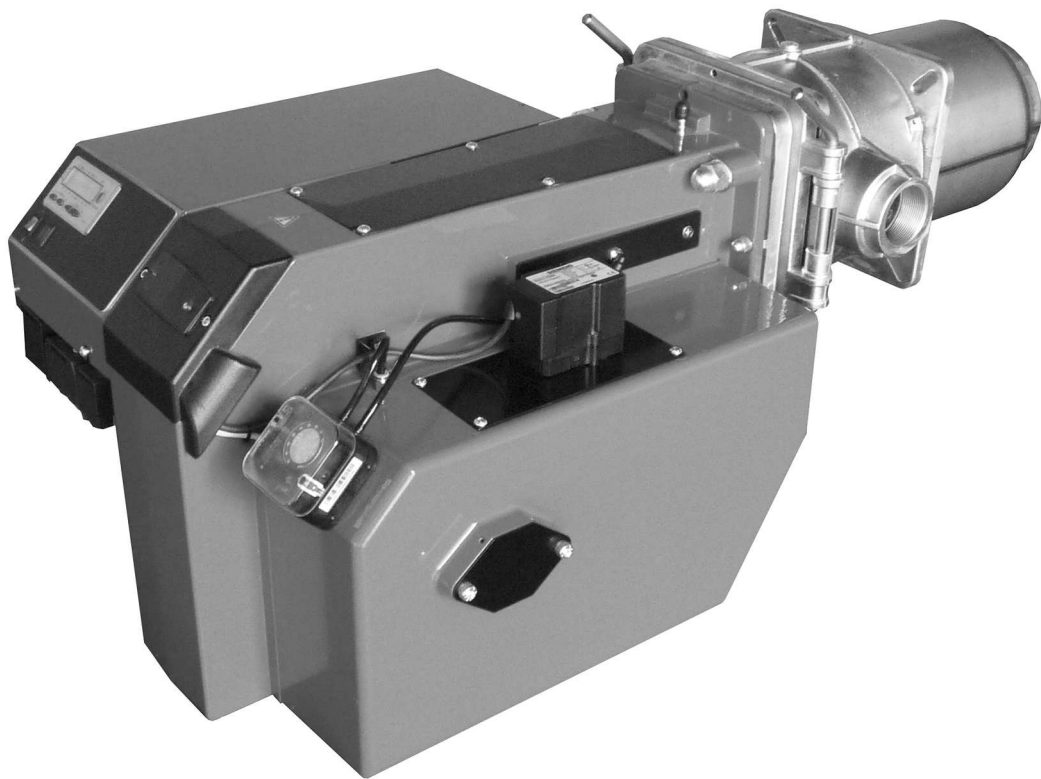


## Technical Information • Data Sheet

# MG20-ZM-L-LN

Issued in April 2024  
Subject to tech. modifications  
to improve the product!

Gas

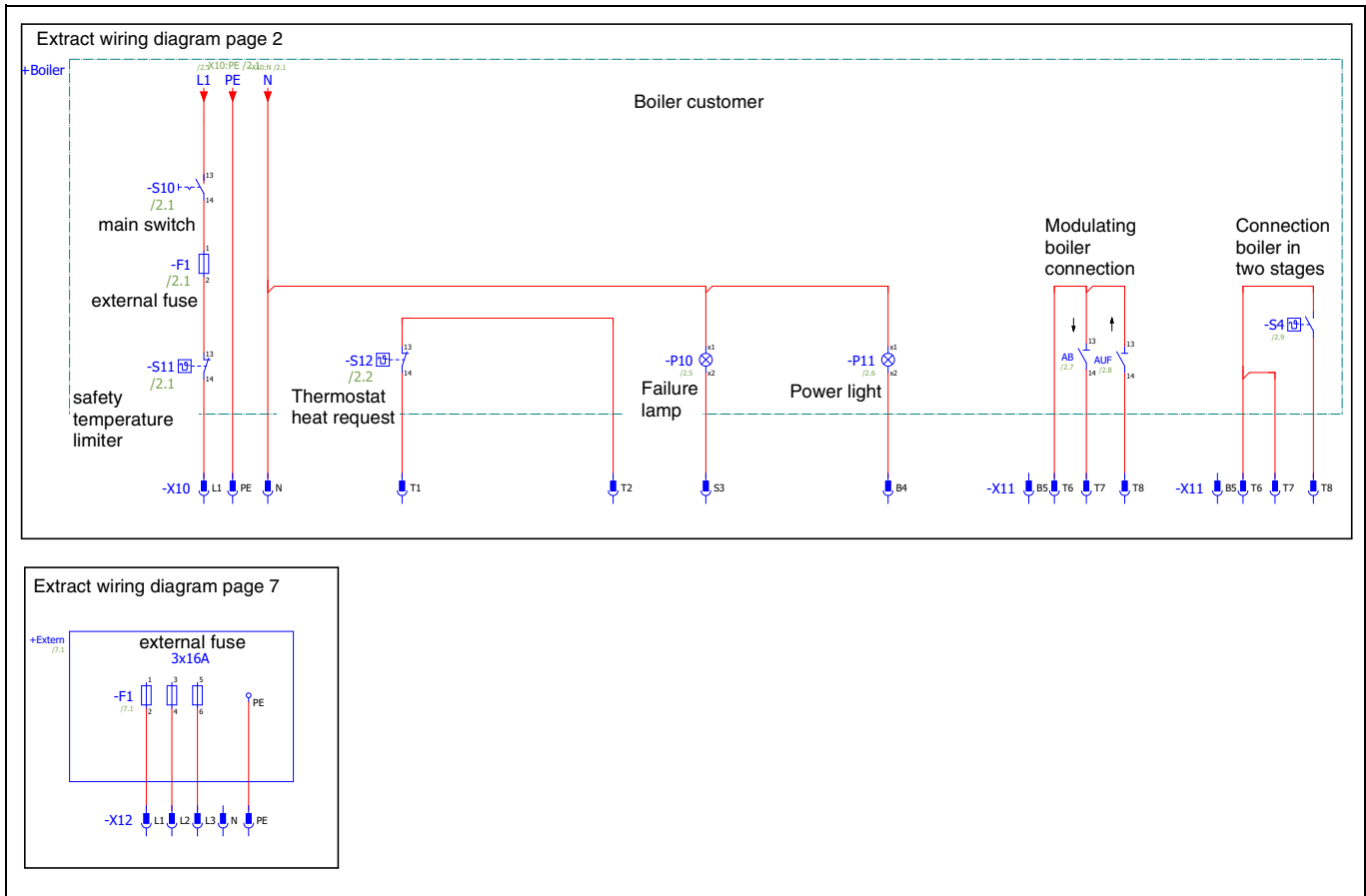


# Electrical connection



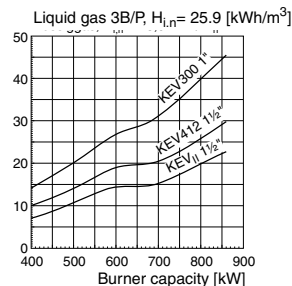
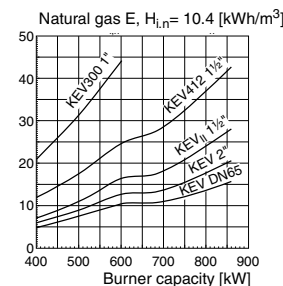
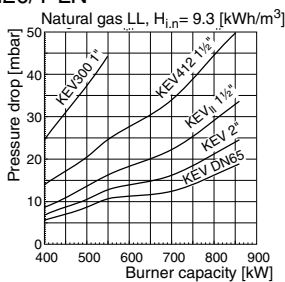
**If the male connector has already been wired:  
check the connections according to the connection diagram!**

The electrical connection of the burner must be made in the male connector included according to the connection diagram, taking account of the local regulations. The supply cable must be fused with max. 10 A fast blow or 6.3 A slow blow and must be routed using flexible cable.

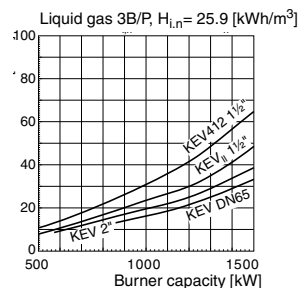
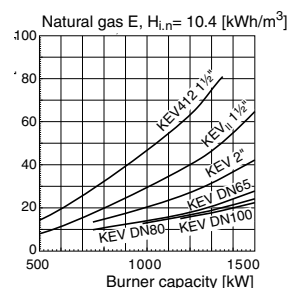
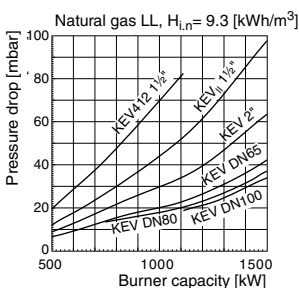


## Selection diagrams

### MG20/1-LN



### MG20/2-LN



## Technical specifications

Technical specifications	Burner type	
	MG20/1-ZM-L-LN	MG20/2-ZM-L-LN
Burner output in kW	224 - 860	247- 1350
Gas type	Natural gas LL + E= "N", liquid gas 3B/P = "F"	
Mode of operation	Progressive two-stage or modulating	
Voltage	3 / PE ~50 Hz 400 V / T16 A	
Max. power consumption at start / during operation	6.5 A max./ 3.6 A eff.	8.0 A max./ 4.6 A eff.
Electric motor power (at 2800rpm) in kW	1.1	2.2
Flame control	Ionisation	
Burner management system	LMV27	
Weight in kg	56	58
Noise emission in db(A)	≤ 78	≤ 78
Gas burner class	3	
NOx limit	≤ 80 mg/kWh	



The values given in the tables are only setting values for start-up. The necessary system adjustment must be newly determined in the case of deviating data such as boiler output, calorific value and altitude.

**A correction is required in any case.**

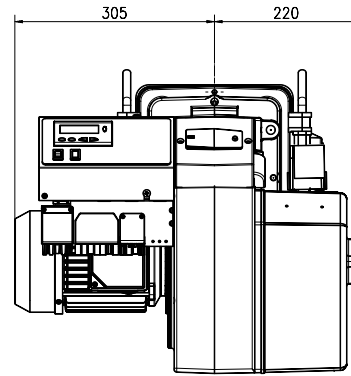
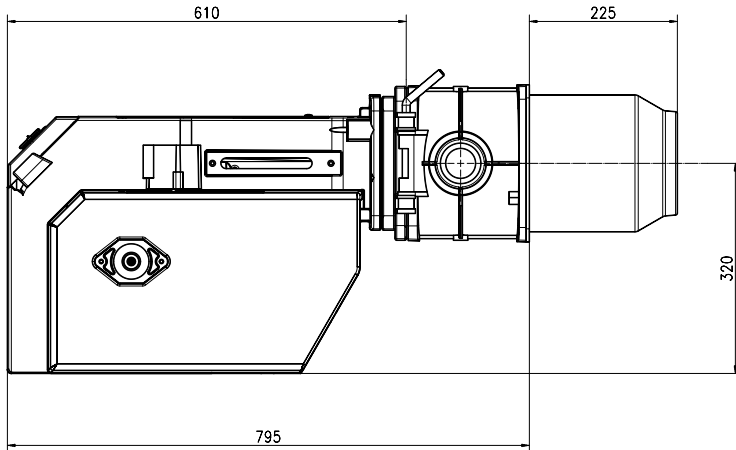
The maximal burner output can only be achieved in mixing head position 0. Due to the variable mixing head position, the operating behaviour of the burner can be optimised for different heat generators.

					MG20/1-ZM-L-LN								MG20/2-ZM-L-LN				
					Natural gas LL $H_{i,n} = 9.3 \text{ [kWh/m}^3\text{]}$				Natural gas E $H_{i,n} = 10.4 \text{ [kWh/m}^3\text{]}$				LPG $H_{i,n} = 25.89 \text{ [kWh/m}^3\text{]}$				
Burner output [kW]		Boiler output $\eta = 92\%$ [kW]	Air flap position [ ° ]		Burner heat pos. [mm]	Gas nozzle pressure [mbar]		Gas flow rate [m <sup>3</sup> /h]		Gas nozzle pressure [mbar]		Gas flow rate [m <sup>3</sup> /h]		Gas nozzle pressure [mbar]		Gas flow rate [m <sup>3</sup> /h]	
Stage 2	Stage 1		Stage2	Stage1		Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1
450	224	419	26.0	9	<b>22</b>	7.3	2.1	49.9	24.8	5.7	1.6	44.6	22.2	7.4	2.0	17.4	8.7
520	260	484	33.0	12	<b>22</b>	9.6	2.7	57.6	28.8	7.5	2.1	51.5	25.8	9.5	2.7	20.1	10.0
600	300	558	40.0	14	<b>22</b>	12.0	3.5	66.5	33.3	9.4	2.7	59.5	29.7	12.1	3.6	23.2	11.6
740	370	688	90.0	19	<b>22</b>	14.7	5.0	82.0	41.0	11.5	3.9	73.4	36.7	17.4	5.2	28.6	14.3
560	280	521	30.5	13	<b>10</b>	7.9	2.7	62.1	31.0	6.2	2.1	55.5	27.8	9.4	2.9	21.6	10.8
640	320	595	36.0	17	<b>10</b>	10.3	3.5	70.9	35.5	8.1	2.7	63.4	31.7	11.8	3.6	24.7	12.4
760	380	707	51.0	21	<b>10</b>	14.5	4.8	84.2	42.1	11.3	3.8	75.3	37.7	16.0	4.8	29.4	14.7
813	410	756	90.0	22.5	<b>10</b>	16.2	5.2	90.1	45.4	12.7	4.1	80.6	40.6	18.0	5.5	31.4	15.8
600	300	558	30.0	10	<b>0</b>	9.1	2.8	66.5	33.3	7.1	2.2	59.5	29.7	9.0	2.9	23.2	11.6
680	340	632	34.0	13	<b>0</b>	11.2	3.5	75.4	37.7	8.8	2.7	67.4	33.7	11.3	3.5	26.3	13.1
780	390	725	44.0	17	<b>0</b>	14.3	4.3	86.5	43.2	11.2	3.4	77.3	38.7	14.5	4.3	30.1	15.1
860	430	800	90.0	20	<b>0</b>	17.4	5.0	95.3	47.7	13.6	3.9	85.2	42.6	17.4	5.1	33.2	16.6

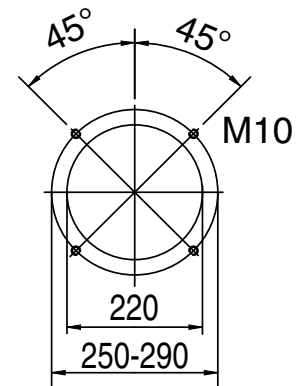
					MG20/2-ZM-L-LN								MG20/2-ZM-L-LN				
					Natural gas LL $H_{i,n} = 9.3$ [kWh/m <sup>3</sup> ]				Natural gas E $H_{i,n} = 10.4$ [kWh/m <sup>3</sup> ]				LPG $H_{i,n} = 25.89$ [kWh/m <sup>3</sup> ]				
Burner output [kW]		Boiler output $\eta = 93\%$ [kW]	Air flap position [°]		Mixer head position [mm]	Gas nozzle pressure [mbar]		Gas flow rate [m <sup>3</sup> /h]		Gas nozzle pressure [mbar]		Gas flow rate [m <sup>3</sup> /h]		Gas nozzle pressure [mbar]		Gas flow rate [m <sup>3</sup> /h]	
Stage 2	Stage 1		2nd stage P 9	1st stage P 1		Stage 2	Stage 1	Stage 2	Stage 1	Stage 2	Stage 1	Stage 2	Stage 1	Stage 2	Stage 1	Stage 2	Stage 1
440	220	405	22	9	<b>22</b>	4.9	1.3	48.8	24.6	3.8	1.0	43.6	22.0	4.3	1.6	17.0	8.5
600	300	552	30	13	<b>22</b>	6.9	2.5	66.5	33.3	5.4	2.0	59.5	29.7	7.5	2.4	23.2	11.6
800	400	736	40	20	<b>22</b>	12.8	4.2	88.7	44.3	10.0	3.3	79.3	39.7	12.8	3.7	30.9	15.4
1000	500	920	90	25	<b>22</b>	19.6	5.2	110.9	55.4	15.3	4.1	99.1	49.6	19.5	5.4	38.6	19.3
500	250	460	25	9	<b>10</b>	5.0	1.2	55.4	27.5	3.9	0.9	49.6	24.6	4.5	1.5	19.3	9.7
660	330	607	32	17	<b>10</b>	7.0	3.0	73.2	36.6	5.5	2.3	65.4	32.7	7.4	2.2	25.5	12.7
860	430	791	41	22	<b>10</b>	13.0	4.2	95.3	47.7	10.2	3.3	85.2	42.6	12.3	3.4	33.2	16.6
1080	540	994	90	27	<b>10</b>	20.3	5.3	119.7	59.9	15.9	4.1	107.1	53.5	19.2	5.1	41.7	20.9
600	300	552	21	10	<b>0</b>	5.1	1.4	66.5	33.3	4.0	1.1	59.5	29.7	4.9	1.5	23.2	11.6
800	400	736	26	14	<b>0</b>	8.6	2.4	88.7	44.3	6.7	1.9	79.3	39.7	8.6	2.4	30.9	15.4
1100	550	1012	43	19	<b>0</b>	16.0	4.9	121.9	61.0	12.5	3.8	109.0	54.5	16.2	4.2	42.5	21.2
1350	680	1242	90	24	<b>0</b>	24.6	6.3	149.7	75.4	19.2	4.9	133.8	67.4	24.5	6.2	52.1	26.1

## Overall dimensions / Boiler connection measures

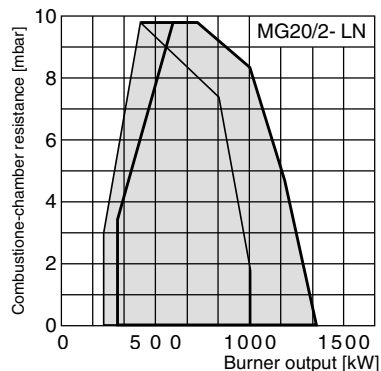
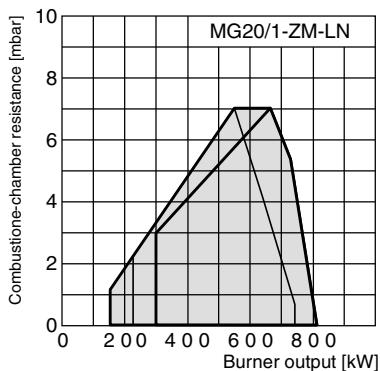
All dimensions in mm



Burner tube extension 100 mm and 200 mm



## Working range



— Burner head "close"  
 — Burner head "open"

Working ranges acc. to DIN EN 676. The working ranges are referred to 15°C and 1013 mbar.

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