

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 Rev.1
Valid Until: 10/01/2021



Current Issue Date: 22/03/2020
Original Issue Date: 11/01/2016

The attached Scope of Certification bearing the same Certificate Number forms an integral part of this Certificate.
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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:	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 DETAILS	BRAND NAME(S) / MODEL(S)	PRODUCT DESCRIPTION
1.	FLAT PLATE SOLAR COLLECTOR 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/m ³ , 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	ARISTON <u>KAIROS VN2.2</u>	Gross Area of 2.2 m ² ; Aperture Area of 2.02 m ² ; Absorber Area of 2.02 m ² ; 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

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P.O. Box 67, DCL, Zabeel Road, Karama, Dubai, UAE

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4.	FLAT PLATE SOLAR COLLECTOR Absorber Materials: Copper with High Selective Aluminum Sheet; Textured Tempered, Low Iron Glass 3.2 mm; Glasswool thermal insulation with density of 14 kg/m ³ , 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 (only)	<u>ARISTON</u> <u>DR2.0</u>	Gross Area of 2.0 m ² ; Aperture Area of 1.83 m ² ; Absorber Area of 1.73 m ² ; Gross Dimensions (without support frame) : 2004 x 1004 x 78 mm; Dry Weight : 30 kg; Collector Fluid Volume: 1.8 Liters Primary Fluid Collector Tubes : Headers 2X22mmX0.7 mm; Risers 6X12mmX0.4 mm Maximum Operating Pressure 8 bars; Maximum Stagnation Temperature 190 °C
5.	FLAT PLATE SOLAR COLLECTOR Absorber Materials: Copper with High Selective Aluminum Sheet; Textured Tempered, Low Iron Glass 3.2 mm; Glasswool thermal insulation with density of 14 kg/m ³ , 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	<u>ARISTON</u> <u>DR2.0 HR</u>	Gross Area of 2.0 m ² ; Aperture Area of 1.83 m ² ; Absorber Area of 1.73 m ² ; 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
6	FLAT PANEL TYPE SOLAR COLLECTOR 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 ³ , thermal conductivity of 0.035 W/(m.K) and thickness of 30mm for back insulation; And Glasswool thermal insulation with density of 30 kg/m ³ , 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; Double sided tape, silicone, EPDM sealing materials; Anti-freeze (Propylene Glycol) & water mixture	<u>ARISTON</u> <u>KAIROS</u> <u>ENERGY EVO 20</u>	Overall area of 2.02 m ² ; absorber area of 1.83 m ² ; 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

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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><u>ARISTON</u> <u>KAIROS DR 2.0-2 N</u></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 Magnesium Coating. Sealing materials: double sided tape, silicone and EPDM; Primary Thermal Fluid : water</p>	<p><u>ARISTON</u> <u>KAIROS DR 2.0-2 B</u></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>
9	<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 20 kg/m³, thermal conductivity of 0.034 W/(m.K) and thickness of 30 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 : Anti-freeze (Propylene Glycol) and water mixture</p>	<p><u>ARISTON</u> <u>CF 2.0-2</u></p>	<p>Overall area of 1.96 m²; absorber area of 1.77 m²; Gross dimensions: 1990x985x78mm; Weight (dry & packed): 27 kg; Absorber volume capacity: 1.0 Liters Absorber pipe dimensions: Headers 2x18mmx0.7 mm; Risers 7x8mmx0.4 mm Number of risers in vertical position : 7; Maximum operating pressure is 6 bars; Maximum stagnation temperature is 210 °C; Vertical position</p>

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**SCOPE OF CERTIFICATION
FOR CERTIFICATE NO. CL16020303**

NOTE 1: The above products shall bear the DCL Conformity Mark applied on each individual product.

NOTE 2: This document forms part of the Certificate of Product Conformity bearing the same certificate number.

Original Issue Date : 11 January 2016

Current Issue Date : 11 January 2020

Valid Until : 10 January 2021



ARIF HUSAIN AL MARZOOQI

Products Conformity Assessment Section Manager
Dubai Central Laboratory Department