Keymark Certificate

078/000425

AENOR certifies that the organization

BDR THERMEA GROUP B.V.

registered office	KANAAL ZUID, 106 7332 BD APELDOORN (Güeldres - Países Bajos)
supplies	**Factory made thermal solar heating systems**
in compliance with	UNE-EN 12976-1:2020 (EN 12976-1:2017)
Trade Mark	BAXI STS NEO AP 150 2.0, BAXI STS NEO AP 200 2.0, BAXI STS NEO AP 200 2.5, BAXI STS NEO AP 300 2.0, BAXI STS NEO AP 300 2.5
Technical information	Specified in Annexes to the Certificate
Production site	CL MANGANÈS, 2 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	2025-02-17
Validity	2030-02-17

Rafael GARCÍA MEIRO
CEO

ENAC
CERTIFICACIÓN
ISO 17065
Nº1 / C-PR271

AENOR CONFÍA S.A.U.
Génova, 6. 28004 Madrid. España
Tel. 91 432 60 00.- www.aenor.com

Summary of	EN12976-2	SOLAR SYSTEM test results	Licence Number	078/000425
Annex to Solar KEYMARK Certificate			Issued	2025-02-17

Company	BDR THERMEA GROUP B.V.		Country	NETHERLANDS	
Brand (optional)	BAXI		Website	http://www.bdrthermea.com	
Street	KANAAL ZUID, 106		E-mail	oscar.mongro@BDRThermea.com	
Postal Code	7332 BD	APELDOORN (Güeldres)	Tel. / Fax	+34	936.828.040

System classification	
Application(s)	Hot water
Solar loop, circulation principle	Thermosyphon
Direct solar loop / heat exchanger	Heat exchanger
Open, vented or closed solar loop	Closed
Drain back/down	Always filled (no drain)
Store location	Outdoor
Store orientation (of main axis)	Other
Type of auxiliary heating (internal back-up heat)	None
If other auxiliary/internal back-up heating, please specifiy:	
Solar+supplementary OR Solar-only / Solar pre-heat	Solar only / Solar preheat

Collector(s)

Company	BAXI
Keymark lic.no. if available	078/000423

Collector name	Per module: Gross Area (AG)	Per module: Gross length	Per module: Gross width
	m²	mm	mm
BAXI SLIM NEO 2.0	2,02	1757	1151
BAXI SLIM NEO 2.5	2,52	2191	1151

Heat store(s)

Company	BAXI
Keymark lic.no. if available	-

Store name	Total nominal volume	Gross height	Gross width	Gross depth	Auxiliary heated volume	Electrical aux. heating power
	litres	mm	mm	mm	litres	kW
STS+ 150L	145	1005	580	580	-	-
STS+ 200L	190	1255	580	580	-	-
STS+ 300L	270	1725	580	580	-	-

Solar loop controller			
Keymark lic.no. if available	+		
Company	+		
Name			
Solar loop pump - power range	- W	to	- W

Solar loop fluid		
Recommended/required	Required	
Company	-	
Name	Propylen-glycol solution	
Freezing point	*	°C

System family overview

Collector name	Number of collectors in each configuration for each store: Store name: STS+ 150L	STS+ 200L	STS+ 300L
BAXI SLIM NEO 2.0	1	1	2
BAXI SLIM NEO 2.5		1	2

Testing Laboratory	TÜV Rheinland Solar GmbH
Website	www.tuv.com/solar
Test report id. number	DE25J05Z 002
Date of test report	2025-02-13

Comments of test lab
* The required concentration is between 0...45% according to local climate.

Summary of	**EN12976-2**	**test results**	**Certification No.**	**078/000425**
Annex to Solar KEYMARK Certificate			**Issued**	2025-02-17

Company	BDR THERMEA GROUP B.V.		**Country**	NETHERLANDS	
Brand (optional)	BAXI		**Website**	http://www.bdrthermea.com	
Street	KANAAL ZUID, 106		**E-mail**	oscar.mongro@BDRThermea.com	
Postal Code	7332 BD	APELDOORN (Güeldres)	**Tel. / Fax**	+34	936828040

Parameters for systems extrapolation (Annex D)

Collector of measured system		Storage tank of measured system	
A_{ref} [m^2]	1,92	Volume [l]	152
η_0	0,667	A_{hx} [m^2]	0,84
a_1 [W/Km^2]	3,335	**Piping**	
a_2 [W/Km^2]	0,025		
IAM (50º)	0,940	$U_{loop,p}$	0,77

System parameters

Name of System Configuration	Tested/Extrapol	A_c* [m^2]	u_c* [W/Km^2]	U_s [W/K]	C_s [MJ/K]	S_c [-]	D_L [-]	f_{aux} [-]
BAXI STS NEO AP 150 2.0	▼	1,162	7,682	2,510	0,640	0,205	0,038	0,00
BAXI STS NEO AP 200 2.0	▼	1,172	7,691	2,995	0,834	0,205	0,038	0,00
BAXI STS NEO AP 200 2.5	▼	1,455	7,620	2,995	0,834	0,205	0,038	0,00
BAXI STS NEO AP 300 2.0	▼	2,321	7,460	3,906	1,187	0,205	0,038	0,00
BAXI STS NEO AP 300 2.5	▼	2,876	7,362	3,906	1,187	0,205	0,038	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00
	▼	0,000	0,000	0,000	0,000	0,000	0,000	0,00

Testing Laboratory	TÜV Rheinland Solar GmbH
Website	www.tuv.com/solar
Test report id. number	DE25J05Z 002
Date of test report	2025-02-13
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 %

Version 4.5, 2017-10-24

Summary of	EN12976-2	test results	Certification No.	078/000425
Annex to Solar KEYMARK Certificate			Issued	2025-02-17

Company	BDR THERMEA GROUP B.V.	Country	NETHERLANDS
Brand (optional)	BAXI	Website	http://www.bdrthermea.com
Street	KANAAL ZUID, 106	E-mail	oscar.mongro@BDRThermea.com
Postal Code	7332 BD APELDOORN (Güeldres)	Tel. / Fax	+34 936828040

System family overview

Collector name	For each storage and collector size, give number of collectors		
	STS+ 150L	STS+ 200L	STS+ 300L
BAXI SLIM NEO 2.0	1	1	2
BAXI SLIM NEO 2.5		1	2

Name of system configuration					BAXI STS NEO AP 150 2.0	
Collector name	BAXI SLIM NEO 2.0	No. Collectors	1	Storage name	STS+ 150L	

Calculated annual results for "solar-only / preheat system"

Location	Qd,sh	Daily drawoff 140 l				Daily drawoff 170 l				Daily drawoff 200 l			
		Qd,hw	QL	Qpar	fsol	Qd,hw	QL	Qpar	fsol	Qd,hw	QL	Qpar	fsol
	MJ/y	MJ/y	MJ/y	MJ/y	%	MJ/y	MJ/y	MJ/y	%	MJ/y	MJ/y	MJ/y	%
Stockholm SE	-	7821	3879	-	50	9492	4257	-	45	11164	4447	-	40
WürzburgDE	-	7506	3974	-	53	9114	4415	-	49	10691	4667	-	44
Davos CH	-	8483	5740	-	68	10281	6213	-	61	12110	6433	-	53
Athens GR	-	5834	4825	-	83	7064	5519	-	78	8326	6023	-	72

Perf. indicators for the table above

Qd,sh	MJ/y	**Not relevant for solar domestic hot water system**
Qd	MJ/y	**Annual heat demand for domestic hot water**
QL	MJ/y	**Annual heat energy delivered by the solar system**
Qpar	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
	Ta,ave	7,5	9,0	3,2	18,5
	Tc,ave	8,5	10,0	5,4	17,8
	± ΔTc	6,4	3,0	0,8	7,4

G	kWh/m²	**Annual irradiation South, 45°**
Ta,ave	°C	**Annual average outdoor air temperature**
Tc,ave	°C	**Annual average mains cold water temp.**
ΔTc	K	**Seasonal variation of Tc**
Th	45 °C	**Desired hot water temperature (mixing valve temperature).**

Max. operating press. - collector side	250	kPa	Max. operating press. - tank side	800	kPa

Testing Laboratory	TÜV Rheinland Solar GmbH
Website	www.tuv.com/solar
Test report id. number	DE25J05Z 002
Date of test report	2025-02-13
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 %

Version 4.5, 2017-10-24

Summary of	EN12976-2	test results	Certification No.	078/000425
Annex to Solar KEYMARK Certificate			Issued	2025-02-17

Company	BDR THERMEA GROUP B.V.	Country	NETHERLANDS
Brand (optional)	BAXI	Website	http://www.bdrthermea.com
Street	KANAAL ZUID, 106	E-mail	oscar.mongro@BDRThermea.com
Postal Code	7332 BD APELDOORN (Güeldres)	Tel. / Fax	+34 936828040

System family overview

Collector name	For each storage and collector size, give number of collectors		
	STS+ 150L	STS+ 200L	STS+ 300L
BAXI SLIM NEO 2.0	1	1	2
BAXI SLIM NEO 2.5		1	2

Name of system configuration					
Collector name	BAXI SLIM NEO 2.0	No. Collectors	1	Storage name	STS+ 200L

Calculated annual results for "solar-only / preheat system"

Location	Qd,sh	Daily drawoff 170 l				Daily drawoff 200 l				Daily drawoff 250 l			
		Qd,hw	QL	Qpar	fsol	Qd,hw	QL	Qpar	fsol	Qd,hw	QL	Qpar	fsol
	MJ/y	MJ/y	MJ/y	MJ/y	%	MJ/y	MJ/y	MJ/y	%	MJ/y	MJ/y	MJ/y	%
Stockholm SE	-	9492	3753	-	40	11164	3974	-	36	13939	4131	-	30
WürzburgDE	-	9114	3974	-	44	10691	4226	-	40	13371	4415	-	33
Davos CH	-	10281	5361	-	52	12110	5645	-	47	15137	5803	-	38
Athens GR	-	7064	5109	-	72	8326	5582	-	67	10407	6118	-	59

Perf. indicators for the table above

Qd,sh	MJ/y	**Not relevant for solar domestic hot water system**
Qd	MJ/y	**Annual heat demand for domestic hot water**
QL	MJ/y	**Annual heat energy delivered by the solar system**
Qpar	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
	Ta,ave	7,5	9,0	3,2	18,5
	Tc,ave	8,5	10,0	5,4	17,8
	± ΔTc	6,4	3,0	0,8	7,4

G	kWh/m²	**Annual irradiation South, 45°**
Ta,ave	°C	**Annual average outdoor air temperature**
Tc,ave	°C	**Annual average mains cold water temp.**
ΔTc	K	**Seasonal variation of Tc**
Th	45 °C	**Desired hot water temperature (mixing valve temperature).**

Max. operating press. - collector side	250	kPa	Max. operating press. - tank side	800	kPa

Testing Laboratory	TÜV Rheinland Solar GmbH
Website	www.tuv.com/solar
Test report id. number	DE25J05Z 002
Date of test report	2025-02-13
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 %

Version 4.5, 2017-10-24

Summary of	EN12976-2	test results	Certification No.	078/000425
Annex to Solar KEYMARK Certificate			Issued	2025-02-17

Company	BDR THERMEA GROUP B.V.	Country	NETHERLANDS
Brand (optional)	BAXI	Website	http://www.bdrthermea.com
Street	KANAAL ZUID, 106	E-mail	oscar.mongro@BDRThermea.com
Postal Code	7332 BD APELDOORN (Güeldres)	Tel. / Fax	+34 936828040

System family overview

Collector name	For each storage and collector size, give number of collectors		
	STS+ 150L	STS+ 200L	STS+ 300L
BAXI SLIM NEO 2.0	1	1	2
BAXI SLIM NEO 2.5		1	2

Name of system configuration					
Collector name	BAXI SLIM NEO 2.5	No. Collectors	1	Storage name	STS+ 200L

Calculated annual results for "solar-only / preheat system"

Location	Qd,sh	Daily drawoff 170 l				Daily drawoff 200 l				Daily drawoff 250 l			
		Qd,hw	QL	Qpar	fsol	Qd,hw	QL	Qpar	fsol	Qd,hw	QL	Qpar	fsol
	MJ/y	MJ/y	MJ/y	MJ/y	%	MJ/y	MJ/y	MJ/y	%	MJ/y	MJ/y	MJ/y	%
Stockholm SE	-	9492	4320	-	46	11164	4636	-	42	13939	4888	-	35
WürzburgDE	-	9114	4478	-	49	10691	4857	-	45	13371	5172	-	39
Davos CH	-	10281	6276	-	61	12110	6686	-	55	15137	6938	-	46
Athens GR	-	7064	5550	-	79	8326	6181	-	74	10407	6875	-	66

Perf. indicators for the table above

Qd,sh	MJ/y	**Not relevant for solar domestic hot water system**
Qd	MJ/y	**Annual heat demand for domestic hot water**
QL	MJ/y	**Annual heat energy delivered by the solar system**
Qpar	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
	Ta,ave	7,5	9,0	3,2	18,5
	Tc,ave	8,5	10,0	5,4	17,8
	± ΔTc	6,4	3,0	0,8	7,4

G	kWh/m²	**Annual irradiation South, 45°**
Ta,ave	°C	**Annual average outdoor air temperature**
Tc,ave	°C	**Annual average mains cold water temp.**
ΔTc	K	**Seasonal variation of Tc**
Th	45 °C	**Desired hot water temperature (mixing valve temperature).**

Max. operating press. - collector side	250	kPa	Max. operating press. - tank side	800	kPa

Testing Laboratory	TÜV Rheinland Solar GmbH
Website	www.tuv.com/solar
Test report id. number	DE25J05Z 002
Date of test report	2025-02-13
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 %

Version 4.5, 2017-10-24

Summary of	EN12976-2	test results	Certification No.	078/000425
Annex to Solar KEYMARK Certificate			Issued	2025-02-17

Company	BDR THERMEA GROUP B.V.	Country	NETHERLANDS
Brand (optional)	BAXI	Website	http://www.bdrthermea.com
Street	KANAAL ZUID, 106	E-mail	oscar.mongro@BDRThermea.com
Postal Code	7332 BD APELDOORN (Güeldres)	Tel. / Fax	+34 936828040

System family overview

Collector name	For each storage and collector size, give number of collectors		
	STS+ 150L	STS+ 200L	STS+ 300L
BAXI SLIM NEO 2.0	1	1	2
BAXI SLIM NEO 2.5		1	2

Name of system configuration					BAXI STS NEO AP 300 2.0	
Collector name	BAXI SLIM NEO 2.0	No. Collectors	2	Storage name	STS+ 300L	

Calculated annual results for "solar-only / preheat system"

Location	Qd,sh	Daily drawoff 250 l				Daily drawoff 300 l				Daily drawoff 400 l			
		Qd,hw	QL	Qpar	fsol	Qd,hw	QL	Qpar	fsol	Qd,hw	QL	Qpar	fsol
	MJ/y	MJ/y	MJ/y	MJ/y	%	MJ/y	MJ/y	MJ/y	%	MJ/y	MJ/y	MJ/y	%
Stockholm SE	-	13939	6749	-	48	16746	7285	-	44	22327	7726	-	35
WürzburgDE	-	13371	6906	-	52	16052	7600	-	47	21413	8168	-	38
Davos CH	-	15137	9871	-	65	18165	10596	-	58	24220	11006	-	45
Athens GR	-	10407	8452	-	81	12488	9524	-	76	16651	10911	-	66

Perf. indicators for the table above

Qd,sh	MJ/y	**Not relevant for solar domestic hot water system**
Qd	MJ/y	**Annual heat demand for domestic hot water**
QL	MJ/y	**Annual heat energy delivered by the solar system**
Qpar	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
	Ta,ave	7,5	9,0	3,2	18,5
	Tc,ave	8,5	10,0	5,4	17,8
	± ΔTc	6,4	3,0	0,8	7,4

G	kWh/m²	**Annual irradiation South, 45°**
Ta,ave	°C	**Annual average outdoor air temperature**
Tc,ave	°C	**Annual average mains cold water temp.**
ΔTc	K	**Seasonal variation of Tc**
Th	45 °C	**Desired hot water temperature (mixing valve temperature).**

Max. operating press. - collector side	250	kPa	Max. operating press. - tank side	800	kPa

Testing Laboratory	TÜV Rheinland Solar GmbH
Website	www.tuv.com/solar
Test report id. number	DE25J05Z 002
Date of test report	2025-02-13
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 %

Version 4.5, 2017-10-24

Summary of	EN12976-2	test results	Certification No.	078/000425
Annex to Solar KEYMARK Certificate			Issued	2025-02-17

Company	BDR THERMEA GROUP B.V.	Country	NETHERLANDS
Brand (optional)	BAXI	Website	http://www.bdrthermea.com
Street	KANAAL ZUID, 106	E-mail	oscar.mongro@BDRThermea.com
Postal Code	7332 BD APELDOORN (Güeldres)	Tel. / Fax	+34 936828040

System family overview

Collector name	For each storage and collector size, give number of collectors		
	STS+ 150L	STS+ 200L	STS+ 300L
BAXI SLIM NEO 2.0	1	1	2
BAXI SLIM NEO 2.5		1	2

Name of system configuration					
				BAXI STS NEO AP 300 2.5	
Collector name	BAXI SLIM NEO 2.5	No. Collectors	2	Storage name	STS+ 300L

Calculated annual results for "solar-only / preheat system"

Location	Qd,sh	Daily drawoff 250 l				Daily drawoff 300 l				Daily drawoff 400 l			
		Qd,hw	QL	Qpar	fsol	Qd,hw	QL	Qpar	fsol	Qd,hw	QL	Qpar	fsol
	MJ/y	MJ/y	MJ/y	MJ/y	%	MJ/y	MJ/y	MJ/y	%	MJ/y	MJ/y	MJ/y	%
Stockholm SE	-	13939	7442	-	53	16746	8168	-	49	22327	8956	-	40
WürzburgDE	-	13371	7506	-	56	16052	8389	-	52	21413	9366	-	44
Davos CH	-	15137	11006	-	73	18165	12078	-	67	24220	12898	-	53
Athens GR	-	10407	8956	-	86	12488	10218	-	82	16651	12015	-	72

Perf. indicators for the table above

Qd,sh	MJ/y	**Not relevant for solar domestic hot water system**
Qd	MJ/y	**Annual heat demand for domestic hot water**
QL	MJ/y	**Annual heat energy delivered by the solar system**
Qpar	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
	Ta,ave	7,5	9,0	3,2	18,5
	Tc,ave	8,5	10,0	5,4	17,8
	± ΔTc	6,4	3,0	0,8	7,4

G	kWh/m²	**Annual irradiation South, 45°**
Ta,ave	°C	**Annual average outdoor air temperature**
Tc,ave	°C	**Annual average mains cold water temp.**
ΔTc	K	**Seasonal variation of Tc**
Th	45 °C	**Desired hot water temperature (mixing valve temperature).**

Max. operating press. - collector side	250	kPa	Max. operating press. - tank side	800	kPa

Testing Laboratory	TÜV Rheinland Solar GmbH
Website	www.tuv.com/solar
Test report id. number	DE25J05Z 002
Date of test report	2025-02-13
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 %

Version 4.5, 2017-10-24

Summary of	EN12976-2	test results	Certification No.	078/000425
Annex to Solar KEYMARK Certificate			Issued	2025-02-17

Company	BDR THERMEA GROUP B.V.	Country	NETHERLANDS
Brand (optional)	BAXI	Website	http://www.bdrthermea.com
Street	KANAAL ZUID, 106	E-mail	oscar.mongro@BDRThermea.com
Postal Code	7332 BD APELDOORN (Güeldres)	Tel. / Fax	+34 936828040

System family overview

Collector name	For each storage and collector size, give number of collectors		
	STS+ 150L	STS+ 200L	STS+ 300L
BAXI SLIM NEO 2.0	1	1	2
BAXI SLIM NEO 2.5		1	2

Annual performance parameters in the frame of the EU regulation CDR 811, 812 and 813 dated 2013

Name of system configuration					BAXI STS NEO AP 150 2.0
Collector name	BAXI SLIM NEO 2.0	No. Collectors	1	Storage name	STS+ 150L

Annual performance parameters in the frame of the EU regulation CDR 811, 812 and 813 dated 2013

Load profile	M	L	XL	XXL	
Annual heat demand (kWh)	1523	2799	4427	5626	
Auxiliary heat contribution		Qnonsol			section 5.9.3.6, see note 1
Average climate (kWh)	530	1464	2916	4089	Strasbourg
Cold climate (kWh)	788	1824	3320	4493	Helsinki
Hot climate (kWh)	197	893	2231	3377	Athens
Qaux (kWh)	-	-	-	-	section 5.9.3.4, see note 1
Comply to the load profile (Yes/No)	-	-	-	-	section 5.10.6 , see note 1
ηwh_nonsol (%)	-	-	-	-	section 5.9.3.5 , see note 1
Qelec (kWh)	-	-	-	-	section 5.9.3.5 , see note 1
Qfuel (kWh)	-	-	-	-	section 5.9.3.5 , see note 1
V40, measured (l)	-	-	-	-	section 5.10.7, see note 1

Auxiliary thermostat setting	-	ºC	Effective power of auxiliary heater	-	kW

Note 1: Clause of EN 12976-2:2019

Testing Laboratory	TÜV Rheinland Solar GmbH
Website	www.tuv.com/solar
Test report id. number	DE25J05Z 002
Date of test report	2025-02-13
Test method	▼

Comments of test lab
No comments

Version 4.5, 2017-10-24

Summary of	EN12976-2	test results	Certification No.	078/000425
Annex to Solar KEYMARK Certificate			Issued	2025-02-17

Company	BDR THERMEA GROUP B.V.	Country	NETHERLANDS
Brand (optional)	BAXI	Website	http://www.bdrthermea.com
Street	KANAAL ZUID, 106	E-mail	oscar.mongro@BDRThermea.com
Postal Code	7332 BD APELDOORN (Güeldres)	Tel. / Fax	+34 936828040

System family overview

Collector name	For each storage and collector size, give number of collectors		
	STS+ 150L	STS+ 200L	STS+ 300L
BAXI SLIM NEO 2.0	1	1	2
BAXI SLIM NEO 2.5		1	2

Annual performance parameters in the frame of the EU regulation CDR 811, 812 and 813 dated 2013

Name of system configuration					BAXI STS NEO AP 200 2.0
Collector name	BAXI SLIM NEO 2.0	No. Collectors	1	Storage name	STS+ 200L

Annual performance parameters in the frame of the EU regulation CDR 811, 812 and 813 dated 2013

Load profile	M	L	XL	XXL	
Annual heat demand (kWh)	1523	2799	4427	5626	
Auxiliary heat contribution		Qnonsol			section 5.9.3.6, see note 1
Average climate (kWh)	539	1428	2855	4010	Strasbourg
Cold climate (kWh)	796	1806	3276	4440	Helsinki
Hot climate (kWh)	205	831	2126	3254	Athens
Qaux (kWh)	-	-	-	-	section 5.9.3.4, see note 1
Comply to the load profile (Yes/No)	-	-	-	-	section 5.10.6 , see note 1
ηwh_nonsol (%)	-	-	-	-	section 5.9.3.5 , see note 1
Qelec (kWh)	-	-	-	-	section 5.9.3.5 , see note 1
Qfuel (kWh)	-	-	-	-	section 5.9.3.5 , see note 1
V40, measured (l)	-	-	-	-	section 5.10.7, see note 1

Auxiliary thermostat setting	-	ºC	Effective power of auxiliary heater	-	kW

Note 1: Clause of EN 12976-2:2019

Testing Laboratory	TÜV Rheinland Solar GmbH
Website	www.tuv.com/solar
Test report id. number	DE25J05Z 002
Date of test report	2025-02-13
Test method	▼

Comments of test lab
No comments

Version 4.5, 2017-10-24

Summary of	EN12976-2	test results	Certification No.	078/000425
Annex to Solar KEYMARK Certificate			Issued	2025-02-17

Company	BDR THERMEA GROUP B.V.	Country	NETHERLANDS
Brand (optional)	BAXI	Website	http://www.bdrthermea.com
Street	KANAAL ZUID, 106	E-mail	oscar.mongro@BDRThermea.com
Postal Code	7332 BD APELDOORN (Güeldres)	Tel. / Fax	+34 936828040

System family overview

Collector name	For each storage and collector size, give number of collectors		
	STS+ 150L	STS+ 200L	STS+ 300L
BAXI SLIM NEO 2.0	1	1	2
BAXI SLIM NEO 2.5		1	2

Annual performance parameters in the frame of the EU regulation CDR 811, 812 and 813 dated 2013

Name of system configuration					BAXI STS NEO AP 200 2.5
Collector name	BAXI SLIM NEO 2.5	No. Collectors	1	Storage name	STS+ 200L

Annual performance parameters in the frame of the EU regulation CDR 811, 812 and 813 dated 2013

Load profile	M	L	XL	XXL	
Annual heat demand (kWh)	1523	2799	4427	5626	
Auxiliary heat contribution		Qnonsol			section 5.9.3.6, see note 1
Average climate (kWh)	460	1244	2591	3729	Strasbourg
Cold climate (kWh)	729	1657	3083	4229	Helsinki
Hot climate (kWh)	135	638	1783	2877	Athens
Qaux (kWh)	-	-	-	-	section 5.9.3.4, see note 1
Comply to the load profile (Yes/No)	-	-	-	-	section 5.10.6 , see note 1
ηwh_nonsol (%)	-	-	-	-	section 5.9.3.5 , see note 1
Qelec (kWh)	-	-	-	-	section 5.9.3.5 , see note 1
Qfuel (kWh)	-	-	-	-	section 5.9.3.5 , see note 1
V40, measured (l)	-	-	-	-	section 5.10.7, see note 1

Auxiliary thermostat setting	-	ºC	Effective power of auxiliary heater	-	kW

Note 1: Clause of EN 12976-2:2019

Testing Laboratory	TÜV Rheinland Solar GmbH
Website	www.tuv.com/solar
Test report id. number	DE25J05Z 002
Date of test report	2025-02-13
Test method	▼

Comments of test lab
No comments

Summary of	EN12976-2	test results	Certification No.	078/000425
Annex to Solar KEYMARK Certificate			Issued	2025-02-17

Company	BDR THERMEA GROUP B.V.	Country	NETHERLANDS
Brand (optional)	BAXI	Website	http://www.bdrthermea.com
Street	KANAAL ZUID, 106	E-mail	oscar.mongro@BDRThermea.com
Postal Code	7332 BD APELDOORN (Güeldres)	Tel. / Fax	+34 936828040

System family overview

Collector name	For each storage and collector size, give number of collectors		
	STS+ 150L	STS+ 200L	STS+ 300L
BAXI SLIM NEO 2.0	1	1	2
BAXI SLIM NEO 2.5		1	2

Annual performance parameters in the frame of the EU regulation CDR 811, 812 and 813 dated 2013

Name of system configuration					BAXI STS NEO AP 300 2.0
Collector name	BAXI SLIM NEO 2.0	No. Collectors	2	Storage name	STS+ 300L

Annual performance parameters in the frame of the EU regulation CDR 811, 812 and 813 dated 2013

Load profile	M	L	XL	XXL	
Annual heat demand (kWh)	1523	2799	4427	5626	
Auxiliary heat contribution		Qnonsol			section 5.9.3.6, see note 1
Average climate (kWh)	346	901	1897	2877	Strasbourg
Cold climate (kWh)	627	1376	2556	3597	Helsinki
Hot climate (kWh)	47	313	940	1735	Athens
Qaux (kWh)	-	-	-	-	section 5.9.3.4, see note 1
Comply to the load profile (Yes/No)	-	-	-	-	section 5.10.6 , see note 1
ηwh_nonsol (%)	-	-	-	-	section 5.9.3.5 , see note 1
Qelec (kWh)	-	-	-	-	section 5.9.3.5 , see note 1
Qfuel (kWh)	-	-	-	-	section 5.9.3.5 , see note 1
V40, measured (l)	-	-	-	-	section 5.10.7, see note 1

Auxiliary thermostat setting	-	ºC	Effective power of auxiliary heater	-	kW

Note 1: Clause of EN 12976-2:2019

Testing Laboratory	TÜV Rheinland Solar GmbH
Website	www.tuv.com/solar
Test report id. number	DE25J05Z 002
Date of test report	2025-02-13
Test method	▼

Comments of test lab
No comments

Version 4.5, 2017-10-24

Summary of	EN12976-2	test results	Certification No.	078/000425
Annex to Solar KEYMARK Certificate			Issued	2025-02-17

Company	BDR THERMEA GROUP B.V.		Country	NETHERLANDS	
Brand (optional)	BAXI		Website	http://www.bdrthermea.com	
Street	KANAAL ZUID, 106		E-mail	oscar.mongro@BDRThermea.com	
Postal Code	7332 BD	APELDOORN (Güeldres)	Tel. / Fax	+34	936828040

System family overview

Collector name	For each storage and collector size, give number of collectors		
	STS+ 150L	STS+ 200L	STS+ 300L
BAXI SLIM NEO 2.0	1	1	2
BAXI SLIM NEO 2.5		1	2

Annual performance parameters in the frame of the EU regulation CDR 811, 812 and 813 dated 2013

Name of system configuration					BAXI STS NEO AP 300 2.5
Collector name	BAXI SLIM NEO 2.5	No. Collectors	2	Storage name	STS+ 300L

Annual performance parameters in the frame of the EU regulation CDR 811, 812 and 813 dated 2013

Load profile	M	L	XL	XXL	
Annual heat demand (kWh)	1523	2799	4427	5626	
Auxiliary heat contribution		Qnonsol			section 5.9.3.6, see note 1
Average climate (kWh)	293	770	1643	2525	Strasbourg
Cold climate (kWh)	574	1262	2345	3325	Helsinki
Hot climate (kWh)	21	216	694	1340	Athens
Qaux (kWh)	-	-	-	-	section 5.9.3.4, see note 1
Comply to the load profile (Yes/No)	-	-	-	-	section 5.10.6 , see note 1
ηwh_nonsol (%)	-	-	-	-	section 5.9.3.5 , see note 1
Qelec (kWh)	-	-	-	-	section 5.9.3.5 , see note 1
Qfuel (kWh)	-	-	-	-	section 5.9.3.5 , see note 1
V40, measured (l)	-	-	-	-	section 5.10.7, see note 1

Auxiliary thermostat setting	-	ºC	Effective power of auxiliary heater	-	kW

Note 1: Clause of EN 12976-2:2019

Testing Laboratory	TÜV Rheinland Solar GmbH
Website	www.tuv.com/solar
Test report id. number	DE25J05Z 002
Date of test report	2025-02-13
Test method	▼

Comments of test lab	
No comments	

Version 4.5, 2017-10-24

Keymark Certificate

078/000423

AENOR certifies that the organization

BDR THERMEA GROUP B.V.

registered office	KANAAL ZUID, 106 7332 BD APELDOORN (Güeldres - Países Bajos)
supplies	**Solar collectors**
in compliance with	UNE-EN 12975-1:2006+A1:2011 (EN 12975-1:2006+A1:2010)
Trade Mark	BAXI SLIM NEO 2.0, BAXI SLIM NEO 2.5
Technical information	Specified in Annexes to the Certificate
Production site	CL MANGANÈS, 2 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 078.01.
First issued on	2025-02-17
Validity	2030-02-17

Rafael GARCÍA MEIRO
CEO

ENAC
CERTIFICACIÓN
ISO 17065
Nº1 / C-PR271

AENOR CONFÍA S.A.U.
Génova, 6. 28004 Madrid. España
Tel. 91 432 60 00.- www.aenor.com

Annex to Solar Keymark Certificate		Licence Number	078/000423
		Date issued	2025-02-17
		Issued by	AENOR

Licence holder	**BDR THERMEA GROUP B.V.**	**Country**	NETHERLANDS
Brand (optional)	BAXI	**Web**	http://www.bdrthermea.com
Street, Number	KANAAL ZUID, 106	**E-mail**	oscar.mongro@BDRThermea.com
Postcode, City	7332 BD APELDOORN (Güeldres)	**Tel**	+34 936828040

Collector Type	Flat plate collector

Collector name	Gross area (A_G)	Gross length	Gross width	Gross height	Power output per collector Gb = 850 W/m2, Gd = 150 W/m2 & u = 1.3 m/s $\vartheta_m - \vartheta_a$					
					0 K	10 K	30 K	50 K	70 K	100 K
	m²	mm	mm	mm	W	W	W	W	W	W
BAXI SLIM NEO 2.0	2,02	1.757	1.151	46	1.254	1.185	1.020	817	578	149
BAXI SLIM NEO 2.5	2,52	2.191	1.151	46	1.564	1.478	1.272	1.020	721	186
Power output per m² gross area					621	587	505	405	286	74

Performance parameters test method	Quasi dynamic									
Performance parameters (related to A_G)	η0, b	a1	a2	a3	a4	a5	a6	a7	a8	Kd
Units	-	W/(m²K)	W/(m²K²)	J/(m³K)	-	J/(m²K)	s/m	W/(m²K⁴)	W/(m²K⁴)	-
Test results	0,623	3,17	0,023	0,000	0,00	4.364	0,000	0,00	0,0E+00	0,97

Incidence angle modifier test method		Quasi dynamic - outdoor								
Incidence angle modifier	Angle	10°	20°	30°	40°	50°	60°	70°	80°	90°
Transversal	$K_{\theta T,coll}$	1,00	0,99	0,98	0,97	0,94	0,89	0,80	0,50	0,00
Longitudinal	$K_{\theta L,coll}$	1,00	0,99	0,98	0,97	0,94	0,89	0,80	0,50	0,00

Heat transfer medium for testing	Water		
Flow rate for testing (per gross area, A_G)	dm/dt	0,024	kg/(sm²)
Maximum temperature difference during thermal performance test	$(\vartheta_m-\vartheta_a)_{max}$	70	K
Standard stagnation temperature (G = 1000 W/m²; ϑ_a = 30 °C)	ϑ_{stg}	170	°C
Maximum operating temperature	ϑ_{max_op}	n.n.	°C
Maximum operating pressure	$p_{max,op}$	1000	kPa

Testing laboratory	TÜV Rheinland Solar GmbH	http://www.tuv.com/solar	
Test report(s)	DE25MHY2 001 DE25B28V 001	**Dated**	29/01/2025 29/01/2025

Comments of testing laboratory Ver. 6.2 (13.01.2022)

none

Annex to Solar Keymark Certificate	Licence Number	078/000423
Supplementary Information	Issued	2025-02-17

Gross Thermal Yield in kWh/collector at mean fluid temperature ϑ_m

Standard Locations		Athens			Davos			Stockholm			Würzburg		
Collector name	ϑ_m	25°C	50°C	75°C	25°C	50°C	75°C	25°C	50°C	75°C	25°C	50°C	75°C
BAXI SLIM NEO 2.0		2.030	1.361	757	1.495	928	458	1.115	661	323	1.220	719	346
BAXI SLIM NEO 2.5		2.532	1.698	945	1.865	1.158	571	1.390	825	403	1.522	896	432
Gross Thermal Yield per m² gross area		1.005	674	375	740	459	227	552	327	160	604	356	171
Annual efficiency, η_a		57%	38%	21%	45%	28%	14%	47%	28%	14%	49%	29%	14%
Fixed or tracking collector		Fixed (slope = latitude - 15°; rounded to nearest 5°)											
Annual irradiation on collector plane		1765 kWh/m²			1630 kWh/m²			1166 kWh/m²			1244 kWh/m²		
Mean annual ambient air temperature		18,5°C			3,2°C			7,5°C			9,0°C		
Collector orientation or tracking mode		South, 25°			South, 30°			South, 45°			South, 35°		

The collector is operated at constant temperature ϑm (mean of in- and outlet temperatures). The calculation of the annual collector performance is performed with the official Solar Keymark spreadsheet tool Scenocalc Ver. 6.2 (13.01.2022). A detailed description of the calculations is available at http://www.estif.org/solarkeymarknew/

Additional Information

Collector heat transfer medium				Water-Glycole	
The collector is deemed to be suitable for roof integration				No	
The collector was tested successfully under the following conditions:					
Climate class (A+, A, B or C)				A	--
G (W/m²) >	1000	ϑ_a (°C) >	20	H_x (MJ/m²) >	600
Maximum tested positive load				2400	Pa
Maximum tested negative load				1500	Pa
Hail resistance using ice balls (diameter)				35	mm

Additional collector attribute(s)

Using external power source(s) for normal operation	No	Active or passive measure(s) for self-protection	No
Co-generating thermal and electrical power	No	Façade collector(s)	No

Energy Labelling Information

	Reference Area, A_{sol} (m²)
BAXI SLIM NEO 2.0	2,02
BAXI SLIM NEO 2.5	2,52

Additional Informative Technical Data

Hydraulic Designation Code	Aperture Area, A_a (m²)
8-V-1234S-A:7.3,1595-C:13.6,1227	1,88
8-V-1234S-A:7.3,2029-C:13.6,1227	2,35

Data required for CDR (EU) No 811/2013 - Reference Area A_{sol}

Collector efficiency (η_{col})	46%

Remark: Collector efficiency (ηcol) is defined in CDR (EU) No 811/2013 as collector efficiency of the solar collector at a temperature difference between the solar collector and the surrounding air of 40 K and a global solar irradiance of 1000 W/m², expressed in % and rounded to the nearest integer. Deviating from the regulation ηcol is based on reference area (Asol) which is aperture area for values according to EN 12975-2 or gross area for ISO 9806:2017.

Data required for CDR (EU) No 812/2013 - Reference Area A_{sol}

Zero-loss efficiency (η_0)	0,62	--
First-order coefficient (a_1)	3,17	W/(m²K)
Second-order coefficient (a_2)	0,023	W/(m²K²)
Incidence angle modifier IAM (50°)	0,94	--

Remark: The data given in this section are related to collector reference area (A_{sol}) which is aperture area for values according to EN 12975-2 or gross area for ISO 9806. Consistent data sets for either aperture or gross area can be used in calculations like in the regulation 811 and 812 and simulation programs.