

CERTIFICATE OF PRODUCT CONFORMITY

Dubai Central Laboratory Department (DCLD) of Dubai Municipality,

hereby attests that the product(s)

THERMAL SOLAR SYSTEMS AND COMPONENTS – SOLAR COLLECTORS

(Details as per the attached Scope of Certification)

manufactured by:

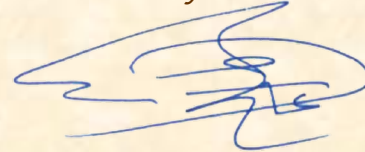
ENVIROENERGY SOLUTIONS ES LTD.

10, TH. DERVI Str – 1305 Nicosia - Cyprus

have been assessed in accordance with DCLD Document Ref. No. 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 to the above-mentioned product(s).



for / **ENGR. AMIN AHMED AMIN**

Director, Dubai Central Laboratory Department

Dubai Municipality

Verify:



Certificate No: CL17020462

Valid Until: 23 May 2019



Current Issue Date: 24 May 2018

Original Issue Date: 24 May 2017

F-IC-2031 REV 12

The attached Scope of Certification bearing the same Certificate No. 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. CL17020462-Rev01**

Certificate Issued To	ENVIROENERGY SOLUTIONS ES LTD 10, TH. DERVI Str-1305 Nicosia-Cyprus
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(S) / MODEL(S)	PRODUCT DETAILS
1.	<p align="center">FLAT PLATE TYPE SOLAR COLLECTOR</p> <p>Absorber Materials: 0.5 mm Aluminum Absorber Sheet with high selective surface treatment and laser welded into copper tubes</p> <p>Rockwool thermal insulation of 50 kg/m³ density with thermal conductivity of 0.035 w/(m- ° K); 40 mm thickness for back insulation and 20 mm thickness for side insulation</p> <p>3.2 mm Low Iron Tempered Mistlite Glass Cover</p>	<p>ENVIROENERGY/EFM150 ENVIROTHERM/ETFM150 SOLO ENERGY/SOL150 NOVOTHERM/NT150 SOLATHERM/STH150 CHALMERS SOLAR / CHSEC150 *WattSUN/STH150</p> <p>ENVIROENERGY/EFM150H ENVIROTHERM/ETFM150H SOLO ENERGY/SOL150H NOVOTHERM/NT150H SOLATHERM/STH150H CHALMERS SOLAR / CHSEC150H</p>	<p>Gross dimensions of 1480 x 1010 x 86 mm; Gross Area – 1.50 m²; Aperture area – 1.38 m²; Total Absorber Area – 1.38 m²; Headers – 2 horizontal copper tube of 22 mm diameter ; Risers – 9 vertical copper tubes of 8 mm diameter; Maximum operational pressure – 10 bars; Maximum Stagnation Temperature – 163.8°C Empty Collector Weight – 27.80 kg</p> <p>Gross dimensions of 1010 x1480 x 86 mm; Gross Area – 1.50 m²; Aperture area – 1.38 m²; Total Absorber Area – 1.38 m²; Headers – 2 horizontal copper tube of 22 mm diameter ; Risers – 14 vertical copper tubes of 8 mm diameter; Maximum operational pressure – 10 bars; Maximum Stagnation Temperature – 163.8°C Empty Collector Weight – 28.20 kg</p>

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	<p>1 mm thickness Aluminum powder coated casing material with 0.4 mm thickness Aluzinc back cover material</p> <p>Polyurethane sealant + PVC Rubber, EPDM elastic rubber & silicone as sealing materials</p> <p>Use with anti-freeze thermal fluid (propylene glycol for solar system)</p>	<p>ENVIROENERGY/EFM182 ENVIROTHERM/ETFM182 SOLO ENERGY/SOL182 NOVOTHERM/NT182 SOLATHERM/STH182 CHALMERS SOLAR / CHSEC182 *WattSUN/STH182</p> <p>ENVIROENERGY/EFM182H ENVIROTHERM/ETFM182H SOLO ENERGY/SOL182H NOVOTHERM/NT182H SOLATHERM/STH182H CHALMERS SOLAR / CHSEC182H *WattSUN/STH182H</p> <p>ENVIROENERGY/EFM200 ENVIROTHERM/ETFM200 SOLO ENERGY/SOL200 NOVOTHERM/NT200 SOLATHERM/STH200 CHALMERS SOLAR / CHSEC200 *WattSUN/STH200</p> <p>ENVIROENERGY/EFM200H ENVIROTHERM/ETFM200H SOLO ENERGY/SOL200H NOVOTHERM/NT200H SOLATHERM/STH200H CHALMERS SOLAR / CHSEC200H *WattSUN/STH200H</p>	<p>Gross dimensions of 1480 x 1230 x 86 mm; Gross Area – 1.82 m²; Aperture area – 1.72 m²; Total Absorber Area – 1.72 m²; Headers – 2 horizontal copper tube of 22 mm diameter ; Risers – 11 vertical copper tubes of 8 mm diameter; Maximum operational pressure – 10 bars; Maximum Stagnation Temperature – 163.8°C Empty Collector Weight – 32.80 kg</p> <p>Gross dimensions of 1230 x 1480 x 86 mm; Gross Area – 1.82 m²; Aperture area – 1.72 m²; Total Absorber Area – 1.72 m²; Headers – 2 horizontal copper tube of 22 mm diameter ; Risers – 14 vertical copper tubes of 8 mm diameter; Maximum operational pressure – 10 bars; Maximum Stagnation Temperature – 163.8°C Empty Collector Weight – 33.20 kg</p> <p>Gross dimensions of 1980 x 1010 x 86 mm; Gross Area – 2.00 m²; Aperture area – 1.86 m²; Headers – 2 horizontal copper tube of 22 mm diameter; Risers – 9 vertical copper tubes of 8 mm diameter; Maximum operational pressure – 10 bars; Maximum Stagnation Temperature – 163.8°C Empty Collector Weight – 36.20 kg</p> <p>Gross dimensions of 1010 x 1980 x 86 mm; Gross Area – 2.00 m²; Aperture area – 1.86 m²; Headers – 2 horizontal copper tube of 22 mm diameter; Risers – 18 vertical copper tubes of 8 mm diameter; Maximum operational pressure – 10 bars; Maximum Stagnation Temperature – 163.8°C Empty Collector Weight – 36.60 kg</p>
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		<p>ENVIROENERGY/EFM237 ENVIROTHERM/ETFM237 SOLO ENERGY/SOL237 NOVOTHERM/NT237 SOLATHERM/STH237 CHALMERS SOLAR / CHSEC237 *WattSUN/STH237</p>	<p>Gross dimensions of 1930 x 1230 x 86 mm; Gross Area – 2.37 m²; Aperture area – 2.23 m²; Total Absorber Area – 2.23 m²; Headers – 2 horizontal copper tube of 22 mm diameter; Risers – 11 vertical copper tubes of 8 mm diameter; Maximum operational pressure – 10 bars; Maximum Stagnation Temperature – 163.8°C Empty Collector Weight – 43.00 kg</p>
		<p>ENVIROENERGY/EFM237H ENVIROTHERM/ETFM237H SOLO ENERGY/SOL237H NOVOTHERM/NT237H SOLATHERM/STH237H CHALMERS SOLAR / CHSEC237H *WattSUN/STH237H</p>	<p>Gross dimensions of 1230 x 1930 x 86 mm; Gross Area – 2.37 m²; Aperture area – 2.23 m²; Total Absorber Area – 2.23 m²; Headers – 2 horizontal copper tube of 22 mm diameter; Risers – 18 vertical copper tubes of 8 mm diameter; Maximum operational pressure – 10 bars; Maximum Stagnation Temperature – 163.8°C Empty Collector Weight – 44.00 kg</p>
		<p>ENVIROENERGY/EFM272 ENVIROTHERM/ETFM272 SOLO ENERGY/SOL272 NOVOTHERM/NT272 SOLATHERM/STH272 CHALMERS SOLAR / CHSEC272 *WattSUN/STH272</p>	<p>Gross dimensions of 2160 x 1260 x 86 mm; Gross Area – 2.72 m²; Aperture area – 2.57 m²; Total Absorber Area – 2.57m²; Headers – 2 horizontal copper tube of 22 mm diameter; Risers – 11 vertical copper tubes of 8 mm diameter; Maximum operational pressure – 10 bars; Maximum Stagnation Temperature – 163.8°C Empty Collector Weight – 48.00 kg</p>
		<p>ENVIROENERGY/EFM272H ENVIROTHERM/ETFM272H SOLO ENERGY/SOL272H NOVOTHERM/NT272H SOLATHERM/STH272H CHALMERS SOLAR / CHSEC272H</p>	<p>Gross dimensions of 2160 x 1260 x 86 mm; Gross Area – 2.72 m²; Aperture area – 2.57 m²; Total Absorber Area – 2.57m²; Headers – 2 horizontal copper tube of 22 mm diameter; Risers – 18 vertical copper tubes of 8 mm diameter; Maximum operational pressure – 10 bars; Maximum Stagnation Temperature – 163.8°C Empty Collector Weight – 49.60 kg</p>

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SCOPE OF CERTIFICATION
FOR CERTIFICATE NO. CL17020462-Rev01

NOTE 1: 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.

NOTE 3: This supersedes the Scope of Certification issued on 24 May 2018.

*NOTE4: * The newly added products*

Original Issue Date: 24 May 2017

Current Issue Date: 27 June 2018

Valid Until : 23 May 2019



ARIF HUSAIN AL MARZOOQI

Products Conformity Assessment Section Manager
Dubai Central Laboratory Department