

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:

NOBEL INTERNATIONAL EAD

Orhanli Beldesi Ortah Mah.48 Vitosha Blvd., Elin Pelin 2100,Sofia, Bulgaria

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: 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: CL18020648
Valid Until: 15/12/2019



Current Issue Date: 16/12/2018
Original Issue Date: 16/12/2018

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. CL18020648**

Certificate Issued To:	NOBEL INTERNATIONAL EAD Orhanli Beldesi Ortah Mah. 48 Vitosha Blvd., Elin Pelin 2100, Sofia, Bulgaria
Applicable Standard Specification:	BS EN 12975-1:2006 +A1: 2010 – Thermal solar systems and components – Solar Collectors – Part 1: General requirements.
Applicable Specific Rules:	RD-DP21-2178 (IC) – Specific Rules Certification of Solar Collectors as per BS EN 12975-1 through Factory Assessment RD-DP21-2084 (IC) – Guidelines for Factory Production Control Plan for Solar Collector Manufacturers

S/N	PRODUCT DESCRIPTION	BRAND NAME	PRODUCT DETAILS
1	SOLAR FLAT PLATE COLLECTOR	AELIOS AIB 1500	<p>Gross Area: 1.58 m² Aperture Area:1.40 m², Absorber Area: 1.33 m² Gross Dimension: 1530 x 1030 x 80 mm Number of manifolds: 8 Nos, Φ 10.0 mm Aluminum riser pipes and 2 Nos Aluminum manifolds Φ 22 mm Max. Operating Pressure: 10 Bar Stagnation Temperature: 139.5 °C Liquid Content: 1.14 l, Empty Weight: 26.5 kg Collector frame of Aluminum profile (Al Mg Si 05) Rear cover of Aluminum profile and Aluminum sheet 0,4mm Absorber Material: Aluminum risers – one piece Aluminum sheet 0.3 mm thickness with Black painted coating, laser welded Thermal Insulation: Glasswool Insulation of 50 mm thickness & 20 mm side Glasswool Insulation Solar Glass: Mistlite Tempered Glass of 3.2 mm thick Casing: Aluminum Sheet 0.4mm Sealing: Silicon, EPDM To be used with: Water - Glycol (Anti-Freeze Fluid)</p>
		AELIOS AIB 2000	<p>Gross Area: 2.09 m² Aperture Area:1.88 m², Absorber Area: 1.80 m² Gross Dimension: 2030 x 1030 x 80 mm Number of manifolds: 8 Nos, Φ 10.0 mm Aluminum riser pipes and 2 Nos Aluminum manifolds Φ 22 mm Max. Operating Pressure: 10 Bar Stagnation Temperature: 139.5°C Liquid Content: 1.34 l, Empty Weight: 35 kg Collector frame of Aluminum profile (Al Mg Si 05) Rear cover of Aluminum profile and Aluminum sheet 0,4mm Absorber Material: Aluminum risers – one piece Aluminum sheet 0.3 mm thickness with Black painted coating, laser welded Thermal Insulation: Glasswool Insulation of 50 mm thickness & 20 mm side Glasswool Insulation Solar Glass: Mistlite Tempered Glass of 3.2 mm thick Casing: Aluminum Sheet 0.4mm Sealing: Silicon, EPDM To be used with: Water - Glycol (Anti-Freeze Fluid)</p>



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S/N	PRODUCT DESCRIPTION	BRAND NAME	PRODUCT DETAILS
	SOLAR FLAT PLATE COLLECTOR	AELIOS AIB 2600	<p>Gross Area: 2.60 m² Aperture Area: 2.37 m², Absorber Area: 2.30 m² Gross Dimension: 2030 x 1280 x 80 mm Number of manifolds: 11 Nos, Φ 10.0 mm Aluminum riser pipes and 2 Nos Aluminum manifolds Φ 22 mm . Max. Operating Pressure: 10 Bar Stagnation Temperature: 139.5 °C Liquid Content: 1.73 l, Empty Weight: 43.5 kg Collector frame of Aluminum profile (Al Mg Si 05) Rear cover of Aluminum profile and Aluminum sheet 0,4mm Absorber Material: Aluminum risers – one piece Aluminum sheet 0.3 mm thickness with Black painted coating, laser welded. Thermal Insulation: Glasswool Insulation of 50 mm thickness & 20 mm side Glasswool Insulation. Solar Glass: Mistlite Tempered Glass of 3.2 mm thick. Casing: Aluminum Sheet 0.4mm Sealing: Silicon, EPDM To be used with: Water - Glycol (Anti-Freeze Fluid)</p>
2	SOLAR FLAT PLATE COLLECTOR	AELIOS AIS 1500	<p>Gross Area: 1.58 m² Aperture Area:1.40 m², Absorber Area: 1.33 m² Gross Dimension: 1530 x 1030 x 80 mm Number of manifolds: 8 Nos, Φ 10.0 mm Aluminum riser pipes and 2 Nos Aluminum manifolds Φ 22 mm Max. Operating Pressure: 10 Bar Stagnation Temperature: 153 °C Liquid Content: 1.14 l, Empty Weight: 27 kg Collector frame of Aluminum profile (Al Mg Si 05) Rear cover of Aluminum profile and Aluminum sheet 0,4mm Absorber Material: Aluminum risers – one piece Aluminum sheet 0.4 mm thickness with Selective coating, laser welded Thermal Insulation: Glasswool Insulation of 50 mm thickness & 20 mm side Glasswool Insulation Solar Glass: Mistlite Tempered Glass of 3.2 mm thick Casing: Aluminum Sheet 0.4mm Sealing: Silicon, EPDM To be used with: Water - Glycol (Anti-Freeze Fluid)</p>



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S/N	PRODUCT DESCRIPTION	BRAND NAME	PRODUCT DETAILS
	SOLAR FLAT PLATE COLLECTOR	AEIOS AIS 2000	<p>Gross Area: 2.09 m² Aperture Area: 1.88 m², Absorber Area: 1.80 m² Gross Dimension: 2030 x 1030 x 80 mm Number of manifolds: 8 Nos, Φ 10.0 mm Aluminum riser pipes and 2 Nos Aluminum manifolds Φ 22 mm Max. Operating Pressure: 10 Bar Stagnation Temperature: 153°C Liquid Content: 1.34 l , Empty Weight: 35.5 kg Collector frame of Aluminum profile (Al Mg Si 05) Rear cover of Aluminum profile and Aluminum sheet 0,4mm Absorber Material: Aluminum risers – one piece Aluminum sheet 0.4 mm thickness with Selective coating, laser welded Thermal Insulation: Glasswool Insulation of 50 mm thickness & 20 mm side Glasswool Insulation Solar Glass: Mistlite Tempered Glass of 3.2 mm thick Casing: Aluminum Sheet 0.4mm Sealing: Silicon, EPDM To be used with: Water - Glycol (Anti-Freeze Fluid)</p>
		AEIOS AIS 2600	<p>Gross Area: 2.60 m² Aperture Area: 2.37 m², Absorber Area: 2.30 m² Gross Dimension: 2030 x 1280 x 80 mm Number of manifolds: 11 Nos, Φ 8.0 mm Aluminum riser pipes and 2 Nos Aluminum manifolds Φ 22 mm Max. Operating Pressure: 10 Bar Stagnation Temperature: 153 °C Liquid Content: 1.73 l , Empty Weight: 44 kg Collector frame of Aluminum profile (Al Mg Si 05) Rear cover of Aluminum profile and Aluminum sheet 0,4mm Absorber Material: Aluminum risers – one piece Aluminum sheet 0.4 mm thickness with Selective coating, laser welded Thermal Insulation: Glasswool Insulation of 50 mm thickness & 20 mm side Glasswool Insulation Solar Glass: Mistlite Tempered Glass of 3.2 mm thick Casing: Aluminum Sheet 0.4mm Sealing: Silicon, EPDM To be used with: Water - Glycol (Anti-Freeze Fluid)</p>



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3	SOLAR FLAT PLATE COLLECTOR	AELIOS CuB 1500	<p>Gross Area: 1.58 m² Aperture Area:1.40 m², Absorber Area: 1.33 m² Gross Dimension: 1530 x 1030 x 80 mm Number of manifolds: 8 Nos, Φ 8.0 mm Copper riser pipes and 2 Nos copper manifolds Φ 22 mm Max. Operating Pressure: 10 Bar Stagnation Temperature: 130 °C Liquid Content: 1.12 l, Empty Weight: 27.5 kg Collector frame of Aluminum profile (Al Mg Si 05) Rear cover of Aluminum profile and Aluminum sheet 0,4mm Absorber Material: Copper risers – one piece Aluminum sheet 0.3 mm thickness with Black Painted Coating, laser welded Thermal Insulation: Glasswool Insulation of 50 mm thickness & 20 mm side Glasswool Insulation Solar Glass: Mistlite Tempered Glass of 3.2 mm thick Casing: Aluminum Sheet 0.4mm Sealing: Silicon, EPDM To be used with: Water - Glycol (Anti-Freeze Fluid)</p>
		AELIOS CuB 2000	<p>Gross Area: 2.09 m² Aperture Area:1.88 m², Absorber Area: 1.80 m² Gross Dimension: 2030 x 1030 x 80 mm Number of manifolds: 8 Nos, Φ 8.0 mm Copper riser pipes and 2 Nos copper manifolds Φ 22 mm Max. Operating Pressure: 10 Bar Stagnation Temperature: 130°C Liquid Content: 1.12 l, Empty Weight: 36 kg Collector frame of Aluminum profile (Al Mg Si 05) Rear cover of Aluminum profile and Aluminum sheet 0,4mm Absorber Material: Copper risers – one piece Aluminum sheet 0.3 mm thickness with Black Painted Coating, laser welded Thermal Insulation: Glasswool Insulation of 50 mm thickness & 20 mm side Glasswool Insulation Solar Glass: Mistlite Tempered Glass of 3.2 mm thick Casing: Aluminum Sheet 0.4mm Sealing: Silicon, EPDM To be used with: Water - Glycol (Anti-Freeze Fluid)</p>



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	SOLAR FLAT PLATE COLLECTOR	<i>AELIOS CuB 2600</i>	<p>Gross Area: 2.60 m² Aperture Area: 2.37 m², Absorber Area: 2.30 m² Gross Dimension: 2030 x 1280 x 80 mm Number of manifolds: 11 Nos, Φ 8.0 mm Copper riser pipes and 2 Nos copper manifolds Φ 22 mm Max. Operating Pressure: 10 Bar Stagnation Temperature: 130 °C Liquid Content: 1.64 l, Empty Weight: 44.5 kg Collector frame of Aluminum profile (Al Mg Si 05) Rear cover of Aluminum profile and Aluminum sheet 0,4mm Absorber Material: Copper risers – one piece Aluminum sheet 0.3 mm thickness with Black Painted Coating, laser welded Thermal Insulation: Glasswool Insulation of 50 mm thickness & 20 mm side Glasswool Insulation Solar Glass: Mislite Tempered Glass of 3.2 mm thick Casing: Aluminum Sheet 0.4mm Sealing: Silicon, EPDM To be used with: Water - Glycol (Anti-Freeze Fluid)</p>
4	SOLAR FLAT PLATE COLLECTOR	<i>AELIOS CuS 1500</i>	<p>Gross Area: 1.58 m² Aperture Area:1.40 m², Absorber Area: 1.33 m² Gross Dimension: 1530 x 1030 x 80 mm Number of manifolds: 8 Nos, Φ 8.0 mm Copper riser pipes and 2 Nos copper manifolds Φ 22 mm Max. Operating Pressure: 10 Bar Stagnation Temperature: 152 °C Liquid Content: 1.12 l, Empty Weight: 28 kg Collector frame of Aluminum profile (Al Mg Si 05) Rear cover of Aluminum profile and Aluminum sheet 0,4mm Absorber Material: Copper risers – one piece Aluminum sheet 0.4 mm thickness with Selective coating, laser welded Thermal Insulation: Glasswool Insulation of 50 mm thickness & 20 mm side Glasswool Insulation Solar Glass: Mislite Tempered Glass of 3.2 mm thick Casing: Aluminum Sheet 0.4mm Sealing: Silicon, EPDM To be used with: Water - Glycol (Anti-Freeze Fluid)</p>



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	SOLAR FLAT PLATE COLLECTOR	AELIOS CuS 2000	<p>Gross Area: 2.09 m² Aperture Area: 1.88 m², Absorber Area: 1.80 m² Gross Dimension: 2030 x 1030 x 80 mm Number of manifolds: 8 Nos, Φ 8.0 mm Copper riser pipes and 2 Nos copper manifolds Φ 22 mm Max. Operating Pressure: 10 Bar Stagnation Temperature: 152°C Liquid Content: 1.28 l, Empty Weight: 36.5 kg Collector frame of Aluminum profile (Al Mg Si 05) Rear cover of Aluminum profile and Aluminum sheet 0,4mm Absorber Material: Copper risers – one piece Aluminum sheet 0.4 mm thickness with Selective coating, laser welded Thermal Insulation: Glasswool Insulation of 50 mm thickness & 20 mm side Glasswool Insulation Solar Glass: Mistlite Tempered Glass of 3.2 mm thick Casing: Aluminum Sheet 0.4mm Sealing: Silicon, EPDM To be used with: Water - Glycol (Anti-Freeze Fluid)</p>
		AELIOS CuS 2600	<p>Gross Area: 2.60 m² Aperture Area: 2.37 m², Absorber Area: 2.30 m² Gross Dimension: 2030 x 1280 x 80 mm Number of manifolds: 11 Nos, Φ 8.0 mm Copper riser pipes and 2 Nos copper manifolds Φ 22 mm Max. Operating Pressure: 10 Bar Stagnation Temperature: 152 °C Liquid Content: 1.64 l, Empty Weight: 45 kg Collector frame of Aluminum profile (Al Mg Si 05) Rear cover of Aluminum profile and Aluminum sheet 0,4mm Absorber Material: Copper risers – one piece Aluminum sheet 0.4 mm thickness with Selective coating, laser welded Thermal Insulation: Glasswool Insulation of 50 mm thickness & 20 mm side Glasswool Insulation Solar Glass: Mistlite Tempered Glass of 3.2 mm thick Casing: Aluminum Sheet 0.4mm Sealing: Silicon, EPDM To be used with: Water - Glycol (Anti-Freeze Fluid)</p>

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

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

Original Issue Date : 16/12/2018

Current Issue Date : 16/12/2018

Valid Until : 15/12/2019

ARIF HUSAIN AL MARZOOQI

Products Conformity Assessment Section Manager
Dubai Central Laboratory Department