



# CERTIFICATE OF CONFORMITY

Certificate No SKM 9921/4

*DQS Hellas grants the present certificate to the enterprise:*

**COSMOSOLAR Ltd**

*for the product:*

**Solar Systems Family:**

**EGLK 120/1.89, EGLK 120/2.05, EGLK 160/2.05, EGLK 160/2.30, EGLK 160/2.58, EGLK 160/3.10, EGLK 200/2.30, EGLK 200/2.58, EGLK 200/3.10, EGLK 200/4.10, EGLK 250/4.10, EGLK 300/4.10, EGLK 300/4.60**

**Trademarks:** Blue Solar, Cosmosolar, Delta Solar, Falcon, Federman, Skyland, Supernet, Nuevosol, primesolar, viber

*which is produced in conformity with the normative document:*

**EN 12976-1:2006**

**EN 12976-2:2006**

**EN 12975-1:2006**

**EN 12975-2:2006**



*at the following location:*

**Ntrei Road, Dervenochorion Pili  
32200 Viotia**

*The present certificate is granted in accordance with:*

- *the DQS Hellas General Rules for the Certification of Products,*
- *the Specific Rule for Certification EKT111.001 «Specific Rule for Certification of Solar Collectors, and Thermal Solar Heating Systems for Domestic Hot Water».*

*and is ruled by the terms of the relevant contract between DQS Hellas and the enterprise.*

*Date of issue: 2016-02-08*

*Date of valid: 2019-02-07*

**Panagiotis Giannoutsos**  
*Director of Certification*

**Dr. Emmanuel Deliyunnakis**  
*Managing Director*



**Products Certification**

Accreditation No: 735

Accredited Body: 4, Kalavriton Street, 14564 Kifissia - Athens, Greece

EKT111-08 - 15/12/2014



## LICENCE TO USE KEYMARK

Certificate No SKM 9921/4

*DQS Hellas grants the present certificate to the enterprise:*

**COSMOSOLAR Ltd**

*for the product:*

**Solar Systems Family:**

**EGLK 120/1.89, EGLK 120/2.05, EGLK 160/2.05, EGLK 160/2.30, EGLK 160/2.58, EGLK 160/3.10, EGLK 200/2.30, EGLK 200/2.58, EGLK 200/3.10, EGLK 200/4.10, EGLK 250/4.10, EGLK 300/4.10, EGLK 300/4.60**

**Trademarks:** Blue Solar, Cosmosolar, Delta Solar, Falcon, Federman, Skyland, Supernet, Nuevosol, primesolar, viber

*which is produced in conformity with the normative document:*

EN 12976-1 : 2006  
EN 12976-2 : 2006  
EN 12975-1 : 2006  
EN 12975-2 : 2006



*at the following location:*

**Ntrei Road, Dervenochorion Pili  
32200 Viotia**

*The present certificate is granted in accordance with:*

- *the DQS Hellas General Rules for the Certification of Products,*
- *the Specific Rule for Certification EKIII.001 «Specific Rule for Certification of Solar Collectors, and Thermal Solar Heating Systems for Domestic Hot Water»,*
- *the Specific CEN Keymark Scheme Rules for Solar Thermal Products,*

*and is ruled by the terms of the relevant contract between DQS Hellas and the enterprise.*

*Date of issue: 2016-02-08*

*Date of valid: 2019-02-07*

**Panagiotis Giannoutsos**  
Director of Certification

**Dr. Emmanuel Deliyannakis**  
Managing Director

EEL.001-07 10/11/2011





<b>Summary of EN 12976 Test Results,</b> 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	<b>Registration No.</b> Registernummer Num. d'enregistrement <b>SKM 9921/4</b>
	<b>Date / Datum / Date</b> 28/1/2013

<b>Company / Firma / Société</b> COSMOSOLAR LTD	<b>Country/Land/Pays</b> Greece
<b>Street / Straße / Rue</b> Ntrei Road, Dervenochorion Gate	<b>Website</b> <a href="http://www.cosmosol">http://www.cosmosol</a>
<b>Postal Code, Place / PLZ, Ort / Code postal, Place</b> 322 00 Viotia	<b>E-mail</b> <a href="mailto:info@cosmosolar.co">info@cosmosolar.co</a>
<b>Tel. / Fax</b> +030 210 3478897 / 210 34794	

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

<b>Collector(s) / Kollektor(en) / Capteur(s)</b>					<b>Storage(s) / Akkumulator(en) / F</b>								
<b>Company / Hersteller / Manufactuer</b> COSMOSOLAR LTD <b>Keymark reg. no. (optional)</b> SKM 9921/2					<b>Company / Hersteller / Manufactuer</b> COSMOSOLAR LTD								
Model Bezeichnung Modèle	Per module / G / F			No. modules G F		Model Bezeichnung Modèle	Total volume		Gross diameter/width Diam. / Breite (Außenmaß) Diam. / Largeur hors Tout	Gross length Länge (Außenmaß) longueur hors tout	Back-up heated volume		El. back-up power G F
	Aperture area (A <sub>a</sub> ) Aperturfläche (A <sub>a</sub> ) Superficie d'entrée (A <sub>a</sub> )	Gross length Länge (Außenmaß) Longueur Hors tout	Gross width Breite (Außenmaß) Largeur hors Tout				G F	F			G F	G F	
	m <sup>2</sup>	m	m	min	max		litres	mm	mm	litres		kW	
EPI 20	1,302	1517	1019	1	- 1	120L	107	530	1120	~	~	~	
EPI 12	1,613	1517	1247	1	- 1	160L	149	530	1320	~	~	~	
EPI 25	1,768	2017	1017	1	- 1	200L	186	580	1320	~	~	~	
EPI 16	1,995	1917	1197	1	- 1	250L	245	580	2120	~	~	~	
EPI 54	2,265	2017	1277	1	- 1	300L	290	580	2120	~	~	~	

<b>Controller / G / F</b>			<b>Fluid / G / F</b>		
<b>Company/Hersteller/Manufacteur</b> COSMOSOLAR LTD <b>Model / Bezeichnung / Modèle</b> EPI .....			<b>Company/Hersteller/Manufacteur</b> <b>Model / Bezeichnung / Modèle</b> Propylene glycol solution		
<b>Functions</b> G English F Deutsch F Francais			<b>Freezing point</b> G -4 to -36 °C F		

<b>System family overview / G / F</b>						
Collector G F	No. collectors / G / F					
	Storage / G / F					
	120L	160L	200L	250L	300L	
EPI 20		2	2			
EPI 12	1					
EPI 25	1	1	2	2	2	
EPI 16		1	1		2	
EPI 54		1	1			

<b>Testing Laboratory / Prüflaboratorium / Laboratoire d'essais</b> Website <b>Test report id. number / Prüberichtsnummer / F</b> <b>Date of test report / Datum G / date F</b>	NCSR "DEMOKRITOS"- SOLAR & ENERGY SYSTEMS LAB <a href="http://www.solar.demokritos.gr">www.solar.demokritos.gr</a> 6041 DE2, 6043 DE2 6/9/2011
--	---

<b>Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire</b> English Deutsch Francais	Stamp & signature of test lab
--	-------------------------------



<b>Summary of EN 12976 Test Results, annex to Solar KEYMARK Certificate</b> Kurzfassung EN 12976 Test Ergebnisse, Anlage zum Solar KEYMARK-Zertifikat Synthèse des résultats d'essais selon EN 12976, Annexe au certificat Solar	<b>Registration No.</b> Registernummer Num. d'enregistrement <b>Date / Datum / Date</b>	<b>SKM 9921/4</b>  <b>28/1/2013</b>
--	--	---

<b>Company / Firma / Société</b> <b>Street / Straße / Rue</b> <b>Postal Code, Place / PLZ, Ort / Code postal, Place</b>	<b>COSMOSOLAR LTD</b> <b>Ntrei Road, Dervenochorion Gate</b> <b>322 00 Viotia</b>	<b>Country/Land/Pays</b> <b>Website</b> <b>E-mail</b> <b>Tel. / Fax</b>	<b>Greece</b> <a href="http://www.cosmosol">http://www.cosmosol</a> <a href="mailto:info@cosmosolar.co">info@cosmosolar.co</a> <b>+99 210 3478897 / 210 34794</b>
---	---	--	--

System family overview / G / F																		
Collector type G F	Number of collectors / G / F																	
	Storage type / G / F																	
	120L			160L			200L			250L			300L					
EPI 20				2			2											
EPI 12	1																	
EPI 25		1			1			2			2					2		
EPI 16						1			1								2	
EPI 54						1			1									

Name of system konfiguration / G / F												EGLK 120/1.89
Collector type G F	EPI 12	No. collectors G F	1	Storage type G F	120L							

Calculated annual results / G / F												
Location G F	Daily draw-off litres/day / G / F /											
	80	110	140	80	110	140	80	110	140	80	110	140
	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d
	Q <sub>d</sub> kWh/y			Q <sub>L</sub> kWh/y			f <sub>sol</sub> %			Q <sub>par</sub> kWh/y		
Stockholm, SE	1.244	1.708	2.172	615	725	764	49,4	42,5	35,2			
Würzburg, DE	1.191	1.638	2.085	612	738	782	51,4	45,0	37,5			
Davos, CH	1.349	1.848	2.356	848	990	1.042	62,9	53,6	44,2			
Athens, GR	929	1.270	1.621	774	981	1.086	83,3	77,2	67,0			

Perf. indicators G F	Q <sub>d</sub>	Heat demand / G / F
	Q <sub>L</sub>	System output / G / F
	f <sub>sol</sub>	QL/Q <sub>d</sub> ; solar fraction / G / F
	Q <sub>par</sub>	Elec. for pumps/controllers / G / F

Ref. conditions G F		Stockholm	Würzburg DE	Davos CH	Athens GR
	G	1.156	1.226	1.682	1.717
	T <sub>a</sub>	7,5	9,0	3,2	18,5
	T <sub>c</sub>	8,5	10,0	5,4	17,8
	ΔT <sub>c</sub>	2.1 - 14.9	7.0 - 13.0	4.6 - 6.2	10.4 - 25.2

G	kWh/m <sup>2</sup>	Annual irradiation South, 45° / G / F
T <sub>a</sub>	°C	Annual mean air temp. / G / F
T <sub>c</sub>	°C	Annual mean cold water temp. / G / F
ΔT <sub>c</sub>	°C	Seasonal variation of T <sub>c</sub> / G / F
T <sub>h</sub>	45°C	Desired (mix. valve) temp. / G / F

Max. operating press. - collector side G F	200	kPa	Max. operating press. - tank side G F	1.000	kPa
--	-----	-----	---	-------	-----

Testing Laboratory / Prüflaboratorium / Laboratoire d'essais	Demokritos
Website	<a href="http://www.solar.demokritos.gr">www.solar.demokritos.gr</a>
Test report id. number / Prüberichtnummer / F	6041 DE2, 6043 DE2
Date of test report / G / F	6/9/2011
Test method / G / F	ISO 9459-5 (DST)

Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire	Stamp & signature of test lab
English	
Deutsch	



<b>Summary of EN 12976 Test Results, annex to Solar KEYMARK Certificate</b> Kurzfassung EN 12976 Test Ergebnisse, Anlage zum Solar KEYMARK-Zertifikat Synthèse des résultats d'essais selon EN 12976, Annexe au certificat Solar	<b>Registration No.</b>	<b>SKM 9921/4</b>
	Registernummer	
	Num. d'enregistremen	
	<b>Date / Datum / Date</b>	<b>28/1/2013</b>

<b>Company / Firma / Société</b>	<b>COSMOSOLAR LTD</b>	<b>Country/Land/Pays</b>	<b>Greece</b>
<b>Street / Straße / Rue</b>	<b>Ntrei Road, Dervenochorion Gate</b>	<b>Website</b>	<b><a href="http://www.cosmosol">http://www.cosmosol</a></b>
<b>Postal Code, Place / PLZ, Ort / Code postal, Place</b>	<b>322 00 Viotia</b>	<b>E-mail</b>	<b><a href="mailto:info@cosmosolar.co">info@cosmosolar.co</a></b>
		<b>Tel. / Fax</b>	<b>+99 210 3478897 / 210 34794</b>

System family overview / G / F																		
Collector type	Number of collectors / G / F																	
	Storage type / G / F																	
	120L			160L			200L			250L			300L					
EPI 20				2			2											
EPI 12	1																	
EPI 25		1			1			2			2					2		
EPI 16					1			1									2	
EPI 54						1			1									

<b>Name of system konfiguration / G / F</b>												<b>EGLK 120/2.05</b>	
<b>Collector type</b>	<b>EPI 25</b>			<b>No. collectors</b>			<b>1</b>			<b>Storage type</b>			<b>120L</b>
G				G			1			G			
F				F						F			

Calculated annual results / G / F																		
Location	Daily draw-off litres/day / G / F /																	
	80			110			140			80			110			140		
	l/d			l/d			l/d			l/d			l/d			l/d		
	Q <sub>d</sub> kWh/y			Q <sub>L</sub> kWh/y			f <sub>sol</sub> %			Q <sub>par</sub> kWh/y								
Stockholm, SE	1.244	1.708	2.172	642	764	808	51,6	44,7	37,2									
Würzburg, DE	1.191	1.638	2.085	635	774	828	53,3	47,3	39,7									
Davos, CH	1.349	1.848	2.356	894	1.051	1.104	66,2	56,9	46,8									
Athens, GR	929	1.270	1.621	792	1.016	1.139	85,3	80,0	70,3									
<b>Perf. indicators</b>	<b>Q<sub>d</sub> Heat demand / G / F</b>																	
G	Q <sub>L</sub> System output / G / F																	
F	f <sub>sol</sub> QL/Q <sub>d</sub> ; solar fraction / G / F																	
	Q <sub>par</sub> Elec. for pumps/controllers / G / F																	

Ref. conditions	Stockholm					Würzburg DE					Davos CH					Athens GR										
	G	1.156					1.226					1.682					1.717									
	G	Ta					7,5					9,0					3,2					18,5				
	F	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 <sup>2</sup>	<b>Annual irradiation South, 45° / G / F</b>																								
Ta	°C	<b>Annual mean air temp. / G / F</b>																								
Tc	°C	<b>Annual mean cold water temp. / G / F</b>																								
ΔTc	°C	<b>Seasonal variation of Tc / G / F</b>																								
Th	45°C	<b>Desired (mix. valve) temp. / G F</b>																								

<b>Max. operating press. - collector side</b>				<b>Max. operating press. - tank side</b>			
G	200		kPa	G	1.000		kPa
F				F			

<b>Testing Laboratory / Prüflaboratorium / Laboratoire d'essais</b>	<b>Demokritos</b>
<b>Website</b>	<b><a href="http://www.solar.demokritos.gr">www.solar.demokritos.gr</a></b>
<b>Test report id. number / Prüberichtsnummer / F</b>	<b>6041 DE2, 6043 DE2</b>
<b>Date of test report / G / F</b>	<b>6/9/2011</b>
<b>Test method / G / F</b>	<b>ISO 9459-5 (DST)</b>

<b>Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire</b>	
English	mp & signature of test lab
Deutsch	
Francais	



<b>Summary of EN 12976 Test Results, annex to Solar KEYMARK Certificate</b>		<b>Registration</b>															
Kurzfassung EN 12976 Test Ergebnisse, Anlage zum Solar KEYMARK-Zertifikat		Registernummer	<b>SKM 9921/4</b>														
Synthèse des résultats d'essais selon EN 12976, Annexe au certificat Solar		Num. d'enregistrement															
		Date / Datum / Date	<b>28/1/2013</b>														
<b>Company / Firma / Société</b>		<b>Country/Land/Pays</b>	Greece														
COSMOSOLAR LTD		<b>Website</b>	<a href="http://www.cosmosol.com">http://www.cosmosol.com</a>														
<b>Street / Straße / Rue</b>		<b>E-mail</b>															
Ntrei Road, Dervenochorion Gate		<a href="mailto:info@cosmosolar.com">info@cosmosolar.com</a>															
<b>Postal Code, Place / PLZ, Ort / Code postal, Place</b>		<b>Tel. / Fax</b>	+99 210 3478897 / 210 34794														
322 00 Viotia																	
<b>System family overview / G / F</b>																	
<b>Collector type</b>	<b>Number of collectors / G / F</b>																
	<b>Storage type / G / F</b>																
G																	
F																	
	120L			160L			200L			250L			300L				
EPI 20				2			2										
EPI 12	1																
EPI 25		1			1			2			2			2			
EPI 16						1			1					2			
EPI 54									1								
<b>Name of system configuration / G / F</b>				EGLK 160/2.05													
<b>Collector type</b>		<b>No. collectors</b>		<b>Storage type</b>													
G	EPI 25	G	1	160L													
F		F															
<b>Calculated annual results / G / F</b>																	
<b>Location</b>		<b>Daily draw-off litres/day / G / F /</b>															
G		110	140	170	110	140	170	110	140	170	110	140	170	110	140	170	
F		l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	
		Q <sub>d</sub> kWh/y			Q <sub>L</sub> kWh/y			f <sub>sol</sub> %			Q <sub>par</sub> kWh/y						
	Stockholm, SE	1.708	2.172	2.637	757	851	920	44,3	39,2	34,9							
	Würzburg, DE	1.638	2.085	2.532	763	864	929	46,6	41,4	36,7							
	Davos, CH	1.848	2.356	2.856	1.025	1.139	1.218	55,5	48,3	42,6							
	Athens, GR	1.270	1.621	1.962	999	1.174	1.296	78,6	72,4	66,1							
<b>Perf. indicators</b>																	
G	Q <sub>d</sub>	Heat demand / G / F															
G	Q <sub>L</sub>	System output / G / F															
F	f <sub>sol</sub>	Q <sub>L</sub> /Q <sub>d</sub> ; solar fraction / G / F															
F	Q <sub>par</sub>	Elec. for pumps/controllers / G / F															
<b>Ref. conditions</b>																	
		Stockholm SE	Würzburg DE	Davos CH	Athens GR												
G	G	1.156	1.226	1.682	1.717												
G	T <sub>a</sub>	7,5	9,0	3,2	18,5												
F	F	T <sub>c</sub>	8,5	10,0	5,4	17,8											
F	F	ΔT <sub>c</sub>	2.1 - 14.9	7.0 - 13.0	4.6 - 6.2	10.4 - 25.2											
G	kWh/m <sup>2</sup>	Annual irradiation South, 45° / G / F															
T <sub>a</sub>	°C	Annual mean air temp. / G / F															
T <sub>c</sub>	°C	Annual mean cold water temp. / G / F															
ΔT <sub>c</sub>	°C	Seasonal variation of T <sub>c</sub> / G / F															
Th	45°C	Desired (mix. valve) temp. / G / F															
<b>Max. operating press. - collector side</b>		200 kPa				<b>Max. operating press. - tank side</b>											
G						1.000 kPa											
F																	
<b>Testing Laboratory / Prüflaboratorium / Laboratoire d'essais</b>		Demokritos															
<b>Website</b>		<a href="http://www.solar.demokritos.gr">www.solar.demokritos.gr</a>															
<b>Test report id. number / Prüberichtsnummer / F</b>		6041 DE2, 6043 DE2															
<b>Date of test report / G / F</b>		6/9/2011															
<b>Test method / G / F</b>		ISO 9459-5 (DST)															
<b>Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire</b>		English Deutsch Français															



<b>Summary of EN 12976 Test Results, annex to Solar KEYMARK Certificate</b>				<b>Registration No.</b>		<b>SKM 9921/4</b>																						
Kurzfassung EN 12976 Test Ergebnisse, Anlage zum Solar KEYMARK-Zertifikat				Registernummer																								
Synthèse des résultats d'essais selon EN 12976, Annexe au certificat Solar				Num. d'enregistremen																								
				<b>Date / Datum / Date</b>		<b>28/1/2013</b>																						
<b>Company / Firma / Société</b>		<b>COSMOSOLAR LTD</b>		<b>Country/Land/Pays</b>		<b>Greece</b>																						
<b>Street / Straße / Rue</b>		<b>Ntrei Road, Dervenochorion Gate</b>		<b>Website</b>		<b><a href="http://www.cosmosolar.com">http://www.cosmosolar.com</a></b>																						
<b>Postal Code, Place / PLZ, Ort / Code postal, Place</b>		<b>322 00 Viotia</b>		<b>E-mail</b>		<b><a href="mailto:info@cosmosolar.com">info@cosmosolar.com</a></b>																						
				<b>Tel. / Fax</b>		<b>+99 210 3478897 / 210 347904</b>																						
<b>System family overview / G / F</b>																												
<b>Collector type</b>		<b>Number of collectors / G / F</b>																										
G		<b>Storage type / G / F</b>																										
F		120L		160L		200L																						
		250L		300L																								
EPI 20				2																								
EPI 12		1																										
EPI 25		1		2		2																						
EPI 16		1		1		2																						
EPI 54				1																								
<b>Name of system konfiguration / G / F</b>						<b>EGLK 160/2.30</b>																						
<b>Collector type</b>		<b>No. collectors</b>		<b>Storage type</b>																								
G		EPI 16		G		1																						
F				F		160L																						
<b>Calculated annual results / G / F</b>																												
<b>Location</b>		<b>Daily draw-off litres/day / G / F /</b>																										
G		110			140			170			110			140			170											
F		l/d			l/d			l/d			l/d			l/d			l/d											
		Q <sub>d</sub> kWh/y			Q <sub>L</sub> kWh/y			f <sub>sol</sub> %			Q <sub>par</sub> kWh/y																	
Stockholm, SE		1.708			2.172			2.637			811			920			990			47,5			42,3			37,5		
Würzburg, DE		1.638			2.085			2.532			813			929			1.007			49,6			44,5			39,8		
Davos, CH		1.848			2.356			2.856			1.113			1.244			1.340			60,2			52,8			46,9		
Athens, GR		1.270			1.621			1.962			1.042			1.244			1.393			82,1			76,8			71,0		
<b>Perf. indicators</b>																												
G		Q <sub>d</sub>		Heat demand / G / F																								
F		Q <sub>L</sub>		System output / G / F																								
		f <sub>sol</sub>		QL/Q <sub>d</sub> ; solar fraction / G / F																								
		Q <sub>par</sub>		Elec. for pumps/controllers / G / F																								
<b>Ref. conditions</b>				Stockholm		Würzburg DE		Davos CH		Athens GR																		
G				1.156		1.226		1.682		1.717																		
G		Ta		7,5		9,0		3,2		18,5																		
F		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 <sup>2</sup>		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																								
<b>Max. operating press. - collector side</b>				200		kPa		<b>Max. operating press. - tank side</b>				1.000		kPa														
G								G																				
F								F																				
<b>Testing Laboratory / Prüflaboratorium / Laboratoire d'essais</b>						<b>Demokritos</b>																						
<b>Website</b>						<b><a href="http://www.solar.demokritos.gr">www.solar.demokritos.gr</a></b>																						
<b>Test report id. number / Prüberichtsnummer / F</b>						<b>6041 DE2, 6043 DE2</b>																						
<b>Date of test report / G / F</b>						<b>6/9/2011</b>																						
<b>Test method / G / F</b>						<b>ISO 9459-5 (DST)</b>																						
<b>Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire</b>																												
English Deutsch Français																												



<b>Summary of EN 12976 Test Results, annex to Solar KEYMARK Certificate</b>				<b>Registration No.</b>		<b>SKM 9921/4</b>																						
Kurzfassung EN 12976 Test Ergebnisse, Anlage zum Solar KEYMARK-Zertifikat				Registernummer																								
Synthèse des résultats d'essais selon EN 12976, Annexe au certificat Solar				Num. d'enregistremen																								
				<b>Date / Datum / Date</b>		<b>28/1/2013</b>																						
<b>Company / Firma / Société</b>		<b>COSMOSOLAR LTD</b>		<b>Country/Land/Pays</b>		<b>Greece</b>																						
<b>Street / Straße / Rue</b>		<b>Ntrei Road, Dervenochorion Gate</b>		<b>Website</b>		<b><a href="http://www.cosmosolar.com">http://www.cosmosolar.com</a></b>																						
<b>Postal Code, Place / PLZ, Ort / Code postal, Place</b>		<b>322 00 Viotia</b>		<b>E-mail</b>		<b><a href="mailto:info@cosmosolar.com">info@cosmosolar.com</a></b>																						
				<b>Tel. / Fax</b>		<b>+99 210 3478897 / 210 347904</b>																						
<b>System family overview / G / F</b>																												
<b>Collector type</b>		<b>Number of collectors / G / F</b>																										
G		<b>Storage type / G / F</b>																										
F		120L		160L		200L																						
		250L		300L																								
EPI 20				2																								
EPI 12		1																										
EPI 25		1		2		2																						
EPI 16				1		2																						
EPI 54				1																								
<b>Name of system konfiguration / G / F</b>						<b>EGLK 160/2.58</b>																						
<b>Collector type</b>		<b>No. collectors</b>		<b>Storage type</b>																								
G		EPI 54		G		1																						
F				F		160L																						
<b>Calculated annual results / G / F</b>																												
<b>Location</b>		<b>Daily draw-off litres/day / G / F /</b>																										
G		110			140			170			110			140			170											
F		l/d			l/d			l/d			l/d			l/d			l/d											
		Q <sub>d</sub> kWh/y			Q <sub>L</sub> kWh/y			f <sub>sol</sub> %			Q <sub>par</sub> kWh/y																	
Stockholm, SE		1.708			2.172			2.637			862			981			1.060			50,5			45,2			40,2		
Würzburg, DE		1.638			2.085			2.532			856			990			1.086			52,2			47,5			42,9		
Davos, CH		1.848			2.356			2.856			1.191			1.349			1.454			64,5			57,2			50,9		
Athens, GR		1.270			1.621			1.962			1.077			1.296			1.463			84,8			80,0			74,6		
<b>Perf. indicators</b>																												
G		Q <sub>d</sub>		Heat demand / G / F																								
F		Q <sub>L</sub>		System output / G / F																								
		f <sub>sol</sub>		QL/Q <sub>d</sub> ; solar fraction / G / F																								
		Q <sub>par</sub>		Elec. for pumps/controllers / G / F																								
<b>Ref. conditions</b>				Stockholm		Würzburg DE		Davos CH		Athens GR																		
G				1.156		1.226		1.682		1.717																		
G		T <sub>a</sub>		7,5		9,0		3,2		18,5																		
F		T <sub>c</sub>		8,5		10,0		5,4		17,8																		
		ΔT <sub>c</sub>		2.1 - 14.9		7.0 - 13.0		4.6 - 6.2		10.4 - 25.2																		
G		kWh/m <sup>2</sup>		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																								
<b>Max. operating press. - collector side</b>				200		kPa		<b>Max. operating press. - tank side</b>				1.000		kPa														
G								G																				
F								F																				
<b>Testing Laboratory / Prüflaboratorium / Laboratoire d'essais</b>						<b>Demokritos</b>																						
<b>Website</b>						<b><a href="http://www.solar.demokritos.gr">www.solar.demokritos.gr</a></b>																						
<b>Test report id. number / Prüberichtsnummer / F</b>						<b>6041 DE2, 6043 DE2</b>																						
<b>Date of test report / G / F</b>						<b>6/9/2011</b>																						
<b>Test method / G / F</b>						<b>ISO 9459-5 (DST)</b>																						
<b>Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire</b>																												
English																												
Deutsch																												
Français																												





<b>Summary of EN 12976 Test Results, annex to Solar KEYMARK Certificate</b>				<b>Registration No.</b>		<b>SKM 9921/4</b>																						
Kurzfassung EN 12976 Test Ergebnisse, Anlage zum Solar KEYMARK-Zertifikat				Registernummer																								
Synthèse des résultats d'essais selon EN 12976, Annexe au certificat Solar				Num. d'enregistremen																								
				<b>Date / Datum / Date</b>		<b>28/1/2013</b>																						
<b>Company / Firma / Société</b>		<b>COSMOSOLAR LTD</b>		<b>Country/Land/Pays</b>		<b>Greece</b>																						
<b>Street / Straße / Rue</b>		<b>Ntrei Road, Dervenochorion Gate</b>		<b>Website</b>		<b><a href="http://www.cosmosol">http://www.cosmosol</a></b>																						
<b>Postal Code, Place / PLZ, Ort / Code postal, Place</b>		<b>322 00 Viotia</b>		<b>E-mail</b>		<b><a href="mailto:info@cosmosolar.co">info@cosmosolar.co</a></b>																						
				<b>Tel. / Fax</b>		<b>+99 210 3478897 / 210 34794</b>																						
<b>System family overview / G / F</b>																												
<b>Collector type</b>		<b>Number of collectors / G / F</b>																										
G		<b>Storage type / G / F</b>																										
F		120L		160L		200L																						
		250L		300L																								
EPI 20				2																								
EPI 12		1																										
EPI 25		1		2		2																						
EPI 16				1		2																						
EPI 54				1																								
<b>Name of system konfiguration / G / F</b>						<b>EGLK 160/3.10</b>																						
<b>Collector type</b>		<b>No. collectors</b>		<b>Storage type</b>																								
G		EPI 20		G		2																						
F				F		160L																						
<b>Calculated annual results / G / F</b>																												
<b>Location</b>		<b>Daily draw-off litres/day / G / F /</b>																										
G		110			140			170			110			140			170											
F		l/d			l/d			l/d			l/d			l/d			l/d											
		Q <sub>d</sub> kWh/y			Q <sub>L</sub> kWh/y			f <sub>sol</sub> %			Q <sub>par</sub> kWh/y																	
Stockholm, SE		1.708			2.172			2.637			920			1.060			1.148			53,8			48,8			43,5		
Würzburg, DE		1.638			2.085			2.532			902			1.060			1.165			55,1			50,8			46,0		
Davos, CH		1.848			2.356			2.856			1.279			1.472			1.586			69,2			62,5			55,5		
Athens, GR		1.270			1.621			1.962			1.113			1.349			1.542			87,6			83,2			78,6		
<b>Perf. indicators</b>																												
G		Q <sub>d</sub>		Heat demand / G / F																								
F		Q <sub>L</sub>		System output / G / F																								
		f <sub>sol</sub>		QL/Q <sub>d</sub> ; solar fraction / G / F																								
		Q <sub>par</sub>		Elec. for pumps/controllers / G / F																								
<b>Ref. conditions</b>		Stockholm		Würzburg DE		Davos CH		Athens GR																				
G		1.156		1.226		1.682		1.717																				
G		T <sub>a</sub>		7,5		9,0		3,2		18,5																		
F		T <sub>c</sub>		8,5		10,0		5,4		17,8																		
		ΔT <sub>c</sub>		2.1 - 14.9		7.0 - 13.0		4.6 - 6.2		10.4 - 25.2																		
G		kWh/m <sup>2</sup>		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																								
<b>Max. operating press. - collector side</b>				200		kPa		<b>Max. operating press. - tank side</b>				1.000		kPa														
G								G																				
F								F																				
<b>Testing Laboratory / Prüflaboratorium / Laboratoire d'essais</b>						<b>Demokritos</b>																						
<b>Website</b>						<b><a href="http://www.solar.demokritos.gr">www.solar.demokritos.gr</a></b>																						
<b>Test report id. number / Prüberichtsnummer / F</b>						<b>6041 DE2, 6043 DE2</b>																						
<b>Date of test report / G / F</b>						<b>6/9/2011</b>																						
<b>Test method / G / F</b>						<b>ISO 9459-5 (DST)</b>																						
<b>Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire</b>																												
<b>English</b>																												
<b>Deutsch</b>																												
<b>Français</b>																												



<b>Summary of EN 12976 Test Results, annex to Solar KEYMARK Certificate</b>				<b>Registration No.</b>		<b>SKM 9921/4</b>																						
Kurzfassung EN 12976 Test Ergebnisse, Anlage zum Solar KEYMARK-Zertifikat				Registernummer																								
Synthèse des résultats d'essais selon EN 12976, Annexe au certificat Solar				Num. d'enregistremen																								
				<b>Date / Datum / Date</b>		<b>28/1/2013</b>																						
<b>Company / Firma / Société</b>		<b>COSMOSOLAR LTD</b>		<b>Country/Land/Pays</b>		<b>Greece</b>																						
<b>Street / Straße / Rue</b>		<b>Ntrei Road, Dervenochorion Gate</b>		<b>Website</b>		<b><a href="http://www.cosmosol">http://www.cosmosol</a></b>																						
<b>Postal Code, Place / PLZ, Ort / Code postal, Place</b>		<b>322 00 Viotia</b>		<b>E-mail</b>		<b><a href="mailto:info@cosmosolar.co">info@cosmosolar.co</a></b>																						
				<b>Tel. / Fax</b>		<b>+99 210 3478897 / 210 34794</b>																						
<b>System family overview / G / F</b>																												
<b>Collector type</b>		<b>Number of collectors / G / F</b>																										
G		<b>Storage type / G / F</b>																										
F		120L		160L		200L																						
EPI 20				2																								
EPI 12		1																										
EPI 25		1		2		2																						
EPI 16		1		1		2																						
EPI 54				1																								
<b>Name of system konfiguration / G / F</b>						<b>EGLK 200/2.30</b>																						
<b>Collector type</b>		<b>No. collectors</b>		<b>Storage type</b>																								
G <b>EPI 16</b>		G <b>1</b>		G <b>200L</b>																								
F		F		F																								
<b>Calculated annual results / G / F</b>																												
<b>Location</b>		<b>Daily draw-off litres/day / G / F /</b>																										
G		170			200			250			170			200			250											
F		l/d			l/d			l/d			l/d			l/d			l/d											
		Q <sub>d</sub> kWh/y			Q <sub>L</sub> kWh/y			f <sub>sol</sub> %			Q <sub>par</sub> kWh/y																	
Stockholm, SE		2.637			3.101			3.881			1.007			1.069			1.104			38,2			34,5			28,4		
Würzburg, DE		2.532			2.970			3.714			1.016			1.086			1.130			40,1			36,6			30,4		
Davos, CH		2.856			3.364			4.205			1.340			1.428			1.463			46,9			42,4			34,8		
Athens, GR		1.962			2.313			2.891			1.393			1.515			1.586			71,0			65,5			54,8		
<b>Perf. indicators</b>																												
G		Q <sub>d</sub>		Heat demand / G / F																								
F		Q <sub>L</sub>		System output / G / F																								
		f <sub>sol</sub>		QL/Q <sub>d</sub> ; solar fraction / G / F																								
		Q <sub>par</sub>		Elec. for pumps/controllers / G / F																								
<b>Ref. conditions</b>				Stockholm		Würzburg DE		Davos CH		Athens GR																		
G				1.156		1.226		1.682		1.717																		
G		T <sub>a</sub>		7,5		9,0		3,2		18,5																		
F		T <sub>c</sub>		8,5		10,0		5,4		17,8																		
		ΔT <sub>c</sub>		2.1 - 14.9		7.0 - 13.0		4.6 - 6.2		10.4 - 25.2																		
G		kWh/m <sup>2</sup>		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																								
<b>Max. operating press. - collector side</b>				200		kPa		<b>Max. operating press. - tank side</b>				1.000		kPa														
G								G																				
F								F																				
<b>Testing Laboratory / Prüflaboratorium / Laboratoire d'essais</b>						<b>Demokritos</b>																						
<b>Website</b>						<b><a href="http://www.solar.demokritos.gr">www.solar.demokritos.gr</a></b>																						
<b>Test report id. number / Prüberichtsnummer / F</b>						<b>6041 DE2, 6043 DE2</b>																						
<b>Date of test report / G / F</b>						<b>6/9/2011</b>																						
<b>Test method / G / F</b>						<b>ISO 9459-5 (DST)</b>																						
<b>Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire</b>																												
<b>English</b>																												
<b>Deutsch</b>																												
<b>Français</b>																												



<b>Summary of EN 12976 Test Results, annex to Solar KEYMARK Certificate</b>				<b>Registration No.</b>		<b>SKM 9921/4</b>																						
Kurzfassung EN 12976 Test Ergebnisse, Anlage zum Solar KEYMARK-Zertifikat				Registernummer																								
Synthèse des résultats d'essais selon EN 12976, Annexe au certificat Solar				Num. d'enregistremen																								
				<b>Date / Datum / Date</b>		<b>28/1/2013</b>																						
<b>Company / Firma / Société</b>		<b>COSMOSOLAR LTD</b>		<b>Country/Land/Pays</b>		<b>Greece</b>																						
<b>Street / Straße / Rue</b>		<b>Ntrei Road, Dervenochorion Gate</b>		<b>Website</b>		<b><a href="http://www.cosmosolar.com">http://www.cosmosolar.com</a></b>																						
<b>Postal Code, Place / PLZ, Ort / Code postal, Place</b>		<b>322 00 Viotia</b>		<b>E-mail</b>		<b><a href="mailto:info@cosmosolar.com">info@cosmosolar.com</a></b>																						
				<b>Tel. / Fax</b>		<b>+99 210 3478897 / 210 34794</b>																						
<b>System family overview / G / F</b>																												
<b>Collector type</b>		<b>Number of collectors / G / F</b>																										
G		<b>Storage type / G / F</b>																										
F		120L		160L		200L																						
EPI 20				2																								
EPI 12		1																										
EPI 25		1		2		2																						
EPI 16		1		1		2																						
EPI 54				1																								
<b>Name of system konfiguration / G / F</b>						<b>EGLK 200/2.58</b>																						
<b>Collector type</b>		<b>No. collectors</b>		<b>Storage type</b>																								
G <b>EPI 54</b>		G <b>1</b>		G <b>200L</b>																								
F		F		F																								
<b>Calculated annual results / G / F</b>																												
<b>Location</b>		<b>Daily draw-off litres/day / G / F /</b>																										
G		170			200			250			170			200			250											
F		l/d			l/d			l/d			l/d			l/d			l/d											
		Q <sub>d</sub> kWh/y			Q <sub>L</sub> kWh/y			f <sub>sol</sub> %			Q <sub>par</sub> kWh/y																	
Stockholm, SE		2.637			3.101			3.881			1.086			1.156			1.200			41,2			37,3			30,9		
Würzburg, DE		2.532			2.970			3.714			1.104			1.183			1.226			43,6			39,8			33,0		
Davos, CH		2.856			3.364			4.205			1.463			1.559			1.603			51,2			46,4			38,1		
Athens, GR		1.962			2.313			2.891			1.480			1.621			1.717			75,4			70,1			59,4		
<b>Perf. indicators</b>																												
G		Q <sub>d</sub>		<b>Heat demand / G / F</b>																								
F		Q <sub>L</sub>		<b>System output / G / F</b>																								
		f <sub>sol</sub>		<b>QL/Q<sub>d</sub>; solar fraction / G / F</b>																								
		Q <sub>par</sub>		<b>Elec. for pumps/controllers / G / F</b>																								
<b>Ref. conditions</b>				Stockholm		Würzburg DE		Davos CH		Athens GR																		
G				1.156		1.226		1.682		1.717																		
G		Ta		7,5		9,0		3,2		18,5																		
F		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 <sup>2</sup>		<b>Annual irradiation South, 45° / G / F</b>																								
Ta		°C		<b>Annual mean air temp. / G / F</b>																								
Tc		°C		<b>Annual mean cold water temp. / G / F</b>																								
ΔTc		°C		<b>Seasonal variation of Tc / G / F</b>																								
Th		45°C		<b>Desired (mix. valve) temp. / G / F</b>																								
<b>Max. operating press. - collector side</b>				200		kPa		<b>Max. operating press. - tank side</b>				1.000		kPa														
G								G																				
F								F																				
<b>Testing Laboratory / Prüflaboratorium / Laboratoire d'essais</b>						<b>Demokritos</b>																						
<b>Website</b>						<b><a href="http://www.solar.demokritos.gr">www.solar.demokritos.gr</a></b>																						
<b>Test report id. number / Prüberichtsnummer / F</b>						<b>6041 DE2, 6043 DE2</b>																						
<b>Date of test report / G / F</b>						<b>6/9/2011</b>																						
<b>Test method / G / F</b>						<b>ISO 9459-5 (DST)</b>																						
<b>Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire</b>																												
English																												
Deutsch																												
Français																												



<b>Summary of EN 12976 Test Results, annex to Solar KEYMARK Certificate</b>				<b>Registration No.</b>		<b>SKM 9921/4</b>							
Kurzfassung EN 12976 Test Ergebnisse, Anlage zum Solar KEYMARK-Zertifikat				Registernummer									
Synthèse des résultats d'essais selon EN 12976, Annexe au certificat Solar				Num. d'enregistremen									
				<b>Date / Datum / Date</b>		28/1/2013							
<b>Company / Firma / Société</b>		COSMOSOLAR LTD		<b>Country/Land/Pays</b>		Greece							
<b>Street / Straße / Rue</b>		Ntrei Road, Dervenochorion Gate		<b>Website</b>		<a href="http://www.cosmosolar.com">http://www.cosmosolar.com</a>							
<b>Postal Code, Place / PLZ, Ort / Code postal, Place</b>		322 00 Viotia		<b>E-mail</b>		<a href="mailto:info@cosmosolar.com">info@cosmosolar.com</a>							
				<b>Tel. / Fax</b>		+99 210 3478897 / 210 347904							
<b>System family overview / G / F</b>													
<b>Collector type</b>		<b>Number of collectors / G / F</b>											
G		<b>Storage type / G / F</b>											
F		120L		160L		200L		250L		300L			
EPI 20				2		2							
EPI 12		1											
EPI 25			1			2		2		2			
EPI 16				1		1				2			
EPI 54					1								
<b>Name of system konfiguration / G / F</b>								EGLK 200/3.10					
<b>Collector type</b>		EPI 20		<b>No. collectors</b>		2		<b>Storage type</b>		200L			
G				G				G					
F				F				F					
<b>Calculated annual results / G / F</b>													
<b>Location</b>		<b>Daily draw-off litres/day / G / F /</b>											
G		170	200	250	170	200	250	170	200	250	170	200	250
F		l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d
		Q <sub>d</sub> kWh/y			Q <sub>L</sub> kWh/y			f <sub>sol</sub> %			Q <sub>par</sub> kWh/y		
Stockholm, SE		2.637	3.101	3.881	1.174	1.261	1.314	44,5	40,7	33,9			
Würzburg, DE		2.532	2.970	3.714	1.191	1.288	1.340	47,1	43,4	36,1			
Davos, CH		2.856	3.364	4.205	1.612	1.717	1.778	56,4	51,0	42,3			
Athens, GR		1.962	2.313	2.891	1.559	1.734	1.875	79,5	75,0	64,8			
<b>Perf. indicators</b>		<b>Heat demand / G / F</b>											
G		Q <sub>d</sub>											
F		Q <sub>L</sub>		<b>System output / G / F</b>									
		f <sub>sol</sub>		<b>QL/Q<sub>d</sub>; solar fraction / G / F</b>									
		Q <sub>par</sub>		<b>Elec. for pumps/controllers / G / F</b>									
<b>Ref. conditions</b>		Stockholm		Würzburg DE		Davos CH		Athens GR					
G		1.156		1.226		1.682		1.717					
G		Ta		9,0		3,2		18,5					
F		Tc		10,0		5,4		17,8					
		ΔTc		7.0 - 13.0		4.6 - 6.2		10.4 - 25.2					
G		kWh/m <sup>2</sup> <b>Annual irradiation South, 45° / G / F</b>											
Ta		°C <b>Annual mean air temp. / G / F</b>											
Tc		°C <b>Annual mean cold water temp. / G / F</b>											
ΔTc		°C <b>Seasonal variation of Tc / G / F</b>											
Th		45°C <b>Desired (mix. valve) temp. / G / F</b>											
<b>Max. operating press. - collector side</b>				200 kPa		<b>Max. operating press. - tank side</b>				1.000 kPa			
G						G							
F						F							
<b>Testing Laboratory / Prüflaboratorium / Laboratoire d'essais</b>						Demokritos							
<b>Website</b>						<a href="http://www.solar.demokritos.gr">www.solar.demokritos.gr</a>							
<b>Test report id. number / Prüberichtsnummer / F</b>						6041 DE2, 6043 DE2							
<b>Date of test report / G / F</b>						6/9/2011							
<b>Test method / G / F</b>						ISO 9459-5 (DST)							
<b>Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire</b>													
English Deutsch Français													





<b>Summary of EN 12976 Test Results, annex to Solar KEYMARK Certificate</b> Kurzfassung EN 12976 Test Ergebnisse, Anlage zum Solar KEYMARK-Zertifikat Synthèse des résultats d'essais selon EN 12976, Annexe au certificat Solar		<b>Registration No.</b> Registernummer Num. d'enregistremen <b>Date / Datum / Date</b>		<b>SKM 9921/4</b>  <b>28/1/2013</b>									
<b>Company / Firma / Société</b>		<b>COSMOSOLAR LTD</b>		<b>Country/Land/Pays</b> Greece									
<b>Street / Straße / Rue</b>		<b>Ntrei Road, Dervenochorion Gate</b>		<b>Website</b> <a href="http://www.cosmosolar.com">http://www.cosmosolar.com</a>									
<b>Postal Code, Place / PLZ, Ort / Code postal, Place</b>		322 00 Viotia		<b>E-mail</b> <a href="mailto:info@cosmosolar.com">info@cosmosolar.com</a>									
		<b>Tel. / Fax</b>		+99 210 3478897 / 210 34794									
<b>System family overview / G / F</b>													
<b>Collector type</b>		<b>Number of collectors / G / F</b>											
		<b>Storage type / G / F</b>											
		120L	160L	200L	250L								
		300L											
G													
F													
EPI 20			2	2									
EPI 12		1											
EPI 25		1	1	2	2								
EPI 16			1	1	2								
EPI 54			1	1									
<b>Name of system konfiguration / G / F</b> EGLK 200/4.10													
<b>Collector type</b>		<b>No. collectors</b>		<b>Storage type</b>									
G EPI 25		G 2		G 200L									
F		F		F									
<b>Calculated annual results / G / F</b>													
		<b>Daily draw-off litres/day / G / F /</b>											
<b>Location</b>		170	200	250	170	200	250	170	200	250	170	200	250
G		l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d
F													
		Q <sub>d</sub> kWh/y			Q <sub>L</sub> kWh/y			f <sub>sol</sub> %			Q <sub>par</sub> kWh/y		
Stockholm, SE		2.637	3.101	3.881	1.367	1.480	1.559	51,8	47,7	40,2			
Würzburg, DE		2.532	2.970	3.714	1.349	1.489	1.603	53,3	50,1	43,2			
Davos, CH		2.856	3.364	4.205	1.901	2.067	2.172	66,6	61,5	51,7			
Athens, GR		1.962	2.313	2.891	1.691	1.918	2.164	86,2	83,0	74,8			
<b>Perf. indicators</b>													
G		Q <sub>d</sub>	Heat demand / G / F										
F		Q <sub>L</sub>	System output / G / F										
		f <sub>sol</sub>	QL/Q <sub>d</sub> ; solar fraction / G / F										
		Q <sub>par</sub>	Elec. for pumps/controllers / G / F										
<b>Ref. conditions</b>			Stockholm	Würzburg DE	Davos CH	Athens GR							
G			1.156	1.226	1.682	1.717							
G			T <sub>a</sub>	7,5	9,0	3,2	18,5						
F			T <sub>c</sub>	8,5	10,0	5,4	17,8						
			ΔT <sub>c</sub>	2.1 - 14.9	7.0 - 13.0	4.6 - 6.2	10.4 - 25.2						
G		kWh/m <sup>2</sup>	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										
<b>Max. operating press. - collector side</b>			200	kPa	<b>Max. operating press. - tank side</b>			1.000	kPa				
G					G								
F					F								
<b>Testing Laboratory / Prüflaboratorium / Laboratoire d'essais</b>		Demokritos											
<b>Website</b>		<a href="http://www.solar.demokritos.gr">www.solar.demokritos.gr</a>											
<b>Test report id. number / Prüberichtsnummer / F</b>		6041 DE2, 6043 DE2											
<b>Date of test report / G / F</b>		6/9/2011											
<b>Test method / G / F</b>		ISO 9459-5 (DST)											
<b>Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire</b>													
English													
Deutsch													
Français													



<b>Summary of EN 12976 Test Results, annex to Solar KEYMARK Certificate</b>				<b>Registration No.</b>		<b>SKM 9921/4</b>													
Kurzfassung EN 12976 Test Ergebnisse, Anlage zum Solar KEYMARK-Zertifikat				Registernummer															
Synthèse des résultats d'essais selon EN 12976, Annexe au certificat Solar				Num. d'enregistremen															
				<b>Date / Datum / Date</b>		28/1/2013													
<b>Company / Firma / Société</b>		COSMOSOLAR LTD		<b>Country/Land/Pays</b>		Greece													
<b>Street / Straße / Rue</b>		Ntrei Road, Dervenochorion Gate		<b>Website</b>		<a href="http://www.cosmosol">http://www.cosmosol</a>													
<b>Postal Code, Place / PLZ, Ort / Code postal, Place</b>		322 00 Viotia		<b>E-mail</b>		<a href="mailto:info@cosmosolar.co">info@cosmosolar.co</a>													
				<b>Tel. / Fax</b>		+99 210 3478897 / 210 34794													
<b>System family overview / G / F</b>																			
<b>Collector type</b>		<b>Number of collectors / G / F</b>																	
G		<b>Storage type / G / F</b>																	
F		120L		160L		200L		250L		300L									
EPI 20				2		2													
EPI 12		1																	
EPI 25		1		1		2		2											
EPI 16				1		1				2									
EPI 54				1		1													
<b>Name of system konfiguration / G / F</b>								EGLK 250/4.10											
<b>Collector type</b>		EPI 25		<b>No. collectors</b>		2		<b>Storage type</b>		250L									
G				G				G											
F				F				F											
<b>Calculated annual results / G / F</b>																			
<b>Location</b>		<b>Daily draw-off litres/day / G / F /</b>																	
G		200		250		300		200		250		300							
F		l/d		l/d		l/d		l/d		l/d		l/d							
		Q <sub>d</sub> kWh/y			Q <sub>L</sub> kWh/y			f <sub>sol</sub> %			Q <sub>par</sub> kWh/y								
Stockholm, SE		3.101		3.881		4.652		1.533		1.656		1.734		49,3		42,7		37,2	
Würzburg, DE		2.970		3.714		4.459		1.533		1.691		1.778		51,7		45,6		39,9	
Davos, CH		3.364		4.205		5.046		2.111		2.269		2.356		62,7		54,0		46,8	
Athens, GR		2.313		2.891		3.469		1.953		2.251		2.462		84,4		78,1		70,9	
<b>Perf. indicators</b>		Q <sub>d</sub>		Heat demand / G / F															
G		Q <sub>L</sub>		System output / G / F															
F		f <sub>sol</sub>		QL/Q <sub>d</sub> ; solar fraction / G / F															
		Q <sub>par</sub>		Elec. for pumps/controllers / G / F															
<b>Ref. conditions</b>		Stockholm		Würzburg DE		Davos CH		Athens GR											
G		1.156		1.226		1.682		1.717											
G		Ta		7,5		9,0		3,2		18,5									
F		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 <sup>2</sup>		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															
<b>Max. operating press. - collector side</b>				200		kPa		<b>Max. operating press. - tank side</b>				1.000		kPa					
G								G											
F								F											
<b>Testing Laboratory / Prüflaboratorium / Laboratoire d'essais</b>						Demokritos													
<b>Website</b>						<a href="http://www.solar.demokritos.gr">www.solar.demokritos.gr</a>													
<b>Test report id. number / Prüberichtsnummer / F</b>						6041 DE2, 6043 DE2													
<b>Date of test report / G / F</b>						6/9/2011													
<b>Test method / G / F</b>						ISO 9459-5 (DST)													
<b>Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire</b>																			
English Deutsch Français																			



<b>Summary of EN 12976 Test Results, annex to Solar KEYMARK Certificate</b>				<b>Registration No.</b>		<b>SKM 9921/4</b>																						
Kurzfassung EN 12976 Test Ergebnisse, Anlage zum Solar KEYMARK-Zertifikat				Registernummer																								
Synthèse des résultats d'essais selon EN 12976, Annexe au certificat Solar				Num. d'enregistremen																								
				<b>Date / Datum / Date</b>		<b>28/1/2013</b>																						
<b>Company / Firma / Société</b>		<b>COSMOSOLAR LTD</b>		<b>Country/Land/Pays</b>		<b>Greece</b>																						
<b>Street / Straße / Rue</b>		<b>Ntrei Road, Dervenochorion Gate</b>		<b>Website</b>		<b><a href="http://www.cosmosolar.com">http://www.cosmosolar.com</a></b>																						
<b>Postal Code, Place / PLZ, Ort / Code postal, Place</b>		<b>322 00 Viotia</b>		<b>E-mail</b>		<b><a href="mailto:info@cosmosolar.com">info@cosmosolar.com</a></b>																						
				<b>Tel. / Fax</b>		<b>+99 210 3478897 / 210 347904</b>																						
<b>System family overview / G / F</b>																												
<b>Collector type</b>		<b>Number of collectors / G / F</b>																										
G		<b>Storage type / G / F</b>																										
F		120L		160L		200L																						
EPI 20				2																								
EPI 12		1																										
EPI 25		1		2		2																						
EPI 16				1		2																						
EPI 54				1																								
<b>Name of system konfiguration / G / F</b>				<b>EGLK 300/4.10</b>																								
<b>Collector type</b>		<b>No. collectors</b>		<b>Storage type</b>																								
G EPI 25		G 2		G 300L																								
F		F		F																								
<b>Calculated annual results / G / F</b>																												
<b>Location</b>		<b>Daily draw-off litres/day / G / F /</b>																										
G		250			300			400			250			300			400											
F		l/d			l/d			l/d			l/d			l/d			l/d											
		Q <sub>d</sub> kWh/y			Q <sub>L</sub> kWh/y			f <sub>sol</sub> %			Q <sub>par</sub> kWh/y																	
Stockholm, SE		3.881			4.652			6.202			1.664			1.805			1.910			42,9			38,8			30,8		
Würzburg, DE		3.714			4.459			5.948			1.691			1.840			1.953			45,5			41,3			32,8		
Davos, CH		4.205			5.046			6.728			2.269			2.435			2.558			54,0			48,3			38,0		
Athens, GR		2.891			3.469			4.625			2.243			2.505			2.742			77,6			72,2			59,3		
<b>Perf. indicators</b>																												
G		Q <sub>d</sub>		Heat demand / G / F																								
F		Q <sub>L</sub>		System output / G / F																								
		f <sub>sol</sub>		QL/Q <sub>d</sub> ; solar fraction / G / F																								
		Q <sub>par</sub>		Elec. for pumps/controllers / G / F																								
<b>Ref. conditions</b>				Stockholm		Würzburg DE		Davos CH		Athens GR																		
G				1.156		1.226		1.682		1.717																		
G		Ta		7,5		9,0		3,2		18,5																		
F		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 <sup>2</sup>		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																								
<b>Max. operating press. - collector side</b>				200		kPa		<b>Max. operating press. - tank side</b>				1.000		kPa														
G								G																				
F								F																				
<b>Testing Laboratory / Prüflaboratorium / Laboratoire d'essais</b>						<b>Demokritos</b>																						
<b>Website</b>						<b><a href="http://www.solar.demokritos.gr">www.solar.demokritos.gr</a></b>																						
<b>Test report id. number / Prüberichtsnummer / F</b>						<b>6041 DE2, 6043 DE2</b>																						
<b>Date of test report / G / F</b>						<b>6/9/2011</b>																						
<b>Test method / G / F</b>						<b>ISO 9459-5 (DST)</b>																						
<b>Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire</b>																												
English																												
Deutsch																												
Français																												



<b>Summary of EN 12976 Test Results, annex to Solar KEYMARK Certificate</b>				<b>Registration No.</b>		<b>SKM 9921/4</b>																						
Kurzfassung EN 12976 Test Ergebnisse, Anlage zum Solar KEYMARK-Zertifikat				Registernummer																								
Synthèse des résultats d'essais selon EN 12976, Annexe au certificat Solar				Num. d'enregistremen																								
				<b>Date / Datum / Date</b>		<b>28/1/2013</b>																						
<b>Company / Firma / Société</b>		<b>COSMOSOLAR LTD</b>		<b>Country/Land/Pays</b>		<b>Greece</b>																						
<b>Street / Straße / Rue</b>		<b>Ntrei Road, Dervenochorion Gate</b>		<b>Website</b>		<b><a href="http://www.cosmosolar.com">http://www.cosmosolar.com</a></b>																						
<b>Postal Code, Place / PLZ, Ort / Code postal, Place</b>		<b>322 00 Viotia</b>		<b>E-mail</b>		<b><a href="mailto:info@cosmosolar.com">info@cosmosolar.com</a></b>																						
				<b>Tel. / Fax</b>		<b>+99 210 3478897 / 210 347904</b>																						
<b>System family overview / G / F</b>																												
<b>Collector type</b>		<b>Number of collectors / G / F</b>																										
G		<b>Storage type / G / F</b>																										
F		120L		160L		200L																						
		250L		300L																								
EPI 20				2																								
EPI 12		1																										
EPI 25		1		2		2																						
EPI 16		1		1		2																						
EPI 54				1																								
<b>Name of system konfiguration / G / F</b>				<b>EGLK 300/4.60</b>																								
<b>Collector type</b>		<b>No. collectors</b>		<b>Storage type</b>																								
G		EPI 16		G		2																						
F				G		300L																						
				F																								
<b>Calculated annual results / G / F</b>																												
<b>Location</b>		<b>Daily draw-off litres/day / G / F /</b>																										
G		250			300			400			250			300			400											
F		l/d			l/d			l/d			l/d			l/d			l/d											
		Q <sub>d</sub> kWh/y			Q <sub>L</sub> kWh/y			f <sub>sol</sub> %			Q <sub>par</sub> kWh/y																	
Stockholm, SE		3.881			4.652			6.202			1.787			1.936			2.059			46,0			41,6			33,2		
Würzburg, DE		3.714			4.459			5.948			1.796			1.971			2.111			48,3			44,2			35,5		
Davos, CH		4.205			5.046			6.728			2.453			2.646			2.794			58,3			52,4			41,5		
Athens, GR		2.891			3.469			4.625			2.339			2.646			2.952			80,9			76,3			63,8		
<b>Perf. indicators</b>																												
G		Q <sub>d</sub>		Heat demand / G / F																								
F		Q <sub>L</sub>		System output / G / F																								
		f <sub>sol</sub>		QL/Q <sub>d</sub> ; solar fraction / G / F																								
		Q <sub>par</sub>		Elec. for pumps/controllers / G / F																								
<b>Ref. conditions</b>				Stockholm		Würzburg DE		Davos CH		Athens GR																		
G				1.156		1.226		1.682		1.717																		
G		Ta		7,5		9,0		3,2		18,5																		
F		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 <sup>2</sup>		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																								
<b>Max. operating press. - collector side</b>				200		kPa		<b>Max. operating press. - tank side</b>				1.000		kPa														
G								G																				
F								F																				
<b>Testing Laboratory / Prüflaboratorium / Laboratoire d'essais</b>						<b>Demokritos</b>																						
<b>Website</b>						<b><a href="http://www.solar.demokritos.gr">www.solar.demokritos.gr</a></b>																						
<b>Test report id. number / Prüberichtsnummer / F</b>						<b>6041 DE2, 6043 DE2</b>																						
<b>Date of test report / G / F</b>						<b>6/9/2011</b>																						
<b>Test method / G / F</b>						<b>ISO 9459-5 (DST)</b>																						
<b>Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire</b>																												
English																												
Deutsch																												
Français																												