

## LY2000GL-Z 沼气低压发电机组技术参数 (50Hz)

### Technical Parameters of LY2000GL-Z Biogas L.V. Genset (50Hz)

$$\text{NO}_x \leq 500\text{mg}/\text{Nm}^3 \text{ } ^{1)}$$

数据仅供参考，实际数据以具体项目的燃气组分计算为准

The data is for reference only, and the actual data shall be subject to the calculation of gas composition from specific project.

Engine Model	Tolerance		LY20V170-Z
Engine output power <sup>2)</sup>		kW	1804
Rated rotation speed		r/min	1500
Average effective pressure		MPa	1.63
Exhaust temperature		°C	≤550
Wet exhaust flow rate	Approx.	kg/h	9297
Air flow rate for combustion	±8%	kg/h	8284
Inlet gas-air temperature after intercooler	±5	°C	50
Ventilation volume <sup>3)</sup>	Approx.	kg/h	45920
<b>Technical Parameters of Engine</b>			
Bore / Stroke		mm	170 / 195
Displacement		dm <sup>3</sup>	88.5
Average piston speed		m/s	9.75
Lubricant capacity <sup>4)</sup>		dm <sup>3</sup>	300
Lubricant consumption rate with 100% load		g/kWh	≤0.3
<b>Alternator</b>			
Efficiency <sup>5)</sup>		%	97
<b>Energy Balance</b>	Tolerance		LY2000GL-Z
Electrical output power <sup>5)</sup>		kW	1750
Heat from high temperature coolant	±8%	kW	1111
Heat from low temperature coolant	±8%	kW	129
Heat generated by cooling exhaust gas to 150°C	±8%	kW	894
Radiated heat from the engine	About	kW	67
Radiated heat from the generator	About	kW	54
Gas fuel consumption	±5%	kW	4375
Electrical efficiency		%	41.0
Thermal efficiency		%	44.8
Total efficiency		%	85.8
<b>系统参数 System Parameters</b>			
高温冷却液流量 (最小/最大)		m <sup>3</sup> /h	70 / 90
Min. / Max. high temperature coolant flow rate		m <sup>3</sup> /h	46
发动机 K <sub>vs</sub> 值 <sup>6)</sup> Engine K <sub>vs</sub> value <sup>6)</sup>		m <sup>3</sup> /h	50
低温冷却液流量		m <sup>3</sup> /h	
Low temperature coolant flow rate		m <sup>3</sup> /h	

中冷器 K <sub>vs</sub> 值 <sup>6)</sup> Intercooler Kvs value <sup>6)</sup>	m <sup>3</sup> /h	72
发动机冷却液容量 Engine coolant capacity	dm <sup>3</sup>	210
中冷器冷却液容量 Intercooler coolant capacity	dm <sup>3</sup>	52
高温冷却液温度 (进口/出口) High temperature coolant temperature at inlet / outlet	°C	74.5 / 89
低温冷却液温度 (进口/出口) Low temperature coolant temperature at inlet / outlet	°C	46 / 49
最高排气背压 Max exhaust back-pressure	kPa	5
空气过滤器前最大压降 Maximum pressure drop before air filter	kPa	0.5
燃气压力范围 Gas pressure range	kPa	8~12
启动方式及电源 Startup method and battery capacity		电启动 Electric startup & DC24V

**说明 Remarks:**

 1) 废气排放: 氧气含量 5% 的干燥废气, NO<sub>x</sub> ≤500mg/Nm<sup>3</sup>

2) 发动机功率等级参照 ISO 3046/1 标准

3) delta T=15K 时的通风空气量, 包括燃烧空气量

4) 不包括管路和润滑油热交换器

5) 频率 50Hz, 电压 400V, 功率因数为 1.0

6) 此功率为气源、温湿度、海拔 100m 等诸多因素为理想状态下的数值

 7) K<sub>vs</sub> 值是指压力损失 1bar 情况下的流量

\*本数据资料仅供参考, 不作为有约束力的数值, 请以报价单内信息为准。

 1) Exhaust emission: Dry exhaust gas with oxygen content 5%, NO<sub>x</sub> ≤500mg/Nm<sup>3</sup>

2) Engine power rating is based on the international standard ISO 3046/1

3) The volume of ventilation air at Delta T=15K, including the volume of air for combustion

4) Piping and lubricant heat exchangers are excluded

5) Frequency is 50Hz, voltage is 400V, power factor is 1.0

6) This power rating is an ideal value with ideal air source, temperature and humidity, elevation of 100m and other factors

7) The Kvs value refers to the flow rate with a pressure loss of 1 bar

\*This data is for reference only and is not intended to be a binding value. Please refer to the information in the technical agreement.

机组型号 Genset Model												LY2000GL-Z											
机组外形尺寸 Dimensions																							
长 Length				约 Approx.				mm				7320											
宽 Width				约 Approx.				mm				1700											
高 Height				约 Approx.				mm				2615											
净重 Net weight				约 Approx.				kg				17000											
噪声																							
声功率级		倍频																					
Sound power level		frequency multiplication		Hz		32		63		125		250		500		1000		2000		4000		8000	
废气噪声		123		dB(A)		118		127		139		120		110		104		97		100		94	
Exhaust noise																							
机组噪声		112		dB(A)		97		99		109		105		104		104		100		106		106	
Genset noise																							

**说明 Remarks:**

 1 米范围处废气噪声,  $\pm 2.5$  dB(A)

 侧面 1 米处机组噪声,  $\pm 1$  dB(A)

 Exhaust noise at 1 meter,  $\pm 2.5$  dB(A)

 Genset sidewall noise at 1 meter,  $\pm 1$  dB(A)