

LY1600GL-Z 沼气低压发电机组技术参数 (50Hz)

Technical Parameters of LY1600GL-Z Biogas L.V. Genset (50Hz)

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

发动机型号 Engine Model	Tolerance		LY16V170-Z
发动机功率 ²⁾ Engine output power ²⁾		kW	1479
额定转速 Rated rotation speed		r/min	1500
平均有效压力 Average effective pressure		MPa	1.67
排气温度 Exhaust temperature		°C	≤550
湿废气流量 Wet exhaust flow rate	约 Approx.	kg/h	7597
燃烧空气流量 Air flow rate for combustion	±8%	kg/h	6770
中冷后进气温度 Inlet gas-air temperature after intercooler	±5	°C	50
通风量 ³⁾ Ventilation volume ³⁾	约 Approx.	kg/h	39022
发动机技术参数 Technical Parameters of Engine			
缸径/行程 Bore / Stroke		mm	170 / 195
排量 Displacement		dm ³	70.8
平均活塞速度 Average piston speed		m/s	9.75
润滑油容量 ⁴⁾ Lubricant capacity ⁴⁾		dm ³	240
润滑油满负荷平均消耗率 Lubricant consumption rate with 100% load		g/kWh	≤0.3
发电机 Alternator			
效率 ⁵⁾ Efficiency ⁵⁾		%	96.7
能量平衡 Energy Balance	Tolerance		LY1600GL-Z
输出电功率 ⁵⁾ Electrical output power ⁵⁾		kW	1430
高温冷却液热量 Heat from high temperature coolant	±8%	kW	917
低温冷却液热量 Heat from low temperature coolant	±8%	kW	99
废气冷却至 150°C 热量 Heat generated by cooling exhaust gas to 150°C	±8%	kW	730
发动机辐射热量 Radiated heat from the engine	约 About	kW	55
发电机辐射热量 Radiated heat from the generator	约 About	kW	49
燃气消耗量 Gas fuel consumption	±5%	kW	3575
电效率 Electrical efficiency		%	41.0
热效率 Thermal efficiency		%	45.1
总效率 Total efficiency		%	86.1

系统参数 System Parameters			
高温冷却液流量（最小/最大） Min. / Max. high temperature coolant flow rate		m ³ /h	55 / 75
发动机 K _{vs} 值 ⁶⁾ Engine Kvs value ⁶⁾		m ³ /h	46
低温冷却液流量 Low temperature coolant flow rate		m ³ /h	40
中冷器 K _{vs} 值 ⁶⁾ Intercooler Kvs value ⁶⁾		m ³ /h	72
发动机冷却液容量 Engine coolant capacity		dm ³	151
中冷器冷却液容量 Intercooler coolant capacity		dm ³	52
高温冷却液温度（进口/出口） High temperature coolant temperature at inlet / outlet		°C	76 / 89
低温冷却液温度（进口/出口） Low temperature coolant temperature at inlet / outlet		°C	46 / 48.5
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_x ≤500mg/Nm³

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, 发动机功率在 ±5% 范围内波动属于正常情况

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_{vs} 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_x ≤500mg/Nm³

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. It is normal for the engine output power to fluctuate within a range of ±5%.

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												LY1600GL-Z											
机组外形尺寸 Dimensions																							
长 Length				约 Approx.				mm				6820											
宽 Width				约 Approx.				mm				1700											
高 Height				约 Approx.				mm				2615											
净重 Net weight				约 Approx.				kg				15000											
噪声																							
声功率级 Sound power level		倍频 frequency multiplication		Hz		32		63		125		250		500		1000		2000		4000		8000	
废气噪声 Exhaust noise		125		dB(A)		107		144		137		126		114		108		105		105		98	
机组噪声 Genset noise		110		dB(A)		94		95		96		98		99		101		99		106		103	

说明 Remarks:

1 米范围处废气噪声, ± 2.5 dB(A)

侧面 1 米处机组噪声, ± 1 dB(A)

Exhaust noise at 1 meter, ± 2.5 dB(A)

Genset sidewall noise at 1 meter, ± 1 dB(A)