

[illegible]



Annual collector output based on EN 12975 Test Results, annex to Solar KEYMARK Certificate	Licence Number	011-7S2159 F
	Issued	2013-10-10

Annual collector output kWh/module													
Collector name	Location and collector temperature (T _m)												
	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	
KS 2100 TP ACR	2,415	1,785	1,190	1,876	1,326	837	1,377	928	566	1,493	1,005	602	
KS 2100 TLP ACR	2,415	1,785	1,190	1,876	1,326	837	1,377	928	566	1,493	1,005	602	
KS 2200 TP ACR	2,667	1,972	1,314	2,072	1,465	924	1,521	1,025	625	1,649	1,110	665	
KS 2200 TLP ACR	2,667	1,972	1,314	2,072	1,465	924	1,521	1,025	625	1,649	1,110	665	
KS 2400 TP ACR	2,906	2,148	1,431	2,258	1,596	1,007	1,657	1,117	681	1,797	1,209	725	
KS 2400 TLP ACR	2,906	2,148	1,431	2,258	1,596	1,007	1,657	1,117	681	1,797	1,209	725	
KS 2600 TP ACR	3,132	2,315	1,543	2,433	1,720	1,085	1,786	1,204	734	1,936	1,303	781	
KS 2600 TLP ACR	3,132	2,315	1,543	2,433	1,720	1,085	1,786	1,204	734	1,936	1,303	781	

Collector mounting: Fixed or tracking	Fixed; slope = latitude - 15° (rounded to nearest 5°)
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Overview of locations				
Location	Latitude °	G _{tot} kWh/m ²	T _a °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°

G _{tot}	Annual total irradiation on collector plane	kWh/m ²
T _a	Mean annual ambient air temperature	°C
T _m	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 (T_m). A detailed description of the calculations is available at <http://www.sp.se/en/index/services/solar/ScenoCalc/Sidor/default.aspx>.