

**Report No. K 3535 2025 T1**

**Residential solid fuel burning appliances:  
mechanically by wood pellets fed roomheaters, inset appliances and cookers**

**in accordance with  
DIN EN 16510-1:2023-02 and DIN EN 16510-2-6:2023-02**

Type:

**AP400S\_0\_09/10/11/12/13 EN**

**AP400S\_1\_09/10/11/12/13 EN**

**AP400B\_0\_09/10/11/12/13 EN**

**AP400B\_1\_09/10/11/12/13 EN**

Trademark:

**PALAZZETTI**

Company:

**PALAZZETTI LELIO S.p.A.**



Deutsche  
Akkreditierungsstelle  
D-PL-11120-04-00

This accreditation is valid only for the listed standards as stated in the accreditation annex of D-PL-11120-04-00

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**Publication of page 2 is permitted.**

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### Test report

#### Residential solid fuel burning appliances:

mechanically by wood pellets fed roomheaters, inset appliances and cookers

**DIN EN 16510-1: 2023-02 and DIN EN 16510-2-6:2023-02**

Historical assessment data based on test report K31232021T1

Applicant/contractor:	<b>PALAZZETTI LELIO S.p.A.</b> Via Roveredo, 103 33080 Porcia (PN) - Italy
Trademark:	<b>PALAZZETTI</b>
Type designations:	<b>AP400S_0_09/10/11/12/13 EN</b> <b>AP400S_1_09/10/11/12/13 EN</b> <b>AP400B_0_09/10/11/12/13 EN</b> <b>AP400B_1_09/10/11/12/13 EN</b>
Additional identical roomheaters	See pages 4-5
Appliance description:	Mechanical by wood pellets fed roomheater
Test fuel:	Wood pellets Ø 6 mm, Lmax 30 mm, max humidity 6,7%, Salzburg, class A1 according to EN 17225-2.

#### Specified data by applicant

Type of appliance:	CC50
Total heat input [kW]:	See overview models designation table on page 3
Space heat output [kW]:	See overview models designation table on page 3
Water heat output:	Not applicable
Max. water pressure:	Not applicable
Max. water temperature:	Not applicable

**Remark:** Room sealed appliances

**Test basis:** DIN EN 16510-1:2023-02 and DIN EN 16510-2-6:2023-02.

**Test results:** The appliances conform with the requirements of DIN EN 16510-1:2023-02, except for clauses 5.8, 7 and 8, and DIN EN 16510-2-6:2023-02, except for clause 4.9, which are not part of this assessment.

Performance assessments regarding environmental sustainability is not subject of this report. A possible NPD declaration by the manufacturer is also not included in the present report. The appliances conform with the essential declared characteristics of table ZA.1 of DIN EN 16510-2-6:2023-02, documented with test report K 3535 2025 B2.

Dated in Cologne, 2025-05-28

TÜV Rheinland Energy & Environment GmbH  
Test Centre according to Construction  
Product Regulation 305/2011(CPR)  
Notified Body: 2456

Assessor:

Report released after review:

Dipl.-Ing. A. Pomp

Dipl.-Ing. M. Reimbold

**Overview models designation table**

Model designation	Nominal heat input (kW)	Nominal heat output (kW)	Horizontal flue gas outlet	Upright flue gas outlet	Burner manually removable for cleaning	Automatic cleaning system for the burner
AP400S_0_09 EN	3,1 – 10,2	2,8 – 9,3	X			X
AP400B_0_09 EN	3,1 – 10,2	2,8 – 9,3		X		X
AP400S_1_09 EN	3,5 – 9,9	3,2 – 9,0	X		X	
AP400B_1_09 EN	3,5 – 9,9	3,2 – 9,0		X	X	
AP400S_0_10 EN	3,1 – 10,9	2,8 – 10,0	X			X
AP400B_0_10 EN	3,1 – 10,9	2,8 – 10,0		X		X
AP400S_1_10 EN	3,5 – 11,0	3,2 – 10,0	X		X	
AP400B_1_10 EN	3,5 – 11,0	3,2 – 10,0		X	X	
AP400S_0_11 EN	3,1 – 12,1	2,8 – 11,0	X			X
AP400B_0_11 EN	3,1 – 12,1	2,8 – 11,0		X		X
AP400S_1_11 EN	3,5 – 12,1	3,2 – 11,0	X		X	
AP400B_1_11 EN	3,5 – 12,1	3,2 – 11,0		X	X	
AP400S_0_12 EN	3,1 – 13,2	2,8 – 12,0	X			X
AP400B_0_12 EN	3,1 – 13,2	2,8 – 12,0		X		X
AP400S_1_12 EN	3,5 – 13,3	3,2 – 12,0	X		X	
AP400B_1_12 EN	3,5 – 13,3	3,2 – 12,0		X	X	
AP400S_0_13 EN	3,1 – 14,4	2,8 – 13,0	X			X
AP400B_0_13 EN	3,1 – 14,4	2,8 – 13,0		X		X
AP400S_1_13 EN	3,5 – 14,6	3,2 – 13,2	X		X	
AP400B_1_13 EN	3,5 – 14,6	3,2 – 13,2		X	X	

## 1 Task

The Test Centre for Energy Appliances was instructed to execute the initial type testing on the appliances AP400S\_0\_09, AP400S\_0\_13, AP400S\_1\_09 and AP400S\_1\_13 for the operation with wood pellets according to DIN EN 14785:2006, clauses 4-8.

Further comparison and safety tests have been carried out on the stove AP400S\_0\_13, not fitted with the air inlet pressure sensor, and on the room heaters with type AP400B\_0\_13 and AP400B\_1\_13 arranged for the concentric flue gas system.

The electrical safety, cl. 5.9. of the standard, was not a part of this initial type testing.

The practical tests were performed by CMC Centro Misura Compatibilità S.r.l., via della Fisica 20 Thiene (VI), on the 19th - 20th - 21th - 22th - 23th of July, on the 28th of September and on the 22th - 23th - 24th - 26th of November 2021.

The data documented in this test report are based on historical data of the initial type testing report no.: K31232021T1 issued according to DIN EN 14785.

The manufacturer declares that the construction, functional- and safety-related components and design of models **AP400S\_0\_09/10/11/12/13 EN**, **AP400S\_1\_09/10/11/12/13 EN**, **AP400B\_0\_09/10/11/12/13 EN** and **AP400B\_1\_09/10/11/12/13 EN** are identical to the one documented in the initial type testing report no.: K31232021T1 (see also Appendix A01).

Type appliance	Latest report number	New type designations acc. DIN EN 16510-1 + DIN EN 16510-2-6 with report numbers K 3535 2025 T1 and K 3535 2025 B2
AP400S_0_09/10/11/12/13 AP400S_1_09/10/11/12/13 AP400B_0_09/10/11/12/13 AP400B_1_09/10/11/12/13	K31232021T1	AP400S_0_09/10/11/12/13 EN AP400S_1_09/10/11/12/13 EN AP400B_0_09/10/11/12/13 EN AP400B_1_09/10/11/12/13 EN
<b>Additional identical roomheaters from extension reports</b>		
Ecofire Vivienne 9 Ecofire Vivienne 12 Ecofire Vivienne 13 Ecofire Vivienne 9 pro 2 Ecofire Vivienne 12 pro 3 Ecofire Vivienne 13 pro 3	K32312022Z1	Ecofire Vivienne 9 EN Ecofire Vivienne 12 EN Ecofire Vivienne 13 EN Ecofire Vivienne 9 pro 2 EN Ecofire Vivienne 12 pro 3 EN Ecofire Vivienne 13 pro 3 EN
Ecofire Vivienne 9 us Ecofire Vivienne 12 us Ecofire Vivienne 9 us pro 2 Ecofire Vivienne 12 us pro 2	K32302022Z1	Ecofire Vivienne 9 us EN Ecofire Vivienne 12 us EN Ecofire Vivienne 9 us pro 2 EN Ecofire Vivienne 12 us pro 2 EN
Ecofire Clelia 9 Ecofire Clelia 13 Ecofire Clelia 9 pro 2 Ecofire Clelia 13 pro 3	K32322022Z1	Ecofire Clelia 9 EN Ecofire Clelia 13 EN Ecofire Clelia 9 pro 2 EN Ecofire Clelia 13 pro 3 EN
Ecofire Clelia Tc 9 Ecofire Clelia Tc 13 Ecofire Clelia Tc 9 pro 2 Ecofire Clelia Tc 13 pro 3	K32402022Z1	Ecofire Clelia Tc 9 EN Ecofire Clelia Tc 13 EN Ecofire Clelia Tc 9 pro 2 EN Ecofire Clelia Tc 13 pro 3 EN

Type appliance	Latest report number	New type designations acc. DIN EN 16510-1 + DIN EN 16510-2-6 with report numbers K 3535 2025 T1 and K 3535 2025 B2
<b>Additional identical roomheaters from extension reports</b>		
Ecofire Nadine Tc 9 us Ecofire Nadine Tc 12 us Ecofire Nadine Tc 9 us pro 2 Ecofire Nadine Tc 12 us pro 2	K33072022Z1	Ecofire Nadine Tc 9 us EN Ecofire Nadine Tc 12 us EN Ecofire Nadine Tc 9 us pro 2 EN Ecofire Nadine Tc 12 us pro 2 EN
Ecofire Clelia Tc 9 us Ecofire Clelia Tc 12 us Ecofire Clelia Tc 9 us pro 2 Ecofire Clelia Tc 12 us pro 2	K33082022Z1	Ecofire Clelia Tc 9 us EN Ecofire Clelia Tc 12 us EN Ecofire Clelia Tc 9 us pro 2 EN Ecofire Clelia Tc 12 us pro 2 EN
Ecofire Lilibet Tc 9 us Ecofire Lilibet Tc 12 us Ecofire Lilibet Tc 9 us pro 2 Ecofire Lilibet Tc 12 us pro 2	K33092022Z1	Ecofire Lilibet Tc 9 us EN Ecofire Lilibet Tc 12 us EN Ecofire Lilibet Tc 9 us pro 2 EN Ecofire Lilibet Tc 12 us pro 2 EN
Ecofire Clelia 9 us Ecofire Clelia 12 us Ecofire Clelia 9 us pro 2 Ecofire Clelia 12 us pro 2	K33122022Z1	Ecofire Clelia 9 us EN Ecofire Clelia 12 us EN Ecofire Clelia 9 us pro 2 EN Ecofire Clelia 12 us pro 2 EN
Ecofire Nadine Tc 9 Ecofire Nadine Tc 13 Ecofire Nadine Tc 9 pro 2 Ecofire Nadine Tc 13 pro 3	K33112022Z1	Ecofire Nadine Tc 9 EN Ecofire Nadine Tc 13 EN Ecofire Nadine Tc 9 pro 2 EN Ecofire Nadine Tc 13 pro 3 EN
Ecofire Lilibet tc 9 Ecofire Lilibet tc 13 Ecofire Lilibet tc 9 pro 2 Ecofire Lilibet tc 13 pro 3	K33102022Z1	Ecofire Lilibet tc 9 EN Ecofire Lilibet tc 13 EN Ecofire Lilibet tc 9 pro 2 EN Ecofire Lilibet tc 13 pro 3 EN
Ecofire Nadine 9 us Ecofire Nadine 12 us Ecofire Nadine 9 us pro 2 Ecofire Nadine 12 us pro 2	K34052022Z1	Ecofire Nadine 9 us EN Ecofire Nadine 12 us EN Ecofire Nadine 9 us pro 2 EN Ecofire Nadine 12 us pro 2 EN
Ecofire Lilibet 9 us Ecofire Lilibet 12 us Ecofire Lilibet 9 us pro 2 Ecofire Lilibet 12 us pro 2	K34062022Z1	Ecofire Lilibet 9 us EN Ecofire Lilibet 12 us EN Ecofire Lilibet 9 us pro 2 EN Ecofire Lilibet 12 us pro 2 EN
Ecofire Lilibet 9 Ecofire Lilibet 13 Ecofire Lilibet 9 pro 2 Ecofire Lilibet 13 pro 3	K34072022Z1	Ecofire Lilibet 9 EN Ecofire Lilibet 13 EN Ecofire Lilibet 9 pro 2 EN Ecofire Lilibet 13 pro 3 EN
Ecofire Nadine 9 Ecofire Nadine 13 Ecofire Nadine 9 pro 2 Ecofire Nadine 13 pro 3	K34082022Z1	Ecofire Nadine 9 EN Ecofire Nadine 13 EN Ecofire Nadine 9 pro 2 EN Ecofire Nadine 13 pro 3 EN

## 2 Description of the appliance

### 2.1 Construction

Residential space heating appliances fired by wood pellets without water heat exchanger. The flue discharge for pellet operation is fan assisted. The stoves are equipped with an automatic ignition.

The appliances are equipped with an air inlet pressure sensor as control for exhaust flue gas fan speed. There is the optional possibility to equip the appliances without the air inlet pressure sensor: in this case, the exhaust flue gas fan speed is determined by the selected power.

**AP400S\_0\_09 EN, AP400S\_0\_10 EN, AP400S\_0\_11 EN, AP400S\_0\_12 EN and AP400S\_0\_13 EN** appliances are all identical in construction: only software setups at nominal load are different.

Main features of “AP400S\_0\_xx” appliances:

- All appliances are equipped with an automatic cleaning system for the burner;
- The flue gas outlet is positioned on the backside of the stoves;
- The stoves are equipped with a frontal “ambient” hot air convection blower;
- The stoves may be equipped with one or two optional canalization hot air convection blowers on the backside of the appliance.

**AP400B\_0\_09 EN, AP400B\_0\_10 EN, AP400B\_0\_11 EN, AP400B\_0\_12 EN and AP400B\_0\_13 EN** appliances are all identical to the relative “AP400S\_0\_xx” appliances, except than:

- “AP400B\_0\_xx EN” models are all arranged for the concentric flue gas system (upright connection).
- “AP400B\_0\_xx EN” model may be equipped with only one optional canalization hot air convection blower on the backside of the appliance.

**AP400S\_1\_09 EN, AP400S\_1\_10 EN, AP400S\_1\_11 EN, AP400S\_1\_12 EN and AP400S\_1\_13 EN** appliances are all identical in construction to the relative “AP400S\_0\_xx EN” models, except than for the different burner design (in this case, the cleaning is manual and not automatic).

**AP400B\_1\_09 EN, AP400B\_1\_10 EN, AP400B\_1\_11 EN, AP400B\_1\_12 EN and AP400B\_1\_13 EN** appliances are all identical in construction to the relative “AP400B\_0\_xx EN” models, except than for the different burner design (in this case, the cleaning is manual and not automatic).

The user can adjust independently the speed of the 3 (when provided) ambient/canalisation hot air convection blowers in different steps, from power off to maximum speed.

The type designation AP400S\_0\_10 EN, AP400S\_0\_11 EN, AP400S\_0\_12 EN, AP400B\_0\_10 EN, AP400B\_0\_11 EN, AP400B\_0\_12 EN, AP400S\_1\_10 EN, AP400S\_1\_11 EN, AP400S\_1\_12 EN, AP400B\_1\_10 EN, AP400B\_1\_11 EN and AP400B\_1\_12 EN are based on families of appliances and was not tested (see Annex G of EN16510-1)

More details in test report K3123 2021 T1



## 2.2 Photos of the tested appliances

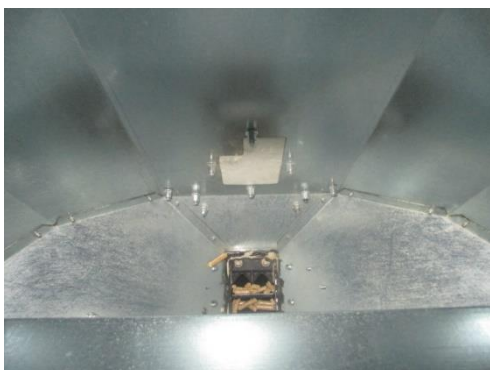
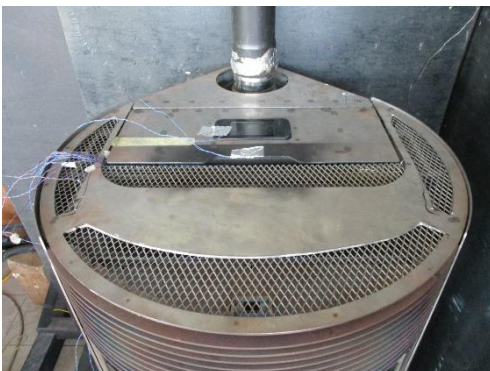
AP400S\_0\_09 EN, AP400B\_0\_09 EN, AP400S\_1\_09 EN, AP400B\_1\_09 EN, AP400S\_0\_10 EN, AP400B\_0\_10 EN, AP400S\_1\_10 EN, AP400B\_1\_10 EN, AP400S\_0\_11 EN, AP400B\_0\_11 EN, AP400S\_1\_11 EN, AP400B\_1\_11 EN, AP400S\_0\_12 EN, AP400B\_0\_12 EN, AP400S\_1\_12 EN, AP400B\_1\_12 EN, AP400S\_0\_13 EN, AP400B\_0\_13 EN, AP400S\_1\_13 EN, AP400B\_1\_13 EN  
(photos in common for all models)



**AP400S\_0\_09 EN, AP400S\_1\_09 EN, AP400S\_0\_10 EN, AP400S\_1\_10 EN, AP400S\_0\_11 EN,  
AP400S\_1\_11 EN, AP400S\_0\_12 EN, AP400S\_1\_12 EN, AP400S\_0\_13 EN, AP400S\_1\_13 EN,  
(horizontal flue gas outlet)**



**AP400B\_0\_09 EN, AP400B\_1\_09 EN, AP400B\_0\_10 EN, AP400B\_1\_10 EN, AP400B\_0\_11 EN,  
AP400B\_1\_11 EN, AP400B\_0\_12 EN, AP400B\_1\_12 EN, AP400B\_0\_13 EN, AP400B\_1\_13 EN,  
(upright flue gas outlet)**





**AP400S\_0\_09 EN, AP400B\_0\_09 EN, AP400S\_0\_10 EN, AP400B\_0\_10 EN, AP400S\_0\_11 EN,  
AP400B\_0\_11 EN, AP400S\_0\_12 EN, AP400B\_0\_12 EN, AP400S\_0\_13 EN, AP400B\_0\_13 EN**  
(automatic cleaning system for the burner)



**AP400S\_1\_09 EN, AP400B\_1\_09 EN, AP400S\_1\_10 EN, AP400B\_1\_10 EN, AP400S\_1\_11 EN,  
AP400B\_1\_11 EN, AP400S\_1\_12 EN, AP400B\_1\_12 EN, AP400S\_1\_13 EN, AP400B\_1\_13 EN**  
(burner manually removable for cleaning)



### 2.3 General technical specified data of the appliances

Model name:		AP400B_0_09 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	9.3 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	9.3 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	91 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	90 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	87 %
$EEI$	Energy efficiency index, given as an integer	128
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	250 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>

<b><math>NO_{xpart}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	92 mg/m <sup>3</sup>
<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	5 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	9 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	16 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>el_{SB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>el_{max}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW

<b><math>e_{lmin}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz
<b><math>W_{max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{snom}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	220 °C
<b><math>T_{spart}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	127 °C
<b><math>T_{class}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{f,g nom}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	4.9 g/s
<b><math>\phi_{f,g part}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.4 g/s
<b><math>V_h</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{out}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	665 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	165.0 kg
<b><math>m_{chim}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400B_0_10 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	10 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	10 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	90 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	90 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	87 %
$EEI$	Energy efficiency index, given as an integer	127
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	250 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>



<b><math>NO_{xpart}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	92 mg/m <sup>3</sup>
<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	5 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	13 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	16 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>el_{SB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>el_{max}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW

<b><math>e_{l\min}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz
<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	228 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	127 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{f,g \text{ nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	5.2 g/s
<b><math>\phi_{f,g \text{ part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.4 g/s
<b><math>V_h</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	665 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	165.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400B_0_11 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	11 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	11 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	90 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	90 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	87 %
$EEI$	Energy efficiency index, given as an integer	127
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	250 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>
$NO_{xpart} (13\ \% O_2)$	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	92 mg/m <sup>3</sup>

<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	5 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	13 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	16 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>e_{lSB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>e_{lmax}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW
<b><math>e_{lmin}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz

<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	241 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	127 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{\text{f,g nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	5.6 g/s
<b><math>\phi_{\text{f,g part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.4 g/s
<b><math>V_{\text{h}}</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	665 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	165.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg



Model name:		AP400B_0_12 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	12 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	12 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	90 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	90 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	87 %
$EEI$	Energy efficiency index, given as an integer	127
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	250 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>
$NO_{xpart} (13\ \% O_2)$	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	92 mg/m <sup>3</sup>

<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	5 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	13 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	16 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>e_{lSB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>e_{lmax}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW
<b><math>e_{lmin}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz

<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	253 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	127 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{\text{f,g nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	5.9 g/s
<b><math>\phi_{\text{f,g part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.4 g/s
<b><math>V_{\text{h}}</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	665 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	165.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400B_0_13 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	13 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	13 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	90 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	90 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	87 %
$EEI$	Energy efficiency index, given as an integer	127
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	250 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>
$NO_{xpart} (13\ \% O_2)$	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	92 mg/m <sup>3</sup>

<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	5 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	13 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	16 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>e_{lSB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>e_{lmax}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW
<b><math>e_{lmin}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz



<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	265 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	127 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{\text{f,g nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	6.3 g/s
<b><math>\phi_{\text{f,g part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.4 g/s
<b><math>V_{\text{h}}</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	665 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	165.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400B_1_09 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	9 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	9 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	91 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	89 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	87 %
$EEI$	Energy efficiency index, given as an integer	128
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	298 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>
$NO_{xpart} (13\ \% O_2)$	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	57 mg/m <sup>3</sup>

<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	4 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	5 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	7 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>e_{lSB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>e_{lmax}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW
<b><math>e_{lmin}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz

<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	201 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	131 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{\text{f,g nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	5.5 g/s
<b><math>\phi_{\text{f,g part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.8 g/s
<b><math>V_{\text{h}}</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	665 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	165.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400B_1_10 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	10 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	10 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	90 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	89 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	86 %
$EEI$	Energy efficiency index, given as an integer	127
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	298 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>



<b><math>NO_{xpart}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	57 mg/m <sup>3</sup>
<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	4 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	15 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	7 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>el_{SB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>el_{max}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW

<b><math>e_{l\min}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz
<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	217 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	131 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{f,g \text{ nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	5.7 g/s
<b><math>\phi_{f,g \text{ part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.8 g/s
<b><math>V_h</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	665 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	165.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400B_1_11 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	11 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	11 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	90 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	89 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	87 %
$EEI$	Energy efficiency index, given as an integer	127
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	298 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>
$NO_{xpart} (13\ \% O_2)$	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	57 mg/m <sup>3</sup>

<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	4 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	15 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	7 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>e_{lSB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>e_{lmax}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW
<b><math>e_{lmin}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz

<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	233 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	131 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{\text{f,g nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	5.9 g/s
<b><math>\phi_{\text{f,g part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.8 g/s
<b><math>V_{\text{h}}</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	665 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	165.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400B_1_12 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	12 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	12 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	90 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	89 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	87 %
$EEI$	Energy efficiency index, given as an integer	127
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	298 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>
$NO_{xpart} (13\ \% O_2)$	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	57 mg/m <sup>3</sup>



<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	4 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	15 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	7 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>e_{lSB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>e_{lmax}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW
<b><math>e_{lmin}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz

<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	250 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	131 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{\text{f,g nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	6.1 g/s
<b><math>\phi_{\text{f,g part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.8 g/s
<b><math>V_{\text{h}}</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	665 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	165.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400B_1_13 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	13.2 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	13.2 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	90 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	89 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	87 %
$EEI$	Energy efficiency index, given as an integer	127
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	298 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>
$NO_{xpart} (13\ \% O_2)$	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	57 mg/m <sup>3</sup>

<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	4 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	15 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	7 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>e_{lSB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>e_{lmax}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW
<b><math>e_{lmin}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz

<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	269 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	131 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{\text{f,g nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	6.4 g/s
<b><math>\phi_{\text{f,g part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.8 g/s
<b><math>V_{\text{h}}</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	665 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	165.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400S_0_09 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	9.3 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	9.3 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	91 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	90 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	87 %
$EEI$	Energy efficiency index, given as an integer	128
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	250 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>
$NO_{xpart} (13\ \% O_2)$	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	92 mg/m <sup>3</sup>



<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	5 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	9 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	16 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>e_{lSB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>e_{lmax}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW
<b><math>e_{lmin}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz

<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	220 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	127 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{\text{f,g nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	4.9 g/s
<b><math>\phi_{\text{f,g part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.4 g/s
<b><math>V_{\text{h}}</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	578 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	155.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400S_0_10 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	10 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	10 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	90 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	90 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	87 %
$EEI$	Energy efficiency index, given as an integer	127
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	250 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>

<b><math>NO_{xpart}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	92 mg/m <sup>3</sup>
<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	5 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	13 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	16 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>el_{SB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>el_{max}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW

<b><math>e_{lmin}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz
<b><math>W_{max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{snom}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	228 °C
<b><math>T_{spart}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	127 °C
<b><math>T_{class}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{f,g nom}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	5.2 g/s
<b><math>\phi_{f,g part}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.4 g/s
<b><math>V_h</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{out}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	578 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	155.0 kg
<b><math>m_{chim}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400S_0_11 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	11 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	11 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	90 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	90 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	88 %
$EEI$	Energy efficiency index, given as an integer	127
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	250 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>
$NO_{xpart} (13\ \% O_2)$	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	92 mg/m <sup>3</sup>



<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	5 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	13 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	16 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>e_{lSB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>e_{lmax}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW
<b><math>e_{lmin}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz

<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	241 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	127 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{\text{f,g nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	5.6 g/s
<b><math>\phi_{\text{f,g part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.4 g/s
<b><math>V_{\text{h}}</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	578 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	155.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400S_0_12 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	12 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	12 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	90 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	90 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	87 %
$EEI$	Energy efficiency index, given as an integer	127
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	250 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>
$NO_{xpart} (13\ \% O_2)$	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	92 mg/m <sup>3</sup>

<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	5 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	13 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	16 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>e_{lSB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>e_{lmax}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW
<b><math>e_{lmin}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz

<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	253 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	127 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{\text{f,g nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	5.9 g/s
<b><math>\phi_{\text{f,g part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.4 g/s
<b><math>V_{\text{h}}</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	578 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	155.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400S_0_13 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	13 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	13 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2.8 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	90 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	90 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	87 %
$EEI$	Energy efficiency index, given as an integer	127
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	250 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>
$NO_{xpart} (13\ \% O_2)$	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	92 mg/m <sup>3</sup>



<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	5 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	13 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	16 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>e_{lSB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>e_{lmax}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW
<b><math>e_{lmin}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz

<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	265 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	127 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{\text{f,g nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	6.3 g/s
<b><math>\phi_{\text{f,g part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.4 g/s
<b><math>V_{\text{h}}</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	578 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	155.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400S_1_09 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	9 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	9 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	91 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	89 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	87 %
$EEI$	Energy efficiency index, given as an integer	128
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	298 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>
$NO_{xpart} (13\ \% O_2)$	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	57 mg/m <sup>3</sup>

<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	4 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	5 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	7 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>e_{lSB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>e_{lmax}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW
<b><math>e_{lmin}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz

<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	201 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	131 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{\text{f,g nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	5.5 g/s
<b><math>\phi_{\text{f,g part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.8 g/s
<b><math>V_{\text{h}}</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	578 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	155.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400S_1_10 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	10 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	10 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	90 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	89 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	86 %
$EEI$	Energy efficiency index, given as an integer	127
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	298 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>



<b><math>NO_{xpart}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	57 mg/m <sup>3</sup>
<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	4 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	15 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	7 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>el_{SB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>el_{max}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW

<b><math>e_{l\min}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz
<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	217 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	131 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{f,g \text{ nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	5.7 g/s
<b><math>\phi_{f,g \text{ part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.8 g/s
<b><math>V_h</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	578 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	155.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400S_1_11 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	11 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	11 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	90 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	89 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	87 %
$EEI$	Energy efficiency index, given as an integer	127
$CO_{nom} (13 \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13 \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	298 mg/m <sup>3</sup>
$CO_{slow} (13 \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13 \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>
$NO_{xpart} (13 \% O_2)$	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	57 mg/m <sup>3</sup>

<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	4 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	15 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	7 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>e_{lSB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>e_{lmax}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW
<b><math>e_{lmin}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz

<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	233 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	131 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{\text{f,g nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	5.9 g/s
<b><math>\phi_{\text{f,g part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.8 g/s
<b><math>V_{\text{h}}</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	578 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	155.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400S_1_12 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	12 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	12 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	90 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	89 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	87 %
$EEI$	Energy efficiency index, given as an integer	127
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	298 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>
$NO_{xpart} (13\ \% O_2)$	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	57 mg/m <sup>3</sup>



<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	4 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	15 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	7 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>e_{lSB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>e_{lmax}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW
<b><math>e_{lmin}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz

<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	250 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	131 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{\text{f,g nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	6.1 g/s
<b><math>\phi_{\text{f,g part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.8 g/s
<b><math>V_{\text{h}}</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	578 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	155.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

Model name:		AP400S_1_13 EN
Parameter	Explanation	Specified data by the applicant
$P_{nom}$	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	13.2 kW
$P_{SHnom}$	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	13.2 kW
$P_{Wnom}$	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	--
$P_{part}$	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{SHpart}$	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3.2 kW
$P_{Wpart}$	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	---
$P_{slow}$	Heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{SHslow}$	Space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	--
$P_{Wslow}$	Water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, with 1 decimal	--
$P_{acc\ in}$	Accumulator heat input, in kW or W for Kachelofen inset appliances only	--
$T_{acc\ in}$	Temperature at the separate heat exchanger inlet, for Kachelofen inset appliances only, given as an integer	--
$\zeta_{acc}$	Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only	--
$\eta_{nom}$	Appliance efficiency at nominal heat output, given as an integer	90 %
$\eta_{part}$	Appliance efficiency at part load heat output, given as an integer	89 %
$\eta_s$	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	87 %
$EEI$	Energy efficiency index, given as an integer	127
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	50 mg/m <sup>3</sup>
$CO_{part} (13\ \% O_2)$	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	298 mg/m <sup>3</sup>
$CO_{slow} (13\ \% O_2)$	CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
$NO_{xnom} (13\ \% O_2)$	NOx emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m <sup>3</sup>
$NO_{xpart} (13\ \% O_2)$	NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer	57 mg/m <sup>3</sup>

<b><math>NO_{xslow}</math> (13 % <math>O_2</math>)</b>	NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>OGC_{nom}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer	2 mg/m <sup>3</sup>
<b><math>OGC_{part}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	4 mg/m <sup>3</sup>
<b><math>OGC_{slow}</math> (13 % <math>O_2</math>)</b>	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>PM_{nom}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer	15 mg/m <sup>3</sup>
<b><math>PM_{part}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer	7 mg/m <sup>3</sup>
<b><math>PM_{slow}</math> (13 % <math>O_2</math>)</b>	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer	--
<b><math>p_{nom}</math></b>	Minimum flue draught at nominal heat output, given as an integer	12 Pa
<b><math>p_{part}</math></b>	Minimum flue draught at part load heat output if specified, given as an integer	10 Pa
<b><math>p_{slow}</math></b>	Minimum flue draught at heat output at slow combustion if specified, given as an integer	--
<b><math>p_w</math></b>	Permissible maximum water operating pressure, if applicable, given with 1 decimal	--
<b><math>d_R</math></b>	Minimum distances from the rear to combustible material, given as an integer	50 mm
<b><math>d_S</math></b>	Minimum distances from the sides to combustible material, given as an integer	200 mm
<b><math>d_C</math></b>	Minimum distances from the top to combustible material in the ceiling, given as an integer	750 mm
<b><math>d_P</math></b>	Minimum distances from the front to combustible material	800 mm
<b><math>d_F</math></b>	Minimum distances from the front to combustible material in bottom front radiation area, given as an integer	1500 mm
<b><math>d_L</math></b>	Minimum distances from the front to combustible material in side front radiation area, given as an integer	1500 mm
<b><math>d_B</math></b>	Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer	0 mm
<b><math>d_{non}</math></b>	Minimum distances to non-combustible walls, given as an integer	0 mm
<b><math>s</math></b>	Protective insulation according to manufacturer's instructions	-
<b><math>e_{lSB}</math></b>	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0.002 kW
<b><math>e_{lmax}</math></b>	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0.055 kW
<b><math>e_{lmin}</math></b>	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0.012kW
<b><math>E, f</math></b>	Power supply voltage, frequency, given as an integer	230 V, 50 Hz

<b><math>W_{\max}</math></b>	Maximum electric power input, given as an integer	360 W
<b><math>T_{\text{snom}}</math></b>	Flue gas outlet temperature at nominal heat output, given as an integer	269 °C
<b><math>T_{\text{spart}}</math></b>	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	131 °C
<b><math>T_{\text{class}}</math></b>	Chimney designation according to the appropriate chimney standard	T400 G
<b><math>\phi_{\text{f,g nom}}</math></b>	Flue gas mass flow at nominal heat output, given with 1 decimal	6.4 g/s
<b><math>\phi_{\text{f,g part}}</math></b>	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	3.8 g/s
<b><math>V_{\text{h}}</math></b>	Standing Air Loss, if specified, given with 1 decimal	---
<b>CON or INT</b>	whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT)	CON
<b><math>d_{\text{out}}</math></b>	Diameter of the flue gas outlet, given as an integer	80 mm
<b><math>L, H, W</math></b>	Overall dimensions of the appliance (length, height, width), given as an integer	578 x 1221 x 583 mm
<b><math>m</math></b>	Mass of the appliance, given as an integer (in relation to the building's statics)	155.0 kg
<b><math>m_{\text{chim}}</math></b>	Maximum load of a chimney the appliance may carry, given as an integer	0 kg

The specified (declared) heat output, efficiency and emission values are in line with the measured values considering rounding rules of DIN EN 16510-1:2023-02, clause A.5 (see chapter 6.2 of the present report for the resume of the main combustion results).

### 3 Requirements

- P (pass)
- NA (not applicable)
- F (fail)

#### 3.1 Descriptive features

Requirement acc. to DIN EN 16510-1:2023-02	Clause	Tested Acc.	Requirement complies
Designation of appliances	4.1	-	P
System boundary	4.2	-	NA
Production documentation	4.3	-	P
Construction and materials	4.4	-	P
General construction	4.4.1	-	P
Design, manufacture and assembly	4.4.1.1	-	P
Durability	4.4.1.2	-	P
Integral boiler or heat exchanger	4.4.2	-	NA
General	4.4.2.1	-	NA
Integral boilers constructed of steel	4.4.2.2	-	NA
Integral boilers constructed of cast iron	4.4.2.3	-	NA
Cast iron parts subject to water pressure	4.4.2.3.1	-	NA
Minimum wall thicknesses (cast iron)	4.4.2.3.2	-	NA
Integral Boiler shell tappings	4.4.2.4	-	NA
Introduction	4.4.2.4.1	-	NA
General	4.4.2.4.2	-	NA
Design of all integral boiler waterways	4.4.2.4.3	-	NA
Venting of the water sections	4.4.2.4.4	-	NA
Water tightness	4.4.2.4.5	-	NA
Heat exchangers that are not directly in contact with fire or flue gases	4.4.2.5	-	NA
Cleaning of heating surfaces	4.4.3	-	P
Flue gas outlet	4.4.4	-	P
Flueways	4.4.5	-	P
Components built-in the flue ways	4.4.6	-	NA
Ashpan and ash removal	4.4.7	-	P
Bottomgrate	4.4.8	-	P
Combustion air supply	4.4.9	-	P



Requirement acc. to DIN EN 16510-1:2023-02	Clause	Tested Acc.	Requirement complies
Primary combustion air control device	4.4.9.1	-	P
Secondary combustion air control device	4.4.9.2	-	NA
Damper	4.4.10	-	NA
Charging doors and ash-pit doors	4.4.11	-	NA
Flue bypass device	4.4.12	-	NA
Internal flue gas diverter	4.4.13	-	NA
Front firebars	4.4.14	-	NA
Fossil solid fuel and peat briquettes burning appliances	4.4.15	-	NA
Draught regulator	4.4.16	-	NA
Cut-off device for inset appliances without doors	4.4.17	-	NA
Convection air outlet for inserts for Kachelofen/ Putzofen	4.4.18	-	NA
Oven door of cookers	4.4.19	-	NA
Hotplate and top plate of cookers	4.4.20	-	NA
Main/additional ovens of cookers	4.4.21	-	NA
Ashpit and ashpit cover/door of cookers	4.4.22	-	NA
Oven temperature indicators for cookers	4.4.23	-	NA
Air inlet for pellet appliances according to EN 16510-2-6	4.4.24	-	P
Retort for pellet appliances according to EN 16510-2-6	4.4.25	-	P
Heat output control device for pellet appliances according to EN 16510-2-6	4.4.26	-	P
Hopper for pellet appliances according to EN 16510-2-6	4.4.27	-	P
Sound level	4.5	-	P
Load bearing capacity	4.6	A.4.10.2	P

### 3.2 Safety requirements

Requirement acc. to DIN EN 16510-1	Clause	Tested Acc.	Requirement complies
Natural draught	5.1	A.4.10.5 A.6.2.8	NA
Open operation of an appliance	5.2	A.4.10.3	NA
Strength and leak tightness of integral boiler shells	5.3	A.4.10.6	P
Temperature rise in the fuel storage (other than the fuel hopper)	5.4	A.4.7 A.4.10	P
Temperature rise of the operating components	5.5	A.4.7	P
Protection of combustible materials	5.6	A.4.10 A.2.2	P
Safety devices for appliances fitted with an integral boiler	5.7	-	NA
General	5.7.1	-	NA
Appliances intended for sealed water systems	5.7.2	-	NA
General	5.7.2.1	-	NA
Thermal discharge control	5.7.2.2	A.4.10.7	NA
Safety heat exchanger	5.7.2.3	A.4.10.7	NA
Safety devices for appliances fitted with a heat exchanger that are not directly in contact with fire	5.7.3	A.4.10.7	NA
Safety requirements of roomsealed appliances	5.9	-	NA
Tightness related to CO-emission	5.9.1	-	NA
Overall leakage rate	5.9.2	-	NA
Minimum distances from non-combustible walls	5.10	A.4.7	P
Requirements for appliances suitable for a shared flue system	5.11	-	NA

### 3.3 Operation requirements

Requirement acc. to DIN EN 16510-1	Clause	Tested Acc.	Requirement complies
General	6.1	-	P
Flue gas temperature and flue gas outlet temperature	6.2	-	P
General	6.2.1	A.4.7 A.4.8	P
Flue gas temperature at safety test	6.2.2	A.4.10.4	P*
Emissions	6.3	-	P
General	6.3.1	A.4.7 A.4.8	P
Carbon monoxide emission	6.3.2	-	P
NO <sub>x</sub> emissions	6.3.3	-	P
Emission of organic gaseous carbon (OGC)	6.3.4	-	P
Particulate matter (PM) emissions	6.3.5	-	P
Threshold levels for emissions according to appliance types	6.3.6	-	P
Efficiency	6.4	-	P
General	6.4.1		P
Seasonal space heating efficiency	6.4.2	A.4.8	P
Energy efficiency index (EEI)	6.4.3	A.6.2.1.6	P
Energy efficiency class	6.4.4	-	P
Flue draught	6.5	A.4.7 / A.4.8 / A.4.10	P
Recovery test	6.6	A.4.9	NA
Refuelling intervals	6.7	-	P
Space heat output	6.8	A.4.7 A.4.8	P
Water heat output	6.9	A.4.7 A.4.8	P
User operations	6.10	-	P
Auxiliary electrical energy consumption	6.11	A.4.7 A.4.8	P
Flue gas mass flow	6.12	A.4.7 A.4.8	P

\*) Temperature during safety test historically not recorded. Specified chimney T<sub>class</sub> designation as the highest among commercially available chimney flue gas pipes (see also manufacturer declaration Annex A02).

### 3.4 Environmental sustainability, clause 8

Performance assessments regarding environmental sustainability is not considered in the present test procedure. A possible NDP declaration by the manufacturer is also not included in the present procedure.

### 3.5 Appliance marking

Requirement acc. to DIN EN 16510-1	Clause	Tested Acc.	Requirement complies
Marking and technical datasheet	10	-	P

## 4 Characteristics

Requirement acc. to DIN EN 16510-2-6	Clause	Tested Acc.	Requirement complies
Load bearing capacity	4.1	-	P
Protection of combustible materials	4.2	-	P
Carbon monoxide emission (CO)	4.3	-	P
Nitrogen oxides (NOx) emissions	4.4	-	P
Emission of organic gaseous compounds (OGC) emissions	4.5	-	P
Particulate matter (PM) emissions	4.6	-	P
Safety and accessibility in use	4.7	-	P
General	4.7.1	-	P
Flue gas outlet temperature at nominal heat output	4.7.2	-	P
Flue gas outlet temperature at part load heat output	4.7.3	-	P
Minimum flue draught at nominal heat output	4.7.4	-	P
Minimum flue draught at part load heat output	4.7.5	-	P
Flue gas mass flow at nominal heat output	4.7.6	-	P
Flue gas mass flow at part load heat output	4.7.7	-	P
Fire safety of installation to the chimney	4.7.8	-	P*
Energy economy and heat retention	4.8	-	P
Space heat output at nominal heat output	4.8.1	-	P
Water heat output, if existing at nominal heat output	4.8.2	-	NA
Efficiency at nominal heat output	4.8.3	-	P
Space heat output at part load heat output	4.8.4	-	P
Water heat output, if existing at part load heat output	4.8.5	-	NA
Efficiency at part load heat output	4.8.6	-	P
Seasonal space heating efficiency at appliance's nominal heat output	4.8.7	-	P
Energy efficiency	4.8.8	-	P
Electric power consumption at nominal heat output, if existing	4.8.9	-	P
Electric power consumption at part load heat output, if existing	4.8.10	-	P
Standby mode power consumption, if existing	4.8.11	-	P

\*) Temperature during safety test historically not recorded. Specified chimney T<sub>class</sub> designation as the highest among commercially available chimney flue gas pipes (see also manufacturer declaration Annex A03).

## 5 Descriptive features

Requirement acc. to DIN EN 16510-2-6	Clause	Requirement complies
Data for potential use with room ventilation system: type of appliance (in relation to its tightness to the room)	5.1	P
General	5.1.1	P
Tightness related to CO-emissions	5.1.2	P
Overall tightness	5.1.3	P
Data for the building's statics: appliance's mass	5.2	P
Materials and construction elements	5.3	P
General	5.3.1	P
General stresses	5.3.2	P
Integral boiler or heat exchanger	5.3.3	NA
Risk of burning fuel falling out	5.4	P
Temperature rise in the fuel storage	5.5	-
Temperature rise in the fuel hopper	5.5.1	P
Safety against back burning through the fuel conveyor system	5.5.2	P
Temperature rise of the operating components	5.6	P
Spillage of the flue gases into the room	5.7	-
Possible spillage of CO, if relevant for the fuel type	5.7.1	NA
Safety test for spillage of combustion gas and discharge of embers	5.7.2	P
Open operation	5.7.3	NA
Ashpan	5.8.3	NA
Bottomgrate	5.8.4	NA
Damper	5.8.5	NA
Fan-cut-out device	5.8.6	NA
Strength and leak tightness of boiler shells	5.9	P

## 6 Test results

### 6.1 Energy efficiency

#### 6.1.1 Energy efficiency control features and test data

Type designation		AP400B_0_09 EN			
Working condition	Description	Parameter	Result	Unit	
Nominal heat output	Auxiliary electrical energy consumption at nominal heat output *	el <sub>max</sub>	0.055	kW	
Part load heat output	Auxiliary electrical energy consumption at part load heat output **, **	el <sub>min</sub>	0.012	kW	
Standby	Auxiliary electrical energy consumption in standby mode	el <sub>SB</sub>	0.002	kW	
Type designation		AP400B_0_13 EN			
Working condition	Description	Parameter	Result	Unit	
Nominal heat output	Auxiliary electrical energy consumption at nominal heat output *	el <sub>max</sub>	0.055	kW	
Part load heat output	Auxiliary electrical energy consumption at part load heat output **, **	el <sub>min</sub>	0.012	kW	
Standby	Auxiliary electrical energy consumption in standby mode	el <sub>SB</sub>	0.002	kW	
<b>Room temperature control</b>					
With electronic room temperature control plus week timer					
<b>Controls for indoor heating comfort</b>					
Room temperature control with presence detection			No		
Room temperature control with open window detection			No		
Distance control option			No		



**6.1.2 Energy efficiency calculation**

Type designation	AP400B_0_09 EN, AP400S_0_09 EN				
Definition	Parameter	Unit	Result	Requirement	
Seasonal space heating energy efficiency in active mode (%)	$\eta_{S,on}$	%	91		
Contributions of controls of indoor heating comfort (mutually exclusive temperature controls)	F(2)	%	7	-	
Contributions of controls of indoor heating comfort	F(3)	%	0	-	
Negative contribution to the seasonal space heating energy efficiency by auxiliary electricity consumption	F(4)	%	0,6	-	
Negative contribution to the energy efficiency index by energy consumption of a permanent pilot flame	F(5)	%	0	-	
Biomass label factor	BLF	---	1.45	-	
Seasonal space heating energy efficiency	$\eta_s$	%	<b>87</b>	$\geq 79$	
Energy efficiency index	EEI	---	<b>128</b>	-	
Energy efficiency classification	---	---	<b>A+</b>	-	

Type designation	AP400B_1_09 EN, AP400S_1_09 EN				
Definition	Parameter	Unit	Result	Requirement	
Seasonal space heating energy efficiency in active mode (%)	$\eta_{s,on}$	%	91		
Contributions of controls of indoor heating comfort (mutually exclusive temperature controls)	F(2)	%	7	-	
Contributions of controls of indoor heating comfort	F(3)	%	0	-	
Negative contribution to the seasonal space heating energy efficiency by auxiliary electricity consumption	F(4)	%	0,6	-	
Negative contribution to the energy efficiency index by energy consumption of a permanent pilot flame	F(5)	%	0	-	
Biomass label factor	BLF	---	1.45	-	
Seasonal space heating energy efficiency	$\eta_s$	%	<b>87</b>	$\geq 79$	
Energy efficiency index	EEI	---	<b>128</b>	-	
Energy efficiency classification	---	---	<b>A+</b>	-	

Type designation	AP400B_0_13 EN, AP400S_0_13 EN				
Definition	Parameter	Unit	Result	Requirement	
Seasonal space heating energy efficiency in active mode (%)	$\eta_{S,on}$	%	90		
Contributions of controls of indoor heating comfort (mutually exclusive temperature controls)	F(2)	%	7	-	
Contributions of controls of indoor heating comfort	F(3)	%	0	-	
Negative contribution to the seasonal space heating energy efficiency by auxiliary electricity consumption	F(4)	%	0,4	-	
Negative contribution to the energy efficiency index by energy consumption of a permanent pilot flame	F(5)	%	0	-	
Biomass label factor	BLF	---	1.45	-	
Seasonal space heating energy efficiency	$\eta_s$	%	<b>87</b>	$\geq 79$	
Energy efficiency index	EEI	---	<b>127</b>	-	
Energy efficiency classification	---	---	<b>A+</b>	-	

Type designation	AP400B_1_13 EN, AP400S_1_13 EN				
Definition	Parameter	Unit	Result	Requirement	
Seasonal space heating energy efficiency in active mode (%)	$\eta_{S,on}$	%	90		
Contributions of controls of indoor heating comfort (mutually exclusive temperature controls)	F(2)	%	7	-	
Contributions of controls of indoor heating comfort	F(3)	%	0	-	
Negative contribution to the seasonal space heating energy efficiency by auxiliary electricity consumption	F(4)	%	0,5	-	
Negative contribution to the energy efficiency index by energy consumption of a permanent pilot flame	F(5)	%	0	-	
Biomass label factor	BLF	---	1.45	-	
Seasonal space heating energy efficiency	$\eta_s$	%	<b>87</b>	$\geq 79$	
Energy efficiency index	EEI	---	<b>127</b>	-	
Energy efficiency classification	---	---	<b>A+</b>	-	

## 6.2 Resume of combustion test results

Type designation		AP400S_0_09 EN, AP400B_0_09 EN			
Definition	Parameter	Unit	Nominal	Partial	Requirement
Fuel consumption	$M_h$	kg/h	2,11	0,64	-
Minimum refuelling intervals	-	min	180	360	2 x 180 / 360
Flue gas mass flow	$\Phi_{f,g}$	g/s	4,9	3,4	-
Flue gas temperature	$T_{fg}$	°C	184	106	-
Flue gas outlet temperature	$T_{snom}$	°C	220	127	-
Flue draught	$p_{nom} / p_{part}$	Pa	10	10	$\geq 12 / \geq 6$ or declared value
CO <sub>2</sub> concentration	CO <sub>2</sub>	Vol.-%	14,7	6,1	-
O <sub>2</sub> concentration	O <sub>2</sub>	Vol.-%	6,3	14,8	-
CO concentration	-	ppm	14	145	-
CO emission (13% O <sub>2</sub> )	CO <sub>nom</sub> (13% O <sub>2</sub> ) / CO <sub>part</sub> (13% O <sub>2</sub> )	mg/m <sup>3</sup>	9	236	$\leq 300 / -$
CO emission	-	mg/MJ	6	147	-
NO <sub>x</sub> concentration	-	ppm	89	35	-
NO <sub>x</sub> emission (13% O <sub>2</sub> )	NO <sub>xnom</sub> (13% O <sub>2</sub> ) / NO <sub>xpart</sub> (13% O <sub>2</sub> )	mg/m <sup>3</sup>	99	92	$\leq 200 / -$
NO <sub>x</sub> emission	-	mg/MJ	62	58	-
OGC concentration	-	ppm	1	3	-
OGC emission (13% O <sub>2</sub> )	OGC <sub>nom</sub> (13% O <sub>2</sub> ) / OGC <sub>part</sub> (13% O <sub>2</sub> )	mg/m <sup>3</sup>	1	5	$\leq 60 / -$
OGC emission	-	mg/MJ	1	3	-
PM concentration*	-	mg	4	4	-
PM emission (13% O <sub>2</sub> )	PM <sub>nom</sub> (13% O <sub>2</sub> ) / PM <sub>part</sub> (13% O <sub>2</sub> )	mg/m <sup>3</sup>	9	16	$\leq 20 / -$
PM emission	-	mg/MJ	6	10	-
Heat input	-	kW	10,2	3,1	-
Heat output	$P_{nom} / P_{part}$	kW	9,3	2,8	-
Water heat output	$P_{Wnom} / P_{Wpart}$	kW	-	-	-
Space heat output	$P_{SHnom} / P_{SHpart}$	kW	9,3	2,8	-
Efficiency	$\eta_{nom} / \eta_{part}$	%	91	91	-

\*) Average of 3 samples

<b>Type designation</b>	<b>AP400S_0_13 EN, AP400B_0_13 EN</b>
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Definition	Parameter	Unit	Nominal	Partial	Requirement
Fuel consumption	$M_h$	kg/h	2,99	0,64	-
Minimum refuelling intervals	-	min	180	360	2 x 180 / 360
Flue gas mass flow	$\Phi_{f,g}$	g/s	6,4	3,4	-
Flue gas temperature	$T_{fg}$	°C	221	106	-
Flue gas outlet temperature	$T_{snom}$	°C	265	127	-
Flue draught	$p_{nom} / p_{part}$	Pa	12	10	$\geq 12 / \geq 6$ or declared value
CO <sub>2</sub> concentration	CO <sub>2</sub>	Vol.-%	16,3	6,1	-
O <sub>2</sub> concentration	O <sub>2</sub>	Vol.-%	4,7	14,8	-
CO concentration	-	ppm	59	145	-
CO emission (13% O <sub>2</sub> )	CO <sub>nom</sub> (13% O <sub>2</sub> ) / CO <sub>part</sub> (13% O <sub>2</sub> )	mg/m <sup>3</sup>	36	236	$\leq 300 / -$
CO emission	-	mg/MJ	22	147	-
NO <sub>x</sub> concentration	-	ppm	99	35	-
NO <sub>x</sub> emission (13% O <sub>2</sub> )	NO <sub>xnom</sub> (13% O <sub>2</sub> ) / NO <sub>xpart</sub> (13% O <sub>2</sub> )	mg/m <sup>3</sup>	99	92	$\leq 200 / -$
NO <sub>x</sub> emission	-	mg/MJ	62	58	-
OGC concentration	-	ppm	2	3	-
OGC emission (13% O <sub>2</sub> )	OGC <sub>nom</sub> (13% O <sub>2</sub> ) / OGC <sub>part</sub> (13% O <sub>2</sub> )	mg/m <sup>3</sup>	2	5	$\leq 60 / -$
OGC emission	-	mg/MJ	1	3	-
PM concentration*	-	mg	7	4	-
PM emission (13% O <sub>2</sub> )	PM <sub>nom</sub> (13% O <sub>2</sub> ) / PM <sub>part</sub> (13% O <sub>2</sub> )	mg/m <sup>3</sup>	13	16	$\leq 20 / -$
PM emission	-	mg/MJ	8	10	-
Heat input	-	kW	14,4	3,1	-
Heat output	$P_{nom} / P_{part}$	kW	13,0	2,8	-
Water heat output	$P_{Wnom} / P_{Wpart}$	kW	-	-	-
Space heat output	$P_{SHnom} / P_{SHpart}$	kW	13,0	2,8	-
Efficiency	$\eta_{nom} / \eta_{part}$	%	91	91	-

\*) Average of 3 samples

Type designation	AP400S_1_09 EN, AP400B_1_09 EN
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Definition	Parameter	Unit	Nominal	Partial	Requirement
Fuel consumption	$M_h$	kg/h	2,05	0,74	-
Minimum refuelling intervals	-	min	180	360	2 x 180 / 360
Flue gas mass flow	$\Phi_{f,g}$	g/s	5,5	3,8	-
Flue gas temperature	$T_{fg}$	°C	168	109	-
Flue gas outlet temperature	$T_{snom}$	°C	201	131	-
Flue draught	$p_{nom} / p_{part}$	Pa	10	10	$\geq 12 / \geq 6$ or declared value
CO <sub>2</sub> concentration	CO <sub>2</sub>	Vol.-%	12,7	6,3	-
O <sub>2</sub> concentration	O <sub>2</sub>	Vol.-%	8,2	14,7	-
CO concentration	-	ppm	29	189	-
CO emission (13% O <sub>2</sub> )	CO <sub>nom</sub> (13% O <sub>2</sub> ) / CO <sub>part</sub> (13% O <sub>2</sub> )	mg/m <sup>3</sup>	22	298	$\leq 300 / -$
CO emission	-	mg/MJ	14	186	-
NO <sub>x</sub> concentration	-	ppm	77	22	-
NO <sub>x</sub> emission (13% O <sub>2</sub> )	NO <sub>xnom</sub> (13% O <sub>2</sub> ) / NO <sub>xpart</sub> (13% O <sub>2</sub> )	mg/m <sup>3</sup>	99	57	$\leq 200 / -$
NO <sub>x</sub> emission	-	mg/MJ	62	36	-
OGC concentration	-	ppm	1	2	-
OGC emission (13% O <sub>2</sub> )	OGC <sub>nom</sub> (13% O <sub>2</sub> ) / OGC <sub>part</sub> (13% O <sub>2</sub> )	mg/m <sup>3</sup>	1	4	$\leq 60 / -$
OGC emission	-	mg/MJ	1	2	-
PM concentration*	-	mg	2	2	-
PM emission (13% O <sub>2</sub> )	PM <sub>nom</sub> (13% O <sub>2</sub> ) / PM <sub>part</sub> (13% O <sub>2</sub> )	mg/m <sup>3</sup>	5	7	$\leq 20 / -$
PM emission	-	mg/MJ	3	4	-
Heat input	-	kW	9,9	3,5	-
Heat output	$P_{nom} / P_{part}$	kW	9,0	3,2	-
Water heat output	$P_{Wnom} / P_{Wpart}$	kW	-	-	-
Space heat output	$P_{SHnom} / P_{SHpart}$	kW	9,0	3,2	-
Efficiency	$\eta_{nom} / \eta_{part}$	%	91	90	-

\*) Average of 3 samples

Type designation	AP400S_1_13 EN, AP400B_1_13 EN
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Definition	Parameter	Unit	Nominal	Partial	Requirement
Fuel consumption	$M_h$	kg/h	3,04	0,74	-
Minimum refuelling intervals	-	min	180	360	2 x 180 / 360
Flue gas mass flow	$\Phi_{f,g}$	g/s	6,4	3,8	-
Flue gas temperature	$T_{fg}$	°C	224	109	-
Flue gas outlet temperature	$T_{snom}$	°C	269	131	-
Flue draught	$p_{nom} / p_{part}$	Pa	10	10	$\geq 12 / \geq 6$ or declared value
CO <sub>2</sub> concentration	CO <sub>2</sub>	Vol.-%	16,4	6,3	-
O <sub>2</sub> concentration	O <sub>2</sub>	Vol.-%	4,5	14,7	-
CO concentration	-	ppm	56	189	-
CO emission (13% O <sub>2</sub> )	CO <sub>nom</sub> (13% O <sub>2</sub> ) / CO <sub>part</sub> (13% O <sub>2</sub> )	mg/m <sup>3</sup>	34	298	$\leq 300 / -$
CO emission	-	mg/MJ	21	186	-
NO <sub>x</sub> concentration	-	ppm	100	22	-
NO <sub>x</sub> emission (13% O <sub>2</sub> )	NO <sub>xnom</sub> (13% O <sub>2</sub> ) / NO <sub>xpart</sub> (13% O <sub>2</sub> )	mg/m <sup>3</sup>	99	57	$\leq 200 / -$
NO <sub>x</sub> emission	-	mg/MJ	62	36	-
OGC concentration	-	ppm	2	2	-
OGC emission (13% O <sub>2</sub> )	OGC <sub>nom</sub> (13% O <sub>2</sub> ) / OGC <sub>part</sub> (13% O <sub>2</sub> )	mg/m <sup>3</sup>	2	4	$\leq 60 / -$
OGC emission	-	mg/MJ	1	2	-
PM concentration*	-	mg	9	2	-
PM emission (13% O <sub>2</sub> )	PM <sub>nom</sub> (13% O <sub>2</sub> ) / PM <sub>part</sub> (13% O <sub>2</sub> )	mg/m <sup>3</sup>	15	7	$\leq 20 / -$
PM emission	-	mg/MJ	9	4	-
Heat input	-	kW	14,6	3,5	-
Heat output	$P_{nom} / P_{part}$	kW	13,2	3,2	-
Water heat output	$P_{Wnom} / P_{Wpart}$	kW	-	-	-
Space heat output	$P_{SHnom} / P_{SHpart}$	kW	13,2	3,2	-
Efficiency	$\eta_{nom} / \eta_{part}$	%	90	90	-

\*) Average of 3 samples

### 6.3 Temperatures

<b>Type designation</b>	AP400S_0_09 EN, AP400S_1_09 EN, AP400S_0_13 EN, AP400S_1_13 EN
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Minimum distances from combustible walls	Unit	Distances at nominal heat output and during temperature safety tests
Backside distance - $d_R$	mm	50
Sides distance - $d_S$	mm	300
Sides distance radiation area - $d_L$	mm	Historical data not available
Front distance - $d_p$	mm	800
Front distance radiation area - $d_F$	mm	Historical data not available
Ceiling distance - $d_C$	mm	750
Bottom distance - $d_B$	mm	Historical data not available

Position	Unit	Maximum temperature reached. Performance test at nominal heat output and temperature safety tests	Requirement delta ambient
Rear - $d_R$	K	9	≤ 65
Side - $d_S$	K	37	
Side radiation area - $d_L$	K	Historical data not available	
Front - $d_p$	K	56	
Floor in Front - $d_F$	K	21	
Bottom - $d_B$	K	Historical data not available	

Position	Unit	Maximum temperature reached. Performance test at nominal heat output	Requirement delta ambient
Max- Temperature-rise in fuel hopper	K	63	≤ 65
Operation components	K	30	≤ 35



<b>Type designation</b>	AP400B_0_09 EN, AP400B_1_09 EN, AP400B_0_13 EN, AP400B_1_13 EN
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Minimum distances from combustible walls	Unit	Distances at nominal heat output and during temperature safety tests
Backside distance - $d_R$	mm	50
Sides distance - $d_S$	mm	300
Sides distance radiation area - $d_L$	mm	Historical data not available
Front distance - $d_p$	mm	800
Front distance radiation area - $d_F$	mm	Historical data not available
Ceiling distance - $d_C$	mm	750
Bottom distance - $d_B$	mm	Historical data not available

Position	Unit	Maximum temperature reached. Performance test at nominal heat output and temperature safety tests	Requirement delta ambient
Rear - $d_R$	K	14	≤ 65
Side - $d_S$	K	26	
Side radiation area - $d_L$	K	Historical data not available	
Front - $d_p$	K	39	
Floor in Front - $d_F$	K	15	
Bottom - $d_B$	K	Historical data not available	

Position	Unit	Maximum temperature reached. Performance test at nominal heat output	Requirement delta ambient
Max- Temperature-rise in fuel hopper	K	56	≤ 65
Operation components	K	31	≤ 35

## 6.4 Leakage tests

AP400S_0_09 EN, AP400S_1_09 EN, AP400S_0_13 EN, AP400S_1_13 EN, AP400B_0_09 EN, AP400B_1_09 EN, AP400B_0_13 EN, AP400B_1_13 EN		Before mechanical and thermal tests	After mechanical tests	After mechanical and thermal tests	Limit
Leakage test of combustion room at 5 Pa	m³/h	< 0,3	< 0,3	< 0,3	-
Leakage test of combustion room at 10 Pa	m³/h	0,4	0,4	0,4	2
Leakage test of combustion room at 15 Pa	m³/h	0,5	0,5	0,5	-
Leakage test of combustion room at 50 Pa	m³/h	1,5	1,5	1,5	3

## **7 Statement of the test results**

The appliance types

**AP400S\_0\_09/10/11/12/13 EN**  
**AP400S\_1\_09/10/11/12/13 EN**  
**AP400B\_0\_09/10/11/12/13 EN**  
**AP400B\_1\_09/10/11/12/13 EN**

with trademark:

**PALAZZETTI**

of the company:

**PALAZZETTI LELIO S.p.A.**

conforms with the requirements of DIN EN 16510-1:2023-02, except for clauses 5.8, 7 and 8, and DIN EN 16510-2-6:2023-02, except for clause 4.9, which are not part of this assessment. Performance assessments regarding environmental sustainability is not considered in the present order and is not the subject of this report. A possible NPD declaration by the manufacturer is also not included in the present report.

Test data documented in this report are based on historical data of the initial type testing report no.: K3123 2021 T1 according to DIN EN 14785:2006-09 and Corr. 1 DIN EN 14785:2007-10.

## 8 Test documents

See test report K3123 2021 T1 for further information.

TÜV Rheinland Energy & Environment GmbH declines any responsibility derived from missing or wrong information in the documents provided by the applicant.

Appendix	Subject	Reference
A 01	Manufacturer declaration	11.03.2025
A 02	Marking plates	
A 03	Declarations of equivalence	12.03.2025