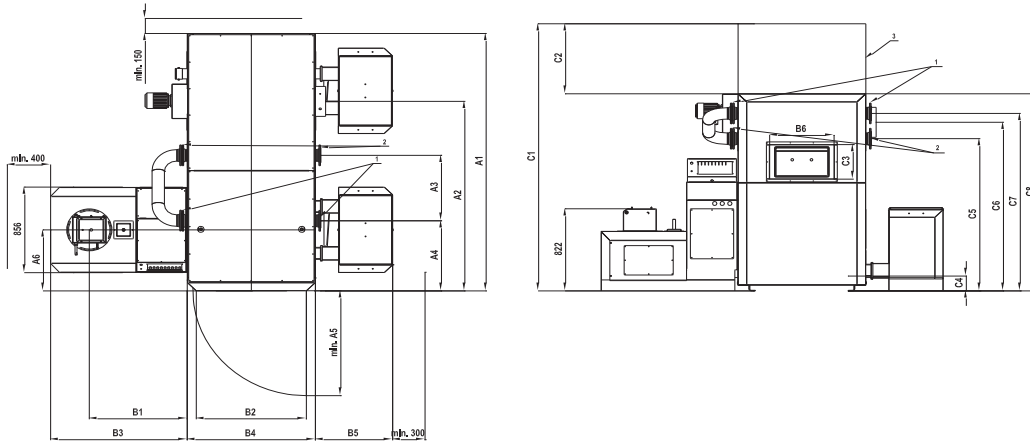


# HERZ BioMatic 220 - 500 BioControl

Standard specification sheet  
BM 220-500  
V 1.7



BioMatic BioControl		220	250	300	350	400	500	Mounting dimensions in [mm]
Power range - Declaration at nameplate [kW]		54-220	54-250	79-300	79-350	79-400	79-450	
Continuance of combustion max. [h]		-	-	-	-	-	-	
A1	Length	1948	1948	2054	2054	2574	2574	
A2	Length	1516	1516	1635	1635	1895	1895	
A3	Length	605	605	655	655	655	655	
A4	Length	646	646	701	701	701	701	
A5	Length	900	900	1050	1050	1050	1050	
A6	Length	539	539	610	610	610	610	
B1	Width	904	904	906	906	906	906	
B2	Width without flange	862	862	986	986	986	986	
	Width with flange	1145	1145	1284	1284	1284	1284	
B3	Width	1262	1262	1264	1264	1264	1264	
B4	Width	1066	1066	1186	1186	1186	1186	
B5	Width	710	710	714	714	714	714	
B6	Width	500	500	500	500	500	500	
C1	Height	2400	2400	2650	2650	2650	2650	
C2	Height	700	700	700	700	700	700	
C3	Height	340	340	300	300	300	300	
C4	Height [°] / [mm]	3/4° / 148	3/4° / 148	3/4° / 148	3/4° / 148	3/4° / 148	3/4° / 148	
C5	Height [DN] / [mm]	80/1335	80/1335	100/1523	100/1523	100/1523	100/1523	
C6	Height	1481	1481	1688	1688	1688	1688	
C7	Height [DN] / [mm]	80/1588	80/1588	100/1776	100/1776	100/1776	100/1776	
C8	Height	1803	1803	1973	1973	1973	1973	
D1	Diameter flue pipe	250	250	300	300	300	300	
<b>Inserting dimensions</b>								
Length		1200	1200	1300	1300	1300	1300	
Width - elements disassembled		1200	1200	1350	1350	1350	1350	
Width - elements not disassembled		1750	1750	2000	2000	2000	2000	
Height		1700	1700	2000	2000	2000	2000	

1...Flow , 2...Backflow , 3... Heat exchanger cleaning

Weight of boiler [kg]	2600	2600	2900	2900	3500	3500	<b>Technical data</b>
Volume of combustion chamber [ltr.]	-	-	-	-	-	-	
min./max. delivery pressure [mbar]	0,05/0,15	0,05/0,15	0,05/0,15	0,05/0,15	0,05/0,15	0,05/0,15	
operating overpressure Min / Max [bar]	1,5 / 5	1,5 / 5	1,5 / 5	1,5 / 5	1,5 / 5	1,5 / 5	
max. operating temperature [°C]	90	90	90	90	90	90	
Water capacity [ltr.]	500	500	720	720	940	940	
Electrical connection [V;Hz;A] / Delivery rate [kW]	3x400;50;20/6,36	-	-	-	3x400;50;20/8,36	-	
Resistance of boiler at dt=35K [mbar]	-	-	-	-	-	-	
Resistance of boiler at dt=20K [mbar] **	22	22	26	26	35	35	
Resistance of boiler at dt=10K [mbar]	-	-	-	-	-	-	
Flow rate dt=18K [kg/h] (min. recomm.) **	10509	11942	14331	16719	19108	21496	
Flow rate dt=10K [kg/h]**	18917	21496	25795	30095	34394	38693	
Electric power consumption, nominal load [kW]	-	-	-	-	-	-	
Electric power consumption, part load [kW]	-	-	-	-	-	-	
Size of heat exchanger [m2]	11,8	11,8	16	16	26,6	26,6	
Size of combustion surface[m2]	0,332	0,332	0,442	0,442	0,442	0,442	
Volume combustion chamber [m3]	0,123	0,123	0,148	0,148	0,148	0,148	
Necessary quantity of water for safety heat exchanger [ltr./h]	-	-	-	-	-	-	
Heat exchanger - Number of conduits / tubes [qty.]	2 / 1; 6x5	2 / 1; 6x5	2 / 1; 7x5	2 / 1; 7x5	2 / 1; 9x7	2 / 1; 9x7	
Minimum Volume of Buffer [Liter]	3000	3000	4000	4000	5000	5000	
<b>Emission - Nominal load - Wood chips (Pellets)</b>							
Exhaust gas temperature [°C]	~140 (~120)	~140 (~120)	~130 (~120)	~130 (~120)	~110 (~120)	~120 (~120)	
Mass flow flue gas [kg/s] **	0,150 (0,129)	0,167 (0,147)	0,251 (0,207)	0,292 (0,242)	0,317 (0,276)	0,357 (0,345)	
Mass flow flue gas [m³/h] **	415 (357)	462 (406)	694 (574)	801 (669)	878 (765)	987 (956)	
Mass flow flue gas [***Om³/h] **	628 (514)	699 (585)	1024 (826)	1195 (963)	1231 (1101)	1421 (1376)	
CO2 content [Vol. %] *	14,0 (14,7)	14,0 (14,7)	11,1 (12,5)	11,1 (12,5)	16,0 (12,5)	16,0 (12,5)	
Efficiency [%] *	91,2 (93,1)	91,2 (93,1)	90,0 (92,3)	90 (92,3)	93,3 (92,3)	93,3 (92,3)	
<b>Emission - Part load - Wood chips (Pellets)</b>							
Exhaust gas temperature [°C]	~100 (~80)	~100 (~80)	~100 (~80)	~100 (~80)	~100 (~80)	~100 (~80)	
Mass flow flue gas [kg/s] **	0,063 (0,042)	0,063 (0,042)	0,115 (0,085)	0,115 (0,085)	0,115 (0,085)	0,115 (0,085)	
Mass flow flue gas [m³/h] **	175 (117)	175 (117)	317 (236)	317 (236)	317 (236)	317 (236)	
Mass flow flue gas [***Om³/h] **	238 (151)	238 (151)	428 (304)	428 (304)	428 (304)	428 (304)	
CO2 content [Vol. %] *	7,8 (8,7)	7,8 (8,7)	6,4 (7,6)	6,4 (7,6)	6,4 (7,6)	6,4 (7,6)	
Efficiency [%] *	90,6 (91,9)	90,6 (91,9)	90,3 (90,6)	90,3 (90,6)	90,3 (90,6)	90,3 (90,6)	
<b>Test reports</b>							
Test report - reference number	HL6545/3	HL6545/3	HL6545/3	HL6545/3	HL 6960	HL6545/3	
Test report - approval number	-	-	-	-	-	-	
Testing institute	TGM	TGM	TGM	TGM	TGM	TGM	

\* measured value acc. to Test report \*\* calculated \*\*\* cubic metres at operating pressure

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# HERZ BioMatic 220-500 Elektrische Anschlussleistung

Normblatt

Elektrische Anschlussleistung BM 220-500

V 1.7

Kesselanlage (boiler)	BioMatic 220	BioMatic 250	BioMatic 300	BioMatic 350	BioMatic 400	BioMatic 500	Kabelquerschnitt (cross section of electric cable)	Anzahl "Adern" (amount of wires) 5 (geschirmt/shielded/braided)	Motor Nenn Drehmoment [Nm] (motor nominal torque)
	1,5 0,09 0,3 0,176 1,6 0,55 0,12 0,12 0,37 0,025 1,5 0,0065 6,36	1,5 0,09 0,3 0,176 1,6 0,55 0,12 0,12 0,37 0,025 1,5 0,0065 6,36	3 0,09 0,4 0,4 1,6 0,55 0,12 0,12 0,55 0,025 1,5 0,0065 8,36	3 0,09 0,4 0,4 1,6 0,55 0,12 0,12 0,55 0,025 1,5 0,0065 8,36	3 0,09 0,4 0,4 1,6 0,55 0,12 0,12 0,55 0,025 1,5 0,0065 8,36	3 0,09 0,4 0,4 1,6 0,55 0,12 0,12 0,55 0,025 1,5 0,0065 8,36			
Saugzug (induced-draught fan - flue gas fan) [kW]							2,5mm²		-
Primärluft (primary air fan) [kW]							1mm²	3	-
Sekundärluft 1 (secondary 1 air fan) [kW]							1mm²	3	-
Sekundärluft 2 (secondary 2 air fan) [kW]							1mm²	3	-
Zündgasbläse (hot-air blower; ignition fan) [kW]							1,5mm²	4	-
Erdschnecke (sinker screw) [kW]							1,5mm²	4	328
Aschenschnecke (ash screw - auto de ash drive) [kW]							1mm²	4	31
Flugschnecke (Option) (flue ash screw - auto de ash drive) [kW]							1mm²	4	31
Wärmetauschereinheit (Option) (heat exchanger) [kW]							1mm²	4	-
Rüttelmotor (vibrator motor) [kW]							1mm²	3	-
Raumaustragung (conveyor screw) [kW]							1,5mm²	4	419
Federückholmotor für RSE (boom back system drive) [kW]							1mm²	2 + 4 (Info.)	-
Gesamt (total sum) [kW]									
Bei Ausführung mit Steigschnecke: (With Climbing screw)									
Förderschnecke Wood chips (Option) (auger system) [kW]							1,5mm²	4	419
Förderschnecke Wood pellets (Option) (auger system) [kW]							1,5mm²	4	-
Steigschnecke (Option) - je nach Ausführung [kW] (Climbing screw - depend. on type)							1,5mm²	4	328 - 419
Sonderausführung (special constructions)									
Raumaustragung mit sep. Antrieb (transport system with separate gear) [kW]							1,5mm²	4	328
Förderschnecke - je nach Ausführung (conveyor screw - depending on type)							1,5mm²	4	419
Hydraulikaggregat zur Schubstangenaustragung - Projektbezogen [kW] (hydraulic aggregate for scraper floor - depend. on project)							mind. 2,5mm²	5	-

