

# Model: DE275D5

Powered by DEUTZ





# Generator Specification

Service	<b>PRP</b> (1)	ESP(2)
Power (kVA)	250	275
Power (kW)	200	220
Rated speed (r.p.m)	150	00
Standard voltage (V)	400/2	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):

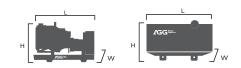
According to ISO 8528-1, It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 hours of operation per year (of which no more than 300 hours for continuative use) with the maintenance intervals and procedures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

Powers	ES	βP	PR	P	Standby
Voltage (V)	KVA	KW	KVA	ĸw	Amps
415/240	275	220	250	200	382.6
400/230	275	220	250	200	396.9
380/220	275	220	250	200	417.8

Performance Data			
Model		DE275D5	
Er	igine brand	Deutz	
Er	ngine model	BF6M1015C-LA G1A	
Spee	d control type	ECU	
Phase		3	
Control system		Digital	
Starter motor voltage		12/24V	
Frequency		50HZ	
Engine speed (RPM)		1500	
	100% standby power	-	
Fuel Consumption (L/H)	100% prime power	76.6	
	75% prime power	56.9	
	50% prime power	37.9	

### Standard reference Conditions

Note: Standard reference condition  $25^{\circ}$ C ( $77^{\circ}$ 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)	2700mm	4000mm	
Width (W)	1080mm	1570mm	
Height (H)	1745mm	2560mm	
Net Weight	-	3126KG	
Fuel Tank (L)	-	540L	

Note: This parameters allows for some acceptable deviations.



# ■ Engine Specification: BF6M1015C-LA G1A

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Basic technical data		
No. of cylinders	6	
Cylinder arrangement	V-from 90° angle 4	
Cycle	stroke	
Cylinder type	One-cylinder-one-head	
Displacement	11.906 L	
Bore	132 mm	
Stroke	145 mm	
Compression ratio	16.5:1	
Mean effective pressure	16.8bar	
Max.exhaust gas temperature	463°C	
Charge air temperature	146°C	
Exhaust emission standard	1375kg/h	

Fuel system	
Cylinder ignition sequence	1-6-3-5-2-4
ldlespeed	600±50 rpm
Low-pressure pump oil	
load capacity	190L/h
Fuel filter element type	Disposable filter
No. of the fuel filter element	2

Lubrication system	
Min. oil pressure at 1500rpm	
(oil temperature 90°C)	≥3bar
Min. oil pressure at 600rpm	
(oil temperature 90°C)	≥1bar
Oil pan	Flywheel side 30°
Oil pan inclination	38L
Initial oil filling	

Cooling system		
Water-pump flow	260 L/ min	
Water-pump pressure	1.25bar	
Coolant capacity(engine)	17L	
Heat carry off by coolant	138KW	
In&outlet coolant size	70mm	
Max.allowable operating tempera	ture 103°C	
Fan	Exhaust type	
Fan connection	Gear drive+coupler	
Fan diameter	880mm	
Air volume of fan	4.6m³/s	
Fan power consumption	≤14KW	
Fan transmission ratio	0.96	

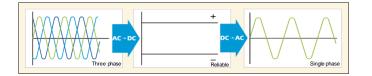
Cold starting systems		
Lowest ambient temperature of		
cold starting without assistant		
(standard configuration)	-17°C	
Lowest ambient temperature of cold		
starting with flame preheat plug	-32°C	

Engine Data	
Dry weight	850 kg
No. of flywheel teeth	167
Engine support	Rigid
Battery voltage	24V
Starter rated power	9 KW
Generator capacity	55A



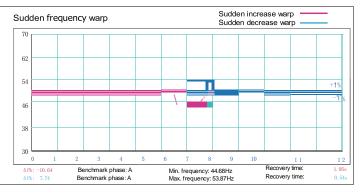
# Alternator Specification

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0.8	
4	
) Star-serie	
12	
H class	
2/3	
IP23	
Self-excited	
Single bearing	
Vacuum impregnation	
A.V.R	
Flexible disc	



### Emergency voltage curve Sudden increase warp Sudden decrease warp Sudden voltage warp 520 464 408 80 352 296 240 0 10 11 12 Recovery time: Recovery time: Benchmark phase: A Benchmark phase: A Min. voltage: 310.9V Max. voltage: 413.8V δu%: 8.89

# Emergency frequency curve



# Options

Engine	Alternator	Generator Sets	Fuel System
<ul> <li>Water Jacket Pre-heater</li> <li>Fuel heater</li> </ul>	<ul> <li>Winding Temp measuring Instrument</li> <li>Alternator Pre-heater</li> <li>PMG</li> <li>Anti-damp and anti-corrosion treatment</li> <li>Anti-condensation heater</li> <li>Winding and bearing RTD</li> </ul>	<ul> <li>Tools with the machine</li> <li>Extended range fuel tank</li> <li>Bunded fuel tank</li> </ul>	<ul> <li>Low fuel level alarm</li> <li>Automatic fuel feeding system</li> <li>Fuel T-valves</li> </ul>
Canopy	Lub oil system	Cooling System	Control Panel
<ul> <li>Rental type</li> <li>Canopy</li> <li>Trailer</li> </ul>	- Oil Pre-heater - Oil temp sensor	- Front heat protection	<ul> <li>Remote control panel</li> <li>ATS</li> <li>Synchronizing controller</li> <li>Adjustable earth leakage relay</li> </ul>



# 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



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## Benefits

- · Less wiring and components
- Integrated solution
- $\cdot$  Less engineering and programming
- $\cdot$  User friendly set-up and button layout
- $\cdot$  Module can be configured to suit individual applications
- $\cdot\,$  PC software for simplified configuration
- $\cdot$  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<sup>2</sup>

### 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
- $\cdot$  Low fuel level alarm
- · Low fuel level shutdown
- · High fuel level alarm
- · Fuel transfer system control
- · Low coolant level shutdown
- High lube oil temp shutdownOverload via alarm switch on breaker
- Engine coolant heater controls
- Control panel heater

Distributed by

- · Speed adjust switch
- · Oil temp displayed on LCD screen
- · Additional 8 inputs and outputs

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