

Report No. K20192019B13
Verification of the requirements according to:

COMMISSION REGULATION (EU) 2015/1189
(Ecodesign Directive 2009/125/EC)

and/i

COMMISSION DELEGATED REGULATION (EU) 2015/1187
(Energy Labelling Directive 2010/30/EU)

Type: **Sunpellet 3**

Trademark: **FERROLI**

Company: **Ferrolì S.p.A.**

2019



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

This report may only be published and forwarded to third parties in its complete, unabridged form. The publication or dissemination of extracts, summaries, appraisals or any other adaptation and alterations, in particular for advertising purposes, is only permissible with the prior written permission of TÜV Rheinland.

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

**Test Report according the Commission Regulation (EU) 2015/1189 – Ecodesign
and the Commission Delegated Regulation (EU) 2015/1187 – Energy Labelling**

Boiler manufacturer / contractor:	Ferrolì S.p.A. Via Ritonda 78/A I-37047 San Bonifacio (VR)	
Type designation	Sunpellet 3	
Trademark	FERROLI	
Type of construction	Heating boiler in acc. with EN 303-5	
Fuel	Wood pellet	
Useful heat output at rated heat output (P _n):	22,0 kW	
Useful heat output at applicable part load (P _p):	6,4 kW	
Reference type test reports:	K3902011T23/T24/T25/T26 K3902013T32/T33/T34/T35	
Special features:	Condensing boiler	No
	Solid fuel cogeneration boiler	No
	Combination boiler	No
<p>Test basis: Regulations no. 2015/1189 and no. 2015/1187. This examination has been carried out in a test laboratory equipped in accordance with the EN 304:2004. The test results were reviewed by the impartial test centre of TÜV Rheinland Energy GmbH. Test results: the requirements of the implementing Directives 2009/125/EC and 2010/30/EU for boilers are fulfilled with the following values:</p>		
Seasonal space heating energy efficiency:	83 %	
Efficiency Class	A+	
Cologne, 01.08.2019 432/öz	TÜV Rheinland Energy GmbH Test Centre for Energy Appliances DIN- and DVGW-test laboratory	
Expert	Report released after review:	
 		
Dipl.-Ing. I. Metin	Dipl.-Ing. M. Reibold	

1 Evaluation of the Ecodesign requirements

Description	Parameter	Result	Unit
Useful efficiency at rated heat output	η_n	81,8	%
Useful efficiency at applicable part load	η_p	88,4	%
Electrical efficiency (for solid fuel cogeneration boilers)	$\eta_{el,n}$	---	%
Useful heat output at rated heat output	P_n	22,0	kW
Useful heat output at applicable part load	P_p	6,4	kW
Electric power requirement at maximum heat output*	$e_{l_{max}}$	55	W
Electric power requirement at minimum heat output*	$e_{l_{min}}$	42	W
Standby mode power consumption*	P_{SB}	3	W
Seasonal space heating energy efficiency in active mode	η_{son}	83	%
Loss of seasonal space heating energy efficiency due to adjusted contributions of temperature controls	F(1)	3,0	%
Negative contribution to the seasonal space heating energy efficiency by auxiliary electricity consumption	F(2)	1,3	%
Positive contribution to the seasonal space heating energy efficiency by the electrical efficiency of solid fuel cogeneration boilers	F(3)	---	%
Seasonal emissions**	PM	12	mg/m ³
	OGC	6	
	CO	165	
	NO _x	130	
Biomass label factor	BLF	1,45	---
Seasonal space heating energy efficiency	η_s	83	%
Energy efficiency index	EEl	122	---

* average values, measured according to EN15456:2008. Integrated circulating pump not considered in the determination of the electrical power

** values standardised to a dry flue gas basis at 10 % oxygen and conditions at 0 °C and 1013 mbar

2 Evaluation of the Energy Labelling Requirements

Energy efficiency class	Energy efficiency index (EEI)
A+++	$EEI \geq 150$
A++	$125 \leq EEI < 150$
A+	$98 \leq EEI < 125$
A	$90 \leq EEI < 98$
B	$82 \leq EEI < 90$
C	$75 \leq EEI < 82$
D	$36 \leq EEI < 75$
E	$34 \leq EEI < 36$
F	$30 \leq EEI < 34$
G	$EEI < 30$

According to the Directive 2010/30/EU, the boiler shall be marked as following:

Boiler	η_s	EEI	Efficiency Class
Type designation: Sunpellet 3 Trademark: FERROLI	83 %	122	A+

3 Statement of test results

The boiler:

Sunpellet 3

of the company:

Ferrolì S.p.A.

with trademark:

FERROLI

fulfils and corresponds to the requirements of the Commission Regulation (EU) 2015/1189 with regard to ecodesign requirements for solid fuel boilers and achieved a seasonal space heating energy efficiency of

83 %

that corresponds to the energy efficiency classes of solid fuel boilers

A+

in accordance with Annex II Energy Efficiency Classes table 1 of the Commission Delegated Regulation (EU) 2015/1187

The evaluation of the results of this report with respect of conformity with the related commission regulations (2015/1189 and 2015/1187) is only a part of the conformity assessment to fulfil the Ecodesign (Directive 2009/125/EC) and Energy Labelling (Directive 2010/30/EU) prescriptions