

Report No. K 3739 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 EMILY TCA 6 EN
ECOFIRE EMILY TCA 6 US EN
ECOFIRE EMILY TCA 9 EN
ECOFIRE EMILY TCA 9 US EN
ECOFIRE EMILY TCA 9 Pro 2 EN
ECOFIRE EMILY TCA 9 US Pro 2 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..

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 EMILY TCA 6 EN, ECOFIRE EMILY TCA 6 US EN ECOFIRE EMILY TCA 9 EN, ECOFIRE EMILY TCA 9 US EN ECOFIRE EMILY TCA 9 Pro 2 EN, ECOFIRE EMILY TCA 9 US 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:	CC50
Type designations:	ECOFIRE EMILY TCA 6 EN, ECOFIRE EMILY TCA 6 US EN ECOFIRE EMILY TCA 9 EN, ECOFIRE EMILY TCA 9 US EN ECOFIRE EMILY TCA 9 Pro 2 EN, ECOFIRE EMILY TCA 9 US 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 3739 2025 B2.

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

Dated in Cologne, 2025-09-15

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 EMILY TCA 6 EN ECOFIRE EMILY TCA 6 US EN	2,7-6,6	2,5-6,0
ECOFIRE EMILY TCA 9 EN ECOFIRE EMILY TCA 9 US EN ECOFIRE EMILY TCA 9 Pro 2 EN ECOFIRE EMILY TCA 9 US 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 EMILY TCA 6 US EN	6,0	-	X	-	X	CC50
ECOFIRE EMILY TCA 9 US EN, ECOFIRE EMILY TCA 9 US Pro 2 EN	9,0	-	X	-	X	CC50
ECOFIRE EMILY TCA 6 EN	6,0	X	-	-	X	CC50
ECOFIRE EMILY TCA 9 EN, ECOFIRE EMILY TCA 9 Pro 2 EN	9,0	X	-	-	X	CC50

1. Task

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

Basic report	New
Palazzetti Lelio S.p.A. I-33080 Porcia (PN) Trademark PALAZZETTI Report K35362025T1 Based on test reports K33942023T1 and K33942025E2 (historical assessment).	Palazzetti Lelio S.p.A. I-33080 Porcia (PN) Trademark Palazzetti Report K 37392025Z1
AP411S_0_06 EN AP411B_0_06 EN AP411S_0_09 EN AP411B_0_09 EN AP411S_0_09 EN AP411B_0_09 EN	ECOFIRE EMILY TCA 6 EN ECOFIRE EMILY TCA 6 US EN ECOFIRE EMILY TCA 9 EN ECOFIRE EMILY TCA 9 US EN ECOFIRE EMILY TCA 9 Pro 2 EN ECOFIRE EMILY TCA 9 US 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.

- CC50 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 EMILY TCA 6 ... and **ECOFIRE EMILY TCA 9 ...** 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 EMILY TCA 6 US EN, ECOFIRE EMILY TCA 6 US 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 % 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	7 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	-
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 EMILY TCA 9 EN, ECOFIRE EMILY TCA 9 US EN ECOFIRE EMILY TCA 9 Pro 2 EN, ECOFIRE EMILY TCA 9 US 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
$CO_{nom} (13\ \% O_2)$	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 % 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

$e_{l\min}$	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
$\phi_{f,g \text{ nom}}$	Flue gas mass flow at nominal heat output, given with 1 decimal	5.4 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

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 EMILY TCA 6 US EN, ECOFIRE EMILY TCA 6 US EN			
Working condition	Description	Parameter	Result	Unit	
Nominal heat output	Auxiliary electrical energy consumption at nominal heat output *	$e_{l_{max}}$	0.045	kW	
Part load heat output	Auxiliary electrical energy consumption at part load heat output **, **	$e_{l_{min}}$	0.020	kW	
Standby	Auxiliary electrical energy consumption in standby mode	$e_{l_{SB}}$	0.002	kW	
Room temperature control					
Type designation		ECOFIRE EMILY TCA 9 EN, ECOFIRE EMILY TCA 9 US EN ECOFIRE EMILY TCA 9 Pro 2 EN, ECOFIRE EMILY TCA 9 US Pro 2 EN			
Working condition	Description	Parameter	Result	Unit	
Nominal heat output	Auxiliary electrical energy consumption at nominal heat output *	$e_{l_{max}}$	0.045	kW	
Part load heat output	Auxiliary electrical energy consumption at part load heat output **, **	$e_{l_{min}}$	0.020	kW	
Standby	Auxiliary electrical energy consumption in standby mode	$e_{l_{SB}}$	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 EMILY TCA 6 US EN, ECOFIRE EMILY TCA 6 US 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 EMILY TCA 9 EN, ECOFIRE EMILY TCA 9 US EN ECOFIRE EMILY TCA 9 Pro 2 EN, ECOFIRE EMILY TCA 9 US 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 EMILY TCA 6 US EN, ECOFIRE EMILY TCA 6 US 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 EMILY TCA 9 EN, ECOFIRE EMILY TCA 9 US EN ECOFIRE EMILY TCA 9 Pro 2 EN, ECOFIRE EMILY TCA 9 US Pro 2 EN
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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)	$PM_{Inom} (13\% O_2) / PM_{part} (13\% O_2)$	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 EMILY TCA 6 US EN, ECOFIRE EMILY TCA 6 US EN, ECOFIRE EMILY TCA 9 EN, ECOFIRE EMILY TCA 9 US EN ECOFIRE EMILY TCA 9 Pro 2 EN, ECOFIRE EMILY TCA 9 US Pro 2 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	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

2.4 Leakage tests

ECOFIRE EMILY TCA 6 US EN, ECOFIRE EMILY TCA 6 US EN, ECOFIRE EMILY TCA 9 EN, ECOFIRE EMILY TCA 9 US EN ECOFIRE EMILY TCA 9 Pro 2 EN, ECOFIRE EMILY TCA 9 US Pro 2 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	0,5	0,5	0,5	2
Leakage test of combustion room at 15 Pa	m³/h	0,7	0,7	0,7	-
Leakage test of combustion room at 50 Pa	m³/h	1,5	1,6	1,6	3

3 Statement of the test results

The appliance types

**ECOFIRE EMILY TCA 6 EN
ECOFIRE EMILY TCA 6 US EN
ECOFIRE EMILY TCA 9 EN
ECOFIRE EMILY TCA 9 US EN
ECOFIRE EMILY TCA 9 Pro 2 EN
ECOFIRE EMILY TCA 9 US 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