睿珀机电
SHANGHAI AGRIPOWER

Diesel generating set

AG-500P/S

400V/50Hz Main power//Perkins 2506C-E15TAG2

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-500P/S	Main power(kW)：	400
Standby power(kW)：	440	unit capacity(kVA)：	500
Rated speed(rpm)：	1500	frequency(Hz)：	50
Rated voltage(V)：	400	Rated current(A)：	721
Power factor(cosφ)：	0.8(lag)	Wiring mode：	3 phase 4 wire
Generator weight (kg)	4960	Minimum smoke pipe diameter (mm)	1×φ124
Air intake(m³/min)：	693	Air exhaust(m³/min)：	663
Generator size(mm)：	4700L×1520W×2512H	Recommended base size(mm)：	3700L×1700W

Unit performance index（G2）

Parameter		unit	Oerformance index
Frequency drop		%	≤3
Steady state frequency band		%	≤0.5
Relative frequency setting drop range		%	≥3.5
Relative frequency setting rise range		%	≥2.5
Transient frequency deviation	100% sudden power reduction	%	≤+10
	Surge power		≤-7
Frequency recovery time		s	≤3
Relative frequency tolerance band		%	2
Steady-state voltage deviation		%	≤±1
Voltage unbalance degree		%	1
Transient voltage deviation	100% sudden power reduction	%	≤+20
	Surge power		≤-15
Voltage recovery time		s	≤4
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: Perkins
Model: 2206C-E13TAG2
Engine structure: four-stroke
Number : 6/L
Displacement:L 15
Cylinder diameter:mm 137
Stroke:mm 171
Compression ratio: 16.1：1
Speed:rpm 1500
Primary/standby power ::kW 451/495
Speed regulation mode:: ECM
Cooling method: closed water cooling
Dry weight (engine only) ： kg 1633

Start the system

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

Fuel system

Fuel injection form: high pressure common rail
Fuel return flow:L/min 6.88

Fuel consumption

Engine output	L/h	g/kwh
100%	106	212.3
75%	81	206
50%	55	210
25%	22	214

Intake system

Maximum allowable intake resistance (clean filter element) :kPa 3
Intake air flow: m³/min 25.2

Lubrication system

Total lubrication system capacity: L 62
Maximum allowable oil temperature :℃ 125

Cooling system

Engine coolant volume:L 58
Coolant flow: L/min 318

Exhaust system

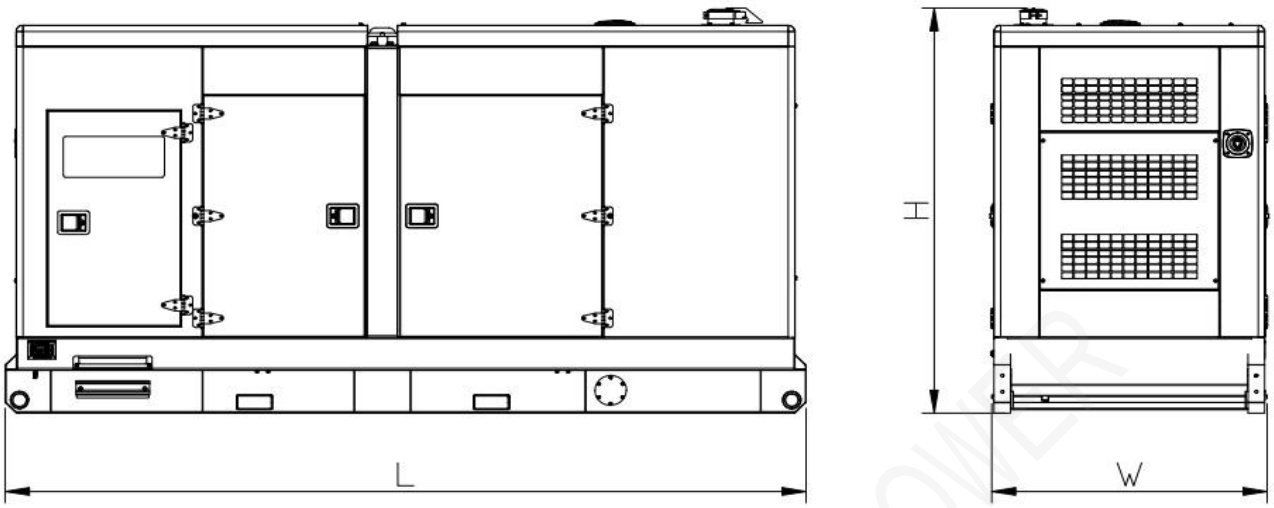
Maximum exhaust back pressure: kPa 6.8
Exhaust flow: m³/min 85
Exhaust temperature: ℃ 550

Technical parameters of generator

Dynamo *50Hz,AC400V,cosφ=0.8

MODEL	Rated power(kW)	Standby power(kW)	Mechanical efficiency(%)	Insulation/ temperature rise	Class of protection	Weight(kg)
LEROYSOMER:TAL A47C	400	425	91.5	H/H	IP21	1113

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-500P/S	2506C-E15TAG2	4700×1520×2512	4900	4960

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: ≤1000m (> 1000m), need to do power correction; Power reduction by 10% per 1000m increase)
   (2) Ambient temperature: 40℃ (when > 40℃, 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.