

Report No. K 3710 2025 B2

**Residential solid fuel burning
appliances**

**Mechanically by wood pellets fed
roomheaters, inset appliances and cookers**

DIN EN 16510-2-6:2023-02, Table ZA.1

Type:

**AP040S_0_06 EN; AP040S_0_07 EN; AP040S_0_08 EN; AP040S_0_09 EN
AP040B_0_06 EN; AP040B_0_07 EN; AP040B_0_08 EN; AP040B_0_09 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.

The test results presented in this report refer solely to the test object stated as described on page 2. The report does not represent a general statement about the serial production of the test object and gives not an authorization for use of a TÜV Rheinland test/certification mark.

**Report of relevant clauses for
Residential solid fuel burning appliances:
mechanically by wood pellets fed roomheaters, inset appliances and cookers
DIN EN 16510-2-6:2023-02, Table ZA.1
Historical assessment data based on test report K35012024T1**

Applicant/contractor: **PALAZZETTI LELIO S.p.A.**
Via Roveredo, 103
33080 Porcia (PN) - Italy

Trademark: **PALAZZETTI**

Type designations: **AP040S_0_06 EN; AP040S_0_07 EN; AP040S_0_08 EN;
AP040S_0_09 EN, AP040B_0_06 EN; AP040B_0_07 EN;
AP040B_0_08 EN; AP040B_0_09 EN**

Additional identical roomheaters: **See page 3**

Appliances description: Residential space heating appliance with fan assisted flue discharge and with internal fuel hopper.

Test fuel: Wood pellets Ø 6 mm, Lmax 30 mm, max humidity 6,30%, Norica, class A1 in accordance with 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

Remarks: Test data documented in this report are based on historical data of the initial type testing report no.: K35012024T1 according to DIN EN 14785:2006-09 and Corr. 1 DIN EN 14785:2007-10.

Test basis: DIN EN 16510-2-6:2023-02, Table ZA.1.

Test results: The essential specified characteristics of Table ZA.1 of DIN EN 16510-2-6:2023-02 are assessed. Clause 4.9 is 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.

Dated in Cologne, 2025-06-25

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

For the purposes of Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 (the Construction products Regulation or CPR), this Assessments of Performance Report under AVCP system 3 applies to the construction product(s)

Overview models designation table

Type designations:	Total heat input:	Total heat output:
AP040S_0_06 EN AP040B_0_06 EN	3,1 kW – 6,8 kW	2,8 kW – 6,1 kW
AP040S_0_07 EN AP040B_0_07 EN	3,1 kW – 7,8 kW	2,8 kW – 7,0 kW
AP040S_0_08 EN AP040B_0_08 EN	3,1 kW – 8,9 kW	2,8 kW – 8,0 kW
AP040S_0_09 EN AP040B_0_09 EN	3,1 kW – 10,1 kW	2,8 kW – 9,0 kW

Additional identical roomheaters

ECOFIRE SCARLET TCA 6 EN
ECOFIRE SCARLET TCA 7 EN
ECOFIRE SCARLET TCA 8 EN
ECOFIRE SCARLET TCA 9 EN
ECOFIRE SCARLET TCA 6 US EN
ECOFIRE SCARLET TCA 7US EN
ECOFIRE SCARLET TCA 8 US EN
ECOFIRE SCARLET TCA 9 US EN

Relevant clauses for roomheater for solid fuel intended for space heating in residential buildings acc. DIN EN 16510-2-1:2023-02, Table ZA.1

AP040S_0_06 EN; AP040S_0_07 EN; AP040S_0_08 EN; AP040S_0_09 EN, AP040B_0_06 EN; AP040B_0_07 EN; AP040B_0_08 EN; AP040B_0_09 EN		
Essential characteristics	Clauses of this European Standard related to essential characteristics	Assessment and verification For more information, see Test Report K 3710 2025 T1
Mechanical resistance and stability		
Load bearing capacity	4.1	Specified: 0 kg
Safety in case of fire		
Protection of combustible materials	4.2	<p>Specified distances:</p> <p>Minimum distance to combustible materials – bottom (d_B): 0 mm</p> <p>Minimum distance to combustible materials – floor in front (d_F): 1500 mm</p> <p>Minimum distance to combustible materials – ceiling (d_C): 750 mm</p> <p>Minimum distance to combustible materials – rear (d_R): 20 mm</p> <p>Minimum distance to combustible materials – side (d_S): 100 mm</p> <p>Minimum distance to combustible materials – side radiation area (d_L): 1500 mm</p> <p>Minimum distance to combustible materials (e.g. furniture) (d_P): 800 mm</p> <p>Material type and thickness of protective insulation material (s) (if any): -</p>
		Maximum determined temperatures rise at specified distances: ≤ 65 K

AP040S_0_06 EN; AP040B_0_06 EN			
Essential characteristics	Clauses of this European Standard related to essential characteristics	Assessment and verification For more information, see Test Report K 3710 2025 T1	
		Determined Data (13% O ₂)	Specified Data (13% O ₂)
Hygiene, health and the environment			
At nominal heat output:			
Carbon monoxide emission (CO)	4.3	118 mg/m ³	150 mg/m ³
Nitrogen oxides (NO _x) emissions	4.4	98 mg/m ³	99 mg/m ³
Emission of organic gaseous carbon (OGC)	4.5	2 mg/m ³	2 mg/m ³
Particulate matter emissions (PM)	4.6	10 mg/m ³	10 mg/m ³
At part. load heat output:			
Carbon monoxide emission (CO)	4.3	282 mg/m ³	282 mg/m ³
Nitrogen oxides (NO _x) emissions	4.4	71 mg/m ³	71 mg/m ³
Emission of organic gaseous carbon (OGC)	4.5	4 mg/m ³	4 mg/m ³
Particulate matter emissions (PM)	4.6	15 mg/m ³	15 mg/m ³

AP040S_0_06 EN; AP040B_0_06 EN		
Essential characteristics	Clauses of this European Standard related to essential characteristics	Assessment and verification For more information, see Test Report K 3710 2025 T1
Safety and accessibility in use		
Data for installation to a chimney at nominal heat output:		
Flue gas outlet temperature	4.7.2	185 °C
Minimum flue draught	4.7.4	12 Pa
Flue gas mass flow	4.7.6	4,6 g/s
Data for installation to a chimney at part. load heat output:		
Flue gas outlet temperature	4.7.3	135 °C
Minimum flue draught	4.7.5	10 Pa
Flue gas mass flow	4.7.7	3,2 g/s
Data for installation to a chimney regarding fire safety on safety test heat output:		
Fire safety of installation to a chimney	4.7.8	T400 G

AP040S_0_06 EN; AP040B_0_06 EN			
Essential characteristics	Clauses of this European Standard related to essential characteristics	Assessment and verification For more information, see Test Report K 3710 2025 T1	
		Determined data	Specified data
Energy economy and heat retention			
Appliance's thermal output and energy efficiency at nominal heat output:			
Space heat output	4.8.1	6,1 kW	6,1 kW
Water heat output, if existing	4.8.2	-	-
Efficiency	4.8.3	90 %	90 %
Appliance's thermal output and energy efficiency at part. load heat output:			
Space heat output	4.8.4	2,8 kW	2,8 kW
Water heat output, if existing	4.8.5	-	-
Efficiency	4.8.6	90 %	90 %

AP040S_0_06 EN; AP040B_0_06 EN			
Essential characteristics	Clauses of this European Standard related to essential characteristics	Assessment and verification For more information, see Test Report K 3710 2025 T1	
		Determined data	Specified data
Space heating efficiency			
Seasonal space heating efficiency at appliance's nominal heat output	4.8.7	86 %	86 %
Energy efficiency	4.8.8	Index (EEI): 127 Energy efficiency classification: A+	Index (EEI): 128 Energy efficiency classification: A+
Electric power consumption at appliance's nominal heat output, if existing	4.8.9	0.048 kW	0.048 kW
Electric power consumption at appliance's part. load heat output, if existing	4.8.10	0.014 kW	0.014 kW
Standby mode power consumption, if existing	4.8.11	0.002 kW	0.002 kW

The specified 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.

AP040S_0_07 EN; AP040B_0_07 EN			
Essential characteristics	Clauses of this European Standard related to essential characteristics	Assessment and verification For more information, see Test Report K 3710 2025 T1	
		Determined Data (13% O ₂)*	Specified Data (13% O ₂)
Hygiene, health and the environment			
At nominal heat output:			
Carbon monoxide emission (CO)	4.3	-	150 mg/m ³
Nitrogen oxides (NO _x) emissions	4.4	-	99 mg/m ³
Emission of organic gaseous carbon (OGC)	4.5	-	2 mg/m ³
Particulate matter emissions (PM)	4.6	-	10 mg/m ³
At part. load heat output:			
Carbon monoxide emission (CO)	4.3	-	282 mg/m ³
Nitrogen oxides (NO _x) emissions	4.4	-	71 mg/m ³
Emission of organic gaseous carbon (OGC)	4.5	-	4 mg/m ³
Particulate matter emissions (PM)	4.6	-	15 mg/m ³

* The type designation AP040S_0_07 EN; AP040B_0_07 EN is based on families of appliances and was not tested (see Annex G of EN16510-1)

AP040S_0_07 EN; AP040B_0_07 EN		
Essential characteristics	Clauses of this European Standard related to essential characteristics	Assessment and verification For more information, see Test Report K 3710 2025 T1
Safety and accessibility in use		
Data for installation to a chimney at nominal heat output:		
Flue gas outlet temperature	4.7.2	206 °C
Minimum flue draught	4.7.4	12 Pa
Flue gas mass flow	4.7.6	4,8 g/s
Data for installation to a chimney at part. load heat output:		
Flue gas outlet temperature	4.7.3	135 °C
Minimum flue draught	4.7.5	10 Pa
Flue gas mass flow	4.7.7	3,2 g/s
Data for installation to a chimney regarding fire safety on safety test heat output:		
Fire safety of installation to a chimney	4.7.8	T400 G

AP040S_0_07 EN; AP040B_0_07 EN			
Essential characteristics	Clauses of this European Standard related to essential characteristics	Assessment and verification For more information, see Test Report K 3710 2025 T1	
		Determined Data*	Specified data
Energy economy and heat retention			
Appliance's thermal output and energy efficiency at nominal heat output:			
Space heat output	4.8.1	-	7,0 kW
Water heat output, if existing	4.8.2	-	-
Efficiency	4.8.3	-	89 %
Appliance's thermal output and energy efficiency at part. load heat output:			
Space heat output	4.8.4	-	2,8 kW
Water heat output, if existing	4.8.5	-	-
Efficiency	4.8.6	-	90 %

* The type designation AP040S_0_07 EN; AP040B_0_07 EN is based on families of appliances and was not tested (see Annex G of EN16510-1)

AP040S_0_07 EN; AP040B_0_07 EN			
Essential characteristics	Clauses of this European Standard related to essential characteristics	Assessment and verification For more information, see Test Report K 3710 2025 T1	
		Determined Data*	Specified data
Space heating efficiency			
Seasonal space heating efficiency at appliance's nominal heat output	4.8.7	-	85 %
Energy efficiency	4.8.8	-	Index (EEI): 125 Energy efficiency classification: A+
Electric power consumption at appliance's nominal heat output, if existing	4.8.9	-	0.048 kW
Electric power consumption at appliance's part. load heat output, if existing	4.8.10	-	0.014 kW
Standby mode power consumption, if existing	4.8.11	-	0.002 kW

* The type designation AP040S_0_07 EN; AP040B_0_07 EN is based on families of appliances and was not tested (see Annex G of EN16510-1)

The specified 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.

AP040S_0_08 EN; AP040B_0_08 EN			
Essential characteristics	Clauses of this European Standard related to essential characteristics	Assessment and verification For more information, see Test Report K 3710 2025 T1	
		Determined Data (13% O ₂)*	Specified Data (13% O ₂)
Hygiene, health and the environment			
At nominal heat output:			
Carbon monoxide emission (CO)	4.3	-	150 mg/m ³
Nitrogen oxides (NO _x) emissions	4.4	-	99 mg/m ³
Emission of organic gaseous carbon (OGC)	4.5	-	2 mg/m ³
Particulate matter emissions (PM)	4.6	-	10 mg/m ³
At part. load heat output:			
Carbon monoxide emission (CO)	4.3	-	282 mg/m ³
Nitrogen oxides (NO _x) emissions	4.4	-	71 mg/m ³
Emission of organic gaseous carbon (OGC)	4.5	-	4 mg/m ³
Particulate matter emissions (PM)	4.6	-	15 mg/m ³

* The type designation AP040S_0_08 EN; AP040B_0_08 EN is based on families of appliances and was not tested (see Annex G of EN16510-1)

AP040S_0_08 EN; AP040B_0_08 EN		
Essential characteristics	Clauses of this European Standard related to essential characteristics	Assessment and verification For more information, see Test Report K 3710 2025 T1
Safety and accessibility in use		
Data for installation to a chimney at nominal heat output:		
Flue gas outlet temperature	4.7.2	229 °C
Minimum flue draught	4.7.4	12 Pa
Flue gas mass flow	4.7.6	5,0 g/s
Data for installation to a chimney at part. load heat output:		
Flue gas outlet temperature	4.7.3	135 °C
Minimum flue draught	4.7.5	10 Pa
Flue gas mass flow	4.7.7	3,2 g/s
Data for installation to a chimney regarding fire safety on safety test heat output:		
Fire safety of installation to a chimney	4.7.8	T400 G

AP040S_0_08 EN; AP040B_0_08 EN			
Essential characteristics	Clauses of this European Standard related to essential characteristics	Assessment and verification For more information, see Test Report K 3710 2025 T1	
		Determined Data*	Specified data
Energy economy and heat retention			
Appliance's thermal output and energy efficiency at nominal heat output:			
Space heat output	4.8.1	-	8,0 kW
Water heat output, if existing	4.8.2	-	-
Efficiency	4.8.3	-	89 %
Appliance's thermal output and energy efficiency at part. load heat output:			
Space heat output	4.8.4	-	2,8 kW
Water heat output, if existing	4.8.5	-	-
Efficiency	4.8.6	-	90 %

* The type designation AP040S_0_08 EN; AP040B_0_08 EN is based on families of appliances and was not tested (see Annex G of EN16510-1)

AP040S_0_08 EN; AP040B_0_08 EN			
Essential characteristics	Clauses of this European Standard related to essential characteristics	Assessment and verification For more information, see Test Report K 3710 2025 T1	
		Determined Data*	Specified data
Space heating efficiency			
Seasonal space heating efficiency at appliance’s nominal heat output	4.8.7	-	85 %
Energy efficiency	4.8.8	-	Index (EEI): 125 Energy efficiency classification: A+
Electric power consumption at appliance’s nominal heat output, if existing	4.8.9	-	0.048 kW
Electric power consumption at appliance’s part. load heat output, if existing	4.8.10	-	0.014 kW
Standby mode power consumption, if existing	4.8.11	-	0.002 kW

* The type designation AP040S_0_08 EN; AP040B_0_08 EN is based on families of appliances and was not tested (see Annex G of EN16510-1)

AP040S_0_06 EN; AP040B_0_06 EN			
Essential characteristics	Clauses of this European Standard related to essential characteristics	Assessment and verification For more information, see Test Report K 3710 2025 T1	
		Determined Data (13% O ₂)	Specified Data (13% O ₂)
Hygiene, health and the environment			
At nominal heat output:			
Carbon monoxide emission (CO)	4.3	73 mg/m ³	100 mg/m ³
Nitrogen oxides (NO _x) emissions	4.4	99 mg/m ³	99 mg/m ³
Emission of organic gaseous carbon (OGC)	4.5	1 mg/m ³	2 mg/m ³
Particulate matter emissions (PM)	4.6	5 mg/m ³	5 mg/m ³
At part. load heat output:			
Carbon monoxide emission (CO)	4.3	282 mg/m ³	282 mg/m ³
Nitrogen oxides (NO _x) emissions	4.4	71 mg/m ³	71 mg/m ³
Emission of organic gaseous carbon (OGC)	4.5	4 mg/m ³	4 mg/m ³
Particulate matter emissions (PM)	4.6	15 mg/m ³	15 mg/m ³

AP040S_0_09 EN; AP040B_0_09 EN		
Essential characteristics	Clauses of this European Standard related to essential characteristics	Assessment and verification For more information, see Test Report K 3710 2025 T1
Safety and accessibility in use		
Data for installation to a chimney at nominal heat output:		
Flue gas outlet temperature	4.7.2	252°C
Minimum flue draught	4.7.4	12 Pa
Flue gas mass flow	4.7.6	5,2 g/s
Data for installation to a chimney at part. load heat output:		
Flue gas outlet temperature	4.7.3	135 °C
Minimum flue draught	4.7.5	10 Pa
Flue gas mass flow	4.7.7	3,2 g/s
Data for installation to a chimney regarding fire safety on safety test heat output:		
Fire safety of installation to a chimney	4.7.8	T400 G

AP040S_0_09 EN; AP040B_0_09 EN			
Essential characteristics	Clauses of this European Standard related to essential characteristics	Assessment and verification For more information, see Test Report K 3710 2025 T1	
		Determined data	Specified data
Energy economy and heat retention			
Appliance's thermal output and energy efficiency at nominal heat output:			
Space heat output	4.8.1	9,0 kW	9,0 kW
Water heat output, if existing	4.8.2	-	-
Efficiency	4.8.3	89 %	89 %
Appliance's thermal output and energy efficiency at part. load heat output:			
Space heat output	4.8.4	2,8 kW	2,8 kW
Water heat output, if existing	4.8.5	-	-
Efficiency	4.8.6	90 %	90 %

AP040S_0_09 EN; AP040B_0_09 EN			
Essential characteristics	Clauses of this European Standard related to essential characteristics	Assessment and verification For more information, see Test Report K 3710 2025 T1	
		Determined data	Specified data
Space heating efficiency			
Seasonal space heating efficiency at appliance's nominal heat output	4.8.7	85 %	85 %
Energy efficiency	4.8.8	Index (EEI): 125 Energy efficiency classification: A+	Index (EEI): 125 Energy efficiency classification: A+
Electric power consumption at appliance's nominal heat output, if existing	4.8.9	0.048 kW	0.048 kW
Electric power consumption at appliance's part. load heat output, if existing	4.8.10	0.014 kW	0.014 kW
Standby mode power consumption, if existing	4.8.11	0.002 kW	0.002 kW

The specified 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.