

Report No. K 3819 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

Models:

00271022

00271023

Trademarks:

UNICAL, SCHUSTER, WIESBERG, ARIEL, ITALICAL

Company:

UNICAL AG SPA



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:	UNICAL AG SPA Via Roma 123, 43033 Castel D'Ário (MN) - Italy	
Trademarks:	UNICAL, SCHUSTER, WIESBERG, ARIEL, ITALICAL	
Model designation:	00271022	00271023
Appliances description:	Mechanical by wood pellets fed roomheaters	
Test fuel:	Wood pellets	

Specified data by applicant

Type of appliance:	B	
Heat output:	6,5 kW – 19,2 kW	7,9 kW – 22,8 kW
Space heat output:	1,1 kW – 1,8 kW	1,3 kW – 1,9 kW
Water heat output:	5,4 kW – 17,4 kW	6,6 kW – 20,9 kW
Max. water pressure:	3,0 bar	
Max. water temperature:	80,0 °C	

Remarks: Report data are based on historical data of the initial Type Testing report n. K 3589 2025 T1 dated 08/04/2025 and issued in accordance with DIN EN 16510-1:2023-02 and DIN EN 16510-2-6:2023-02.

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

Test results: the appliance conforms with the requirements of DIN EN 16510-1:2023-02, except for clauses 5.8, 5.8.4 and 8, which are not part of this assessment. The appliance conforms with the requirements of DIN EN 16510-2-6:2023-02 except for clause 4.9, which is not part of this assessment. Performance assessments regarding environmental sustainability are not the subject of this report. A possible NPD declaration by the manufacturer is also not included in this report.

Dated in Cologne, 2025-07-29

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. M. Ciccarelli



Dipl.-Ing. A. Pomp

1 Task

The Test Centre for Energy Appliances was instructed to execute a renaming on the above-mentioned room heaters:

Initial type Testing: AMG S.p.A. Via delle Arti e dei Mestieri 1/3, 36030 San Vito di Leguzzano (VI) – Italy Reports: K 3589 2025 T1, K 3589 2025 B2	Renaming: UNICAL AG SPA Via Roma 123, 43033 Castel D'Ário (MN) - Italy Reports: K 3819 2025 Z1
Trademark: AMG	Trademarks: UNICAL, SCHUSTER, WIESBERG, ARIEL, ITALICAL
Model: IDRO20-DD-AU	Model: 00271022
Model: IDRO24-DD-AU	Model: 00271023

AMG S.p.A .and Unical AG SPA ensures that modifications on the renamed product have not been carried out, except than for external coverings and specified combustion data.

2 Description of the appliances

2.1 Construction

Mechanical by wood pellets fed roomheaters.

The main features of the appliances are:

- B type of appliances.
- Water heat exchanger
- Fan assisted exhaust flue gas discharge.
- Horizontal (backside) and upright exhaust flue gas outlet options.
- Pellet automatic ignition.
- combustion air is to be taken from outside

2.2 General technical specified data of the appliances

Model name	00271022	
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	19,2 kW
P_{SHnom}	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	1,8 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	17,4 kW
P_{part}	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	6,5 kW
P_{SHpart}	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	1,1 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	5,4 kW
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	96 %
η_{part}	Appliance efficiency at part load heat output, given as an integer	96 %
η_s	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	92 %
EEI	Energy efficiency index, given as an integer	135
$CO_{nom} (13 \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	200 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	250 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	--
$NO_{xnom} (13 \% O_2)$	NO _x emission at 13 % oxygen content at nominal heat output, given as an integer	100 mg/m ³

NO_{xpart} (13 % O₂)	NO _x emission at 13 % oxygen content at part load heat output if specified, given as an integer	124 mg/m ³
NO_{xslow} (13 % O₂)	NO _x 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	5 mg/m ³
OGC_{part} (13 % O₂)	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	4 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	10 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	12 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	8 Pa
p_{part}	Minimum flue draught at part load heat output if specified, given as an integer	5 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	3,0
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	2000 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	--
s	Protective insulation according to manufacturer's instructions	--
e_{lSB}	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0,003 kW
e_{lmax}	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0,060 kW
e_{lmin}	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0,045 kW

E, f	Power supply voltage, frequency, given as an integer	230 V, 50 Hz
W_{max}	Maximum electric power input, given as an integer	450 W
T_{snom}	Flue gas outlet temperature at nominal heat output, given as an integer	115 °C
T_{spart}	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	79 °C
T_{class}	Chimney designation according to the appropriate chimney standard	T200 G
$\phi_{r,g nom}$	Flue gas mass flow at nominal heat output, given with 1 decimal	11,2 g/s
$\phi_{r,g part}$	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	6,5 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	590x1250x690 mm
m	Mass of the appliance, given as an integer (in relation to the building's statics)	230 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.

Model name	00271023	
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	22,8 kW
P_{SHnom}	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	1,9 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	20,9 kW
P_{part}	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	7,9 kW
P_{SHpart}	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	1,3 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	6,6 kW
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	95 %
η_{part}	Appliance efficiency at part load heat output, given as an integer	94 %
η_s	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	91 %
EEI	Energy efficiency index, given as an integer	134
CO_{nom} (13 % O₂)	CO emission at 13 % oxygen content at nominal heat output, given as an integer	237 mg/m ³
CO_{part} (13 % O₂)	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	287 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)	NO _x emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m ³
NO_{xpart} (13 % O₂)	NO _x emission at 13 % oxygen content at part load heat output if specified, given as an integer	109 mg/m ³

NO_{xslow} (13 % O₂)	NO _x 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	3 mg/m ³
OGC_{part} (13 % O₂)	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	7 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	10 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	10 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	8 Pa
p_{part}	Minimum flue draught at part load heat output if specified, given as an integer	5 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	3,0
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	2000 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	--
s	Protective insulation according to manufacturer's instructions	--
el_{SB}	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0,003 kW
el_{max}	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0,072 kW
el_{min}	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0,051 kW
E, f	Power supply voltage, frequency, given as an integer	230 V, 50 Hz
W_{max}	Maximum electric power input, given as an integer	450 W

T_{snom}	Flue gas outlet temperature at nominal heat output, given as an integer	130 °C
T_{spart}	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	90°C
T_{class}	Chimney designation according to the appropriate chimney standard	T200 G
$\phi_{\text{f,g nom}}$	Flue gas mass flow at nominal heat output, given with 1 decimal	13,5 g/s
$\phi_{\text{f,g part}}$	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	9,1 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	590x1250x690 mm
m	Mass of the appliance, given as an integer (in relation to the building's statics)	230 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).

3 Test results

Report data are based on historical data of the initial Type Testing report n. K 3589 2025 T1 dated 08.04.2025 and issued in accordance with DIN EN 16510-1:2023-02 and DIN EN 16510-2-6:2023-02.

3.1 Energy efficiency

3.1.1 Energy efficiency control features and test data

Model name	00271022			
Working condition	Description	Parameter	Result	Unit
Nominal heat output	Auxiliary electrical energy consumption at nominal heat output *	$e_{l_{max}}$	0,060	kW
Part load heat output	Auxiliary electrical energy consumption at part load heat output *	$e_{l_{min}}$	0,045	kW
Standby	Auxiliary electrical energy consumption in standby mode **	$e_{l_{SB}}$	0,003	kW

*) Average values, measured according to EN 15456:2008.

***) Average value, measured according to IEC 62301:2011.

Model name	00271023			
Working condition	Description	Parameter	Result	Unit
Nominal heat output	Auxiliary electrical energy consumption at nominal heat output *	$e_{l_{max}}$	0,072	kW
Part load heat output	Auxiliary electrical energy consumption at part load heat output *	$e_{l_{min}}$	0,051	kW
Standby	Auxiliary electrical energy consumption in standby mode **	$e_{l_{SB}}$	0,003	kW

*) Average values, measured according to EN 15456:2008.

***) Average value, measured according to IEC 62301:2011.

Room temperature control (Models: 00271022, 00271023)	
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	Yes

3.1.2 Energy efficiency calculation

Models name	00271022
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Definition	Parameter	Unit	Result	Requirement
Appliance efficiency at nominal heat output	η_{nom}	%	96	-
Contributions of controls of indoor heating comfort (mutually exclusive temperature controls)	F(2)	%	7,0	-
Contributions of controls of indoor heating comfort	F(3)	%	0,0	-
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)	%	0,0	-
Biomass label factor	BLF	---	1,45	-
Seasonal space heating energy efficiency	η_s	%	92	≥ 79
Energy efficiency index	EEI	---	135	-
Energy efficiency classification	---	---	A++	-

Models name	00271023
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Definition	Parameter	Unit	Result	Requirement
Appliance efficiency at nominal heat output	η_{nom}	%	95	-
Contributions of controls of indoor heating comfort (mutually exclusive temperature controls)	F(2)	%	7,0	-
Contributions of controls of indoor heating comfort	F(3)	%	0,0	-
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)	%	0,0	-
Biomass label factor	BLF	---	1,45	-
Seasonal space heating energy efficiency	η_s	%	91	≥ 79
Energy efficiency index	EEI	---	134	-
Energy efficiency classification	---	---	A++	-

3.2 Resume of combustion test results

Model name	00271022				
Definition	Parameter	Unit	Nominal	Partial	Requirement
Fuel consumption	M_h	kg/h	4.19	1.41	-
Minimum refuelling intervals	-	min	180	360	2 x 180 / 360
Flue gas mass flow	$\Phi_{f,g}$	g/s	11.2	6.5	-
Flue gas temperature	T_{fg}	°C	96.3	65.7	-
Flue gas outlet temperature	T_{snom}	°C	115.6	78.8	-
Flue draught	p_{nom} / p_{part}	Pa	8	5	$\geq 12 / \geq 6$ or declared value
CO ₂ concentration	CO ₂	Vol.-%	12.6	7.1	-
O ₂ concentration	O ₂	Vol.-%	7.7	13.5	-
CO concentration	-	ppm	30	80	-
CO emission (13% O ₂)	$CO_{nom} (13\% O_2) / CO_{part} (13\% O_2)$	mg/m ³	23	107	$\leq 300 / -$
CO emission	-	mg/MJ	15	69	-
NO _x concentration	-	ppm	81	52	-
NO _x emission (13% O ₂)	$NO_{xnom} (13\% O_2) / NO_{xpart} (13\% O_2)$	mg/m ³	100	114	$\leq 200 / -$
NO _x emission	-	mg/MJ	65	74	-
OGC emission (13% O ₂)	$OGC_{nom} (13\% O_2) / OGC_{part} (13\% O_2)$	mg/m ³	2	3	$\leq 60 / -$
OGC emission	-	mg/MJ	1	2	-
PM emission (13% O ₂)	$PM_{nom} (13\% O_2) / PM_{part} (13\% O_2)$	mg/m ³	10	12	$\leq 20 / -$
PM emission	-	mg/MJ	6	8	-
Heat input	-	kW	20.1	6.8	-
Heat output	P_{nom} / P_{part}	kW	19.2	6.5	-
Water heat output	P_{Wnom} / P_{Wpart}	kW	17.4	5.4	-
Space heat output	P_{SHnom} / P_{SHpart}	kW	1.8	1.1	-
Efficiency	η_{nom} / η_{part}	%	95.6	95.9	-

Model name		00271023			
Definition	Parameter	Unit	Nominal	Partial	Requirement
Fuel consumption	M_h	kg/h	5.01	1.75	-
Minimum refuelling intervals	-	min	180	360	2 x 180 / 360
Flue gas mass flow	$\Phi_{f,g}$	g/s	13.5	9.1	-
Flue gas temperature	T_{fg}	°C	107.6	75.3	-
Flue gas outlet temperature	T_{snom}	°C	129.1	90.4	-
Flue draught	p_{nom} / p_{part}	Pa	8	5	$\geq 12 / \geq 6$ or declared value
CO ₂ concentration	CO ₂	Vol.-%	12.5	6.1	-
O ₂ concentration	O ₂	Vol.-%	7.8	14.5	-
CO concentration	-	ppm	48	127	-
CO emission (13% O ₂)	$CO_{nom} (13\% O_2) / CO_{part} (13\% O_2)$	mg/m ³	36	195	$\leq 300 / -$
CO emission	-	mg/MJ	23	126	-
NO _x concentration	-	ppm	80	43	-
NO _x emission (13% O ₂)	$NO_{xnom} (13\% O_2) / NO_{xpart} (13\% O_2)$	mg/m ³	99	109	$\leq 200 / -$
NO _x emission	-	mg/MJ	64	71	-
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 emission (13% O ₂)	$PM_{nom} (13\% O_2) / PM_{part} (13\% O_2)$	mg/m ³	10	10	$\leq 20 / -$
PM emission	-	mg/MJ	6	6	-
Heat input	-	kW	24.0	8.4	-
Heat output	P_{nom} / P_{part}	kW	22.8	7.9	-
Water heat output	P_{Wnom} / P_{Wpart}	kW	20.9	6.6	-
Space heat output	P_{SHnom} / P_{SHpart}	kW	1.9	1.3	-
Efficiency	η_{nom} / η_{part}	%	94.9	94.2	-

4 Statement of the test results

The appliances

00271022, 00271023

with trademarks:

UNICAL, SCHUSTER, WIESBERG, ARIEL, ITALICAL

of the company:

UNICAL AG SPA

conform for the operation with wood pellets with the requirements in accordance with DIN EN 16510-1:2023-02 and DIN EN 16510-2-6:2023-02, except for clauses 5.8, 5.8.4 and 8, which are not part of this assessment. The appliance conforms with the requirements of DIN EN 16510-2-6:2023-02 except for clause 4.9, which is not part of this assessment. Performance assessments regarding environmental sustainability are not the subject of this report. A possible NPD declaration by the manufacturer is also not included in this report.

Report data are based on historical data of the initial Type Testing report n. K 3589 2025 T1 dated 08.04.2025 and issued in accordance with DIN EN 16510-1:2023-02 and DIN EN 16510-2-6:2023-02.

5 Test documents

See test report K 3589 2025 T1.

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	Type label	-
A 02	Extension Declaration	09.07.2025
A 03	Declaration About Manual	09.07.2025
A 04	Drawing	
A 05	Declaration manufacturer	

Come da allegato all'attestato inerente il report tecnico
How from annex to the declaration concerning Technical report
Tel qu'attaché au certificat relatif au rapport technique

n° K 3819 2025 Z1 del
29/07/2025

e in conformità all' Annex G della Norma EN 16510-1:2022, l'azienda Unical AG SpA dichiara che gli apparecchi:
and according to Annex G of the standard EN 16510-1:2022, the company Unical AG SpA declare that the appliances:
et conformément au Annex G de la norme EN 16510-1:2022, Unical AG SpA déclare que les appareils:

Modelli / Models / Modèles (ID MODEL)	00271022
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sono rappresentativi della famiglia a cui appartengono i seguenti modelli:
are representative of the family to which belong the following models:
ils sont représentatifs de la famille à laquelle appartiennent les modèles suivants:

Marchio commerciale <i>Trade mark</i> <i>Marque</i>	Schuster	
MODELLI / Models / Modèles	00271022	IDRA 20 - 5★

Firmato a nome e per conto del fabbricante da Nicola Micheletti (Procuratore)

Signed for and on behalf of the manufacturer by Nicola Micheletti (Attorney)

Luogo: Castel d'Ario (MN)
Place: Castel d'Ario (MN)

Data 29/07/2025
Date 29/07/2025

Firma
Sign.

Unical AG S.p.A.
SEDE: Via Roma, 123 - CASTELDARIO (MN)
C.F./P.IVA 01501350209
DIVISIONE: Viale Giuseppe, 275
36033 Gambellara (VI)

Report No. K 3819 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

Models:

00271022

00271023

Trademarks:

UNICAL, SCHUSTER, WIESBERG, ARIEL, ITALICAL

Company:

UNICAL AG SPA



Deutsche
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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:	UNICAL AG SPA Via Roma 123, 43033 Castel D'Ário (MN) - Italy	
Trademarks:	UNICAL, SCHUSTER, WIESBERG, ARIEL, ITALICAL	
Model designation:	00271022	00271023
Appliances description:	Mechanical by wood pellets fed roomheaters	
Test fuel:	Wood pellets	

Specified data by applicant

Type of appliance:	B	
Heat output:	6,5 kW – 19,2 kW	7,9 kW – 22,8 kW
Space heat output:	1,1 kW – 1,8 kW	1,3 kW – 1,9 kW
Water heat output:	5,4 kW – 17,4 kW	6,6 kW – 20,9 kW
Max. water pressure:	3,0 bar	
Max. water temperature:	80,0 °C	

Remarks: Report data are based on historical data of the initial Type Testing report n. K 3589 2025 T1 dated 08/04/2025 and issued in accordance with DIN EN 16510-1:2023-02 and DIN EN 16510-2-6:2023-02.

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

Test results: the appliance conforms with the requirements of DIN EN 16510-1:2023-02, except for clauses 5.8, 5.8.4 and 8, which are not part of this assessment. The appliance conforms with the requirements of DIN EN 16510-2-6:2023-02 except for clause 4.9, which is not part of this assessment. Performance assessments regarding environmental sustainability are not the subject of this report. A possible NPD declaration by the manufacturer is also not included in this report.

Dated in Cologne, 2025-07-29

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. M. Ciccarelli



Dipl.-Ing. A. Pomp

1 Task

The Test Centre for Energy Appliances was instructed to execute a renaming on the above-mentioned room heaters:

Initial type Testing: AMG S.p.A. Via delle Arti e dei Mestieri 1/3, 36030 San Vito di Leguzzano (VI) – Italy Reports: K 3589 2025 T1, K 3589 2025 B2	Renaming: UNICAL AG SPA Via Roma 123, 43033 Castel D'Ário (MN) - Italy Reports: K 3819 2025 Z1
Trademark: AMG	Trademarks: UNICAL, SCHUSTER, WIESBERG, ARIEL, ITALICAL
Model: IDRO20-DD-AU	Model: 00271022
Model: IDRO24-DD-AU	Model: 00271023

AMG S.p.A .and Unical AG SPA ensures that modifications on the renamed product have not been carried out, except than for external coverings and specified combustion data.

2 Description of the appliances

2.1 Construction

Mechanical by wood pellets fed roomheaters.

The main features of the appliances are:

- B type of appliances.
- Water heat exchanger
- Fan assisted exhaust flue gas discharge.
- Horizontal (backside) and upright exhaust flue gas outlet options.
- Pellet automatic ignition.
- combustion air is to be taken from outside

2.2 General technical specified data of the appliances

Model name	00271022	
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	19,2 kW
P_{SHnom}	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	1,8 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	17,4 kW
P_{part}	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	6,5 kW
P_{SHpart}	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	1,1 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	5,4 kW
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	96 %
η_{part}	Appliance efficiency at part load heat output, given as an integer	96 %
η_s	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	92 %
EEI	Energy efficiency index, given as an integer	135
$CO_{nom} (13 \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	200 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	250 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	--
$NO_{xnom} (13 \% O_2)$	NO _x emission at 13 % oxygen content at nominal heat output, given as an integer	100 mg/m ³

NO_{xpart} (13 % O₂)	NO _x emission at 13 % oxygen content at part load heat output if specified, given as an integer	124 mg/m ³
NO_{xslow} (13 % O₂)	NO _x 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	5 mg/m ³
OGC_{part} (13 % O₂)	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	4 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	10 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	12 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	8 Pa
p_{part}	Minimum flue draught at part load heat output if specified, given as an integer	5 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	3,0
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	2000 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	--
s	Protective insulation according to manufacturer's instructions	--
e_{lSB}	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0,003 kW
e_{lmax}	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0,060 kW
e_{lmin}	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0,045 kW

E, f	Power supply voltage, frequency, given as an integer	230 V, 50 Hz
W_{\max}	Maximum electric power input, given as an integer	450 W
T_{snom}	Flue gas outlet temperature at nominal heat output, given as an integer	115 °C
T_{spart}	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	79 °C
T_{class}	Chimney designation according to the appropriate chimney standard	T200 G
$\phi_{\text{r,g nom}}$	Flue gas mass flow at nominal heat output, given with 1 decimal	11,2 g/s
$\phi_{\text{r,g part}}$	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	6,5 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	590x1250x690 mm
m	Mass of the appliance, given as an integer (in relation to the building's statics)	230 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.

Model name	00271023	
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	22,8 kW
P_{SHnom}	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	1,9 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	20,9 kW
P_{part}	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	7,9 kW
P_{SHpart}	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	1,3 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	6,6 kW
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	95 %
η_{part}	Appliance efficiency at part load heat output, given as an integer	94 %
η_s	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	91 %
EEI	Energy efficiency index, given as an integer	134
$CO_{nom} (13 \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	237 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	287 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	--
$NO_{xnom} (13 \% O_2)$	NO _x emission at 13 % oxygen content at nominal heat output, given as an integer	99 mg/m ³
$NO_{xpart} (13 \% O_2)$	NO _x emission at 13 % oxygen content at part load heat output if specified, given as an integer	109 mg/m ³

NO_{xslow} (13 % O₂)	NO _x 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	3 mg/m ³
OGC_{part} (13 % O₂)	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, given as an integer	7 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	10 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	10 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	8 Pa
p_{part}	Minimum flue draught at part load heat output if specified, given as an integer	5 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	3,0
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	2000 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	--
s	Protective insulation according to manufacturer's instructions	--
el_{SB}	Consumption of electrical auxiliary energy at standby, given with 3 decimals	0,003 kW
el_{max}	Consumption of electrical auxiliary energy at nominal heat output, given with 3 decimals	0,072 kW
el_{min}	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0,051 kW
E, f	Power supply voltage, frequency, given as an integer	230 V, 50 Hz
W_{max}	Maximum electric power input, given as an integer	450 W

T_{snom}	Flue gas outlet temperature at nominal heat output, given as an integer	130 °C
T_{spart}	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	90°C
T_{class}	Chimney designation according to the appropriate chimney standard	T200 G
$\phi_{f,g nom}$	Flue gas mass flow at nominal heat output, given with 1 decimal	13,5 g/s
$\phi_{f,g part}$	Flue gas mass flow at part load heat output, given with 1 decimal (given for pellet operation only)	9,1 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	590x1250x690 mm
m	Mass of the appliance, given as an integer (in relation to the building's statics)	230 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).

3 Test results

Report data are based on historical data of the initial Type Testing report n. K 3589 2025 T1 dated 08.04.2025 and issued in accordance with DIN EN 16510-1:2023-02 and DIN EN 16510-2-6:2023-02.

3.1 Energy efficiency

3.1.1 Energy efficiency control features and test data

Model name		00271022		
Working condition	Description	Parameter	Result	Unit
Nominal heat output	Auxiliary electrical energy consumption at nominal heat output *	el _{max}	0,060	kW
Part load heat output	Auxiliary electrical energy consumption at part load heat output *	el _{min}	0,045	kW
Standby	Auxiliary electrical energy consumption in standby mode **	el _{SB}	0,003	kW

*) Average values, measured according to EN 15456:2008.

***) Average value, measured according to IEC 62301:2011.

Model name		00271023		
Working condition	Description	Parameter	Result	Unit
Nominal heat output	Auxiliary electrical energy consumption at nominal heat output *	el _{max}	0,072	kW
Part load heat output	Auxiliary electrical energy consumption at part load heat output *	el _{min}	0,051	kW
Standby	Auxiliary electrical energy consumption in standby mode **	el _{SB}	0,003	kW

*) Average values, measured according to EN 15456:2008.

***) Average value, measured according to IEC 62301:2011.

Room temperature control (Models: 00271022, 00271023)	
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	Yes

3.1.2 Energy efficiency calculation

Models name	00271022
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Definition	Parameter	Unit	Result	Requirement
Appliance efficiency at nominal heat output	η_{nom}	%	96	-
Contributions of controls of indoor heating comfort (mutually exclusive temperature controls)	F(2)	%	7,0	-
Contributions of controls of indoor heating comfort	F(3)	%	0,0	-
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)	%	0,0	-
Biomass label factor	BLF	---	1,45	-
Seasonal space heating energy efficiency	η_s	%	92	≥ 79
Energy efficiency index	EEI	---	135	-
Energy efficiency classification	---	---	A++	-

Models name	00271023
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Definition	Parameter	Unit	Result	Requirement
Appliance efficiency at nominal heat output	η_{nom}	%	95	-
Contributions of controls of indoor heating comfort (mutually exclusive temperature controls)	F(2)	%	7,0	-
Contributions of controls of indoor heating comfort	F(3)	%	0,0	-
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)	%	0,0	-
Biomass label factor	BLF	---	1,45	-
Seasonal space heating energy efficiency	η_s	%	91	≥ 79
Energy efficiency index	EEI	---	134	-
Energy efficiency classification	---	---	A++	-

3.2 Resume of combustion test results

Model name	00271022				
Definition	Parameter	Unit	Nominal	Partial	Requirement
Fuel consumption	M_h	kg/h	4.19	1.41	-
Minimum refuelling intervals	-	min	180	360	2 x 180 / 360
Flue gas mass flow	$\Phi_{f,g}$	g/s	11.2	6.5	-
Flue gas temperature	T_{fg}	°C	96.3	65.7	-
Flue gas outlet temperature	T_{snom}	°C	115.6	78.8	-
Flue draught	p_{nom} / p_{part}	Pa	8	5	$\geq 12 / \geq 6$ or declared value
CO ₂ concentration	CO ₂	Vol.-%	12.6	7.1	-
O ₂ concentration	O ₂	Vol.-%	7.7	13.5	-
CO concentration	-	ppm	30	80	-
CO emission (13% O ₂)	$CO_{nom} (13\% O_2) / CO_{part} (13\% O_2)$	mg/m ³	23	107	$\leq 300 / -$
CO emission	-	mg/MJ	15	69	-
NO _x concentration	-	ppm	81	52	-
NO _x emission (13% O ₂)	$NO_{xnom} (13\% O_2) / NO_{xpart} (13\% O_2)$	mg/m ³	100	114	$\leq 200 / -$
NO _x emission	-	mg/MJ	65	74	-
OGC emission (13% O ₂)	$OGC_{nom} (13\% O_2) / OGC_{part} (13\% O_2)$	mg/m ³	2	3	$\leq 60 / -$
OGC emission	-	mg/MJ	1	2	-
PM emission (13% O ₂)	$PM_{nom} (13\% O_2) / PM_{part} (13\% O_2)$	mg/m ³	10	12	$\leq 20 / -$
PM emission	-	mg/MJ	6	8	-
Heat input	-	kW	20.1	6.8	-
Heat output	P_{nom} / P_{part}	kW	19.2	6.5	-
Water heat output	P_{Wnom} / P_{Wpart}	kW	17.4	5.4	-
Space heat output	P_{SHnom} / P_{SHpart}	kW	1.8	1.1	-
Efficiency	η_{nom} / η_{part}	%	95.6	95.9	-

Model name		00271023			
Definition	Parameter	Unit	Nominal	Partial	Requirement
Fuel consumption	M_h	kg/h	5.01	1.75	-
Minimum refuelling intervals	-	min	180	360	2 x 180 / 360
Flue gas mass flow	$\Phi_{f,g}$	g/s	13.5	9.1	-
Flue gas temperature	T_{fg}	°C	107.6	75.3	-
Flue gas outlet temperature	T_{snom}	°C	129.1	90.4	-
Flue draught	p_{nom} / p_{part}	Pa	8	5	$\geq 12 / \geq 6$ or declared value
CO ₂ concentration	CO ₂	Vol.-%	12.5	6.1	-
O ₂ concentration	O ₂	Vol.-%	7.8	14.5	-
CO concentration	-	ppm	48	127	-
CO emission (13% O ₂)	$CO_{nom} (13\% O_2) / CO_{part} (13\% O_2)$	mg/m ³	36	195	$\leq 300 / -$
CO emission	-	mg/MJ	23	126	-
NO _x concentration	-	ppm	80	43	-
NO _x emission (13% O ₂)	$NO_{xnom} (13\% O_2) / NO_{xpart} (13\% O_2)$	mg/m ³	99	109	$\leq 200 / -$
NO _x emission	-	mg/MJ	64	71	-
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 emission (13% O ₂)	$PM_{nom} (13\% O_2) / PM_{part} (13\% O_2)$	mg/m ³	10	10	$\leq 20 / -$
PM emission	-	mg/MJ	6	6	-
Heat input	-	kW	24.0	8.4	-
Heat output	P_{nom} / P_{part}	kW	22.8	7.9	-
Water heat output	P_{Wnom} / P_{Wpart}	kW	20.9	6.6	-
Space heat output	P_{SHnom} / P_{SHpart}	kW	1.9	1.3	-
Efficiency	η_{nom} / η_{part}	%	94.9	94.2	-

4 Statement of the test results

The appliances

00271022, 00271023

with trademarks:

UNICAL, SCHUSTER, WIESBERG, ARIEL, ITALICAL

of the company:

UNICAL AG SPA

conform for the operation with wood pellets with the requirements in accordance with DIN EN 16510-1:2023-02 and DIN EN 16510-2-6:2023-02, except for clauses 5.8, 5.8.4 and 8, which are not part of this assessment. The appliance conforms with the requirements of DIN EN 16510-2-6:2023-02 except for clause 4.9, which is not part of this assessment. Performance assessments regarding environmental sustainability are not the subject of this report. A possible NPD declaration by the manufacturer is also not included in this report.

Report data are based on historical data of the initial Type Testing report n. K 3589 2025 T1 dated 08.04.2025 and issued in accordance with DIN EN 16510-1:2023-02 and DIN EN 16510-2-6:2023-02.

5 Test documents

See test report K 3589 2025 T1.

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	Type label	-
A 02	Extension Declaration	09.07.2025
A 03	Declaration About Manual	09.07.2025
A 04	Drawing	
A 05	Declaration manufacturer	

Come da allegato all'attestato inerente il report tecnico
How from annex to the declaration concerning Technical report
Tel qu'attaché au certificat relatif au rapport technique

n° K 3819 2025 Z1 del
29/07/2025

e in conformità all' Annex G della Norma EN 16510-1:2022, l'azienda Unical AG SpA dichiara che gli apparecchi:
and according to Annex G of the standard EN 16510-1:2022, the company Unical AG SpA declare that the appliances:
et conformément au Annex G de la norme EN 16510-1:2022, Unical AG SpA déclare que les appareils:

Modelli / Models / Modèles (ID MODEL)	00271023
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sono rappresentativi della famiglia a cui appartengono i seguenti modelli:
are representative of the family to which belong the following models:
ils sont représentatifs de la famille à laquelle appartiennent les modèles suivants:

Marchio commerciale <i>Trade mark</i> <i>Marque</i>	Schuster	
MODELLI / Models / Modèles	00271023	IDRA 24 - 5★

Firmato a nome e per conto del fabbricante da Nicola Micheletti (Procuratore)

Signed for and on behalf of the manufacturer by Nicola Micheletti (Attorney)

Luogo: Castel d'Ario (MN)
Place: Castel d'Ario (MN)

Data 29/07/2025
Date 29/07/2025

Firma
Sign.

Unical AG S.p.A.
SEDE: Via Roma, 123 - CASTELDARIO (MN)
C.F./P.IVA 01501350209
DIVISIONE: Viale Giuseppe, 275
36033 Gambellara (VI)