

sDiesel generating set

AGLP140P

400V/50Hz Main power//Perkins 1106A-70TAG3



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:	AGLP140P	Main power (kW):	140
Standby power (kW):	154	unit capacity (kVA):	175
Rated speed (rpm):	1500	frequency (Hz):	50
Rated voltage (V):	400	rated current (A):	252.6
Power factor (cos ϕ):	0.8 (lag)	Wiring mode:	3 phase 4 wire
Generator weight (kg)	2436	Minimum smoke pipe diameter (mm)	1 $\times$ ϕ 75
Air intake (m ³ /min):	265.1	Air exhaust (m ³ /min):	252
Generator size (mm):	3375L $\times$ 1170W $\times$ 1782H	Recommended base size (mm):	2800L $\times$ 1400W

Unit performance index (G2)

Parameter		unit	Performance 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	%	$\leq +10$
	Surge power		≤ -7
Frequency recovery time		s	≤ 3
Relative frequency tolerance band		%	2
Steady-state voltage deviation		%	$\leq \pm 1$
Voltage unbalance degree		%	1
Transient voltage deviation	100% sudden power reduction	%	$\leq +20$
	Surge power		≤ -15
Voltage recovery time		s	≤ 4
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: Perkins
Model: 1106A-70TAG3
Engine structure: four-stroke
Number: 6/V
Displacement: L 7.01
Cylinder diameter: mm 105
Stroke: mm 135
Compression ratio: 16:1
Speed: rpm 1500
Primary/standby power: kW 162/180
Speed regulation mode: E
Cooling method: closed water cooling
Dry weight (engine only): kg 743

// Start the system

Starting rated power: kW 5
Starting rated voltage: V DC12

// Fuel system

Fuel injection form: high pressure common rail

// Fuel consumption

Engine output	L/h	g/kwh
100%	41.4	209
75%	32	211
50%	20.2	210
25%	11	214

// Intake system

Maximum allowable intake resistance
(clean filter element): kPa 3

Intake air flow: m³/min 13.1

// Lubrication system

Total lubrication system capacity: L 17

Maximum allowable oil temperature: °C 125

// Cooling system

Engine coolant volume: L 21

Coolant flow: L/min 142

// Exhaust system

Maximum exhaust back pressure: kPa 6

Exhaust flow: kg/min 280

Exhaust temperature: °C 491

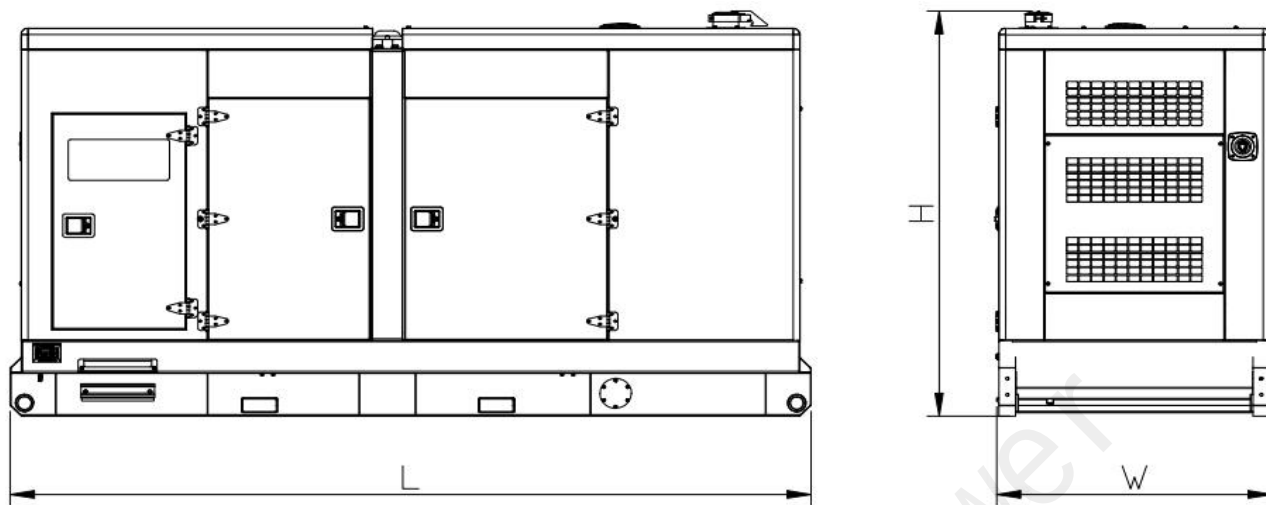
Technical parameters of generator

//Dynamo

*50Hz, AC400V, cos φ = 0.8

MODEL	Rated power (kW)	Standby power (kW)	Mechanical efficiency (%)	Insulation	Class of protect	Weight (kg)
LEROYSOMER: TAL A44L	144	153	93.4	H/H	IP21	582

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)
THLP140P	1106A-70TAG3	3375×1170×1782	2400	2436

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: ≤1000m (> 1000m), 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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