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						Licence	e Numb	er	SKM 1	0014/1	. ugc 1/1		
Annex to Solar	100000000000000000000000000000000000000	Date issued			2018-08-10								
9806:2013 Test Results									DQS Hellas				
	EDU CA					Issued	J00-30-		DQ3 H	enas			
Licence holder	EBIL SA	- 10	y Greece										
Brand (optional)	EBIL	Web	www.ebil.gr										
Street, Number	1km N.R Katerini – T	E-mail	info@ebil.gr										
Postcode, City 60100 Katerini						Tel	+30 2351037257						
Collector Type						Flat plat	e collecto	r, glazed					
7					1			14070					
			No.			Power output per collector Gb = 850 W/m ² ; Gd = 150 W/m ²							
				s ±	Gross height	ნი = 850 W/m²; Ga = 150 W/m² მm - მa							
		Gross area (A _G)	Gross length	Gross	Gross	ОК	10 K	30 K	50 K	70 K	66 K		
Collector name		m²	mm	mm	mm	W	W	W	W	W	W		
EBIL-BLUE AL-MT 1,36		1.36	1,472	926	85	960	920	833	738	634	655		
EBIL-BLUE-AL-MT 1,83		1.83	1,975	925	85	1,292	1,238	1,121	993	853	882		
EBIL-BLUE-AL-MT 2,00		2.00	1,975	1,030	85	1,412	1,353	1,225	1,085	932	963		
		2.31	1,976	1,170	85	1,631	1,563	1,415	1,253	1,076	1.113		
EBIL-BLUE AL-MT 2,3		2.51	1,970	1,170	63	1,031	1,303	1,415	1,233	1,076	1,113		
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											-		
											_		
Power output per r	n ² gross area			<u> </u>		706	677	613	543	466	482		
Performance paran			Stoady 6	tate - out	door	700	077.	013	343	400	402		
			η0,hem	a1	a2								
Performance parameters (related to AG) Units			-	HMANOCTS:	W/(m²K²)								
Test results			0.706	2.870	0.008						 		
Incidence angle mo	difier test method			tate - out	Account water								
	ence angle modifiers	No	ottady 5	tute out	uooi								
Incidence angle mo		Angle	10°	20°	30°	40°	50°	60°	70°	80°	90°		
Transversal	**************************************	$K_{\theta T, coll}$					0.88				0.00		
Longitudinal		$K_{\theta L, coll}$	1				0.88				0.00		
Heat transfer medi	um for testing						Water						
Flow rate for testin	g (per gross area, A _G)						dm/dt		0.020	kg/(sm²	<u>')</u>		
Maximum temperature difference for thermal performance calculations							$(\vartheta_{m}-\vartheta_{a})_{r}$	max	66 K				
Standard stagnation temperature (G = 1000 W/m²; ϑ_a = 30 °C)							მ _{stg}		188	°C			
Effective thermal capacity, incl. fluid (per gross area, A _G)							C/m ²		7.65	kJ/(Km²)			
Maximum operating temperature Maximum operating pressure							ປີ _{max_op}		1000	°C			
							P _{max,op} 1000 kPa						
Testing laboratory NCSR "DEMOKRITOS" Test report(s) 1252 DE1								www.solar.demokritos.gr					
Test report(s) 1252 DE1 1253 DE1 4203 DQ1							Dateu			11/12/2017			
										12/12/2017			
	4203 DQ2								7/2/201				
Comments of testir	ng laboratory						Data	sheet ve		1, 2016-0	03-01		
							N.C.S.I	R "DEMO	KRITOS ABORATOR Belessiet E +210 65445 Attiki - Groed	2" 0			
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Annex to Solar Keymark Certification	ate					Licen	ce Num	nber		SKM 1	L0014/	1	
Supplementary Information	Issued				2018-08-10								
Annual collector output in kWh/co	llector	at mea	n fluid	temne	rature	η ha	sed on	ISO 98	306.20	13 test	results	:	
Standard Locations		kholm Würzburg											
Collector name	25°C	Athens 50°C	75°C	25°C	Davos 50°C	75°C	25°C	50°C	75°C	25°C	50°C	ъ 75°С	
EBIL-BLUE AL-MT 1,36		1,079	757	1,135	829	573	825	573	380	892	613	401	
EBIL-BLUE-AL-MT 1,83		1,452		1,527	1,116	771	1,110	771	512	1,200	825	540	
EBIL-BLUE-AL-MT 2,00				1,669		843	1,213	843	559	1,312	902	590	
EBIL-BLUE AL-MT 2,3				1,928		973	1,401	974	646	1,515	1,042	681	
Annual output per m² gross area	1,069	793	556	835	610	421	606	421	280	656	451	295	
Fixed or tracking collector							5°; roun						
Annual irradiation on collector plane	170	55 kWh	/m²	173	14 kWh	/m²	116	1166 kWh/m²			1244 kWh/m²		
Mean annual ambient air temperature		18.5°C		3.2°C 7.5°C									
Collector orientation or tracking mode South, 25°					South, 30° South, 45° South, 3							5°	
The collector is operated at constant te													
collector performance is performed wit							Scenoca	lc Ver. 5	5.01 (M	arch 201	L6). A de	etailed	
description of the calculations is availab	le at w	vw.sola	rkeyma	rk.org/s	cenocal	С							
		Add	ditiona	al Infor	matio	n							
Collector heat transfer medium										Water-	Glycole		
Hybrid Thermal and Photo Voltaic collec	ctor									N	•		
The collector is deemed to be suitable f	or roof i	ntegrat	ion							N	lo		
The collector was tested successfully ac	cording	to EN IS	SO 9806	:2013 u	nder th	e follow	ing cond	ditions:					
Climate class (A, B or C)											-	-	
Maximum tested positive load									,	4			
Maximum tested positive load										100	Р	a	
Maximum tested positive load Maximum tested negative load									24			a a	
·	m drop	height)							24 30	100	Р		
Maximum tested negative load			y Labe	lling In	ıforma	ation			24 30	000	Р	а	
Maximum tested negative load		Energ		lling In			R (EU) N	o 811/2	30	100 000 2	P r	a n	
Maximum tested negative load Hail resistance using steel ball (maximum		Energy ce Area,		Data re	quired	for CDI	R (EU) No	o 811/2	24 30 2013 - R	100 000 2	e Area	a n	
Maximum tested negative load Hail resistance using steel ball (maximum EBIL-BLUE AL-MT 1,36		Energy ce Area, 1.36		Data re	equired or effici	for CDI ency (η	col)		24 30 :: 2013 - R	100 000 2 eferenc	e Area	n A _{sol}	
Maximum tested negative load Hail resistance using steel ball (maximum EBIL-BLUE AL-MT 1,36 EBIL-BLUE-AL-MT 1,83		ce Area, 1.36 1.83		Data re Collect	equired or effici k: Colle	for CDI ency (η, ctor effi	col) ciency (I	η _{col}) is (24 30 2013 - R 5 defined	eferenc in CDR (e Area A	n A _{sol}	
Maximum tested negative load Hail resistance using steel ball (maximum EBIL-BLUE AL-MT 1,36 EBIL-BLUE-AL-MT 1,83 EBIL-BLUE-AL-MT 2,00		ce Area, 1.36 1.83 2.00		Data re Collect Remark 811/20	equired or effici k: Colle 13 as co	for CDF ency (η ctor effi ollector	col) iciency (i efficienc	η _{col}) is α	24 30 2013 - R 5 defined	eference in CDR (collector	e Area A	n A _{sol}	
Maximum tested negative load Hail resistance using steel ball (maximum EBIL-BLUE AL-MT 1,36 EBIL-BLUE-AL-MT 1,83		ce Area, 1.36 1.83		Data re Collect Remark 811/20 temper	equired or effici k: Colle 13 as co rature d	for CDI ency (ŋ, ctor effi ollector lifference	col) ciency (1 efficienc e betwe	η _{col}) is on The sy of the en the s	24 30 2013 - R 5 defined e solar co	eferenc 88 in CDR (collector allector a	e Area A 9 (EU) No at a and the	A _{sol}	
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Maximum tested negative load Hail resistance using steel ball (maximum EBIL-BLUE AL-MT 1,36 EBIL-BLUE-AL-MT 1,83 EBIL-BLUE-AL-MT 2,00		ce Area, 1.36 1.83 2.00		Data re Collect Remark 811/20 temper surrour W/m², Deviati	equired or effici k: Colle 13 as co rature d nding an express ing from	ency (η, ector efficience) elifference ir of 40 is in the reg	col) ciency (refficiency e betwe K and a column and rou gulation	η _{col}) is one of the second	24 30 2013 - R 5 defined e solar co solar irro to the ne based o	eference 68 in CDR (collector addiance arest in n refere	e Area I 9 (EU) No at a and the of 1000 teger. nce area	A _{sol}	
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