Table 6. Nominal heat output test results

Parameter		Unit	Subsection of the standard EN 14785	Value			Conform to the requirements
				1 combustion period	2 combustion period	Average	
Test duration		h	A.4.7.3	3.01	3.00	3.01	Yes
Minimum required test duration		h	6.9	3.00	3.00	3.00	Yes
Deviation of test duration		%	A.5	0.4	0.0	0.2	Yes
Theoretical test duration		h	A.5	3.04	3.02	3.03	Yes
Fuel quantity		kg	A.4.2	6.41	6.44	6.42	---
Fuel consumption		kg/h	---	2.13	2.15	2.14	---
Draught		Pa	6.1	12.9	13.3	13.1	Yes
Cross-draught		m/s	A.1.2	< 0.4	< 0.4	< 0.4	Yes
Ambient air temperature		°C	A.1.1	22.4	22.9	22.7	---
Flue gas temperature		°C	6.2	234.0	236.8	235.4	---
Thermal losses in the flue gas		%	A.6.2.1.1	14.5	14.5	14.5	---
Chemical losses in the flue gas		%	A.6.2.1.2	0.3	0.3	0.3	---
Combustible heat losses in the residue		%	A.4.6	0.2	0.2	0.2	---
Efficiency		%	6.4	85.1	85.0	85.0	Yes
CO_2 concentration		%	---	10.5	10.6	10.5	---
CO concentration		ppm	6.3	467	491	479	---
CO concentration (13 % O_2)		%	6.3	0.035	0.037	0.036	Yes
CO concentration (13 % O_2)		mg/m³	6.3	438	457	447	Yes
CO concentration		mg/MJ	---	262	274	268	---
Nominal heat output		kW	6.5	8.6	8.7	8.6	Yes
Nominal heat output declared by the manufacturer		kW	---	8.5	8.5	8.5	---
Deviation of nominal heat output from declared value		%	A.5	1.3	2.1	1.7	Yes
Deviation of nominal heat output from average value		%	A.5	0.4	0.4	---	Yes
Theoretical nominal heat output		kW	A.5	8.7	8.6	8.7	Yes
Flue gas mass flow		g/s	A.6.2.5	6.1	6.1	6.1	---
Maximum temperatures of trihedron walls	Test hearth	°C	5.1	63	65	---	Yes
	Side	°C	5.1	81	83	---	Yes
	Rear wall	°C	5.1	40	41	---	Yes
Maximum temperature of controller surface		°C	5.2	41	41	---	Yes
Maximum temperature of fuel hopper		°C	5.4, 5.5	66	68	---	Yes

Note. Temperatures of the handles surfaces were not measured because the manufacturer provides for their control the handle-hook as auxiliary tool.

Table 7. Expanded uncertainties of measured and calculated parameters

Parameter	Expanded uncertainty
Fuel quantity	±12 g
Draught	±1 Pa
Cross-draught	±3.2 %
Ambient air temperature	±0.07 °C
Flue gas temperature	±0.7 °C

5.3. Reduced heat output test

Test was carried out according to the requirements of subsection A.4.8 of the standard EN 14785. The calculations were done according to the requirements of subsections A.5 and A.6.2 of the standard EN 14785. Expanded uncertainties of measured parameters are given in table 7.

Settings of the control device:

- heat output – 1;
- fan – Auto.

Table 8. Reduced heat output test results

Parameter	Unit	Subsection of the standard EN 14785	Value			Conform to the requirements
			1 combustion period	2 combustion period	Average	
Test duration	h	A.4.7.3	6.00	6.00	6.00	Yes
Minimum required test duration	h	6.9	6.00	6.00	6.00	Yes
Deviation of test duration	%	A.5	0.0	0.0	0.0	Yes
Fuel quantity	kg	A.4.2	3.65	3.68	3.66	---
Fuel consumption	kg/h	---	0.61	0.61	0.61	---
Draught	Pa	6.1	9.7	10.5	10.1	Yes
Cross-draught	m/s	A.1.2	< 0.4	< 0.4	< 0.4	Yes
Ambient air temperature	°C	A.1.1	21.7	21.6	21.7	---
Flue gas temperature	°C	6.2	97.7	100.2	98.9	---
Thermal losses in the flue gas	%	A.6.2.1.1	8.1	8.5	8.3	---
Chemical losses in the flue gas	%	A.6.2.1.2	0.1	0.1	0.1	---
Combustible heat losses in the residue	%	A.4.6	0.2	0.2	0.2	---
Efficiency	%	6.4	91.7	91.2	91.4	Yes
CO_2 concentration	%	---	6.3	6.1	6.2	---
CO concentration	ppm	6.3	87	90	89	---
CO concentration (13 % O_2)	%	6.3	0.011	0.012	0.011	Yes
CO concentration (13 % O_2)	mg/m^3	6.3	135	144	140	Yes
CO concentration	mg/MJ	---	81	86	84	---
Reduced heat output	kW	6.5	2.7	2.7	2.7	Yes
Reduced heat output declared by the manufacturer	kW	---	2.7	2.7	2.7	---
Deviation of reduced heat output from declared value	%	A.5	0.0	0.0	0.0	Yes
Deviation of reduced heat output from average value	%	A.5	0.0	0.0	---	Yes
Theoretical reduced heat output	kW	A.5	2.6	2.7	2.7	Yes
Flue gas mass flow	g/s	A.6.2.5	3.0	3.1	3.0	---

Diagrams of CO_2 and CO concentrations and flue gas temperature at reduced heat output are given in Figures 3 and 4.