

## Diesel generating set

## AG-400W/S

380V/60Hz Main power/WeiChai WP13D448E201





ISO14001:2015

ISO9001:2015

OHSAS 18001:2007

#### Product features

#### **Operative norm:**

- ISO 8528:AC generator set driven by reciprocating internal combustion engine
- IEC 60034-1:Basic technical requirements for rotating motors
- YD/T 502: Communication diesel generator set
- GB/T 20136-2006 General test method for internal combustion engine power stations

#### Merit:

- 1. Integrated building block structure design, small volume, compact structure, sophisticated technology;
- 2. Few parts, light weight, low failure rate and low maintenance cost;
- 3. Supercharging and supercharging intercooling technology as the leading products, strong power;
- 4. High-performance damping system and rigid base, small vibration;
- 5. Efficient fuel supply system and air intake system, fuel atomization and air mixing more fully, more complete combustion, lower emissions;
- 6. Standardized design, comprehensive and intelligent products, parts and components have strong versatility, easy installation and easy maintenance;
- 7. maintenance-free battery, with fast start performance;



# Technical parameters of the unit

#### **Generator set**

Generator model:	AG-400W/S	Main power(kW):	320
Standby power(kW):	352	unit capacity(kVA):	400
Rated speed(rpm):	1800	frequency(Hz):	<u>60</u>
Rated voltage(V):	380	Rated current(A):	607
Power factor( $\cos \varphi$ ):	0.8(lag)	Wiring mode:	3 phase 4 wire
Generator weight (kg)	4150	Smoke pipe diameter (mm)	1×φ102
Air intake(m³/min):	556.6	Air exhaust(m³/min):	528
Generator size(mm):	4500L×1470W×2483H	Recommended base size(mm):	3700L×1800W

# Unit performance index (G2)

Parame	ter	unit	Oerformance index
Frequency drop		%	≤5
Steady state frequency ba	nd	%	≤1.5
Relative frequency setting	g drop range	%	≥3.5
Relative frequency setting	g rise range	%	≥2.5
Transient frequency deviation	100% sudden power reduction	%	≤+12
deviation	Surge power		≤-10
Frequency recovery time	Frequency recovery time		≤5
Relative frequency toleran	Relative frequency tolerance band		2
Steady-state voltage devia	ntion	%	≤±2.5
Voltage unbalance degree		%	1
Transient voltage	100% sudden power reduction	%	≤+25
leviation	Surge power		≤-20
Voltage recovery time Voltage modulation Relative voltage setting range Voltage setting rate of change		S	≤6
		%	0.3
		%	≤±5
		%/ <sub>S</sub>	0.2~1
Telephone harmonic factor	THF	%	<2
Telephone influence factor	TIF		<50



## Engine technical parameters

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Manufacturer:	WeiChai
Model:	WP13D448E201
Engine structure:	four-stroke
Number:	6/L
Displacement:L	12.54
Cylinder diameter:mm	127
Stroke:mm	165
Compression ratio:	16: 1
Speed:rpm	1800
Primary/standby power ::kW	350/385
Speed regulation mode::	E
Cooling method: clos	sed water cooling
Dry weight (engine only): kg	g 1045
Start the system	
Starting rated power:kW	5.4
Starting rated voltage:V	DC24
Fuel system	
Fuel injection form: high press	ure common rail
Fuel return flow:L/min	1.3

#### **Fuel consumption**

Engine output	L/h	g/kwh
100%	89.2	209
75%	72.0	225
50%	52.9	248
25%	28.6	268

#### **Intake system**

Maximum allowable intake resistance (clean

filter element): kPa 3.2

Intake air flow: m³/min 28.6

#### **Lubrication system**

Total lubrication system capacity: L 36

Maximum allowable oil temperature :°C 124

#### **Cooling system**

Engine coolant volume: L 98

Coolant flow: L/min 406

#### **Exhaust system**

Maximum exhaust back pressure: kPa 7.5

Exhaust flow: kg/min 28.8

Exhaust temperature: °C 740

### Technical parameters of generator

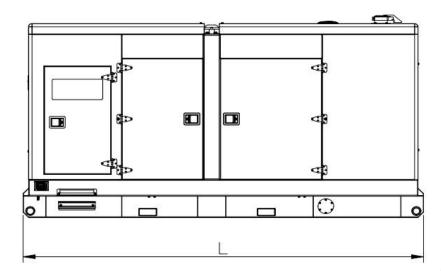
#### Dynamo

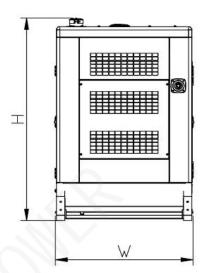
\*60Hz,AC380V,cosφ=0.8

MODEL	Rated power(kW)	Standby power(kW)	Mechanical efficiency(%)	Insulation/ temperature rise	Class of protection	Weight(k g)
FISTALL: QYI314E	352	368	93.2	H/H	IP21	995



### Size and weight





★ The above figure is for reference only, the actual size and weight are subject to the final design drawing ∘

Model	Engine model	size (L×W×H) (mm)	Dry weight (kg)	Wet weight (kg)
AG-400W/S	WP13D448E201	4500×1470×2483	4025	4150

### **Special instructions**

- 1. Main power (PRP) is the maximum power that the unit can run continuously with variable load under standard environment (atmospheric pressure, relative humidity, ambient temperature), and the overload of 10% is allowed to run for 1h every 12h.
- 2. Working conditions and power correction:
  - (1) Altitude: ≤1500m (> 1500m), need to do power correction; Power reduction by 10% per 1000m increase)
  - (2) Ambient temperature: 40°C (when > 40°C, power correction is required)
  - (3) Relative humidity: ≤60%
- 3. When the field use conditions of the diesel generator set do not meet the above conditions, the output power of the unit should be corrected, and the final correction coefficient, please refer to the detailed technical data of the corresponding engine and generator.