



Summary of EN 12975 Test Results, annex to Solar KEYMARK Certificate						Licence Number		SKM 9901/1			
						Issued		2014-09-15			
Company holding the		A. GAMPIERAKIS & SIA O.E.				Countr		GREECE			
Brand (optional)		SHE				Website		www.she.com.gr			
Street, street number		Nikitara 1 & Filis Avenue				E-mail		info@she.com.gr			
Postal Code / City,		13341 Ano Liosia, Athens				Tel/Fax		30 210 2474150			
Collector Type (flat plate glazed/un-glazed; evacuate tubular)						Flat plate collector - glazed					
Thermal / photo voltaic hybrid collector? (PVT collector)						No					
Integration in the roof possible ? (manufacturers declaration)						Yes					
						Power output per collector module					
						G = 1000 W/m <sup>2</sup>					
						T <sub>m</sub> -T <sub>a</sub>					
						0 K	10 K	30 K	50 K	70 K	
Collector name	Aperture area (A <sub>a</sub> )	Gross length	Gross width	Gross height	Gross area (A <sub>G</sub> )	0 K	10 K	30 K	50 K	70 K	
	m <sup>2</sup>	mm	mm	mm	m <sup>2</sup>	W	W	W	W	W	
SHE T150S	1.41	1,592	992	95	1.57	993	939	820	687	539	
SHE T200S	1.78	1,992	992	95	1.96	1,253	1,185	1,036	867	681	
SHE T230S	2.17	1,877	1,265	95	2.37	1,528	1,445	1,263	1,058	830	
SHE T250S	2.31	1,992	1,265	95	2.51	1,626	1,538	1,344	1,126	884	
Performance test method						Glazed liquid heating collector - steady state - outdoor					
Performance parameters related to aperture						η <sub>0</sub>	a <sub>1</sub>	a <sub>2</sub>			
Units						-	W/(m <sup>2</sup> K)	W/(m <sup>2</sup> K <sup>2</sup> )			
Test results - Flow rate and fluid see note 1						0.704	3.683	0.013			
Bi-directional incidence angle		Yes <i>K<sub>θ</sub> values are obligatory for 50°.</i>									
Incidence angle modifiers K <sub>θ</sub> (θ <sub>T</sub> ) transversal direction		Angle	10°	20°	30°	40°	50°	60°	70°	80°	90°
		K <sub>θ</sub> (θ <sub>T</sub> )					0.89				0.00
Incidence angle modifiers K <sub>θ</sub> (θ <sub>L</sub> ) longitudinal direction		Angle	10°	20°	30°	40°	50°	60°	70°	80°	90°
		K <sub>θ</sub> (θ <sub>L</sub> )					0.89				0.00
Stagnation temperature - Weather conditions see note 2						T <sub>stg</sub>	147 °C				
Effective thermal capacity						c <sub>eff</sub> = C/Ag	20.3 kJ/(m <sup>2</sup> K)				
Max. intende operation temperature - see note 3						T <sub>max,op</sub>	°C				
Max. operation pressure - see note 3						p <sub>max,op</sub>	1000 kPa				
Pressure drop table - for a collector family, the values shall be for the module with highest ΔP per m <sup>2</sup> aperture area											
Flow rate	kg/(s m <sup>2</sup> )	0.006	0.009	0.012	0.015	0.018	0.021	0.025	0.031	0.036	0.038
Pressure drop, ΔP	Pa	24	45	68	92	117	147	181	256	330	367
Optional weather data		Location				Link					
Testing Laboratory		Demokritos									
Website		www.solar.demokritos.gr									
Test report id. number		4143 DE1, 4144 DE1, 4145 DQ1				Date of test report		2014/08/28			
During the test GDIF/GTOT was always between		0.05	and	0.15							
Comments of testing laboratory:											
Note 1	Flow rate	0.020	kg/(s m <sup>2</sup> )	Fluid	Water						
Note 2	Irradiance, G = 1000 W/m <sup>2</sup> ; Ambient temperature , T <sub>a</sub> =30 °C										
Note 3	Given by manufacturer										
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						 Datasheet version: 4.06, 2014-01-15					
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