

AENOR

Keymark Certificate Solar thermal energy



078/000318

AENOR certifies that the organization

BDR THERMEA GROUP B.V

registered office	MARCHANTSTRAAT, 55 7300 AA APELDOORN (Holanda - Países Bajos)
supplies	Factory made thermal solar heating systems
in compliance with	UNE-EN 12976-1:2006 (EN 12976-1:2006)
Trade Mark Technical information	BAXI STS 300 2.5 LP Specified in Annexes to the Certificate
Production site	CL MANGANÉS, 2 POLIG. INDUSTRIAL CAN ALBAREDA 08755 CASTELLBISBAL (Barcelona - España)
Certification scheme	In order to grant this Certificate, AENOR has tested the product and has verified the quality system implemented for its manufacture. AENOR performs these tasks periodically while the Certificate has not been cancelled, in accordance with Specific Rules RP 078.02.
First issued on Validity date	2019-06-18 2024-06-18

Rafael GARCÍA MEIRO
Chief Executive Officer

Original Electronic Certificate

AENOR INTERNACIONAL S.A.U.
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Product certification body accredited by ENAC, number 01/C-PR002.078



Summary of		EN12976-2		test results		Certification No.		078/000318					
Annex to Solar KEYMARK Certificate						Issued		2019-06-18					
Company		BDR THERMEA GROUP B.V.				Country		NETHERLANDS					
Brand (optional)		BAXI				Website		www.bdrthermea.com					
Street		MARCHANSTRAAT 55				E-mail		oleguer.fuertes@BDRThermea.com					
Postal Code		7300 AA		APPELDOORN		Tel. / Fax		+34 902898989					
System family overview													
For each storage and collector size, give number of collectors													
Collector name		STS LP 300											
BAXI MEDITERRANEO SLIM 250		2											
Name of system configuration						BAXI STS 300 2.5 LP							
Collector name		BAXI MEDITERRANEO SLIM 250		No. Collectors		2		Storage name		STS LP 300			
Calculated annual results for "solar-only / preheat system"													
Location	Q_{d,sh}	Daily drawoff 250 l				Daily drawoff 300 l				Daily drawoff 400 l			
		Q_{d,hw}	Q_L	Q_{par}	f_{sol}	Q_{d,hw}	Q_L	Q_{par}	f_{sol}	Q_{d,hw}	Q_L	Q_{par}	f_{sol}
		MJ/y	MJ/y	MJ/y	%	MJ/y	MJ/y	MJ/y	%	MJ/y	MJ/y	MJ/y	%
Stockholm SE	--	13954	6355	0	45,5	16745	6712	0	40,1	22327	6954	0	31,1
WürzburgDE	--	13381	6668	0	49,8	16058	7093	0	44,2	21410	7371	0	34,4
Davos CH	--	15140	9404	0	62,1	18169	9776	0	53,8	24225	10043	0	41,5
Athens GR	--	10398	8146	0	78,3	12478	9016	0	72,3	16637	10109	0	60,8
Perf. indicators for the table above													
Q _{d,sh}	MJ/y	Not relevant for solar domestic hot water system											
Q _d	MJ/y	Annual heat demand for domestic hot water											
Q _L	MJ/y	Annual heat energy delivered by the solar system											
Q _{par}	MJ/y	Annual parasitic energy: (electricity for pumps/controllers)											
f _{sol} =Q _L /Q _d	-	Solar fraction											
Ref. conditions		Stockholm SE	Würzburg DE	Davos CH	Athens GR								
	G	1.157	1.230	1.684	1.736								
	T _{a,ave}	7,5	9,0	3,2	18,5								
	T _{c,ave}	8,5	10,0	5,4	17,8								
	± ΔT _c	6,4	3,0	0,8	7,4								
G	kWh/m ²	Annual irradiation South, 45°											
T _{a,ave}	°C	Annual average outdoor air temperature											
T _{c,ave}	°C	Annual average mains cold water temp.											
ΔT _c	K	Seasonal variation of T _c											
Th	45 °C	Desired hot water temperature (mixing valve temperature).											
Max. operating press. - collector side				1000 kPa		Max. operating press. - tank side				8000 kPa			
Testing Laboratory				Fundación CENER-CIEMAT									
Website				www.cener.com									
Test report id. number				30.3452.2-1 Test report									
Date of test report				2019-05-10									
Test method				ISO 9459-5 (DST)									
Comments of test lab													
No comments													

All values are subject to some uncertainty; e.g. the uncertainty on system output is typically in the range of ± 5 % to ± 15 %

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