

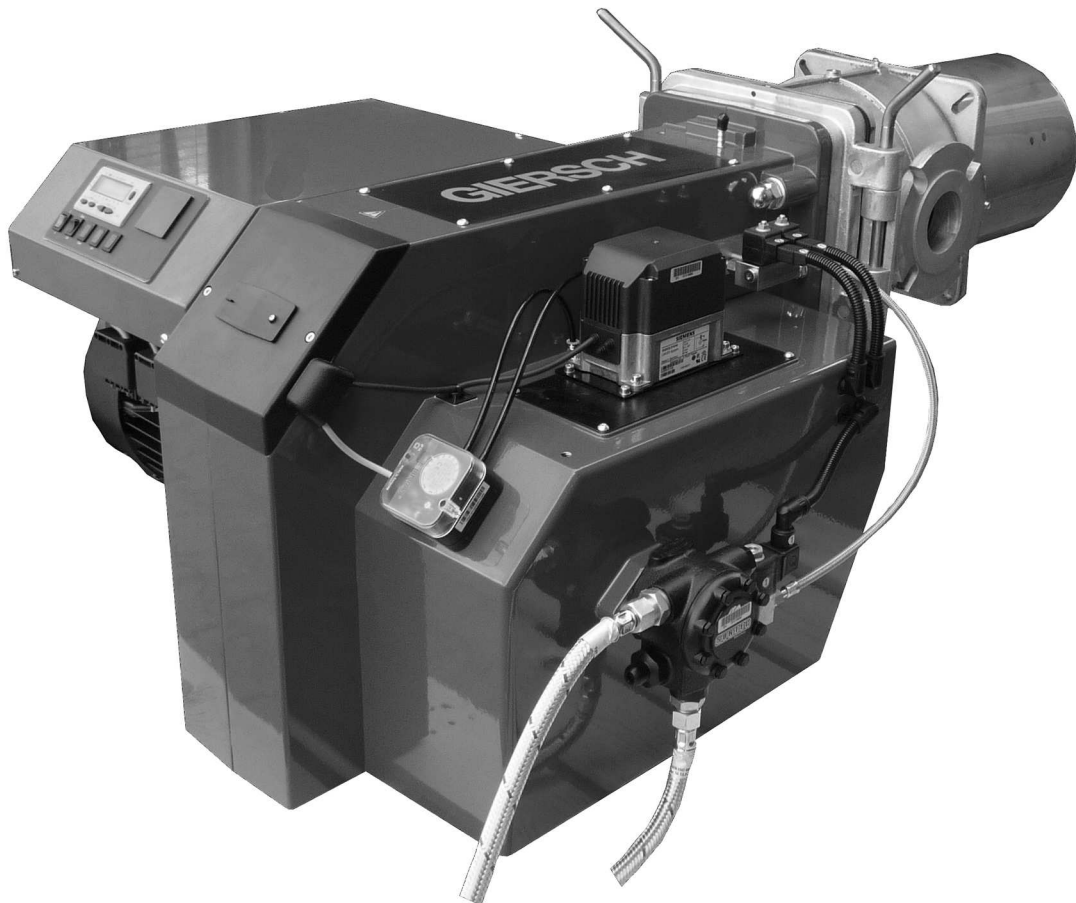
Technical Information

MK3-LMV-AGM

July 2020 edition

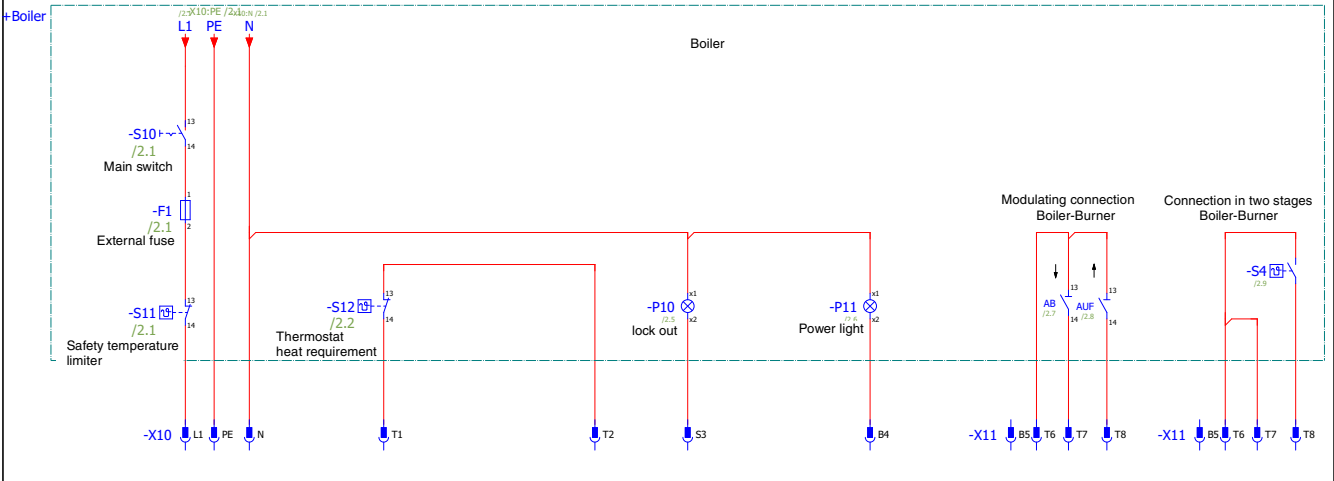
In the interests of continuous product improvement, technical specifications are subject to change without prior notice!

Oil / gas

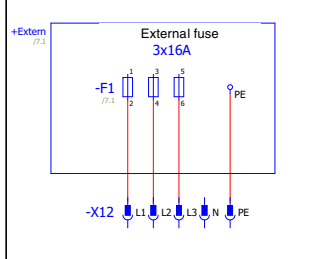


Electrical connection

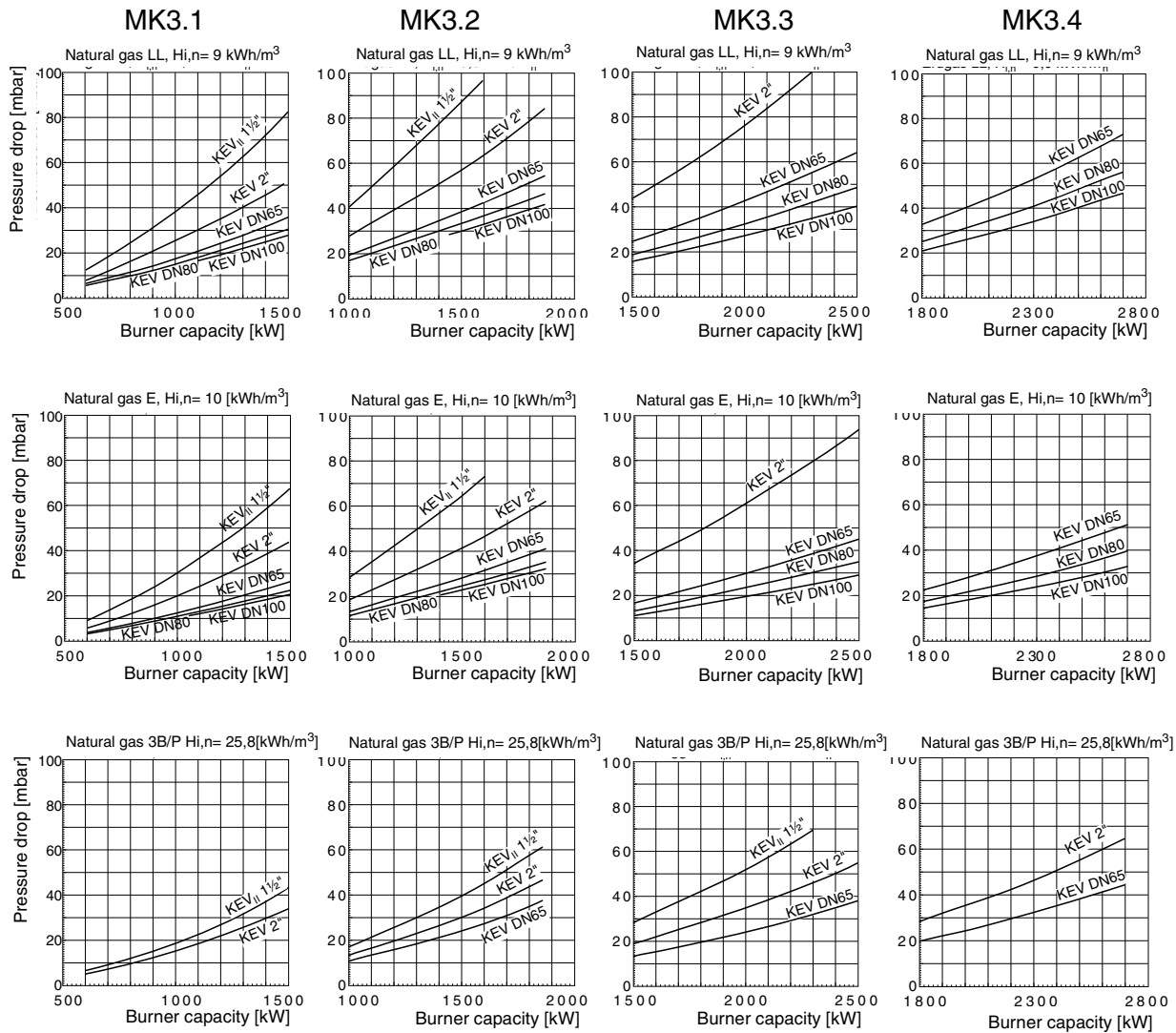
Extract wiring diagram page 2



Extract wiring diagram page 7



Selection diagrams



Technical specifications

Technical specifications	Burner type			
	MK3.1	MK3.2	MK3.3	MK3.4
Burner output in kW (in gas-fired operation)	441 - 1510	738 - 1880	620 - 2505	887 - 2705
Burner output (in oil-fired operation) in kg/h (in kW)	46.2 - 127.3 (548 - 1510)	62.2 - 158.5 (738 - 1880)	64.0 - 211.2 (759 - 2505)	74.8 - 228.0 (887 - 2705)
Fuel	Light oil, natural gas LL + E, liquid gas			
Mode of operation	Optionally oil/gas two-stage or gas modulating, oil two-stage			
Voltage	3 / N / PE ~ 50 Hz / 400 V			
Power consumption at start / during operation *	10.5 / 6.5	15.0 / 9.0	15.5 / 9.3	16.3 / 11.3
Electric motor power (at 2800rpm) in kW	3.0	4.0	4.4	5.5
Flame failure controller	KLC1000			
Control box	LMV26			

* The power consumption of the version with external oil pump is 2.7 A higher.

MK3.1-ZM-L					MK3.1-ZM-L-N								MK3.1-ZM-L-F				
					Natural gas L $H_{i,n} = 9,3 \text{ [kWh/m}^3\text{]}$				Natural gas H $H_{i,n} = 10,4 \text{ [kWh/m}^3\text{]}$				LPG $H_{i,n} = 25,89 \text{ [kWh/m}^3\text{]}$				
Burner output [kW]		Boiler output $\eta = 93\%$ [kW]	Air flap position [°]		Gas nozzle pressure P_G [mbar]		Gas flow rate [m ³ /h]		Gas nozzle pressure P_G [mbar]		Gas flow rate [m ³ /h]		Gas nozzle pressure P_G [mbar]		Gas flow rate [m ³ /h]		
2. St.	1. St.	2. St.	2. St. P 9	1. St. P 1	2. St.	1. St.	2. St.	1. St.	2. St.	1. St.	2. St.	1. St.	2. St.	1. St.	2. St.	1. St.	
1000	550	930	15	10	13,6	4,0	110,9	61,0	10,1	2,4	99,1	54,5	12,1	3,6	39,8	21,9	
1100	550	1023	20	11	16,0	4,0	121,9	61,0	12,0	2,4	109,0	54,4	14,6	3,6	43,8	21,9	
1200	600	1116	20	11	18,6	4,9	133,0	66,5	14,0	3,2	119,0	59,5	17,4	4,3	47,8	23,9	
1300	650	1209	38	12	21,2	5,9	144,1	72,1	16,1	4,0	128,9	64,4	20,4	5,1	51,8	25,9	
1400	700	1302	80	13	23,9	7,0	155,2	77,6	18,2	4,8	138,8	69,4	23,6	5,9	55,7	27,9	
1500	750	1395	90	14	26,8	8,0	166,3	83,1	20,4	5,6	148,7	74,3	27,1	6,8	59,7	29,9	

4

MK3.1-ZM-L									Light oil $H_i = 11,86 \text{ [kWh/kg]}$				
Burner output [kW]		Boiler output $\eta = 93\%$ [kW]	Air flap position [°]						Pump pressure [bar]	Oil nozzle Steinen		Oil flow rate [kg/h]	
2. St.	1. St.	2. St.	P0	P1	P2 on	P2 d	P2	P2 off		2. St. SS/60°	1. St. SS/60°	2. St.	1. St.
1000	550	930	10	11	15	12	15	15	21	7/60°S	8,5/60°S	84,3	46,4
1100	550	1023	11	12	15	17	20	17	21	8,5/60°S	8,5/60°S	92,7	46,4
1200	600	1116	11	12	15	17	20	17	21	9/60°S	9/60°S	101,2	50,6
1300	650	1209	12	13	15	35	38	33	21	10/60°S	10/60°S	109,6	54,8
1400	700	1302	13	14	18	77	80	70	20	11/60°S	11/60°S	118,0	59,0
1500	750	1395	14	15	18	86,9	89,9	75	20	12/60°S	12/60°S	126,5	63,2

MK3.2-ZM-L					MK3.2-ZM-L-N								MK3.2-ZM-L-F			
					Natural gas L $H_{i,n} = 9,3 \text{ [kWh/m}^3\text{]}$				Natural gas H $H_{i,n} = 10,4 \text{ [kWh/m}^3\text{]}$				LPG $H_{i,n} = 25,89 \text{ [kWh/m}^3\text{]}$			
Burner output [kW]		Boiler output $\eta = 93\%$ [kW]	Air flap position [°]		Gas nozzle pressure p_G [mbar]		Gas flow rate [m ³ /h]		Gas nozzle pressure p_G [mbar]		Gas flow rate [m ³ /h]		Gas nozzle pressure p_G [mbar]		Gas flow rate [m ³ /h]	
2. St.	1. St.	2. St.	2. St. P 9	1. St. P 1	2. St.	1. St.	2. St.	1. St.	2. St.	1. St.	2. St.	1. St.	2. St.	1. St.	2. St.	1. St.
1400	750	1302	35	12	26,5	6,5	155,2	83,1	22,3	6,3	138,8	74,3	20,0	5,7	55,7	29,9
1500	750	1395	37	12	29,4	8,5	166,3	83,1	24,8	6,3	148,7	74,3	22,9	5,7	59,7	29,9
1600	800	1488	42	13	32,3	9,8	177,4	88,7	27,4	7,5	158,6	79,3	26,1	6,5	63,7	31,9
1700	850	1581	50	14	35,2	11,2	188,4	94,2	29,9	8,7	168,5	84,3	29,4	7,4	67,7	33,8
1800	900	1674	68	15	38,1	12,5	199,5	99,8	32,5	9,9	178,4	89,2	33,0	8,3	71,7	35,8

5

MK3.2-ZM-L									Light oil $H_i = 11,86 \text{ [kWh/kg]}$				
Burner output [kW]		Boiler output $\eta = 93\%$ [kW]	Air flap position [°]						Pump pressure [bar]	Oil nozzle Steinen		Oil flow rate [kg/h]	
2. St.	1. St.	2. St.	P0	P1	P2 on	P2 d	P2	P2 off		2. St. SS/60°	1. St. SS/60°	2. St.	1. St.
1400	750	1302	12	13	15	32	35	30	20	10/60°S	12/60°S	118,0	63,2
1500	750	1395	12	12	15	34	37	32	20	12/60°S	12/60°S	126,5	63,2
1600	800	1488	13	14	16	39	42	36	20	12/60°S	12/60°S	134,9	67,5
1700	850	1581	14	15	17	47	50	42	21	13/60°S	13/60°S	143,3	71,7
1800	900	1674	15	16	18	65	68	60	20	14/60°S	14/60°S	151,8	75,9

MK3.3-ZM-L					MK3.3-ZM-L-N								MK3.3-ZM-L-F				
					Natural gas L $H_{i,n} = 9,3 \text{ [kWh/m}^3\text{]}$				Natural gas H $H_{i,n} = 10,4 \text{ [kWh/m}^3\text{]}$				LPG $H_{i,n} = 25,89 \text{ [kWh/m}^3\text{]}$				
Burner output [kW]		Boiler output $\eta = 93\%$ [kW]	Air flap position [°]		Gas nozzle pressure p_G [mbar]		Gas flow rate [m ³ /h]		Gas nozzle pressure p_G [mbar]		Gas flow rate [m ³ /h]		Gas nozzle pressure p_G [mbar]		Gas flow rate [m ³ /h]		
2. St.	1. St.	2. St.	2. St. P 9	1. St. P 1	2. St.	1. St.	2. St.	1. St.	2. St.	1. St.	2. St.	1. St.	2. St.	1. St.	2. St.	1. St.	
1700	850	1581	32	12	18,3	4,2	188,4	94,2	14,8	3,0	168,5	84,3	14,8	3,7	67,7	33,8	
1900	950	1767	39	15	22,4	5,5	210,6	105,3	18,3	4,2	188,3	94,2	18,5	4,6	75,7	37,8	
2100	1050	1953	42	17	26,9	7,0	232,8	116,4	22,0	5,4	208,2	104,1	22,6	5,6	83,6	41,8	
2300	1150	2139	68	19	31,6	8,5	255,0	127,5	25,9	6,7	228,0	114,0	27,1	6,8	91,6	45,8	
2500	1250	2325	90	21	36,7	10,1	277,1	138,6	30,1	8,0	247,8	123,9	32,0	8,0	99,5	49,8	

9

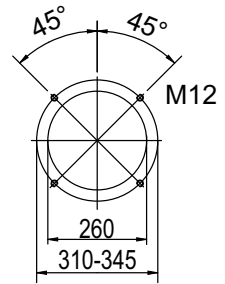
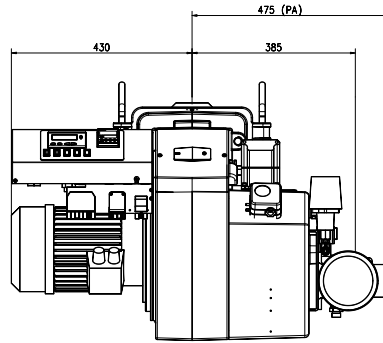
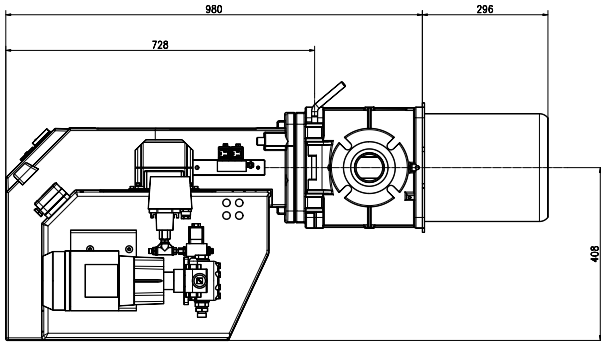
MK3.3-ZM-L										Light oil EL $H_i = 11,86 \text{ [kWh/kg]}$				
Burner output [kW]		Boiler output $\eta = 93\%$ [kW]	Air flap position [°]						Pump pressure [bar]	Oil nozzle Steinen		Oil flow rate [kg/h]		
2. St.	1. St.	2. St.	P0	P1	P2 on	P2 d	P2	P2 off		2. St. SS/60°	1. St. SS/60°	2. St.	1. St.	
1700	850	1581	13	14	16	29	32	28	21	13/60°S	13/60°S	143,3	71,7	
1900	950	1767	15	16	18	36	39	35	20	15/60°S	15/60°S	160,2	80,1	
2100	1050	1953	17	18	20	39	42	38	21	16/60°S	16/60°S	177,1	88,5	
2300	1150	2139	19	20	22	65	68	60	20	18/60°S	18/60°S	193,9	97,0	
2500	1250	2325	21	22	24	86,9	89,9	80	21	19/60°S	19/60°S	210,8	105,4	

MK3.4-ZM-L					MK3.4-ZM-L-N								MK3.4-ZM-L-F			
					Natural gas L $H_{i,n} = 9,3 \text{ [kWh/m}^3\text{]}$				Natural gas H $H_{i,n} = 10,4 \text{ [kWh/m}^3\text{]}$				LPG $H_{i,n} = 25,89 \text{ [kWh/m}^3\text{]}$			
Burner output [kW]		Boiler output $\eta = 93\% \text{ [kW]}$	Air flap position [°]		Gas nozzle pressure $p_G \text{ [mbar]}$		Gas flow rate $[\text{m}^3/\text{h}]$		Gas nozzle pressure $p_G \text{ [mbar]}$		Gas flow rate $[\text{m}^3/\text{h}]$		Gas nozzle pressure $p_G \text{ [mbar]}$		Gas flow rate $[\text{m}^3/\text{h}]$	
2. St.	1. St.	2. St.	2. St. P 9	1. St. P 1	2. St.	1. St.	2. St.	1. St.	2. St.	1. St.	2. St.	1. St.	2. St.	1. St.	2. St.	1. St.
1800	900	1674	30	12	20,0	4,0	199,5	99,8	15,9	2,8	178,4	89,2	16,5	4,1	71,7	35,8
2000	1000	1860	33	14	24,7	5,4	221,7	110,9	19,8	3,9	198,3	99,1	20,4	5,1	79,6	39,8
2200	1100	2046	41	16	29,9	6,8	243,9	121,9	23,9	5,1	218,1	109,0	24,7	6,2	87,6	43,8
2400	1200	2232	50	18	35,4	8,4	266,0	133,0	28,4	6,4	237,9	119,0	29,4	7,4	95,6	47,8
2600	1300	2418	80	20	41,3	10,1	288,2	144,1	33,3	7,8	257,7	128,9	34,5	8,6	103,5	51,8

7

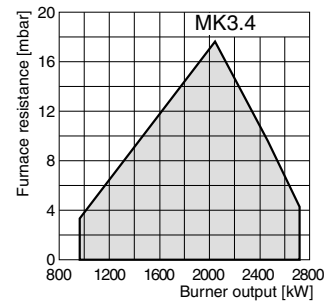
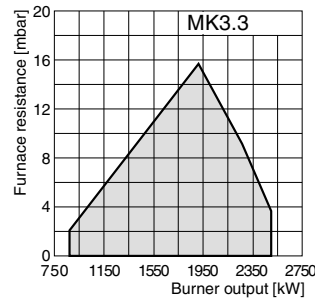
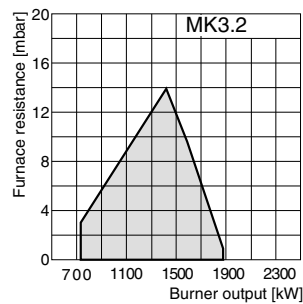
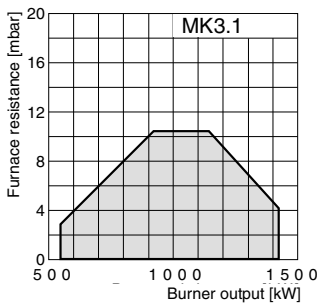
MK3.4-ZM-L									Light oil EL $H_i = 11,86 \text{ [kWh/kg]}$				
Burner output [kW]		Boiler output $\eta = 93\% \text{ [kW]}$	Air flap position [°]						Pump pressure [bar]	Oil nozzle Steinen		Oil flow rate [kg/h]	
2. St.	1. St.	2. St.	P0	P1	P2 on	P2 d	P2	P2 off		2. St. SS/60°	1. St. SS/60°	2. St.	1. St.
1800	900	1674	12	13	16	27	30	26	21	14/60°S	14/60°S	151,8	75,9
2000	1000	1860	14	15	18	30	33	29	22	15/60°S	15/60°S	168,6	84,3
2200	1100	2046	16	17	20	38	41	37	21	17/60°S	17/60°S	185,5	92,7
2400	1200	2232	18	19	22	47	50	45	20	19/60°S	19/60°S	202,4	101,2
2600	1300	2418	20	21	24	77	80	70	21	20/60°S	20/60°S	219,2	109,6

Dimensions (All dimensions are given in mm)



Working ranges

Gas / oil



All information in this technical documentation as well as the drawings, photos and technical descriptions placed at your disposal remain our property and may not be duplicated without our written permission given in advance.

Rights reserved to effect modifications.

GIERSCH

Enertech GmbH • Brenner und Heizsysteme
 Postfach 3063 • D-58662 Hemer • Telefon 02372/965-0 • Telefax 02372/61240
 E-Mail: info@giersch.de • Internet: <http://www.giersch.de>

