

Model: AS94D5

Powered by AGG



Generator Specification

Service	PRP ⁽¹⁾	ESP ⁽²⁾
Power (kVA)	85	94
Power (kW)	68	75.2
Rated speed (r.p.m)	1500	
Standard voltage (V)	400/230V	
Rated at power factor (cos phi)	0.8	



AGG Power gensets are compliant with ISO 9001 and CE standard, which include the following directives:

- 2006/42/EC Machinery safety.
- 2006/95/EC Low voltage
- EN 60204-1: 2006+A1: 2009, EN ISO 12100: 2010, EN ISO 13849-1: 2008, EN 12601: 2010

(1) PRP (Prime Power):

According to ISO8528-1, prime power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals. The permissible average power output during at 24 hours period shall not exceed 80% of the prime power. 10% overload available for governing purposes only.

(2) ESP (Standby Power):

According to ISO 8528-1, it is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 hours of operation per year (of which no more than 300 hours for continuous use) with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. No overload capability is available.

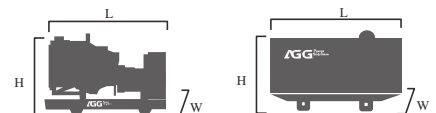
Powers Voltage (V)	ESP		PRP		Standby Amps
	KVA	KW	KVA	KW	
415/240	94	75.2	85	68	130.8
400/230	94	75.2	85	68	135.7
380/220	94	75.2	85	68	142.8

Performance Data

Model	AS94D5	
Engine brand	AGG	
Engine model	AS4300	
Speed control type	Electronic	
Phase	3	
Control system	Digital	
Starter motor voltage	24V	
Frequency	50HZ	
Engine speed (RPM)	1500	
Fuel Consumption (L/H)	100% standby power	21.8
	100% prime power	19.5
	75% prime power	14.3
	50% prime power	9.9

Standard reference Conditions

Note: Standard reference condition 25°C (77°F) air inlet temp, 100m(328ft) A.S.L 30% relative humidity. Fuel consumption data with diesel fuel with specific gravity of 0.85 and conforming to BS 2869: 1998, Class A2



Dimension and Weight

Dimension	Open	Silent
Length (L)	2080mm	2680mm
Width (W)	1040mm	1100mm
Height (H)	1550mm	1732mm
Net Weight	1185KG	1304KG
Fuel Tank (L)	150L	140

■ Engine Specification - AS4300

Basic technical data	
No. of cyl / Arrangement	4L
Injection system	water-cooled , Turbo charged
Combustion type	Direct injection
Bore x stroke mm	105 × 124 mm
Displacement	4.3L
Compression ratio	17.3 : 1
Engine speed rpm	1500 rpm
Firing order	1-3-4-2
Engine dry weight	Approx. 430kg
Dimensions	1018 × 716 × 989 mm

Cooling system	
Coolant capacity (engine only)	6.8 L
Lid Min. pressure	70 kPA
Water pump	Centrifugal type driven by belt
Water pump Capacity	155L/min
Max coolant temp in prime power	104 °C
Max coolant temp in standby power	100 °C
Thermostat	
-Wax – pellet type, Opening temp.	82 °C
-Full open temp.	95 °C
Cooling Fan	
-Type	Blower type, plastic
-Diameter and blades	500 mm / 7
Power consumption	2kw
Cooling air flow	2.3 m ³ /s

Electrical system	
Charging generator	24V × 55A
Voltage regulator	Built-in type IC regulator
Starting motor	24V × 4.5kW
Battery Voltage	24V
Battery Capacity	120 AH

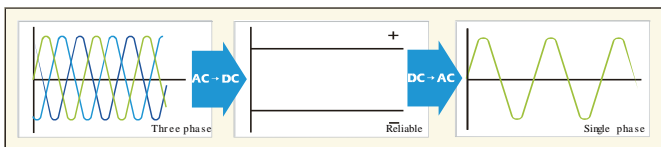
Fuel system	
Injection pump	Beiyou in-line “AD” type
Governor	Electronic regulator
Feed pump	Mechanical type
Injection nozzle	Multi hole type
Opening pressure	250 kg/cm ²
Fuel filter	Full flow, cartridge type
Used fuel	Diesel fuel oil

Lubrication system	
Lub. Method	Fully forced pressure feed type
Oil pump	Gear type driven by crankshaft
Oil filter	Full flow, cartridge type
Oil pan capacity	
-High level	13 L
-Low level	11 L
Angularity limit	
-Front down	25 deg.
-Front up	35 deg.
-Side to side	35 deg.

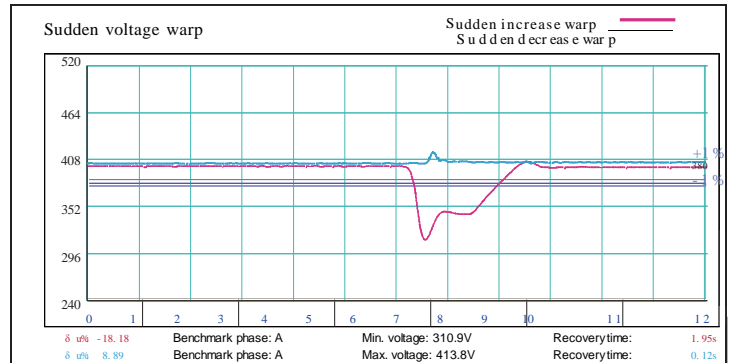
Engineering Data	
Heat rejection to coolant	7.8 kcal/sec
Air flow	5.6 m ³ /min
Exhaust gas flow	13.2 m ³ /min
Exhaust gas temp.	600 °C
Max. permissible restrictions	3 kPa initial
Max. permissible altitude	2000 m

■ Alternator Specification

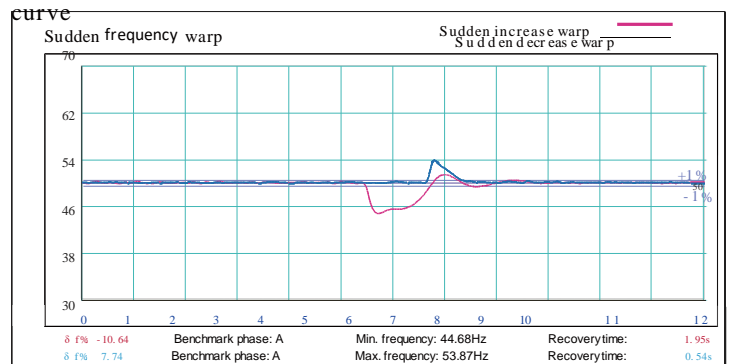
Alternator	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Terminals	12
Insulation type	H class
Winding Pitch	2 / 3
IP rating	IP23
Excitation system	Sel f-exci ted
Bearing	Single bearing
Coating	Vacuim impregnation
Voltage regulator	A.V.R
Couping	Flexible disc



Emergency voltage curve



Emergency frequency curve



■ Options

Engine	Alternator	Generator Sets	Fuel System
<ul style="list-style-type: none"> Water Jacket Pre-heater Fuel heater 	<ul style="list-style-type: none"> Winding Temp measuring Instrument Alternator Pre-heater PMG Anti-damp and anti-corrosion treatment Anti-condensation heater Winding and bearing RTD 	<ul style="list-style-type: none"> Tools with the machine Extended range fuel tank Bunded fuel tank 	<ul style="list-style-type: none"> Low fuel level alarm Automatic fuel feeding system Fuel T-valves
Canopy	Lub oil system	Cooling System	Control Panel
<ul style="list-style-type: none"> Rental type Canopy Trailer 	<ul style="list-style-type: none"> Oil Pre-heater Oil temp sensor 	<ul style="list-style-type: none"> Front heat protection 	<ul style="list-style-type: none"> Remote control panel ATS Synchronizing controller Adjustable earth leakage relay



Control Panel

Configuration

- Emergency stop button
- Protection MCB
- Battery charger
- Integrated aviation plug
- ATS connection
- Digital control module

Features

- 3 phase generator set monitoring
- Support of engines equipped with electronic control unit
- Comprehensive diagnostic message
- Automatic or manual start/stop of the gensets
- Push buttons for simple control, lamp test
- Graphic backlit LCD display
- Parameters adjustable via keyboard or PC
- Mains measurements (50HZ/60HZ)
- Generator measurements (50HZ/60HZ)
- Comprehensive shutdown or warning on fault condition
- 3 phase Generator protections
 - Over-/under voltage
 - Over-/under frequency
 - Current/voltage asymmetry
 - Over current/overload
- 3 phase AMF function
 - Over-/under frequency
 - Over-/under voltage
 - Voltage asymmetry
- Configurable analog inputs
- Battery voltage, engine speed (pick-up) measurement
- Configurable programmable binary inputs and outputs
- Warm-up and cooling functions
- Generator C.B. and Mains C.B. control with feedback and return timer
- RS232 interface
- Modem communication support
- Hours counter
- Sealed to Ip65
- Event log

Benefits

- Less wiring and components
- Integrated solution
- Less engineering and programming
- User friendly set-up and button layout
- Module can be configured to suit individual applications
- PC software for simplified configuration
- Wide range of communication capabilities

- Operation temp: -20 °C to +70 °C
- Storage temp: -30 °C to +80 °C
- Operating humidity: 95% w/o condensation
- Vibration: 5-25Hz, ±1.6 mm
5-100Hz, a=4 g
- Shocks: a= 500 m/s²

Options

- Ethernet interface (Remote monitoring and control)
- GSM modem/wireless internet (Remote monitoring and control)
- RS232-RS485 Dual port interface
- Synchronizing control panel
- Distribution board with sockets kit and power busbar
- Battery trickle charge ammeter
- Earth leakage protection
- Earth fault protection
- Low fuel level alarm
- Low fuel level shutdown
- High fuel level alarm
- Fuel transfer system control
- Low coolant level shutdown
- High lube oil temp shutdown
- Overload via alarm switch on breaker
- Engine coolant heater controls
- Control panel heater
- Speed adjust switch
- Oil temp displayed on LCD screen
- Additional 8 inputs and outputs

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