



Annual collector output based on EN 12975 Test Results, annex to Solar KEYMARK Certificate	Certificate No.	011-7S1832 F
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Annual collector output kWh												
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
KS2000 TLP Am; KS2000 TP Am	2'368	1'670	1'104	1'914	1'317	845	1'313	856	530	1'428	923	563

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

Overview of locations				
Location	Latitude °	Gtot kWh/m²	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/m²
Ta	Mean annual ambient air temperature	°C
Tm	Constant collector operating temperature (mean of in- and outlet temperatures)	°C

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Calculation of the annual collector performance is done by the official Solar Keymark spreadsheet tool. Hour by hour the collector output is calculated according to the efficiency parameters from the Keymark test using constant collector operating temperature (Tm). Detailed description with all equations used is available from the Solar Keymark web site (direct link: <http://www.estif.org/solarkeymark/annexb1.php>)

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