



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. Registernummer Num. d'enregistrement	011-7S2251 A
	Date / Datum / Date	28.10.2013

Company / Firma / Société Street / Straße / Rue Postal Code, Place / PLZ, Ort / Code postal, Place	Jiangsu Micoe Solar Energy Co., Ltd No.199, Yingzhou Road 222000 Lianyungang City, Jiangsu Province	Country/Land/Pays Website E-mail Tel.	P.R. China www.micoe.com certification@micoe.com +86 518 8595 -9889 /-9808
---	---	--	---

System classification / G / F	
Flow principle / G / F	Thermosyphon / G / F
Direct / indirect / G / F	Direct / G / F
Press. principle / G / F	Closed / G / F
Drain back/down / G / F	No drain (always filled) / G / F
Storage location / G / F	Outdoor / G / F
Storage position / G / F	Vertical / 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) Company / Hersteller / Manufactuer	Micoe Keymark reg. no. (optional) 011-7S2250 R	Storage(s) / Akkumulator(en) / F Company / Hersteller / Manufactuer	Micoe
---	---	--	-------

Model Bezeichnung Modèle	Per module / G / F				No. modules G F min - max	Model Bezeichnung Modèle	Storage					
	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			Total volume G F litres	Gross diameter/width Diam. / Breite (Außenmaß) Diam. / Largeur hors tout	Höhe (Außenmaß) Höhe (Außenmaß) epaisseur hors tout	Back-up heated volume		El. back-up power G F kW
										G	F	
SZ58/1800-12G	1,08	2,033	1,072	1 - 1	120	1,322	2,543	0	0	0		
SZ58/1800-14G	1,26	2,033	1,249	1 - 1	140	1,499	2,543	0	0	0		
SZ58/1800-16G	1,44	2,032	1,432	1 - 1	160	1,682	2,542	0	0	0		
SZ58/1800-18G	1,62	2,032	1,609	1 - 1	180	1,859	2,542	0	0	0		
SZ58/1800-20G	1,80	2,032	1,786	1 - 1	200	2,036	2,542	0	0	0		
SZ58/1800-24G	2,16	2,035	2,143	1 - 1	240	2,393	2,545	0	0	0		
SZ58/1800-30G	2,70	2,035	2,678	1 - 1	300	2,928	2,545	0	0	0		

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

System family overview / G / F											
Collector G F	No. collectors / G / F										
	Storage / G / F										

Testing Laboratory / Prüflaboratorium / Laboratoire d'essais Website Test report id. number / Prüberichtnummer / F Date of test report / Datum G / date F	TZS, ITW University of Stuttgart www.tzs.uni-stuttgart.de 13SYS107 28.10.2013
--	--

Comments of test lab / Kommentare des Laboratoriums / Commentaires du laboratoire	
--	--



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	
	Registernummer	011-7S2251 A
	Num. d'enregistrement Date / Datum / Date	28.10.2013

Company / Firma / Société	Jiangsu Micoe Solar Energy Co., Ltd	Country/Land/Pays	P.R. China
Street / Straße / Rue	No.199, Yingzhou Road	Website	www.micoe.com
Postal Code, Place / PLZ, Ort / Code postal, Place	222000 Lianyungang City, Jiangsu Province	E-mail	certification@micoe.com
		Tel. / Fax	+86 518 8595 -9889 /-9808

System family overview / G / F

Collector type G F	Number of collectors / G / F				
	Storage type / G / F				
	SZ58/1800-12	SZ58/1800-14	SZ58/1800-16	SZ58/1800-18	SZ58/1800-20
SZ58/1800-12G	1				
SZ58/1800-14G		1			
SZ58/1800-16G			1		
SZ58/1800-18G				1	
SZ58/1800-20G					1

Name of system konfiguration / G / F				
Collector type		No. collectors		Storage type
G	SZ58/1800-12G	G	1	G
F		F		F
				SZ58/1800-12

Calculated annual results / G / F												
Location G F	Daily draw-off litres/day / G / F /											
	110	140	200	110	140	200	110	140	200	110	140	200
	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 _d MJ/a			Q _L MJ/a			f _{sol}			Q _{par} MJ/a		
Stockholm, SE	6.107	7.772	11.103	3334	3816	4075	0,546	0,491	0,37	0,0	0,0	0,0
Würzburg, DE	5.854	7.450	10.643	3407	3963	4321	0,582	0,532	0,41	0,0	0,0	0,0
Davos, CH	6.628	8.435	12.050	4991	5618	5820	0,753	0,666	0,48	0,0	0,0	0,0
Athens, GR	4.545	5.784	8.263	3981	4714	5602	0,876	0,815	0,68	0,0	0,0	0,0

Perf. indicators G F	Q _d	Heat demand / G / F
	Q _L	System output / G / F
	f _{sol}	QL/Q_d; solar fraction / G / F
	Q _{par}	Elec. for pumps/controllers / G / F

Ref. conditions G F		Stockholm	Würzburg DE	Davos CH	Athens GR
	G	1.157	1.230	1.684	1.718
	T _a	7,5	9,0	3,2	18,5
	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
T _a	°C	Annual mean air temp. / G / F
T _c	°C	Annual mean cold water temp. / G / F
ΔT _c	°C	Seasonal variation of T_c / G / F
T _h	45°C	Desired (mix. valve) temp. / G / F

Max. operating press. - collector side			Max. operating press. - tank side		
G		0	kPa	G	
F				F	0
					kPa

Testing Laboratory / Prüflaboratorium / Laboratoire d'essais	TZS, ITW University of Stuttgart
Website	www.tzs.uni-stuttgart.de
Test report id. number / Prüberichtsnummer / F	13SYS107
Date of test report / G / F	28.10.2013
Test method / G / F	ISO 9459-5 (DST)

Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire	
--	--



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	
	Registernummer	011-7S2251 A
	Num. d'enregistrement Date / Datum / Date	28.10.2013

Company / Firma / Société	Jiangsu Micoe Solar Energy Co., Ltd	Country/Land/Pays	P.R. China
Street / Straße / Rue	No.199, Yingzhou Road	Website	www.micoe.com
Postal Code, Place / PLZ, Ort / Code postal, Place	222000 Lianyungang City, Jiangsu Province	E-mail	certification@micoe.com
		Tel. / Fax	+86 518 8595 -9889 /-9808

System family overview / G / F

Collector type G F	Number of collectors / G / F				
	Storage type / G / F				
	SZ58/1800-12	SZ58/1800-14	SZ58/1800-16	SZ58/1800-18	SZ58/1800-20
SZ58/1800-12G	1				
SZ58/1800-14G		1			
SZ58/1800-16G			1		
SZ58/1800-18G				1	
SZ58/1800-20G					1

Name of system konfiguration / G / F					
Collector type	SZ58/1800-14G	No. collectors	1	Storage type	SZ58/1800-14
G		G		G	
F		F		F	

Calculated annual results / G / F												
Location G F	Daily draw-off litres/day / G / F /											
	140	170	200	140	170	200	140	170	200	140	170	200
	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 _d MJ/a			QL MJ/a			f _{sol}			Q _{par} MJ/a		
Stockholm, SE	7772	9438	11.103	4111	4558	4719	0,529	0,483	0,43	0,0	0,0	0,0
Würzburg, DE	7450	9047	10.643	4224	4740	4970	0,567	0,524	0,47	0,0	0,0	0,0
Davos, CH	8435	10243	12.050	6124	6688	6820	0,726	0,653	0,57	0,0	0,0	0,0
Athens, GR	5784	7024	8.263	4963	5661	6131	0,858	0,806	0,74	0,0	0,0	0,0

Perf. indicators G F	Q _d	Heat demand / G / F
	Q _L	System output / G / F
	f _{sol}	QL/Q_d; solar fraction / G / F
	Q _{par}	Elec. for pumps/controllers / G / F

Ref. conditions G F		Stockholm	Würzburg DE	Davos CH	Athens GR
	G	1.157	1.230	1.684	1.718
	T _a	7,5	9,0	3,2	18,5
	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
T _a	°C	Annual mean air temp. / G / F
T _c	°C	Annual mean cold water temp. / G / F
ΔT _c	°C	Seasonal variation of T_c / G / F
T _h	45°C	Desired (mix. valve) temp. / G / F

Max. operating press. - collector side	0	kPa	Max. operating press. - tank side	0	kPa
G			G		
F			F		

Testing Laboratory / Prüflaboratorium / Laboratoire d'essais	TZS, ITW University of Stuttgart
Website	www.tzs.uni-stuttgart.de
Test report id. number / Prüberichtsnummer / F	13SYS107
Date of test report / G / F	28.10.2013
Test method / G / F	ISO 9459-5 (DST)

Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire	
--	--



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	
	Registernummer	011-7S2251 A
	Num. d'enregistrement Date / Datum / Date	28.10.2013

Company / Firma / Société	Jiangsu Micoe Solar Energy Co., Ltd	Country/Land/Pays	P.R. China
Street / Straße / Rue	No.199, Yingzhou Road	Website	www.micoe.com
Postal Code, Place / PLZ, Ort / Code postal, Place	222000 Lianyungang City, Jiangsu Province	E-mail	certification@micoe.com
		Tel. / Fax	+86 518 8595 -9889 /-9808

System family overview / G / F

Collector type G F	Number of collectors / G / F				
	Storage type / G / F				
	SZ58/1800-12	SZ58/1800-14	SZ58/1800-16	SZ58/1800-18	SZ58/1800-30
SZ58/1800-12G	1				
SZ58/1800-14G		1			
SZ58/1800-16G			1		
SZ58/1800-18G				1	
SZ58/1800-20G					1

Name of system konfiguration / G / F

Collector type		No. collectors		Storage type	
G	SZ58/1800-16G	G	1	G	SZ58/1800-16
F		F		F	

Calculated annual results / G / F

Location G F	Daily draw-off litres/day / G / F /											
	170	200	250	170	200	250	170	200	250			
	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d			
	Q _d MJ/a			Q _L MJ/a			f _{sol}			Q _{par} MJ/a		
Stockholm, SE	9438	11103	13879	4841	5218	5413	0,513	0,47	0,39	0,0	0,0	0,0
Würzburg, DE	9047	10643	13304	5003	5449	5734	0,553	0,512	0,43	0,0	0,0	0,0
Davos, CH	10243	12050	15063	7170	7640	7757	0,7	0,634	0,52	0,0	0,0	0,0
Athens, GR	7024	8263	10329	5900	6544	7261	0,84	0,792	0,70	0,0	0,0	0,0

Perf. indicators G F	Q _d	Heat demand / G / F
	Q _L	System output / G / F
	f _{sol}	QL/Q_d; solar fraction / G / F
	Q _{par}	Elec. for pumps/controllers / G / F

Ref. conditions G F		Stockholm	Würzburg DE	Davos CH	Athens GR
	G	1.157	1.230	1.684	1.718
	T _a	7,5	9,0	3,2	18,5
	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
T _a	°C	Annual mean air temp. / G / F
T _c	°C	Annual mean cold water temp. / G / F
ΔT _c	°C	Seasonal variation of T_c / G / F
T _h	45°C	Desired (mix. valve) temp. / G / F

Max. operating press. - collector side		Max. operating press. - tank side	
G	0 kPa	G	0 kPa
F		F	

Testing Laboratory / Prüflaboratorium / Laboratoire d'essais	TZS, ITW University of Stuttgart
Website	www.tzs.uni-stuttgart.de
Test report id. number / Prüberichtnummer / F	13SYS107
Date of test report / G / F	28.10.2013
Test method / G / F	ISO 9459-5 (DST)

Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire





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	
	Registernummer	011-7S2251 A
	Num. d'enregistrement Date / Datum / Date	28.10.2013

Company / Firma / Société	Jiangsu Micoe Solar Energy Co., Ltd	Country/Land/Pays	P.R. China
Street / Straße / Rue	No.199, Yingzhou Road	Website	www.micoe.com
Postal Code, Place / PLZ, Ort / Code postal, Place	222000 Lianyungang City, Jiangsu Province	E-mail	certification@micoe.com
		Tel. / Fax	+86 518 8595 -9889 /-9808

System family overview / G / F

Collector type G F	Number of collectors / G / F				
	Storage type / G / F				
	SZ58/1800-12	SZ58/1800-14	SZ58/1800-16	SZ58/1800-18	SZ58/1800-30
SZ58/1800-12G	1				
SZ58/1800-14G		1			
SZ58/1800-16G			1		
SZ58/1800-18G				1	
SZ58/1800-20G					1

Name of system konfiguration / G / F					
Collector type	SZ58/1800-18G	No. collectors	1	Storage type	SZ58/1800-18
G		G		G	
F		F		F	

Calculated annual results / G / F												
Location G F	Daily draw-off litres/day / G / F /											
	170	200	250	170	200	250	170	200	250	170	200	250
	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 _d MJ/a			Q _L MJ/a			f _{sol}			Q _{par} MJ/a		
Stockholm, SE	9438	11103	13879	4898	5274	5607	0,519	0,475	0,40	0,0	0,0	0,0
Würzburg, DE	9047	10643	13304	5129	5577	6027	0,567	0,524	0,45	0,0	0,0	0,0
Davos, CH	10243	12050	15063	7385	7857	8224	0,721	0,652	0,55	0,0	0,0	0,0
Athens, GR	7024	8263	10329	5963	6619	7478	0,849	0,80	0,72	0,0	0,0	0,0

Perf. indicators G F	Q _d	Heat demand / G / F
	Q _L	System output / G / F
	f _{sol}	QL/Q_d; solar fraction / G / F
	Q _{par}	Elec. for pumps/controllers / G / F

Ref. conditions G F		Stockholm	Würzburg DE	Davos CH	Athens GR
	G	1.157	1.230	1.684	1.718
	T _a	7,5	9,0	3,2	18,5
	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
T _a	°C	Annual mean air temp. / G / F
T _c	°C	Annual mean cold water temp. / G / F
ΔT _c	°C	Seasonal variation of T_c / G / F
T _h	45°C	Desired (mix. valve) temp. / G / F

Max. operating press. - collector side	0	kPa	Max. operating press. - tank side	0	kPa
G			G		
F			F		

Testing Laboratory / Prüflaboratorium / Laboratoire d'essais	TZS, ITW University of Stuttgart
Website	www.tzs.uni-stuttgart.de
Test report id. number / Prüberichtnummer / F	13SYS107
Date of test report / G / F	28.10.2013
Test method / G / F	ISO 9459-5 (DST)

Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire	
--	--



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	
	Registernummer	011-7S2251 A
	Num. d'enregistrement	
	Date / Datum / Date	28.10.2013

Company / Firma / Société	Jiangsu Micoe Solar Energy Co., Ltd	Country/Land/Pays	P.R. China
Street / Straße / Rue	No.199, Yingzhou Road	Website	www.micoe.com
Postal Code, Place / PLZ, Ort / Code postal, Place	222000 Lianyungang City, Jiangsu Province	E-mail	certification@micoe.com
		Tel. / Fax	+86 518 8595 -9889 /-9808

System family overview / G / F

Collector type G F	Number of collectors / G / F				
	Storage type / G / F				
	SZ58/1800-16	SZ58/1800-18	SZ58/1800-20	SZ58/1800-24	SZ58/1800-30
SZ58/1800-16G	1				
SZ58/1800-18G		1			
SZ58/1800-20G			1		
SZ58/1800-24G				1	
SZ58/1800-30G					1

Name of system konfiguration / G / F					
Collector type	SZ58/1800-20G	No. collectors	1	Storage type	SZ58/1800-20
G		G		G	
F		F		F	

Calculated annual results / G / F												
Location G F	Daily draw-off litres/day / G / F /											
	200	250	300	200	250	300	200	250	300	200	250	300
	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 _d MJ/a			Q _L MJ/a			f _{sol}			Q _{par} MJ/a		
Stockholm, SE	11.103	13.879	16.655	5862	6537	6762	0,528	0,471	0,41	0,0	0,0	0,0
Würzburg, DE	10.643	13.304	15.965	6024	6825	7136	0,566	0,513	0,45	0,0	0,0	0,0
Davos, CH	12.050	15.063	18.075	8724	9565	9706	0,724	0,635	0,54	0,0	0,0	0,0
Athens, GR	8.263	10.329	12.395	7073	8191	8924	0,856	0,793	0,72	0,0	0,0	0,0

Perf. indicators G F	Q _d	Heat demand / G / F
	Q _L	System output / G / F
	f _{sol}	QL/Q_d; solar fraction / G / F
	Q _{par}	Elec. for pumps/controllers / G / F

Ref. conditions G F		Stockholm	Würzburg DE	Davos CH	Athens GR
	G	1.157	1.230	1.684	1.718
	T _a	7,5	9,0	3,2	18,5
	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
T _a	°C	Annual mean air temp. / G / F
T _c	°C	Annual mean cold water temp. / G / F
ΔT _c	°C	Seasonal variation of T_c / G / F
T _h	45°C	Desired (mix. valve) temp. / G / F

Max. operating press. - collector side	0	kPa	Max. operating press. - tank side	0	kPa
G			G		
F			F		

Testing Laboratory / Prüflaboratorium / Laboratoire d'essais	TZS, ITW University of Stuttgart
Website	www.tzs.uni-stuttgart.de
Test report id. number / Prüberichtnummer / F	13SYS107
Date of test report / G / F	28.10.2013
Test method / G / F	ISO 9459-5 (DST)

Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire	
--	--



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	
	Registernummer	011-7S2251 A
	Num. d'enregistrement Date / Datum / Date	28.10.2013

Company / Firma / Société	Jiangsu Micoe Solar Energy Co., Ltd	Country/Land/Pays	P.R. China
Street / Straße / Rue	No.199, Yingzhou Road	Website	www.micoe.com
Postal Code, Place / PLZ, Ort / Code postal, Place	222000 Lianyungang City, Jiangsu Province	E-mail	certification@micoe.com
		Tel. / Fax	+86 518 8595 -9889 /-9808

System family overview / G / F

Collector type G F	Number of collectors / G / F				
	Storage type / G / F				
	SZ58/1800-16	SZ58/1800-18	SZ58/1800-20	SZ58/1800-24	SZ58/1800-30
SZ58/1800-16G	1				
SZ58/1800-18G		1			
SZ58/1800-20G			1		
SZ58/1800-24G				1	
SZ58/1800-30G					1

Name of system konfiguration / G / F

Collector type		No. collectors		Storage type	
G	SZ58/1800-24G	G	1	G	SZ58/1800-24
F		F		F	

Calculated annual results / G / F

Location G F	Daily draw-off litres/day / G / F /											
	200	250	300	200	250	300	200	250	300			
	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d	l/d			
	Q _d MJ/a			QL MJ/a			f _{sol}			Q _{par} MJ/a		
Stockholm, SE	11.103	13.879	16.655	6284	7189	7844	0,57	0,518	0,47	0,0	0,0	0,0
Würzburg, DE	10.643	13.304	15.965	6396	7423	8174	0,60	0,558	0,51	0,0	0,0	0,0
Davos, CH	12.050	15.063	18.075	9447	10679	11478	0,78	0,709	0,64	0,0	0,0	0,0
Athens, GR	8.263	10.329	12.395	7395	8738	9829	0,90	0,846	0,79	0,0	0,0	0,0

Perf. indicators G F	Q _d	Heat demand / G / F
	Q _L	System output / G / F
	f _{sol}	QL/Q_d; solar fraction / G / F
	Q _{par}	Elec. for pumps/controllers / G / F

Ref. conditions G F		Stockholm	Würzburg DE	Davos CH	Athens GR
	G	1.157	1.230	1.684	1.718
	T _a	7,5	9,0	3,2	18,5
	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
T _a	°C	Annual mean air temp. / G / F
T _c	°C	Annual mean cold water temp. / G / F
ΔT _c	°C	Seasonal variation of T_c / G / F
T _h	45°C	Desired (mix. valve) temp. / G / F

Max. operating press. - collector side		Max. operating press. - tank side	
G	0 kPa	G	0 kPa
F		F	

Testing Laboratory / Prüflaboratorium / Laboratoire d'essais	TZS, ITW University of Stuttgart
Website	www.tzs.uni-stuttgart.de
Test report id. number / Prüberichtnummer / F	13SYS107
Date of test report / G / F	28.10.2013
Test method / G / F	ISO 9459-5 (DST)

Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire





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	
	Registernummer	011-7S2251 A
	Num. d'enregistrement	
	Date / Datum / Date	28.10.2013

Company / Firma / Société	Jiangsu Micoe Solar Energy Co., Ltd	Country/Land/Pays	P.R. China
Street / Straße / Rue	No.199, Yingzhou Road	Website	www.micoe.com
Postal Code, Place / PLZ, Ort / Code postal, Place	222000 Lianyungang City, Jiangsu Province	E-mail	certification@micoe.com
		Tel. / Fax	+86 518 8595 -9889 /-9808

System family overview / G / F

Collector type G F	Number of collectors / G / F				
	Storage type / G / F				
	SZ58/1800-16	SZ58/1800-18	SZ58/1800-20	SZ58/1800-24	SZ58/1800-30
SZ58/1800-16G	1				
SZ58/1800-18G		1			
SZ58/1800-20G			1		
SZ58/1800-24G				1	
SZ58/1800-30G					1

Name of system konfiguration / G / F					
Collector type	SZ58/1800-30G	No. collectors	1	Storage type	SZ58/1800-30
G		G		G	
F		F		F	

Calculated annual results / G / F												
Location G F	Daily draw-off litres/day / G / F /											
	250	300	400	250	300	400	250	300	400	250	300	400
	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 _d MJ/a			Q _L MJ/a			f _{sol}			Q _{par} MJ/a		
Stockholm, SE	13.879	16.655	22.206	7855	8794	9948	0,57	0,528	0,45	0,0	0,0	0,0
Würzburg, DE	13.304	15.965	21.286	7996	9036	10430	0,60	0,566	0,49	0,0	0,0	0,0
Davos, CH	15.063	18.075	24.100	11809	13068	14460	0,78	0,723	0,60	0,0	0,0	0,0
Athens, GR	10.329	12.395	16.526	9244	10610	12675	0,90	0,856	0,77	0,0	0,0	0,0

Perf. indicators G F	Q _d	Heat demand / G / F
	Q _L	System output / G / F
	f _{sol}	QL/Q_d; solar fraction / G / F
	Q _{par}	Elec. for pumps/controllers / G / F

Ref. conditions G F		Stockholm	Würzburg DE	Davos CH	Athens GR
	G	1.157	1.230	1.684	1.718
	T _a	7,5	9,0	3,2	18,5
	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			
T _a	°C	Annual mean air temp. / G / F			
T _c	°C	Annual mean cold water temp. / G / F			
ΔT _c	°C	Seasonal variation of T_c / G / F			
T _h	45°C	Desired (mix. valve) temp. / G / F			

Max. operating press. - collector side	0	kPa	Max. operating press. - tank side	0	kPa
G			G		
F			F		

Testing Laboratory / Prüflaboratorium / Laboratoire d'essais	TZS, ITW University of Stuttgart
Website	www.tzs.uni-stuttgart.de
Test report id. number / Prüberichtnummer / F	13SYS107
Date of test report / G / F	28.10.2013
Test method / G / F	ISO 9459-5 (DST)

Comments of test lab / Kommentare des laboratoriums / Commentaires du laboratoire	
--	--