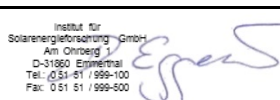


Summary of EN 12975 Test Results, annex to Solar KEYMARK Certificate						Licence Number		011-7S1734 F			
						Issued		2015-04-24			
Company holding the		Wagner Solar GmbH				Country		Germany			
Brand (optional)		-				Website		www.wagner-solar.com			
Street, street number		Sonnenallee 2				E-mail		info@wagner-solar.com			
Postal Code / City, province		D-35274		Kirchhain		Tel/Fax		+49 6421 8007-0 / -22			
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)	Gross length	Gross width	Gross height	Gross area (AG)	Power output per collector module					
						G = 1000 W/m²					
						Tm-Ta					
						0 K	10 K	30 K	50 K	70 K	
	m²	mm	mm	mm	m²	W	W	W	W	W	
EURO L42 TS HTF	2.01	1933	1163	80	2.25	1 556	1 475	1 296	1 092	865	
Performance test method						Glazed liquid heating collector - steady state - indoor					
Performance parameters related to aperture area		η₀	a₁	a₂							
Units		-	W/(m²K)	W/(m²K²)							
Test results - Flow rate and fluid see note 1		0.774	3.860	0.015							
Bi-directional incidence angle modifiers?		No <i>Kθ values are obligatory for 50°.</i>									
Incidence angle modifiers Kθ(θ)		Angle	10°	20°	30°	40°	50°	60°	70°	80°	90°
		Kθ(θ)	1.00	0.98	0.96	0.92	0.86	0.75	0.52	0.00	0.00
Incidence angle modifier not bi-directional - leave fields blank											
Stagnation temperature - Weather conditions see note 2						Tstg	198	°C			
Effective thermal capacity						ceff = C/Ag	5.7	kJ/(m²K)			
Max. intended operation temperature - see note 3						Tmax,op	-	°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 m²)	-									
Pressure drop, ΔP	Pa	-									
Optional weather data		Location				Link					
Testing Laboratory		ISFH - Institut für Solarenergieforschung Hameln									
Website		www.isfh.de									
Test report id. number		18-11/KD; 19-11/KQ				Date of test report		2011-07-19; 2011-10-10			
During the test GDIF/GTOT was always between		0.1	and	0.3							
Comments of testing laboratory:											
The collector efficiency parameters are related to G(DIF)/G(TOT)=0.15.											
The incidence angle modifier was determined outdoor according to a quasi-dynamic test procedure.											
Note 1	Flow rate	0.062	kg/(s m²)	Fluid	Water						
Note 2	Irradiance, G = 1000 W/m²; Ambient temperature, Ta=30 °C										
Note 3	Given by manufacturer										
						Institut für Solarenergieforschung GmbH Am Ohreberg 1 D-31860 Emmelhain Tel: 051 51 / 999-100 Fax: 051 51 / 999-600 					
						Datasheet version: 4.06, 2014-01-15					
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