : DualSun - 315M - 60 - 3BBPN  
Spring Insulated : DualSun - 315M - 60 - 3BBPI



# TECHNICAL DATA

## GENERAL DATA

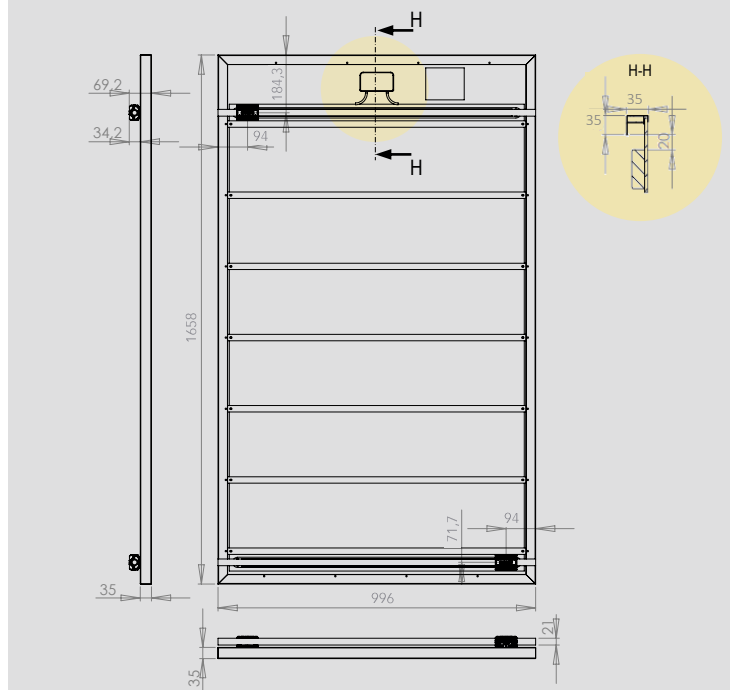
Length	1658 mm	
Width	996 mm	
Frame width	35 mm	
Frame color / Backsheet	Black / Black	
Maximum load	5400 Pa (snow) / 2400 Pa (wind)	
Weight empty / filled	Spring NI*	Spring I*
	25,3 / 30,3 kg	26,1 / 31,1 kg

\* NI = Non-Insulated, I = Insulated

## PHOTOVOLTAIC DATA

Number of cells per module	60
Cell type	PERC Monocrystalline
Nominal power ( $P_{mpp}$ )	315 Wc
Module efficiency	19,08 %
Rated voltage ( $V_{mpp}$ )	32,85 V
Rated current ( $I_{mpp}$ )	9,59 A
Open circuit voltage ( $V_{oc}$ )	40,12 V
Short circuit current ( $I_{sc}$ )	10,12 A
Power output tolerance	0 / +5W
Maximum system voltage	1000 V DC
Reverse current load	20 A
NOCT	45 ± 2°C
Connectors	MC4 / MC4 compatible
Application class	Classe II
Voltage temperature coefficient ( $\mu V_{oc}$ )	-0,29 %/°C
Current temperature coefficient ( $\mu I_{sc}$ )	0,05 %/°C
Power temperature coefficient ( $\mu P_{mpp}$ )	-0,36 %/°C

Power measurement tolerance : +/- 3%



Non-insulated version of the Spring panel with DN15 DualQuickfit® fitting

## THERMAL DATA

Gross area	1,635 m <sup>2</sup>		
Volume of heat transfer liquid	5 L		
Maximum operating pressure	1,5 bar		
Pressure loss per panel (Pa   mmWS)	Portrait	Landscape	at 32 L/h
	59   6	167   17	
Hydraulic input/output	DualQuickfit® fittings		
	Non-Insulated	Insulated	
Maximum temperature	70 °C	75,6 °C	
Optical efficiency $\alpha_0$	58,9 % *	58,2 % *	
Heat loss coefficient $\alpha_1$	16,0 W/K/m <sup>2</sup> *	10,8 W/K/m <sup>2</sup> *	
Heat loss coefficient $\alpha_2$	0 W/(m <sup>2</sup> .K <sup>2</sup> ) *		

\* The  $\alpha_0$ ,  $\alpha_1$  et  $\alpha_2$  coefficients are the measured values from testing during EN 9806:2017 certification at KIWA for unglazed collectors with a windspeed  $u=1m/s$ :  $\alpha_0 = n_0 - c_6 * u'$ ;  $\alpha_1 = c_1 + c_3 * u'$ ;  $u' = u - 3$ .

## Power output as a function of the temperature of the water in the panel (by application)

Power values are calculated using  $\alpha_0$  and  $\alpha_1$  coefficients (windspeed=1m/s) in STC conditions (Text = 25°C, G = 1000 W/m<sup>2</sup>)

