



基本参数

Basic parameters

额定容量/功率	KVA/KW	88/70
Rated Capacity/Power		
备用容量/功率	KVA/KW	97/77
Standby Capacity/Power		
电压	V	400
Voltage		
性能等级		G2
Performance Level		

遵循标准

发电机组的设计、制造标准符合 ISO9001:2015，结合各行业多年使用经验，采用安全冗余的设计原则，并符合相关标准：

The design and manufacturing standards of generator sets comply with ISO9001:2015, combined with many years of experience in various industries, adopt the design principle of safety redundancy, and comply with relevant standards.

☞ GB/T 2820-2009 《往复式内燃机驱动的发电机组》

GB/T 2820-2009 Generator sets driven by reciprocating internal combustion engines

☞ YD/T 2888-2015 《通信用 10kV 高压发电机组》

YD/T 2888-2015 10kV high-voltage generator set for communication

☞ GB/T 20136-2006 《内燃机电站通用试验方法》

GB/T 20136-2006 General Test Methods for Combustion Engine Power Stations

☞ GB/T 12786-2006 《自动化柴油机组通用技术条件》

GB/T 12786-2006 General Technical Conditions for Automated Diesel Gensets

功率定义

基本功率 (Basic power)

符合 ISO 8528 和 ISO 3046 标准的基本功率 (PRP)，按振邦维修间隔和方法实施维护保养，在不受限制的时间内以可变负载连续运行的最大功率，在任何 12 小时内均有 1 小时 10% 的过载，24 小时周期内平均负载率 < 70%。除非往复式内燃机制造商另有规定。

Basic Power Rating (PRP) in accordance with ISO 8528 and ISO 3046, with maintenance performed by ZHENBANG service intervals and methods, maximum power for continuous operation at variable loads for an unrestricted period of time, with a 10% overload for 1 hour in any 12-hour period, and an average load factor of < 70% over a 24-hour cycle. Unless otherwise specified by the reciprocating internal combustion engine manufacturer.

备用功率 (Standby Power)

符合 ISO 3046 标准的应急备用功率 (ESP)。按振邦维修间隔和方法实施维护保养，当公共电网出现故障或在试验条件下，发动机每年运行达 200h 的某一可变功率系列的最大功率。该额定值没有过载能力，在 24h 的运行周期内允许的平均输出功率应不大于备用功率的 70%。除非往复式内燃机制造商另有规定。

Emergency Standby Power (ESP) in accordance with ISO 3046. The maximum power of a certain variable power series for which the engine is operated up to 200h per year when there is a fault in the public power grid or under test conditions when the maintenance is carried out according to the ZHENBANG maintenance intervals and methods. This rating has no overload capacity and the permissible average output power during a 24h operating cycle shall be not more than 70% of the standby power. Unless otherwise specified by the manufacturer of the reciprocating internal combustion engine.

机组工作环境

标准机组使用环境要求：环境温度 -20℃ -- +50℃，相对湿度 < 98%，海拔高度 < 2000m。

如使用环境超出以上要求时，请和工厂联系并咨询。

Standard genset use environment requirements:
environment temperature -20 °C - +50 °C,
relative humidity < 98%, altitude < 2000m.

If the use of the environment beyond the above requirements
contact with the factory and consult.

机组结构

柴油机、发电机及散热器整体安装在公共的高强度钢底座上，机组采用一体式结构，并带电池补偿充电器。

The diesel engine, alternator and radiator are installed as a whole on a common high-strength steel base frame, and the genset adopts a one-piece s with a battery charger.

技术参数 (Technical parameters)

机组参数 (Unit parameters)

机组型号	ZBYC97GF	110%燃油消耗量	214.0g/kW·h
Genset Model		110% fuel consumption rate	
机组额定功率/备用功率		100%燃油消耗量	211.0g/kW·h
Rated power/standby power	70/77KW 88/97KVA	100% fuel consumption rate	
额定电压	400 V	75%燃油消耗量	208.0g/kW·h
rated voltage		75% fuel consumption rate	
额定电流	126A	50%燃油消耗量	215.0g/kW·h
rated current		50% fuel consumption rate	
电制	三相四线制	机油耗油率	≤0.1%
Electric	three-phase four-wire system	Oil consumption rate	
额定转速	1500 rpm	起动方式	直流电起动
rated speed		Starting mode	Direct current start
稳态电压偏差	≤±0.5 %	启动电池电压	24 V
Steady state voltage deviation		Starting battery voltage	
电压不平衡度	1 %	自起动时间	4~30 s
Voltage unbalance		Start time	
频率降	≤2 %	功率因数	0.8 (滞后)
frequency drop		Power factor	
稳态频率带	≤0.5 %	噪声限值	≤105 dB(A)
Steady-state frequency band		Noise limits	
瞬态电压偏差	突减负载 ≤+20 % 突加负载 ≤-15 %	电压回复时间	突减负载 ≤4 s 突加负载 ≤4 s
Transient voltage deviations		Voltage recovery time	
瞬态频率偏差	突减负载 ≤+10 % 突加负载 ≤-7 %	频率恢复时间	突减负载 ≤3 s 突加负载 ≤3 s
Transient frequency deviations		Frequency recovery time	
进风量	206m³/min	排风量	457m³/min
Air intake		Air outlet	
排气温度限值 (涡后)	550℃	散热器	铜片式散热器
Exhaust temperature limit (after vortex)		radiator	50℃ Copper plate radiator
总机油容量	15L	防冻液总容量	13L
Total oil capacity		Coolant capacity	

发动机 (Engine)

发动机型号	YC4A110Z-D20
model	
原产地及品牌	广西 玉柴
Origin and brand	GUANGXI YUCHAI
额定功率/备用功率	77/85KW
Rated power/standby power	
冷却方式	闭式水冷
Cooling type	Closed water cooling
进气型式	增压中冷
Air intake	Pressurized intercooled
汽缸数量及排列方式	直列 4 缸
Cylinders number and arrangement	4-cylinder in-line
缸径/行程	108mm/132mm
Bore/stroke	
总排量	4.84L
Displacement	
压缩比	17.5:1
Compression ratio	
燃油系统	直喷
Fuel system	Direct injection
涡轮后排气温度-常用满载	
Exhaust temperature after turbocharging	≤550 °C
润滑方式	压力和飞溅润滑
Lubrication method	Pressure and splash lubrication
油底壳容量	15L
Oil pan capacity	
调速方式	电子调速
Speed regulation method	Electronic Governor
排烟口规格	DN250
Exhaust specifications	
排气背压限值	10kPa
Exhaust back pressure limit	
标准电压	24V
Standard voltage	

发电机 (Alternator)

发电机型号	AMEE-IE2-A
model	
原产地及品牌	上海 拉法特
Origin and brand	SHANGHAI LAFERT
额定功率	70KW
Rated power	
电压调节	自动电压调节
Voltage regulation	Automatic regulation
额定电压	400V
Rated voltage	
额定频率	50 Hz
Rated frequency	
承受过载能力	110% 1h
Overload capacity	
承受过流能力	120% 2min
Overcurrent capacity	
绕组温升	F 级
Winding temperature rise	
绝缘等级	H 级
Insulation class	
持续短路时间	
Continuous short circuit time	3In 2s
满载效率 (PF=0.8)	
Full load efficiency (PF=0.8)	95.6%
励磁方式	无刷自励
Excitation mode	Brushless self-exciting
防护等级	IP23
protection class	
超速能力	1800 r/min
Overspeed ability	
轴承数量	1
bearing Number	
定子绕组节距	2/3 pitch
Stator Winding	

控制系统基本功能 (Basic functions of the control system) ZIMBON7800

全面的发电机组控制器，适用于在待机或并联模式下运行的单发电机组和多发电机组

Comprehensive genset controller for single and multiple gensets operating in standby or parallel mode

☞ 可与便于拆卸的彩色显示器 IntelliVision5 或 IntelliVision 8 配合使用

Can be used with IntelliVision5 or IntelliVision 8, color monitors that are easy to remove

☞ 支持带ECU 单元的发动机 (ECU-电子控制单元)

Support engines with ECU units (ECU-electronic control unit)

☞ 通过 CAN 总线完成集成的发电机组解决方案和信号共享 - 所需的外部组件最少

Integrated genset solution and signal sharing via CAN bus - minimal external components required

☞ 单台或多台发电机组与主电源 (市电) 进行并联，具有自动备份功能，支持多岛操作多种通信型式，轻松的远程监控和服务。

Single or multiple generator sets are carried out with the main power supply (mains). Parallel, with automatic backup function, support multi-island operation.

- 多种通信型式 - 轻松的远程监控和服务
- Support multiple communication types-easy remote monitoring and service
- 通过 CAN 通讯实现有功和无功功率分配
- Active and reactive power distribution through CAN communication
- 通过 CAN 通讯提供虚拟共享输入和输出支持广泛的应用
- Provides virtual shared inputs and outputs via CAN communication to support a wide range of applications



智能终端

- ☆ 可联网的全功能机组智能终端
- ☆ 32位ARM双核处理器
- ☆ 支持中文/英文菜单显示
- ☆ 大尺寸彩色液晶显示屏
- ☆ ABS阻燃外壳
- ☆ H9强度亚克力防护
- ☆ 轻触感硅胶按键
- ☆ 防护等级：IP56

振邦动力服务系统——智能终端

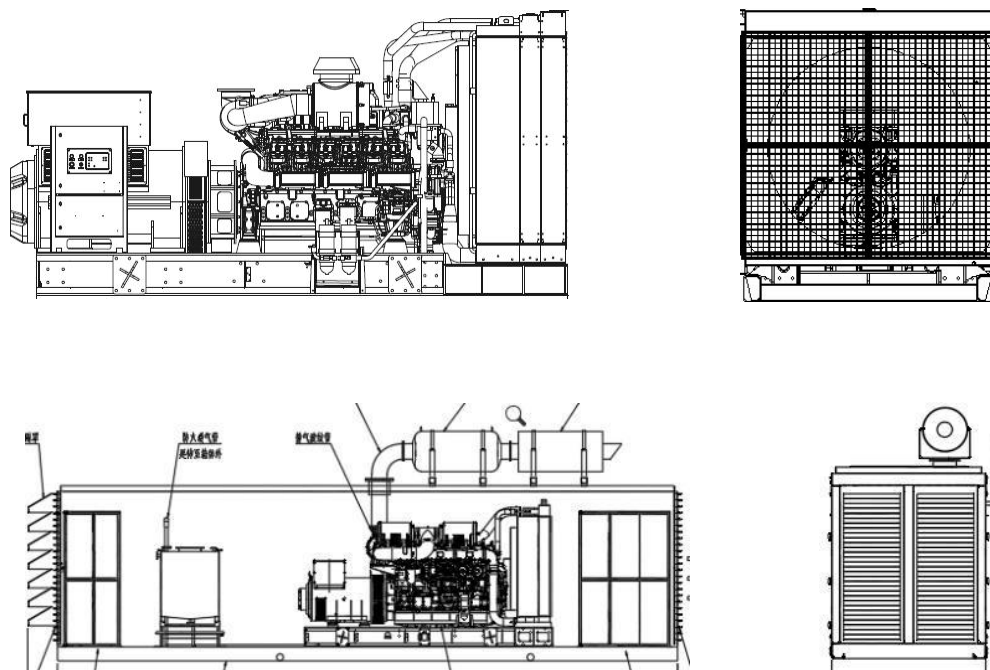


高端装备 卓越品质
为机组提供全面保护

机组标准出厂配置 (Standard factory configuration of the unit)

水冷柴油机 Diesel engine	水箱散热器 Radiator	交流发电机 Alternator
控制器 Controller	电子调速器 Electronic governor	底座及减震器 Base frame and shock absorber
工业型消音器 Muffler	金属波纹管 Bellows	塑料薄膜包装 Plastic film packaging
油水分离过滤器 Fuel water separator filter	ZIMBON7800 控制器 ZIMBON7800 control panel	油箱 Fuel tank
用户手册、技术资料 user manual、technological data	标准空气滤芯、柴油滤芯、机油滤芯 Standard air filter, diesel filter, oil filter	

机组外形尺寸及重量 (Dimensions and weight)



机组类型 Genset type	长×宽×高 (mm) L×W×H (mm)	静载荷 (kg) Static load	动载荷 (kg) Dynamic load
开式机组 open type	2350×1025×1500	1425	2850
静音箱机组 Silent type	2800×1150×1580	1835	1835