

AOSIF Perkins Series

AP100-I Technical Data

AOSIF
POWER GENERATOR



Perkins Power Generator

90KVA/72KW



XIAMEN AOSIF ENGINEERING LTD.

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[Http://www.aosif.com](http://www.aosif.com)

Powered by
Perkins 1104C-44TAG1
90KVA at 60Hz, 220V



General feature:

- ◆ Assembled by Perkins diesel engine and Leroy Somer alternator.
- ◆ Three filters as standard, fuel and water separator as optional.
- ◆ Radiator and fan with safety guard.
- ◆ Single bearing alternator IP 23, Insulation Class H.
- ◆ Heavy duty steel as base frame and 8hrs operation base fuel tank.
- ◆ Automatic control panel and 3 poles circuit breaker, internal cable.
- ◆ 12V or 24V battery, battery wires.
- ◆ Battery charger and float battery charger as standard supply scope.
- ◆ Optional soundproof canopy, ATS, synchronization panel, movable trailers.

Genset Main Technical Data:

Genset Model	AP100-I
Prime Power(60HZ)	72KW / 90KVA
Standby Power(60HZ)	80KW /100KVA
Frequency/Speed	60Hz/1800rpm
Standard Voltage	127V/ 220V
Phases	Three phases, four wires
Manufacturer	Xiamen AOSIF Engineering LTD.

- (1) PRP: Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1. A 10% overload capability is available for a period of 1 hour within 12-hour period of operation. In accordance with ISO 3046-1.
- (2) ESP: The Standby Power Rating is applicable for supplying emergency power in variable load applications for up to 200 hours per year in accordance with ISO8528-1. Overload is not allowed.

Perkins Engine Data:

Manufacturer	Perkins Engines Company Limited
Model	1104C-44TAG1
Engine speed	1800rpm
Engine power	
----- Standby power	94KW
----- Prime power	85.5KW
Number of cylinders	4 vertical in-line
Bore and stroke	105 x 127 mm
Displacement	4.41 litres
Aspiration	Turbocharged
Cycle	4 stroke
Combustion system	Direct injection
Compression ratio	18.2:1
Rotation	Anti-clockwise viewed from flywheel
Cooling system	Water-cooled
Total lubrication system capacity	8.0 litres
Total coolant capacity	12.6litres

Fuel Consumption

Load	Type of operation and application	
	g/kWh	l/hr
110%Prime	218	24.1
100%Prime	223	22
75% prime	229	17
50% Prime	237	11.7

Standard ElectropaK Specification

Air inlet
·Mounted air filter

Fuel system
·Rotary type pump
·Ecoplus fuel filter

Lubrication system
·Wet sump with filler and dipstick
·Spin-on oil filter

Cooling system
·Thermostatically-controlled system with gear-driven circulation pump and belt-driven pusher fan
·Mounted radiator and piping

Electrical equipment
·12 volt starter motor and 12 volt 65 amp alternator with DC output
·12 volt shutdown solenoid energised to run
·Glow plug cold start aid

Flywheel housing
·High inertia flywheel to SAE J620 size 10/11/2
·SAE 3 flywheel housing

Literature
·User's Handbook

Optional equipment
·24 Volt alternator
·24 Volt starter motor
·Workshop manual
·Parts book


ALTERNATOR Specifications:

Manufacturer	Leroy-somer Electro-technique (Fuzhou) Company Ltd.
Model	LSA44.3S3
Output power	74KW/ 92KVA
AVR model	R250
Number of phase	3
Power factor (Cos Phi)	0.8
Altitude	≤ 1000 m
Overspeed	2250RPM
Number of Pole	4
Exciter type	Shunt
Insulation class	H
Voltage regulation	±0.5%
Total harmonics (TGH/THC)	no load < 2 %, on load <5%
Wave form : NEMA = TIF	< 50
Bearing	single
Coupling	Direct


ALTERNATOR GENERAL DATA:

- ◆ Operate either 50Hz or 60Hz.
- ◆ Standard enclosure IP23, but IP44, IP55 for option
- ◆ Insulation class H.
- ◆ Shunt excitation systems.
- ◆ AREP or PMG system for options.
- ◆ Automatic voltage regulator
- ◆ Single bearing alternator
- ◆ Stator grease insulation covered
- ◆ Rotator and excitation high polymer
- ◆ Resist the corruption oil and acid
- ◆ Rotator balance is in accordance with BS5625 standard 12.5
- ◆ High-quality lubrication sealed long-time bearing
- ◆ Rotator silicon steel close tight

AOSIF Circuit breaker specification:

	Manufacturer	Delixi group
	Brand	Delixi
	Model	CDM1-400L/3300-315A
	Capacity	315amp
	Voltage	220V

AOSIF Starting Battery specification:

	Battery Voltage	12V
	Battery Capacity	60aH
	Quantity	1pcs
	Battery type	maintenance-free

AP100-I Technical Data

Control system:

Deepsea 6120

Auto start and stop control



Deepsea 6120 is an auto mains failure controller for single generator, it can monitor and protect the generator working all the time. it has a LCD display which clearly shows the status of the engine. this controller include six inputs and six outputs. This controller can also be programmed using the frong panel or by using DSE configuration Suite PC software.

Parameters:

This controller can provide Generator frequency, Under/over speed, Generator volts, Generator current, Engine oil pressure, Engine coolant temperature, Flexible fuel level, Hours run counter, Battery volts, Fail to start/stop, Emergency Stop. Failed to reach loading voltage/frequency, Charge fail, Loss of magnetic pick-up signal, Low DC voltage, CAN diagnostics and CAN fail/error, Mains volts 3 phase, Mains frequency, AMF indications

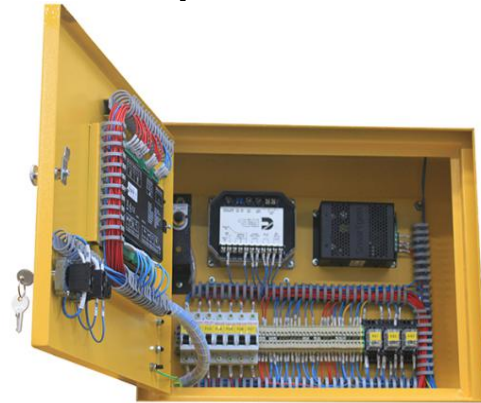
Protection:

- ◆ Low Oil Pressure
- ◆ High water Temperature
- ◆ High voltage and low voltage
- ◆ Overspeed

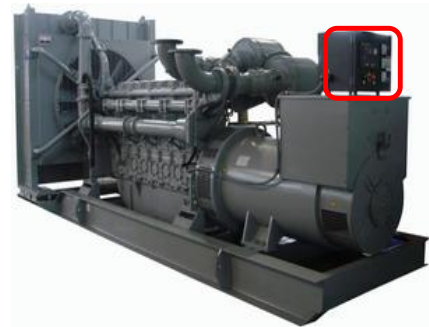
- ◆ Emergency stop
- ◆ Fail to start

Features:

- ◆ Protection: Automatic start/stop, load transfer and alarming of generator;
- ◆ CAN and magnetic pick-up versions.
- ◆ PC and front panel configurable
- ◆ 6digital inputs and 4analogue inputs.
- ◆ 6 outputs
- ◆ 3 phase generator and mains voltage monitoring.
- ◆ Advanced metering capability.
- ◆ Test button.
- ◆ Power switch for city and power generation unit
- ◆ Reasonable structure and key layout
- ◆ Supports 6 languages display (Chinese, English, France, Thailand, Turkey, Arabia)
- ◆ Can simultaneously detect a variety of engine parameters
- ◆ Modules can be configured according to customer needs.
- ◆ IP65 protection class (silent type)



- ① Emergency Stop
- ② Power on indicator
- ③ Key start
- ④ Operation buttons
- ⑤ LCD display



Open type



Silent type

AP100-I Technical Data

AOSIF Soundproof Enclosure Specification:

AOSIF silent generator is designed by professional acoustic engineers based on 18 years experience.



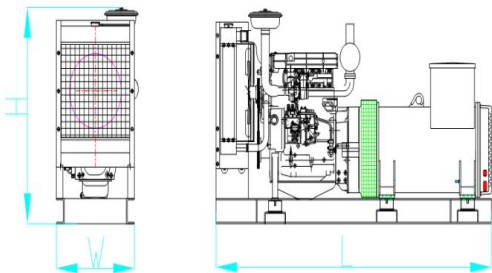
- ★ multi-way air intake and exhaust guarantee the power performance of the generator.
- ★ large-scale impedance combined type silencer effectively reduce noise of the generator.
- ★ internal high performance rubber damper and flexible materials reduce vibration.
- ★ Base mounted fuel tank supports the generator running for 8 hours.

- ★ Cold steel materials of the canopy.
- ★ Best powder paint.
- ★ Zinc plated and Corrosion resistance.
- ★ Elegant appearance and reliable quality.
- ★ Stainless steel locks and hinges.
- ★ Access to all weather conditions.
- ★ Fireproof, waterproof and dustproof.
- ★ High quality soundproof materials could efficiently reduce noise.
- ★ Big base fuel tank in the frame guarantee sufficient diesel supply.
- ★ 180° revolvable and disassemble door for easy maintenance.
- ★ Concave lockable access door for easy operation and indefectible.
- ★ Lights inside of the canopy for maintenance.

- ★ Transparent viewing window make the control panel clear at a glance.
- ★ Emergency stop button mounted on the canopy exterior for urgency.
- ★ Cooling fluid injection hole is kept on the ceiling crust.
- ★ Pipe of lube oil and cooling fluid is mounted on the bottom of generator for easy let.
- ★ Fuel fill and battery can easy be accessed by lockable door.
- ★ Cooling fan and battery are fully guarded.
- ★ Heat insulation of exhaust smoke system inside the canopy.
- ★ Forkman slot is for choice.
- ★ Lifting ear is mounted in the base frame.

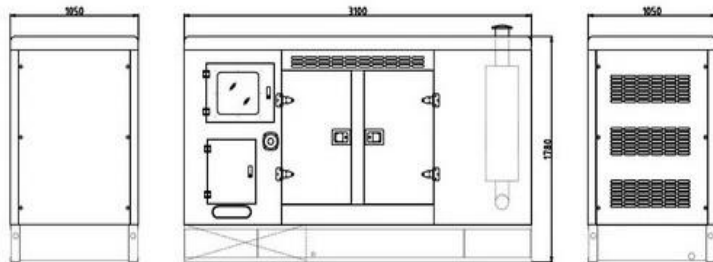
Weight and Dimensions

1. Open Version:



Open Type (Standard Configuration)
Overall Size: 2050×750 ×1400mm(L*W*H)
Weight: 1050kg

2. Soundproof Version:



Soundproof Type
Overall size: 2800× 1100×1750mm(L*W*H)
Weight: 1600kg

AP100-I Technical Data

Supply scope

1. Standard supply scope:



⑦ Exhaust silencer



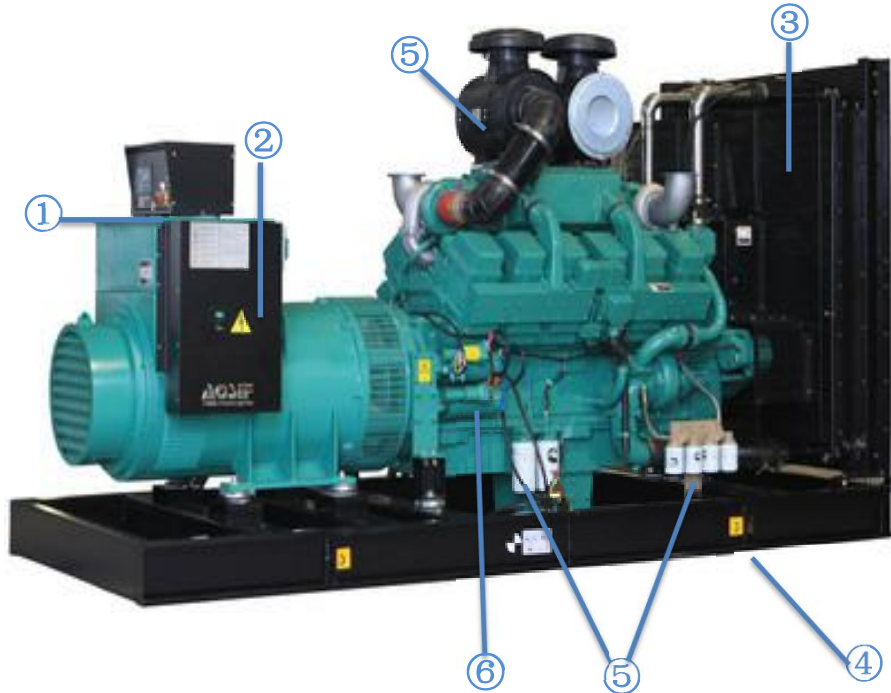
⑧ Starting battery



⑨ Float battery charger



⑩ Flange



① Auto Control Panel
② Main Circuit Breaker
③ Cooling Radiator

④ Base Frame
⑤ Filter
⑥ Starting Motor

2. Optional supply scope:



① ATS



② fuel and water separator



③ Auto Fuel Pump



④ External daily fuel tank



⑤ ABB Breaker



⑥ Synchronization System



⑦ Lub oil heater



⑧ Elec. coolant Heater



⑨ Oil drain Pump



⑩ Trailer & Silent Canopy

Our Sales Promises

- ★AOSIF Engineering provides a full line of brand new and high quality products. Each and every unit is strictly factory tested before shipment.
- ★Quality Warranty is according to our standard conditions: 12 months from BL date or 1,000 running hours, whichever comes first.
- ★Service and parts are available from XIAMEN AOSIF Engineering Ltd. or distributors in your location.
- ★All the products from Xiamen AOSIF Engineering Ltd. is CE marked.



Specifications are subject to change without notice.

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