Technical Specifications

Type Of Product		ULTRABOX 210		ULTRABOX 255		ULTRABOX 315		ULTRABOX 420		ULTRABOX 465		ULTRABOX 510		ULTRABOX 570		ULTRABOX 630		ULTRABOX 765		ULTRABOX 945		ULTRABOX 1000		ULTRABOX 1125	
General		min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max
Type Of Flue Installation		B23-C43 C53-C83		B23-C43 C53-C83		B23-C43 C53-C83		B23-C43 C53-C83		B23-C43 C53-C83		B23-C43 C53-C83		B23-C43 C53-C83		B23-C43 C53-C83		B23-C43 C53-C83		B23-C43 C53-C83		B23-C43 C53-C83		B23-C43 C53-C83	
Fuel type-Gas category		I2H,I2E - Natural Gas G20-20-25 mbar																							
Certification Notify Body		SZU Test		SZU Test		SZU Test		SZU Test		SZU Test		SZU Test		SZU Test		SZU Test		SZU Test		SZU Test		SZU Test			
CE Certification, product PIN Nr.		CE1015CQ0527		CE1015CQ0527		CE1015CQ0527		CE1015CQ0527		CE1015CQ0527		CE1015CQ0527		CE1015CQ0527		CE1015CQ0527		CE1015CQ0527		CE1015CQ0527		CE-1015CQ0524			
Nominal Heat Input Qn	kw	30.3	198.3	35.0	237.7	35.0	295.3	30.3	396.6	30.3	436.0	35.0	475.4	35.0	533.0	35.0	590.6	35.0	713.1	35.0	885.9	115.8	998.9	115.8	1069.9
Nominal Heat Output Pn at (80-60) °C	kw	29.5	194.2	34.1	232.5	34.1	289.5	29.5	388.3	29.5	426.6	34.1	465.0	34.1	522.0	34.2	579.0	34.2	697.4	34.2	868.4	112.6	967.8	112.9	1037.3
Nominal Heat Output Pn at (50-30) °C	kw	32.5	212.2	37.5	254.4	37.6	316.0	32.6	424.4	32.6	466.6	37.7	508.8	37.7	570.4	37.7	632.0	37.7	763.2	37.7	948.0	124.1	1061.3	124.1	1135.7
Water Operating Pressure	bar	0,8	6,0	0,8	6,0	0,8	6,0	0,8	6,0	0,8	6,0	0,8	6,0	0,8	6,0	0,8	6,0	0,8	6,0	0,8	6,0	0,8	6,0	0,8	6,0
Maximum Operation Temperature	°C	90		90		90		90		90		90		90		90		90		90		90		90	
Cut-off Temp. for Limit Thermostat	°C	95		95		95		95		95		95		95		95		95		95		95		95	
Seasonal Heat. En. Eff. Class EcoDLab.	Class																								
Heating Efficiency Q max (80-60) °C	%	97.9		97.8		98.03		97.9		97.85		97.8		97.92		98.03		97.8		98.03		96.89		96.96	
Heating Efficiency Q min (80-60) °C	%	97.47		97.5		97.51		97.47		97.49		97.5		97.51		97.51		97.5		97.51		97.26		97.47	
Heating Efficiency Q max (50-30) °C	%	107		107.03		107.01		107		107.02		107.03		107.02		107.01		107.03		107.01		106.25		106.15	
Heating Efficiency Q min (50-30) °C	%	107.22		107.26		107.48		107.22		107.24		107.26		107.37		107.48		107.26		107.48		107.19		107.19	
Partial Load, Return 30°C (Direct Method)	%	108.38		108.41		108.4		108.38		108.40		108.41		108.41		108.4		108.41		108.4		107.35		107.4	
Seasonal Efficiency E SAP 2009 - sedbuk	%	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Combustion Efficiency Q max (50-30) °C	%	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Combustion Efficiency Q min (50-30) °C	%	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Flue Gas Temperature (80-60) °C	°C	60.3	62.1	60.3	64.8	60.2	60.7	60.3	62.1	60.3	63.45	60.3	64.8	60.25	62.75	60.2	60.7	60.3	64.8	60.2	60.7	61.32	61.81	61.32	63.01
Flue Gas Temperature (50-30) °C	°C	32.1	36.1	32.1	35.5	32.2	36.5	32.1	36.1	32.1	35.8	32.1	35.5	31.15	36	30.2	36.5	32.1	35.5	30.2	36.5	31.22	30.53	30.53	33.61
CO2 Emissions G20 (Hi: 34.02 MJ/m³)	%	9.6	9.4	9.4	9.2	9.7	9.4	9.6	9.4	9.5	9.3	9.4	9.2	9.6	9.3	9.7	9.4	9.4	9.2	9.7	9.4	9.1	9.4	9.2	9.4
CO2 Emissions G25 (Hi: 29.25 MJ/m³)	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO2 Emissions G30 (Hi: 116.09 MJ/m³)	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO2 Emissions G31 (Hi: 88.00 MJ/m³)	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO Emissions G20 (Hi: 34.02 MJ/m³)	ppm	4	50	6	48	3	86	4	50	-	-	6	48	-	-	3	86	6	48	3	86	6	22	7	28
CO Emissions G25 (Hi: 29.25 MJ/m³)	ppm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO Emissions G30 (Hi: 116.09 MJ/m³)	ppm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO Emissions G31 (Hi: 88.00 MJ/m³)	ppm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NOX Emissions G20 (Hi: 34.02 MJ/m³)	mg/kWh	35		37		39		35		-		39		-		39		37		39		41		48	
NOX Emissions G25 (Hi: 29.25 MJ/m³)	mg/kWh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NOX Emissions G30 (Hi: 116.09 MJ/m³)	mg/kWh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NOX Emissions G31 (Hi: 88.00 MJ/m³)	mg/kWh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NOX Class		5		5		5		5		-		5		-		5		5		5		5		5	
Flue Gas Mass G20 (Hi: 34.02 MJ/m³)	g/sec	13	88	15	107	15	129	13	176	13	195	15	214	15	236	15	258	15	321	15	387	87	440	87	471
Flue Gas Mass G25 (Hi: 29.25 MJ/m³)	g/sec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Flue Gas Mass G30 (Hi: 116.09 MJ/m³)	g/sec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Flue Gas Mass G31 (Hi: 88.00 MJ/m³)	g/sec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gas Consumption G20 (Hi: 34.02 MJ/m³)	m³/h	3.21	20.99	3.70	25.15	3.70	31.25	3.21	41.97	3.21	46.14	3.70	50.31	3.70	56.40	3.70	62.50	3.70	75.46	3.70	93.75	12.26	105.70	12.26	113.21
Gas Consumption G25 (Hi: 29.25 MJ/m³)	m³/h	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gas Consumption G30 (Hi: 116.09 MJ/m³)	m³/h	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gas Consumption G31 (Hi: 88.00 MJ/m³)	m³/h	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fan Speed G20 (Hi: 34.02 MJ/m³)	rpm	800	5100	800	5700	800	6350	800	5100	-	-	800	5700	-	-	800	6350	800	5700	800	6350	-	-	1400	6200
Fan Speed G25 (Hi: 29.25 MJ/m³)	rpm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fan Speed G30 (Hi: 116.09 MJ/m³)	rpm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fan Speed G31 (Hi: 88.00 MJ/m³)	rpm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gas Diaphragm G20 (Hi: 34.02 MJ/m³)	mm	-		-		-		-		-		-		-		-		-		-		-		-	
Gas Diaphragm G25 (Hi: 29.25 MJ/m³)	mm	-		-		-		-		-		-		-		-		-		-		-		-	
Gas Diaphragm G30 (Hi: 116.09 MJ/m³)	mm	-		-		-		-		-		-		-		-		-		-		-		-	
Gas Diaphragm G31 (Hi: 88.00 MJ/m³)	mm	-		-		-		-		-		-		-		-		-		-		-		-	
Nominal Water Circulating Mass Δt=20 C°	m³/h	8.66		10.59		12.85		17.32		19.25		21.18		23.44		25.70		31.77		38.55		45.43		48.59	
Water Pressure Loss Δt=20 C°	mbar	19		26		36		?		?		?		?		?		?		?		44		230	
Residual Draught, Fan	Pa	160		160		160		160 x 2pcs		160 x 2pcs		160 x 2pcs		160 x 2pcs		160 x 2pcs		160 x 3 pcs		160 x 3 pcs		100		100	
Water Content	l	66		66		62		132		132		132		128		124		198		186		-		124.6	
Condensing Water Mass	kg/h	29.4		35.7		44.1		58.8		65.1		71.4		79.8		88.2		107.1		132.3		140		157.5	
Condensing pH Value	pH	approx. 4,0		approx. 4,0		approx. 4,0		approx. 4,0		approx. 4,0		approx. 4,0		approx. 4,0		approx. 4,0		approx. 4,0		approx. 4,0		approx. 4,0		approx. 4,0	
Water pH, on Primary (constant)	pH	6,6 - 8,5		6,6 - 8,5		6,6 - 8,5		6,6 - 8,5		6,6 - 8,5		6,6 - 8,5		6,6 - 8,5		6,6 - 8,5		6,6 - 8,5		6,6 - 8,5		6,6 - 8,5		6,6 - 8,5	
Water Hardness, on Primary (constant)	French°	5 > Wh > 1		5 > Wh > 1		5 > Wh > 1		5 > Wh > 1		5 > Wh > 1		5 > Wh > 1		5 > Wh > 1		5 > Wh > 1		5 > Wh > 1		5 > Wh > 1		5 > Wh > 1		5 > Wh > 1	
Water Conductivity (constant)	µs/cm	<400		<400		<400		<400		<400		<400		<400		<400		<400		<400		<400		<400	
Noise Level, EcoDLab.	dB(A)																								
Gas Supply G 20 (Hi: 34.02 MJ/m³)	mBar	20		20		20		20		20		20		20		20		20		20		20		20	
Max Gas Supply Pressure G 20	mBar	25		25		25		25		25		25		25		25		25		25		25		25	
Min Gas Supply Pressure G 20	mBar	17		17		17		17		17		17		17		17		17		17		17		17	
Power Supply Voltage / Frequency	VAC/Hz	230-50																				380-50			
Power Supply Voltage Tolerance	%	(+%15) / (- %10)																				(+%15) / (- %10)			
Additional Electricity Generation EcoDLab.	w																								
Electrical Power Max.Absorbed	w	184		300		470		368		484		600		770		940		900		1410		-		-	
Electrical Power on Stand-By	w	3		3		3		3		3		3		3		3		3		3		3		3	
Electrical Power Fan	w																								
Electrical Power Pump	w																								
Working Conditions, Temperature	°C	+5 / +40		+5 / +40		+5 / +40		+5 / +40		+5 / +40		+5 / +40		+5 / +40		+5 / +40		+5 / +40		+5 / +40		+5 / +40		+5 / +40	
IP Class	-	IP X4D		IP X4D		IP X4D		IP X4D		IP X4D		IP X4D		IP X4D		IP X4D		IP X4D		IP X4D		IP X4D		IP X4D	
Boiler Max. Flue Length C11/C33	m	-		-		-		-		-		-		-		-		-		-		-		-	
Boiler Max. Flue Length C43-C53-C63-C83	m	-		-		-		-		-		-		-		-		-		-		-		-	
Boiler Max. Flue Length B23(horizontal/vertical)	m	-		-		-		-		-		-		-		-		-		-		-		-	
Boiler Flow Connection	INCH	2 1/2"		2 1/2"		2 1/2"		2 1/2" x 2 pcs		2 1/2" x 2 pcs		2 1/2" x 2 pcs		2 1/2" x 2 pcs		2 1/2" x 2 pcs		2 1/2" x 3 pcs		2 1/2" x 3 pcs		4"		4"	
Boiler Return Connection	INCH	2 1/2"		2 1/2"		2 1/2"		2 1/2" x 2 pcs		2 1/2" x 2 pcs		2 1/2" x 2 pcs		2 1/2" x 2 pcs		2 1/2" x 2 pcs		2 1/2" x 3 pcs		2 1/2" x 3 pcs		4"		4"	
Boiler Gas Connection	INCH	1 1/4"		1 1/4"		1 1/4"		DN50		DN50		DN50		DN50		DN50		DN65		DN65		DN65		DN65	
Siphon Connection for Condens Water	Ø (mm)	25		25		25		25 x 2 pcs		25 x 2 pcs		25 x 2 pcs		25 x 2 pcs		25 x 2 pcs		25 x 3 pcs		25 x 3 pcs		25		25	
Flue Pipe Diameter (C13-C33)	Ø (mm)	-		-		-		-		-		-		-		-		-		-		-		-	
Fresh Air Connection (B23-C43-C53-C63-C83)	Ø (mm)	100		100		100		125 x 2 pcs		125 x 2 pcs		125 x 2 pcs		125 x 2 pcs		125 x 2 pcs		125 x 3 pcs		125 x 3 pcs		200		200	
Flue Gas Pipe Diameter (B23-C43-C53-C63-C83)	Ø (mm)	170		170		170		170 x 2 pcs		170 x 2 pcs		170 x 2 pcs		170 x 2 pcs		170 x 2 pcs		170 x 3 pcs		170 x 3 pcs		250		250	
Boiler Weight, Dry	kg	260		260		270		451		451		461		461		571		650		680		1045		1045	
Boiler Dimensions WxLxH	mm	690x995x1750		690x995x1750		690x995x1750		1190x995x1750		1190x995x1750		1190x995x1750		1190x995x1750		1190x995x1750		1800x995x1750		1800x995x1750		903x1939x2021		903x1939x2021	