

# CERTIFICATE OF PRODUCT CONFORMITY

Dubai Central Laboratory Department (DCLD) of Dubai Municipality  
hereby attests that the product(s)

## Solar Collector

(Details as per the attached Scope of Certification)

manufactured by:

**HELIEN MIKE**

**Tegeas 29, Peristeri, 12133 Athens, Greece**

have been assessed in accordance with DCLD Document Ref. No. DM-DCLD-RD-DP21-2001 (IC) "General Rules for DM third party product certification system through factory assessment" and the relevant Specific Rules, and were found in conformity with the standard specification:

## BS EN 12975-1:2006 +A1: 2010

Accordingly, DCLD hereby authorizes the above manufacturer  
to affix the DCL Product Conformity Mark on the above-mentioned product(s).



for / ENGR. AMIN AHMED AMIN  
Director, Dubai Central Laboratory Department  
Dubai Municipality



Certificate No: CL16020371  
Valid Until: 26/06/2021



Current Issue Date: 27/06/2020  
Original Issue Date: 27/06/2016



The attached Scope of Certification bearing the same Certificate Number forms an integral part of this Certificate.  
This Certificate is an electronic document subject to the Terms and Conditions of the Product Certification System and shall not be reproduced except in full.

DUBAI CENTRAL LABORATORY DEPARTMENT  
DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

SCOPE OF CERTIFICATION  
FOR CERTIFICATE NO. CL16020371

<b>Certificate Issued To:</b>	HELIEN MIKE Tegeas 29, Peristeri, 12133 Athens, Greece
<b>Applicable Standard Specification:</b>	BS EN 12975-1:2006 +A1: 2010 – Thermal solar systems and components – Solar Collectors – Part 1: General requirements
<b>Applicable Specific Rules:</b>	DM-DCLD-RD-DP21-2178 (IC) – Specific Rules Certification of Solar Collectors as per BS EN 12975-1 through Factory Assessment; DM-DCLD-RD-DP21-2084 (IC) – Guidelines for Factory Production control Plan for Solar Collector Manufacturers

S/N	PRODUCT DETAILS	BRAND NAME(S) MODEL(S)	PRODUCT DESCRIPTION
1.	<p>Absorber Materials: Selective Mirotherm Aluminum with 0.5 mm thickness, Absorption coefficient 95 +/-2, Emission coefficient 5 +/- 2, laser welded 8 mm riser copper tubes joint with 22 mm header copper tubes;</p> <p>Low iron tempered glass 4mm with high transmittance top cover;</p> <p>Rockwool thermal insulation with density of 50 kg/m<sup>3</sup>, 30 mm thickness, thermal conductivity of 0.035W/(m-K)@ 10°C for back insulation;</p> <p>Glasswool thermal insulation with density of 60 kg/m<sup>3</sup>, 15 mm thickness, thermal conductivity of 0.032W/(m-K)@ 10°C for side insulation;</p> <p>Frame structure made from Aluminum coated painted 1.4 mm thickness and back sheet hot galvanized sheet 0.5 mm thickness.</p> <p>Silicone, EPDM and Aluminum Supports for sealing materials.</p>	<p><b>“HELIEN”</b> <b>Brand</b></p> <p><b>AFS 20/9</b></p>	<p>Gross area of 2 m<sup>2</sup>, Aperture area of 1.87 m<sup>2</sup>, Absorber area of 1.86 m<sup>2</sup>,</p> <p>Gross dimensions: 2003 x 1003 x 85 mm</p> <p>Weight empty: 40 Kg</p> <p>Heat carrier volume: 1.42 liters</p> <p>Absorber pipes dimensions:</p> <p>Header -22 x 0.7 mm, Risers – 8 x 0.4 mm</p> <p>Number of tubes is 9, Tube pitch is 97 mm</p> <p>Maximum operating pressure is 10 bars</p> <p>Test pressure is 20 bars</p> <p>Nominal flow rate is 144 l/h</p> <p>Stagnation temperature 183.3 °C,</p> <p>Mounting In Roof – On Roof – Flat Roof</p>

DUBAI CENTRAL LABORATORY DEPARTMENT  
DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

SCOPE OF CERTIFICATION  
FOR CERTIFICATE NO. CL16020371

2	<p>Absorber Materials: Selective Mirotherm Aluminum with 0.5mm thickness, Absorption coefficient 95 +/-2, Emission coefficient 5 +/- 2, laser welded 8mm riser copper tubes joint with 22mm header copper tubes;</p> <p>Low iron tempered glass 3.2mm with high transmittance top cover;</p> <p>Rockwool thermal insulation with density of 70 kg/m<sup>3</sup>, thermal conductivity of 0.035W/(m-K) &amp; thickness of 30mm for insulation;</p> <p>Frame structure made from ALUMINIUM coated painted 1.0mm thickness and back sheet Aluzinc sheet 0.4 mm thickness;</p> <p>Silicone paste, EPDM and Aluminum supports for sealing materials.</p>	<p><b>"HELIEN"</b> <b>Brand</b></p> <p><b>AFS-SK 15/9</b></p>	<p>Gross area of 1.51m<sup>2</sup>, Aperture area of 1.38m<sup>2</sup>, Absorber area of 1.38m<sup>2</sup>, Gross dimensions: 1484x1015x86 mm Weight empty : 28.8kg Heat carrier volume:1.23 liters Absorber pipes dimensions: Header diameter - 22x 0.7mm Risers diameter - 8x 0.4mm Number of tubes is 9 Tube pitch is 105mm Maximum operating pressure is 10 bars Test pressure is 20 bars Nominal flow rate is 99.4 l/h Stagnation temperature 151.9 °C, Mounting In roof – On roof – Flat roof.</p>
3	<p>Absorber Materials: Selective Mirotherm Aluminum with 0.5mm thickness, Absorption coefficient 95 +/-2, Emission coefficient 5 +/- 2, laser welded 8mm riser copper tubes joint with 22mm header copper tubes;</p> <p>Low iron tempered glass 3.2mm with high transmittance top cover;</p> <p>Rockwool thermal insulation with density of 70 kg/m<sup>3</sup>, thermal conductivity of 0.035W/(m-K) &amp; thickness of 30mm for insulation;</p> <p>Frame structure made from ALUMINIUM coated painted 1.0mm thickness and back sheet Aluzinc sheet 0.4 mm thickness;</p> <p>Silicone paste, EPDM and Aluminum supports for sealing materials.</p>	<p><b>"HELIEN"</b> <b>Brand</b></p> <p><b>AFS-SK 18/9</b></p>	<p>Gross area of 1.82m<sup>2</sup>, Aperture area of 1.72m<sup>2</sup>, Absorber area of 1.72m<sup>2</sup>, Gross dimensions: 1480x1230x86 mm Weight empty : 31.5kg Heat carrier volume:1.32 liters Absorber pipes dimensions: Header diameter -22x 0.7mm Risers diameter -8x 0.4mm Number of tubes is 9 Tube pitch is 105mm Maximum operating pressure is 10 bars Test pressure is 20 bars Nominal flow rate is 124 l/h Stagnation temperature 151.9 °C, Mounting In roof – On roof – Flat roof.</p>
4	<p>Absorber Materials: Selective Mirotherm Aluminum with 0.5mm thickness, Absorption coefficient 95 +/-2, Emission coefficient 5 +/- 2, laser welded 8mm riser copper tubes joint with 22mm header copper tubes;</p> <p>Low iron tempered glass 3.2mm with high transmittance top cover;</p> <p>Rockwool thermal insulation with density of 70 kg/m<sup>3</sup>, thermal conductivity of 0.035W/(m-K) &amp;</p>	<p><b>"HELIEN"</b> <b>Brand</b></p> <p><b>AFS-SK 20/9</b></p>	<p>Gross area of 2.00m<sup>2</sup>, Aperture area of 1.86m<sup>2</sup>, Absorber area of 1.86m<sup>2</sup>, Gross dimensions: 1980x1010x86 mm Weight empty : 34.0 kg Heat carrier volume:1.42 liters Absorber pipes dimensions: Header diameter -22x 0.7mm Risers diameter -8x 0.4mm</p>

DUBAI CENTRAL LABORATORY DEPARTMENT  
DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

SCOPE OF CERTIFICATION  
FOR CERTIFICATE NO. CL16020371

	<p>thickness of 30mm for insulation; Frame structure made from ALUMINIUM coated painted 1.0mm thickness and back sheet Aluzinc sheet 0.4 mm thickness; Silicone paste, EPDM and Aluminum supports for sealing materials.</p>		<p>Number of tubes is 9 Tube pitch is 105 mm Maximum operating pressure is 10 bars Test pressure is 20 bars Nominal flow rate is 134 l/h Stagnation temperature 151.9 °C, Mounting In roof – On roof – Flat roof.</p>
5	<p>Absorber Materials: Selective Mirotherm Aluminum with 0.5mm thickness, Absorption coefficient 95 +/-2, Emission coefficient 5 +/- 2, laser welded 8mm riser copper tubes joint with 22mm header copper tubes; Low iron tempered glass 3.2mm with high transmittance top cover; Rockwool thermal insulation with density of 70 kg/m<sup>3</sup>, thermal conductivity of 0.035W/(m-K) &amp; thickness of 30mm for insulation; Frame structure made from ALUMINIUM coated painted 1.0mm thickness and back sheet Aluzinc sheet 0.4 mm thickness; Silicone paste, EPDM and Aluminum supports for sealing materials.</p>	<p><b>“HELIEN” Brand</b>  <b>AFS-SK HOR 20/9</b></p>	<p>Gross area of 2.00m<sup>2</sup>, Aperture area of 1.86m<sup>2</sup>, Absorber area of 1.86m<sup>2</sup>, Gross dimensions: 1010x1980x86 mm Weight empty : 34.8kg Heat carrier volume:2.04 liters Absorber pipes dimensions: Header diameter -22x 0.7mm Risers diameter -8x 0.4mm Number of tubes is 18 Tube pitch is 105mm Maximum operating pressure is 10 bars Test pressure is 20 bars Nominal flow rate is 134 l/h Stagnation temperature 151.9 °C, Mounting In roof – On roof – Flat roof.</p>
6	<p>Absorber Materials: Selective Mirotherm Aluminum with 0.5mm thickness, Absorption coefficient 95 +/-2, Emission coefficient 5 +/- 2, laser welded 8mm riser copper tubes joint with 22mm header copper tubes; Low iron tempered glass 3.2mm with high transmittance top cover; Rockwool thermal insulation with density of 70 kg/m<sup>3</sup>, thermal conductivity of 0.035W/(m-K) &amp; thickness of 30mm for insulation; Frame structure made from ALUMINIUM coated painted 1.0mm thickness and back sheet Aluzinc sheet 0.4 mm thickness; Silicone paste, EPDM and Aluminum supports for sealing materials.</p>	<p><b>“HELIEN” Brand</b>  <b>AFS-SK 24/11</b></p>	<p>Gross area of 2.37m<sup>2</sup>, Aperture area of 2.23m<sup>2</sup>, Absorber area of 2.23m<sup>2</sup>, Gross dimensions: 1930x1230x86 mm Weight empty : 41.5kg Heat carrier volume:1.71 liters Absorber pipes dimensions: Header diameter -22x 0.7mm Risers diameter -8x 0.4mm Number of tubes is 11 Tube pitch is 105mm Maximum operating pressure is 10 bars Test pressure is 20 bars Nominal flow rate is 161 l/h Stagnation temperature 151.9 °C, Mounting In roof – On roof – Flat roof.</p>

DUBAI CENTRAL LABORATORY DEPARTMENT  
DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

SCOPE OF CERTIFICATION  
FOR CERTIFICATE NO. CL16020371

7	<p>Absorber Materials: Selective Mirotherm Aluminum with 0.5mm thickness, Absorption coefficient 95 +/-2, Emission coefficient 5 +/- 2, laser welded 8mm riser copper tubes joint with 22mm header copper tubes;</p> <p>Low iron tempered glass 3.2mm with high transmittance top cover;</p> <p>Rockwool thermal insulation with density of 70 kg/m<sup>3</sup>, thermal conductivity of 0.035W/(m-K) &amp; thickness of 30mm for insulation;</p> <p>Frame structure made from ALUMINIUM coated painted 1.0mm thickness and back sheet Aluzinc sheet 0.4 mm thickness;</p> <p>Silicone paste, EPDM and Aluminum supports for sealing materials.</p>	<p><b>"HELIEN"</b> <b>Brand</b></p> <p><b>AFS-SK HOR</b> <b>24/11</b></p>	<p>Gross area of 2.37m<sup>2</sup>, Aperture area of 2.23m<sup>2</sup>, Absorber area of 2.23m<sup>2</sup>, Gross dimensions: 1230x1930x86 mm Weight empty : 42.1kg Heat carrier volume:2.16 liters Absorber pipes dimensions: Header diameter -22x 0.7mm Risers diameter -8x 0.4mm Number of tubes is 18 Tube pitch is 105mm Maximum operating pressure is 10 bars Test pressure is 20 bars Nominal flow rate is 161 l/h Stagnation temperature 151.9 °C, Mounting In roof – On roof – Flat roof.</p>
8	<p>Absorber Materials: Selective Mirotherm Aluminum with 0.5mm thickness, Absorption coefficient 95 +/-2, Emission coefficient 5 +/- 2, laser welded 8mm riser copper tubes joint with 22mm header copper tubes;</p> <p>Low iron tempered glass 3.2mm with high transmittance top cover;</p> <p>Rockwool thermal insulation with density of 70 kg/m<sup>3</sup>, thermal conductivity of 0.035W/(m-K) &amp; thickness of 30mm for insulation;</p> <p>Frame structure made from ALUMINIUM coated painted 1.0mm thickness and back sheet Aluzinc sheet 0.4 mm thickness;</p> <p>Silicone paste, EPDM and Aluminum supports for sealing materials.</p>	<p><b>"HELIEN"</b> <b>Brand</b></p> <p><b>AFS-SK 27/11</b></p>	<p>Gross area of 2.73m<sup>2</sup>, Aperture area of 2.57m<sup>2</sup>, Absorber area of 2.57m<sup>2</sup>, Gross dimensions: 2162x1261x86 mm Weight empty : 47.4kg Heat carrier volume:1.82 liters Absorber pipes dimensions: Header diameter -22x 0.7mm Risers diameter -8x 0.4mm Number of tubes is 11 Tube pitch is 105mm Maximum operating pressure is 10 bars Test pressure is 20 bars Nominal flow rate is 186 l/h Stagnation temperature 151.9 °C, Mounting In roof – On roof – Flat roof.</p>
9	<p>Absorber Materials: Selective Mirotherm Aluminum with 0.5mm thickness, Absorption coefficient 95 +/-2, Emission coefficient 5 +/- 2, laser welded 8mm riser copper tubes joint with 22mm header copper tubes;</p> <p>Low iron tempered glass 3.2mm with high transmittance top cover;</p>	<p><b>"HELIEN"</b> <b>Brand</b></p> <p><b>AFS-SK HOR</b> <b>27/11</b></p>	<p>Gross area of 2.73m<sup>2</sup>, Aperture area of 2.57m<sup>2</sup>, Absorber area of 2.57m<sup>2</sup>, Gross dimensions: 1261x2162x86 mm Weight empty : 48.2kg Heat carrier volume:2.57 liters Absorber pipes dimensions: Header diameter -22x 0.7mm</p>

DUBAI CENTRAL LABORATORY DEPARTMENT  
DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

SCOPE OF CERTIFICATION  
FOR CERTIFICATE NO. CL16020371

Rockwool thermal insulation with density of 70 kg/m <sup>3</sup> , thermal conductivity of 0.035W/(m-K) & thickness of 30mm for insulation; Frame structure made from ALUMINIUM coated painted 1.0mm thickness and back sheet Aluzinc sheet 0.4 mm thickness; Silicone paste, EPDM and Aluminum supports for sealing materials.		Risers diameter -8x 0.4mm Number of tubes is 19 Tube pitch is 105mm Maximum operating pressure is 10 bars Test pressure is 20 bars Nominal flow rate is 186 l/h Stagnation temperature 151.9 °C, Mounting In roof – On roof – Flat roof.
---	--	---

NOTE1: This document forms part of the Certificate of Product Conformity bearing the same certificate number.

NOTE2: The above products shall bear the DCL Conformity Mark.

Original Issue Date : 27 June 2016

Current Issue Date : 27 June 2020

Valid Until : 26 June 2021



ARIF HUSAIN AL MARZOOQI

Products Conformity Assessment Section Manager  
Dubai Central Laboratory Department