


Annex to Solar Keymark Certificate					Licence Number		011-7S1491 F				
					Date issued		2021-12-15				
					Issued by		DIN CERTCO				
Licence holder		DIMAS SA			Country		Greece				
Brand (optional)					Web		https://dimas-solar.gr/				
Street, Number		2nd km Argos – Nafplio road			E-mail		info@dimas-solar.gr				
Postcode, City		212 00 Argos			Tel		+30 275 10209110				
Collector Type					Flat plate collector						
Collector name					Power output per collector						
					Gb = 850 W/m ² , Gd = 150 W/m ² & u = 1.3 m/s $\vartheta_m - \vartheta_a$						
					0 K	10 K	30 K	50 K	70 K	112 K	
					W	W	W	W	W	W	
ENERGY+EVO 15					1 093	1 037	921	797	666	367	
ENERGY+EVO 17					1 216	1 154	1 024	886	741	408	
ENERGY+EVO 19					1 419	1 346	1 195	1 034	864	476	
ENERGY+EVO 20					1 462	1 388	1 232	1 066	890	490	
ENERGY+EVO 23					1 621	1 539	1 366	1 182	987	544	
ENERGY+EVO 25					1 824	1 731	1 536	1 330	1 111	612	
ENERGY+EVO 27					1 933	1 834	1 628	1 409	1 177	648	
ENERGY+EVO 29					2 114	2 006	1 780	1 541	1 287	709	
Power output per m² gross area					724	687	610	528	441	243	
Performance parameters test method		Quasi dynamic									
Performance parameters (related to A_G)		η_0, b	a1	a2	a3	a4	a5	a6	a7	a8	Kd
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		0.725	3.62	0.006	0.000	0.00	13 660	0.000	0.00	0.0	0.99
Incidence angle modifier test method		Quasi dynamic - outdoor									
Incidence angle modifier		Angle	10°	20°	30°	40°	50°	60°	70°	80°	90°
Transversal		$K_{\theta T, coll}$	1.00	1.00	1.00	0.99	0.96	0.87	0.63	0.32	0.00
Longitudinal		$K_{\theta L, coll}$	1.00	1.00	1.00	0.99	0.96	0.87	0.63	0.32	0.00
Heat transfer medium for testing					Water						
Flow rate for testing (per gross area, A_G)					dm/dt		0.020		kg/(sm ²)		
Maximum temperature difference during thermal performance test					$(\vartheta_m - \vartheta_a)_{max}$		82		K		
Standard stagnation temperature (G = 1000 W/m²; $\vartheta_a = 30$ °C)					ϑ_{stg}		230		°C		
Maximum operating temperature					$\vartheta_{max, op}$		-		°C		
Maximum operating pressure					$p_{max, op}$		1000		kPa		
Testing laboratory		Institut für Gebäudeenergetik, Thermotechnik und Energiespeicherung (IGTE)					http://www.igte.uni-stuttgart.de				
Test report(s)		21COL1631 21COL1631Q 21COL1632					Dated		19.11.2021 19.11.2021 19.11.2021		
Comments of testing laboratory					Datasheet version: 6.1, 2019-09-26						
Documented performance parameters are taken from 21COL1632 (ENERGY+EVO 15)					 TzS Forschungs- und Testzentrum für Solaranlagen Institut für Thermodynamik und Wärmetechnik Universität Stuttgart Pfaffenwaldring 6, 70550 Stuttgart (Vaihingen)						
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