



Prüflabor für Feuerungsanlagen

am Institut für Verfahrenstechnik, Umwelttechnik und Technische Biowissenschaften

Getreidemarkt 9/166 A-1060 Wien

Email: prueflabor@tuwien.ac.at

Tel.: ++43 1 58801 /166888 Fax: ++43 1 58801 /15999

## Confirmation Energy Efficiency Index (EEI) of local space heaters

Manufacturer	Thermo FLUX D.O.O. Skela b.b., 70101 Jajce Bosna i Hercegovina	
Name of the device	"Interio 20"	
Testing Fuel	Wood pellets (EN plus A1)	
Thermal output total kW	18	
Partial load kW	4	
Test reports for the evaluation <sup>1</sup> :	PL-12112/2-P from 07.12.2012 of the Test Laboratory for Combustion Plants at the Institute of Chemical, Environmental & Bioscience Engineering of the Vienna University of Technology.	
Appendix	Calculation of Energy Efficiency Index (EEI)	

Based on the test reports and according to "Commission delegated regulation (EU) 2015/1186 of 24.04.2015 supplementing directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of local space heaters" following Energy Efficiency Index (EEI) results:

Energy Efficiency Index (EEI)	124
Energy efficiency class	A+

Vienna, 01.04.2020

Person responsible for testing

Dipl.-Ing. S. Diem

Head of Laboratory

Jniv. Prof. Dr. H. Hofbauer

<sup>&</sup>lt;sup>1</sup> The test results relate only to the test object at the time of testing.

## Appendix: Calculation of Energy Efficiency Index (EEI) for the local space heater "Interio 20"

ηth,nom	91,5	Πth,nom is the useful efficiency at nominal heat output, based on NCV (net calorific value)	
el <sub>max</sub>	0,14	Electric power requirement at maximum heat output [kW] <sup>2</sup>	
el <sub>min</sub>	0,06	Electric power requirement at minimum heat output [kW] <sup>2</sup>	
el <sub>sb</sub>	0,008	Standby mode power consumption [kW] 2	
P <sub>nom</sub>	18	Nominal heat output [kW]	
P <sub>pilot</sub>	0	Pilot flame consumption [kW] 2	
F(2)	1,0	F(2) is a correction factor accounting for a positive contribution to the seasonal space heating energy efficiency due to adjusted contributions of controls of indoor heating comfort, the values of which are mutually exclusive, cannot be added to each other, expressed in %.	
F(3)	1,0	F(3) is a correction factor accounting for a positive contribution to the seasonal space heating energy efficiency due to adjusted contributions of controls for indoor heating comfort the values of which can be added to each other, expressed in %.	
F(4)	1,1	F(4) is a correction factor accounting for a negative contribution to the seasonal space heating energy efficiency by auxiliary electricity consumption, expressed in %. F(4) = $100 \cdot CC \cdot (0.2 \cdot el_{max} + 0.8 \cdot el_{min} + 1.3 \cdot el_{sb})/P_{nom}$	
F(5)	0	F(5) is a correction factor accounting for a negative contribution to the seasonal space heating energy efficiency by energy consumption of a permanent pilot flame, expressed in %. F(5) = 100*0,5*P <sub>pilot</sub> /P <sub>nom</sub>	
СС	2,5	Conversion coefficient (CC) means a coefficient reflecting the estimated 40 % average EU generation efficiency referred to in Directive 2012/27/EU of the European Parliament and of the Council.	
ηson	91,5	is the seasonal space heating energy efficiency in active mode  Πson = Πth.nom [%]	
Пѕ	82	Seasonal space heating energy efficiency, rounded to the nearest integer: $\eta s = \eta son -10\% + F(2) + F(3) - F(4) - F(5)$	
BLF	1,45	BLF is the biomass label factor, which is 1,45 for biomass local space heaters and 1 for fossil fuel local space heaters	
EEI	124	The Energy Efficiency Index (EEI) of solid fuel boilers shall be calculated for the preferred fuel and rounded to the nearest integer as: EEI = $\eta$ son × 100 × BLF – F(1) – F(2) × 100 + F(3) × 100	

Energy efficiency class	EEI
A++	EEI ≥ 130
A+	107 ≤ EEI < 130
A	88 ≤ EEI < 107
В	82 ≤ EEI < 88
С	77 ≤ EEI < 82
D	72 ≤ EEI < 77
E	62 ≤ EEI < 72
F	42 ≤ EEI < 62
G	EEI < 42

<sup>&</sup>lt;sup>2</sup> Specification according to manufacturer