

ATTESTATION

Number WG / 2023 / 809K / 2

Manufacturer: Przedsiębiorstwo Produkcyjno Handlowe Kostrzewa Spółka Jawna, ul. Przemysłowa 11A, 11-500 Giżycko

Product: Heating boiler for solid fuel with automatic stoking

Trade designation: TWIN BIO LUXURY COMPACT 24

Fuel: wood pellets

Boiler category: 1

Condensing boiler NO

Test method: PN-EN 303-5:2021-09

Boiler class 5

		Parameter	Symbol	Unit	Value	Criterion
Emissions	Nominal heat output	Carbon monoxide	E_{CO}	mg/m^3_n	48,89	≤ 500
		Nitrogen oxides, calculated as NO_2	E_{NOx}	mg/m^3_n	144,47	-
		Organic gaseous compounds	E_{OGC}	mg/m^3_n	2,82	≤ 20
		Dust	E_{PM}	mg/m^3_n	16,60	≤ 40
	Minimum heat output	Carbon monoxide	E_{CO}	mg/m^3_n	339,58	≤ 500
		Nitrogen oxides, calculated as NO_2	E_{NOx}	mg/m^3_n	109,94	-
		Organic gaseous compounds	E_{OGC}	mg/m^3_n	11,01	≤ 20
		Dust	E_{PM}	mg/m^3_n	18,99	≤ 40
	Seasonal	Carbon monoxide	$E_{s,CO}$	mg/m^3_n	295,98	≤ 500
		Nitrogen oxides, calculated as NO_2	$E_{s,NOx}$	mg/m^3_n	115,12	≤ 200
		Organic gaseous compounds	$E_{s,OGC}$	mg/m^3_n	9,78	≤ 20
		Dust	$E_{s,p}$	mg/m^3_n	18,63	≤ 40
Heat properties	Seasonal space heating energy efficiency in active mode		η_{son}	%	86,17	-
	Seasonal space heating energy efficiency		η_s	%	82,20	≥ 77
	Nominal heat output	Generated useful heat	P_n	kW	24,30	-
		Useful efficiency	η_n	%	86,17	-
		Efficiency	η_{cn}	%	93,32	$\geq 88,38$
	Minimum heat output	Generated useful heat	P_p	kW	6,92	-
		Useful efficiency	η_p	%	86,17	-
Efficiency		η_{cp}	%	93,04	$\geq 87,86$	
Electrical characteristics	Auxiliary electricity consumption Load I		el_{max}	kW	0,061	-
	Auxiliary electricity consumption Load II		el_{min}	kW	0,028	-
	Auxiliary electricity consumption in standby mode		P_{SB}	kW	0,0031	-
	Energy efficiency index		EEI	-	120,98	-
	Energy efficiency class		-	-	A+	-

*) the emissions listed above are related to dry exhaust gas containing 10% oxygen in the normal state, at a temperature of 273.15K and a pressure of 1013.25 mbar

Comparison of the results of the completed test, registered under number B/2023/809K in the Accredited Testing Laboratory No. AB024 with the requirements of the PN-EN 303-5:2021-09 standard for Class 5 in which the requirements of Commission Regulation (EU) 2015/1189 were implemented of April 28, 2015 on the implementation of Directive 2009/125/EC of the European Parliament and of the Council and Commission Delegated Regulation (EU) 2015/1187 of 27 April 2015 with regard to the requirements for solid fuel boilers.

LABORATORY MANAGER
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**THE DEPUTY MANAGING
DIRECTOR**

dr inż. Maciej Jodkowski

Katowice, 21.08.2023 r.

Zakłady Badań i Atestacji "ZETOM" im. Prof. F. Stauba w Katowicach sp. z o.o.

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