# 120kw Natural gas Generator Set Powered by Weichai Baudouin engine

We provides a full line of brand new and high quality products. Each unit is strictly factory tested.

2. Main Specifications						
Model	HTG-120GF	Rated current	216A			
Rated power	120kW/150kVA	Power factor	0.8			
Standby power	132kW/165kVA	Controller	Auto PLC controller			
Rated voltage	400V/230V	Speed Governor	Electric control			
Rated frequency	50Hz	Fuel	Natural Gas			
Rated speed	1500 rpm	Gas Consumption	0.3m³/kW⋅h			

- \* Sea-Level<1000m, Temp<40 $^{\circ}$ C.
- \* Prime Power (PRP): Prime power is available for an unlimited number of annual hours in variable load application, in accordance with GB/T2820-97 (eqv ISO8528); A 10% overload capability is available for a period of 1 hour within a 12-hour period of operation.
- \* Standby Power Rating (ESP): The standby power rating is applicable for supplying emergency power for the duration of a utility power interruption. No overload, utility parallel or negotiated outage operation capability is available at this rating.
- \* Rated Voltage: generally the rated power includes 380/220V, 400/230V, 415/240V, 440/254V, we make it according to client's requirements.

# 3. Photos And Supply Scope Open type Silent Type

# **Generator Supply Scope:**

- 1) High Performance Gas Engine.
- 2) Brushless Alternator With AVR.
- 3) Digital Control Cabinet.
- 4) Weather-proof Cabinet, Steel Base Frame With Shock Absorber.
- 5) High performance Gas Pressure Regulator Made In Italy.
- 6) Advanced Ignition System.
- 7) IMPCO Air-Fuel Mixer Made In USA.

- 8) Stable Electronic Speed Governor.
- 9) High Performance Flame Arrester.
- 10) Safely Explosion-proof System.
- 11) MCCB, Radiator Fan, Muffler, Air Filter.
- 12) 2\*12V Non-Maintenance Start Batteries.
- 13) Installation Accessories, Tool Kit & Manual Books.

# 4. Engine Technical Parameters

Engine Model Weichai Baudouin engine/WP6D132E300NG

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Engine Type	Four Stroke, Water Co	Four Stroke, Water Cooling, Spare Ignition, 24V DC Starting		
Gas Train	Pressure Regulator Va	Pressure Regulator Valve, Gas Filter and Flame Arrestor etc.		
Cylinder No.	6 in line			
Bore ×Stroke	105×130mm			
Displacement	6.75L	6.75L		
Start Method	Electric			
Compression Ratio	11:1			
Crankshaft Rotation Direction	Inverse Hour (From Fly	Inverse Hour (From Flywheel)		
Cooling Method	Closed Water Cooling			
Aspiration Type	Turbo charged and air	Turbo charged and air-cooling		
Speed Governor	Electronic	Electronic		
Gas Mixer Formation	Pre-Mix			
Rated Fuel Consumption rate (m³/Kw·h)	≤0.3	≤0.3		
	100% Loads	36m3/h		
Fuel Consumption	75% Loads	28m3/h		
	50% Loads	20m3/h		
Lubricating oil Temperature	<80℃			
Lubricating oil Pressure	345-483 Kpa	345-483 Kpa		
Max -exhaust Temperature	ıst Temperature 600°C±25			

5. Alternator Techn	ical Parameters				
Alternator Model	Faraday/FD3ES		Insulation class	Class H	
Rated Power	120kW/150kVA		Connection	3-pahse, 4-w	/ire
Standby power	132kW/165kVA		Cooling	Air cooled	
Power factor	0.8		Protection Class	IP23	
Excitation Type	Brushless		Voltage Regulation Mode	AVR (Autom	atic)
6. Electrical perforn	nance				
Voltage setting range:		≥±5%	Steady - state frequency regulat	Steady - state frequency regulation	
Steady-state voltage regulation:		≤±1%	Frequency fluctuation rate	Frequency fluctuation rate	
Transient voltage deviation (	100% Sudden power reduction)	≤+25%	Transient frequency deviation (100% Sudden power reduction)		≤+12%
Transient voltage deviat	ion (Sudden power plus)	≤-20%	Transient frequency deviation(Sudden power plus)		≤-10%
Voltage stabilization t reduction)	ime (100%Sudden power	≤6S	Frequency recovery time (100 reduction)		
Voltage stabilization tim	stabilization time (Sudden power plus) ≤6S Frequency recovery time(Sudden power plus)		n power plus)	≤5S	

### 7. Control Panel



### **AGC 150**

AGC 150 is a controller containing all necessary functions for protection and control of a genset, a mains breaker, and a bus tie breaker. It can be used as a single controller for one genset, or a number of controllers can be connected in a complete power

management system for synchronising projects, island applications or running parallel to mains.

AGC 150 is an economical solution for genset builders, who need a flexible generator protection and controller for small to large genset applications.

AGC 150 contains all necessary 3-phase measuring circuits, and all values and alarms are presented on the sunlight readable LCD display screen.

### Easy setup

Gensets connected via CAN bus are easily set up for parallel operation as the controllers automatically detect each other at the CAN network. If you at a later stage connect more gensets, the controller automatically identifies and connects them via CAN bus, and application configuration is possible via the display.

# Easy and safe to use

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Get access to important genset information quickly via the sunlight readable LCD.

The controller features illuminated buttons that smoothly guide the operator and make it very easy and intuitive to operate. Only buttons relevant for a function are visible to the user. Get easy access to the most common functions with configurable shortcuts

The AGC 150 provides up to three levels (customer, service, and master) of password-protected and role-based access. Configure parameters for each level and have only relevant parameters displayed.

### Built to last - also in green energy applications

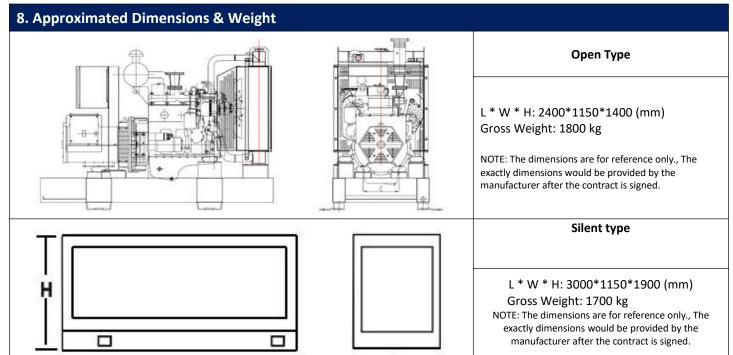
The AGC 150 comes with uncompromising quality. The controller is made of robust materials and is built to last. It has undergone several tests showing that it stands wear and tear in all types of harsh environments. Also, the controller is suitable for PV-Diesel hybrid solutions and also meets Tier 4 Final requirements

### **Genset controller features**

- ✓ -40 degree support
- ✓ Adapting controls (Controllers show only relevant buttons)
- ✓ Additional I/O modules support (CANbus based CIO)
- ✓ Analog Inputs / Analog Outputs
- ✓ Analog inputs support resistance, current and voltage
- ✓ Analogue loadshare
- ✓ AOP 2 support
- ✓ Automatic Mains Failure sequence
- ✓ CAN telegrams between controllers
- ✓ Changable operation mode (multiple modes in one software)

- ✓ DEIF PMS ecosystem compatible with AGC-4, AGC-4 Mk II, AGC 150, AGC 200, ASC-4
- ✓ Digital & analog governor support (Isochronous and droop)
- ✓ Emission control with force regeneration and SOOT alarm
- ✓ Emulation for easy training and FAT
- ✓ Engine CANbus
- ✓ Engine derate functionality
- ✓ Ethernet
- ✓ Changeable controller type
- ✓ Close Before Excitation / Run-up synchronization from 6 seconds
- ✓ DEIF digital AVR DVC550 support
- Tier4 final/stage5
- ✓ UL approved

- ✓ Front mount
- ✓ Fuel pump logic (after filler)
- ✓ Hybrid EMS support (via ASC-4)
- ✓ Inputs/ Outputs
- ✓ Inverse time over-current (ANSI 51) False
- ✓ Load add/ shedding support
- ✓ Load control and Heavy consumer support (via ALC-4)
- ✓ Multi purpose PID's
- ✓ Multi-master Power Management
- ✓ PLC logic
- ✓ RS485
- ✓ Synchronization



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# 9. Advantage

- 1) Low operating and maintenance costs
- 2) Longer machine life: Special design engine has longer life with overhaul time 20000hours.
- 3) Easy operation: The Gas Power Generator is easy to operate.
- 4) The Gas Power Generator use most advanced lean burn technical for high efficiency
- 5) Main parts like ECU, Gas Mixer, Pressure Regulator, etc are origin made in USA& Italy.

# 10. Gas Required

- 1) Gas Pressure range 0.8-30kpa; Ambient temperature: <40°c; Sea level: < 1000m; Humidity ratio: <60%.
- 2) More than 80% CH4 Content, No H<sub>2</sub>O, H<sub>2</sub>S<50ppm, NH3<40ppm, Dust<5μm.
- 3) Lubricating oil: 15w/40CD/F suggested.

11. Optional Equipment						
Item	Picture	Explain	Unit-price			
Soundproof Canopy		Scientific and efficient soundproof design can effectively reduce the noise of the generator to 70-75 dB. The use of fire-proof silencer sponge to ensure the safety of generating units.	*			

# 12. Genset Warranty

15 months or 1500 running hours from shipment date, subject to the earlier. If the quality problem arise during the warranty period, and verified that the problem is caused by our genset-body instead of external or natural reasons (Refer to all kinds of natural disaster, shipping, loading, unloading, wrong-operation, etc), we will supply the relevant spare parts free of charge for maintenance; after the warranty period, we can supply the required spare parts for you under cost price.

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