Model: DE275E5

Powered by DEUTZ

Generator Specification

Service	PRP(1)	ESP(2)
Power (kVA)	250	275
Power (kW)	200	220
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):

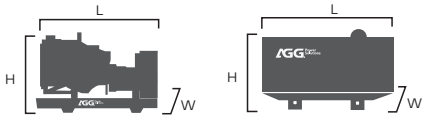
According to ISO 8528-1, It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 hours of operation per year (of which no more than 300 hours for continuative use) with the maintenance intervals and procedures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

Powers	ESP		PRP		Standby
Voltage (V)	KVA	KW	KVA	KW	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		DE275E5
Engine brand		Deutz
Engine model		TCD2013L6 4V
Speed control type		ECU
Phase		3
Control system		Digital
Starter motor voltage		12/24V
Frequency		50HZ
Engine speed (RPM)		1500
Fuel Consumption (L/H)	100% standby power	-
	100% prime power	49.9
	75% prime power	39.9
	50% prime power	28.7

Standard reference Conditions

Note: Standard reference condition 25℃ (77℉) 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	1870KG	3126KG
Fuel Tank (L)	400 L	540 L

AGG Power Solutions

Engine Specification: TCD2013L6 4V

Basic technical data	
No. of cylinders	6
Cylinder arrangement	In-line
Cycle	4 stroke
Injection system	Common Rail
Displacement	7.146 L
Bore	108 mm
Stroke	130 mm
Compression ratio	17:1
Mean effective pressure	28 bar
Piston speed	TBD
Rotation	CCW
Exhaust emission standard	TBD

Cooling system	
Delivery of coolant pump	14.7 m³/h
Min. pressure before coolant pump	0.3 bar
Coolant capacity(engine)	9.8 L
Coolant capacity (incl. cooling unit)	27.0 L
Air to boil	54℃
Fan power consumption	11.6 KW
Cooling air flow	16200 m³/h
Air pressure loss, external	1.5 mbar
Heat balance	
Heat dissipation (engine radiator)	122.3 KW
Heat dissipation (CAC)	48 KW
Heat dissipation (Convection)	25 KW

Inlet / Exhaust Data	
Max. intake depression(switch setting)	30 mbar
Combustion air volume	909 m³/h
Max. exhaust back pressure	50 mbar
Max. exhaust gas temperature	530 ℃
Exhaust gas flow (at above temp)	2547 m³/h
Exhaust flange/pipe diameter	TBD

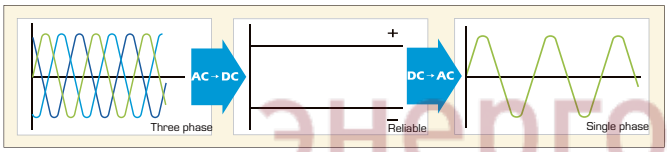
Output	
Gross output (LTP)	250.7 KW
Fan reduction	9.2 KW
Net flywheel	241.5 KW
Electrical output	TBD
Gross output (PRP)	TBD
Gross output (Continous power)	TBD

Lubrication system	
Oil specification	TR0199-99-3002/6
Oil consumption (as % of fuel consumption)	0.02
Oil capacity (sump)	24 L
Min. oil pressure (warning)	1.5 bar
Min. oil pressure (shut down)	1.35 bar
Max. permissible oil temp(oil pan)	TBD

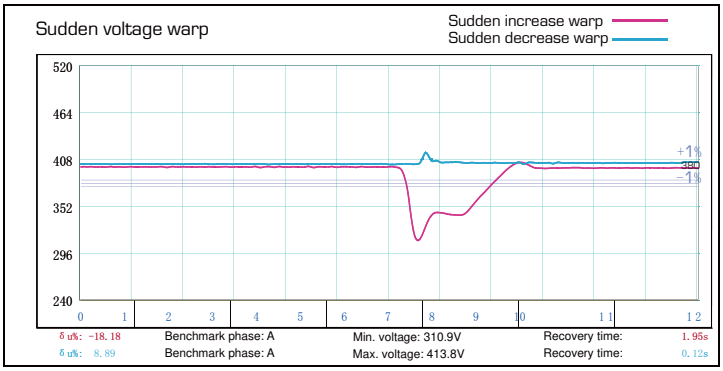
Electrical system	
Voltage	TBD
Starter	TBD
Alternator output	TBD

Alternator Specification

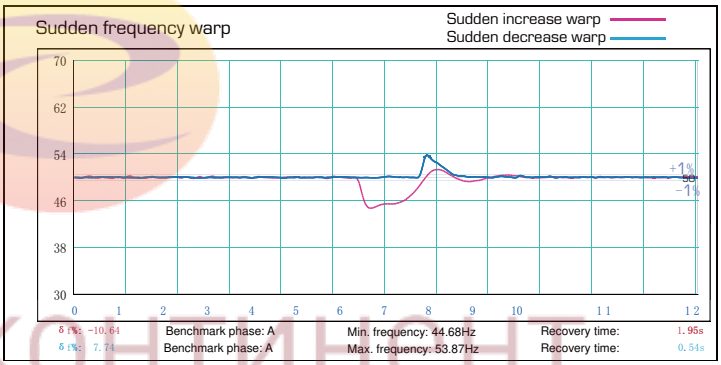
Alternator	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Terminals	12
Insulation type	H class
Winding Pitch	2/3
IP rating	IP23
Excitation system	Self-excited
Bearing	Single bearing
Coating	Vacuum impregnation
Voltage regulator	A.V.R
Couping	Flexible disc



Emergency voltage curve



Emergency frequency curve



Options

Engine	Alternator	Generator Sets	Fuel System
• Water Jacket Pre-heater • Fuel heater	• Winding Temp measuring Instrument • Alternator Pre-heater • PMG • Anti-damp and anti-corrosion treatment • Anti-condensation heater • Winding and bearing RTD	• Tools with the machine • Extended range fuel tank • Bunded fuel tank	• Low fuel level alarm • Automatic fuel feeding system • Fuel T-valves
Canopy	**Lub oil system**	**Cooling System**	**Control Panel**
• Rental type Canopy • Trailer	• Oil Pre-heater • Oil temp sensor	• Front heat protection	• 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 ℃ to + 70 ℃
- Storage temp: -30 ℃ to + 80 ℃
- Operating humidity: 95% w/o condensation
- Vibration : 5-25Hz, ±1.6 mm
  5-100Hz, a=4g
- Shocks: a= 500m/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