



Annual collector output based on EN 12975 Test Results, annex to Solar KEYMARK Certificate	Licence Number	011-7S881 F
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Annual collector output kWh/module													
Collector name	Location and collector temperature (T <sub>m</sub> )												
	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	
IDMK 1,25 Al f	1 327	918	583	993	669	410	732	466	275	796	501	291	
IDMK 2,5 Al f	2 786	1 928	1 223	2 084	1 405	860	1 537	978	576	1 672	1 052	610	
IDMK 2,5 Al p	2 786	1 928	1 223	2 084	1 405	860	1 537	978	576	1 672	1 052	610	
IDMK 5 Al f	5 548	3 839	2 435	4 150	2 798	1 713	3 060	1 947	1 148	3 329	2 095	1 215	
IDMK 7,5 Al f	8 309	5 751	3 647	6 216	4 191	2 566	4 584	2 917	1 720	4 986	3 138	1 820	
IDMK 10 Al f	11 095	7 678	4 870	8 300	5 595	3 427	6 121	3 895	2 296	6 658	4 189	2 430	

Collector mounting: Fixed or tracking	Fixed; slope = latitude - 15° (rounded to nearest 5°)
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Overview of locations				
Location	Latitude °	G <sub>tot</sub> kWh/m <sup>2</sup>	T <sub>a</sub> °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 <sub>tot</sub>	Annual total irradiation on collector plane	kWh/m <sup>2</sup>
T <sub>a</sub>	Mean annual ambient air temperature	°C
T <sub>m</sub>	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<sub>m</sub>). A detailed description of the calculations is available at <http://www.sp.se/en/index/services/solar/ScenoCalc/Sidor/default.aspx>.

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	ScenoCalc version: Ver. 4.06 (Jan, 2014)