

Herz Biofire 500 Boiler Specification

Category	Field	Units	Value
Boiler Details	Manufacturer	-	Herz
	Model/Type	-	Biofire 500
	Turn down ratio	(%)	30%
	Output range	kW	150 - 500
	RHI Certificate	Yes / No	Yes
	Clean Air Act	Yes / No	Yes
	Combustion unit/Boiler	Details	Combustion chamber made of SiC fireproof concrete, with step grate made from solid cast chromium steel. Fully insulated boiler casing, vertical heat exchanger and automatic cleaning
Dimensions	Length x Width x Height (boiler)	mm	4485 x 2485 x 1977
	Length x Width x Height (cyclone)	mm	705 x 1550 x 2400
	Dry Weight (boiler / cyclone)	kg	5331 / 275
Efficiency	Min η @100% Load	%	93.1
	Min η @30% Load	%	94.4
Hydraulic Details	Max flow temp	°C	85 as standard (102 upon request)
	Max Working Pressure	bar	5
	Max Test Pressure	bar	7.5
	Water Content	l	1146
Connections	Flow / Return	-	DN100 / PN6
	Drain	"	1 / 2
	Thermal safety circuits flow/return	"	1 / 2
Flue	Size (ID)	mm	300



Emissions	Max NOx at min output	mg/Nm ³ *	116
	Max NOx at min output	mg/MJ	77
	Max NOx at max output	mg/Nm ³ *	133
	Max NOx at max output	mg/MJ	88
	Max PM at min output	mg/Nm ³ *	24
	Max PM at min output	mg/MJ	16
	Max PM at max output	mg/Nm ³ *	43
	Max PM at max output	mg/MJ	29
	Max COx at min output	mg/Nm ³ *	41
	Max COx at min output	mg/MJ	27
	Max COx at max output	mg/Nm ³ *	27
	Max COx at max output	mg/MJ	18
Biomass Fuel	Max Pellet Consumption Rate	kg/hr	116
	Pellet grade		EN 14961-2- 6mm,8mm, 10mm (class A1 or A2)
	Max chip Consumption Rate	kg/hr	144 @W25
	Chip grade		EN 14961-4 - P16B P31.5 P45A (class A1, A2 or B1) 15-35% MC
Buffer Vessel	Volume (Recommended minimum)	l	5,000
	Max Pressure	bar	5
Electrical Supply	Volts/ph/Hz/A	-	400 / 3 / 50 / 16
Key Features	Heat exchanger bypass flap	Details	Prevents moisture condensing in the heat exchanger during start-up. Automatic operation
	Burn back protection	Details	Back Fire Protection (BFP) flap which closes when the auger is not in use
	Burner design	Details	Fully Modulating, 2-zone moving grate manufactured from cast chromium steel
	Automatic heat exchanger cleaning	Details	Vertical heat exchanger tubes with automatic cleaning and ash removal using turbulators (mechanical).

* 0°C / 1013 mbar / 13% O₂

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