

# GAS POWER SOLUTIONS

燃气发电解决方案

YDNPOWER

**WEIFANG YIDANENG POWER CO.,LTD.**  
潍坊伊达能动力有限公司

Binhai Development Zone, Weifang Shandong, China  
潍坊滨海经济技术开发区先进制造业产业园  
TEL 电话: 0086-536-2099956  
FAX 传真: 0086-536-2099955  
kevin@yidaneng.com  
www.yidaneng.com  
www.wfydn.com

Distributor 经销商

YDNPOWER

潍坊伊达能动力有限公司



# CASE STUDY

## 项目案例



1. Beijing, China	北京	Biogas	沼气	250kW *2
2. Inner Mongolia	内蒙古鄂尔多斯	Natural gas	天然气	400kW
3. Shanxi province	陕西铜川	Natural gas	天然气	50kW
4. Inner Mongolia	内蒙古	Natural gas	天然气	80kW
5. Ningxia province	宁夏	Biogas	CHP沼气热电联产	350kW*3
6. Henan province	河南漯河	Biogas	沼气	300kW
7. Shanxi province	山西临汾	Coal gas	煤层气	250kW*8
8. Jiangxi province	江西南昌	Biogas	沼气	200kW
9. Henan province	河南驻马店	Biogas	沼气	80kW
10. Gansu province	甘肃庆阳	Associated gas	伴生气	80kW
11. Serbia	塞尔维亚	Biogas	沼气	100kW *3
12. Inner Mongolia	内蒙古	Natural gas	天然气	150kW
13. Argentina	阿根廷	Natural gas	天然气	20kW
14. Sichuan Province	四川荣县	Natural gas CHP	天然气热电联产	500kW
15. Shandong Province	山东潍坊	Biogas CHP	沼气热电联产	400kW
16. Inner Mongolia	内蒙古	Natural gas	天然气	80kW
17. Sichuan Province	四川古蔺	Shale gas	页岩气	400kW*8



# BRIEF INTRODUCTION

## 公司简介

YDN POWER has been operating since 2000 and is now one of the most reputable companies in the field of gas power generation in China. We cover the entire value chain of gas generator set, including design, manufacturing, sales, installation, commissioning and service etc. Thanks to our professional team and modern facilities, we are able to provide reliable gas power solution in the range of 10-1200KW with both CNG, BIOGAS, LPG and other types of gas sources, which is significantly meaningful to energy-saving and environmental protection.

潍坊伊达能动力有限公司可追溯于2000年，是中国燃气发电领域最具影响力的企业之一。我公司可以提供全套的燃气发电机组服务包括设计、制造、销售、安装、调试以及售后服务。依靠强大的专业技术团队和现代化的生产设备，我们有能力提供性能可靠的燃气发电机组，功率覆盖范围10—1200KW，燃料包括CNG，沼气，LPG和其他类型的可燃气体。燃气发电对于节能减排具有极其重要的意义。



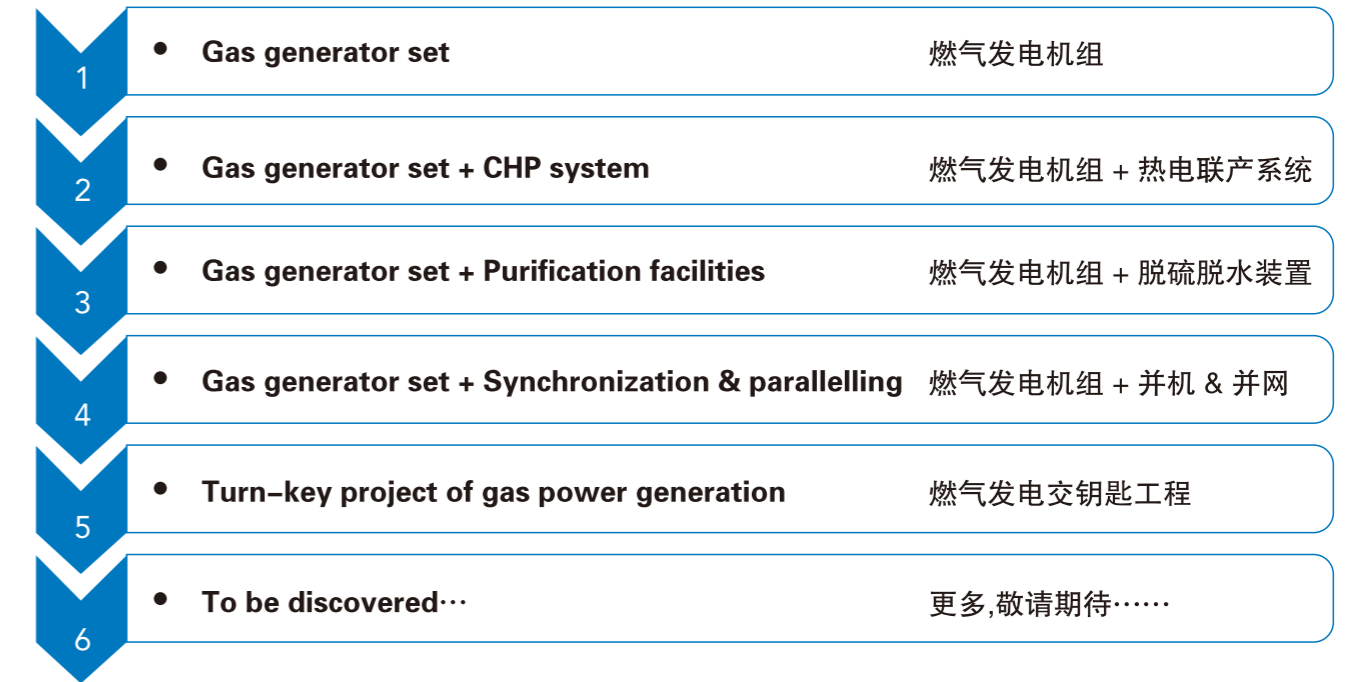
# CERTIFICATION

## 质量认证



# MILESTONE

## 成长之路



# STRATEGIC PARTNERS

## 战略合作伙伴





# Natural gas power solution

Distributed energy is the energy supply and comprehensive utilization system, which is located near the end-user. Natural gas power generation is one of the most stable distributed energy supply solution. An excellent CCHP (Combined Cold, Heat and Power) system can increase the efficiency of natural gas power generation up to 95% and above.

Developing distributed natural gas power generation system is an inevitable option to realize energy saving, emission reduction and sustainable development of energy supply. It can realize energy saving, emission reduction, improving the safety of energy supply, peak shaving and valley filling for power and gas supply, and promoting the development of circular economy etc. It's an irreversible trend in the development of modern energy resources.

## 分布式天然气发电方案

分布式天然气发电方案分布式能源是分布在用户端的供能及能源综合利用系统。天然气发电是最稳定的分布式供能方式之一，优秀的冷热电三联供发电系统能够把天然气发电的有效率提高到95%以上。发展分布式天然气发电系统是实现节能减排和能源供应可持续发展的必由之路，具有节能、减排、提高供能安全性、电力与天然气供应削峰填谷、及促进循环经济发展等众多的优势，是现代能源领域发展的不可逆转的潮流。



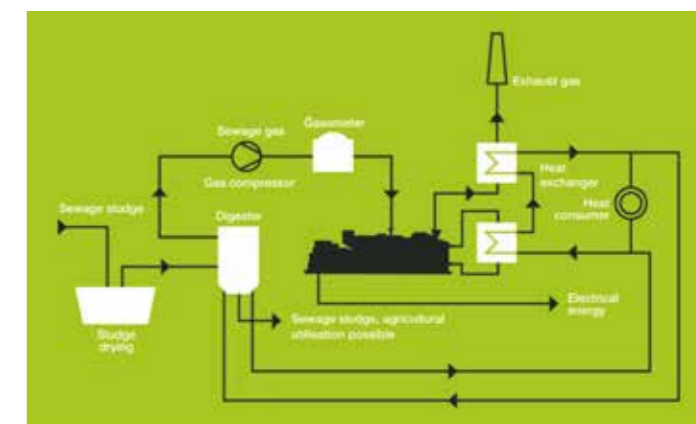
# Biogas power solution

Biogas Electricity Generation is a technology to use biogas with the development of large scale biogas project and comprehensive utility of biogas. Organic waste such as grain stalks, human and livestock manure, rubbish, mud, municipal solid waste and industrial organic waste water can produce under anaerobic conditions. If biogas is used to generate electricity, not only environmental problem in biogas project is solved, but greenhouse gas release is also reduced. Wasted is transformed into treasure, huge heat and electricity are also produced. This is a good idea for environmental production and energy recycling. At the same time, there is also remarkable economic benefit.

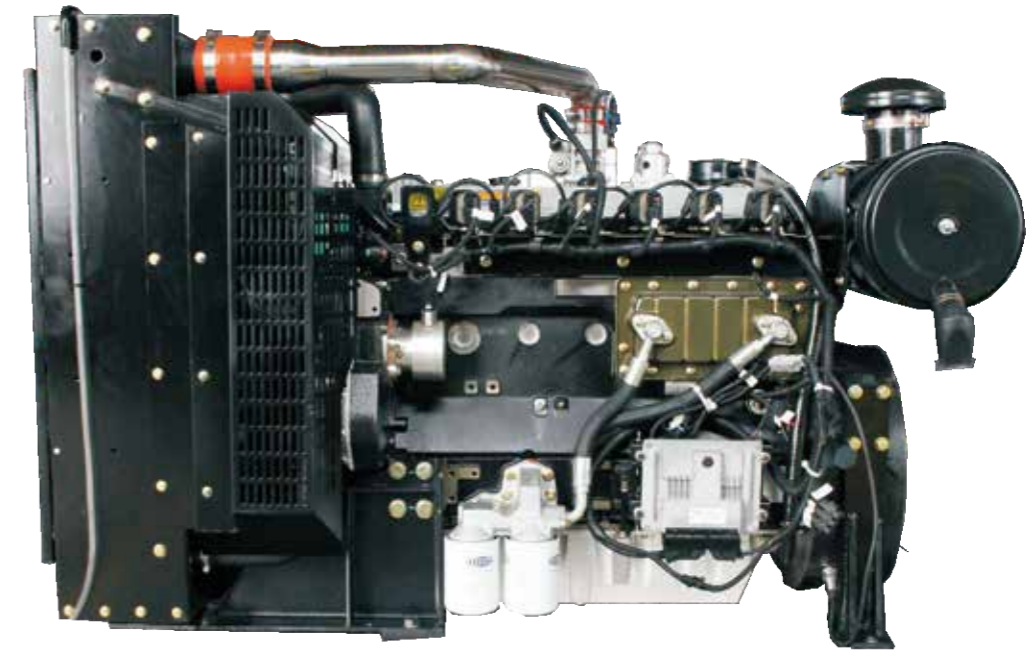


## 沼气发电方案

沼气发电随着大型沼气池建设和沼气综合利用的不断发展而出现的一项沼气利用技术。有机物质（如作物秸秆、人畜粪便、垃圾、泥污、城市生活垃圾及工业有机废水等）在厌氧条件下，通过微生物的分解代谢产生沼气。将沼气用于发动机，不仅解决了沼气工程中的环境问题，减少温室气体排放，而且变废为宝，产生了大量热能和电能，符合能源再循环利用的环保理念，同时带来可观的经济利益。



Model		1004NG	1006NG	1006-G6TAG
Cylinder Number		4	6	6
Cylinder Arrangement		In-line	In-line	In-line
Induction System		Naturally Aspirated	Naturally Aspirated	Turbocharge
BoreXStroke(mm)		100x127	100x127	100x127
Idling Speed (RPM)		750-800	750-800	750-800
Flywheel Size		SAE 3# 11.5	SAE 3# 11.5	SAE 3# 11.5
Displacement(L)		3.99	5.98	5.98
Engine oil Capacity (L)		8.1	16.1	19
Cooling Water Capacity (L)		17.6	22.8	37.2
Engine Oil Consumption (g/kwh)		≤1	≤1	≤1
Compression ratio		10.5:1	10.5:1	10.5:1
Lubrication system capacity(L)		8.1	16.1	19
Ignition order		1-3-4-2	1-5-3-6-2-4	1-5-3-6-2-4
Natural gas engine Prime Power	kW/1500rpm	33	55	90
	kW/1800rpm	39.6	66	108
Natural gas engine Standby Power	kW/1500rpm	36.3	60.5	99
	kW/1800rpm	43.56	72.6	118.8
Natural gas genset power kW/1500rpm	Prime(Continuous)	30	50	80
	Standby(Maximum)	33	55	88
Natural gas genset power kW/1800rpm	Prime(Continuous)	36	60	96
	Standby(Maximum)	39.6	66	105.6
Biogas engine Prime Power	kW/1500rpm	33	55	90
	kW/1800rpm	39.6	66	108
Biogas engine Standby Power	kW/1500rpm	36.3	60.5	99
	kW/1800rpm	43.56	72.6	118.8
Biogas genset power kW/1500rpm	Prime(Continuous)	30	50	80
	Standby(Maximum)	33	55	88
Biogas genset power kW/1800rpm	Prime(Continuous)	36	60	96
	Standby(Maximum)	39.6	66	105.6
Weight(kg)		520	670	710
Starter		DC12V	DC12V	DC24V
Overall dimensions(mm)		1305X855X950	1706X855X970	1706X855X970



Requirements for biogas

1. Methane should be at least 55%
2. The biogas temperature should be between 0-60 °C
3. No impurity should be in the gas. Water in the gas should be less than 20g/Nm<sup>3</sup>.
4. Heat value should be at least 5500kcal/m<sup>3</sup>, if less than this value, the power of the engine will be declined.
5. Gas pressure should be 3-100KPa, if the pressure is less than 3KPa, booster fan is necessary.
6. The gas should be dehydrated and desulfurated. Make sure that there is no liquid in the gas. H<sub>2</sub>S < 200mg/Nm<sup>3</sup>

Requirements for natural gas

1. Methane should be at least 95%
2. The natural gas temperature should be between 0-60 °C
3. No impurity should be in the gas. Water in the gas should be less than 20g/Nm<sup>3</sup>.
4. Heat value should be at least 8500kcal/m<sup>3</sup>, if less than this value, the power of the engine will be declined.
5. Gas pressure should be 3-100KPa, if the pressure is less than 3KPa, booster fan is necessary.
6. The gas should be dehydrated and desulfurated. Make sure that there is no liquid in the gas. H<sub>2</sub>S < 200mg/Nm<sup>3</sup>

沼气发动机对沼气的要求：

- 1、甲烷含量不低于55%，
- 2、燃气温度不得低于0℃，不得高于60℃
- 3、燃气不含其它杂质（杂质粒度应小于5μm）。含水量不得高于20g/Nm<sup>3</sup>
- 4、燃气热值≥5500kcal/m<sup>3</sup>，若燃用低热值燃气（热值<5500kcal/l），机组功率略微下降。
- 5、燃气进气压力3-100KPa；低于3KPa需增加燃气增压装置，高于100KPA需要减压装置
- 6、燃气必须经过脱硫、脱水处理。硫化氢 < 200mg/Nm<sup>3</sup>

天然气发动机对天然气的要求：

- 1、甲烷含量不低于95%，
- 2、燃气温度不得低于0℃，不得高于60℃
- 3、燃气不含其它杂质（杂质粒度应小于5μm）。含水量不得高于20g/Nm<sup>3</sup>
- 4、燃气热值≥8500kcal/m<sup>3</sup>，若燃用低热值燃气（热值<8500kcal/l），机组功率略微下降。
- 5、燃气进气压力3-100KPa；低于3KPa需增加燃气增压装置，高于100KPA需要减压装置
- 6、燃气必须经过脱硫、脱水处理。硫化氢 < 200mg/Nm<sup>3</sup>



Item # 型号		DT11A	DT15A	DT22A	DT30A
Cylinder # 缸数		V6	V8	V12	V16
Aspiration 进气方式		Turbo 涡轮增压	Turbo 涡轮增压	Turbo 涡轮增压	Turbo 涡轮增压
Bore x Stroke 缸径 x 行程 (mm)		128x142	128x142	128x142	128x142
Displacement 排量 (L)		10.96	14.62	21.93	29.24
Oil Capacity 机油容量 (L)		25	27	57	78
Coolant Capacity 冷却液容量 (L)		19	20	23	26
Oil Consumption 机油消耗率 (g/kw.h)		2	2	2	2
Compression Ratio 压缩比		10.5:1	10.5:1	10.5:1	10.5:1
Prime power -Natural gas 天然气发动机额定功率	kW/1500rpm	180	240	360	480
	kW/1800rpm	207	276	414	552
Standby power -Natural gas 天然气发动机备用功率	kW/1500rpm	198	264	396	528
	kW/1800rpm	227.7	303.6	455.4	607.2
Genset output - Natural gas 天然气发电机组功率	Prime 主用 ( kW/1500rpm )	150	200	300	400
	Standby 备用 ( kW/1500rpm )	165	220	330	440
	Prime 主用 ( kW/1800rpm )	180	220	350	450
	Standby 备用 ( kW/1800rpm )	198	242	385	495
Prime power -Biogas 沼气发动机额定功率	kW/1500rpm	162	216	324	432
	kW/1800rpm	186.3	248.4	372.6	496.8
Standby power - Biogas 沼气发动机备用功率	kW/1500rpm	178.2	237.6	356.4	475.2
	kW/1800rpm	204.93	273.24	409.86	546.48
Genset output - Biogas 沼气发电机组功率	Prime 主用 ( kW/1500rpm )	140	200	300	400
	Standby 备用 ( kW/1500rpm )	154	220	330	440
	Prime 主用 ( kW/1800rpm )	150	220	340	420
	Standby 备用 ( kW/1800rpm )	165	242	374	462
Weight 重量 (kg)		904	1050	1575	2110
Start method 启动方式		Electric 电启动	Electric 电启动	Electric 电启动	Electric 电启动
Dimension 尺寸 (mm)		1251x1389x1288	1484x1389x1288	1717x1389x1288	1950x1389x1288



Requirements for biogas
<ol style="list-style-type: none"> <li>1.Methane should be at least 55%</li> <li>2.The biogas temperature should be between 0-60 °C</li> <li>3. No impurity should be in the gas. Water in the gas should be less than 20g/Nm<sup>3</sup>.</li> <li>4. Heat value should be at least 5500kcal/m<sup>3</sup>, if less than this value, the power of the engine will be declined.</li> <li>5. Gas pressure should be 3-100KPa, if the pressure is less than 3KPa, booster fan is necessary.</li> <li>6.The gas should be dehydrated and desulfurated. Make sure that there is no liquid in the gas. H<sub>2</sub>S &lt; 200mg/Nm<sup>3</sup></li> </ol>
Requirements for natural gas
<ol style="list-style-type: none"> <li>1.Methane should be at least 95%</li> <li>2.The natural gas temperature should be between 0-60 °C</li> <li>3. No impurity should be in the gas. Water in the gas should be less than 20g/Nm<sup>3</sup>.</li> <li>4. Heat value should be at least 8500kcal/m<sup>3</sup>, if less than this value, the power of the engine will be declined.</li> <li>5. Gas pressure should be 3-100KPa, if the pressure is less than 3KPa, booster fan is necessary.</li> <li>6.The gas should be dehydrated and desulfurated. Make sure that there is no liquid in the gas. H<sub>2</sub>S &lt; 200mg/Nm<sup>3</sup></li> </ol>
沼气发动机对沼气的要求：
<ol style="list-style-type: none"> <li>1、甲烷含量不低于55%，</li> <li>2、燃气温度不得低于0℃，不得高于60℃</li> <li>3、燃气不含其它杂质（杂质粒度应小于5μm）。水含量不得高于20g/Nm<sup>3</sup></li> <li>4、燃气热值≥5500kcal/m<sup>3</sup>，若燃用低热值燃气（热值&lt;5500kcal/l），机组功率略微下降。</li> <li>5、燃气进气压力3-100KPa；低于3KPa需增加燃气增压装置，高于100KPA需要减压装置</li> <li>6、燃气必须经过脱硫、脱水处理。硫化氢 &lt; 200mg/Nm<sup>3</sup></li> </ol>
天然气发动机对天然气的要求：
<ol style="list-style-type: none"> <li>1、甲烷含量不低于95%，</li> <li>2、燃气温度不得低于0℃，不得高于60℃</li> <li>3、燃气不含其它杂质（杂质粒度应小于5μm）。水含量不得高于20g/Nm<sup>3</sup></li> <li>4、燃气热值≥8500kcal/m<sup>3</sup>，若燃用低热值燃气（热值&lt;8500kcal/l），机组功率略微下降。</li> <li>5、燃气进气压力3-100KPa；低于3KPa需增加燃气增压装置，高于100KPA需要减压装置</li> <li>6、燃气必须经过脱硫、脱水处理。硫化氢 &lt; 200mg/Nm<sup>3</sup></li> </ol>

# FORWARD ENGINE GAS GENERATOR SET

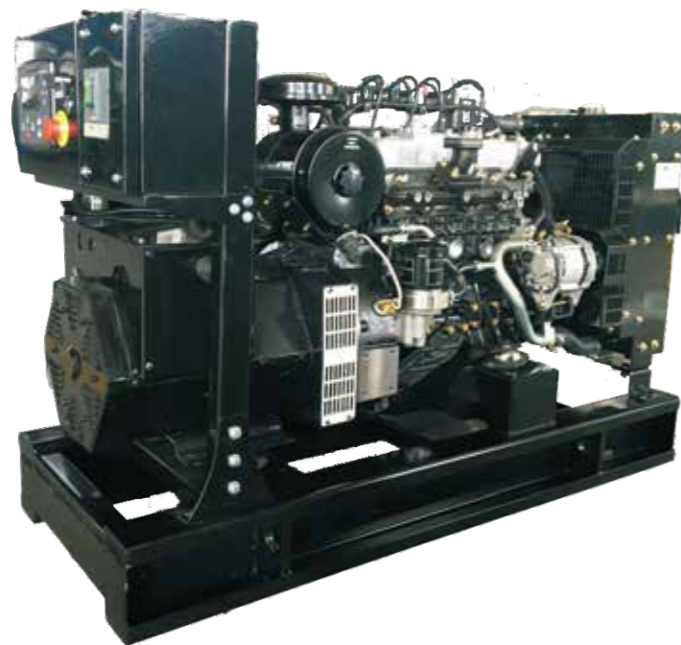
## 燃气发电机组

### FORWARD I Natural gas generator set 福沃 FORWARD 天然气发电机组

3 Phase 4 wire, 50Hz/1500rpm, Power factor 0.8			3相4线, 50赫兹/1500转, 功率因数0.8			
Gas Genset #	Rated Power (kW/kVA)	Gas Engine #	Dimension 外形尺寸 (mm)		Weight 净重 (kg)	
燃气机组型号	额定功率 (kW/kVA)	燃气发动机型号	Open type 开架式	Silent type 静音式	Open type 开架式	Silent type 静音式
YDNF-20	20/25	4JB1	1840 × 790 × 1420	1900 × 800 × 1430	880	1280
YDNF-25	25/31.25	4JB1T	1840 × 790 × 1420	1900 × 800 × 1430	915	1315
YDNF-30	30/37.5	4JB1T	1840 × 790 × 1420	1900 × 800 × 1430	915	1315

### FORWARD I Biogas generator set 福沃 FORWARD 沼气发电机组

3 Phase 4 wire, 50Hz/1500rpm, Power factor 0.8			3相4线, 50赫兹/1500转, 功率因数0.8			
Gas Genset #	Rated Power (kW/kVA)	Gas Engine #	Dimension 外形尺寸 (mm)		Weight 净重 (kg)	
燃气机组型号	额定功率 (kW/kVA)	燃气发动机型号	Open type 开架式	Silent type 静音式	Open type 开架式	Silent type 静音式
YDNF-20	20/25	4JB1	1840 × 790 × 1420	1900 × 800 × 1430	880	1280
YDNF-25	25/31.25	4JB1T	1840 × 790 × 1420	1900 × 800 × 1430	915	1315
YDNF-30	30/37.5	4JB1T	1840 × 790 × 1420	1900 × 800 × 1430	915	1315



# YANGDONG GAS GENERATOR SET

## 燃气发电机组

### YANGDONG I Natural gas generator set 扬动YANGDONG天然气发电机组

3 Phase 4 wire, 50Hz/1500rpm, Power factor 0.8			3相4线, 50赫兹/1500转, 功率因数0.8			
Gas Genset #	Rated Power (kW/kVA)	Gas Engine #	Dimension 外形尺寸 (mm)		Weight 净重 (kg)	
燃气机组型号	额定功率 (kW/kVA)	燃气发动机型号	Open type 开架式	Silent type 静音式	Open type 开架式	Silent type 静音式
YDNYD-8	8/10	YD4M1D	1450 × 700 × 1100	1530 × 710 × 1110	500	800
YDNYD-10	10/12.5	YD4M1D	1450 × 700 × 1100	1530 × 710 × 1110	510	810
YDNYD-12	12/15	YD4M1D	1450 × 700 × 1100	1530 × 710 × 1110	510	810
YDNYD-15	15/18.75	YD4B1D	1700 × 720 × 1250	1780 × 730 × 1260	620	920
YDNYD-20	20/25	YD4L1D	1750 × 720 × 1250	1780 × 730 × 1260	650	950
YDNYD-25	25/37.5	YD4D1D	1750 × 740 × 1250	1830 × 750 × 1260	680	980

### YANGDONG I Biogas generator set 扬动YANGDONG沼气发电机组

3 Phase 4 wire, 50Hz/1500rpm, Power factor 0.8			3相4线, 50赫兹/1500转, 功率因数0.8			
Gas Genset #	Rated Power (kW/kVA)	Gas Engine #	Dimension 外形尺寸 (mm)		Weight 净重 (kg)	
燃气机组型号	额定功率 (kW/kVA)	燃气发动机型号	Open type 开架式	Silent type 静音式	Open type 开架式	Silent type 静音式
YDNYD-8	8/10	YD4M1D	1450 × 700 × 1100	1530 × 710 × 1110	500	800
YDNYD-10	10/12.5	YD4M1D	1450 × 700 × 1100	1530 × 710 × 1110	510	810
YDNYD-12	12/15	YD4M1D	1450 × 700 × 1100	1530 × 710 × 1110	510	810
YDNYD-15	15/18.75	YD4B1D	1700 × 720 × 1250	1780 × 730 × 1260	620	920
YDNYD-20	20/25	YD4L1D	1750 × 720 × 1250	1780 × 730 × 1260	650	950
YDNYD-25	25/37.5	YD4D1D	1750 × 740 × 1250	1830 × 750 × 1260	680	980





# LOVOL GAS GENERATOR SET

## 燃气发电机组

### LOVOL I Natural gas generator set 雷沃 LOVOL 天然气发电机组

3 Phase 4 wire, 50Hz/1500rpm, Power factor 0.8			3相4线, 50赫兹/1500转, 功率因数0.8			
Gas Genset #	Rated Power (kW/kVA)	Gas Engine #	Dimension 外形尺寸 (mm)		Weight 净重 (kg)	
燃气机组型号	额定功率 (kW/kVA)	燃气发动机型号	Open type 开架式	Silent type 静音式	Open type 开架式	Silent type 静音式
YDNL-30	30/37.5	1004NG	1850 × 800 × 1430	1910 × 810 × 1440	950	1450
YDNL-50	50/62.5	1006NG	2150 × 800 × 1430	2210 × 810 × 1440	1100	1600
YDNL-80	80/100	1006-G6TAG	2150 × 800 × 1430	2210 × 810 × 1440	1300	1800

### LOVOL I Biogas generator set 雷沃 LOVOL 沼气发电机组

3 Phase 4 wire, 50Hz/1500rpm, Power factor 0.8			3相4线, 50赫兹/1500转, 功率因数0.8			
Gas Genset #	Rated Power (kW/kVA)	Gas Engine #	Dimension 外形尺寸 (mm)		Weight 净重 (kg)	
燃气机组型号	额定功率 (kW/kVA)	燃气发动机型号	Open type 开架式	Silent type 静音式	Open type 开架式	Silent type 静音式
YDNL-30	30/37.5	1004NG	1850 × 800 × 1430	1910 × 810 × 1440	950	1450
YDNL-50	50/62.5	1006NG	2150 × 800 × 1430	2210 × 810 × 1440	1100	1600
YDNL-80	80/100	1006-G6TAG	2150 × 800 × 1430	2210 × 810 × 1440	1300	1800



# VMAN GAS GENERATOR SET

## 燃气发电机组

### VMAN I Biogas generator set 威曼VMAN 沼气发电机组

3 Phase 4 wire, 50Hz/1500rpm, Power factor 0.8			3相4线, 50赫兹/1500转, 功率因数0.8			
Gas Genset #	Rated Power (kW/kVA)	Gas Engine #	Dimension 外形尺寸 (mm)		Weight 净重 (kg)	
燃气机组型号	额定功率 (kW/kVA)	燃气发动机型号	Open type 开架式	Silent type 静音式	Open type 开架式	Silent type 静音式
YDNL-120	120/150	DT11A	2600 × 1500 × 1800	3400 × 1700 × 2300	2500	3000
YDNL-150	150/187.5	DT11A	2850 × 1400 × 1950	3650 × 1600 × 2450	2800	3300
YDNL-200	200/250	DT15A	2850 × 1400 × 1950	3650 × 1600 × 2450	3100	3700
YDNL-250	250/312.5	DT22A	3320 × 1700 × 2100	4120 × 1900 × 2600	3600	4300
YDNL-300	300/375	DT22A	3420 × 1700 × 2100	4220 × 1900 × 2600	3800	4500
YDNL-350	350/437.5	DT30A	4200 × 2100 × 2500	5000 × 2310 × 3000	4200	5000
YDNL-400	400/500	DT30A	4300 × 2110 × 2500	5100 × 2310 × 3000	4500	5300

### VMAN I Natural gas generator set 威曼VMAN天然气发电机组

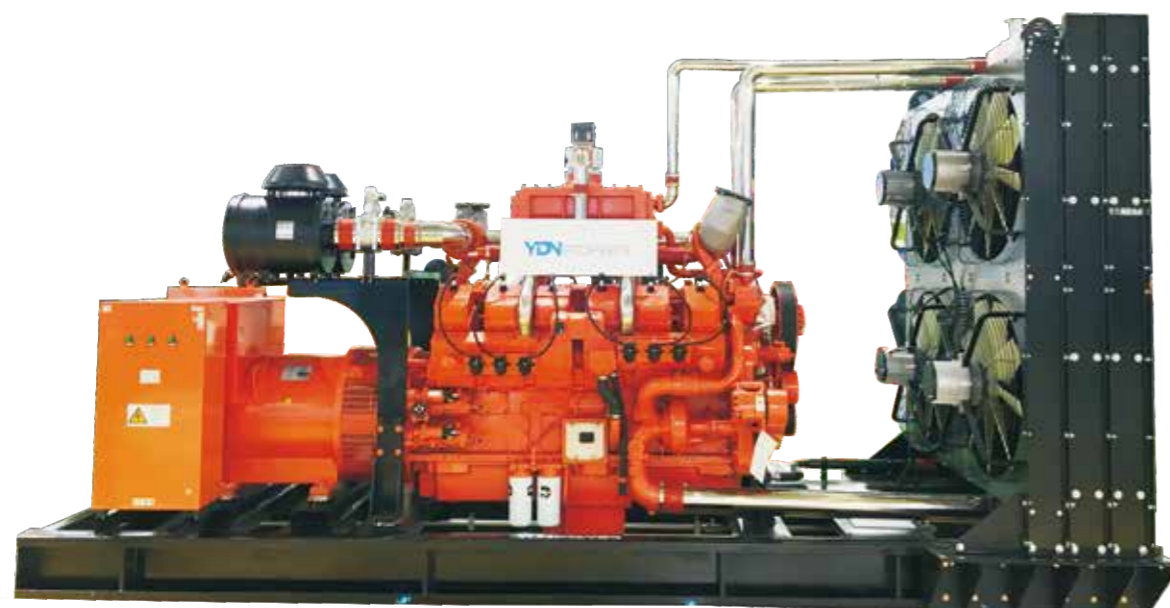
3 Phase 4 wire, 50Hz/1500rpm, Power factor 0.8			3相4线, 50赫兹/1500转, 功率因数0.8			
Gas Genset #	Rated Power (kW/kVA)	Gas Engine #	Dimension 外形尺寸 (mm)		Weight 净重 (kg)	
燃气机组型号	额定功率 (kW/kVA)	燃气发动机型号	Open type 开架式	Silent type 静音式	Open type 开架式	Silent type 静音式
YDNL-150	150/187.5	DT11A	2600 × 1500 × 1800	3400 × 1700 × 2300	2500	3000
YDNL-200	200/250	DT15A	2850 × 1400 × 1950	3650 × 1600 × 2450	3100	3700
YDNL-250	250/312.5	DT22A	3320 × 1700 × 2100	4120 × 1900 × 2600	3600	4200
YDNL-300	300/375	DT22A	3420 × 1700 × 2100	4220 × 1900 × 2600	3800	4500
YDNL-360	360/720	DT30A	4200 × 2110 × 2500	5000 × 2310 × 3000	4200	5000
YDNL-400	400/500	DT30A	4300 × 2110 × 2500	5100 × 2310 × 3000	4500	5300





# Cummins GAS GENERATOR SET

## 燃气发电机组



### Requirements for biogas: 对沼气的要求

- (1) The methane content should not be lower than 55%.
- (2) The Biogas temperature should be between 0–60°C.
- (3) No impurity should be in the gas. Water in the gas should be less than 20g/Nm<sup>3</sup>.
- (4) Heat value should be at least 5500kcal/m<sup>3</sup>, if less than this value, the power of the engine will be declined.
- (5) Gas pressure should be 3–100KPa, if the pressure is less than 3KPa, booster fan is necessary.
- (6) The gas should be dehydrated and desulfurized. Make sure that there is no liquid in the gas. H<sub>2</sub>S < 200mg/Nm<sup>3</sup>.

### Requirements for Natural gas: 对天然气的要求

- (1) The methane content should not be lower than 95%.
- (2) The natural gas temperature should be between 0–60°C.
- (3) No impurity should be in the gas. Water in the gas should be less than 20g/Nm<sup>3</sup>.
- (4) Heat value should be at least 8500kcal/m<sup>3</sup>, if less than this value, the power of the engine will be declined.
- (5) Gas pressure should be 3–100KPa, if the pressure is less than 3KPa, booster fan is necessary.
- (6) The gas should be dehydrated and desulfurized. Make sure that there is no liquid in the gas. H<sub>2</sub>S < 200mg/Nm<sup>3</sup>.

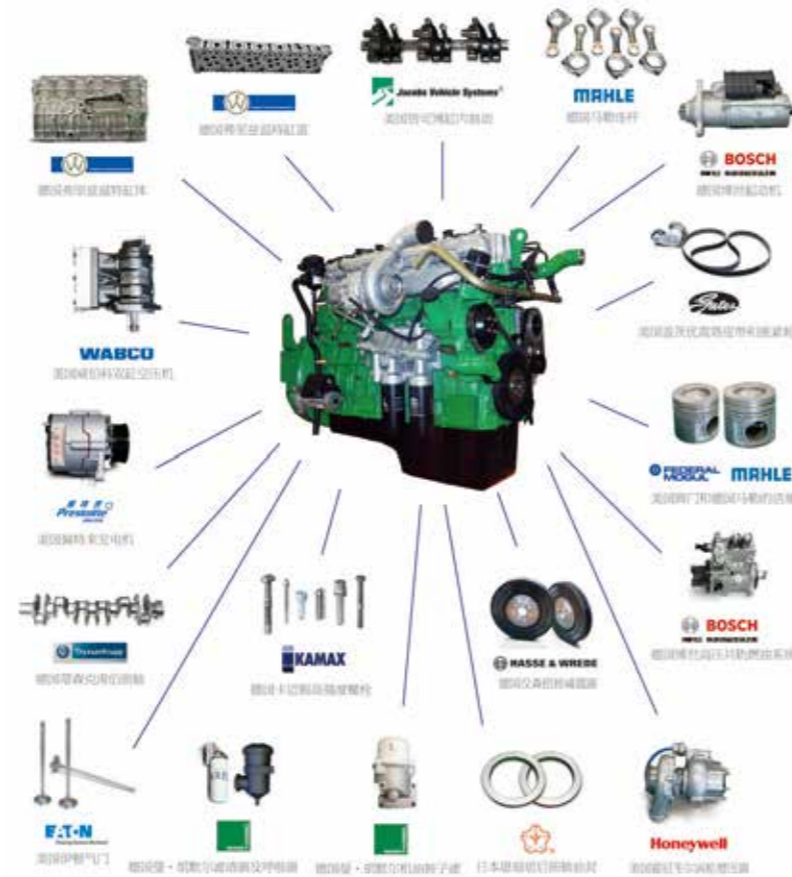
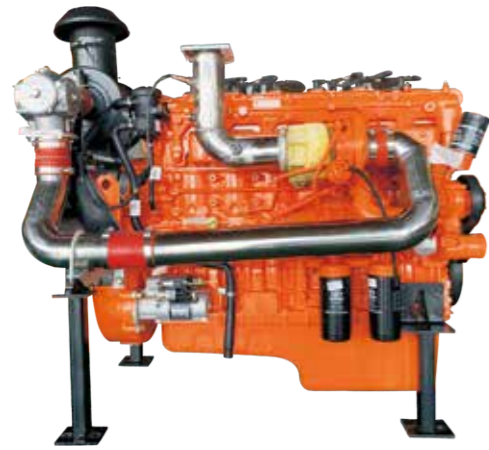
### Key Parameters of Cummins Gas Generator Set 参数表

Model		YDNC-250	YDNC-300	YDNC-500
Rated power (kW/KVA)		250/312.5	300/375	500/600
Rated current (A)		450	540	900
Rated Voltage (V)		230/400		
Rated Frequency (Hz)		50/60		
Dimension (mm)		3400*1400*2000	3800*1780*2080	5100*2500*2200
Weight (kg)		2930	3800	6500
Engine	Model	GNT855	GTA19-G2	GTA38
	Type	Water-cooled, 4-stroke, in-line		Water-cooled, 4-stroke, V shape
	Rated Power(kW/KVA)	300	360	550
	Rated Speed(rpm)	1500/1800		
	Cylinder No.	6	6	12
	Bore*Stroke(mm)	140 x 152	159 x 159	
	Cooling Method	Water-cooled		
	Oil Consumption(g/KWH)	<1	<1	<1
	Biogas Consumption(m <sup>3</sup> /h)	150	180	300
	Natural gas Consumption(m <sup>3</sup> /h)	75	90	150
	Starting method	24V DC		
	Brand	Farrand		
Alternator	Model	FLD250	FLD300	FLD500
	Rated Power(kW/KVA)	250/312.5	300/375	500/600
	Voltage Regulation	≤±1		
	Excitation mode	Brushless, Self Excitation		
	Insulation Class	H		
Control System	Model	SMARTGEN HGM6110N		
	Working Voltage	DC8.0V to DC35.0V		
	Overall Dimensions	197 mm x 152 mm x 47mm		
	Panel Cutout	186mm x 141mm		
	Working Condition	Temperature: (-25~70)°C; Humidity: (20~90)%		
	Weight	0.56kg		



# GAS GENERATOR SET

## 燃气发电机组



Project case  
项目案例



### Key Parameters of CAMC Gas Generator Set

### 参数表

Model		YDNH-200	YDNH-250
Rated power (kW/KVA)		200/250	250/312.5
Rated current (A)		360	450
Rated Voltage (V)		230/400	
Rated Frequency (Hz)		50/60	
Dimension (mm)		3300*1400*1830	3300*1400*1850
Weight (kg)		3500	3800
Engine	Model	CM6T28-G1	CM6T28-G2
	Type	Water-cooled, 4-stroke, in-line	
	Rated Power(kW/KVA)	255	300
	Rated Speed(rpm)	1500/1800	
	Cylinder No.	6	6
	Bore*Stroke(mm)	128 x 153	
	Displacement(L)	11.81	
	Cooling Method	Water-cooled	
	Oil Consumption(g/KWH)	<1	<1
	Biogas Consumption(m³/h)	120	150
	Natural gas Consumption(m³/h)	60	75
	Starting method	24V DC	
	Brand	Farrand	
Alternator	Model	FLD200	FLD250
	Rated Power(kW/KVA)	200/250	250/312.5
	Voltage Regulation	≤±1	
	Excitation mode	Brushless, Self Excitation	
	Insulation Class	H	
Control System	Model	SMARTGEN HGM6110N	
	Working Voltage	DC8.0V to DC35.0V	
	Overall Dimensions	197 mm x 152 mm x 47mm	
	Panel Cutout	186mm x 141mm	
	Working Condition	Temperature: (-25~70)°C; Humidity: (20~90)%	
Weight	0.56kg		

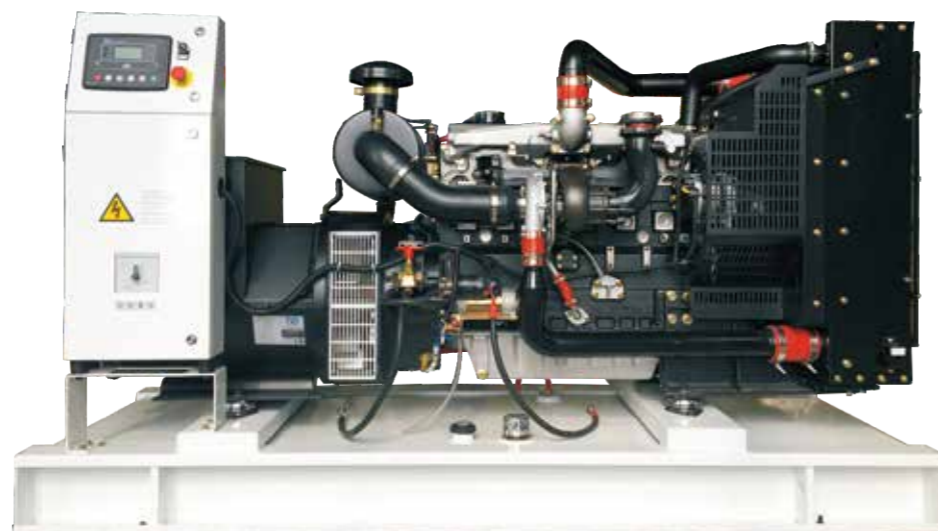


# LOVOL DIESEL GENERATOR SET

## 柴油发电机组

Lovol engine has the features of compact structure, low noise, low fuel consumption and high performance price ratio. It is the first choice of small power range gen-sets. They are widely used in areas such as telecommunication, railway, outdoor projects, mining, rescuing. Lovol 1003, 1004 and 1006 series engines are manufactured by Lovol Tianjin Engines Co.,Ltd.

雷沃系列发电机组选用雷沃动力发动机，其结构紧凑、噪音低、油耗低及性价比高，为小功率段发电机组的首选。机组广泛应用于通讯、铁路、户外工程、矿山、抗险等领域。雷沃动力1003、1004及1006系列柴油发动机由天津雷沃发动机有限公司生产。



机组型号 Genset Model	50HZ, COS Φ=0.8 400/230V, 3P, 4W		柴油机 Diesel Engine		发电机 Alternator	机组尺寸 Overall Dimension	毛重 Gross Weight
	主用功率 Prime Power (kW/kVA)	备用功率 Standby Power (kW/kVA)	型号 Model	额定功率 Rated Power (kW/kVA)	型号 Model	长×宽×高 L*W*H (mm)	千克 Kg
YDNL-22	22/27.5	24.2/30.25	1003G1A	26	PI144F	1900*800*1500	690
YDNL-25	25/31	27/34	1003G	28	PI144K	1900*800*1500	690
YDNL-30	30/37.5	33/41.25	1003TG1A	38	PI144K	2100*845*1600	730
YDNL-34	34/42.5	37.4/46.75	1003TG	40	PI144K	2200*845*1650	780
YDNL-50	50/62.5	55/68.75	1004TG1A	52	UCI224E	2250*845*1650	1000
YDNL-58	58/72.5	63.8/79.75	1004TG	65.7	UCI224G	2250*860*1650	1050
YDNL-70	70/87.5	77/96.25	1006TG1A	84.3	UCI274C	2250*860*1650	1150
YDNL-75	75/93.75	82.5/103	1006TG1A	84	UCI274D	2445*850*1650	1250
YDNL-80	80/100	88/110	1006TG2A	92.3	UCI274C	2445*850*1650	1250
YDNL-100	100/125	110/137.5	1006TAG1A	106	UCI274D	2545*850*1650	1370
YDNL-112	112/140	123/154	1006TAG	121	UCI274E	2545*850*1720	1420
YDNL-120	120/150	132/165	1106C-P6TAG2A	130	FLD120	2550*850*1725	1450
YDNL-128	128/160	140.8/176	1106C-P6TAG3A	141	UCI274F	2550*850*1730	1480
YDNL-140	140/175	154/192.5	1106C-P6TAG4A	158.4	UCI274G	2550*850*1735	1520

# Cummins DIESEL GENERATOR SET

## 柴油发电机组

Cummins diesel generator sets select Cummins B, C, L, N, K series engines, which are produced in accordance with Cummins global quality standards with advantages of wide power ranges, low emission and low fuel consumption. The global service network of Cummins can provide our customers with easy reliable services.

康明斯系列柴油发电机组是选用康明斯B、C、L、N、K系列发动机配套的柴油发电机组，该系列产品以康明斯全球统一的质量标准生产，具有功率覆盖广、排放低、消耗低等优点。康明斯公司全球服务网，为客户提供可以信赖的服务保障。

机组型号 Genset Model	50HZ, COS Φ=0.8, 400/230V 3P 4W		Diesel Engine		Alternator	
	Prime Power (kW/kVA)	Standby Power (kW/kVA)	Model	Rated Power (kW)	Model	Rated Power (kW)
YDNC-20	20/25	22/27.5	4B3.9-G1	24	FLD20	20
YDNC-24	24/30	26.4/33	4BT3.9-G1	36	FLD24	24
YDNC-30	30/40	33/41	4BT3.9-G1	36	FLD30	30
YDNC-40	40/50	44/55	4BTA3.9-G2	46	FLD40	40
YDNC-48	48/60	52.8/66	4BTA3.9-G2	50	FLD48	48
YDNC-50	50/62.5	55/68.75	4BTA3.9-G2	58	FLD50	50
YDNC-60	60/75	66/82.5	4BTA3.9-G2	67	FLD60	60
YDNC-70	70/87.5	77/96.25	4BTA3.9-G2	76	FLD70	70
YDNC-80	80/100	88/110	6BT5.9-G2	92	FLD80	80
YDNC-100	100/125	110/137.5	6BTA5.9-G2	106	FLD100	100
YDNC-110	110/137.5	121/151	6BTAA5.9-G2	120	FLD110	110
YDNC-120	120/150	132/165	6BTAA5.9-G2	140	FLD120	120
YDNC-144	144/180	158.4/198	6CTA8.3-G2	163	FLD144	144
YDNC-150	150/187.5	158.4/198	6CTA8.3-G2	163	FLD150	150
YDNC-160	160/200	176/220	6CTAA8.3-G2	183	FLD160	160
YDNC-200	200/250	220/275	6LTAA8.9-G2	220	FLD200	200
YDNC-240	240/300	264/330	MTAA11-G3	282	FLD240	240
YDNC-250	250/312.5	275/343.75	MTAA11-G3	282	FLD250	250
YDNC-280	280/350	308/385	NTA855-G2A	312	FLD280	280
YDNC-300	300/375	330/412.5	NTAA855-G7	343	FLD300	300
YDNC-320	320/400	352/440	QSNY-G3	358	FLD320	320
YDNC-360	360/450	396/495	KTA19-G3	403	FLD360	360
YDNC-400	400/500	440/550	KTA19-G3A	448	FLD400	400
YDNC-480	480/600	528/580	KTAA19-G5	504	FLD480	480
YDNC-500	500/625	550/687.5	KTAA19-G6	520	FLD500	500
YDNC-600	600/750	660/825	KTA38-G2	664	FLD600	600
YDNC-720	720/900	792/990	KTA38-G2A	813	FLD720	720
YDNC-800	800/1000	880/1100	KTA38-G5	880	FLD800	800
YDNC-900	900/1125	990/1237.5	KTA38-G9	1089	FLD900	900
YDNC-1000	1000/1250	1100/1375	KTA50-G3	1097	FLD1000	1000
YDNC-1200	1200/1500	1320/1650	KTA50-GS8	1287	FLD1200	1200

# GAS ENGINE CONTROL SYSTEM

## 燃气发动机控制系统

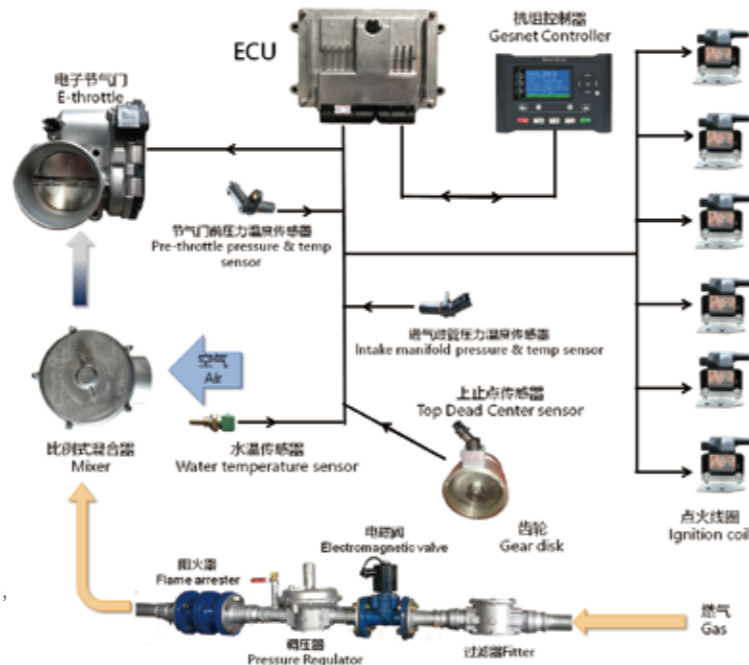
### System description 系统说明

The system integrates the functions of ignition control, gas control and speed regulation control of the engine. It can replace the traditional general ignition system, gas supply system and electronic speed control system. It avoids the cumbersome installation of the two systems and the defects that the two systems cannot work in coordination, so that the whole engine works more stably and has better performance.

系统集成成了发动机的点火控制、燃气控制和调速控制功能于一体，可以替代传统的通用点火系统、供气系统和电子调速系统，避免了安装两套系统的繁琐和两套系统不能协调工作的缺陷，使整个发动机工作更稳定，性能更优越。

### System features 系统特点

- ◆ Integrated control, the ignition, air supply and speed regulation of the engine are regulated uniformly, and the unit works stably and has excellent performance
- ◆ Independent ignition coil, high energy sequential ignition, intelligent adjustment of ignition angle according to speed and load
- ◆ IMPCO proportional mixer, stable performance
- ◆ Intelligent adjustment of gas pressure can realize lean combustion control of engine
- ◆ Full closed loop speed control
- ◆ The hand-held debugging instrument is convenient for debugging and maintenance
- ◆ It is suitable for supercharged and non supercharged engines
- ◆ High cost performance, reliable components and low maintenance cost
- ◆ Scope of application: Suitable for CNG, LPG, LNG and other fuels, and can be applied to 4-cylinder and 6-cylinder marine engines



- ◆ 集成式控制，将发动机的点火、供气和调速进行统一调节，机组工作稳定、性能优异
- ◆ 独立点火线圈，高能顺序点火，可根据转速和负荷进行点火角智能调节
- ◆ IMPCO比例式混合器，性能稳定
- ◆ 燃气压力智能调节，可实现发动机稀燃控制
- ◆ 全程闭环调速控制
- ◆ 手持式调试仪，方便调试和维护
- ◆ 适用于增压和非增压发动机
- ◆ 产品性价比高，部件性能可靠，维护费用低

适用范围

- ◆ 系统适应于CNG、LPG、LNG等多种燃料，可以应用于4缸、6缸船用发动机

# Genset Control System

## 机组控制系统

Automatic/manual control

自动/手动控制

- ★ Rs485 communication port enable remote control, remote measuring, remote communication via ModBus protocol.
- ★ Protective functions: under/over speed, starting failure, low oil pressure, high water temperature, high oil temperature, over current.
- ★ Genset parallel with Genset, single genset parallel in grid, multiple gensets parallel with grid.
- ★ Connect, monitor and control the generator via 4G wireless network.
- ★ Automatic Transfer switch can start the generator automatically when the main power fails and transfer the load from the main power to the generator automatically.
- ★ The synchronization cabinet / parallel cabinet has functions like automatic start-up of generator set, automatic synchronization, automatic parallel operation, automatic distribution of active power according to ratio, automatic increase / disconnection standby shutdown, generator fault display and protection.
- ★ 具有 RS485 通讯接口，利用 MODBUS 协议可以实现“三遥”功能；
- ★ 保护功能：低/超速、启动失败、低油压、高水温、高油温、过流保护
- ★ 机组与机组并联，单机并网模式，多机并网模式
- ★ 可通过4G无线网络将机组连接到因特网，实现机组的远程监控
- ★ 自动切换开关，可以在市电异常的情况下，自动启动机组并将负载自动切换至发电机组，由发电机组给负载供电。
- ★ 并网柜/并机柜具有自动启动发电机组、自动同期、自动并机、自动按比率分配有功功率、自动增机/解列待机停机及发电机故障显示、保护等多种功能。



synchronization cabinet  
parallel cabinet  
并网并网柜



Genset controller  
机组控制器



Cloud Monitoring Module  
云监控



ATS  
自动切换开关



# SOUND-PROOF SOLUTION

## 静音方案

Sound-proof canopy could be customizable according to exact requirements from customers. Advanced noise reduction technology and qualified sound absorbing material applied to make sure all your sound-proof standard could be successfully met.

静音箱可按照客户的每项具体要求进行定制。先进静音技术和优质吸音材料的应用，确保客户的全部静音标准完美实现。



- ★ 68dB(A)/7m could be done for super silent solution

超静音方案可实现7米处噪音低至68分贝

- ★ Integrated design of base frame, battery and muffler is convenient for delivery and installation

底座、蓄电池和消音器一体式设计，便捷运输和安装



# CHP SYSTEM

## 热电联产

Water obtains heat from needle tubing when it goes through the recovery devices of exhaust. This needle tubing fixed at the recovery device can conduct the heat. In such way, the temperature of water will reach 50–90°C, or water will be changed into saturated steam in certain pressure. Under normal circumstance, the heat of exhaust will take 32% of total heat. The thermal efficiency will be improved by 20–30% thanks to CHP system.

机组尾气通过尾气回收装置中的导热针管，把热量传导给流过余热回收设备中的水，从而实现水加热达到50–90°C或是一定压力下的饱和水蒸气，实现尾气利用。额定工况下排烟热量占燃气总热量的32%，利用烟气余热可以提高燃气热能利用率20–30%。

