

Diesel generating set

AGLW400P

380V/60Hz Main power/WeiChai WP13D460E311



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:

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

Technical parameters of the unit

// Generator set

Generator model:	AGLW400P	Main power (kW):	400
Standby power (kW):	440	Standby power (kVA):	500
Rated speed (rpm):	1800	Rated frequency (Hz):	60
Rated voltage (V):	380	Rated current (A):	759
Power factor (cos ϕ):	0.8 (lag)	Wiring mode:	3 phase 4 wire
Generator weight (kg)	5100	Minimum smoke pipe diameter (mm)	1 $\times$ ϕ 150
Air intake (m ³ /min):	1056.6	Air exhaust (m ³ /min):	928
Generator size (mm):	4700L $\times$ 1520W $\times$ 2512H	Recommended base size (mm):	4200L $\times$ 1900W

Unit performance index (G2)

Parameter		unit	Performance index
Frequency drop		%	≤ 5
Steady state frequency band		%	≤ 1.5
Relative frequency setting drop range		%	≥ 3.5
Relative frequency setting rise range		%	≥ 2.5
Transient frequency deviation	100% sudden power reduction	%	$\leq +12$
	Surge power		≤ -10
Frequency recovery time		s	≤ 5
Relative frequency tolerance band		%	2
Steady-state voltage deviation		%	$\leq \pm 2.5$
Voltage unbalance degree		%	1
Transient voltage deviation	100% sudden power reduction	%	$\leq +25$
	Surge power		≤ -20
Voltage recovery time		s	≤ 6
Voltage modulation		%	0.3
Relative voltage setting range		%	$\leq \pm 5$
Voltage setting rate of change		%/s	0.2~1
Telephone harmonic factor	THF	%	< 2
Telephone influence factor	TIF	—	< 50

Engine technical parameters

// Engine

Manufacturer: WeiChai
 Model: WP13D460E311
 Engine structure: four-stroke
 Number: 6/L
 Displacement: L 15.54
 Cylinder diameter: mm 127
 Stroke: mm 165
 Compression ratio: 16:1
 Speed: rpm 1800
 Primary/standby power: kW 460/509
 Speed regulation mode: E
 Cooling method: closed water cooling
 Dry weight (engine only): kg 1045

// Start the system

Starting rated power: kW 7.5
 Starting rated voltage: V DC24

// Fuel system

Fuel injection form: high pressure common rail

// Fuel consumption

Engine output	L/h	g/kwh
100%	110	203
75%	81	200
50%	57	211
25%	33	244

// 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 12
 Exhaust flow: kg/min 28.8
 Exhaust temperature: °C 740

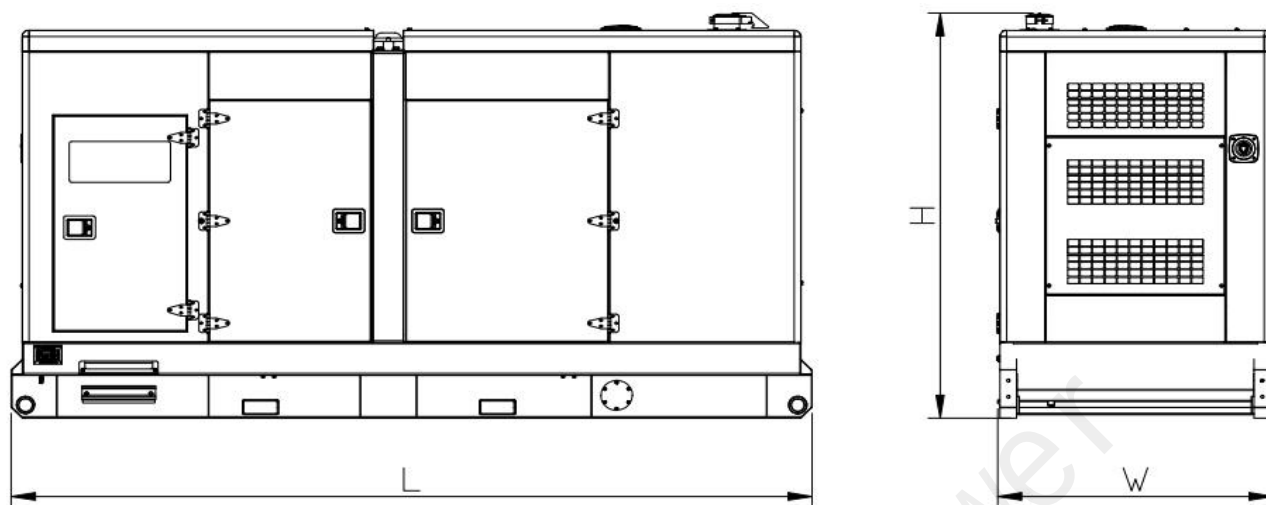
Technical parameters of generator

//Dynamo

*60Hz, AC380V, cos φ = 0.8

MODEL	Rated power (kW)	Standby power (kW)	Mechanical efficiency (%)	Insulation	Class of protect	Weight (kg)
FISTALL: QYI314F	400	428	93.2	H/H	IP21	1085

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)
AGLW400P	WP13D460E311	4700×1520×2512	5000	5100

Special instructions

// 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.

// Working conditions and power correction:

Altitude: ≤1500m (> 1500m), need to do power correction; Power reduction by 10% per 1000m increase)

Ambient temperature: 40℃ (when > 40℃, power correction is required)

Relative humidity: ≤60%

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.

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