

Report No. K 3815 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

Model:

00271542

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:	00271542
Appliances description:	Mechanical by wood pellets fed roomheaters
Test fuel:	Wood pellets

Specified data by applicant

Type of appliance:	B
Heat input:	5.2 kW- 14.8 kW
Space heat output:	1.2 kW- 3.3 kW
Water heat output:	3.8 kW- 10.5 kW
Max. water pressure:	1,5 bar
Max. water temperature:	80.0 °C

Remarks: Report data are based on historical data of the initial Type Testing report n. K 3585 2025 T1 dated 27/03/2025 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 is 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:



Dipl.-Ing. M. Ciccarelli

Report released after review:



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 3585 2025 T1, K 3585 2025 B2	Renaming: UNICAL AG SPA Via Roma 123, 43033 Castel D'Ário (MN) - Italy Reports: K 3815 2025 Z1
Trademark: AMG	Trademarks: UNICAL, SCHUSTER, WIESBERG, ARIEL, ITALICAL
Model: NSAT140	Model: 00271542

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.

2.2 General technical specified data of the appliances

Model name	00271542
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Parameter	Explanation	Specified data by the applicant
P_{nom}	Nominal heat output or a range of outputs (dependent on fuel types), given with 1 decimal	13,8 kW
P_{SHnom}	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	3,3 kW
P_{Wnom}	Nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), given with 1 decimal	10,5 kW
P_{part}	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	5,0 kW
P_{SHpart}	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	1,2 kW
P_{Wpart}	Part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	3,8 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	93 %
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	83 %
EEI	Energy efficiency index, given as an integer	125
CO_{nom} (13 % O₂)	CO emission at 13 % oxygen content at nominal heat output, given as an integer	231 mg/m ³
CO_{part} (13 % O₂)	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	299 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	117 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 % O_2)	NO _x 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	10 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	13 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	17 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	41 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	1,5
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	0,042 kW
e_{lmin}	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0,024 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	310 W
T_{snom}	Flue gas outlet temperature at nominal heat output, given as an integer	150 °C
T_{spart}	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	74,4 °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	8,5 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)	4,3 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	536x1000x470 mm
m	Mass of the appliance, given as an integer (in relation to the building's statics)	130 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.

3 Test results

Report data are based on historical data of the initial Type Testing report n. K 3585 2025 T1 dated 27.03.2025 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	00271542			
Working condition	Description	Parameter	Result	Unit
Nominal heat output	Auxiliary electrical energy consumption at nominal heat output *	$e_{l_{max}}$	0,042	kW
Part load heat output	Auxiliary electrical energy consumption at part load heat output *	$e_{l_{min}}$	0,024	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	
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	00271542			
Definition	Parameter	Unit	Result	Requirement
Appliance efficiency at nominal heat output	η_{nom}	%	93	-
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)	%	0,3	-
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	%	83	≥ 79
Energy efficiency index	EEI	---	125	-
Energy efficiency classification	---	---	A+	-

3.2 Resume of combustion test results

Model name	00271542				
Definition	Parameter	Unit	Nominal	Partial	Requirement
Fuel consumption	M_h	kg/h	3.02	1.07	-
Minimum refuelling intervals	-	min	180	360	2 x 180 / 360
Flue gas mass flow	$\Phi_{f,g}$	g/s	8.5	4.3	-
Flue gas temperature	T_{fg}	°C	124.8	62.3	-
Flue gas outlet temperature	T_{snom}	°C	150	74,4	-
Flue draught	p_{nom} / p_{part}	Pa	12	10	$\geq 12 / \geq 6$ or declared value
CO ₂ concentration	CO ₂	Vol.-%	12.2	8.3	-
O ₂ concentration	O ₂	Vol.-%	8.4	12.4	-
CO concentration	-	ppm	293	259	-
CO emission (13% O ₂)	$CO_{nom} (13\% O_2) / CO_{part} (13\% O_2)$	mg/m ³	231	299	$\leq 300 / -$
CO emission	-	mg/MJ	148	193	-
NO _x concentration	-	ppm	90	58	-
NO _x emission (13% O ₂)	$NO_{xnom} (13\% O_2) / NO_{xpart} (13\% O_2)$	mg/m ³	117	109	$\leq 200 / -$
NO _x emission	-	mg/MJ	75	70	-
OGC emission (13% O ₂)	$OGC_{nom} (13\% O_2) / OGC_{part} (13\% O_2)$	mg/m ³	10	13	$\leq 60 / -$
OGC emission	-	mg/MJ	6	8	-
PM concentration	-	mg/m ³	26	46	-
PM emission (13% O ₂)	$PM_{nom} (13\% O_2) / PM_{part} (13\% O_2)$	mg/m ³	17	41	$\leq 20 / -$
PM emission	-	mg/MJ	11	27	-
Heat input	-	kW	14.8	5.2	-
Heat output	P_{nom} / P_{part}	kW	13.8	5.0	-
Water heat output	P_{Wnom} / P_{Wpart}	kW	10.5	3.8	-
Space heat output	P_{SHnom} / P_{SHpart}	kW	3.3	1.2	-
Efficiency	η_{nom} / η_{part}	%	93	96	-

4 Statement of the test results

The appliance

00271542

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 is 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 3585 2025 T1 dated 27.03.2025 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 3585 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 Tecnichal report
Tel qu'attaché au certificat relatif au rapport technique

n° K38152025Z1
del 29/07/2025

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

Modelli / Models / Modèles (ID MODEL)	00271542
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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 Trade mark Marque	UNICAL	
MODELLI / Models / Modèles	00271542	ONDA 15

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

Signé au nom et pour le compte du fabricant par Nicola Micheletti (Procurator)

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

Data 30/07/2025
Date 30/07/2025

Firma
Sign.

Unical AG S.p.A.
SEDE in Roma, 123 - CASTEL D'ARIO (MN)
C.F. / P.IVA 01501350209
DIVISIONE Viale Europa, 3/5
36053 Gambellara (VI)

Report No. K 3816 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

Model:

00271543

Trademarks:

UNICAL, SCHUSTER, WIESBERG, ARIEL, ITALICAL

Company:

UNICAL AG SPA



Deutsche
Akkreditierungsstelle
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:	00271543
Appliances description:	Mechanical by wood pellets fed roomheaters
Test fuel:	Wood pellets

Specified data by applicant

Type of appliance:	B
Heat input:	4,1 kW- 18,0 kW
Space heat output:	0,9 kW- 3,7 kW
Water heat output:	3,1 kW- 13,4 kW
Max. water pressure:	2,5 bar
Max. water temperature:	80,0 °C

Remarks: Report data are based on historical data of the initial Type Testing report n. K 3586 2025 T1 dated 27/03/2025 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 is 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 3586 2025 T1, K 3586 2025 B2	Renaming: UNICAL AG SPA Via Roma 123, 43033 Castel D'Ário (MN) - Italy Reports: K 3816 2025 Z1
Trademark: AMG	Trademarks: UNICAL, SCHUSTER, WIESBERG, ARIEL, ITALICAL
Model: IDRO17	Model: 00271543

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.

2.2 General technical specified data of the appliances

Model name	00271543	
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	17,1 kW
P_{SHnom}	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	3,7 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	13,4 kW
P_{part}	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	4,0 kW
P_{SHpart}	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	0,9 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	3,1 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	97 %
η_s	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	84 %
EEI	Energy efficiency index, given as an integer	127
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	249 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	345 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	140 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	114 mg/m ³
NO_{xslow} (13 % O_2)	NO _x 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	3 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	8 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	15 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	24 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	8 Pa
p_{part}	Minimum flue draught at part load heat output if specified, given as an integer	3 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	2,5
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	0,082 kW
e_{lmin}	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0,058 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	123,6 °C
T_{spart}	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	61,2 °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	11,1 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)	3,0 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	520x1113x627 mm
m	Mass of the appliance, given as an integer (in relation to the building's statics)	150 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.

3 Test results

Report data are based on historical data of the initial Type Testing report n. K 3586 2025 T1 dated 27.03.2025 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	00271543			
Working condition	Description	Parameter	Result	Unit
Nominal heat output	Auxiliary electrical energy consumption at nominal heat output *	$e_{l_{max}}$	0,082	kW
Part load heat output	Auxiliary electrical energy consumption at part load heat output *	$e_{l_{min}}$	0,058	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	
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		00271543		
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	%	84	≥ 79
Energy efficiency index	EEI	---	127	-
Energy efficiency classification	---	---	A+	-

3.2 Resume of combustion test results

Model name		00271543			
Definition	Parameter	Unit	Nominal	Partial	Requirement
Fuel consumption	M_h	kg/h	3.71	0.84	-
Minimum refuelling intervals	-	min	180	360	2 x 180 / 360
Flue gas mass flow	$\Phi_{f,g}$	g/s	10.8	3.0	-
Flue gas temperature	T_{fg}	°C	102.1	51.1	-
Flue gas outlet temperature	T_{snom}	°C	123.6	61.2	-
Flue draught	p_{nom} / p_{part}	Pa	8	3	$\geq 12 / \geq 6$ or declared value
CO ₂ concentration	CO ₂	Vol.-%	11.4	9.1	-
O ₂ concentration	O ₂	Vol.-%	9.4	11.8	-
CO concentration	-	ppm	64	318	-
CO emission (13% O ₂)	$CO_{nom} (13\% O_2) / CO_{part} (13\% O_2)$	mg/m ³	55	345	$\leq 300 / -$
CO emission	-	mg/MJ	34	213	-
NO _x concentration	-	ppm	92	64	-
NO _x emission (13% O ₂)	$NO_{xnom} (13\% O_2) / NO_{xpart} (13\% O_2)$	mg/m ³	130	114	$\leq 200 / -$
NO _x emission	-	mg/MJ	80	70	-
OGC emission (13% O ₂)	$OGC_{nom} (13\% O_2) / OGC_{part} (13\% O_2)$	mg/m ³	1	6	$\leq 60 / -$
OGC emission	-	mg/MJ	1	4	-
PM concentration	-	mg/m ³	15	26	-
PM emission (13% O ₂)	$PM_{nom} (13\% O_2) / PM_{part} (13\% O_2)$	mg/m ³	15	24	$\leq 20 / -$
PM emission	-	mg/MJ	9	14	-
Heat input	-	kW	18.0	4.1	-
Heat output	P_{nom} / P_{part}	kW	17.1	4.0	-
Water heat output	P_{Wnom} / P_{Wpart}	kW	13.4	3.1	-
Space heat output	P_{SHnom} / P_{SHpart}	kW	3.7	0.9	-
Efficiency	η_{nom} / η_{part}	%	95	97.5	-

4 Statement of the test results

The appliance

00271543

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 is 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 3586 2025 T1 dated 27.03.2025 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 3586 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 Tecnichal report

Tel qu'attaché au certificat relatif au rapport technique

n° K38162025Z1

del 29/07/2025

e in conformità all' Annex G della Norma EN 16510-1:2022, l'azienda UNICAL AG S.p.A. dichiara che gli apparecchi:

and according to Annex G of the standard EN 16510-1:2022, the company UNICAL AG S.p.A. declare that the appliances:

et conformément au Annex G de la norme EN 16510-1:2022, UNICAL AG S.p.A. déclare que les appareils:

Modelli / Models / Modèles (ID MODEL)	00271543
---------------------------------------	----------

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 Trade mark Marque	UNICAL	
MODELLI / Models / Modèles	00271543	ONDA 17

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

Signé au nom et pour le compte du fabricant par Nicola Micheletti (Procurator)

Luogo: Castel d'Ario (MN)

Place / Ville: Castel d'Ario (MN)

Data 30/07/2025

Date 30/07/2025

Firma

Sign.

Unical AG S.p.A.
SEDE: Via Roma, 123 - CASTEL D'ARIO (MN)
C.F. / P.IVA 01501350209
DIVISIONE: Viale Europa, 3/5
36053 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
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:



Dipl.-Ing. M. Ciccarelli

Report released after review:



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 % O₂)	CO emission at 13 % oxygen content at nominal heat output, given as an integer	200 mg/m ³
CO_{part} (13 % O₂)	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	250 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	100 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	124 mg/m ³
NO_{xslow} (13 % O_2)	NO _x 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	5 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	4 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	12 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	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 % 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 % O_2)	NO _x 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	3 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	7 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	10 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	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	0,072 kW
e_{lmin}	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 *	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
--------------------	-----------------

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
--------------------	-----------------

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 Tecnichal report
Tel qu'attaché au certificat relatif au rapport technique

n° K38192025Z1
del 29/07/2025

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

Modelli / Models / Modèles (ID MODEL)	00271023
---------------------------------------	----------

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 Trade mark Marque	UNICAL	
MODELLI / Models / Modèles	00271023	ONDA 24 A

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

Signé au nom et pour le compte du fabricant par Nicola Micheletti (Procurator)

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

Data 30/07/2025
Date 30/07/2025

Firma
Sign.

Unical AG S.p.A.
SEDE: Via Roma, 123 - CASTEL D'ARIO (MN)
C.F. / P.IVA: 01501350209
DIVISIONE: Viale Europa, 3/5
36053 Gambellara (VI)

Report No. K 3818 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:

00271988

00271989

00271024

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:	00271988, 00271024	00271989
Appliances description:	Mechanical by wood pellets fed roomheaters	
Test fuel:	Wood pellets	

Specified data by applicant

Type of appliance:	B	
Heat output:	8,6 kW – 25,9 kW	8,6 kW – 30,5 kW
Space heat output:	2,1 kW- 5,5 kW	2,1 kW- 6,1 kW
Water heat output:	6,5 kW- 20,4 kW	6,5 kW- 24,4 kW
Max. water pressure:	2,5 bar	
Max. water temperature:	80,0 °C	

Remarks: Report data are based on historical data of the initial Type Testing report n. K 3590 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:



Dipl.-Ing. M. Ciccarelli

Report released after review:



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 3590 2025 T1, K 35902025 B2	Renaming: UNICAL AG SPA Via Roma 123, 43033 Castel D'Ário (MN) - Italy Reports: K 3818 2025 Z1
Trademark: AMG	Trademarks: UNICAL, SCHUSTER, WIESBERG, ARIEL, ITALICAL
Model: NSAT260	Model: 00271988, 00271024
Model: NSAT300	Model: 00271989

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	00271988, 00271024	
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	25,9 kW
P_{SHnom}	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	5,5 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	20,4 kW
P_{part}	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	8,6 kW
P_{SHpart}	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2,1 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	6,5 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	96 %
η_s	Appliance seasonal space heating efficiency at nominal heat output, given as an integer	84 %
EEI	Energy efficiency index, given as an integer	127
$CO_{nom} (13\ \% O_2)$	CO emission at 13 % oxygen content at nominal heat output, given as an integer	225 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	425 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	118 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	131 mg/m ³
NO_{xslow} (13 % O_2)	NO _x 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	9 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	12 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	11 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	10 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	6 Pa
p_{part}	Minimum flue draught at part load heat output if specified, given as an integer	6 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	2,5
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	0,058 kW
e_{lmin}	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0,024 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	136,8 °C
T_{spart}	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	86,4 °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	15,1 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)	7,9 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	100 mm
L, H, W	Overall dimensions of the appliance (length, height, width), given as an integer	400x1000x400 mm
m	Mass of the appliance, given as an integer (in relation to the building's statics)	280 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	00271989	
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	30,5 kW
P_{SHnom}	Nominal space heat output or a range of outputs (dependent on fuel types), given with 1 decimal	6,1 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	24,4 kW
P_{part}	Part load heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	8,6 kW
P_{SHpart}	Part load space heat output or a range of outputs (dependent on fuel types) if specified, given with 1 decimal	2,1 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	6,5 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	94 %
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	84 %
EEI	Energy efficiency index, given as an integer	126
CO_{nom} (13 % O₂)	CO emission at 13 % oxygen content at nominal heat output, given as an integer	225 mg/m ³
CO_{part} (13 % O₂)	CO emission at 13 % oxygen content at part load heat output if specified, given as an integer	425 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	137 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	131 mg/m ³

NO_{xslow} (13 % O_2)	NO _x 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	5 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	10 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	16 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	15 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	6 Pa
p_{part}	Minimum flue draught at part load heat output if specified, given as an integer	6 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	2,5
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	0,063 kW
el_{min}	Consumption of electrical auxiliary energy at part load heat output, given with 3 decimals	0,024 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	150 °C
T_{spart}	Flue gas outlet temperature at part load heat output, given as an integer (given for pellet operation only)	86,4 °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	18,6 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)	7,9 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	100 mm
L, H, W	Overall dimensions of the appliance (length, height, width), given as an integer	400x1000x400 mm
m	Mass of the appliance, given as an integer (in relation to the building's statics)	280 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 3590 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	00271988, 00271024			
Working condition	Description	Parameter	Result	Unit
Nominal heat output	Auxiliary electrical energy consumption at nominal heat output *	el _{max}	0,058	kW
Part load heat output	Auxiliary electrical energy consumption at part load heat output *	el _{min}	0,024	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	00271989			
Working condition	Description	Parameter	Result	Unit
Nominal heat output	Auxiliary electrical energy consumption at nominal heat output *	el _{max}	0,063	kW
Part load heat output	Auxiliary electrical energy consumption at part load heat output *	el _{min}	0,024	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: 00271988, 00271024, 00271989)	
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	00271988, 00271024
--------------------	---------------------------

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	%	84	≥ 79
Energy efficiency index	EEI	---	127	-
Energy efficiency classification	---	---	A+	-

Models name	00271989
--------------------	-----------------

Definition	Parameter	Unit	Result	Requirement
Appliance efficiency at nominal heat output	η_{nom}	%	94	-
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	%	84	≥ 79
Energy efficiency index	EEI	---	126	-
Energy efficiency classification	---	---	A+	-

3.2 Resume of combustion test results

Model name		00271988, 00271024			
Definition	Parameter	Unit	Nominal	Partial	Requirement
Fuel consumption	M_h	kg/h	5.58	1.83	-
Minimum refuelling intervals	-	min	180	360	2 x 180 / 360
Flue gas mass flow	$\Phi_{f,g}$	g/s	15.1	7.9	-
Flue gas temperature	T_{fg}	°C	113.9	72.3	-
Flue gas outlet temperature	T_{snom}	°C	136.8	86.4	-
Flue draught	p_{nom} / p_{part}	Pa	6	6	$\geq 12 / \geq 6$ or declared value
CO ₂ concentration	CO ₂	Vol.-%	12.7	7.7	-
O ₂ concentration	O ₂	Vol.-%	7.8	13.0	-
CO concentration	-	ppm	25	265	-
CO emission (13% O ₂)	$CO_{nom} (13\% O_2) / CO_{part} (13\% O_2)$	mg/m ³	19	331	$\leq 300 / -$
CO emission	-	mg/MJ	12	213	-
NO _x concentration	-	ppm	87	59	-
NO _x emission (13% O ₂)	$NO_{xnom} (13\% O_2) / NO_{xpart} (13\% O_2)$	mg/m ³	108	121	$\leq 200 / -$
NO _x emission	-	mg/MJ	70	78	-
OGC emission (13% O ₂)	$OGC_{nom} (13\% O_2) / OGC_{part} (13\% O_2)$	mg/m ³	7	10	$\leq 60 / -$
OGC emission	-	mg/MJ	4	6	-
PM concentration	-	mg/m ³	13	9	-
PM emission (13% O ₂)	$PM_{nom} (13\% O_2) / PM_{part} (13\% O_2)$	mg/m ³	11	5	$\leq 20 / -$
PM emission	-	mg/MJ	4	3	-
Heat input	-	kW	27.3	9.0	-
Heat output	P_{nom} / P_{part}	kW	25.9	8.6	-
Water heat output	P_{Wnom} / P_{Wpart}	kW	20.4	6.5	-
Space heat output	P_{SHnom} / P_{SHpart}	kW	5.5	2.1	-
Efficiency	η_{nom} / η_{part}	%	94.6	95.8	-

Model name		00271989			
Definition	Parameter	Unit	Nominal	Partial	Requirement
Fuel consumption	M_h	kg/h	6.61	1.83	-
Minimum refuelling intervals	-	min	180	360	2 x 180 / 360
Flue gas mass flow	$\Phi_{f,g}$	g/s	18.6	7.9	-
Flue gas temperature	T_{fg}	°C	125	72.3	-
Flue gas outlet temperature	T_{snom}	°C	150	86.4	-
Flue draught	p_{nom} / p_{part}	Pa	6	6	$\geq 12 / \geq 6$ or declared value
CO ₂ concentration	CO ₂	Vol.-%	12.0	7.7	-
O ₂ concentration	O ₂	Vol.-%	8.3	13.0	-
CO concentration	-	ppm	23	265	-
CO emission (13% O ₂)	$CO_{nom} (13\% O_2) / CO_{part} (13\% O_2)$	mg/m ³	18	331	$\leq 300 / -$
CO emission	-	mg/MJ	12	213	-
NO _x concentration	-	ppm	99	59	-
NO _x emission (13% O ₂)	$NO_{xnom} (13\% O_2) / NO_{xpart} (13\% O_2)$	mg/m ³	127	121	$\leq 200 / -$
NO _x emission	-	mg/MJ	82	78	-
OGC emission (13% O ₂)	$OGC_{nom} (13\% O_2) / OGC_{part} (13\% O_2)$	mg/m ³	3	10	$\leq 60 / -$
OGC emission	-	mg/MJ	2	6	-
PM concentration	-	mg/m ³	18	9	-
PM emission (13% O ₂)	$PM_{nom} (13\% O_2) / PM_{part} (13\% O_2)$	mg/m ³	16	5	$\leq 20 / -$
PM emission	-	mg/MJ	7	3	-
Heat input	-	kW	32.4	9.0	-
Heat output	P_{nom} / P_{part}	kW	30.5	8.6	-
Water heat output	P_{Wnom} / P_{Wpart}	kW	24.4	6.5	-
Space heat output	P_{SHnom} / P_{SHpart}	kW	6.1	2.1	-
Efficiency	η_{nom} / η_{part}	%	94.0	95.8	-

4 Statement of the test results

The appliance

**00271988, 00271024
00271989**

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 3590 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 35902025 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 Tecnichal report
Tel qu'attaché au certificat relatif au rapport technique

n° K38182025Z1
del 29/07/2025

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

Modelli / Models / Modèles (ID MODEL)	00271024
---------------------------------------	----------

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 Trade mark Marque	UNICAL	
MODELLI / Models / Modèles	00271024	ONDA 28 A

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

Signé au nom et pour le compte du fabricant par Nicola Micheletti (Procurator)

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

Data 30/07/2025
Date 30/07/2025

Firma
Sign.

Unical AG S.p.A.
SEDE: Via Roma, 123 - CASTEL D'ARIO (MN)
C.F. / P.IVA: 01501350209
DIVISIONE: Viale Europa, 3/5
36053 Gambellara (VI)

Il sottoscritto, rappresentante il seguente costruttore
The undersigned, representative of the following manufacturer

Unical AG S.p.A.
Via Roma, 123
46033 - Castel d'Ario (MN) - Italy

DICHIARA che il prodotto:
DECLARES that the product:

Descrizione <i>Description</i>	Stufa a pellet <i>Pellet stove</i>
Marchio <i>Trademark</i>	UNICAL
Modelli <i>Models</i>	00271542 ONDA 15

La DoC viene rilasciata sotto la propria responsabilità e si riferisce al seguente prodotto:

- **2014/53/UE, Direttiva apparecchiature radio (RED)**
- **2011/65/UE, Direttiva sulla restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche (Direttiva RoHS)**
- **2015/863/UE Direttiva delegata recante modifica dell'allegato II della direttiva 2011/65/UE**
- **Direttiva 2009/125/CE, Ecodesign**
- **2015/1185, Regolamento per la progettazione ecocompatibile degli apparecchi per il riscaldamento d'ambiente locale a combustibile solido**

The DoC is issued under our sole responsibility and belongs to the following product:

- *2014/53/EU, Radio equipment Directive (RED)*
- *2011/65/EU, Restriction of the use of certain hazardous substances Directive (RoHS Directive)*
- *2015/863/EU, Delegated directive amending Annex II of directive 2011/65/EU*
- *2009/125/EC Directive, Ecodesign*
- *2015/1185, regulation to ecodesign requirements for solid fuel spece heaters*

L'oggetto della dichiarazione di cui sopra è conforme alla pertinente normativa di armonizzazione dell'Unione:

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

EN 55014-1:2017 + A11:2020	EN 50581:2012
EN 55014-2:2015	EN 60335-1:2012+11:2014+A13:2017+A1:2019
ETSI 300 328 V.2.1.1 [se applicabile – if applicable]	+A12:2019+A14:2019+A15:2021
ETSI EN 303 446-1 [bozza - draft]	ETSI EN 301 489-1:2011
EN 61000-3-2:2019	EN 60335-2-102:2016
EN 61000-3-3 :2013+A1 :2019	EN 62233:2008/AC:2008
EN 62311:2008	

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

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

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Place: Castel d'Ario (MN)

Data 30/07/2025
Date 30/07/2025

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C.F. / P.I.V.A. 01501350209
DIVISIONE: Viale Europa, 3/5
46050 Gambellara (VI)

Il sottoscritto, rappresentante il seguente costruttore
Le soussigné, représentant du fabricant suivant

Unical AG S.p.A.
Via Roma, 123
46033 - Castel d'Ario (MN) - Italy

DICHIARA che il prodotto:
DÉCLARE que le produit:

Descrizione <i>Description</i>	Stufa a pellet <i>Poêle à granulés</i>
Marchio <i>Marque</i>	UNICAL
Modelli <i>Modèles</i>	00271542 ONDA 15

La DoC viene rilasciata sotto la propria responsabilità e si riferisce al seguente prodotto:

- **2014/53/UE, Direttiva apparecchiature radio (RED)**
- **2011/65/UE, Direttiva sulla restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche (Direttiva RoHS)**
- **2015/863/UE Direttiva delegata recante modifica dell'allegato II della direttiva 2011/65/UE**
- **Direttiva 2009/125/CE, Ecodesign**
- **2015/1185, Regolamento per la progettazione ecocompatibile degli apparecchi per il riscaldamento d'ambiente locale a combustibile solido**

La déclaration de conformité (DoC) est établie sous notre seule responsabilité et concerne le produit suivant :

- *2014/53/UE, Directive relative aux équipements hertziens (RED)*
- *2011/65/UE, Directive relative à la limitation de l'utilisation de certaines substances dangereuses (directive RoHS)*
- *2015/863/UE, Directive déléguée modifiant l'annexe II de la directive 2011/65/UE*
- *2009/125/CE, Directive sur l'Ecodesign*
- *2015/1185, règlement établissant des exigences d'écoconception pour les appareils de chauffage à combustibles solides*

L'oggetto della dichiarazione di cui sopra è conforme alla pertinente normativa di armonizzazione dell'Unione:

L'objet de la déclaration décrite ci-dessus est conforme à la législation d'harmonisation de l'Union en la matière :

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EN 55014-2:2015
ETSI 300 328 V.2.1.1 [se applicabile – if applicable]
ETSI EN 303 446-1 [bozza - draft]
EN 61000-3-2:2019
EN 61000-3-3 :2013+A1 :2019
EN 62311:2008

EN 50581:2012
EN 60335-1:2012+11:2014+A13:2017+A1:2019
+A12:2019+A14:2019+A15:2021
ETSI EN 301 489-1:2011
EN 60335-2-102:2016
EN 62233:2008/AC:2008

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

Signé au nom et pour le compte du fabricant par Nicola Micheletti (Procurator)

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

Data 30/07/2025
Date 30/07/2025

Firma
Sign.

Unical AG S.p.A.
SEDE / Via Roma, 123 - CASTEL D'ARIO (MN)
C.F. / P.IVA 01501350209
DIVISIONE / Viale Europa, 3/5
36050 Gambellara (VI)

Il sottoscritto, rappresentante il seguente costruttore
The undersigned, representative of the following manufacturer

Unical AG S.p.A.
Via Roma, 123
46033 - Castel d'Ario (MN) - Italy

DICHIARA che il prodotto:
DECLARES that the product:

Descrizione <i>Description</i>	Stufa a pellet <i>Pellet stove</i>
Marchio <i>Trademark</i>	UNICAL
Modelli <i>Models</i>	00271543 ONDA 17

La DoC viene rilasciata sotto la propria responsabilità e si riferisce al seguente prodotto:

- **2014/53/UE, Direttiva apparecchiature radio (RED)**
- **2011/65/UE, Direttiva sulla restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche (Direttiva RoHS)**
- **2015/863/UE Direttiva delegata recante modifica dell'allegato II della direttiva 2011/65/UE**
- **Direttiva 2009/125/CE, Ecodesign**
- **2015/1185, Regolamento per la progettazione ecocompatibile degli apparecchi per il riscaldamento d'ambiente locale a combustibile solido**

The DoC is issued under our sole responsibility and belongs to the following product:

- *2014/53/EU, Radio equipment Directive (RED)*
- *2011/65/EU, Restriction of the use of certain hazardous substances Directive (RoHS Directive)*
- *2015/863/EU, Delegated directive amending Annex II of directive 2011/65/EU*
- *2009/125/EC Directive, Ecodesign*
- *2015/1185, regulation to ecodesign requirements for solid fuel spece heaters*

L'oggetto della dichiarazione di cui sopra è conforme alla pertinente normativa di armonizzazione dell'Unione:

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

EN 55014-1:2017 + A11:2020	EN 50581:2012
EN 55014-2:2015	EN 60335-1:2012+11:2014+A13:2017+A1:2019
ETSI 300 328 V.2.1.1 [se applicabile – if applicable]	+A12:2019+A14:2019+A15:2021
ETSI EN 303 446-1 [bozza - draft]	ETSI EN 301 489-1:2011
EN 61000-3-2:2019	EN 60335-2-102:2016
EN 61000-3-3 :2013+A1 :2019	EN 62233:2008/AC:2008
EN 62311:2008	

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

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

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

Data 30/07/2025
Date 30/07/2025

Firma
Sign.

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SEDE: Via Roma, 123 - CASTEL D'ARIO (MN)
C.F. / P.I.V.A. 01501350209
DIVISIONE: Viale Europa, 3/5
46058 Gambellara (VI)

Il sottoscritto, rappresentante il seguente costruttore
Le soussigné, représentant du fabricant suivant

Unical AG S.p.A.
Via Roma, 123
46033 - Castel d'Ario (MN) - Italy

DICHIARA che il prodotto:
DÉCLARE que le produit:

Descrizione <i>Description</i>	Stufa a pellet <i>Poêle à granulés</i>
Marchio <i>Marque</i>	UNICAL
Modelli <i>Modèles</i>	00271543 ONDA 17

La DoC viene rilasciata sotto la propria responsabilità e si riferisce al seguente prodotto:

- **2014/53/UE, Direttiva apparecchiature radio (RED)**
- **2011/65/UE, Direttiva sulla restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche (Direttiva RoHS)**
- **2015/863/UE Direttiva delegata recante modifica dell'allegato II della direttiva 2011/65/UE**
- **Direttiva 2009/125/CE, Ecodesign**
- **2015/1185, Regolamento per la progettazione ecocompatibile degli apparecchi per il riscaldamento d'ambiente locale a combustibile solido**

La déclaration de conformité (DoC) est établie sous notre seule responsabilité et concerne le produit suivant :

- *2014/53/UE, Directive relative aux équipements hertziens (RED)*
- *2011/65/UE, Directive relative à la limitation de l'utilisation de certaines substances dangereuses (directive RoHS)*
- *2015/863/UE, Directive déléguée modifiant l'annexe II de la directive 2011/65/UE*
- *2009/125/CE, Directive sur l'Ecodesign*
- *2015/1185, règlement établissant des exigences d'écoconception pour les appareils de chauffage à combustibles solides*

L'oggetto della dichiarazione di cui sopra è conforme alla pertinente normativa di armonizzazione dell'Unione:

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EN 61000-3-3 :2013+A1 :2019
EN 62311:2008

EN 50581:2012
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+A12:2019+A14:2019+A15:2021
ETSI EN 301 489-1:2011
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EN 62233:2008/AC:2008

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

Signé au nom et pour le compte du fabricant par Nicola Micheletti (Procurator)

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

Data 30/07/2025
Date 30/07/2025

Firma
Sign.

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SEDE / Via Roma, 123 - CASTEL D'ARIO (MN)
C.F. / P.IVA 01501350209
DIVISIONE / Viale Europa, 3/5
36050 Gambellara (VI)

Il sottoscritto, rappresentante il seguente costruttore
The undersigned, representative of the following manufacturer

Unical AG S.p.A.
Via Roma, 123
46033 - Castel d'Ario (MN) - Italy

DICHIARA che il prodotto:
DECLARES that the product:

Descrizione <i>Description</i>	Stufa a pellet <i>Pellet stove</i>
Marchio <i>Trademark</i>	UNICAL
Modelli <i>Models</i>	00271023 ONDA 24 A

La DoC viene rilasciata sotto la propria responsabilità e si riferisce al seguente prodotto:

- **2014/53/UE, Direttiva apparecchiature radio (RED)**
- **2011/65/UE, Direttiva sulla restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche (Direttiva RoHS)**
- **2015/863/UE Direttiva delegata recante modifica dell'allegato II della direttiva 2011/65/UE**
- **Direttiva 2009/125/CE, Ecodesign**
- **2015/1185, Regolamento per la progettazione ecocompatibile degli apparecchi per il riscaldamento d'ambiente locale a combustibile solido**

The DoC is issued under our sole responsibility and belongs to the following product:

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- *2009/125/EC Directive, Ecodesign*
- *2015/1185, regulation to ecodesign requirements for solid fuel spece heaters*

L'oggetto della dichiarazione di cui sopra è conforme alla pertinente normativa di armonizzazione dell'Unione:

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

EN 55014-1:2017 + A11:2020	EN 50581:2012
EN 55014-2:2015	EN 60335-1:2012+11:2014+A13:2017+A1:2019
ETSI 300 328 V.2.1.1 [se applicabile – if applicable]	+A12:2019+A14:2019+A15:2021
ETSI EN 303 446-1 [bozza - draft]	ETSI EN 301 489-1:2011
EN 61000-3-2:2019	EN 60335-2-102:2016
EN 61000-3-3 :2013+A1 :2019	EN 62233:2008/AC:2008
EN 62311:2008	

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

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

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

Data 30/07/2025
Date 30/07/2025

Firma
Sign.

Unical AG S.p.A.
SEDE: Via Roma, 123 - CASTEL D'ARIO (MN)
C.F. / P.I.V.A. 01501350209
DIVISIONE: Viale Europa, 3/5
46058 Gambellara (VI)

Il sottoscritto, rappresentante il seguente costruttore
Le soussigné, représentant du fabricant suivant

Unical AG S.p.A.
Via Roma, 123
46033 - Castel d'Ario (MN) - Italy

DICHIARA che il prodotto:
DÉCLARE que le produit:

Descrizione <i>Description</i>	Stufa a pellet <i>Poêle à granulés</i>
Marchio <i>Marque</i>	UNICAL
Modelli <i>Modèles</i>	00271023 ONDA 24 A

La DoC viene rilasciata sotto la propria responsabilità e si riferisce al seguente prodotto:

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- **2011/65/UE, Direttiva sulla restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche (Direttiva RoHS)**
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La déclaration de conformité (DoC) est établie sous notre seule responsabilité et concerne le produit suivant :

- *2014/53/UE, Directive relative aux équipements hertziens (RED)*
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ETSI 300 328 V.2.1.1 [se applicabile – if applicable]
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EN 62311:2008

EN 50581:2012
EN 60335-1:2012+11:2014+A13:2017+A1:2019
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EN 62233:2008/AC:2008

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

Signé au nom et pour le compte du fabricant par Nicola Micheletti (Procurator)

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

Data 30/07/2025
Date 30/07/2025

Firma
Sign.

Unical AG S.p.A.
SEDE / Via Roma, 123 - CASTEL D'ARIO (MN)
C.F. / P.IVA 01501350209
DIVISIONE / Viale Europa, 3/5
36050 Gambellara (VI)

Il sottoscritto, rappresentante il seguente costruttore
The undersigned, representative of the following manufacturer

Unical AG S.p.A.
Via Roma, 123
46033 - Castel d'Ario (MN) - Italy

DICHIARA che il prodotto:
DECLARES that the product:

Descrizione <i>Description</i>	Stufa a pellet <i>Pellet stove</i>
Marchio <i>Trademark</i>	UNICAL
Modelli <i>Models</i>	00271024 ONDA 28 A

La DoC viene rilasciata sotto la propria responsabilità e si riferisce al seguente prodotto:

- **2014/53/UE, Direttiva apparecchiature radio (RED)**
- **2011/65/UE, Direttiva sulla restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche (Direttiva RoHS)**
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EN 55014-1:2017 + A11:2020	EN 50581:2012
EN 55014-2:2015	EN 60335-1:2012+11:2014+A13:2017+A1:2019
ETSI 300 328 V.2.1.1 [se applicabile – if applicable]	+A12:2019+A14:2019+A15:2021
ETSI EN 303 446-1 [bozza - draft]	ETSI EN 301 489-1:2011
EN 61000-3-2:2019	EN 60335-2-102:2016
EN 61000-3-3 :2013+A1 :2019	EN 62233:2008/AC:2008
EN 62311:2008	

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

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

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

Data 30/07/2025
Date 30/07/2025

Firma
Sign.

Unical AG S.p.A.
SEDE: Via Roma, 123 - CASTEL D'ARIO (MN)
C.F. / P.I.V.A. 01501350209
DIVISIONE: Viale Europa, 3/5
46058 Gambellara (VI)

Il sottoscritto, rappresentante il seguente costruttore
Le soussigné, représentant du fabricant suivant

Unical AG S.p.A.
Via Roma, 123
46033 - Castel d'Ario (MN) - Italy

DICHIARA che il prodotto:
DÉCLARE que le produit:

Descrizione <i>Description</i>	Stufa a pellet <i>Poêle à granulés</i>
Marchio <i>Marque</i>	UNICAL
Modelli <i>Modèles</i>	00271024 ONDA 28 A

La DoC viene rilasciata sotto la propria responsabilità e si riferisce al seguente prodotto:

- **2014/53/UE, Direttiva apparecchiature radio (RED)**
- **2011/65/UE, Direttiva sulla restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche (Direttiva RoHS)**
- **2015/863/UE Direttiva delegata recante modifica dell'allegato II della direttiva 2011/65/UE**
- **Direttiva 2009/125/CE, Ecodesign**
- **2015/1185, Regolamento per la progettazione ecocompatibile degli apparecchi per il riscaldamento d'ambiente locale a combustibile solido**

La déclaration de conformité (DoC) est établie sous notre seule responsabilité et concerne le produit suivant :

- *2014/53/UE, Directive relative aux équipements hertziens (RED)*
- *2011/65/UE, Directive relative à la limitation de l'utilisation de certaines substances dangereuses (directive RoHS)*
- *2015/863/UE, Directive déléguée modifiant l'annexe II de la directive 2011/65/UE*
- *2009/125/CE, Directive sur l'Ecodesign*
- *2015/1185, règlement établissant des exigences d'écoconception pour les appareils de chauffage à combustibles solides*

L'oggetto della dichiarazione di cui sopra è conforme alla pertinente normativa di armonizzazione dell'Unione:

L'objet de la déclaration décrite ci-dessus est conforme à la législation d'harmonisation de l'Union en la matière :

EN 55014-1:2017 + A11:2020
EN 55014-2:2015
ETSI 300 328 V.2.1.1 [se applicabile – if applicable]
ETSI EN 303 446-1 [bozza - draft]
EN 61000-3-2:2019
EN 61000-3-3 :2013+A1 :2019
EN 62311:2008

EN 50581:2012
EN 60335-1:2012+11:2014+A13:2017+A1:2019
+A12:2019+A14:2019+A15:2021
ETSI EN 301 489-1:2011
EN 60335-2-102:2016
EN 62233:2008/AC:2008

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

Signé au nom et pour le compte du fabricant par Nicola Micheletti (Procurator)

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

Data 30/07/2025
Date 30/07/2025

Firma
Sign.

Unical AG S.p.A.
SEDE / Via Roma, 123 - CASTEL D'ARIO (MN)
C.F. / P.IVA 01501350209
DIVISIONE / Viale Europa, 3/5
36050 Gambellara (VI)

DICHIARAZIONE DI PRESTAZIONE in base al regolamento (UE) Nr.305/2011

N° DoP: 103469_U_EN16510

Codice di identificazione unico del prodotto-tipo:	00271542
Modelli:	ONDA 15
Uso previsto del prodotto:	Apparecchio di riscaldamento domestico a pellet di legno
Fabbricante:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Marchio:	UNICAL
Sistema AVCP:	System 3-4
Ente Notificato:	NB 2456 - TÜV Rheinland Energy GmbH
N° Test Report:	K38152025Z1
Specifica tecnica armonizzata:	EN 16510-1:2022 / EN 16510-2-6:2022

CARATTERISTICHE ESSENZIALI

Prestazioni - Potenza e Rendimento	Potenza nominale		Potenza a carico parziale	
Potenza riscaldamento all'ambiente	3,3	KW	1,2	KW
Potenza riscaldamento all'acqua	10,5	KW	3,8	KW
Rendimento	93	%	96	%
Prestazioni - Emissioni	Potenza nominale		Potenza a carico parziale	
Monossido di Carbonio (CO al 13% O ₂)	231	mg/Nm ³	299	mg/Nm3
Ossidi di Azoto (NO _x al 13% O ₂)	117	mg/Nm3	109	mg/Nm3
Composti Organici Volatili (OGC al 13% O ₂)	10	mg/Nm3	13	mg/Nm3
Particolato (PM al 13% O ₂)	17	mg/Nm3	41	mg/Nm3
Utilizzo sicuro e accessibile - dati di installazione a camino	Potenza nominale		Potenza a carico parziale	
Temperatura fumi in uscita	150	°C	75	°C
Tiraggio minimo	12	Pa	10	Pa
Portata massica dei fumi	8,5	g/s	4,29	g/s
Efficienza in riscaldamento d'ambiente				
Efficienza stagionale in riscaldamento d'ambiente	83	%		
Indice di efficienza energetica	125	-		
Classe di efficienza energetica	A+	-		
Assorbimento elettrico alla potenza nominale	0,042	KW		
Assorbimento elettrico alla potenza a carico parziale	0,024	KW		
Assorbimento elettrico in modalità standby	0,003	KW		
Sicurezza antincendio - protezione dei materiali combustibili				
Distanza minima - retro (dR)	100	mm		
Distanza minima - lato (dS)	200	mm		
Distanza minima - superiore (dC)	750	mm		
Distanza minima - frontale (dP)	2000	mm		
Distanza minima - irraggiamento frontale inferiore (dF)	1500	mm		
Distanza minima - irraggiamento frontale laterale (dL)	1500	mm		
Distanza minima - pavimento (dB)	10	mm		
Classe di temperatura camino	T200	-		
Spessore e Conducibilità termica materiale isolante	-			
Resistenza meccanica e stabilità				
Capacità di sostenere un camino	0	Kg		
Utilizzo sostenibile delle risorse naturali				
Informazioni sulla sostenibilità ambientale	NPD	-		

Le prestazioni del prodotto sopra identificato sono conformi all'insieme delle prestazioni dichiarate.

La presente dichiarazione di prestazione è rilasciata in conformità al Regolamento (UE) Nr.305/2011, sotto la responsabilità del produttore sopra identificato.

Unical AG S.p.A.
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DIVISIONE: Viale Europa, 3/5
36056 Gambellara (VI)

Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

DECLARATION OF PERFORMANCE according to Regulation (EU) Nr.305/2011 N° DoP: 103469_U_EN16510

Unique product-type identification code:	00271542
Models:	ONDA 15
Intended use of the product:	Space heating in residential buildings with pellet wood
Manufacturer:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Trade mark:	UNICAL
AVCP System:	System 3-4
Notified body:	NB 2456 - TÜV Rheinland Energy GmbH
Test report number:	K38152025Z1
Harmonised technical specification:	EN 16510-1:2022 / EN 16510-2-6:2022

ESSENTIAL CHARACTERISTICS

Performance - Power and efficiency	Nominal heat output		Partial load heat output	
Heating power to the environment	3,3	KW	1,2	KW
Heating power to the water	10,5	KW	3,8	KW
Efficiency	93	%	96	%
Performance - Emissions	Nominal heat output		Partial load heat output	
Carbon monoxide (CO at 13% O ₂)	231	mg/Nm ³	299	mg/Nm3
Nitrogen oxides (NO _x at 13% O ₂)	117	mg/Nm3	109	mg/Nm3
Emission of organic gaseous compounds (OGC at 13% O ₂)	10	mg/Nm3	13	mg/Nm3
Particulate matter emissions (PM at 13% O ₂)	17	mg/Nm3	41	mg/Nm3
Safe and accessible use - chimney installation data	Nominal heat output		Partial load heat output	
Flue gas outlet temperature	150	°C	75	°C
Minimum flue draught	12	Pa	10	Pa
Flue gas mass flow	8,5	g/s	4,29	g/s
Space heating efficiency				
Seasonal space heating energy efficiency	83	%		
Energy efficiency index	125	-		
Energy efficiency class	A+	-		
Electrical consumption at nominal heat output	0,042	KW		
Electrical consumption at partial load heat output	0,024	KW		
Electrical consumption in standby mode	0,003	KW		
Fire safety - protection of combustible materials				
Minimum distance - rear (dR)	100	mm		
Minimum distance - side (dS)	200	mm		
Minimum distance - ceiling (dC)	750	mm		
Minimum distance - frontal (dP)	2000	mm		
Minimum distance - front floor (dF)	1500	mm		
Minimum distance - lateral radiation (dL)	1500	mm		
Minimum distance - bottom (dB)	10	mm		
Flue temperature class	T200	-		
Thickness and thermal conductivity of insulating material (λd)	-			
Mechanical resistance and stability				
Capacity to support a chimney	0	Kg		
Sustainable use of natural resources				
Environmental sustainability information	NPD	-		

The performance of the product identified above is in conformity with the set of declared performances.

This declaration of performance is issued in accordance with Regulation (EU) Nr.305/2011 under the responsibility of the manufacturer identified above.

Unical AG S.p.A.
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DIVISIONE: Viale Europa, 3/5
36056 Gambellara (VI)

Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

DÉCLARATION DE PERFORMANCE conformément au règlement (UE) Nr.305/2011 N° DoP: 103469_U_EN16510

Code d'identification unique du produit-type:	00271542
Modèles:	ONDA 15
Usage prévu du produit:	Chauffage des locaux dans les bâtiments résidentiels avec des granulés de bois
Fabricant:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Marque commerciale:	UNICAL
Système AVCP:	System 3-4
Organisme Notifié:	NB 2456 - TÜV Rheinland Energy GmbH
Numéro du rapport d'essai:	K38152025Z1
Spécification technique harmonisée:	EN 16510-1:2022 / EN 16510-2-6:2022

CARACTÉRISTIQUES ESSENTIELLES

Performances - Puissance et rendement	Puissance nominale		Puissance à charge partielle	
Puissance de chauffage de l'environnement	3,3	KW	1,2	KW
Puissance de chauffage de l'eau	10,5	KW	3,8	KW
Rendement	93	%	96	%
Performances - Émissions	Puissance nominale		Puissance à charge partielle	
Monoxyde de carbone (CO à 13% O ₂)	231	mg/Nm ³	299	mg/Nm ³
Oxydes d'azote (NO _x à 13% O ₂)	117	mg/Nm ³	109	mg/Nm ³
Émission de composés organiques volatils (OGC à 13% O ₂)	10	mg/Nm ³	13	mg/Nm ³
Émissions de particules (PM à 13% O ₂)	17	mg/Nm ³	41	mg/Nm ³
Utilisation sûre et accessible - données d'installation du conduit de fumée	Puissance nominale		Puissance à charge partielle	
Température des gaz de combustion à la sortie	150	°C	75	°C
Tirage minimum	12	Pa	10	Pa
Masse des gaz de combustion	8,5	g/s	4,29	g/s
Efficacité en chauffage de l'environnement				
Efficacité énergétique saisonnière en chauffage de l'environnement	83	%		
Indice d'efficacité énergétique	125	-		
Classe d'efficacité énergétique	A+	-		
Consommation électrique à la puissance nominale	0,042	KW		
Consommation électrique à charge partielle	0,024	KW		
Consommation électrique en veille	0,003	KW		
Sécurité incendie - protection contre les matériaux combustibles				
Distance minimale - arrière (dR)	100	mm		
Distance minimale - côté (dS)	200	mm		
Distance minimale - plafond (dC)	750	mm		
Distance minimale - frontal (dP)	2000	mm		
Distance minimale - sol avant (dF)	1500	mm		
Distance minimale - rayonnement latéral (dL)	1500	mm		
Distance minimale - dessous (dB)	10	mm		
Classe de température du conduit de fumée	T200	-		
Épaisseur et conductivité thermique du matériau isolant protecteur (λd)	-			
Stabilité et résistance mécanique				
Capacité à supporter une cheminée	0	Kg		
Utilisation durable des ressources naturelles				
Informations sur la durabilité environnementale	NPD	-		

Les performances du produit ci-dessus identifié sont conformes à l'ensemble des performances déclarées.

La présente déclaration de performance est délivrée conformément au règlement (UE) Nr.305/2011, sous la responsabilité du fabricant ci-dessus identifié.

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36056 Gambellara (VI)

Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

LEISTUNGSERKLÄRUNG gemäß der Verordnung (EU) Nr.305/2011

N° DoP: 103469_U_EN16510

Einzigartige Produktkennnummer des Produkttyps:	00271542
Modelle:	ONDA 15
Geplanter Einsatz des Produkts:	Raumheizung in Wohngebäuden mit Holzpellets
Hersteller:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Markenname:	UNICAL
AVCP-System:	System 3-4
Benannte Stelle:	NB 2456 - TÜV Rheinland Energy GmbH
Prüfberichtsnummer:	K38152025Z1
Harmonisierte technische Spezifikation:	EN 16510-1:2022 / EN 16510-2-6:2022

WESENTLICHE EIGENSCHAFTEN

Leistung - Leistung und Wirkungsgrad	Nennleistung		Leistung bei Teillast	
Heizleistung für den Raum	3,3	KW	1,2	KW
Heizleistung für Wasser	10,5	KW	3,8	KW
Wirkungsgrad	93	%	96	%
Leistung - Emissionen	Nennleistung		Leistung bei Teillast	
Kohlenmonoxid (CO bei 13% O ₂)	231	mg/Nm ³	299	mg/Nm3
Stickoxide (NO _x bei 13% O ₂)	117	mg/Nm3	109	mg/Nm3
Emission von flüchtigen organischen Verbindungen (OGC bei 13% O ₂)	10	mg/Nm3	13	mg/Nm3
Feinstaubemissionen (PM bei 13% O ₂)	17	mg/Nm3	41	mg/Nm3
Sichere und zugängliche Nutzung - Daten zur Schornsteininstallation	Nennleistung		Leistung bei Teillast	
Abgastemperatur am Ausgang	150	°C	75	°C
Mindestzug	12	Pa	10	Pa
Abgasmasse	8,5	g/s	4,29	g/s
Wirkungsgrad bei Raumheizung				
Jahreszeitlicher Energieeffizienz-Wirkungsgrad bei Raumheizung	83	%		
Energieeffizienzindex	125	-		
Energieeffizienzklasse	A+	-		
Elektrische Leistung bei Nennleistung	0,042	KW		
Elektrische Leistung bei Teillast	0,024	KW		
Elektrische Leistung im Standby	0,003	KW		
Brandschutz - Schutz vor brennbaren Materialien				
Mindestabstand - Rückseite (dR)	100	mm		
Mindestabstand - Seite (dS)	200	mm		
Mindestabstand - Decke (dC)	750	mm		
Mindestabstand - vordere Strahlung (dP)	2000	mm		
Mindestabstand - vorderer Boden (dF)	1500	mm		
Mindestabstand - seitliche Strahlung (dL)	1500	mm		
Mindestabstand - unten (dB)	10	mm		
Temperaturklasse des Schornsteins	T200	-		
Dicke und Wärmeleitfähigkeit des schützenden Dämmstoffs (λd)	-			
Stabilität und mechanische Festigkeit				
Fähigkeit, einen Kamin zu tragen	0	Kg		
Nachhaltige Ressourcennutzung				
Informationen zur ökologischen Nachhaltigkeit	NPD	-		

Die Leistungen des oben genannten Produkts entsprechen der Gesamtheit der angegebenen Leistungen.

Diese Leistungserklärung wird gemäß der Verordnung (EU) Nr.305/2011 unter der Verantwortung des oben genannten Herstellers abgegeben.

Unical AG S.p.A.
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DIVISIONE: Viale Europa, 3/5
36056 Gambellara (VI)

Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

DECLARACIÓN DE DESEMPEÑO según el Reglamento (UE) Nr.305/2011

N° DoP: 103469_U_EN16510

Código de identificación único del producto-tipo:	00271542
Modelos:	ONDA 15
Uso previsto del producto:	Aparato de calefacción en edificios residenciales con pellets de madera
Fabricante:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Marca comercial:	UNICAL
Sistema AVCP:	System 3-4
Entidad Notificada:	NB 2456 - TÜV Rheinland Energy GmbH
Número del informe de prueba:	K38152025Z1
Especificación técnica armonizada:	EN 16510-1:2022 / EN 16510-2-6:2022

CARACTERÍSTICAS ESENCIALES

Rendimiento - Potencia y eficiencia	Potencia nominal		Potencia a carga parcial	
Potencia de calefacción al ambiente	3,3	KW	1,2	KW
Potencia de calefacción al agua	10,5	KW	3,8	KW
Eficiencia	93	%	96	%
Rendimiento - Emisiones	Potencia nominal		Potencia a carga parcial	
Monóxido de carbono (CO al 13% O ₂)	231	mg/Nm ³	299	mg/Nm ³
Óxidos de nitrógeno (NO _x al 13% O ₂)	117	mg/Nm ³	109	mg/Nm ³
Emisión de compuestos orgánicos volátiles (OGC al 13% O ₂)	10	mg/Nm ³	13	mg/Nm ³
Emisiones de partículas (PM al 13% O ₂)	17	mg/Nm ³	41	mg/Nm ³
Uso seguro y accesible - datos de instalación de chimenea	Potencia nominal		Potencia a carga parcial	
Temperatura de los gases de combustión en la salida	150	°C	75	°C
Tiraje mínimo	12	Pa	10	Pa
Masa de los gases de combustión	8,5	g/s	4,29	g/s
Eficiencia en calefacción ambiental				
Eficiencia energética estacional en calefacción ambiental	83	%		
Índice de eficiencia energética	125	-		
Clase de eficiencia energética	A+	-		
Consumo eléctrico a potencia nominal	0,042	KW		
Consumo eléctrico a carga parcial	0,024	KW		
Consumo eléctrico en espera	0,003	KW		
Seguridad contra incendios - protección contra materiales combustibles				
Distancia mínima - trasera (dR)	100	mm		
Distancia mínima - lateral (dS)	200	mm		
Distancia mínima - techo (dC)	750	mm		
Distancia mínima - frontal (dP)	2000	mm		
Distancia mínima - suelo frontal (dF)	1500	mm		
Distancia mínima - radiación lateral (dL)	1500	mm		
Distancia mínima - debajo (dB)	10	mm		
Clase de temperatura de la chimenea	T200	-		
Grosor y conductividad térmica del material aislante protector (λd)	-			
Estabilidad y resistencia mecánica				
Capacidad para sostener una chimenea	0	Kg		
Uso sostenible de recursos naturales				
Información sobre sostenibilidad ambiental	NPD	-		

El rendimiento del producto identificado anteriormente cumple con el conjunto de rendimientos declarados.

Esta declaración de desempeño se emite de acuerdo con el Reglamento (UE) Nr.305/2011, bajo la responsabilidad del fabricante anteriormente identificado.

Unical AG S.p.A.
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DIVISIONE: Viale Europa, 3/5
36056 Gambellara (VI)

Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

DECLARAÇÃO DE DESEMPENHO de acordo com o Regulamento (UE) Nr.305/2011 N° DoP: 103469_U_EN16510

Código de identificação único do produto-tipo:	00271542
Modelos:	ONDA 15
Uso previsto do produto:	Aquecimento de ambientes residenciais com pellets de madeira
Fabricante:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Marca comercial:	UNICAL
Sistema AVCP:	System 3-4
Entidade Notificada:	NB 2456 - TÜV Rheinland Energy GmbH
Número do relatório de ensaio:	K38152025Z1
Especificação técnica harmonizada:	EN 16510-1:2022 / EN 16510-2-6:2022

CARACTERÍSTICAS ESSENCIAIS

Desempenho - Potência e eficiência	Potência nominal		Potência a carga parcial	
Potência de aquecimento ao ambiente	3,3	KW	1,2	KW
Potência de aquecimento à água	10,5	KW	3,8	KW
Eficiência	93	%	96	%
Desempenho - Emissões	Potência nominal		Potência a carga parcial	
Monóxido de carbono (CO al 13% O ₂)	231	mg/Nm ³	299	mg/Nm3
Óxidos de azoto (NO _x al 13% O ₂)	117	mg/Nm3	109	mg/Nm3
Emissão de compostos orgânicos voláteis (OGC al 13% O ₂)	10	mg/Nm3	13	mg/Nm3
Emissões de partículas (PM al 13% O ₂)	17	mg/Nm3	41	mg/Nm3
Uso seguro e acessível - dados de instalação de chaminé	Potência nominal		Potência a carga parcial	
Temperatura dos gases de exaustão na saída	150	°C	75	°C
Tiragem mínima	12	Pa	10	Pa
Massa de gases de exaustão	8,5	g/s	4,29	g/s
Eficiência em aquecimento de ambiente				
Eficiência energética sazonal em aquecimento de ambiente	83	%		
Índice de eficiência energética	125	-		
Classe de eficiência energética	A+	-		
Consumo elétrico a potência nominal	0,042	KW		
Consumo elétrico a carga parcial	0,024	KW		
Consumo elétrico em stand-by	0,003	KW		
Segurança contra incêndios - proteção contra materiais combustíveis				
Distância mínima - traseira (dR)	100	mm		
Distância mínima - lado (dS)	200	mm		
Distância mínima - teto (dC)	750	mm		
Distância mínima - radiação frontal (dP)	2000	mm		
Distância mínima - chão frontal (dF)	1500	mm		
Distância mínima - radiação lateral (dL)	1500	mm		
Distância mínima - abaixo (dB)	10	mm		
Classe de temperatura da chaminé	T200	-		
Espessura e condutividade térmica do material isolante protetor (λd)	-			
Estabilidade e resistência mecânica				
Capacidade de suportar uma chaminé	0	Kg		
Uso sustentável dos recursos naturais				
Informações sobre sustentabilidade ambiental	NPD	-		

O desempenho do produto identificado acima está em conformidade com o conjunto de desempenhos declarados.

Esta declaração de desempenho é emitida de acordo com o Regulamento (UE) Nr.305/2011, sob a responsabilidade do fabricante identificado acima.

Unical AG S.p.A.
SEDE: Via Roma, 123 - CASTEL D'ARIO (MN)
C.F. / P.IVA 01501350209
DIVISIONE: Viale Europa, 3/5
36056 Gambellara (VI)

Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

DICHIARAZIONE DI PRESTAZIONE in base al regolamento (UE) Nr.305/2011

N° DoP: 103472_U_EN16510

Codice di identificazione unico del prodotto-tipo:	00271543
Modelli:	ONDA 17
Uso previsto del prodotto:	Apparecchio di riscaldamento domestico a pellet di legno
Fabbricante:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Marchio:	UNICAL
Sistema AVCP:	System 3-4
Ente Notificato:	NB 2456 - TÜV Rheinland Energy GmbH
N° Test Report:	K38162025Z1
Specifica tecnica armonizzata:	EN 16510-1:2022 / EN 16510-2-6:2022

CARATTERISTICHE ESSENZIALI

Prestazioni - Potenza e Rendimento	Potenza nominale		Potenza a carico parziale	
Potenza riscaldamento all'ambiente	3,7	KW	0,9	KW
Potenza riscaldamento all'acqua	13,4	KW	3,1	KW
Rendimento	95	%	97	%
Prestazioni - Emissioni	Potenza nominale		Potenza a carico parziale	
Monossido di Carbonio (CO al 13% O ₂)	55	mg/Nm ³	345	mg/Nm3
Ossidi di Azoto (NO _x al 13% O ₂)	130	mg/Nm3	114	mg/Nm3
Composti Organici Volatili (OGC al 13% O ₂)	1	mg/Nm3	6	mg/Nm3
Particolato (PM al 13% O ₂)	15	mg/Nm3	24	mg/Nm3
Utilizzo sicuro e accessibile - dati di installazione a camino	Potenza nominale		Potenza a carico parziale	
Temperatura fumi in uscita	123	°C	73	°C
Tiraggio minimo	8	Pa	3	Pa
Portata massica dei fumi	11,1	g/s	3	g/s
Efficienza in riscaldamento d'ambiente				
Efficienza stagionale in riscaldamento d'ambiente	84	%		
Indice di efficienza energetica	127	-		
Classe di efficienza energetica	A+	-		
Assorbimento elettrico alla potenza nominale	0,082	KW		
Assorbimento elettrico alla potenza a carico parziale	0,058	KW		
Assorbimento elettrico in modalità standby	0,003	KW		
Sicurezza antincendio - protezione dei materiali combustibili				
Distanza minima - retro (dR)	100	mm		
Distanza minima - lato (dS)	200	mm		
Distanza minima - superiore (dC)	750	mm		
Distanza minima - frontale (dP)	2000	mm		
Distanza minima - irraggiamento frontale inferiore (dF)	1500	mm		
Distanza minima - irraggiamento frontale laterale (dL)	1500	mm		
Distanza minima - pavimento (dB)	10	mm		
Classe di temperatura camino	T200	-		
Spessore e Conducibilità termica materiale isolante	-			
Resistenza meccanica e stabilità				
Capacità di sostenere un camino	0	Kg		
Utilizzo sostenibile delle risorse naturali				
Informazioni sulla sostenibilità ambientale	NPD	-		

Le prestazioni del prodotto sopra identificato sono conformi all'insieme delle prestazioni dichiarate.

La presente dichiarazione di prestazione è rilasciata in conformità al Regolamento (UE) Nr.305/2011, sotto la responsabilità del produttore sopra identificato.

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Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

DECLARATION OF PERFORMANCE according to Regulation (EU) Nr.305/2011

N° DoP: 103472_U_EN16510

Unique product-type identification code:	00271543
Models:	ONDA 17
Intended use of the product:	Space heating in residential buildings with pellet wood
Manufacturer:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Trade mark:	UNICAL
AVCP System:	System 3-4
Notified body:	NB 2456 - TÜV Rheinland Energy GmbH
Test report number:	K38162025Z1
Harmonised technical specification:	EN 16510-1:2022 / EN 16510-2-6:2022

ESSENTIAL CHARACTERISTICS

Performance - Power and efficiency	Nominal heat output		Partial load heat output	
Heating power to the environment	3,7	KW	0,9	KW
Heating power to the water	13,4	KW	3,1	KW
Efficiency	95	%	97	%
Performance - Emissions	Nominal heat output		Partial load heat output	
Carbon monoxide (CO at 13% O ₂)	55	mg/Nm ³	345	mg/Nm3
Nitrogen oxides (NO _x at 13% O ₂)	130	mg/Nm3	114	mg/Nm3
Emission of organic gaseous compounds (OGC at 13% O ₂)	1	mg/Nm3	6	mg/Nm3
Particulate matter emissions (PM at 13% O ₂)	15	mg/Nm3	24	mg/Nm3
Safe and accessible use - chimney installation data	Nominal heat output		Partial load heat output	
Flue gas outlet temperature	123	°C	73	°C
Minimum flue draught	8	Pa	3	Pa
Flue gas mass flow	11,1	g/s	3	g/s
Space heating efficiency				
Seasonal space heating energy efficiency	84	%		
Energy efficiency index	127	-		
Energy efficiency class	A+	-		
Electrical consumption at nominal heat output	0,082	KW		
Electrical consumption at partial load heat output	0,058	KW		
Electrical consumption in standby mode	0,003	KW		
Fire safety - protection of combustible materials				
Minimum distance - rear (dR)	100	mm		
Minimum distance - side (dS)	200	mm		
Minimum distance - ceiling (dC)	750	mm		
Minimum distance - frontal (dP)	2000	mm		
Minimum distance - front floor (dF)	1500	mm		
Minimum distance - lateral radiation (dL)	1500	mm		
Minimum distance - bottom (dB)	10	mm		
Flue temperature class	T200	-		
Thickness and thermal conductivity of insulating material (λd)	-			
Mechanical resistance and stability				
Capacity to support a chimney	0	Kg		
Sustainable use of natural resources				
Environmental sustainability information	NPD	-		

The performance of the product identified above is in conformity with the set of declared performances.

This declaration of performance is issued in accordance with Regulation (EU) Nr.305/2011 under the responsibility of the manufacturer identified above.

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Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

DÉCLARATION DE PERFORMANCE conformément au règlement (UE) Nr.305/2011 N° DoP: 103472_U_EN16510

Code d'identification unique du produit-type:	00271543
Modèles:	ONDA 17
Usage prévu du produit:	Chauffage des locaux dans les bâtiments résidentiels avec des granulés de bois
Fabricant:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Marque commerciale:	UNICAL
Système AVCP:	System 3-4
Organisme Notifié:	NB 2456 - TÜV Rheinland Energy GmbH
Numéro du rapport d'essai:	K38162025Z1
Spécification technique harmonisée:	EN 16510-1:2022 / EN 16510-2-6:2022

CARACTÉRISTIQUES ESSENTIELLES

Performances - Puissance et rendement	Puissance nominale		Puissance à charge partielle	
Puissance de chauffage de l'environnement	3,7	KW	0,9	KW
Puissance de chauffage de l'eau	13,4	KW	3,1	KW
Rendement	95	%	97	%
Performances - Émissions	Puissance nominale		Puissance à charge partielle	
Monoxyde de carbone (CO à 13% O ₂)	55	mg/Nm ³	345	mg/Nm ³
Oxydes d'azote (NO _x à 13% O ₂)	130	mg/Nm ³	114	mg/Nm ³
Émission de composés organiques volatils (OGC à 13% O ₂)	1	mg/Nm ³	6	mg/Nm ³
Émissions de particules (PM à 13% O ₂)	15	mg/Nm ³	24	mg/Nm ³
Utilisation sûre et accessible - données d'installation du conduit de fumée	Puissance nominale		Puissance à charge partielle	
Température des gaz de combustion à la sortie	123	°C	73	°C
Tirage minimum	8	Pa	3	Pa
Masse des gaz de combustion	11,1	g/s	3	g/s
Efficacité en chauffage de l'environnement				
Efficacité énergétique saisonnière en chauffage de l'environnement	84	%		
Indice d'efficacité énergétique	127	-		
Classe d'efficacité énergétique	A+	-		
Consommation électrique à la puissance nominale	0,082	KW		
Consommation électrique à charge partielle	0,058	KW		
Consommation électrique en veille	0,003	KW		
Sécurité incendie - protection contre les matériaux combustibles				
Distance minimale - arrière (dR)	100	mm		
Distance minimale - côté (dS)	200	mm		
Distance minimale - plafond (dC)	750	mm		
Distance minimale - frontal (dP)	2000	mm		
Distance minimale - sol avant (dF)	1500	mm		
Distance minimale - rayonnement latéral (dL)	1500	mm		
Distance minimale - dessous (dB)	10	mm		
Classe de température du conduit de fumée	T200	-		
Épaisseur et conductivité thermique du matériau isolant protecteur (λd)	-			
Stabilité et résistance mécanique				
Capacité à supporter une cheminée	0	Kg		
Utilisation durable des ressources naturelles				
Informations sur la durabilité environnementale	NPD	-		

Les performances du produit ci-dessus identifié sont conformes à l'ensemble des performances déclarées.

La présente déclaration de performance est délivrée conformément au règlement (UE) Nr.305/2011, sous la responsabilité du fabricant ci-dessus identifié.

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Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

LEISTUNGSERKLÄRUNG gemäß der Verordnung (EU) Nr.305/2011

N° DoP: 103472_U_EN16510

Einzigartige Produktkennnummer des Produkttyps:	00271543
Modelle:	ONDA 17
Geplanter Einsatz des Produkts:	Raumheizung in Wohngebäuden mit Holzpellets
Hersteller:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Markenname:	UNICAL
AVCP-System:	System 3-4
Benannte Stelle:	NB 2456 - TÜV Rheinland Energy GmbH
Prüfberichtsnummer:	K38162025Z1
Harmonisierte technische Spezifikation:	EN 16510-1:2022 / EN 16510-2-6:2022

WESENTLICHE EIGENSCHAFTEN

Leistung - Leistung und Wirkungsgrad	Nennleistung		Leistung bei Teillast	
Heizleistung für den Raum	3,7	KW	0,9	KW
Heizleistung für Wasser	13,4	KW	3,1	KW
Wirkungsgrad	95	%	97	%
Leistung - Emissionen	Nennleistung		Leistung bei Teillast	
Kohlenmonoxid (CO bei 13% O ₂)	55	mg/Nm ³	345	mg/Nm3
Stickoxide (NO _x bei 13% O ₂)	130	mg/Nm3	114	mg/Nm3
Emission von flüchtigen organischen Verbindungen (OGC bei 13% O ₂)	1	mg/Nm3	6	mg/Nm3
Feinstaubemissionen (PM bei 13% O ₂)	15	mg/Nm3	24	mg/Nm3
Sichere und zugängliche Nutzung - Daten zur Schornsteininstallation	Nennleistung		Leistung bei Teillast	
Abgastemperatur am Ausgang	123	°C	73	°C
Mindestzug	8	Pa	3	Pa
Abgasmasse	11,1	g/s	3	g/s
Wirkungsgrad bei Raumheizung				
Jahreszeitlicher Energieeffizienz-Wirkungsgrad bei Raumheizung	84	%		
Energieeffizienzindex	127	-		
Energieeffizienzklasse	A+	-		
Elektrische Leistung bei Nennleistung	0,082	KW		
Elektrische Leistung bei Teillast	0,058	KW		
Elektrische Leistung im Standby	0,003	KW		
Brandschutz - Schutz vor brennbaren Materialien				
Mindestabstand - Rückseite (dR)	100	mm		
Mindestabstand - Seite (dS)	200	mm		
Mindestabstand - Decke (dC)	750	mm		
Mindestabstand - vordere Strahlung (dP)	2000	mm		
Mindestabstand - vorderer Boden (dF)	1500	mm		
Mindestabstand - seitliche Strahlung (dL)	1500	mm		
Mindestabstand - unten (dB)	10	mm		
Temperaturklasse des Schornsteins	T200	-		
Dicke und Wärmeleitfähigkeit des schützenden Dämmstoffs (λd)	-			
Stabilität und mechanische Festigkeit				
Fähigkeit, einen Kamin zu tragen	0	Kg		
Nachhaltige Ressourcennutzung				
Informationen zur ökologischen Nachhaltigkeit	NPD	-		

Die Leistungen des oben genannten Produkts entsprechen der Gesamtheit der angegebenen Leistungen.

Diese Leistungserklärung wird gemäß der Verordnung (EU) Nr.305/2011 unter der Verantwortung des oben genannten Herstellers abgegeben.

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Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

DECLARACIÓN DE DESEMPEÑO según el Reglamento (UE) Nr.305/2011

N° DoP: 103472_U_EN16510

Código de identificación único del producto-tipo:	00271543
Modelos:	ONDA 17
Uso previsto del producto:	Aparato de calefacción en edificios residenciales con pellets de madera
Fabricante:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Marca comercial:	UNICAL
Sistema AVCP:	System 3-4
Entidad Notificada:	NB 2456 - TÜV Rheinland Energy GmbH
Número del informe de prueba:	K38162025Z1
Especificación técnica armonizada:	EN 16510-1:2022 / EN 16510-2-6:2022

CARACTERÍSTICAS ESENCIALES

Rendimiento - Potencia y eficiencia		Potencia nominal		Potencia a carga parcial	
Potencia de calefacción al ambiente		3,7	KW	0,9	KW
Potencia de calefacción al agua		13,4	KW	3,1	KW
Eficiencia		95	%	97	%
Rendimiento - Emisiones		Potencia nominal		Potencia a carga parcial	
Monóxido de carbono (CO al 13% O ₂)		55	mg/Nm ³	345	mg/Nm3
Óxidos de nitrógeno (NO _x al 13% O ₂)		130	mg/Nm3	114	mg/Nm3
Emisión de compuestos orgánicos volátiles (OGC al 13% O ₂)		1	mg/Nm3	6	mg/Nm3
Emisiones de partículas (PM al 13% O ₂)		15	mg/Nm3	24	mg/Nm3
Uso seguro y accesible - datos de instalación de chimenea		Potencia nominal		Potencia a carga parcial	
Temperatura de los gases de combustión en la salida		123	°C	73	°C
Tiraje mínimo		8	Pa	3	Pa
Masa de los gases de combustión		11,1	g/s	3	g/s
Eficiencia en calefacción ambiental					
Eficiencia energética estacional en calefacción ambiental		84	%		
Índice de eficiencia energética		127	-		
Clase de eficiencia energética		A+	-		
Consumo eléctrico a potencia nominal		0,082	KW		
Consumo eléctrico a carga parcial		0,058	KW		
Consumo eléctrico en espera		0,003	KW		
Seguridad contra incendios - protección contra materiales combustible					
Distancia mínima - trasera (dR)		100	mm		
Distancia mínima - lateral (dS)		200	mm		
Distancia mínima - techo (dC)		750	mm		
Distancia mínima - frontal (dP)		2000	mm		
Distancia mínima - suelo frontal (dF)		1500	mm		
Distancia mínima - radiación lateral (dL)		1500	mm		
Distancia mínima - debajo (dB)		10	mm		
Clase de temperatura de la chimenea		T200	-		
Grosor y conductividad térmica del material aislante protector (λd)		-			
Estabilidad y resistencia mecánica					
Capacidad para sostener una chimenea		0	Kg		
Uso sostenible de recursos naturales					
Información sobre sostenibilidad ambiental		NPD	-		

El rendimiento del producto identificado anteriormente cumple con el conjunto de rendimientos declarados.

Esta declaración de desempeño se emite de acuerdo con el Reglamento (UE) Nr.305/2011, bajo la responsabilidad del fabricante anteriormente identificado.

Castel d'Ario (MN), 30/07/2025

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Nicola Micheletti (Procurator)

DECLARAÇÃO DE DESEMPENHO de acordo com o Regulamento (UE) Nr.305/2011 N° DoP: 103472_U_EN16510

Código de identificação único do produto-tipo:	00271543
Modelos:	ONDA 17
Uso previsto do produto:	Aquecimento de ambientes residenciais com pellets de madeira
Fabricante:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Marca comercial:	UNICAL
Sistema AVCP:	System 3-4
Entidade Notificada:	NB 2456 - TÜV Rheinland Energy GmbH
Número do relatório de ensaio:	K38162025Z1
Especificação técnica harmonizada:	EN 16510-1:2022 / EN 16510-2-6:2022

CARACTERÍSTICAS ESSENCIAIS

Desempenho - Potência e eficiência	Potência nominal		Potência a carga parcial	
Potência de aquecimento ao ambiente	3,7	KW	0,9	KW
Potência de aquecimento à água	13,4	KW	3,1	KW
Eficiência	95	%	97	%
Desempenho - Emissões	Potência nominal		Potência a carga parcial	
Monóxido de carbono (CO al 13% O ₂)	55	mg/Nm ³	345	mg/Nm3
Óxidos de azoto (NO _x al 13% O ₂)	130	mg/Nm3	114	mg/Nm3
Emissão de compostos orgânicos voláteis (OGC al 13% O ₂)	1	mg/Nm3	6	mg/Nm3
Emissões de partículas (PM al 13% O ₂)	15	mg/Nm3	24	mg/Nm3
Uso seguro e acessível - dados de instalação de chaminé	Potência nominal		Potência a carga parcial	
Temperatura dos gases de exaustão na saída	123	°C	73	°C
Tiragem mínima	8	Pa	3	Pa
Massa de gases de exaustão	11,1	g/s	3	g/s
Eficiência em aquecimento de ambiente				
Eficiência energética sazonal em aquecimento de ambiente	84	%		
Índice de eficiência energética	127	-		
Classe de eficiência energética	A+	-		
Consumo elétrico a potência nominal	0,082	KW		
Consumo elétrico a carga parcial	0,058	KW		
Consumo elétrico em stand-by	0,003	KW		
Segurança contra incêndios - proteção contra materiais combustíveis				
Distância mínima - traseira (dR)	100	mm		
Distância mínima - lado (dS)	200	mm		
Distância mínima - teto (dC)	750	mm		
Distância mínima - radiação frontal (dP)	2000	mm		
Distância mínima - chão frontal (dF)	1500	mm		
Distância mínima - radiação lateral (dL)	1500	mm		
Distância mínima - abaixo (dB)	10	mm		
Classe de temperatura da chaminé	T200	-		
Espessura e condutividade térmica do material isolante protetor (λd)	-			
Estabilidade e resistência mecânica				
Capacidade de suportar uma chaminé	0	Kg		
Uso sustentável dos recursos naturais				
Informações sobre sustentabilidade ambiental	NPD	-		

O desempenho do produto identificado acima está em conformidade com o conjunto de desempenhos declarados.

Esta declaração de desempenho é emitida de acordo com o Regulamento (UE) Nr.305/2011, sob a responsabilidade do fabricante identificado acima.

Castel d'Ario (MN), 30/07/2025

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Nicola Micheletti (Procurator)

DICHIARAZIONE DI PRESTAZIONE in base al regolamento (UE) Nr.305/2011

N° DoP: 103171_U_EN16510

Codice di identificazione unico del prodotto-tipo:	00271023
Modelli:	ONDA 24 A
Uso previsto del prodotto:	Apparecchio di riscaldamento domestico a pellet di legno
Fabbricante:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Marchio:	UNICAL
Sistema AVCP:	System 3-4
Ente Notificato:	NB 2456 - TÜV Rheinland Energy GmbH
N° Test Report:	K38192025Z1
Specifica tecnica armonizzata:	EN 16510-1:2022 / EN 16510-2-6:2022

CARATTERISTICHE ESSENZIALI

Prestazioni - Potenza e Rendimento	Potenza nominale		Potenza a carico parziale	
Potenza riscaldamento all'ambiente	1,9	KW	1,3	KW
Potenza riscaldamento all'acqua	20,9	KW	6,6	KW
Rendimento	95	%	94	%
Prestazioni - Emissioni	Potenza nominale		Potenza a carico parziale	
Monossido di Carbonio (CO al 13% O ₂)	36	mg/Nm ³	195	mg/Nm3
Ossidi di Azoto (NO _x al 13% O ₂)	99	mg/Nm3	109	mg/Nm3
Composti Organici Volatili (OGC al 13% O ₂)	1	mg/Nm3	5	mg/Nm3
Particolato (PM al 13% O ₂)	10	mg/Nm3	10	mg/Nm3
Utilizzo sicuro e accessibile - dati di installazione a camino	Potenza nominale		Potenza a carico parziale	
Temperatura fumi in uscita	129	°C	90	°C
Tiraggio minimo	8	Pa	5	Pa
Portata massica dei fumi	13,5	g/s	9,1	g/s
Efficienza in riscaldamento d'ambiente				
Efficienza stagionale in riscaldamento d'ambiente	91	%		
Indice di efficienza energetica	134	-		
Classe di efficienza energetica	A++	-		
Assorbimento elettrico alla potenza nominale	0,072	KW		
Assorbimento elettrico alla potenza a carico parziale	0,051	KW		
Assorbimento elettrico in modalità standby	0,003	KW		
Sicurezza antincendio - protezione dei materiali combustibili				
Distanza minima - retro (dR)	100	mm		
Distanza minima - lato (dS)	200	mm		
Distanza minima - superiore (dC)	750	mm		
Distanza minima - frontale (dP)	2000	mm		
Distanza minima - irraggiamento frontale inferiore (dF)	1500	mm		
Distanza minima - irraggiamento frontale laterale (dL)	1500	mm		
Distanza minima - pavimento (dB)	10	mm		
Classe di temperatura camino	T200	-		
Spessore e Conducibilità termica materiale isolante	-			
Resistenza meccanica e stabilità				
Capacità di sostenere un camino	0	Kg		
Utilizzo sostenibile delle risorse naturali				
Informazioni sulla sostenibilità ambientale	NPD	-		

Le prestazioni del prodotto sopra identificato sono conformi all'insieme delle prestazioni dichiarate.

La presente dichiarazione di prestazione è rilasciata in conformità al Regolamento (UE) Nr.305/2011, sotto la responsabilità del produttore sopra identificato.

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36056 Gambellara (VI)

Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

DECLARATION OF PERFORMANCE according to Regulation (EU) Nr.305/2011

N° DoP: 103171_U_EN16510

Unique product-type identification code:	00271023
Models:	ONDA 24 A
Intended use of the product:	Space heating in residential buildings with pellet wood
Manufacturer:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Trade mark:	UNICAL
AVCP System:	System 3-4
Notified body:	NB 2456 - TÜV Rheinland Energy GmbH
Test report number:	K38192025Z1
Harmonised technical specification:	EN 16510-1:2022 / EN 16510-2-6:2022

ESSENTIAL CHARACTERISTICS

Performance - Power and efficiency	Nominal heat output		Partial load heat output	
Heating power to the environment	1,9	KW	1,3	KW
Heating power to the water	20,9	KW	6,6	KW
Efficiency	95	%	94	%
Performance - Emissions	Nominal heat output		Partial load heat output	
Carbon monoxide (CO at 13% O ₂)	36	mg/Nm ³	195	mg/Nm3
Nitrogen oxides (NO _x at 13% O ₂)	99	mg/Nm3	109	mg/Nm3
Emission of organic gaseous compounds (OGC at 13% O ₂)	1	mg/Nm3	5	mg/Nm3
Particulate matter emissions (PM at 13% O ₂)	10	mg/Nm3	10	mg/Nm3
Safe and accessible use - chimney installation data	Nominal heat output		Partial load heat output	
Flue gas outlet temperature	129	°C	90	°C
Minimum flue draught	8	Pa	5	Pa
Flue gas mass flow	13,5	g/s	9,1	g/s
Space heating efficiency				
Seasonal space heating energy efficiency	91	%		
Energy efficiency index	134	-		
Energy efficiency class	A++	-		
Electrical consumption at nominal heat output	0,072	KW		
Electrical consumption at partial load heat output	0,051	KW		
Electrical consumption in standby mode	0,003	KW		
Fire safety - protection of combustible materials				
Minimum distance - rear (dR)	100	mm		
Minimum distance - side (dS)	200	mm		
Minimum distance - ceiling (dC)	750	mm		
Minimum distance - frontal (dP)	2000	mm		
Minimum distance - front floor (dF)	1500	mm		
Minimum distance - lateral radiation (dL)	1500	mm		
Minimum distance - bottom (dB)	10	mm		
Flue temperature class	T200	-		
Thickness and thermal conductivity of insulating material (λd)	-			
Mechanical resistance and stability				
Capacity to support a chimney	0	Kg		
Sustainable use of natural resources				
Environmental sustainability information	NPD	-		

The performance of the product identified above is in conformity with the set of declared performances.

This declaration of performance is issued in accordance with Regulation (EU) Nr.305/2011 under the responsibility of the manufacturer identified above.

Unical AG S.p.A.
SEDE: Via Roma, 123 - CASTEL D'ARIO (MN)
C.F. / P.IVA 01501350209
DIVISIONE: Viale Europa, 3/5
36056 Gambellara (VI)

Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

DÉCLARATION DE PERFORMANCE conformément au règlement (UE) Nr.305/2011 N° DoP: 103171_U_EN16510

Code d'identification unique du produit-type:	00271023
Modèles:	ONDA 24 A
Usage prévu du produit:	Chauffage des locaux dans les bâtiments résidentiels avec des granulés de bois
Fabricant:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Marque commerciale:	UNICAL
Système AVCP:	System 3-4
Organisme Notifié:	NB 2456 - TÜV Rheinland Energy GmbH
Numéro du rapport d'essai:	K38192025Z1
Spécification technique harmonisée:	EN 16510-1:2022 / EN 16510-2-6:2022

CARACTÉRISTIQUES ESSENTIELLES

Performances - Puissance et rendement	Puissance nominale		Puissance à charge partielle	
Puissance de chauffage de l'environnement	1,9	KW	1,3	KW
Puissance de chauffage de l'eau	20,9	KW	6,6	KW
Rendement	95	%	94	%
Performances - Émissions	Puissance nominale		Puissance à charge partielle	
Monoxyde de carbone (CO à 13% O ₂)	36	mg/Nm ³	195	mg/Nm ³
Oxydes d'azote (NO _x à 13% O ₂)	99	mg/Nm ³	109	mg/Nm ³
Émission de composés organiques volatils (OGC à 13% O ₂)	1	mg/Nm ³	5	mg/Nm ³
Émissions de particules (PM à 13% O ₂)	10	mg/Nm ³	10	mg/Nm ³
Utilisation sûre et accessible - données d'installation du conduit de fumée	Puissance nominale		Puissance à charge partielle	
Température des gaz de combustion à la sortie	129	°C	90	°C
Tirage minimum	8	Pa	5	Pa
Masse des gaz de combustion	13,5	g/s	9,1	g/s
Efficacité en chauffage de l'environnement				
Efficacité énergétique saisonnière en chauffage de l'environnement	91	%		
Indice d'efficacité énergétique	134	-		
Classe d'efficacité énergétique	A++	-		
Consommation électrique à la puissance nominale	0,072	KW		
Consommation électrique à charge partielle	0,051	KW		
Consommation électrique en veille	0,003	KW		
Sécurité incendie - protection contre les matériaux combustibles				
Distance minimale - arrière (dR)	100	mm		
Distance minimale - côté (dS)	200	mm		
Distance minimale - plafond (dC)	750	mm		
Distance minimale - frontal (dP)	2000	mm		
Distance minimale - sol avant (dF)	1500	mm		
Distance minimale - rayonnement latéral (dL)	1500	mm		
Distance minimale - dessous (dB)	10	mm		
Classe de température du conduit de fumée	T200	-		
Épaisseur et conductivité thermique du matériau isolant protecteur (λd)	-			
Stabilité et résistance mécanique				
Capacité à supporter une cheminée	0	Kg		
Utilisation durable des ressources naturelles				
Informations sur la durabilité environnementale	NPD	-		

Les performances du produit ci-dessus identifié sont conformes à l'ensemble des performances déclarées.

La présente déclaration de performance est délivrée conformément au règlement (UE) Nr.305/2011, sous la responsabilité du fabricant ci-dessus identifié.

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Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

LEISTUNGSERKLÄRUNG gemäß der Verordnung (EU) Nr.305/2011

N° DoP: 103171_U_EN16510

Einzigartige Produktkennnummer des Produkttyps:	00271023
Modelle:	ONDA 24 A
Geplanter Einsatz des Produkts:	Raumheizung in Wohngebäuden mit Holzpellets
Hersteller:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Markenname:	UNICAL
AVCP-System:	System 3-4
Benannte Stelle:	NB 2456 - TÜV Rheinland Energy GmbH
Prüfberichtsnummer:	K38192025Z1
Harmonisierte technische Spezifikation:	EN 16510-1:2022 / EN 16510-2-6:2022

WESENTLICHE EIGENSCHAFTEN

Leistung - Leistung und Wirkungsgrad	Nennleistung		Leistung bei Teillast	
Heizleistung für den Raum	1,9	KW	1,3	KW
Heizleistung für Wasser	20,9	KW	6,6	KW
Wirkungsgrad	95	%	94	%
Leistung - Emissionen	Nennleistung		Leistung bei Teillast	
Kohlenmonoxid (CO bei 13% O ₂)	36	mg/Nm ³	195	mg/Nm3
Stickoxide (NO _x bei 13% O ₂)	99	mg/Nm3	109	mg/Nm3
Emission von flüchtigen organischen Verbindungen (OGC bei 13% O ₂)	1	mg/Nm3	5	mg/Nm3
Feinstaubemissionen (PM bei 13% O ₂)	10	mg/Nm3	10	mg/Nm3
Sichere und zugängliche Nutzung - Daten zur Schornsteininstallation	Nennleistung		Leistung bei Teillast	
Abgastemperatur am Ausgang	129	°C	90	°C
Mindestzug	8	Pa	5	Pa
Abgasmasse	13,5	g/s	9,1	g/s
Wirkungsgrad bei Raumheizung				
Jahreszeitlicher Energieeffizienz-Wirkungsgrad bei Raumheizung	91	%		
Energieeffizienzindex	134	-		
Energieeffizienzklasse	A++	-		
Elektrische Leistung bei Nennleistung	0,072	KW		
Elektrische Leistung bei Teillast	0,051	KW		
Elektrische Leistung im Standby	0,003	KW		
Brandschutz - Schutz vor brennbaren Materialien				
Mindestabstand - Rückseite (dR)	100	mm		
Mindestabstand - Seite (dS)	200	mm		
Mindestabstand - Decke (dC)	750	mm		
Mindestabstand - vordere Strahlung (dP)	2000	mm		
Mindestabstand - vorderer Boden (dF)	1500	mm		
Mindestabstand - seitliche Strahlung (dL)	1500	mm		
Mindestabstand - unten (dB)	10	mm		
Temperaturklasse des Schornsteins	T200	-		
Dicke und Wärmeleitfähigkeit des schützenden Dämmstoffs (λd)	-			
Stabilität und mechanische Festigkeit				
Fähigkeit, einen Kamin zu tragen	0	Kg		
Nachhaltige Ressourcennutzung				
Informationen zur ökologischen Nachhaltigkeit	NPD	-		

Die Leistungen des oben genannten Produkts entsprechen der Gesamtheit der angegebenen Leistungen.

Diese Leistungserklärung wird gemäß der Verordnung (EU) Nr.305/2011 unter der Verantwortung des oben genannten Herstellers abgegeben.

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Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

DECLARACIÓN DE DESEMPEÑO según el Reglamento (UE) Nr.305/2011

N° DoP: 103171_U_EN16510

Código de identificación único del producto-tipo:	00271023
Modelos:	ONDA 24 A
Uso previsto del producto:	Aparato de calefacción en edificios residenciales con pellets de madera
Fabricante:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Marca comercial:	UNICAL
Sistema AVCP:	System 3-4
Entidad Notificada:	NB 2456 - TÜV Rheinland Energy GmbH
Número del informe de prueba:	K38192025Z1
Especificación técnica armonizada:	EN 16510-1:2022 / EN 16510-2-6:2022

CARACTERÍSTICAS ESENCIALES

Rendimiento - Potencia y eficiencia		Potencia nominal		Potencia a carga parcial	
Potencia de calefacción al ambiente		1,9	KW	1,3	KW
Potencia de calefacción al agua		20,9	KW	6,6	KW
Eficiencia		95	%	94	%
Rendimiento - Emisiones		Potencia nominal		Potencia a carga parcial	
Monóxido de carbono (CO al 13% O ₂)		36	mg/Nm ³	195	mg/Nm3
Óxidos de nitrógeno (NO _x al 13% O ₂)		99	mg/Nm3	109	mg/Nm3
Emisión de compuestos orgánicos volátiles (OGC al 13% O ₂)		1	mg/Nm3	5	mg/Nm3
Emisiones de partículas (PM al 13% O ₂)		10	mg/Nm3	10	mg/Nm3
Uso seguro y accesible - datos de instalación de chimenea		Potencia nominal		Potencia a carga parcial	
Temperatura de los gases de combustión en la salida		129	°C	90	°C
Tiraje mínimo		8	Pa	5	Pa
Masa de los gases de combustión		13,5	g/s	9,1	g/s
Eficiencia en calefacción ambiental					
Eficiencia energética estacional en calefacción ambiental		91	%		
Índice de eficiencia energética		134	-		
Clase de eficiencia energética		A++	-		
Consumo eléctrico a potencia nominal		0,072	KW		
Consumo eléctrico a carga parcial		0,051	KW		
Consumo eléctrico en espera		0,003	KW		
Seguridad contra incendios - protección contra materiales combustible					
Distancia mínima - trasera (dR)		100	mm		
Distancia mínima - lateral (dS)		200	mm		
Distancia mínima - techo (dC)		750	mm		
Distancia mínima - frontal (dP)		2000	mm		
Distancia mínima - suelo frontal (dF)		1500	mm		
Distancia mínima - radiación lateral (dL)		1500	mm		
Distancia mínima - debajo (dB)		10	mm		
Clase de temperatura de la chimenea		T200	-		
Grosor y conductividad térmica del material aislante protector (λd)		-			
Estabilidad y resistencia mecánica					
Capacidad para sostener una chimenea		0	Kg		
Uso sostenible de recursos naturales					
Información sobre sostenibilidad ambiental		NPD	-		

El rendimiento del producto identificado anteriormente cumple con el conjunto de rendimientos declarados.

Esta declaración de desempeño se emite de acuerdo con el Reglamento (UE) Nr.305/2011, bajo la responsabilidad del fabricante anteriormente identificado.

Castel d'Ario (MN), 30/07/2025

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DECLARAÇÃO DE DESEMPENHO de acordo com o Regulamento (UE) Nr.305/2011 N° DoP: 103171_U_EN16510

Código de identificação único do produto-tipo:	00271023
Modelos:	ONDA 24 A
Uso previsto do produto:	Aquecimento de ambientes residenciais com pellets de madeira
Fabricante:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Marca comercial:	UNICAL
Sistema AVCP:	System 3-4
Entidade Notificada:	NB 2456 - TÜV Rheinland Energy GmbH
Número do relatório de ensaio:	K38192025Z1
Especificação técnica harmonizada:	EN 16510-1:2022 / EN 16510-2-6:2022

CARACTERÍSTICAS ESSENCIAIS

Desempenho - Potência e eficiência	Potência nominal		Potência a carga parcial	
Potência de aquecimento ao ambiente	1,9	KW	1,3	KW
Potência de aquecimento à água	20,9	KW	6,6	KW
Eficiência	95	%	94	%
Desempenho - Emissões	Potência nominal		Potência a carga parcial	
Monóxido de carbono (CO al 13% O ₂)	36	mg/Nm ³	195	mg/Nm3
Óxidos de azoto (NO _x al 13% O ₂)	99	mg/Nm3	109	mg/Nm3
Emissão de compostos orgânicos voláteis (OGC al 13% O ₂)	1	mg/Nm3	5	mg/Nm3
Emissões de partículas (PM al 13% O ₂)	10	mg/Nm3	10	mg/Nm3
Uso seguro e acessível - dados de instalação de chaminé	Potência nominal		Potência a carga parcial	
Temperatura dos gases de exaustão na saída	129	°C	90	°C
Tiragem mínima	8	Pa	5	Pa
Massa de gases de exaustão	13,5	g/s	9,1	g/s
Eficiência em aquecimento de ambiente				
Eficiência energética sazonal em aquecimento de ambiente	91	%		
Índice de eficiência energética	134	-		
Classe de eficiência energética	A++	-		
Consumo elétrico a potência nominal	0,072	KW		
Consumo elétrico a carga parcial	0,051	KW		
Consumo elétrico em stand-by	0,003	KW		
Segurança contra incêndios - proteção contra materiais combustíveis				
Distância mínima - traseira (dR)	100	mm		
Distância mínima - lado (dS)	200	mm		
Distância mínima - teto (dC)	750	mm		
Distância mínima - radiação frontal (dP)	2000	mm		
Distância mínima - chão frontal (dF)	1500	mm		
Distância mínima - radiação lateral (dL)	1500	mm		
Distância mínima - abaixo (dB)	10	mm		
Classe de temperatura da chaminé	T200	-		
Espessura e condutividade térmica do material isolante protetor (λd)	-			
Estabilidade e resistência mecânica				
Capacidade de suportar uma chaminé	0	Kg		
Uso sustentável dos recursos naturais				
Informações sobre sustentabilidade ambiental	NPD	-		

O desempenho do produto identificado acima está em conformidade com o conjunto de desempenhos declarados.

Esta declaração de desempenho é emitida de acordo com o Regulamento (UE) Nr.305/2011, sob a responsabilidade do fabricante identificado acima.

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Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

DICHIARAZIONE DI PRESTAZIONE in base al regolamento (UE) Nr.305/2011

N° DoP: 103174_U_EN16510

Codice di identificazione unico del prodotto-tipo:	00271024
Modelli:	ONDA 28 A
Uso previsto del prodotto:	Apparecchio di riscaldamento domestico a pellet di legno
Fabbricante:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Marchio:	UNICAL
Sistema AVCP:	System 3-4
Ente Notificato:	NB 2456 - TÜV Rheinland Energy GmbH
N° Test Report:	K38182025Z1
Specifica tecnica armonizzata:	EN 16510-1:2022 / EN 16510-2-6:2022

CARATTERISTICHE ESSENZIALI

Prestazioni - Potenza e Rendimento	Potenza nominale		Potenza a carico parziale	
Potenza riscaldamento all'ambiente	5,5	KW	2,1	KW
Potenza riscaldamento all'acqua	20,4	KW	6,5	KW
Rendimento	95	%	96	%
Prestazioni - Emissioni	Potenza nominale		Potenza a carico parziale	
Monossido di Carbonio (CO al 13% O ₂)	19	mg/Nm ³	331	mg/Nm3
Ossidi di Azoto (NO _x al 13% O ₂)	108	mg/Nm3	121	mg/Nm3
Composti Organici Volatili (OGC al 13% O ₂)	7	mg/Nm3	10	mg/Nm3
Particolato (PM al 13% O ₂)	11	mg/Nm3	5	mg/Nm3
Utilizzo sicuro e accessibile - dati di installazione a camino	Potenza nominale		Potenza a carico parziale	
Temperatura fumi in uscita	137	°C	87	°C
Tiraggio minimo	6	Pa	6	Pa
Portata massica dei fumi	15,1	g/s	7,9	g/s
Efficienza in riscaldamento d'ambiente				
Efficienza stagionale in riscaldamento d'ambiente	84	%		
Indice di efficienza energetica	127	-		
Classe di efficienza energetica	A+	-		
Assorbimento elettrico alla potenza nominale	0,058	KW		
Assorbimento elettrico alla potenza a carico parziale	0,024	KW		
Assorbimento elettrico in modalità standby	0,003	KW		
Sicurezza antincendio - protezione dei materiali combustibili				
Distanza minima - retro (dR)	100	mm		
Distanza minima - lato (dS)	200	mm		
Distanza minima - superiore (dC)	750	mm		
Distanza minima - frontale (dP)	2000	mm		
Distanza minima - irraggiamento frontale inferiore (dF)	1500	mm		
Distanza minima - irraggiamento frontale laterale (dL)	1500	mm		
Distanza minima - pavimento (dB)	10	mm		
Classe di temperatura camino	T200	-		
Spessore e Conducibilità termica materiale isolante	-			
Resistenza meccanica e stabilità				
Capacità di sostenere un camino	0	Kg		
Utilizzo sostenibile delle risorse naturali				
Informazioni sulla sostenibilità ambientale	NPD	-		

Le prestazioni del prodotto sopra identificato sono conformi all'insieme delle prestazioni dichiarate.

La presente dichiarazione di prestazione è rilasciata in conformità al Regolamento (UE) Nr.305/2011, sotto la responsabilità del produttore sopra identificato.

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Nicola Micheletti (Procurator)

DECLARATION OF PERFORMANCE according to Regulation (EU) Nr.305/2011

N° DoP: 103174_U_EN16510

Unique product-type identification code:	00271024
Models:	ONDA 28 A
Intended use of the product:	Space heating in residential buildings with pellet wood
Manufacturer:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Trade mark:	UNICAL
AVCP System:	System 3-4
Notified body:	NB 2456 - TÜV Rheinland Energy GmbH
Test report number:	K38182025Z1
Harmonised technical specification:	EN 16510-1:2022 / EN 16510-2-6:2022

ESSENTIAL CHARACTERISTICS

Performance - Power and efficiency	Nominal heat output		Partial load heat output	
Heating power to the environment	5,5	KW	2,1	KW
Heating power to the water	20,4	KW	6,5	KW
Efficiency	95	%	96	%
Performance - Emissions	Nominal heat output		Partial load heat output	
Carbon monoxide (CO at 13% O ₂)	19	mg/Nm ³	331	mg/Nm3
Nitrogen oxides (NO _x at 13% O ₂)	108	mg/Nm3	121	mg/Nm3
Emission of organic gaseous compounds (OGC at 13% O ₂)	7	mg/Nm3	10	mg/Nm3
Particulate matter emissions (PM at 13% O ₂)	11	mg/Nm3	5	mg/Nm3
Safe and accessible use - chimney installation data	Nominal heat output		Partial load heat output	
Flue gas outlet temperature	137	°C	87	°C
Minimum flue draught	6	Pa	6	Pa
Flue gas mass flow	15,1	g/s	7,9	g/s
Space heating efficiency				
Seasonal space heating energy efficiency	84	%		
Energy efficiency index	127	-		
Energy efficiency class	A+	-		
Electrical consumption at nominal heat output	0,058	KW		
Electrical consumption at partial load heat output	0,024	KW		
Electrical consumption in standby mode	0,003	KW		
Fire safety - protection of combustible materials				
Minimum distance - rear (dR)	100	mm		
Minimum distance - side (dS)	200	mm		
Minimum distance - ceiling (dC)	750	mm		
Minimum distance - frontal (dP)	2000	mm		
Minimum distance - front floor (dF)	1500	mm		
Minimum distance - lateral radiation (dL)	1500	mm		
Minimum distance - bottom (dB)	10	mm		
Flue temperature class	T200	-		
Thickness and thermal conductivity of insulating material (λd)	-			
Mechanical resistance and stability				
Capacity to support a chimney	0	Kg		
Sustainable use of natural resources				
Environmental sustainability information	NPD	-		

The performance of the product identified above is in conformity with the set of declared performances.

This declaration of performance is issued in accordance with Regulation (EU) Nr.305/2011 under the responsibility of the manufacturer identified above.

Unical AG S.p.A.
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Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

DÉCLARATION DE PERFORMANCE conformément au règlement (UE) Nr.305/2011 N° DoP: 103174_U_EN16510

Code d'identification unique du produit-type:	00271024
Modèles:	ONDA 28 A
Usage prévu du produit:	Chauffage des locaux dans les bâtiments résidentiels avec des granulés de bois
Fabricant:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Marque commerciale:	UNICAL
Système AVCP:	System 3-4
Organisme Notifié:	NB 2456 - TÜV Rheinland Energy GmbH
Numéro du rapport d'essai:	K38182025Z1
Spécification technique harmonisée:	EN 16510-1:2022 / EN 16510-2-6:2022

CARACTÉRISTIQUES ESSENTIELLES

Performances - Puissance et rendement	Puissance nominale		Puissance à charge partielle	
Puissance de chauffage de l'environnement	5,5	KW	2,1	KW
Puissance de chauffage de l'eau	20,4	KW	6,5	KW
Rendement	95	%	96	%
Performances - Émissions	Puissance nominale		Puissance à charge partielle	
Monoxyde de carbone (CO à 13% O ₂)	19	mg/Nm ³	331	mg/Nm ³
Oxydes d'azote (NO _x à 13% O ₂)	108	mg/Nm ³	121	mg/Nm ³
Émission de composés organiques volatils (OGC à 13% O ₂)	7	mg/Nm ³	10	mg/Nm ³
Émissions de particules (PM à 13% O ₂)	11	mg/Nm ³	5	mg/Nm ³
Utilisation sûre et accessible - données d'installation du conduit de fumée	Puissance nominale		Puissance à charge partielle	
Température des gaz de combustion à la sortie	137	°C	87	°C
Tirage minimum	6	Pa	6	Pa
Masse des gaz de combustion	15,1	g/s	7,9	g/s
Efficacité en chauffage de l'environnement				
Efficacité énergétique saisonnière en chauffage de l'environnement	84	%		
Indice d'efficacité énergétique	127	-		
Classe d'efficacité énergétique	A+	-		
Consommation électrique à la puissance nominale	0,058	KW		
Consommation électrique à charge partielle	0,024	KW		
Consommation électrique en veille	0,003	KW		
Sécurité incendie - protection contre les matériaux combustibles				
Distance minimale - arrière (dR)	100	mm		
Distance minimale - côté (dS)	200	mm		
Distance minimale - plafond (dC)	750	mm		
Distance minimale - frontal (dP)	2000	mm		
Distance minimale - sol avant (dF)	1500	mm		
Distance minimale - rayonnement latéral (dL)	1500	mm		
Distance minimale - dessous (dB)	10	mm		
Classe de température du conduit de fumée	T200	-		
Épaisseur et conductivité thermique du matériau isolant protecteur (λd)	-			
Stabilité et résistance mécanique				
Capacité à supporter une cheminée	0	Kg		
Utilisation durable des ressources naturelles				
Informations sur la durabilité environnementale	NPD	-		

Les performances du produit ci-dessus identifié sont conformes à l'ensemble des performances déclarées.

La présente déclaration de performance est délivrée conformément au règlement (UE) Nr.305/2011, sous la responsabilité du fabricant ci-dessus identifié.

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DIVISIONE: Viale Europa, 3/5
36056 Gambellara (VI)

Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

LEISTUNGSERKLÄRUNG gemäß der Verordnung (EU) Nr.305/2011

N° DoP: 103174_U_EN16510

Einzigartige Produktkennnummer des Produkttyps:	00271024
Modelle:	ONDA 28 A
Geplanter Einsatz des Produkts:	Raumheizung in Wohngebäuden mit Holzpellets
Hersteller:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Markenname:	UNICAL
AVCP-System:	System 3-4
Benannte Stelle:	NB 2456 - TÜV Rheinland Energy GmbH
Prüfberichtsnummer:	K38182025Z1
Harmonisierte technische Spezifikation:	EN 16510-1:2022 / EN 16510-2-6:2022

WESENTLICHE EIGENSCHAFTEN

Leistung - Leistung und Wirkungsgrad	Nennleistung		Leistung bei Teillast	
Heizleistung für den Raum	5,5	KW	2,1	KW
Heizleistung für Wasser	20,4	KW	6,5	KW
Wirkungsgrad	95	%	96	%
Leistung - Emissionen	Nennleistung		Leistung bei Teillast	
Kohlenmonoxid (CO bei 13% O ₂)	19	mg/Nm ³	331	mg/Nm3
Stickoxide (NO _x bei 13% O ₂)	108	mg/Nm3	121	mg/Nm3
Emission von flüchtigen organischen Verbindungen (OGC bei 13% O ₂)	7	mg/Nm3	10	mg/Nm3
Feinstaubemissionen (PM bei 13% O ₂)	11	mg/Nm3	5	mg/Nm3
Sichere und zugängliche Nutzung - Daten zur Schornsteininstallation	Nennleistung		Leistung bei Teillast	
Abgastemperatur am Ausgang	137	°C	87	°C
Mindestzug	6	Pa	6	Pa
Abgasmasse	15,1	g/s	7,9	g/s
Wirkungsgrad bei Raumheizung				
Jahreszeitlicher Energieeffizienz-Wirkungsgrad bei Raumheizung	84	%		
Energieeffizienzindex	127	-		
Energieeffizienzklasse	A+	-		
Elektrische Leistung bei Nennleistung	0,058	KW		
Elektrische Leistung bei Teillast	0,024	KW		
Elektrische Leistung im Standby	0,003	KW		
Brandschutz - Schutz vor brennbaren Materialien				
Mindestabstand - Rückseite (dR)	100	mm		
Mindestabstand - Seite (dS)	200	mm		
Mindestabstand - Decke (dC)	750	mm		
Mindestabstand - vordere Strahlung (dP)	2000	mm		
Mindestabstand - vorderer Boden (dF)	1500	mm		
Mindestabstand - seitliche Strahlung (dL)	1500	mm		
Mindestabstand - unten (dB)	10	mm		
Temperaturklasse des Schornsteins	T200	-		
Dicke und Wärmeleitfähigkeit des schützenden Dämmstoffs (λd)	-			
Stabilität und mechanische Festigkeit				
Fähigkeit, einen Kamin zu tragen	0	Kg		
Nachhaltige Ressourcennutzung				
Informationen zur ökologischen Nachhaltigkeit	NPD	-		

Die Leistungen des oben genannten Produkts entsprechen der Gesamtheit der angegebenen Leistungen.

Diese Leistungserklärung wird gemäß der Verordnung (EU) Nr.305/2011 unter der Verantwortung des oben genannten Herstellers abgegeben.

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Castel d'Ario (MN), 30/07/2025

Nicola Micheletti (Procurator)

DECLARACIÓN DE DESEMPEÑO según el Reglamento (UE) Nr.305/2011

N° DoP: 103174_U_EN16510

Código de identificación único del producto-tipo:	00271024
Modelos:	ONDA 28 A
Uso previsto del producto:	Aparato de calefacción en edificios residenciales con pellets de madera
Fabricante:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Marca comercial:	UNICAL
Sistema AVCP:	System 3-4
Entidad Notificada:	NB 2456 - TÜV Rheinland Energy GmbH
Número del informe de prueba:	K38182025Z1
Especificación técnica armonizada:	EN 16510-1:2022 / EN 16510-2-6:2022

CARACTERÍSTICAS ESENCIALES

Rendimiento - Potencia y eficiencia		Potencia nominal		Potencia a carga parcial	
Potencia de calefacción al ambiente		5,5	KW	2,1	KW
Potencia de calefacción al agua		20,4	KW	6,5	KW
Eficiencia		95	%	96	%
Rendimiento - Emisiones		Potencia nominal		Potencia a carga parcial	
Monóxido de carbono (CO al 13% O ₂)		19	mg/Nm ³	331	mg/Nm3
Óxidos de nitrógeno (NO _x al 13% O ₂)		108	mg/Nm3	121	mg/Nm3
Emisión de compuestos orgánicos volátiles (OGC al 13% O ₂)		7	mg/Nm3	10	mg/Nm3
Emisiones de partículas (PM al 13% O ₂)		11	mg/Nm3	5	mg/Nm3
Uso seguro y accesible - datos de instalación de chimenea		Potencia nominal		Potencia a carga parcial	
Temperatura de los gases de combustión en la salida		137	°C	87	°C
Tiraje mínimo		6	Pa	6	Pa
Masa de los gases de combustión		15,1	g/s	7,9	g/s
Eficiencia en calefacción ambiental					
Eficiencia energética estacional en calefacción ambiental		84	%		
Índice de eficiencia energética		127	-		
Clase de eficiencia energética		A+	-		
Consumo eléctrico a potencia nominal		0,058	KW		
Consumo eléctrico a carga parcial		0,024	KW		
Consumo eléctrico en espera		0,003	KW		
Seguridad contra incendios - protección contra materiales combustibles					
Distancia mínima - trasera (dR)		100	mm		
Distancia mínima - lateral (dS)		200	mm		
Distancia mínima - techo (dC)		750	mm		
Distancia mínima - frontal (dP)		2000	mm		
Distancia mínima - suelo frontal (dF)		1500	mm		
Distancia mínima - radiación lateral (dL)		1500	mm		
Distancia mínima - debajo (dB)		10	mm		
Clase de temperatura de la chimenea		T200	-		
Grosor y conductividad térmica del material aislante protector (λd)		-			
Estabilidad y resistencia mecánica					
Capacidad para sostener una chimenea		0	Kg		
Uso sostenible de recursos naturales					
Información sobre sostenibilidad ambiental		NPD	-		

El rendimiento del producto identificado anteriormente cumple con el conjunto de rendimientos declarados.

Esta declaración de desempeño se emite de acuerdo con el Reglamento (UE) Nr.305/2011, bajo la responsabilidad del fabricante anteriormente identificado.

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DECLARAÇÃO DE DESEMPENHO de acordo com o Regulamento (UE) Nr.305/2011 N° DoP: 103174_U_EN16510

Código de identificação único do produto-tipo:	00271024
Modelos:	ONDA 28 A
Uso previsto do produto:	Aquecimento de ambientes residenciais com pellets de madeira
Fabricante:	Unical AG S.p.A. Via Roma, 123 - 46033 - Castel d'Ario (MN) - Italy
Marca comercial:	UNICAL
Sistema AVCP:	System 3-4
Entidade Notificada:	NB 2456 - TÜV Rheinland Energy GmbH
Número do relatório de ensaio:	K38182025Z1
Especificação técnica harmonizada:	EN 16510-1:2022 / EN 16510-2-6:2022

CARACTERÍSTICAS ESSENCIAIS

Desempenho - Potência e eficiência	Potência nominal		Potência a carga parcial	
Potência de aquecimento ao ambiente	5,5	KW	2,1	KW
Potência de aquecimento à água	20,4	KW	6,5	KW
Eficiência	95	%	96	%
Desempenho - Emissões	Potência nominal		Potência a carga parcial	
Monóxido de carbono (CO al 13% O ₂)	19	mg/Nm ³	331	mg/Nm3
Óxidos de azoto (NO _x al 13% O ₂)	108	mg/Nm3	121	mg/Nm3
Emissão de compostos orgânicos voláteis (OGC al 13% O ₂)	7	mg/Nm3	10	mg/Nm3
Emissões de partículas (PM al 13% O ₂)	11	mg/Nm3	5	mg/Nm3
Uso seguro e acessível - dados de instalação de chaminé	Potência nominal		Potência a carga parcial	
Temperatura dos gases de exaustão na saída	137	°C	87	°C
Tiragem mínima	6	Pa	6	Pa
Massa de gases de exaustão	15,1	g/s	7,9	g/s
Eficiência em aquecimento de ambiente				
Eficiência energética sazonal em aquecimento de ambiente	84	%		
Índice de eficiência energética	127	-		
Classe de eficiência energética	A+	-		
Consumo elétrico a potência nominal	0,058	KW		
Consumo elétrico a carga parcial	0,024	KW		
Consumo elétrico em stand-by	0,003	KW		
Segurança contra incêndios - proteção contra materiais combustíveis				
Distância mínima - traseira (dR)	100	mm		
Distância mínima - lado (dS)	200	mm		
Distância mínima - teto (dC)	750	mm		
Distância mínima - radiação frontal (dP)	2000	mm		
Distância mínima - chão frontal (dF)	1500	mm		
Distância mínima - radiação lateral (dL)	1500	mm		
Distância mínima - abaixo (dB)	10	mm		
Classe de temperatura da chaminé	T200	-		
Espessura e condutividade térmica do material isolante protetor (λd)	-			
Estabilidade e resistência mecânica				
Capacidade de suportar uma chaminé	0	Kg		
Uso sustentável dos recursos naturais				
Informações sobre sustentabilidade ambiental	NPD	-		

O desempenho do produto identificado acima está em conformidade com o conjunto de desempenhos declarados.

Esta declaração de desempenho é emitida de acordo com o Regulamento (UE) Nr.305/2011, sob a responsabilidade do fabricante identificado acima.

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