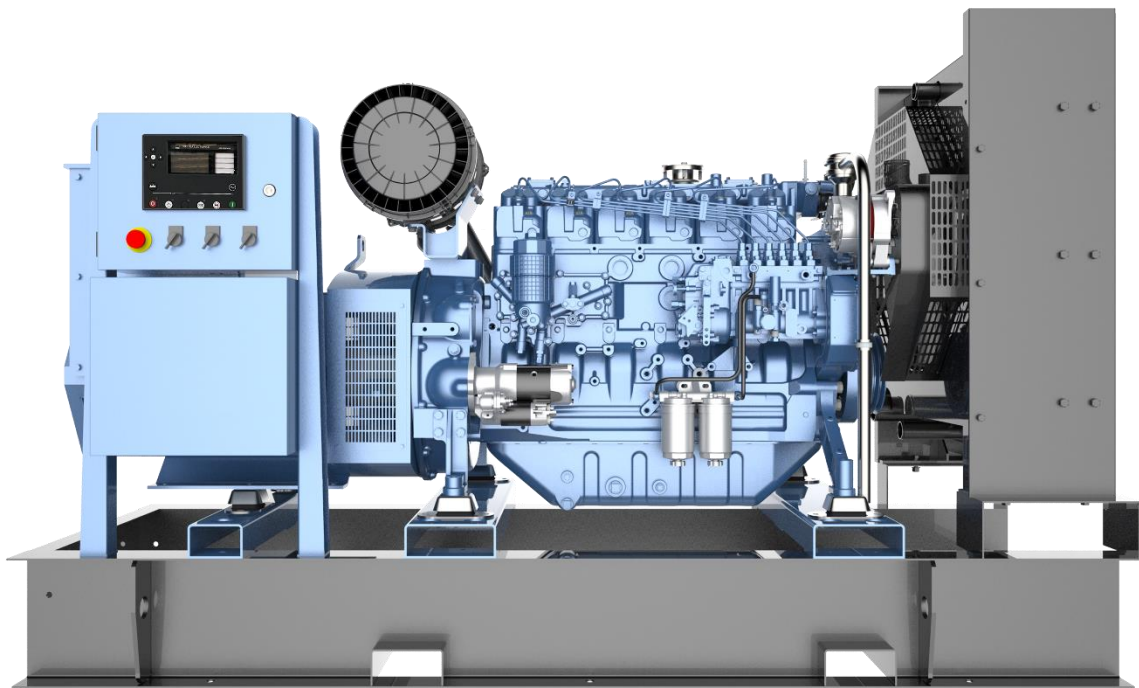


潍柴电力原装机组数据单



陆用机组-WPG550*83

发电机组技术规格

机组型号	WPG550*83
备用容量/功率 kVA/kWe	550/440
常用容量/功率 kVA/kWe	500/400
额定电压 V	400/230
频率 Hz	50
功率因素	0.8(滞后)
相数	3
燃油消耗率@25% / 50% / 75%(L/h)	27.8/51/75.3
燃油消耗率@100% / 110% (L/h)	109.5/123.1
噪声@1m (dB(A))	开式≤105；闭式≤85
环境温度 (℃)	-10~45
发电机组性能等级	ISO 8528-5 G2
稳态电压偏差	≤±2.5%
瞬态电压偏差 (100%突减/突加功率)	≤+25% ; ≤-20%
稳态频率带	≤1.5%
瞬态频率偏差 (100%突减/突加功率)	≤+12% ; ≤-10%

机组标配

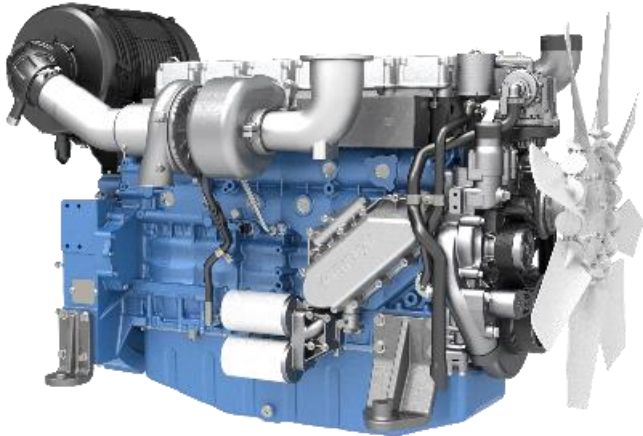
◆ 电控	◆DC24 电启动	◆ 潍柴 WHC6120CAN
◆ 闭式水冷	◆ IP23	◆ 绝缘等级 H 级
◆ 空滤器	◆消音器	◆ 断路器
◆ 起动蓄电池+连接线	◆散热器	◆ 减震器
◆ 机油放油堵/阀	◆叉车孔	◆ 资料
◆ 颜色	开式潍柴蓝 (F) / 静音米黄+黑灰底 (L)	
◆ 包装	缠绕膜	

机组选配

◇线电压 380V/415V	◇线电压 440V/480V	◇高压 6.3kV/10.5kV /13.8kV
◇单相电压 220V/230V	◇自切换功能(ATS)	◇自并联功能
◇水加热	◇进气加热	◇发电机防冷凝
◇外置油箱 (1000L/1500L)	◇PMG	

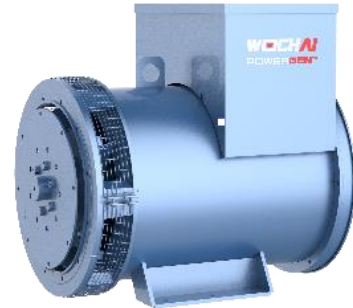
发动机

- 潍柴 WP13 系列, 6 缸, 4 冲程, 闭式水冷
- 进排气系统
 - 干式空滤配阻力指示器
 - 中冷器
 - 增压器
 - 消音器
- 高压共轨燃油系统
- 机油滤清器
- 散热器
- DC24V 电启动
- 充电发电机



发电机

- 无刷自励, 满足 IEC 60034-1
- 长效密封轴承
- 高效率
- 钢制外壳
- 单轴承结构
- 防护等级 IP23
- 绝缘等级 H
- 自动电压调节器



控制模块

潍柴 WHC6120CAN 市电失效自启动控制模块

- LCD 背光显示屏
- 发电机和市电 3 相电压检测
- 检测转速、频率、电压、电流、油压、水温 and 燃油油位
- 显示发电机组停机和报警的原因
- 发动机运行小时数提供准确监控和保养信息



发动机技术规格

发动机品牌	潍柴
发动机型号	WP13D490E310
额定转速 r/min	1500
常用功率 kW	450
冷却方式	风扇闭式水冷
调速方式	电控 ECU
进气方式	增压中冷
形式	6 缸、直列
缸径 x 行程 (mm)	127x165
排量 (L)	12.54
起动系统	24VDC
冷却液总容量(L)	69.2
润滑油容量 (L)	36
冷却系统空气流量 (m³/min)	580
排气温度 (°C)	≤550
燃烧空气流量 @ PRP (m³/min)	29.8
排气背压 (mBar)	≤75
散热器的设计温度 (°C)	45

发电机技术规格

发电机品牌	潍柴牌
发电机型号	WHA-500-4/0.4
励磁系统	无刷自励
防护等级	IP23
电压调整范围	≤±1%
绝缘等级	H
绕组节距	2/3
支撑方式	单轴承

备注

基本功率 (PRP)

在商定的运行条件下并按制造商规定的维修间隔和方法实施维护保养, 发电机组能每年运行时间不受限制地为可变负载持续供电的最大功率。

在 24h 周期内的允许平均输出功率应不大于 PRP 的 70%, 除非往复式内燃机制造商另有规定。

应急备用功率 (ESP)

在商定的运行条件下并按制造商规定的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, 发电机组每年运行达 200h 的某一可变功率系列中的最大功率。

在 24h 周期内允许的平均输出功率应不大于 ESP 的 70%, 除非往复式内燃机制造商另有规定。

标准条件

标准条件		
操作环境: 环境温度为 5℃~℃40℃, 海拔低于 1000 米, 相对湿度低于 90%(25° F), 无灰尘, 沙尘, 盐雾, 霉菌, 冷凝环境, 等等 如果操作环境超过上述要求, 请联系工厂并咨询。		
交流发电机的环境适应性保护措施		
环境类型	环境描述	Measures of protection
一般环境温度	空气干净干燥, 湿度≤90%, 与海岸线的距离为≥30 公里; 非工业环境(化学飞溅物, 酸碱蒸汽, 腐蚀性环境等)	标准配置
环境潮湿	湿度超过 90%或出现冷凝	防冷凝加热
环境盐雾	盐雾环境, 在海边(距离海岸线< 30 公里)或岛屿环境中产生	防冷凝加热; 在缠绕面上喷涂三层油漆; 喷涂部件和结构的环氧树脂保护。
环境沙尘	采矿, 建筑施工, 沙漠戈壁或沙尘暴发生的环境	将交流发电机的保护级别提高到 IP44; 安装过滤器。
如果您需要使用超出标准的保护措施, 请联系工厂并咨询。		
特殊工作条件		

如果发电机的工作条件符合以下条件，请联系工厂并咨询。

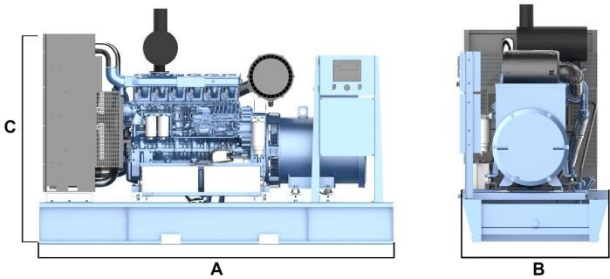
- 多机并行操作
- 并网操作
- 作为主电源进行持续运行
- 负载包括高功率电动机类型的负载
- 电容负载、开关电源负载
- 特殊环境，如高温，低温和高原

机组尺寸

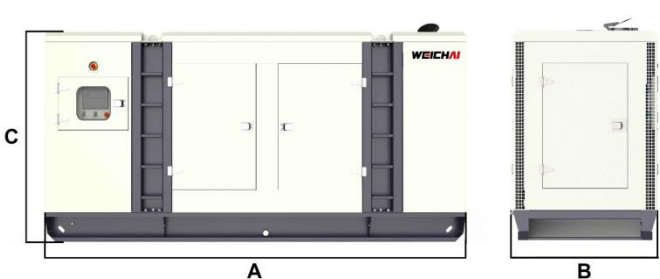
型号	额定功率 (kVA)	长 A(mm)	宽 B(mm)	高 C(mm)	湿重* (kg)	燃油箱容 量 (L)
WPG550/B83	500	3200	1345	1885	3220	/
WPG550/F83	500	3200	1345	2025	3360	450
WPG550/L83	500	5050	1550	2150	4050	450

*: 含机油、防冻液

开式



静音



设备明细

- 进气系统：空气滤清器；
- 冷却系统：闭环冷却散热器；
- 排烟系统：膨胀管，消音器；
- 燃油系统：进油口回油连接器，燃油滤清器；
- 润滑系统：油底壳，油过滤器；
- 减振系统：橡胶减振器；
- 电气系统：控制屏幕和开关柜；
- 静音系统：静音箱/集装箱(静音装置配置)
- 注 1：静音发电机组(L 系列)可在地面安装后直接使用，无需单独的安装附件，开放式发电机组需要适当的安装附件来安装排烟系统等
- 注 2：工厂不为设备本身提供现场安装附件，如排气直通管，弯管，散热器护罩等。买方需要提前考虑安装附件和安装项目；

WEICHAI GEN-SETS DATASHEET



Land Based Genset-WPG550*83

Gen-set specifications

Model	WPG550*8
Standby Rating kVA/kWe	550/440
Prime Rating kVA/kWe	500/400
Voltage V	400/230
Frequency Hz	50
Power Factor	0.8(lagging)
No. of Phases	3
Fuel consumption@25% / 50% / 75%(L/h)	27.8 / 51 / 75.3
Fuel consumption@100% / 110% (L/h)	109.5 / 123.1
Sound@1m (dB • (A))	Open≤105; Silence ≤85
Ambient temp (°C)	-10~45
Gen-set regulation class	ISO8528-5 G2
Steady-state voltage deviation	≤±2.5%
Transient voltage deviation (100% sudden power decrease/increase)	≤+25%; ≤-20%
Steady-state frequency band	≤1.5%
Transient frequency deviation from rated frequency (100% sudden power decrease/increase)	≤+12%; ≤-10%

Standard Features

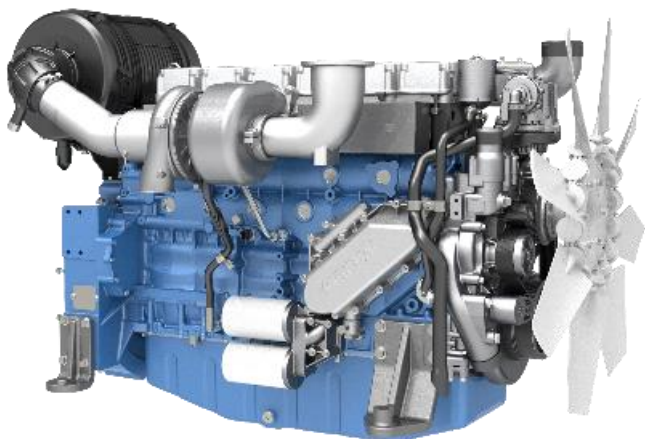
◆ ECU	◆DC24 Electric starter	◆WEIHCAI WHC6120NC
◆ Closed water-cooled	◆ IP23	◆H type insulation
◆ Air filter	◆ Muffler	◆ Circuit Breaker
◆Starting batteries	◆ with connective wires	◆ Radiator
◆Oil Drain Valve	◆Forklift Groove	◆Shock Absorber
◆ Color	Weichai blue (B, F)/beige canopy and black chassis (L)	
◆ Packaging	Wound film packing	

Options

◇Voltage380V/415V	◇Voltage 440V/480V	◇Single Voltage 220V/230V
◇Automatic Transfer Switch	◇Automatic Parallel system	◇PMG
◇Engine Heater (water)	◇Engine Heater (air inlet)	◇Alternator heater
◇External fuel tank (1000L/1500L)		

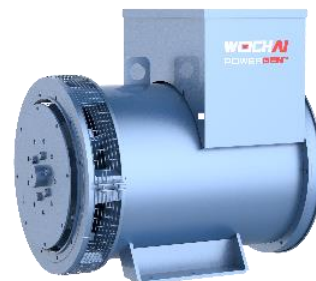
Engine

- Weichai **WP13** series, 6 cylinder, in-line 4 stroke, radiator cooled engine
- Well-designed air handling system with
 - Dry type, Replaceable paper element air cleaner with restriction indicator
 - Air to air after cooling
 - Optimized turbocharger for increased altitude capabilities
 - High efficiency, large heat area intercooler, reduce the air temperature after the intercooler
- High pressure common rail fuel system
- Radiator
- First fill of lube oil and coolant
- Electrical starter motor with soft start engagement feature
- Intelligent fuel injection technology to start fast guarantee
- Battery charging alternator



Alternator

- Brushless type, Screen protected, Revolving field, Self excited alternator conforming to IEC 60034-1
- Best in class efficiency
- Steel casing
- Compact design with sealed bearings for longer life and lesser maintenance
- IP23 standard protection level
- Impregnation on all wound components for better mechanical strength



Control Module Specifications

The WEICHAI WHC6120CAN is an Auto Mains Failure Control Module

- Back-lit LCD display
- 3 Phase generator and 3 Phase Mains monitoring
- Monitoring speed, frequency, voltage, current, oil pressure, coolant temperature and fuel level
- Display warning, shutdown and engine status information
- Hours counter provides accurate information for monitoring and maintenance



Engine specifications	
Make	WEICHAI
Mode	WP13D490E310
Rated Speed r/min	1500
Prime Power kW	450
Cooling	Liquid cooled
Governor	ECU
Aspiration	TCI
No. of cylinders	6,in-line
Bore (mm) x Stroke (mm)	127x165
Displacement (L)	12.54
Starting system	24VDC Electrical
Total coolant capacity (L)	69.2
Total lubrication system capacity (L)	36
Cooling fan airflow (m³/min)	580
Exhaust Temperature (°C)	≤550
Recommended air flow @ PRP (m³/min)	29.8
Exhaust back pressure (mBar)	≤75
Radiator design temperature (°C)	45

Alternator specifications	
Make	WEICHAI
Alternator Frame	WHA-500-4/0.4
Exciter Type	Self-excitation
Enclosure	IP23
Voltage regulation	≤±1%
Class of Insulation	H
Winding Pitch	2/3
Rotor	Single bearing

Remarks**Prime power(PRP)**

Prime power is defined as being the maximum power which a generating set is capable of delivering continuously while supplying a available electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufactures.

The permissible average power output, over 24h of operation shall not exceed 70% of the PRP unless otherwise agreed by the RIC engine manufacturer.

Emergency standby power(ESP)

Emergency standby power is defined as the maximum power available during a available electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200h of operation per year with the with the maintenance intervals and procedures being carried out as prescribed by the manufactures.

The permissible average power output, over 24h of operation shall not exceed 70% of the ESP unless otherwise agreed by the RIC engine manufacturer.

Standard Conditions

STANDARD CONDITIONS		
Standard operating environment: ambient temperature is 5℃~40℃,the altitude is less than 1000m,the relative humidity is less than 90%(25℃),and there is no dust, sand dust, salt fog, mold, condensation environment, etc. If the operating environment exceeds the above requirements, please contact the factory and consult.		
Ambient adaptability protection measures for alternators		
Ambient type	Ambient description	Measures of protection
General Ambient	The air is clean and dry, the humidity is ≤90%, and the distance from the coastline is ≥ 30km; Non-industrial ambient (chemical splash, acid-base steam, corrosive environment, etc.)	standard configuration
Humid Ambient	The humidity above 90% or condensation occurs	Anti-condensation heating
Salt spray Ambient	Salt fog crystals are produced in seaside (< 30km from the coastline) or island Ambient	Anti-condensation heating; Spray three-proof paint on winding surface; Spraying epoxy protection for parts and structures.
Dust Ambient	The ambient where mining, building construction, desert Gobi or sandstorm occur	Improve the protection level of the alternator to IP44; Install filters.

If you need to use protective measures beyond the standard, please contact the factory and consult.

Special working condition

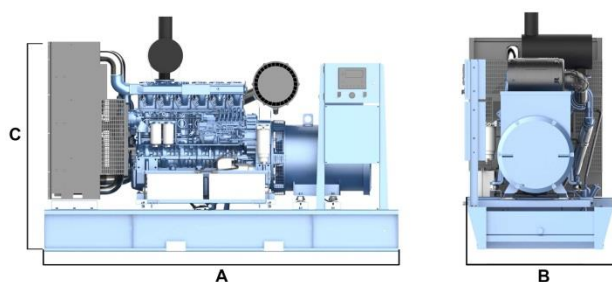
If the operating conditions of the generator meet the following conditions, please contact the factory and consult.

- Multistage parallel operation
- Grid-connected operation
- As the main power supply, it runs continuously for a long time
- The load includes a high power motor type load
- Capacitive load
- Special ambient such as high temperature, cold and plateau

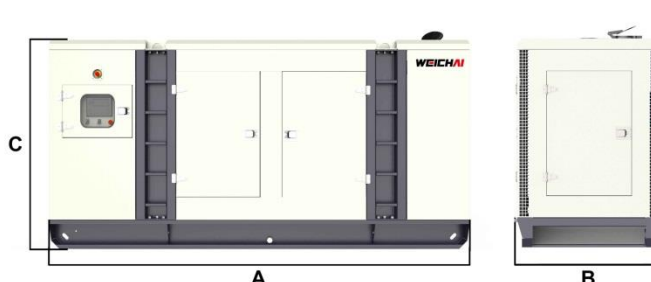
Genset Model	Prime Rating (kVA)	Length A(mm)	Width B(mm)	Height C(mm)	Wet Weight* (kg)	Standard Fuel tank Capacity (L)
WPG550/B83	500	3200	1345	1885	3220	/
WPG550/F83	500	3200	1345	2025	3360	450
WPG550/L83	500	5050	1550	2150	4050	450

*:Include coolant and oil.

Open genset



Silence genset



Availability Details

- Air intake system: Air filter;
- Cooling system: Closed-loop cooling radiator;
- Fume extraction system: Expansion pipe, muffler;
- Fuel system: Inlet return port connector, fuel filter;
- Lubrication system: Oil pan, oil filter;
- Vibration damping system: Rubber shock absorber;
- Electrical system: Control screen and switch cabinet;
- Silent System: Silencing box/container (silent unit configuration)

Note 1: Silent generator sets (L Series) can be used directly after installation on the ground, without the need for separate installation accessories, and open generator sets require appropriate installation accessories to install fume extraction systems, etc.

Note 2: The factory does not provide on-site installation accessories such as exhaust straight pipe, elbow, radiator shroud, etc. to the unit itself. The buyer needs to consider the installation of the accessories and the installation project in advance;