Diesel generating set

AGLW40P

380V/60Hz Main power/WEICHAI WP2.3D58E201

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: AGLW40P
Main power(kW): 40
Standby power(kW): 44
unit capacity(kVA): 50
Rated speed(rpm): 1800
frequency(Hz): 60Rated
voltage(V): 380
Rated current(A): 76
Power factor(cos φ): 0.8(lag)
Wiring mode: 3 phase 4 wire
Generator weight (kg) 1385
Minimum smoke pipe diameter (mm) 1×φ64
Air intake(m³/min): 55.9
Air exhaust(m³/min): 53
Generator size(mm): 2550L×1020W×1534H
Recommended base size(mm): 2400L×1100W

Unit performance index (G2)

Parameter		unit	Oerformance 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	%	≤+12
	Surge power		≤-10
Frequency recovery time		s	≤5
Relative frequency tolerance band		%	2
Steady-state voltage deviation		%	≤±2.5
Voltage unbalance degree		%	1
Transient voltage deviation	100% sudden power reduction	%	≤+25
	Surge power		≤-20
Voltage recovery time		s	≤6
Voltage modulation		%	0.3
Relative voltage setting range		%	≤±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: WP2.3D58E201

Engine structure: four-stroke

Number : 4/L

Displacement:L 2.3

Cylinder diameter:mm 89

Stroke:mm 29

Compression ratio: 17.5: 1

Speed:rpm 1800

Primary/standby power ::kW 53/58

Speed regulation mode:: E

Cooling method: closed water cooling

Dry weight (engine only) :kg 235

// Start the system

Starting rated power:kW 4.5

Starting rated voltage:V DC24

// Fuel system

Fuel injection form: high pressure common rail

// Fuel consumption

Engine output	L/h	g/kwh
100%	7.2	215
75%	5.61	226
50%	4.06	235.4
25%	2.65	309

// Intake system

Maximum allowable intake resistance (clean filter element) : kPa 5

Intake air flow: m^3/min 3.9

// Lubrication system

Total lubrication system capacity: L 13

Maximum allowable oil temperature :℃125

// Cooling system

Engine coolant volume: L 25

Coolant flow: L/min 132

// Exhaust system

Maximum exhaust back pressure: kPa 10

Exhaust flow: kg/min 10.4

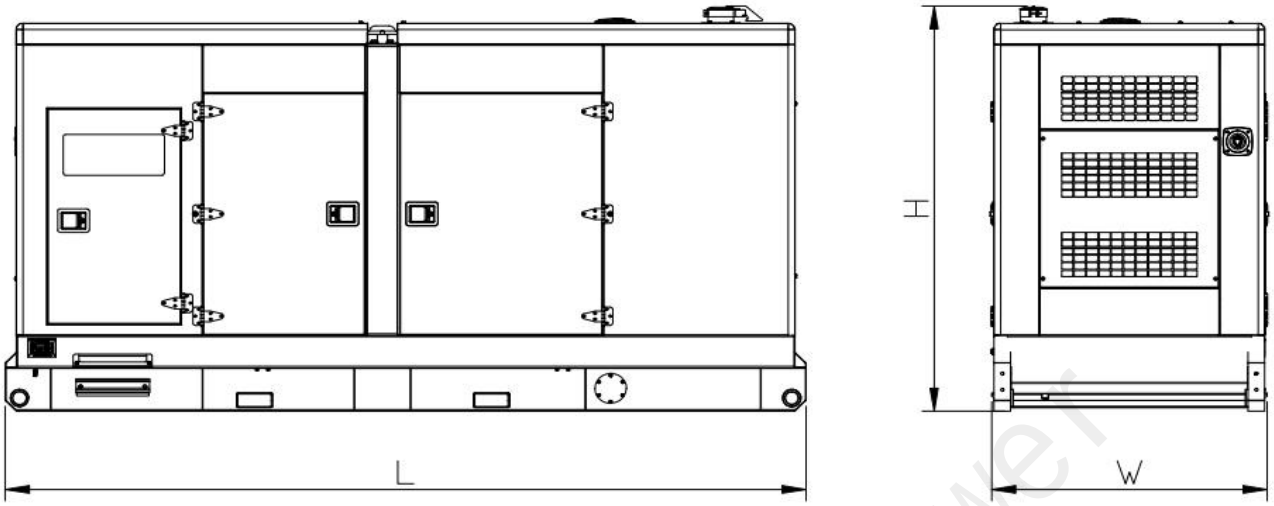
Exhaust temperature:℃ 480

Technical parameters of generator

//Dynamo *60Hz, AC380V, cos Φ=0.8

MODEL	Rated power(kW)	Standby power(kW)	Mechanical efficien	Insulation	Class of protect	Weight(kg)
FISTALL: QYI184H	40	43.2	81.9	H/H	IP21	240

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)
AGLW40P	WP2.3D58E201	2550×1020×1534	1350	1385

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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