



Annex to Solar Keymark Certificate					Licence Number		OEM 10109.1.1				
					Date issued		2022-03-29				
					Issued by		DQS Hellas				
Licence holder		CLIMART S.R.L			Country	ITALIA					
Brand (optional)		SMART SOL			Web	www.smart-sol.it					
Street, Number		VIALE DELLA REPUBBLICA 43			E-mail	info@smart-sol.it					
Postcode, City		73100 LECCE LE			Tel	+39 832 240041					
Collector Type					Flat plate 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 & u = 1.3 m/s θ _m - θ _a					
						0 K	10 K	30 K	50 K	70 K	92 K
						W	W	W	W	W	W
SMA 2 MQ VT 4 CONN		1,90	1.970	965	80	1.472	1.388	1.198	979	731	538
SMA 2.5 MQ VT 4 CONN		2,40	1.970	1.220	80	1.860	1.753	1.513	1.237	924	679
Power output per m ² gross area						775	730	630	515	385	283
Performance parameters test method		Steady state - outdoor									
Performance parameters (related to A _G)		η ₀ , b	a1	a2	a3	a4	a5	a6	a7	a8	K _d
Units		-	W/(m ² K)	W/(m ² K ²)	J/(m ³ K)	-	J/(m ² K)	s/m	W/(m ² K ⁴)	W/(m ² K ⁴)	-
Test results		0,786	4,24	0,019	0,000	0,00	0	0,000	0,00	0,0E+00	0,91
Incidence angle modifier test method			Steady state - outdoor								
Incidence angle modifier		Angle	10°	20°	30°	40°	50°	60°	70°	80°	90°
Transversal		K _{θT, coll}	1,00	1,00	0,99	0,98	0,94	0,87	0,74	0,48	0,00
Longitudinal		K _{θL, coll}	1,00	1,00	0,99	0,98	0,94	0,87	0,74	0,48	0,00
Heat transfer medium for testing							Water-Glycole				
Flow rate for testing (per gross area, A _G)							dm/dt	0,021	kg/(sm ²)		
Maximum temperature difference during thermal performance test							(θ _m -θ _a) _{max}	54,22	K		
Standard stagnation temperature (G = 1000 W/m ² ; θ _a = 30 °C)							θ _{stg}	187	°C		
Maximum operating temperature							θ _{max op}	-	°C		
Maximum operating pressure							P _{max, op}	-	kPa		
Testing laboratory		NCSR Demokritos				http://www.solar.demokritos.gr					
Test report(s)		4284 DQ2 4288 DE2 4294 DE2				Dated		17/12/2020 30/10/2020 30/10/2020			
Comments of testing laboratory							Datasheet version: 6.1, 2019-09-26				
Example comment Qualification tests are in extension of test report 4207 DQ2											
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