

Model: MS2500D5

Powered by Shanghai MHI Engine



Generator Specification

Service	PRP ⁽¹⁾	ESP ⁽²⁾
Power (kVA)	2250	2500
Power (kW)	1800	2000
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):

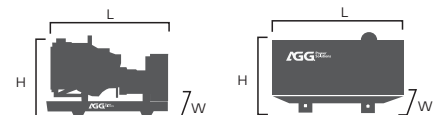
According to ISO 8528-1, It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 hours of operation per year (of which no more than 300 hours for continuative use) with the maintenance intervals and procedures 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	2500	2000	2250	1800	3478.1
400/230	2500	2000	2250	1800	3608.5
380/220	2500	2000	2250	1800	3798.5

Performance Data		
Model	MS2500D5	
Engine brand	Shanghai MHI Engine	
Engine model	S16R2-PTAW-C	
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	545.7
	100% prime power	NA
	75% prime power	NA
	50% prime power	NA

Standard reference Conditions

Note: Standard reference condition 25°C (77°F) air inlet temp, 100m(328ft) A.S.L 30% relative humidity. Fuel consumption dat 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)	5700mm	12192mm
Width (W)	2205mm	2438mm
Height (H)	2810mm	2896mm
Net Weight	REQ	REQ
Fuel Tank (L)	Option	Option

■ Engine Specification: S16R2-PTAW-C

Basic technical data	
No. of cylinders	16
Cylinder arrangement	60° V
Cycle	4 stroke
Induction system	TBD
Compression ratio	14.0:1
Bore	170mm
Stroke	220mm
Displacement	79.9L
Dry weight (engine only)	7750kg
Wet weight (engine only)	8200kg

Cooling system	
Coolant capacity of jacket	157L
Coolant capacity of air cooler	33L
Maximum external friction head at engine outlet	0.35kgf/cm ²
Maximum static head of coolant above crankshaft center	10m
Standard thermostat (modulating) range of jacket	71-85°C
Standard thermostat (modulating) range of air cooler	42-55°C
Maximum coolant temperature at engine outlet	98°C

Fuel system	
Maximum suction head of feed pump	75mm Hg
Maximum static head of return & leak pipe	150mm Hg

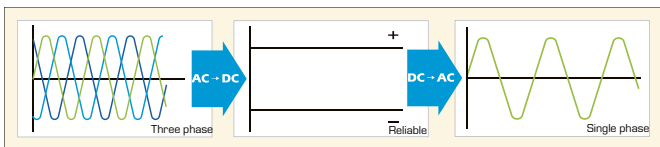
Air intake system	
Maximum bending moment at rear face of flywheel housing	
-With clean filter element	400 mm H ₀
-With dirty filter element	635 mm H ₀

Lubrication system	
Oil pressure at idle	2-3 kgf/cm ²
-at rate speed	4-6 kgf/cm ²
Maximum oil temperature	110°C
Oil capacity of standard pan	
-High	260L
-Low	200L
Total system capacity (includes oil filter)	290L
Maximum external friction head at external oil cooler	0.82 kgf/cm ²

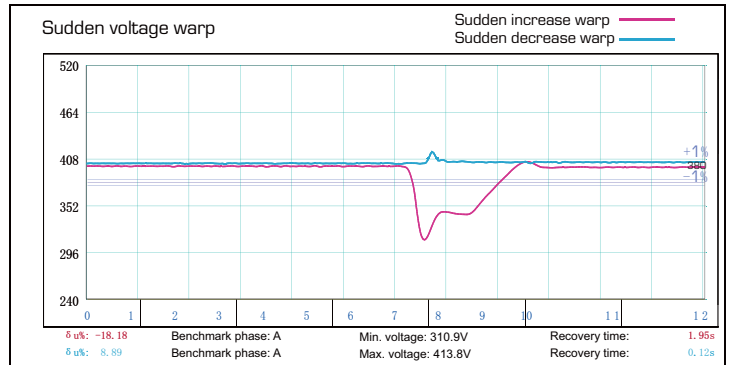
Starting system	Prime power
Battery charging alternator	24V
Starting motor capacity	DC24V, 7.5KW x 2 pcs
Maximum allowable resistance of cranking circuit	1.5mΩ
Recommended minimum battery capacity	
-At 5°C(41°C) and above	400AH

■ Alternator Specification

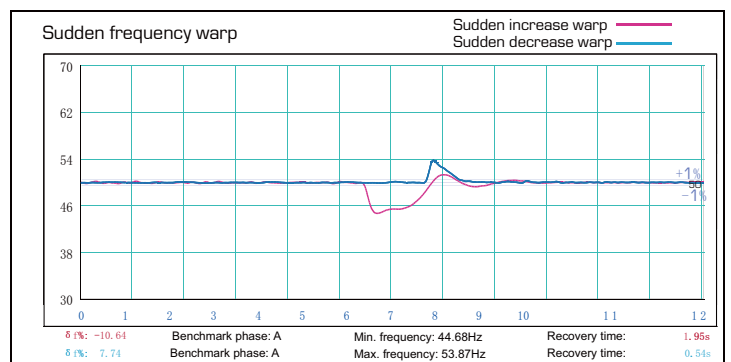
Alternator	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Terminals	12
Insulation type	H class
Winding Pitch	2/3
IP rating	IP23
Excitation system	Self-excited
Bearing	Single bearing
Coating	Vacuum impregnation
Voltage regulator	A.V.R
Couping	Flexible disc



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 back-lit 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 conditions

- 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, $a=4g$
- Shocks: $a= 500m/s^2$

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