



Summary of	EN12976-2	SOLAR SYSTEM test results	Licence Number	ICIM-CLS-000156-00						
Annex to Solar KEYMARK Certificate			Issued	2018-09-03						
Company	ATI DI MARIANI SRL		Country	Italy						
Brand (optional)	--		Website	www.atimariani.it						
Street	Via E.Mattei, 461; Z.ind.4 Torre del Moro		E-mail	marco.mariani@atimariani.it						
Postal Code	IT-47522	Cesane (FC)	Tel. / Fax	+39	0547 609711/ 609724					
System classification										
Application(s)	Hot water									
Solar loop, circulation principle	Thermosyphon									
Direct solar loop / heat exchanger	Direct									
Open, vented or closed solar loop	Closed									
Drain back/down	Always filled (no drain)									
Store location	Outdoor									
Store orientation (of main axis)	Horizontal									
Type of auxiliary heating (internal back-up heat)	Electric									
If other auxiliary/internal back-up heating, please specify:	Optional									
Solar+supplementary OR Solar-only / Solar pre-heat	Solar only / Solar preheat									
Collector(s)			Heat store(s)							
Company	ATI DI MARIANI SRL		Company	ATI DI MARIANI SRL						
<i>Keymark lic.no. if available</i>	--		<i>Keymark lic.no. if available</i>	--						
Collector name	Per module			Store name	Total nominal volume	Gross height	Gross width	Gross depth	Auxiliary heated volume	Electrical aux. heating power
	Gross Area (Ag)	Gross length	Gross width							
DISCOSOL DS02	1,20	1095	1095	DISCOSOL DS02	200	649	1095	1095	--	--
Solar loop controller			Solar loop fluid							
<i>Keymark lic.no. if available</i>	--		Recommended/required	No recommend./requirements						
Company	--		Company	--						
Name	--		Name	--						
Solar loop pump - power range	-- W	to	-- W	Freezing point	-- °C					
System family overview										
Collector name	Number of collectors in each configuration for each store									
	Store name									
	DISCOSOL DS02									
DISCOSOL DS02	1									
Testing Laboratory			Institut für Solartechnik SPF, CH-8640 Rapperswil							
Website			www.spf.ch							
Test report id. number			S243COLL; S243EN							
Date of test report			2018-08-28							
Comments of test lab										
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System family overview

Collector name	For each storage and collector size, give number of collectors												
	DISCOSOL DS02												
DISCOSOL DS02	1												

Name of system configuration	DISCOSOL DS02		
Collector name	DISCOSOL DS02	No. Collectors	1
		Storage name	DISCOSOL DS02

Calculated annual results for "solar-only / preheat system"

Location	Qd,sh MJ/y	Daily drawoff 140 l				Daily drawoff 170 l				Daily drawoff 200 l			
		Qd,hw	QL	Qpar	fsol	Qd,hw	QL	Qpar	fsol	Qd,hw	QL	Qpar	fsol
		MJ/y	MJ/y	MJ/y	%	MJ/y	MJ/y	MJ/y	%	MJ/y	MJ/y	MJ/y	%
Stockholm SE	--	7821	1955	0	25	9492	2069	0	22	11164	2166	0	19
WürzburgDE	--	7506	2094	0	28	9114	2233	0	25	10691	2320	0	22
Davos CH	--	8483	2681	0	32	10281	2827	0	28	12110	2931	0	24
Athens GR	--	5834	2946	0	51	7064	3136	0	44	8326	3280	0	39

Perf. indicators for the table above

Qd,sh	MJ/y	Not relevant for solar domestic hot water system
Qd	MJ/y	Annual heat demand for domestic hot water
QL	MJ/y	Annual heat energy delivered by the solar system
Qpar	MJ/y	Annual parasitic energy: (electricity for pumps/controllers)
$f_{sol}=Q_L/Q_d$	-	Solar fraction

Ref. conditions		Stockholm SE	Würzburg DE	Davos CH	Athens GR
	G	1.157	1.230	1.684	1.736
T _{a,ave}	7,5	9,0	3,2	18,5	
T _{c,ave}	8,5	10,0	5,4	17,8	
± ΔT _c	6,4	3,0	0,8	7,4	

G	kWh/m ²	Annual irradiation South, 45°
T _{a,ave}	°C	Annual average outdoor air temperature
T _{c,ave}	°C	Annual average mains cold water temp.
ΔT _c	K	Seasonal variation of T _c
Th	45 °C	Desired hot water temperature (mixing valve temperature).

Max. operating press. - collector side	600	kPa	Max. operating press. - tank side	600	kPa
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Testing Laboratory	Institut für Solartechnik SPF, CH-8640 Rapperswil
Website	www.spf.ch
Test report id. number	S243COLL; S243EN
Date of test report	2018-08-28
Test method	ISO 9459-5 (DST)

Comments of test lab	
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