

Model: DE500D5

Powered by DEUTZ

Output Rating

MODEL		Power rating		Voltage available
		PRIME(1)	STANDBY(2)	
DE500D5	400V/50HZ	360KW	400KW	380/220V 400/230V 415/240V
	PF:0.8	450KVA	500KVA	

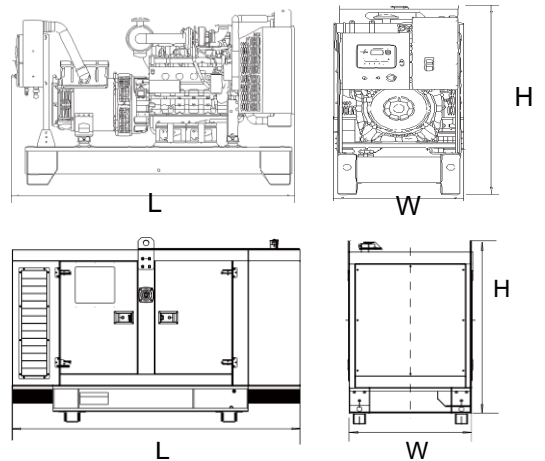
General Information

Model	DE500D5	
Engine	BF8M1015CG2	
Speed Control Type	Electrical	
Phase	3	
Control System	Digital	
System Voltage	12/24V	
Frequency	50HZ	
Engine Speed (RPM)	1500	
Fuel Consumption (L/H)	100% Prime Power	117.5
	75% Prime Power	84.0
	50% Prime Power	55.5
	25% Prime Power	29.1



Dimension and Weight

Dimension	Open	Silent
Length (L)	3830mm	4350mm
Width (W)	1190mm	1400mm
Height (H)	2020mm	2260mm
Net Weight	3583KG	5305KG



AGG POWER gensets are compliant with EC mark 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) Prime Power (PRP):

According to ISO 8528-1:2005, Prime power is the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operation conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output (Ppp) over 24h of operation shall not exceed 70% of the PRP.

(2) Standby Power (ESP):

According to ISO 8528-1:2005, standby power is the maximum power available during a variable electrical power sequence, under the stated operation conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200h of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. The permissible average power output over 24h of operation shall not exceed 70% of the ESP.



Engine Specification

General

Aspiration		turbo
No of cylinders		8
Configuration		V
Injection system		
Displacement	[l]	
Bore	[mm]	132
Stroke	[mm]	145
Compression ratio		16.5
Mean effective pressure	[bar]	
Rotation (looking at flywheel)		
No of teeth on flywheel ring gear		167
Engine without flywheel	[kg m ²]	0.98
Flywheel (standard genset spec.)	[kg m ²]	2.26
Weight		
Engine dry, w/o cooling system	[kg]	1060
Engine with cooling system	[kg]	1270
Lubrication system		
Oil specification		
Oil consumption (as % of fuel consumption)		0.3
Oil capacity (sump)	[l]	45
Min. oil pressure (warning)	[bar]	3
Min. oil pressure (shut down)	[bar]	2.7

Cooling System

Max. perm. coolant outlet temperature	[°C]	103
Max. perm. flow resistance (cool. syst. and piping)	[bar]	0,35
Max. temperature of coolant (warning)	[°C]	105
Max. temperature of coolant (shutdown)	[°C]	108
Temperature at which thermostat starts to open	[°C]	83
Temperature at which thermostat is fully open	[°C]	95
Delivery of coolant pump	[m ³ /h]	20.8
Min. pressure before coolant pump	[bar]	0,8
Temperature at CAC outlet at standard conditions	[°C]	50
DEUTZ cooling system		
Coolant capacity (engine)	[l]	21
Coolant capacity (incl. cooling unit)	[l]	102
Air to boil (max. permissible cool. air temp. at fan)	[°C]	54
Fan power consumption ⁴	[kW]	9.3
Cooling air flow	[m ³ /h]	32940
Air pressure loss, external	[mbar]	1,5
Heat Balance		
Heat dissipation (engine radiator) ⁶	[kW]	223
Heat dissipation (CAC) ⁶	[kW]	109
Heat dissipation (convection)	[kW]	37

Inlet / Exhaust Data

Max. intake depression (Switch setting)	[mbar]	50
Combustion air volume	[m ³ /h]	1909
Max. exhaust back pressure	[mbar]	50
Max. exhaust gas temperature	[°C]	540
Exhaust gas flow (at above temp)	[m ³ /h]	5410

Electrical System

Voltage	[V]	24
Starter	[kW]	5.4
Alternator output	[A]	55
Batteries (minimum capacity, cold start limit -5°C)	[Ah]	143



▪ Alternator

Alternator		
Poles	Num	4
Winding Connections (standard)		Star-serie
Insulation	Class	H class
Enclosure (according IEC-34-5)		IP23
Exciter System		Brushless
Voltage Regulator		A.V.R. (Electronic)
Bearing		Single bearing
Coupling		Flexible disc
Coating type		Standard (Vacuum impregnation)

▪ Options

Engine	Alternator	Generator Sets	Fuel System	Canopy
<ul style="list-style-type: none"> •Water Jacket Preheater •Oil Preheater 	<ul style="list-style-type: none"> •Winding Temperature measuring Instrument •Alternator Preheater •PMG •Anti-damp and anti-corrosion treatment •Anti-condensation heater 	<ul style="list-style-type: none"> •Tools with the machine 	<ul style="list-style-type: none"> • Low fuel level alarm •Automatic fuel feeding system •Fuel T-valves 	<ul style="list-style-type: none"> •Rental Type Canopy •Trailer
Lubricating System	Exhaust System	Cooling System	Control Panel	Voltages
<ul style="list-style-type: none"> •Oil with the machine 	<ul style="list-style-type: none"> •Protection board from hotness 	<ul style="list-style-type: none"> • Front heat protection • Coolant (-30°C) 	<ul style="list-style-type: none"> •Remote control panel • ATS • Remote controller • Synchronizing controller 	<ul style="list-style-type: none"> • 415/240V • 380/220V • 220/127V • 220/127V • 200-115V



Control Panel



Product description

- Single gen-set controller for Stand-by and Prime-power applications
- Direct communication with EFI engines
- Total remote monitoring and control

Key features

- Easy to install, configure and use
- Wide range of communication capabilities including:
 - connection via RS232, RS485, CAN and on board USB
 - internet access using Ethernet or GPRS
 - support for Modbus and SNMP protocols
- Cloud-based monitoring and control
- Active SMS and emails in different languages
- 2x 5 A binary outputs for cranking and fuel solenoid
- Option for up to 16 additional binary inputs/outputs
- Flexible event based history with up to 350 events
- Load shedding, dummy load capability
- Automatic temperature based cooling/heating
- Comprehensive gen-set protections
- Multipurpose flexible timers
- True RMS measurement

Available extension modules

Product	Description	Order code
CM-Ethernet	Ethernet interface	CM2ETHERXBX
CM-GPRS	GSM modem / wireless internet	CM2GPRSXXBX
CM-RS232-485	Dual port interface	CM223248XBX
EM-BIO8-EFCP	8 additional binary inputs/outputs	EM2BIO8EXBX

Functions and protections

Description	ANSI code	Description	ANSI code
Over voltage	59	Load shedding	32P
Under voltage	27	Overload	32
Voltage asymmetry and Phase rotation**	47	Power factor	55
Over frequency	81H	Temperature	49T
Under frequency	81L	Gas (fuel) level	71
Over current*	50 + 51	Earth fault current	50N + 64
Current unbalance	46		

* Short current only

** Fixed setting

