



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	Registration No.	011-7S689 A
	Registernummer	
	Num. d'enregistrement	
	Date / Datum / Date	26.06.2009

Company / Firma / Société	Ekos srl	Country/Land/Pays	Italy
Street / Straße / Rue	Via Bassi 81	Website	www.ekosistemi.it
Postal Code, Place / PLZ, Ort / Code postal, Place	33080 Fiume Veneto (PN)	E-mail	michele.tesolin@ekosistemi.it
		Tel.	+39 434 560 798

System classification / G / F	
Flow principle / G / F	Thermosyphon / G / F
Direct / indirect / G / F	Indirect / 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 / Français
EN12976 type / G / F	Solar only / G / F

Collector(s) / Kollektor(en) / Capteur(s)					Storage(s) / Akkumulator(en) / F					
Company / Hersteller / Manufactuer Ekos srl					Company / Hersteller / Manufactuer Ekos srl					
Keymark reg. no. (optional)										
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						
EasySun 120	1.84	1780	1200	1 - 1	EasySun 120	115	470	1420	0	0
EasySun170	2.42	1780	1766	1 - 1	EasySun 170	149	470	1785	0	0
EasySun 200	3.05	1780	1910	1 - 1	EasySun 200	185	470	2100	0	0
EasySun 250	3.73	1780	2405	1 - 1	EasySun 250	235	470	2560	0	0

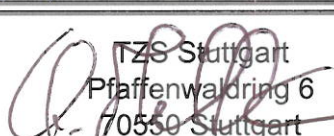
Controller / G / F			Fluid / G / F		
Company/Hersteller/Manufacteu -			Company/Hersteller/Manufacteu Water		
Model / Bezeichnung / Modèle -			Model / Bezeichnung / Modèle -		
Functions G F			Freezing point G F		
			0 °C		

System family overview / G / F						
Collector G F	No. collectors / G / F					
	Storage / G / F					
	EasySun 120	EasySun 170	EasySun 200	EasySun 250		
EasySun 120	1					
EasySun170		1				
EasySun 200			1			
EasySun 250				1		

Testing Laboratory / Prüflaboratorium / Laboratoire d'essais	TZS, ITW University of Stuttgart
Website	www.tzs.uni-stuttgart.de
Test report id. number / Prüberichtnummer / F	08SYS- 45/2- , 46/2- , 47/2- , 48/1- OEM01
Date of test report / Datum G / date F	25.06.2009

Comments of test lab / Kommentare des Laboratoriums / Commentaires du laboratoire	TZS Stuttgart Pfaffenwaldring 6 70550 Stuttgart
According to manufacturers' instructions the store is filled with a water/glycol mixture instead of pure water in regions of frost.	



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System family overview / G / F																																					
Collector type G F		Number of collectors / G / F																																			
		Storage type / G / F																																			
		EasySun 120		EasySun 170		EasySun 200		EasySun 250																													
EasySun 120		1																																			
EasySun170				1																																	
EasySun 200						1																															
EasySun 250								1																													
Name of system konfiguration / G / F																																					
EasySun 200			No. collectors G F		1		Storage type G F			EasySun 200																											
Calculated annual results / G / F																																					
Location G F		Daily draw-off litres/day / G / F /																																			
		170			200			250			170			200			250																				
		l/d			l/d			l/d			l/d			l/d			l/d																				
		Q _d MJ/a			Q _L MJ/a			f _{sol} %			Q _{par} kWh/y																										
Stockholm, SE		9 437			11 103			13 878			3 322			3 586			3 927			35.2			32.3			28.3			0			0			0		
Würzburg, DE		9 047			10 643			13 304			3 755			4 066			4 470			41.5			38.2			33.6			0			0			0		
Davos, CH		10 243			12 050			15 063			5 060			5 447			5 980			49.5			45.2			39.7			0			0			0		
Athens, GR		7 023			8 263			10 328			4 045			4 487			4 999			57.6			54.3			48.4			0			0			0		
Perf. indicators G F		Q _d		Heat demand / G / F																																	
		Q _L		System output / G / F																																	
		f _{sol}		QL/Qd; solar fraction / G / F																																	
		Q _{par}		Elec. for pumps/controllers / G / F																																	
Ref. conditions G F				Stockholm		Würzburg DE		Davos CH		Athens GR																											
		G		1 113		1 230		1 684		1 359																											
		T _a		6.9		9.0		3.2		18.2																											
		T _c		8.5		10.0		5.4		17.8																											
		ΔT _c		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 G F				Heat-Pipe kPa		Max. operating press. - tank side G F				press-ure-less kPa																											
Testing Laboratory / Prüflaboratorium / Laboratoire d'essais						TZS, ITW University of Stuttgart																															
Website						www.tzs.uni-stuttgart.de																															
Test report id. number / Prüberichtsnummer / F						08SYS48/1OEM01																															
Date of test report / G / F						25.06.2009																															
Test method / G / F						ISO 9459-5 (DST)																															
Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire According to manufacturers' instructions the store is filled with a water/glycol mixture instead of pure water in regions of frost.												 TZS Stuttgart Pfaffenwaldring 6 70550 Stuttgart																									