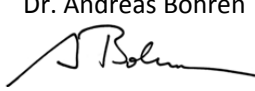


Summary of EN 12975 Test Results, annex to Solar KEYMARK Certificate						Licence Number		011-7S2498 F			
						Issued		2015-04-09			
Company holding the		Sunerg Solar s.r.l.				Country		Italy			
Brand (optional)		SOLEX				Website		www.sunergsolar.com			
Street, street number		Via Donnini 51, Cinquemiglia				E-mail		daniele@sunergsolar.com			
Postal Code / City, province		IT-06012	Citta di Castello			Tel/Fax		+39 075-8540018 / -8648105			
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)						No					
	Collector name	Aperture area (Aa) m ²	Gross length mm	Gross width mm	Gross height mm	Gross area (AG) m ²	Power output per collector module				
							G = 1000 W/m ²				
							Tm-Ta				
							0 K	10 K	30 K	50 K	70 K
							W	W	W	W	W
	BLU	1.797	2'007	1'008	100	2.023	1'287	1'216	1'067	908	739
	BLUx	2.305	2'005	1'290	102	2.586	1'650	1'560	1'368	1'165	948
Performance test method						Glazed liquid heating collector - steady state - outdoor					
Performance parameters related to aperture						η_0	a1	a2			
Units						-	W/(m ² K)	W/(m ² K ²)			
Test results - Flow rate and fluid see note 1						0.716	3.87	0.0069			
Bi-directional incidence angle		Yes		<i>Kθ values are obligatory for 50°.</i>							
Incidence angle modifiers Kθ(θT) transversal direction		Angle	10°	20°	30°	40°	50°	60°	70°	80°	90°
		K θ (θ T)	1.00	0.99	0.97	0.93	0.87	0.77	0.61	0.37	0.00
Incidence angle modifiers Kθ(θL) longitudinal direction		Angle	10°	20°	30°	40°	50°	60°	70°	80°	90°
		K θ (θ L)	1.00	0.99	0.97	0.93	0.87	0.77	0.61	0.37	0.00
Stagnation temperature - Weather conditions see note 2						Tstg	192	°C			
Effective thermal capacity						ceff = C/Ag	5.5	kJ/(m ² K)			
Max. intende operation temperature - see note 3						Tmax,op	180	°C			
Max. operation pressure - see note 3						pmax,op	1000	kPa			
Pressure drop table - for a collector family, the values shall be for the module with highest ΔP per m² aperture area											
Flow rate	kg/(s m ²)	0.004	0.007	0.011	0.015	0.019	0.022	0.026	0.030	0.034	0.037
Pressure drop, ΔP	Pa	50	101	156	212	271	332	395	461	529	600
Optional weather data		Location				Link					
Testing Laboratory		SPF, CH-8640 Rapperswil									
Website		www.spf.ch									
Test report id. number		C795LPEN, C796LPEN, C796QPEN				Date of test reports		26.10.2006, 08.11.2006			
During the test GDIF/GTOT was always between		0.1	and	0.2							
Comments of testing laboratory:											
-											
Note 1	Flow rate	0.015	kg/(s m ²)	Fluid	Water-Glycole						
Note 2	Irradiance, G = 1000 W/m ² ; Ambient temperature , Ta=30 °C										
Note 3	Given by manufacturer										
						Dr. Andreas Bohren					
											
						Datasheet version: 4.06, 2014-01-15					
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