

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:

ARISTON THERMO SPA

Via Granelli 2, 60030 Serra De Conti, Italy

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: CL16020303
Valid Until: 10/01/2022



Current Issue Date: 11/01/2021
Original Issue Date: 11/01/2016



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. CL16020303

Certificate Issued To:	ARISTON THERMO SPA Via Granelli 2, 60030 Serra De Conti, Italy
Applicable Standard Specification:	BS EN 12975-1:2006 +A1: 2010 – Thermal solar systems and components – Solar Collectors – Part 1: General requirements
Applicable Specific Rules:	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>FLAT PLATE SOLAR COLLECTOR</p> <p>Absorber Materials: Copper with High Selective Aluminum Sheet; Tempered, Low Iron Glass 3.1 mm thickness top cover; Glasswool thermal insulation with density of 14 kg/m³, thermal conductivity of 0.036 W/(m.K) and thickness of 30 mm for back insulation; Casing of 0.5 mm Steel with Zinc-Magnesium Coating; Sealing materials: Covering (Silicon) and Absorber (EPDM); Anti-freeze Glycol-Water Mixture</p>	<p>ARISTON</p> <p>KAIROS VN2.2</p>	<p>Gross Area of 2.2 m²; Aperture Area of 2.02 m²; Absorber Area of 2.02 m²; Gross Dimensions (without support frame) : 1100 x 1995 x 68 mm; Dry Weight : 35 kg; Collector Fluid Volume: 1 Liters Primary Fluid Collector Tubes : Headers 2X18 mmX0.7 mm; Risers 16X6 mmX0.4 mm Maximum Operating Pressure 6 bars; Maximum Stagnation Temperature 180 °C</p>

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2.	FLAT PLATE SOLAR COLLECTOR Absorber Materials: Copper with High Selective Aluminum Sheet; Textured Tempered, Low Iron Glass 3.2 mm thickness top cover; Rockwool thermal insulation with density of 50 kg/m ³ , thermal conductivity of 0.035 W/(m.K) and thickness of 50 mm for back insulation; and density of 110 kg/m ³ , thermal conductivity of 0.035 W/(m.K) and thickness of 15 mm for Lateral Insulation Casing: Anodized Aluminum Profiles with Steel Bottom with Aluzinc Coating; Sealing materials: Silicon; Anti-freeze Glycol-Water Mixture	ARISTON <u>KAIROS XP2.5-1 H</u>	<u>Horizontal</u> Gross Area of 2.52 m ² ; Aperture Area of 2.26 m ² ; Absorber Area of 2.24 m ² ; Gross Dimensions (without support frame) : 1125 x 2240 x 99 mm (Horizontal) Dry Weight : 46 kg; Collector Fluid Volume: 2.5 Liters Primary Fluid Collector Tubes : Headers 2X18 mmX0.8 mm; Risers 10X10 mmX0.4 mm Maximum Operating Pressure 6 bars; Maximum Stagnation Temperature 193 °C
		ARISTON <u>KAIROS XP2.5-1 V</u>	<u>Vertical</u> Gross Area of 2.52 m ² ; Aperture Area of 2.26 m ² ; Absorber Area of 2.24 m ² ; Gross Dimensions (without support frame) : 2240 x 1125 x 99 mm (Vertical) Dry Weight : 46 kg; Collector Fluid Volume: 2.1 Liters Primary Fluid Collector Tubes : Headers 2X18 mmX0.8 mm; Risers 10X10 mmX0.4 mm Maximum Operating Pressure 6 bars; Maximum Stagnation Temperature 198 °C

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3.	<p>FLAT PLATE SOLAR COLLECTOR</p> <p>Absorber Materials: Copper with High Selective Aluminum Sheet; Textured Tempered, Low Iron Glass 3.2 mm;</p> <p>Glasswool thermal insulation with density of 20 kg/m³, thermal conductivity of 0.034 W/(m.K) and thickness of 30 mm for back insulation;</p> <p>Casing : Aluminum Profiles with Steel Bottom with Aluzinc Coating.</p> <p>Sealing materials: Covering (Silicon) and Absorber (EPDM);</p> <p>Primary Thermal Fluid : Water – Glycol</p>	<p>ARISTON</p> <p><u>KAIROS CF2.0-1</u></p>	<p>Gross Area of 2.0 m²; Aperture Area of 1.83 m²; Absorber Area of 1.74 m²;</p> <p>Gross Dimensions (without support frame) : 2004 x 1004 x 78 mm;</p> <p>Dry Weight : 30 kg;</p> <p>Collector Fluid Volume: 1 Liters</p> <p>Primary Fluid Collector Tubes :</p> <p>Headers 2X18mmX0.7 mm;</p> <p>Risers 7X8mmX0.35 mm</p> <p>Maximum Operating Pressure 6 bars;</p> <p>Maximum Stagnation Temperature 190 °C</p>
4.	<p>FLAT PLATE SOLAR COLLECTOR</p> <p>Absorber Materials: Copper with High Selective Aluminum Sheet; Textured Tempered, Low Iron Glass 3.2 mm;</p> <p>Glasswool thermal insulation with density of 14 kg/m³, thermal conductivity of 0.036 W/(m.K) and thickness of 25 mm for back insulation;</p> <p>Casing : Aluminum Profiles with Steel Bottom with Aluzinc Coating.</p> <p>Sealing materials: Covering (Silicon) and Absorber (EPDM);</p> <p>Primary Thermal Fluid : Water (only)</p>	<p>ARISTON</p> <p><u>DR2.0</u></p>	<p>Gross Area of 2.0 m²; Aperture Area of 1.83 m²; Absorber Area of 1.73 m²;</p> <p>Gross Dimensions (without support frame) : 2004 x 1004 x 78 mm;</p> <p>Dry Weight : 30 kg;</p> <p>Collector Fluid Volume: 1.8 Liters</p> <p>Primary Fluid Collector Tubes :</p> <p>Headers 2X22mmX0.7 mm;</p> <p>Risers 6X12mmX0.4 mm</p> <p>Maximum Operating Pressure 8 bars;</p> <p>Maximum Stagnation Temperature 190 °C</p>

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5.	<p>FLAT PLATE SOLAR COLLECTOR</p> <p>Absorber Materials: Copper with High Selective Aluminum Sheet; Textured Tempered, Low Iron Glass 3.2 mm; Glasswool thermal insulation with density of 14 kg/m³, thermal conductivity of 0.036 W/(m.K) and thickness of 25 mm for back insulation; Casing : Aluminum Profiles with Steel Bottom with Aluzinc Coating. Sealing materials: Covering (Silicon) and Absorber (EPDM); Primary Thermal Fluid : Water – glycol</p>	<p><u>ARISTON</u> <u>DR2.0 HR</u></p>	<p>Gross Area of 2.0 m²; Aperture Area of 1.83 m²; Absorber Area of 1.73 m²; Gross Dimensions (without support frame) : 2004 x 1004 x 78 mm; Dry Weight : 30 kg; Collector Fluid Volume: 2.3 Liters Primary Fluid Collector Tubes : Headers 2X22mmX0.7 mm; Risers 6X12mmX0.4 mm Maximum Operating Pressure 8 bars; Maximum Stagnation Temperature 190 °C</p>
6	<p>FLAT PANEL TYPE SOLAR COLLECTOR</p> <p>Absorber Materials: Aluminium Absorber Fins (Blue absorber-selective) laser welded into copper tubes; Tempered, Mislite, Low Iron Glass 4mm & 3.2mm thickness top cover; Glasswool thermal insulation with density of 30 kg/m, thermal conductivity of 0.035 W/(rn.K) and thickness of 30nm for back insulation; And Glasswool thermal insulation with density of 30 kg/m³, thermal conductivity of 0.035 W/(m.K) and thickness of 15mm for side insulation; Frame structure made of Anodized Aluminium with 1mm thickness and 0.4 Aluminium back cover;</p>	<p><u>ARISTON</u> <u>KAIROS</u> <u>ENERGY EVO 20</u></p>	<p>Overall area of 2.02 m²; absorber area of 1.83 m²; Gross dimensions: 2006x1007x85 mm; Weight (dry & packed): 27 kg; Absorber volume capacity: 1.6 Liters Absorber pipe dimensions: Header - 22 x 0.7mm and Risers – 8 x 0.4mm Number of risers in vertical position 8; Maximum operating pressure is 10 bars; Maximum stagnation temperature is 199 °C; Vertical position</p>

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	Double sided tape, silicone, EPDM sealing materials; Anti-freeze (Propylene Glycol) & water mixture		
7	<p>FLAT PANEL TYPE SOLAR COLLECTOR</p> <p>Absorber Materials: Copper with Black Selective Aluminum Sheet, laser welded to copper tubes; Textured Tempered, Low Iron Glass 3.2 mm; Glasswool thermal insulation with density of 14 kg/m³, thermal conductivity of 0.036 W/(m.K) and thickness of 25 mm for back insulation; Casing: Aluminum Frame (thickness 1mm) and Steel Bottom with Zinc and Magnesium Coating. Sealing materials: double sided tape, silicone and EPDM; Primary Thermal Fluid : water</p>	<p>ARISTON KAIROS DR 2.0-2 N</p>	<p>Overall area of 1.92 m²; absorber area of 1.77 m²; Gross dimensions: 1985x967x75mm; Weight (dry & packed): 30.6 kg Absorber volume capacity: 1.8 l Absorber pipe dimensions : Headers 2x22mmx0.7 mm; Risers 6x12mmx0.4 mm Number of risers in vertical position: 6 Maximum operating pressure is 8 bar; Maximum stagnation temperature is 180 °C; Vertical position</p>
8	<p>FLAT PANEL TYPE SOLAR COLLECTOR</p> <p>Absorber Materials: Copper with Blue Selective Aluminum Sheet, laser welded to copper tubes; Textured Tempered, Low Iron Glass 3.2 mm; Glasswool thermal insulation with density of 14 kg/m³, thermal conductivity of 0.036 W/(m.K) and thickness of 25 mm for back insulation; Casing : Aluminum Frame (thickness 1mm) and Steel Bottom with Zinc and</p>	<p>ARISTON KAIROS DR 2.0-2 B</p>	<p>Overall area of 1.92 m²; absorber area of 1.77 m²; Gross dimensions: 1985x967x75mm; Weight (dry & packed): 30.6 kg Absorber volume capacity: 1.8 l Absorber pipe dimensions : Headers 2x22mmx0.7 mm; Risers 6x12mmx0.4 mm Number of risers in vertical position: 6 Maximum operating pressure is 8 bar Maximum stagnation temperature is 190 °C; Vertical position</p>

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	<p>Magnesium Coating.</p> <p>Sealing materials: double sided tape, silicone and EPDM;</p> <p>Primary Thermal Fluid : water</p>		
9	<p>FLAT PANEL TYPE SOLAR COLLECTOR</p> <p>Absorber Materials: Copper with Blue Selective Aluminum Sheet, laser welded to copper tubes;</p> <p>Textured Tempered, Low Iron Glass 3.2 mm;</p> <p>Glasswool thermal insulation with density of 20 kg/m³, thermal conductivity of 0.034 W/(m.K) and thickness of 30 mm for back insulation;</p> <p>Casing : Aluminum Frame (thickness 1mm) and Steel Bottom with Zinc and Magnesium Coating.</p> <p>Sealing materials: double sided tape, silicone and EPDM;</p> <p>Primary Thermal Fluid : Anti-freeze (Propylene Glycol) and water mixture</p>	<p>ARISTON</p> <p>CF 2.0-2</p>	<p>Overall area of 1.96 m²; absorber area of 1.77 m²;</p> <p>Gross dimensions: 1990x985x78mm;</p> <p>Weight (dry & packed): 27 kg;</p> <p>Absorber volume capacity: 1.0 Liters</p> <p>Absorber pipe dimensions:</p> <p>Headers 2x18mmx0.7 mm;</p> <p>Risers 7x8mmx0.4 mm</p> <p>Number of risers in vertical position 7;</p> <p>Maximum operating pressure is 6 bars;</p> <p>Maximum stagnation temperature is 210 °C;</p> <p>Vertical position</p>

NOTE 1: This document forms part of the Certificate of Product Conformity bearing the same Certificate Number.

NOTE 2: The above product shall bear the DCL Conformity Mark (applied on each product or on the packaging).

Original Issue Date : 11 January 2016

Current Issue Date : 11 January 2021

Valid Until : 10 January 2022



ARIF HUSAIN AL MARZOOQI

Products Conformity Assessment Section Manager
Dubai Central Laboratory Department