

Report-No.: 154156932b Millionsun FPC EN zhao

Qualification of a Solar Collector in accordance with

EN12975-1:2006+A1:2010 and ISO 9806:2013

Client:	Millionsun Energy Co.,Ltd. NO.2-10,Jinglong Avenue South, Shahu Community Pingshan, Pingshan New District, Shenzhen City, Guangdong Province, China
TÜV Quotation No.	52152035
TÜV Order No.:	154156932
Order of:	31 March 2016
Date of Receipt of Test Item:	20 April 2016
Commencement of Test:	28 April 2016
TÜV Client No.:-	455651
Inspector:-	Cai Zhao +86(0)878 6712707
Business Field:-	Solar Energy
No of Pages:-	33
Appendix:-	26 to 33

Summary of collector performance test results: -

Manufacturer -	Millionsun Energy Co.,Ltd.		
Brand -	Millionsun		
Collector type -	M-SBC/2.0-Black		
Year of manufacture -	2016		
Length	2001 mm	Absorber area	1.762 m ²
Width	1000 mm	Aperture area	1.836 m ²
Height	81 mm	Gross area	2.001 m ²
Weight (empty)	32Kg	Mass flow	0.021 kg/(m ² s)
Heat transfer medium	Water	Test pressure	150 kPa

Thermal performance

	Gross area (A _G)	Aperture area (A _a)	Absorber area (A _A)
Conversion factor η_0	0.670	0.731	0.761
Heat transfer coefficient a_1	3.629 W/(m ² K)	3.957 W/(m ² K)	4.123 W/(m ² K)
Temperature dependent heat transfer coefficient a_2	0.021 W/(m ² K ²)	0.023 W/(m ² K ²)	0.095 W/(m ² K ²)

Output power per collector unit

	Irradiation		
T _m – T _a in K	400 W/m ²	700 W/m ²	1000 W/m ²
10	460	862	1265
30	280	683	1085
50	67	469	872