

# KEYMARK CERTIFICATE

## SK08055361501/R01

TUV CYPRUS LTD Certifies that the organization

### ELCORA LTD

**Address:** Iapetou 36, Athanasios Industrial Area,  
4101 Limassol, CYPRUS

**Supplies:** Solar thermal collectors

**In compliance with:** EN 12975-1:2006+A1:2010 & EN 12975-2:2006

**Certified Product:** Solar Collector

**Trade Mark:** EL 1.5 CA, EL 1.8 CA, EL 2.0 CA, EL 2.5 CA

**Test Results:** Annex to certificate

**Certification scheme:** The initial Certificate with number 082BN/0 of Solar Keymark Certification Body CEN025 was issued on 01/09/2011. In order to grant this certificate, TUV CYPRUS has visited the manufacturing site and verified the implementation of the quality management system. TUV CYPRUS performs these tasks periodically while the certificate has not been cancelled, in accordance with the Product Certification Regulations and the Rules for Authorization to use Conformity Mark for Solar Collectors.



SOLAR KEYMARK  
CERTIFICATION BODY  
CEN 033

Accredited by



Certificate No. 885



**TUV CYPRUS (TUV NORD) LTD**  
Certification Body

Nicosia , **05/06/2015**  
Initial Certification : **01/09/2011**  
Valid until : **12/03/2020**







CEN 033

Page 2/2

Annual collector output based on EN 12975 Test Results, annex to Solar KEYMARK Certificate	Licence Number	SK08055361501/R01
	Issued	2015-05-06

Annual collector output kWh/module												
Collector name	Location and collector temperature (Tm)											
	Athens			Davos			Stockholm			Würzburg		
	25°C	50°C	75°C	25°C	50°C	75°C	25°C	50°C	75°C	25°C	50°C	75°C
EL 2.5 CA	2,785	1,788	1,065	1,974	1,247	724	1,483	868	480	1,623	939	512
EL 2.0 CA	2,216	1,422	847	1,571	992	576	1,180	691	382	1,291	747	407
EL 1.8 CA	2,042	1,311	781	1,448	914	531	1,088	637	352	1,190	688	375
EL 1.5 CA	1,646	1,057	629	1,167	737	428	877	513	284	960	555	302

Collector mounting: Fixed or tracking      Fixed; slope = latitude - 15° (rounded to nearest 5°)

Overview of locations				
Location	Latitude °	Gtot kWh/m <sup>2</sup>	Ta °C	Collector orientation or tracking mode
Athens	38	1,765	18.5	South, 25°
Davos	47	1,714	3.2	South, 30°
Stockholm	59	1,166	7.5	South, 45°
Würzburg	50	1,244	9.0	South, 35°

Gtot	Annual total irradiation on collector plane	kWh/m <sup>2</sup>
Ta	Mean annual ambient air temperature	°C
Tm	Constant collector operating temperature (mean of in- and outlet temperatures)	°C

The calculation of the annual collector performance is performed with the official Solar Keymark spreadsheet tool ScenoCalc. The collector output is calculated hour by hour according to the efficiency parameters from the Keymark test using constant collector operating temperature (Tm). A detailed description of the calculations is available at <http://www.sp.se/en/index/services/solar/ScenoCalc/Sidor/default.aspx>.