

Annex to Solar Keymark Certificate					Licence Number		011-7S2378 R							
					Date issued		2021-06-10							
					Issued by		DIN CERTCO							
Licence holder		Changzhou 1st Sunflower Intelligence Technology Co., Ltd			Country		China							
Brand (optional)		-			Web		www.1stsunflower.com							
Street, Number		No.1, Hongxi Road, Niutang Industrial District			E-mail		info@sunflower-solar.com							
Postcode, City		Changzhou City, Jiangsu Province			Tel		+0086 13584366733							
Collector Type					Evacuated tubular 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	90 K				
					m ²	mm	mm	mm	W	W	W	W	W	W
SFB105818					1.54	1,970	783	132	660	634	575	509	435	354
SFB125818					1.84	1,970	933	132	789	757	687	608	520	423
SFB155818					2.28	1,970	1,158	132	977	938	851	753	644	524
SFB185818					2.72	1,970	1,383	132	1,166	1,119	1,015	898	769	626
SFB205818					3.02	1,970	1,533	132	1,294	1,242	1,127	997	853	695
SFB225818					3.32	1,970	1,683	132	1,423	1,366	1,239	1,097	938	764
SFB245818					3.61	1,970	1,833	132	1,547	1,485	1,347	1,192	1,020	830
SFB305818					4.50	1,970	2,283	132	1,929	1,851	1,680	1,486	1,271	1,035
Power output per m² gross area									429	411	373	330	283	230
Performance parameters test method		Steady state - outdoor												
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		0.425	1.67	0.006	0.000	0.00	8,510	0.000	0.00	0.00	1.06			
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}	1.06	1.12	1.18	1.33	1.49	1.11	0.74	0.37	0.00			
Longitudinal		K _{θL, coll}	1.00	1.00	0.98	0.96	0.91	0.82	0.68	0.43	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}	60	K							
Standard stagnation temperature (G = 1000 W/m²; $\vartheta_a = 30$ °C)					ϑ_{stg}	230	°C							
Maximum operating temperature					$\vartheta_{max, op}$	230	°C							
Maximum operating pressure					p _{max, op}	600	kPa							
Testing laboratory		Intertek Testing Services Shenzhen Ltd. Guangzhou Branch					http://www.intertek.com							
Test report(s)		210127115GZU-001 20COL1565Q (issued by IGTE)					Dated		2021-05-18 2020-07-12					
Comments of testing laboratory					Datasheet version: 6.1, 2019-09-26									
No comment					Stamp & signature of test lab									
DIN CERTCO ● Alboinstraße 56 ● D-12103 Berlin Tel: +49 30 7562-1131 ● Fax: +49 30 7562-1141 ● E-Mail: info@dincertco.de ● www.dincertco.de														

