

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:

HEWALEX SP. Z.O.O. SP.K.

Ul Juliusza Slowackiego 33 43-502Czechowice-Dziedzice

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: CL17020440
Valid Until: 09/11/2019



Current Issue Date: 10/11/2018
Original Issue Date: 05/04/2017

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. CL17020440**

Certificate Issued To:	HEWALEX SP. Z.O.O. SP. K Ul Juliusza Slowackiego 33 43-502 Czechowice-Dziedzice, Poland
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><u>Glazed Flat Plate Solar Collector Model KS 2100</u> <u>TAC</u></p> <p>Absorber Materials: BlueTec Eta Plus Aluminum Sheet with 0.40mm thickness, 95% absorptance and 5% emittance, laser welded into 6mm riser copper tubes joint with 18mm header copper tubes ;</p> <p>Clear Solar Glass 3.0mm thickness with 91.1% transmittance top cover;</p> <p>Mineral wool thermal insulation with thermal conductivity of 0.039 W/(m.K), density of 120 kg/m³, and thickness of 20mm for lateral insulation and density of 50 kg/m³</p>	<p><u>HEWALEX & ECOTOP Brand</u></p> <p>HEWALEX KS 2100 TAC</p> <p>ECOTOP VHT 2.1</p>	<p>Gross area of 2.05 m²; Aperture area of 1.82 m² and Absorber area of 1.84 m²;</p> <p>Gross dimensions: 2018 x 1019 x 89 mm;</p> <p>Weight (dry & packed): 34.5 kg;</p> <p>Effective Thermal Capacity is 8.986 J/K;</p> <p>Fluid Content: 0.81 Liters;</p> <p>Absorber pipe dimensions: Header – 2 pcs. of 18 mm and Risers – 8 pcs. of 6mm;</p> <p>Distance between risers is 115mm;</p> <p>Maximum operating pressure is 10 bar;</p>

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	<p>and thickness of 40mm for back insulation;</p> <p>Enclosure side material made of aluminum case and aluminum sheet for enclosure back material;</p> <p>Glue MS Polymer</p>		<p>Maximum operating temperature is 250°;</p> <p>Maximum stagnation temperature is 204.2 °C;</p> <p>Vertical installation (max. 90°)</p>
2.	<p><u>Glazed Flat Plate Solar Collector Model KS 2100 TLP AC</u></p> <p>Absorber Materials: BlueTec Eta Plus Aluminum Sheet with 0.40mm thickness, 95% absorptance and 5% emittance, laser welded into 6mm riser copper tubes joint with 18mm header copper tubes ;</p> <p>Matt Tempered Glass with low iron content 3.2mm thickness with 91.4% transmittance top cover;</p> <p>Mineral wool thermal insulation with thermal conductivity of 0.039 W/(m.K), density of 120 kg/m³, and thickness of 20mm for lateral insulation and density of 50 kg/m³ and thickness of 40mm for back insulation;</p> <p>Enclosure side material made of Aluminum Case and Aluminum sheet for enclosure back material;</p> <p>Glue MS Polymer</p>	<p><u>HEWALEX & ECOTOP Brand</u></p> <p>HEWALEX KS 2100 TLP AC</p> <p>ECOTOP VHM 2.1</p>	<p>Gross area of 2.09 m²; Aperture area of 1.82 m² and Absorber area of 1.83 m²;</p> <p>Gross dimensions: 2018 x 1036 x 89 mm;</p> <p>Weight (dry & packed): 34.5 kg;</p> <p>Effective Thermal Capacity is 8.986 J/K;</p> <p>Fluid Content: 0.85 Liters;</p> <p>Absorber pipe dimensions: Header – 2 pcs. of 18 mm and Risers – 10 pcs. of 6mm;</p> <p>Distance between risers is 92mm;</p> <p>Maximum operating pressure is 10 bar;</p> <p>Maximum operating temperature is 250°;</p> <p>Maximum stagnation temperature is 212.8 °C;</p> <p>Vertical installation (max. 90°)</p>

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3.	<p><u>Glazed Flat Plate Solar</u> <u>Collector Model <i>KS 2600 TLP</i></u> <u>AC</u></p> <p>Absorber Materials: BlueTec Eta Plus Aluminum Sheet with 0.40mm thickness, 95% absorptance and 5% emittance, laser welded into 6mm riser copper tubes joint with 18mm header copper tubes;</p> <p>Matt Tempered Glass with low iron content 3.2mm thickness with 91.4% transmittance top cover;</p> <p>Mineral wool thermal insulation with thermal conductivity of 0.039 W/(m.K), density of 120 kg/m³, and thickness of 20mm for lateral insulation and density of 50 kg/m³ and thickness of 40mm for back insulation;</p> <p>Enclosure side material made of Aluminum Case and Aluminum sheet for enclosure back material;</p> <p>Glue MS Polymer</p>	<p><u>HEWALEX & ECOTOP Brand</u></p> <p>HEWALEX KS 2600 TLP AC</p> <p>ECOTOP VHM 2.7</p>	<p>Gross area of 2.65 m²; Aperture area of 2.36 m² and Absorber area of 2.37 m²;</p> <p>Gross dimensions: 2018 x 1314 x 89 mm;</p> <p>Weight (dry & packed): 42.4 kg; Effective Thermal Capacity is 8.986 J/K;</p> <p>Fluid Content: 1.09 Liters;</p> <p>Absorber pipe dimensions: Header – 2 pcs. of 18 mm and Risers – 13 pcs. of 6mm;</p> <p>Distance between risers is 92mm; Maximum operating pressure is 10 bar;</p> <p>Maximum operating temperature is 250°;</p> <p>Maximum stagnation temperature is 204.9 °C;</p> <p>Vertical installation (max. 90°)</p>
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4.	<p><u>Glazed Flat Plate Solar</u> <u>Collector Model KS 2100F</u> <u>TLP AC</u></p> <p>Absorber Materials: BlueTec Eta Plus Aluminum Sheet with 0.40mm thickness, 95% absorptance and 5% emittance, laser welded into 6mm riser copper tubes joint with 18mm header copper tubes ;</p> <p>Tempered Glass with low iron content 3.2mm thickness with 91.4% transmittance top cover;</p> <p>Melamin foam thermal insulation with thickness of 10mm for lateral insulation and mineral wool thermal insulation thickness of 40mm for back insulation;</p> <p>Enclosure side material made of Aluminum Case and Aluminum sheet for enclosure back material with Air filtration;</p> <p>Sealing material: EPDM</p>	<p><u>HEWALEX & ECOTOP Brand</u></p> <p>HEWALEX KS 2100F TLP AC</p> <p>ECOTOP VHM 2.1N</p>	<p>Gross area of 2.06 m²; Aperture area of 1.93 m² and Absorber area of 1.93 m²;</p> <p>Gross dimensions: 2020 x 1019 x 90 mm;</p> <p>Weight (dry & packed): 33.7 kg;</p> <p>Effective Thermal Capacity is 8.740 J/K;</p> <p>Fluid Content: 0.87 Liters;</p> <p>Absorber pipe dimensions: Header – 2 pcs. of 18 mm and Risers – 11 pcs. of 6mm;</p> <p>Distance between risers is 88mm;</p> <p>Flow pattern: Vertical tube-grid</p> <p>Maximum operating pressure is 10 bar;</p> <p>Maximum operating temperature is 250°C;</p> <p>Maximum stagnation temperature is 201.2 °C;</p> <p>Vertical installation (max. 90°)</p>
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5.	<p><u>Glazed Flat Plate Solar</u> <u>Collector Model KS 2600F</u> <u>TLP AC</u></p> <p>Absorber Materials: BlueTec Eta Plus Aluminum Sheet with 0.40mm thickness, 95% absorptance and 5% emittance, laser welded into 6mm riser copper tubes joint with 18mm header copper tubes ;</p> <p>Tempered Glass with low iron content 3.2mm thickness with 91.4% transmittance top cover;</p> <p>Melamin foam thermal insulation with thickness of 10mm for lateral insulation and mineral wool thermal insulation thickness of 40mm for back insulation;</p> <p>Enclosure side material made of Aluminum Case and Aluminum sheet for enclosure back material with Air filtration ;</p> <p>Sealing material: EPDM</p>	<p><u>HEWALEX &</u> <u>ECOTOP Brand</u></p> <p>HEWALEX KS 2600F TLP AC</p> <p>ECOTOP VHM 2.7N</p>	<p>Gross area of 2.62 m²; Aperture area of 2.47 m² and Absorber area of 2.47 m²;</p> <p>Gross dimensions: 2020 x 1297 x 90 mm;</p> <p>Weight (dry & packed): 41.8 kg;</p> <p>Effective Thermal Capacity is 11.123 J/K;</p> <p>Fluid Content: 1.1 Liters;</p> <p>Absorber pipe dimensions: Header – 2 pcs. of 18 mm and Risers – 14 pcs. of 6mm;</p> <p>Distance between risers is 88mm;</p> <p>Flow pattern: Vertical tube-grid</p> <p>Maximum operating pressure is 10 bar;</p> <p>Maximum operating temperature is 250°C;</p> <p>Maximum stagnation temperature is 187.7 °C;</p> <p>Vertical installation (max. 90°)</p>
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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 : 05 April 2017
Current Issue Date : 10 November 2018
Valid Until : 09 November 2019

ARIF HUSAIN AL MARZOOQI
Products Conformity Assessment Section Manager
Dubai Central Laboratory Department