

Test report DBI F 19/07/0675 dated 30.09.2019

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Approved testing laboratory acc. to the German State building code, No. SAC24*

Notified test laboratory acc. to the Construction Products Regulation (CPR), notified body 1721

Approved DIN CERTCO testing laboratory, Register-No. PL 015*

Approved testing laboratory of the Association of Canton Fire Insurances (VKF Schweiz)*

Approved DVGW-test laboratory



Report regarding the initial type test of a series of roomheaters fired by solid fuel in accordance with DIN EN 13240

File no. / DBI F 19/07/0675

Test report no.

Test object Roomheater DIN EN 13240

Series: Nette Lette ...
Types / Nominal heat output: Nette Lette 00 / 8,0 kW
Nette Lette 01 / 10,0 kW
Nette Lette 02 / 14,0 kW
Nette Lette 03 / 18,0 kW

Version: --

The body of the roomheaters is made of sheet-steel. Convection air pipes are placed along the sides of the roomheaters. The firebox (steel jacket) also has a steel lining. A deflector plate as well as a downstream reheating area, placed behind the firebox, are also part of the roomheaters. The combustion air enters the firebox as primary and secondary air. The primary and secondary air are controlled manually by an air slide/handle for each type of air. The plane firebox door has a plane inspection glass.

Client SIA Ecotherm
Bauskas 86A
LV-1004 Riga, Latvia

Manufacturer Like client

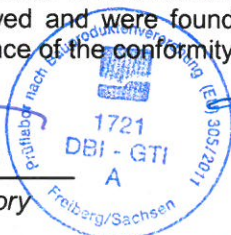
Scope of testing (Initial) Type test as part of the conformity assessment procedure for CE marking and assessment of the roomheaters regarding the fulfillment of product requirements in accordance with DIN EN 13240, Annex ZA.2

Test basis DIN EN 13240:2005-10
DIN EN 13240:2008-06 Correction 1

The essential product features in accordance with Annex ZA.1 to DIN EN 13240 for roomheaters fired by solid fuel were reviewed and were found to comply with the requirements. This establishes the prerequisite for performance of the conformity assessment procedure for qualification for CE marking.

Dipl.-Ing. Ronald Aßmann

Signature head of laboratory



M. Eng. Katrin Helbig

Signature test engineer

Freiberg, 30.09.2019

The test report is valid only in connection with the corresponding appliance.

The accreditation is valid only for the scope listed in the annex of the certificate (D-PL-11072-01-00). Remark: Test procedures indicated with star (*) are out of the scope of DAkkS-accreditation.

There is no correction of the measured results with the uncertainty of measurement in case of statement of conformity unless required by indicated test basis.

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Publication of pages 1 to 3 in full and in their original sequence is permitted.

Summary

Test period	15.04.2019 – 09.08.2019 Testing at the appliances 04.07.2019 – 30.09.2019 Preparation of the test report	
Test location	Test laboratory Freiberg	
Client / Manufacturer	SIA Ecotherm Bauskas 86A LV-1004 Riga, Latvia	
Test object	Roomheater fired by solid fuel, DIN EN 13240	
Appliance type	Intermittent burning appliance operating with firebox door closed	
Intended use	Space heating in residential buildings <u>without</u> hot water supply	
Type designation	Series:	Nette Lette ...
	Version:	--
Design, allowing for various versions	Body enclosure	Body made of sheet-steel
	Firebox	Firebox made of steel jacket with an included sheet steel deflector plate and also an additional downstream reheating area
	Firebox door(s)	Round, plane firebox door with spring-return mechanism and a plane inspection glass , handle made of steel
	Combustion air	Manually adjustable primary combustion air on the firebox door (at the front of the appliances) and also manually adjustable secondary combustion air at the back of the appliances
	Grate	Bottom of the firebox designed as grate with below placed ash tray
	Wood, warming, baking compartments	--
	Water bearing components	--
	Chimney flues	Shared flue system possible
	Fuels	Wood logs Manufactured wood logs (DIN 51731, HP2)

1 Characteristics of the appliances

Appliance	Series:	Nette Lette ...			
	Version:	--			
Type	-	Nette Lette 00	Nette Lette 01	Nette Lette 02	Nette Lette 03
Fuel	-	Wood logs			
Fuel throughput	kg/h	2,4	2,8	4,1	5,3
Total heating output	kW	8,0	10,0	14,0	18,0
Space heating output	kW	8,0	10,0	14,0	18,0
Water heating output	kW	--	--	--	--
CO emission based on 13 % O ₂	Vol.-%	0,092	0,097	0,098	0,096
CO emission based on 13 % O ₂	mg/m ³	1156,0	1210,2	1229,1	1206,1
CO emission – referred to fuel	mg/MJ	726,6	755,0	772,2	758,4
OGC emission based on 13 % O ₂ (Total C)	mg/m ³	103,5	72,4	85,1	70,5
OGC emission – referred to fuel (Total C)	mg/MJ	71,8	49,2	60,3	62,5
NO _x emission based on 13 % O ₂ (indicated as NO ₂)	mg/m ³	134,6	104,0	95,8	100,2
NO _x emission – referred to fuel (indicated as NO ₂)	mg/MJ	84,6	64,9	60,2	63,0
PM (Dust) emission based on 13 % O ₂	mg/m ³	37,1	35,3	37,2	32,8
PM (Dust) emission – referred to fuel	mg/MJ	23,4	22,1	23,4	20,6
Efficiency ¹⁾	%	85	87	84	84
Flue gas temperature (t _a -t _r) ¹⁾	K	175	150	233	222
Temperature of flue spigot or socket ^{1), 2)}	°C	240	205	313	297
Necessary flue draught	Pa	13	12	12	12
Flue gas mass flow	g/s	6,85	8,92	8,92	12,17
Permissible maximum operating pressure	bar	--			
Permissible maximum water temperature	°C	--			
Minimum clearance distances from exposed / combustible materials (Valid only for components made of combustible materials with a thermal resistance ≤ 1,2 m ² ·K/W):	Wall installation (Appliance positioned parallel to the walls) - from side walls - from rear walls from floor from ceiling in front of heat radiation area	850 450 0 -- 800			mm mm mm mm mm
Minimum size of required floor protection plate	to the front to the side	-- --			mm mm

¹⁾ The efficiency and the flue gas temperature was stated using standardized rounding rules to achieve the nearest integer (at 4 and below the value is rounded down and at 5 and higher the value is rounded up; rounding according to DIN EN 16510-1:2018-11, sec. A.5).

²⁾ The temperature of flue spigot or socket was calculated according to DIN EN 16510-1:2018-11, sec. 7.2.