



CERTIFICATION LICENCE TO USE KEYMARK

Certificate No SKM 10209.3

DQS Hellas grants the present certificate to the enterprise:

SOLE S.A.

26, Amarousiou Chalandriou, 15125 Marousi

for the product:

Type of Solar Collector:

X-TREME 300

which is produced in conformity with the normative document:

EN 12975:2022

EN ISO 9806:2017

at the following location:

Laikon Agonon & Lefktron, 13671 Acharnai



The present certificate is granted in accordance with:

- *the DQS Hellas General Rules for the Certification of Products,*
- *the Specific Rule for Certification EKIII.001 «Specific Rule for Certification of Solar Collectors, and Thermal Solar Heating Systems for Domestic Hot Water»,*
- *the Specific CEN Keymark Scheme Rules for Solar Thermal Products,*
- *the Annex of Solar Keymark Certificate.*

and is ruled by the terms of the relevant contract between DQS Hellas and the enterprise.

Date of issue: **2025-12-10**

Date of valid: **2027-11-20**

Panagiotis Giannoutsos
Director of Certification

Dr. Emmanuel Deliyannakis
Managing Director



Annex to Solar Keymark Certificate					Licence Number		SKM 10209.3							
					Date issued		2025-12-02							
					Issued by		DQS Hellas							
Licence holder		SOLE S.A.			Country		Greece							
Brand (optional)		-			Web		http://www.sole.gr							
Street, Number		Lefktron 1 & L. Agonon			E-mail		info@sole.gr							
Postcode, City		13674 Acharnai, Athens			Tel		+30 210 2389500							
Collector Type					Flat plate collector									
Collector name					Power output per collector									
					Gb = 850 W/m ² , Gd = 150 W/m ² & u = 1.3 m/s $\vartheta_m - \vartheta_a$									
					0 K	10 K	30 K	50 K	70 K	109 K				
					m ²	mm	mm	mm	mm	mm				
X-TREME 300					3.01	2'400	1'256	93	2'350	2'242	1'999	1'721	1'406	688
Power output per m ² gross area					781	745	664	572	467	229				
Performance parameters test method		Steady state - outdoor												
Performance parameters (related to A _G)		η_0, b	a1	a2	a3	a4	a5	a6	a7	a8	Kd			
Units		-	W/(m ² K)	W/(m ² K ²)	J/(m ³ K)	-	J/(m ² K)	s/m	W/(m ² K ⁴)	W/(m ² K ⁴)	-			
Test results		0.783	3.43	0.015	0.000	0.00	7'340	0.000	0.00	0.0	0.98			
Incidence angle modifier test method		Steady state - outdoor												
Incidence angle modifier		Angle	10°	20°	30°	40°	50°	60°	70°	80°	90°			
Transversal		K _{θT, coll}	1.00	1.00	1.00	0.99	0.96	0.85	0.62	0.31	0.00			
Longitudinal		K _{θL, coll}	1.00	1.00	1.00	0.99	0.96	0.85	0.62	0.31	0.00			
Heat transfer medium for testing		Water												
Flow rate for testing (per gross area, A _G)		dm/dt	0.020	kg/(sm ²)										
Maximum temperature difference during thermal performance test		($\vartheta_m - \vartheta_a$) _{max}	79	K										
Standard stagnation temperature (G = 1000 W/m ² ; $\vartheta_a = 30$ °C)		ϑ_{stg}	210	°C										
Maximum operating temperature		$\vartheta_{max, op}$	160	°C										
Maximum operating pressure		p _{max, op}	2250	kPa										
Testing laboratory		Institut für Gebäudeenergetik, Thermotechnik und Energiespeicherung (IGTE)					http://www.igte.uni-stuttgart.de							
Test report(s)		25COL1812 25COL1812Q					Dated		24.11.2025 24.11.2025					
Comments		Ver. 6.2 (13.01.2022)												
Documented performance parameters are taken from 25COL1812 (X-TREME 300)														
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