



ICIM S.p.A.

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 Capitale Soc EUR. 260.000,00 int. versato ed esistente
 C.F./P. IVA e Iscriz. Reg. Imprese di Milano n. 12908230159 - R.E.A. n. 1596292

Annex to Solar Keymark Certificate - Summary of EN ISO 9806:2013 Test Results					Licence Number		ICIM-CLS-000148				
					Date issued		2010-07-20				
					Issued by		ICIM S.p.A.				
Licence holder	Riello S.p.A.				Country	Italy					
Brand (optional)	Thermital				Web	www.riello.it					
Street, Number	Via Ing. Pilade Riello, 7				E-mail	info@riello.it					
Postcode, City	37045 Legnago (VR)				Tel	-- --					
Collector Type					Evacuated tubular collector						
Collector name	Gross area (A _G) m ²	Gross length mm	Gross width mm	Gross height mm	Power output per collector G _b = 850 W/m ² ; G _d = 150 W/m ² θ _m - θ _a						
					0 K W	10 K W	30 K W	50 K W	70 K W	100 K W	
TSOL 25 SOTTOVUOTO	2,77	1730	1600	145	1.679	1.648	1.571	1.471	1.350	1.126	
TSOL 25 SOTTOVUOTO	3,91	1730	2260	145	2.369	2.327	2.217	2.077	1.905	1.589	
Power output per m ² gross area					606	595	567	531	487	406	
Performance parameters test method		Steady state - outdoor									
Performance parameters (related to A _G)		η _{0,hem}	a ₁	a ₂							
Units		-	W/(m ² K)	W/(m ² K ²)							
Test results		0,606	0,996	0,010							
Incidence angle modifier test method		Steady state - outdoor									
Bi-directional incidence angle modifiers		Yes									
Incidence angle modifier		Angle	10°	20°	30°	40°	50°	60°	70°	80°	90°
Transversal		K _{θT, coll}			0,99		1,07	1,14			0,00
Longitudinal		K _{θL, coll}			0,99		0,95	0,86			0,00
Heat transfer medium for testing		Water-Glycole									
Flow rate for testing (per gross area, A _G)		dm/dt	0,020	kg/(sm ²)							
Maximum temperature difference for thermal performance calculations		(θ _m -θ _a) _{max}	100	K							
Standard stagnation temperature (G = 1000 W/m ² ; θ _a = 30 °C)		θ _{stg}	268	°C							
Effective thermal capacity, incl. fluid (per gross area, A _G)		C/m ²	9,96	kJ/(Km ²)							
Maximum operating temperature		θ _{max, op}	260	°C							
Maximum operating pressure		p _{max, op}	1000	kPa							
Testing laboratory	Eurofins - Modulo Uno				www.product-testing.eurofins.com						
Test report(s)	M1.10.SOLT.0285/35694-4 M1.10.SOLT.0323/35694-4 M1.11.NRG.0437/43917-REV1; M1.12.NRG.074/43917				Dated	28/05/2010 29/06/2010 02/12/2011					
Comments of testing laboratory					Datasheet version: 5.01, 2016-03-01						
Test results according to EN 12975-2. Datasheet current issue date: 17/11/2017 The datasheet is signed by the certification body since at the date of the current issue, the testing laboratory is not operating anymore in Solar Keymark Network					Stamp & signature of test lab						

