

Produzione e distribuzione

SOLARBAYER® Italia S.r.l.
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Tecnologia solare, bollitori e riscaldamento a legna

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Solarbayer Italia srl – Via Perara, 17/a – 36040 Orgiano (VI)

Spett.le MCZ Group S.p.A.

Orgiano, 29 agosto 2016

Spett.le MCZ GROUP S.p.A.

OGGETTO: DICHIARAZIONE EQUIVALENZA PRODOTTI SOLARBAYER – RED (MCZ).

Egredi Sigg.ri buongiorno

Con la presente SOLARBAYER ITALIA SRL

DICHIARA

che i prodotti marchiati RED forniti ad MCZ Group S.p.A. con il codice MCZ n. 7311207 (pannello solare piano Premium) sono forniti da Solarbayer Italia srl e corrispondono al codice Solarbayer n. 4002286 (cod. 400228600 a far data dal 01/08/2016) relativo all'articolo pannello solare piano Solarbayer PremiumPlus 2.86 di cui al certificato Solar Keymark n. 011-7S756 F

Allegiamo alla presente il relativo certificato Keymark n. 011-7S756 F

Restiamo a disposizione per chiarimenti e porgiamo

Cordiali saluti

ing. Stefano Soatto

Managing Director
SOLARBAYER® ITALIA

All.to: Solarkeymark PremiumPlus (2 pagg.)

ZERTIFIKAT

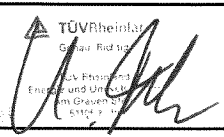
Zertifizierender	Solarbayer GmbH Am Dörrenhof 22 85131 Pollenfeld-Preith
Herstellwerk	Pollenfeld-Preith
Produkt	Sonnenkollektoren
Typ, Modell	Solarbayer PremiumPlus 2.01 Solarbayer PremiumPlus 2.86
Prüfgrundlage(n)	DIN EN 12975-1:2011-01 DIN EN 12975-2:2006-06 CEN-KEYMARK-Programmregeln Solarthermische Produkte Version 21.00 (2013-10)
Konformitätszeichen	
Registernummer	011-7S756 F
Gültig bis	2019-07-31
Nutzungsrecht	Dieses Zertifikat berechtigt zum Führen des oben stehenden Konformitätszeichens in Verbindung mit der genannten Registernummer. Weitere Angaben siehe Anhang.

ANHANG

Seite 1 von 1

Zertifikat	011-7S756 F von 2014-03-24
Technische Angaben	Siehe Datenblatt für den Prüfbericht von 2009-07-07 Bemerkung(en): - Die Prüfung der Frostbeständigkeit nach DIN EN 12975-2, Abschnitt 5.8 ist nicht erforderlich. Laut Herstellerangabe dürfen die zertifizierten Kollektoren in frostgefährdeten Gebieten nur unter Verwendung geeigneter Frostschutzmittel betrieben werden. - Die optionale Prüfung der Schlagfestigkeit nach DIN EN 12975-2, Abschnitt 5.10 wurde nicht durchgeführt.
Prüflaboratorium/ Überwachungsstelle	TÜV Rheinland Energie und Umwelt GmbH Test Centre for Energy Appliances Am Grauen Stein 51105 Köln
Prüfbericht(e)	Nr. 21210097 2.01 SB, Nr. 21210097 2.86 SB von 2009-07-07



Summary of EN 12975 Test Results,						Licence Number		011-7S756 F						
annex to Solar KEYMARK Certificate						Issued		2015-12-15						
Company holding the			Solarbayer GmbH			Country		Germany						
Brand (optional)			Solarbayer			Website		www.solarbayer.de						
Street, street number			Am Dörrenhof 22			E-mail		info@solarbayer.de						
Postal Code / City, province			85131 Pollenfeld-Preith			Tel/Fax		49 8421 93598-0 / -29						
Collector Type (flat plate glazed/un-glazed; evacuate tubular)						Flat plate collector - glazed								
Thermal / photo voltaic hybrid collector? (PVT collector)						No								
Integration in the roof possible? (manufacturers declaration)						Yes								
Collector name	Aperture area (Aa)	Gross length	Gross width	Gross height	Gross area (AG)	Power output per collector module								
						Gb = 850 W/m ² ; Gd = 150 W/m ²								
						Tm-Ta								
						0 K	10 K	30 K	50 K	70 K				
	m ²	mm	mm	mm	m ²	W	W	W	W	W				
PremiumPlus 2.01	1.86	1 600	1 260	98	2.01	1 446	1 376	1 229	1 071	904				
PremiumPlus 2.86	2.69	2 269	1 260	98	2.86	2 091	1 990	1 777	1 550	1 307				
Performance test method						Liquid heating collector - quasi-dynamic - outdoor								
Performance parameters related to aperture						η _{0b}	c1	c2	c3	c4	c6	Kθd		
Units						-	W/(m ² K)	W/(m ² K)	J/(m ² K)	-	s/m	-		
Test results - Flow rate and fluid see note 1						0.782	3.675	0.007	0.000	0.000	0.000	0.960		
Bi-directional incidence angle						No								
Incidence angle modifiers Kθ(θ)						Kθ values are obligatory for 50°.								
Angle						10°	20°	30°	40°	50°	60°	70°	80°	90°
Kθ(θ)						1.00	0.99	0.97	0.95	0.90	0.82	0.66		0.00
Incidence angle modifier not bi-directional - leave fields blank														
Stagnation temperature - Weather conditions see note 2						T _{stg}		185		°C				
Effective thermal capacity						c _{eff} = C/Ag		9.631		kJ/(m ² K)				
Max. intended operation temperature - see note 3						T _{max,op}				°C				
Max. operation pressure - see note 3						p _{max,op}		600		kPa				
Pressure drop table - for a collector family, the values shall be for the module with highest ΔP per m² aperture area														
Flow rate	kg/(s m ²)													
Pressure drop, ΔP	Pa													
Optional weather data		Location			Link									
Testing Laboratory		TÜV Rheinland Energie- und Umwelt												
Website		www.tuv.com/st												
Test report id. number		21210097_2.86_SB;				Date of test report		2009.07.07						
		21210097_2.01_SB												
During the test GDIF/GTOT was always between						0.1	and	0.9						
Comments of testing laboratory:														
Note 1	Flow rate	0.024	kg/(s m ²)	Fluid	Water									
Note 2	Irradiance, G = 1000 W/m ² ; Ambient temperature, Ta=30 °C													
Note 3	Given by manufacturer													
											 TÜVRheinland Genau. Richtig. TÜV Rheinland Energie- und Umwelt Am Greenpark 51104 Aachen			
Datasheet version: 4.05, 2013-11-07														
DIN CERTCO • Alboinstraße 56 • 12103 Berlin, Germany Tel: +49 30 7562-1131 • Fax: +49 30 7562-1141 • E-Mail: info@dincertco.de • www.dincertco.de														



Annual collector output based on EN 12975 Test Results, annex to Solar KEYMARK Certificate	Licence Number	011-7S756 F
	Issued	15.12.2015

Annual collector output kWh/module												
Collector name	Location and collector temperature (Tm)											
	Athens			Davos			Stockholm			Würzburg		
	25°C	50°C	75°C	25°C	50°C	75°C	25°C	50°C	75°C	25°C	50°C	75°C
PremiumPlus 2.01	2 307	1 667	1 135	1 757	1 244	829	1 291	863	551	1 409	937	589
PremiumPlus 2.86	3 337	2 411	1 642	2 542	1 799	1 198	1 867	1 249	797	2 038	1 354	851

Collector mounting: Fixed or tracking	Fixed; slope = latitude - 15° (rounded to nearest 5°)
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Overview of locations				
Location	Latitude °	Gtot kWh/m ²	Ta °C	Collector orientation or tracking mode
Athens	38	1 765	18.5	South, 25°
Davos	47	1 714	3.2	South, 30°
Stockholm	59	1 166	7.5	South, 45°
Würzburg	50	1 244	9.0	South, 35°

Gtot	Annual total irradiation on collector plane	kWh/m ²
Ta	Mean annual ambient air temperature	°C
Tm	Constant collector operating temperature (mean of in- and outlet temperatures)	°C

The calculation of the annual collector performance is performed with the official Solar Keymark spreadsheet tool ScenoCalc. The collector output is calculated hour by hour according to the efficiency parameters from the Keymark test using constant collector operating temperature (Tm). A detailed description of the calculations is available at <http://www.sp.se/en/index/services/solar/ScenoCalc/Sidor/default.aspx>.

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	ScenoCalc version: Ver. 4.05 (Nov, 2013)