


Summary of EN 12975 Test Results, annex to Solar KEYMARK Certificate						Licence Number		011-7S2411 R							
						Issued		2014-08-20							
Company holding the		Olymp Werk GmbH				Country		Austria							
Brand (optional)		-				Website		www.olymp.at							
Street, street number		Olympstrasse 10				E-mail		office@olymp.at							
Postal Code / City, province		AT-6430		Ötztal-Bahnhof		Tel/Fax		+43 5266 8910-0 /-333							
Collector Type (flat plate glazed/un-glazed; evacuate tubular)						Evacuated tubular collector									
Thermal / photo voltaic hybrid collector? (PVT collector)						No									
Integration in the roof possible ? (manufacturers declaration)						No									
						Power output per collector module									
						G = 1000 W/m ²									
						T _m -T _a									
						0 K	10 K	30 K	50 K	70 K					
Collector name						Aperture area (A _a)	Gross length	Gross width	Gross height	Gross area (A _G)	W	W	W	W	W
						m ²	mm	mm	mm	m ²	W	W	W	W	W
Sunstar 300						2.143	2'050	1'498	130	3.071	1'672	1'636	1'560	1'480	1'394
Sunstar 500						3.214	2'050	2'250	130	4.613	2'507	2'453	2'340	2'219	2'091
Performance test method						Glazed liquid heating collector - steady state - outdoor									
Performance parameters related to aperture						η ₀	a ₁	a ₂							
Units						-	W/(m ² K)	W/(m ² K ²)							
Test results - Flow rate and fluid see note 1						0.780	1.64	0.0030							
Bi-directional incidence angle						Yes	K _θ values are obligatory for 50°.								
Incidence angle modifiers K _θ (θT) transversal direction						Angle	10°	20°	30°	40°	50°	60°	70°	80°	90°
						K _θ (θT)	1.00	1.01	1.03	1.05	1.03	0.92	0.72	0.40	0.00
Incidence angle modifiers K _θ (θL) longitudinal direction						Angle	10°	20°	30°	40°	50°	60°	70°	80°	90°
						K _θ (θL)	1.00	1.00	0.99	0.98	0.95	0.88	0.75	0.49	0.00
Stagnation temperature - Weather conditions see note 2						T _{stg}		238		°C					
Effective thermal capacity						C _{eff} = C/A _g		4.8		kJ/(m ² K)					
Max. intende operation temperature - see note 3						T _{max,op}		-		°C					
Max. operation pressure - see note 3						p _{max,op}		600		kPa					
Pressure drop table - for a collector family, the values shall be for the module with highest ΔP per m ² aperture area															
Flow rate		kg/(s m ²)	0.005	0.011	0.016	0.022	0.027	0.033	0.038	0.044	0.049	0.055			
Pressure drop, ΔP		Pa	340	995	1964	3249	4848	6761	8990	11533	14390	17563			
Optional weather data		Location				Link									
Testing Laboratory		SPF, CH-8640 Rapperswil													
Website		www.spf.ch													
Test report id. number		C1634LPEN, C1635LPEN, C1635QPEN				Date of test reports		20.08.2014							
During the test G _{DIF} /G _{TOT} was always between		0.11	and		0.17										
Comments of testing laboratory:															
-															
Note 1		Flow rate	0.022	kg/(s m ²)	Fluid	Water-Glycole									
Note 2		Irradiance, G = 1000 W/m ² ; Ambient temperature , T _a =30 °C													
Note 3		Given by manufacturer													
 Dr. Andreas Bohren Datasheet version: 4.06, 2014-01-15															
DIN CERTCO • Alboinstraße 56 • 12103 Berlin, Germany Tel: +49 30 7562-1131 • Fax: +49 30 7562-1141 • E-Mail: info@dincertco.de • www.dincertco.de															

