

Report No. K 3742 2025 Z1

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

Renaming

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

Type:
**ECOFIRE FLO TCA 6 EN
ECOFIRE FLO TCA 9 EN
ECOFIRE FLO TCA 9 Pro 2 EN**

Trademark:
Palazzetti

Company:
PALAZZETTI LELIO S.p.A.



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..

Renaming
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

| | |
|------------------------|---|
| Applicant/contractor: | PALAZZETTI LELIO S.p.A. Via Roveredo, 103 33080 Porcia (PN) - Italy |
| Trademark: | Palazzetti |
| Type designations: | ECOFIRE FLO TCA 6 EN ECOFIRE FLO TCA 9 EN ECOFIRE FLO TCA 9 Pro 2 EN |
| Appliance description: | Mechanical by wood pellets fed roomheater |
| Test fuel: | Wood pellets, Ø: 6 mm, Lmax: 30 mm, humidity: 7,1%, Pe.Pe, class A1 according to EN 17225-2. |

Specified data by applicant

| | |
|-------------------------|--|
| Type of appliance: | BE |
| Type designations: | ECOFIRE FLO TCA 6 EN ECOFIRE FLO TCA 9 EN ECOFIRE FLO TCA 9 Pro 2 EN |
| Heat output: | see page 3 |
| Space heat output: | see page 3 |
| Water heat output: | Not applicable |
| Max. water pressure: | Not applicable |
| Max. water temperature: | Not applicable |

Remark: Room sealed

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 3742 2025 B2. Additional details are documented in the initial reports K35362025T1/B2.

Dated in Cologne, 9/16/2025

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 types designation table

| Types designation | Heat input (kW) | Heat output (kW) |
|--|-----------------|------------------|
| ECOFIRE FLO TCA 6 EN | 2,7-6,6 | 2,5-6,0 |
| ECOFIRE FLO TCA 9 EN ECOFIRE FLO TCA 9 Pro 2 EN | 2,7-10,2 | 2,5-9,0 |

A summary of all types with main characteristics is listed on the table below:

| Type | Nominal heat output (kW) | Flue gas outlet | | Fuel loading system | | Sealed appliance |
|--|--------------------------------|-----------------|---------|---------------------|------|---------------------|
| | | Horizontal | Upright | Cochlea | Star | |
| ECOFIRE FLO TCA 6 EN | 6,0 | X | - | - | X | BE |
| ECOFIRE FLO TCA 9 EN ECOFIRE FLO TCA 9 Pro 2 EN | 9,0 | X | - | - | X | BE |

1. Task

The Test Centre for Energy Appliances was instructed to execute a renaming on the above mentioned pellet stoves.

| | |
|--|---|
| Basic report Palazzetti Lelio S.p.A. I-33080 Porcia (PN) Trademark PALAZZETTI Report K35362025T1 Based on test reports K33942023T1 and K33942025E2 (historical assessment). | New Palazzetti Lelio S.p.A. I-33080 Porcia (PN) Trademark Palazzetti Report K 37422025Z1 |
| AP411N_0_06 EN AP411N_0_09 EN AP411N_0_09 EN | ECOFIRE FLO TCA 6 EN ECOFIRE FLO TCA 9 EN ECOFIRE FLO TCA 9 Pro 2 EN |

2. Testing

The practical tests were carried out by the laboratory DEKRA Testing and Certification S.r.l, via della Fisica 20, Thiene (VI) – Italy, on the 08th - 9th - 10th - 11th of May, 26th - 27th - 28th - 29th of June, on the 17th of July 2023, on the 25th – 26th of October 2023, 31st of March and on the 1st of April 2025. Palazzetti Lelio S.p.A. ensures that modifications on the above mentioned products were not carried out.

1 Description of the appliance

1.1 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 and are fitted with an automatic cleaning system of the burner.

- BE type appliance
- Fan assisted exhaust flue gas discharge.
- Pellet automatic ignition.

All appliances are equipped with a frontal convection hot air fan. The user may adjust the speed of the frontal convection hot air fan in 8 different steps, from power off, to full speed (power off is not enabled at nominal heat output).

The appliances may be equipped with an optional canalization hot air blower (except than for cochlea – equipped appliances). The user may adjust the speed of the canalization hot air fan in 6 different steps, from power off, to full speed.

Other options include the possibility to have an automatic control of flue gas fan speed, and to have refractory materials for the internal walls of the combustion chamber (Magnofix).

The stoves have horizontal (rear) and vertical flue gas outlet options. Combustion tests were carried out with horizontal flue gas outlet (worst-case scenario for efficiency).

ECOFIRE FLO TCA 6 EN and **ECOFIRE FLO TCA 9 ...EN** are all identical, except than for nominal load power software settings.

More details in test reports K35362025T1

1.2 General technical specified data of the appliances

| Model name: ECOFIRE FLO TCA 6 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 | 6 kW |
| P_{SHnom} | Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal | 6 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 | 2.5 kW |
| P_{SHpart} | Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal | 2.5 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 | -- |
| ζ_{acc} | Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only | -- |
| η_{nom} | Appliance efficiency at nominal heat output, given as an integer | 90 % |
| η_{part} | Appliance efficiency at part load heat output, given as an integer | 91 % |
| η_s | Appliance seasonal space heating efficiency at nominal heat output, given as an integer | 86 % |
| EEl | Energy efficiency index, given as an integer | 126 |
| CO_{nom} (13 % O ₂) | CO emission at 13 % oxygen content at nominal heat output, given as an integer | 50 mg/m ³ |
| CO_{part} (13 % O ₂) | CO emission at 13 % oxygen content at part load heat output if specified, given as an integer | 275 mg/m ³ |
| 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 ³ |

| | | |
|---|--|----------------------|
| NO_{xpart} (13 % O₂) | NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer | 62 mg/m ³ |
| NO_{xslow} (13 % O₂) | NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer | -- |
| OGC_{nom} (13 % O₂) | Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer | 2 mg/m ³ |
| OGC_{part} (13 % O₂) | Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer | 5 mg/m ³ |
| OGC_{slow} (13 % O₂) | Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer | -- |
| PM_{nom} (13 % O₂) | Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer | 7 mg/m ³ |
| PM_{part} (13 % O₂) | Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer | 8 mg/m ³ |
| PM_{slow} (13 % O₂) | Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer | -- |
| p_{nom} | Minimum flue draught at nominal heat output, given as an integer | 12 Pa |
| p_{part} | Minimum flue draught at part load heat output if specified, given as an integer | 10 Pa |
| p_{slow} | Minimum flue draught at heat output at slow combustion if specified, given as an integer | -- |
| p_w | Permissible maximum water operating pressure, if applicable, given with 1 decimal | -- |
| d_R | Minimum distances from the rear to combustible material, given as an integer | 100 mm |
| d_S | Minimum distances from the sides to combustible material, given as an integer | 200 mm |
| d_C | Minimum distances from the top to combustible material in the ceiling, given as an integer | 750 mm |
| d_P | Minimum distances from the front to combustible material | 1000 mm |
| d_F | Minimum distances from the front to combustible material in bottom front radiation area, given as an integer | 1500 mm |
| d_L | Minimum distances from the front to combustible material in side front radiation area, given as an integer | 1500 mm |
| d_B | Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer | 0 mm |
| d_{non} | Minimum distances to non-combustible walls, given as an integer | 0 mm |
| s | Protective insulation according to manufacturer's instructions | - |
| e_{lSB} | Consumption of electrical auxiliary energy at standby, given with 3 decimals | 0.002 kW |
| e_{lmax} | Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals | 0.045 kW |
| e_{lmin} | Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals | 0.020kW |

| | | |
|---|--|---------------------|
| E, f | Power supply voltage, frequency, given as an integer | 230 V, 50 Hz |
| W_{\max} | Maximum electric power input, given as an integer | 360 W |
| T_{snom} | Flue gas outlet temperature at nominal heat output, given as an integer | 197 °C |
| T_{spart} | Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only) | 120 °C |
| T_{class} | Chimney designation according to the appropriate chimney standard | T400 G |
| $\phi_{f,g \text{ nom}}$ | Flue gas mass flow at nominal heat output, given with 1 decimal | 4.1 g/s |
| $\phi_{f,g \text{ part}}$ | Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only) | 3.1 g/s |
| V_h | Standing Air Loss, if specified, given with 1 decimal | --- |
| CON or INT | whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT) | CON |
| d_{out} | Diameter of the flue gas outlet, given as an integer | 80 mm |
| L, H, W | Overall dimensions of the appliance (length, height, width), given as an integer | 530 x 1100 x 530 mm |
| m | Mass of the appliance, given as an integer (in relation to the building's statics) | 100 kg |
| m_{chim} | Maximum load of a chimney the appliance may carry, given as an integer | 0 kg |

| Model name: | ECOFIRE FLO TCA 9 EN ECOFIRE FLO TCA 9 Pro 2 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 | 2.5 kW |
| P_{SHpart} | Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal | 2.5 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 | -- |
| ζ_{acc} | Flow resistance of the separate heat exchanger as used in the test, for Kachelofen inset appliances only | -- |
| η_{nom} | Appliance efficiency at nominal heat output, given as an integer | 88 % |
| η_{part} | Appliance efficiency at part load heat output, given as an integer | 91 % |
| η_s | Appliance seasonal space heating efficiency at nominal heat output, given as an integer | 84 % |
| EEI | Energy efficiency index, given as an integer | 124 |
| CO_{nom} (13 % O₂) | CO emission at 13 % oxygen content at nominal heat output, given as an integer | 50 mg/m ³ |
| CO_{part} (13 % O₂) | CO emission at 13 % oxygen content at part load heat output if specified, given as an integer | 275 mg/m ³ |
| CO_{slow} (13 % O₂) | CO emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer | -- |
| NO_{xnom} (13 % O₂) | NOx emission at 13 % oxygen content at nominal heat output, given as an integer | 99 mg/m ³ |

| | | |
|--|--|----------------------|
| NO_{xpart} (13 % O_2) | NOx emission at 13 % oxygen content at part load heat output if specified, given as an integer | 62 mg/m ³ |
| NO_{xslow} (13 % O_2) | NOx emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer | -- |
| OGC_{nom} (13 % O_2) | Hydrocarbon emission at 13 % oxygen content at nominal heat output, given as an integer | 2 mg/m ³ |
| OGC_{part} (13 % O_2) | Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer | 5 mg/m ³ |
| OGC_{slow} (13 % O_2) | Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer | -- |
| PM_{nom} (13 % O_2) | Particulate matter emission at 13 % oxygen content at nominal heat output, given as an integer | 10 mg/m ³ |
| PM_{part} (13 % O_2) | Particulate matter emission at 13 % oxygen content at part load heat output if specified, given as an integer | 8 mg/m ³ |
| PM_{slow} (13 % O_2) | Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, given as an integer | -- |
| p_{nom} | Minimum flue draught at nominal heat output, given as an integer | 12 Pa |
| p_{part} | Minimum flue draught at part load heat output if specified, given as an integer | 10 Pa |
| p_{slow} | Minimum flue draught at heat output at slow combustion if specified, given as an integer | -- |
| p_w | Permissible maximum water operating pressure, if applicable, given with 1 decimal | -- |
| d_R | Minimum distances from the rear to combustible material, given as an integer | 100 mm |
| d_S | Minimum distances from the sides to combustible material, given as an integer | 200 mm |
| d_C | Minimum distances from the top to combustible material in the ceiling, given as an integer | 750 mm |
| d_P | Minimum distances from the front to combustible material | 1000 mm |
| d_F | Minimum distances from the front to combustible material in bottom front radiation area, given as an integer | 1500 mm |
| d_L | Minimum distances from the front to combustible material in side front radiation area, given as an integer | 1500 mm |
| d_B | Minimum distances below the bottom (not regarding feet) to combustible material, given as an integer | 0 mm |
| d_{non} | Minimum distances to non-combustible walls, given as an integer | 0 mm |
| s | Protective insulation according to manufacturer's instructions | - |
| el_{SB} | Consumption of electrical auxiliary energy at standby, given with 3 decimals | 0.002 kW |
| el_{max} | Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals | 0.045 kW |

| | | |
|-------------------|--|---------------------|
| e_{lmin} | Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals | 0.020kW |
| E, f | Power supply voltage, frequency, given as an integer | 230 V, 50 Hz |
| W_{max} | Maximum electric power input, given as an integer | 360 W |
| T_{snom} | Flue gas outlet temperature at nominal heat output, given as an integer | 270 °C |
| T_{spart} | Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only) | 120 °C |
| T_{class} | Chimney designation according to the appropriate chimney standard | T400 G |
| $\phi_{f,g nom}$ | Flue gas mass flow at nominal heat output, given with 1 decimal | 5.4 g/s |
| $\phi_{f,g part}$ | Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only) | 3.1 g/s |
| V_h | Standing Air Loss, if specified, given with 1 decimal | --- |
| CON or INT | whether the appliance is capable of continuous operation (CON), whether the appliance is capable of intermittent operation (INT) | CON |
| d_{out} | Diameter of the flue gas outlet, given as an integer | 80 mm |
| L, H, W | Overall dimensions of the appliance (length, height, width), given as an integer | 530 x 1100 x 530 mm |
| m | Mass of the appliance, given as an integer (in relation to the building's statics) | 100 kg |
| m_{chim} | 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).

2 Test results

2.1 Energy efficiency

2.1.1 Energy efficiency control features and test data

| Type designation | | ECOFIRE FLO TCA 6 EN | | | |
|--|---|--|--------|------|--|
| Working condition | Description | Parameter | Result | Unit | |
| Nominal heat output | Auxiliary electrical energy consumption at nominal heat output * | el _{max} | 0.045 | kW | |
| Part load heat output | Auxiliary electrical energy consumption at part load heat output **, ** | el _{min} | 0.020 | kW | |
| Standby | Auxiliary electrical energy consumption in standby mode | el _{SB} | 0.002 | kW | |
| Room temperature control | | | | | |
| Type designation | | ECOFIRE FLO TCA 9 EN ECOFIRE FLO TCA 9 Pro 2 EN | | | |
| Working condition | Description | Parameter | Result | Unit | |
| Nominal heat output | Auxiliary electrical energy consumption at nominal heat output * | el _{max} | 0.045 | kW | |
| Part load heat output | Auxiliary electrical energy consumption at part load heat output **, ** | el _{min} | 0.020 | kW | |
| Standby | Auxiliary electrical energy consumption in standby mode | el _{SB} | 0.002 | kW | |
| With electronic room temperature control plus week timer | | | | | |
| Controls for indoor heating comfort | | | | | |
| Room temperature control with presence detection | | | No | | |
| Room temperature control with open window detection | | | No | | |
| Distance control option | | | No | | |

2.1.2 Energy efficiency calculation

| Type designation | ECOFIRE FLO TCA 6 EN | | | |
|--|----------------------|------|------------|-------------|
| Definition | Parameter | Unit | Result | Requirement |
| Appliance efficiency at nominal heat output | η_{nom} | % | 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) | % | 1,1 | - |
| 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 | η_s | % | 86 | ≥ 79 |
| Energy efficiency index | EEI | --- | 126 | - |
| Energy efficiency classification | --- | --- | A+ | - |

| Type designation | ECOFIRE FLO TCA 9 EN ECOFIRE FLO TCA 9 Pro 2 EN | | | |
|--|--|------|------------|-------------|
| Definition | Parameter | Unit | Result | Requirement |
| Appliance efficiency at nominal heat output | η_{nom} | % | 88 | - |
| 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) | % | 0,7 | - |
| 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 | η_s | % | 84 | ≥ 79 |
| Energy efficiency index | EEI | --- | 124 | - |
| Energy efficiency classification | --- | --- | A+ | - |

2.2 Resume of combustion test results

| Type designation | | ECOFIRE FLO TCA 6 EN | | | |
|--|--|----------------------|---------|---------|---|
| Definition | Parameter | Unit | Nominal | Partial | Requirement |
| Fuel consumption | M_h | kg/h | 1,38 | 0,57 | - |
| Minimum refuelling intervals | - | min | 180 | 360 | 2 x 180 / 360 |
| Flue gas mass flow | $\Phi_{f,g}$ | g/s | 4,1 | 3,1 | - |
| Flue gas temperature | T_{fg} | °C | 164 | 100 | - |
| Flue gas outlet temperature | T_{snom} | °C | 197 | 120 | - |
| Flue draught | p_{nom} / p_{part} | Pa | 12 | 12 | $\geq 12 / \geq 6$ or declared value |
| CO ₂ concentration | CO ₂ | Vol.-% | 11,0 | 5,9 | - |
| O ₂ concentration | O ₂ | Vol.-% | 9,5 | 14,8 | - |
| CO concentration | - | ppm | 45 | 170 | - |
| CO emission (13% O ₂) | $CO_{nom} (13\% O_2) / CO_{part} (13\% O_2)$ | mg/m ³ | 39 | 275 | $\leq 300 / -$ |
| CO emission | - | mg/MJ | 25 | 173 | - |
| NO _x concentration | - | ppm | 69 | 23 | - |
| NO _x emission (13% O ₂) | $NO_{xnom} (13\% O_2) / NO_{xpart} (13\% O_2)$ | mg/m ³ | 99 | 62 | $\leq 200 / -$ |
| NO _x emission | - | mg/MJ | 62 | 39 | - |
| OGC concentration | - | ppm | 2 | 2 | - |
| OGC emission (13% O ₂) | $OGC_{nom} (13\% O_2) / OGC_{part} (13\% O_2)$ | mg/m ³ | 2 | 5 | $\leq 60 / -$ |
| OGC emission | - | mg/MJ | 1 | 3 | - |
| PM concentration* | - | mg | 3 | 2 | - |
| PM emission (13% O ₂) | $PM_{nom} (13\% O_2) / PM_{part} (13\% O_2)$ | mg/m ³ | 7 | 8 | $\leq 20 / -$ |
| PM emission | - | mg/MJ | 5 | 5 | - |
| Heat input | - | kW | 6,6 | 2,7 | - |
| Heat output | P_{nom} / P_{part} | kW | 6,0 | 2,5 | - |
| Water heat output | P_{Wnom} / P_{Wpart} | kW | - | - | - |
| Space heat output | P_{SHnom} / P_{SHpart} | kW | 6,0 | 2,5 | - |
| Efficiency | η_{nom} / η_{part} | % | 90,5 | 91,0 | - |

*) Average of 3 samples

| Type designation | ECOFIRE FLO TCA 9 EN ECOFIRE FLO TCA 9 Pro 2 EN |
|------------------|--|
|------------------|--|

| Definition | Parameter | Unit | Nominal | Partial | Requirement |
|--|---|-------------------|---------|---------|---|
| Fuel consumption | M_h | kg/h | 2,11 | 0,57 | - |
| Minimum refuelling intervals | - | min | 180 | 360 | 2 x 180 / 360 |
| Flue gas mass flow | $\Phi_{f,g}$ | g/s | 5,4 | 3,1 | - |
| Flue gas temperature | T_{fg} | °C | 225 | 100 | - |
| Flue gas outlet temperature | T_{snom} | °C | 270 | 120 | - |
| Flue draught | p_{nom} / p_{part} | Pa | 12 | 12 | $\geq 12 / \geq 6$ or declared value |
| CO ₂ concentration | CO ₂ | Vol.-% | 13,5 | 5,9 | - |
| O ₂ concentration | O ₂ | Vol.-% | 6,8 | 14,8 | - |
| CO concentration | - | ppm | 14 | 170 | - |
| CO emission (13% O ₂) | CO _{nom} (13% O ₂) / CO _{part} (13% O ₂) | mg/m ³ | 10 | 275 | $\leq 300 / -$ |
| CO emission | - | mg/MJ | 6 | 173 | - |
| NO _x concentration | - | ppm | 75 | 23 | - |
| NO _x emission (13% O ₂) | NO _{xnom} (13% O ₂) / NO _{xpart} (13% O ₂) | mg/m ³ | 87 | 62 | $\leq 200 / -$ |
| NO _x emission | - | mg/MJ | 57 | 39 | - |
| OGC concentration | - | ppm | 2 | 2 | - |
| OGC emission (13% O ₂) | OGC _{nom} (13% O ₂) / OGC _{part} (13% O ₂) | mg/m ³ | 1 | 5 | $\leq 60 / -$ |
| OGC emission | - | mg/MJ | 1 | 3 | - |
| PM concentration* | - | mg | 5 | 2 | - |
| PM emission (13% O ₂) | PM _{nom} (13% O ₂) / PM _{part} (13% O ₂) | mg/m ³ | 10 | 8 | $\leq 20 / -$ |
| PM emission | - | mg/MJ | 7 | 5 | - |
| Heat input | - | kW | 10,2 | 2,7 | - |
| Heat output | P_{nom} / P_{part} | kW | 9,0 | 2,5 | - |
| Water heat output | P_{Wnom} / P_{Wpart} | kW | - | - | - |
| Space heat output | P_{SHnom} / P_{SHpart} | kW | 9,0 | 2,5 | - |
| Efficiency | η_{nom} / η_{part} | % | 88,1 | 91,0 | - |

*) Average of 3 samples

2.3 Temperatures**

| | |
|------------------|---|
| Type designation | ECOFIRE FLO TCA 6 EN, ECOFIRE FLO TCA 9 EN ECOFIRE FLO TCA 9 Pro 2 EN |
|------------------|---|

| Minimum distances from combustible walls | Unit | Distances at nominal heat output and during temperature safety tests |
|--|------|--|
| Backside distance - d_R | mm | 100 |
| Sides distance - d_S | mm | 200 |
| Sides distance radiation area - d_L | mm | Historical data not available |
| Front distance - d_p | mm | 1000 |
| 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 | 10 | ≤ 65 |
| Side - d_S | K | 26 | |
| Side radiation area - d_L | K | Historical data not available | |
| Front - d_p | K | 22 | |
| Floor in Front - d_F | K | 13 | |
| 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 |
| Max. temperature of operating tools (handle of fuel hopper) | K | 40* | ≤ 35 |
| Max. temperature of operating tools (control panel) | K | 27 | ≤ 35 |

*) tool provided by the manufacturer

**) worst data of horizontal (backside) and upright exhaust flue gas outlet options

3 Statement of the test results

The appliance types

**ECOFIRE FLO TCA 6 EN
ECOFIRE FLO TCA 9 EN
ECOFIRE FLO TCA 9 Pro 2 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 report no.: K35362025T1 according to DIN EN 16510-1:2023-02 and DIN EN 16510-2-6:2023-02.

This statement was given based on the documentation submitted by the manufacturer and the tested sample. The statement is valid only for products / appliances which are manufactured according to the tested specimen.

4 Test documents

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 | Declarations of identical construction | 09/06/2025 |
| A 02 | Marking plates | |
| A 03 | Drawings | |
| A 04 | DOP's | 29/04/2025 |