

Shaping the Future of Green Energy

# Global Leader in Gas Engines and Energy Solutions

LY170 SERIES GAS GENSET 900 KW - 2000 KW 41.6% 88.5% (\*\*\*) POWER OUTPUT (\*\*\*) ELECTRICAL EFFICIENCY



## LIYU GAS GENSET SERIES



Liyu gas generator sets are highly versatile, suitable for a wide range of applications, including natural gas,associated petroleum gas, biomass gas,biogas,high and low concentration coal bed methane(CBM),industrial gases,blast furnace gas,basic oxygen furnace gas, coal to gas,and other specialized power generation fields,adaptable to the resource conditions of different regions.

Our equipment integrates advanced international control systems, detection systems, and protection systems, combined with cutting-edge finite element analysis technology, ensuring efficient and stable operation even under varying gas quality conditions.

# TECHNICAL PARAMETERS

Genset Model	Unit	LY1200 LY1600		LY2000	
Cylinders	qty	12	16	20	
Bore / Stroke	mm	170/195	170/195	170/195	
Displacement	dm³	53.1	70.8	88.5	
Rotating Speed	rpm	1500	1500	1500	
Mean Piston Speed	m/s	9.75	9.75	9.75	
Length 1}	mm	5300	6820	7320	
Width 1}	mm	1700	1700	1700	
Height 1}	mm	2650	2650	2750	
Dry Weight Genset	t	13	15	17	
AC Of Lube Oil	g/kW•h	≤0.2	≤0.2	≤0.2	

For special gas and dual fuel gas applications, please consult our staff. The data herein are for reference only and not as binding value.

1.For the transportation size of genset, the components set separately must be considered separately

 $2.NO_x$  emission:  $NO_x \le 500$  mg /Nm<sup>3</sup>,  $NO_x$ /Nm<sup>3</sup>(Content of dry exhaust gas in 5%  $O_2$ )

3.Refers to ISO8525-1, 50Hz Generator U=10kV, Cosphi=1.0, the minimum methane number of natural gas is MN70

4.Refers to ISO3046/1, 50Hz Generator U=10kV, Cosphi=1.0, the minimum methane number of natural gas is MN70

## LY1200 - TECHNICAL PARAMETERS

Application area	Unit	Natural gas application 50Hz	Associated petroleum gas application 50Hz	Low-concentration CBM application 50Hz	Biogas application 50Hz	Industrial Gas Application 50Hz	Biomass Gas Application 50Hz	Blast Furnace Gas Application 50Hz	Coal-to-gas Application 50Hz
Genset Model		LY1200GL/M/H-T	LY1200GL/M/H-T1	LY1200GL/M/H-WL	LY1200GL/M/H-Z	LY1200GL/M/H-M	LY1200GL/M/H-S	LY1200GL/M/H-G	LY1200GL/M/H-M1
3} Electrical Power ± 10%	kW	1080	900	1000	1050	900	800	800	900
Fuel Consumption	kW	2634	2368	2500	2593	2368	2133	2162	2368
Electrical Efficiency 4}	%	41.0	38.0	40.0	40.5	38.0	37.5	37.0	38.0
Thermal Efficiency	%	46.5	48.4	47.3	46.9	48.4	48.2	48.6	47.6
Total Efficiency	%	87.5	86.4	87.3	87 <u>4</u>	86.4	85.7	85.6	85.6

## LY1600 - TECHNICAL PARAMETERS

Application area	Unit	Natural gas application 50Hz	Associated petroleum gas application 50Hz	Low-concentration CBM application 50Hz	Biogas application 50Hz	Industrial Gas Application 50Hz	Biomass Gas Application 50Hz	Blast Furnace Gas Application 50Hz	Coal-to-gas Application 50Hz
Genset Model		LY1600GL/M/H-T	LY1600GL/M/H-T1	LY1600GL/M/H-WL	LY1600GL/M/H-Z	LY1600GL/M/H <del>-</del> M	LY1600GL/M/H-S	LY1600GL/M/H-G	LY1600GL/M/H <del>-</del> M1
3} Electrical Power ± 10%	kW	1500	1200	1400	1460	1200	1100	1100	1200
Fuel Consumption	kW	3632	3141	3483	3587	3000	2910	2933	3141
4} Electrical Efficiency	%	41.3	38.2	40.2	40.7	40.0	37.8	37 <u>.</u> 5	38.2
Thermal Efficiency	%	46.7	48.2	47.6	47.2	47.2	48.4	48.6	46.7
Total Efficiency	%	88.0	86.4	87.8	87.9	87.2	86.2	86.1	84.9

## LY2000-TECHNICAL PARAMETERS

No<sub>v</sub>≤500mg/Nm<sup>3</sup> <sup>2</sup>

Application area	Unit	Natural gas application 50Hz	Associated petroleum gas application 50Hz	Low-concentration CBM application 50Hz	Biogas application 50Hz	Industrial Gas Application 50Hz	Biomass Gas Application 50Hz	Blast Furnace Gas Application 50Hz	Coal-to-gas Application 50Hz
Genset Model		LY2000GL/M/H-T	LY2000GL/M/H-T1	LY2000GL/M/H-WL	LY2000GL/M/H <del>-</del> Z	LY2000GL/M/H-M	LY2000GL/M/H-S	LY2000GL/M/H <del>-</del> G	LY2000GL/M/H-M1
3} Electrical Power ± 10%	kW	2000	1500	1850	1950	1500	1400	1400	1500
Fuel Consumption	kW	4808	3896	4591	4768	3741	3684	3723	3896
Electrical Efficiency 4}	%	41.6	38.5	40.3	40.9	40.1	38.0	37.6	38.5
Thermal Efficiency	%	46.9	48.5	47.9	47 <u>4</u>	47.6	48.2	48.7	47 <u>.</u> 9
Total Efficiency	%	88.5	87.0	88.2	88.3	87.7	86.2	86.3	86.4

Note: Factors such as gas quality, air pressure, calorific value, operating environment, and personnel operation level will affect the final output of the unit.

• Sewage Treatment Biogas (65%CH<sub>4</sub>/35%CO<sub>2</sub>)

Biomass gas (60%CH<sub>4</sub>/32%CO<sub>2</sub>, the rest are N<sub>2</sub>)

• Landfill gas  $(50\% \text{CH}_4/27\% \text{CO}_2)$  the rest areN<sub>2</sub>)

• Industrial gas  $(75\%CO, 6\%H_2, 3\%CH_4, 9\%CO_2, \text{ the rest are } N_2)$ 

1.For the transportation size of genset, the components set separately must be considered separately

 $2.NO_x$  emission:  $NO_x \le 500$  mg/Nm<sup>3</sup>,  $NO_x$ /Nm<sup>3</sup>(Content of dry exhaust gas in 5%  $O_2$ )

3.Refers to ISO8525-1, 50Hz Generator U=10kV, Cosphi=1.0, the minimum methane number of natural gas is MN70 4.Refers to ISO3046-1, 50Hz Generator U=10kV, Cosphi=1.0, the minimum methane number of natural gas is MN70

### No<sub>v</sub>≤500mg/Nm<sup>3</sup> <sup>2</sup>

No<sub>v</sub>≤500mg/Nm<sup>3</sup> <sup>2</sup>

# PRODUCTS ADVANTAGES



### **High Efficiency**

Power Generation Efficiency: Over 41% Comprehensive Utilization Efficiency: Up to 88% (under standard gas conditions)

### **Exceptional Reliability**

Unit Overhaul Cycle: 64,000 hours for natural gas; 48,000 hours for other gases Annual Operating Hours: Up to 8,000 hours



### **Streamlined Maintenance**

Professional maintenance team, well-stocked spare parts warehouse, and comprehensive service system.



### **Compact Design**

Small size and lightweight Highest power output in its class



Reduced Emissions No<sub>x</sub>≤500mg/ Nm³ (2g/kW⋅h)



Minimal Lubricant Oil Consumption Lubricant Oil Usage: ≤0.2 g/kW·h



### Enhanced Safety

Multi-stage flameproof and explosion-proof construction, Advanced detonation control systems



### Versatile Application Range

natural gas,associated petroleum gas, biomass gas,biogas,high and low concentration coal bed methane(CBM),industrial gases,blast furnace gas,basic oxygen furnace gas,coal-to-gas,and other specialized power generation fields,adaptable to the resource conditions of different regions.

# PERFORMANCE OVERVIEW

As of January 2025, Liyu has surpassed a total installed capacity of 1,490 MW across both commercial operations and ongoing construction projects. Every year, our units provide nearly 11.90 billion kWh of green electricity to society, reducing CO<sub>2</sub> emissions by over 13.99 million tons annually. Additionally, we deliver energy conservation and emission reduction benefits worth approximately 7.4 billion yuan.

### Performance Table



# **CLASSIC CASES**

Application Of Natural Gas





Application Of Industrial Gas



Application Of Coal-bed Methane (Gas)







### HuangHua International Airport(CHN)

Location:

Changsha,Hunan Installed Engines: 1 x LY1200

### Natural Gas

Location: Northern Europe Installed Engines: 15 xLY2000

### Bili Dam Landfill(CHN)

Location:

Guiyang,Guizhou Installed Engines: 7 x LY1600 & 3 x LY1200

### Xindi Biogas(CHN)

Location: Foshan, Guangdong Installed Engines: 2x LY1200 & 5 xLY1600





### Kohan Ferroalloy(CHN)

Location: Fengzhen, Inner Mongolia Installed Engines: 12 x LY1600

Fengyu Ferroalloy(CHN)

Location: Fengzhen, Inner Mongolia Installed Engines: 22 x LY1600





### Shangshe(CHN)

Yangqaun, Shanxi Location: Installed Engines: 30 x LY1200

### Xiaohuigou(CHN)

Location: Installed Engines: 10x LY1200

Qingxu, Shanxi

#### Headquarters

#### LIYU POWER

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#### Dubai branch

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DouYin





