



Summary of EN 12976 Test Results, annex to Solar KEYMARK Certificate Kurzfassung EN 12976 Test Ergebnisse, Anlage zum Solar KEYMARK-Zertifikat Synthèse des résultats d'essais selon EN 12976, Annexe au certificat Solar KEYMARK	Registration No.	SKM 9926/2
	Registernummer	
	Num. d'enregistrement	
	Date / Datum / Date	2/8/2012

Company / Firma / Société	HELIOAKMI S.A.	Country/Land/Pays	Greece
Street / Straße / Rue	Thesi Nea Zoi - Aspropyrgos, Attiki	Website	www.helioakmi.com
Postal Code, Place / PLZ, Ort / Code postal, Place	193 00 Aspropyrgos, Attiki	E-mail	megasun@helioakmi.com
		Tel. / Fax	+030 210 5595625 / 210 55957

System classification / G / F	
Flow principle / G / F	Thermosyphon / G / F
Direct / indirect / G / F	Direct / G / F
Press. principle / G / F	Open / G / F
Drain back/down / G / F	No drain (always filled) / G / F
Storage location / G / F	Outdoor / G / F
Storage position / G / F	Horizontal / G / F
Int. back-up / G / F	None / G / F
If other: / G / F	English / Deutsch / Francais
EN12976 type / G / F	Solar only / G / F

Collector(s) / Kollektor(en) / Capteur(s)					Storage(s) / Akkumulator(en) / F					
Company / Hersteller / Manufactuer HELIOAKMI S.A.					Company / Hersteller / Manufactuer HELIOAKMI S.A.					
Keymark reg. no. (optional) SKM 9926/3										
Model Bezeichnung Modèle	Per module / G / F				Model Bezeichnung Modèle	Total volume G F litres	Gross diameter/width Diam. / Breite (Außenmaß) Diam. / Largeur hors Tout	Gross length Länge (Außenmaß) longueur hors tout	Back-up heated volume G F litres	El. back-up power G F kW
	Aperture area (Aa) Aperturfläche (Aa) Superficie d'entrée (Aa)	Gross length Länge (Außenmaß) Longueur Hors tout	Gross width Breite (Außenmaß) Largeur hors Tout	No. modules G F min - max						
MEGASUN	1.8	2.05	1.01	1 - 1	INOX-AK	191	530	1300	-	-
MEGASUN	2.33	2.05	1.28	1 - 1	INOX-AK	306	530	2050	-	-

Controller / G / F			Fluid / G / F		
Company/Hersteller/Manufacteu none			Company/Hersteller/Manufacteu none		
Model / Bezeichnung / Modèle none			Model / Bezeichnung / Modèle none		
Functions	English		Freezing point		
G	Deutsch		G 0 °C		
F	Francais		F		

System family overview / G / F						
Collector G F	No. collectors / G / F					
	Storage / G / F					
	INOX-AK 200	INOX-AK 300	0	0	0	
MEGASUN ST-ALSE		2				
MEGASUN ST-ALSE	1					
0						
0						
0						

Testing Laboratory / Prüflaboratorium / Laboratoire d'essais	NCSR "DEMOKRITOS"- SOLAR & ENERGY SYSTEMS LAB
Website	www.solar.demokritos.gr
Test report id. number / Prüberichtnummer / F	6051F1, 6049DE1, 6051DE1
Date of test report / Datum G / date F	30/7/2012

Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire	
English	
Deutsch	
Francais	
	 N.C.S.R "DEMOKRITOS" SOLAR ENERGY LABORATORY Head: Dr Vassilis Belessiotis Tel: +210 6503815 - Fax: +210 6544502 153 10 Ag. Paraskevi - Attiki - Greece



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System family overview / G / F												
Collector type	Number of collectors / G / F											
	Storage type / G / F											
G												
F												
	INOX-AK 200	INOX-AK 300										
MEGASUN ST-ALSEL		2										
MEGASUN ST-ALSEL	1											

Name of system configuration / G / F												MEGASUN INOX-AK
Collector type	MEGASUN ST-ALSEL	No. collectors	2	Storage type	INOX-AK 300							
G		G		G								
F		F		F								

Calculated annual results / G / F												
Location	Daily draw-off litres/day / G / F /											
	250	300	400	250	300	400	250	300	400	250	300	400
G	l/d			l/d			l/d			l/d		
F	Qd kWh/y			QL kWh/y			fsol %					
Stockholm, SE	3872	4652	6202	1866	2015	2094	48.2	43.3	33.8			
Würzburg, DE	3714	4459	5948	1918	2094	2216	51.7	47.0	37.3			
Davos, CH	4205	5046	6728	2724	2908	2978	64.8	57.6	44.3			
Athens, GR	2891	3469	4625	2339	2619	2978	80.9	75.5	64.4			

Perf. indicators	Qd	Heat demand / G / F
	QL	System output / G / F
	fsol	QL/Qd; solar fraction / G / F
	Qpar	Elec. for pumps/controllers / G / F

Ref. conditions		Stockholm SE	Würzburg DE	Davos CH	Athens GR
	G	1,156	1,226	1,682	1,717
	Ta	7.5	9.0	3,2	18.5
	Tc	8.5	10.0	5.4	17.8
	ΔTc	2.1 - 14.9	7.0 - 13.0	4.6 - 6.2	10.4 - 25.2
G	kWh/m ²	Annual irradiation South, 45° / G / F			
Ta	°C	Annual mean air temp. / G / F			
Tc	°C	Annual mean cold water temp. / G / F			
ΔTc	°C	Seasonal variation of Tc / G / F			
Th	45°C	Desired (mix. valve) temp. / G / F			

Max. operating press. - collector side	~	kPa	Max. operating press. - tank side	700	kPa
G			G		
F			F		

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Test report id. number / Prüfberichtsnummer / F	6051F1, 6049DE1, 6051DE1
Date of test report / G / F	30/7/2012
Test method / G / F	ISO 9459-5 (DST)

Comments of test lab / Commentaires des laboratoires / Commentaires du laboratoire English Deutsch Français	
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