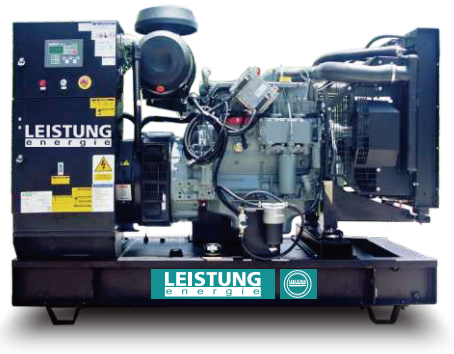
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Model: DE220E5

Powered by DEUTZ





Generator Specification

Service	PRP(1)	ESP(2)
Power (kVA)	200	220
Power (kW)	160	176
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):

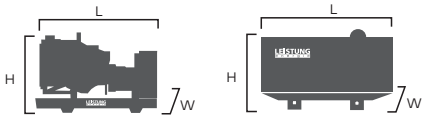
According to ISO 8528-1, It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 hours of operation per year (of which no more than 300 hours for continuative use) with the maintenance intervals and procedures 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	220	176	200	160	306.1
400/230	220	176	200	160	317.6
380/220	220	176	200	160	334.3

Performance Data		
Model		DE220E5
Engine brand		Deutz
Engine model		BF6M1013FC G3
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	50.8
	75% prime power	37.7
	50% prime power	25.3

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)	2650mm	3950mm
Width (W)	1140mm	1250mm
Height (H)	1680mm	2035mm
Net Weight	1800KG	2616KG
Fuel Tank (L)	350L	405L

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Engine Specification: BF6M1013FC G3

Basic technical data	
No. of cylinders	6
Cylinder arrangement	In-line
Cycle	4 stroke
Injection system	Single injection pumps
Displacement	7.146 L
Bore	108 mm
Stroke	130 mm
Compression ratio	18.1:1
Mean effective pressure	11.9 bar
Piston speed	6.5 m/s
Rotation	CCW
Exhaust emission standard	708kg

Cooling system	
Delivery of coolant pump	10.9m³/h
Min. pressure before coolant pump	0.3bar
Coolant capacity(engine)	9.8L
Coolant capacity (incl. cooling unit)	27.3L
Air to boil	50 ℃
Fan power consumption	7.2 KW
Cooling air flow	11520m³/h
Air pressure loss, external	1.5 mbar
Heat balance	
Heat dissipation (engine radiator)	96.1 KW
Heat dissipation (CAC)	42 KW
Heat dissipation (Convection)	20.0 KW

Inlet / Exhaust Data	
Max. intake depression(switch setting)	25 mbar
Combustion air volume	745.6 m³/h
Max. exhaust back pressure	30 mbar
Max. exhaust gas temperature	530 ℃
Exhaust gas flow (at above temp)	2122 m³/h
Exhaust flange/pipe diameter	TBD

Output	
Gross output (LTP)	201 KW
Fan reduction	7.2 KW
Net flywheel	193.8 KW
Electrical output	218kVA
Gross output (PRP)	183KW
Gross output (Continous power)	166KW

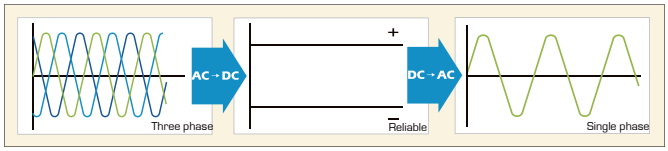
Lubrication system	
Oil specification	TR0199-99-3002/6
Oil consumption (as % of fuel consumption)	0.3
Oil capacity (sump)	20L
Min. oil pressure (warning)	2.7 bar
Min. oil pressure (shut down)	2 bar
Max. permissible oil temp(oil pan)	130 ℃

Electrical system	
Voltage	12V
Starter	3kW
Alternator output	55A

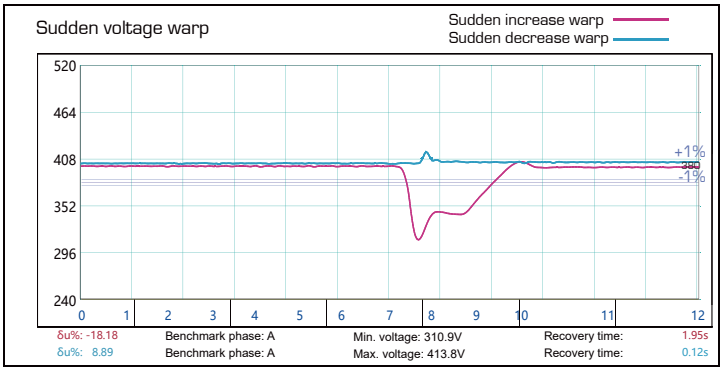
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Alternator Specification

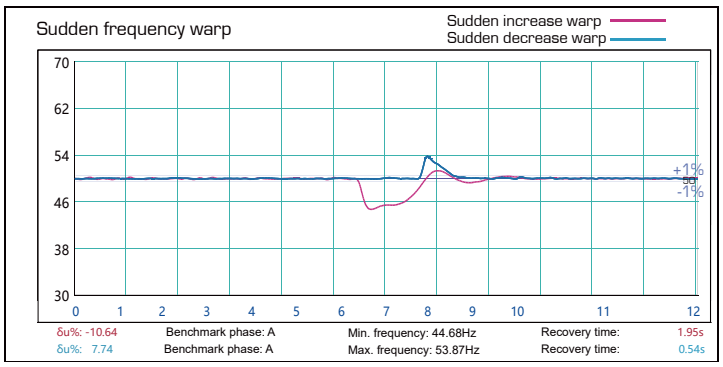
Alternator	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Terminals	12
Insulation type	H class
Winding Pitch	2/3
IP rating	IP23
Excitation system	Self-excited
Bearing	Single bearing
Coating	Vacuum impregnation
Voltage regulator	A.V.R
Couping	Flexible disc



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

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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, ±1.6mm
  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

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United Kingdom | Australia | China | Chile | Germany
Hongkong | Indonesia | Malaysia | Russia | Singapore
South Africa | Thailand | Vietnam

info@leistung-energie.com | www.leistung-energie.com

Unit 1804, South Bank Tower, 55 Upper Ground,
London, United Kingdom SE1 9EY

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