

Report No. K23182018Z1
Residential space heating appliances
Initial type test
-Renaming-
DIN EN 14785
Type:
ECOFIRE IDRO MIRELLA 10
ECOFIRE IDRO MIRELLA 13

Company: Palazzetti Lelio S.p.A.

2018



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.

Initial Type Testing
Residential space heating appliances fired by wood pellets
-Pellet stove-
DIN EN 14785: September 2006
Correction 1 DIN EN 14785:10.2007

| | |
|-----------------------|--|
| Applicant/contractor: | Palazzetti Lelio S.p.A. Via Roveredo, 103 I-33080 Porcia (PN) |
| Type designation: | ECOFIRE IDRO MIRELLA 10 ECOFIRE IDRO MIRELLA 13 |
| Type of appliance: | Residential space heating appliance fired by wood pellets with water heat exchanger with fan assisted flue discharge with internal fuel hopper |
| Total heat input | ECOFIRE IDRO MIRELLA 10: 3,61 – 9,71 kW ECOFIRE IDRO MIRELLA 13: 3,61 – 14,27 kW |
| Space heat output | ECOFIRE IDRO MIRELLA 10: 1,04 – 1,60 kW ECOFIRE IDRO MIRELLA 13: 1,04 – 2,51 kW |
| Water heat output: | ECOFIRE IDRO MIRELLA 10: 2,41 – 7,66 kW ECOFIRE IDRO MIRELLA 13: 2,41 – 10,99 kW |
| Fuels: | Wood pellets |

Remarks: Room sealed appliance

Test results:

The technical requirements cl. 4-8 of the above mentioned standard are fulfilled. The local applicable installation conditions are to be observed.

The electrical safety cl. 5.9. of the standard was not a part of this initial type testing.

The presumption of conformity with the relevant European Directives could only be confirmed by full compliance with Annex ZA.

Additional details are documented in the initial report K5672011T1

Cologne, 10.07.2018

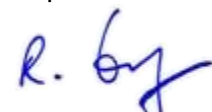
TÜV Rheinland Energy GmbH
Test Centre according to Construction Product
Regulation 305/2011(CPR)
Notified Body: 2456

Assessor

Report released after review



Dipl.-Ing. A. Pomp



Dipl.-Ing. R. Verbert

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|---|
| Residential space heating appliances fired by wood pellets, Initial Type Test in accordance with the regulation 305/2011 conformity certification system no. 3 |
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1. Task

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

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|---|--|
| Basic Palazzetti Lelio S.p.A. I-33080 Porcia (PN) Report K5672011T1 | New Palazzetti Lelio S.p.A. I-33080 Porcia (PN) Report K23182018Z1 |
| HP008S_0_10 HP008S_0_13 | ECOFIRE IDRO MIRELLA 10 ECOFIRE IDRO MIRELLA 13 |

2. Testing

The practical tests were carried out in 2,3,4 and 7 March 2011 on the stoves HP008S_0_10 and HP008S_0_13 by Palazzetti Lelio S.p.A. (report K5672011T1). Palazzetti Lelio S.p.A. ensures that modifications on the above mentioned products were not carried out.

2.1 Resume of test results

| Type designation | | ECOFIRE IDRO MIRELLA 10 | | |
|---|-------------------|-------------------------|--------------|-------------------------------|
| | | Full load | Partial load | Requirement |
| Test fuel | | Pellets | | |
| Mass of the test fuel fired hourly | kg/h | 2,02 | 0,75 | - |
| Flue gas mass flow | g/s | 5,9 | 3,8 | - |
| Flue gas temperature | °C | 86,5 | 54,6 | - |
| Flue draught | mbar | 0,12 | 0,10 | 0,12/0,10 +/-0,02 |
| CO ₂ -Content | Vol.-% | 11,7 | 6,56 | - |
| O ₂ -Content | Vol.-% | 8,83 | 14,18 | - |
| CO-emission | ppm | 23,3 | 110,4 | - |
| CO-emission (at 13%-O ₂) | mg/m ³ | 19,2 | 162,0 | 500/750 |
| NOx-content | ppm | 65,8 | 41,9 | - |
| NOx-content (at 13%-O ₂) | mg/m ³ | 88,6 | 100,8 | - |
| Dust content (at 13%-O ₂) | mg/m ³ | 3,0 | 5,2 | - |
| CnHm-Gehalt (at 13%-O ₂) | mg/m ³ | 0,8 | 3,9 | - |
| Total heat output | kW | 9,26 | 3,45 | - |
| Water heat output | kW | 7,66 | 2,41 | - |
| Space heat output | kW | 1,6 | 1,04 | - |
| Efficiency | % | 95,31 | 95,61 | 75/70 |
| Maximum temperatures at trihedron: | | | | |
| - Right side | °C | 33,2 | | 65K over t _{ambient} |
| - Back side | °C | 35,6 | | 65K over t _{ambient} |
| - Bottom side | °C | 30,6 | | 65K over t _{ambient} |
| - Front side at 80 cm | | 22,4 | | 65K over t _{ambient} |
| Distances: | | | | |
| - Backside-Pelletstove | mm | 200 | | |
| - Side-Pelletstove | mm | 200 | | |
| Ambient temperature | °C | 19,7 | | |
| Temp. in fuel hopper | °C | 48,2 | | 65K over t _{ambient} |
| Temp. operating tools | °C | 35,2 | | 35K over t _{ambient} |
| Soundness of the combustion circuit EN 613 (0,5 mbar) | m ³ /h | 1,4 | | <2 m ³ /h |

| Type designation | | ECOFIRE IDRO MIRELLA 13 | | |
|---|-------------------|-------------------------|--------------|-------------------------------|
| | | Full load | Partial load | |
| Test fuel | | Pellets | | |
| Mass of the test fuel fired hourly | kg/h | 2,97 | 0,75 | - |
| Flue gas mass flow | g/s | 7,8 | 3,8 | - |
| Flue gas temperature | °C | 106,4 | 54,6 | - |
| Flue draught | mbar | 0,12 | 0,10 | 0,12/0,10 +/-0,02 |
| CO ₂ -Content | Vol.-% | 13,03 | 6,56 | - |
| O ₂ -Content | Vol.-% | 7,45 | 14,18 | - |
| CO-emission | ppm | 24,4 | 110,4 | - |
| CO-emission (at 13%-O ₂) | mg/m ³ | 18,0 | 162,0 | 500/750 |
| NOx-content | ppm | 84,1 | 41,9 | - |
| NOx-content (at 13%-O ₂) | mg/m ³ | 102,1 | 100,8 | - |
| CnHm-Gehalt (at 13%-O ₂) | mg/m ³ | 1,0 | 3,9 | - |
| Dust content (at 13%-O ₂) | mg/m ³ | 4,1 | 5,2 | - |
| Total heat output | kW | 13,51 | 3,45 | - |
| Water heat output | kW | 10,99 | 2,41 | - |
| Space heat output | kW | 2,51 | 1,04 | - |
| Efficiency | % | 94,68 | 95,61 | 75/70 |
| Maximum temperatures at trihedron: | | | | |
| - Right side | °C | 33,2 | | 65K over t _{ambient} |
| - Back side | °C | 35,6 | | 65K over t _{ambient} |
| - Bottom side | °C | 30,6 | | 65K over t _{ambient} |
| - Front side at 80 cm | | 22,4 | | 65K over t _{ambient} |
| Distances: | | | | |
| - Backside-Pelletstove | mm | 200 | | |
| - Side-Pelletstove | mm | 200 | | |
| Ambient temperature | °C | 19,7 | | 65K over t _{ambient} |
| Temp. in fuel hopper | °C | 48,2 | | 35K over t _{ambient} |
| Temp. operating tools | °C | 35,2 | | <2 m ³ /h |
| Soundness of the combustion circuit EN 613 (0,5 mbar) | m ³ /h | 1,4 | | |

| ECOFIRE IDRO MIRELLA ... | | Before mechanical and thermal tests |
|---|-------------------|-------------------------------------|
| Leakage test of combustion room at 5 Pa | m ³ /h | 0,47 |
| Leakage test of combustion room at 10 Pa | m ³ /h | 0,51 |
| Leakage test of combustion room at 15 Pa | m ³ /h | 0,71 |
| Leakage test of combustion room at 50 Pa (acc. EN613) | m ³ /h | 1,4 |

3. Statement of the test results

The appliances

ECOFIRE IDRO MIRELLA 10
ECOFIRE IDRO MIRELLA 13

of

Palazzetti Lelio S.p.A.

complies with the requirements acc. DIN EN 14785: September 2006. The results of the basic initial type test (see report K5672011T1) are not affected by the renaming.

The electrical safety cl. 5.9. of the standard was not a part of this initial type testing.

The presumption of conformity with the relevant European Directives could only be confirmed by full compliance with Annex ZA.

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

4 Test documents

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|-----|---|------------|
| A 1 | Declaration of identical Ecofire idro Mirella | 15/05/2018 |
| A 2 | Type label Ecofire idro Mirella | |
| A 3 | Drawing- Ecofire idro Mirella | |
| A 4 | DOP Ecofire idro Mirella | 16/05/2018 |