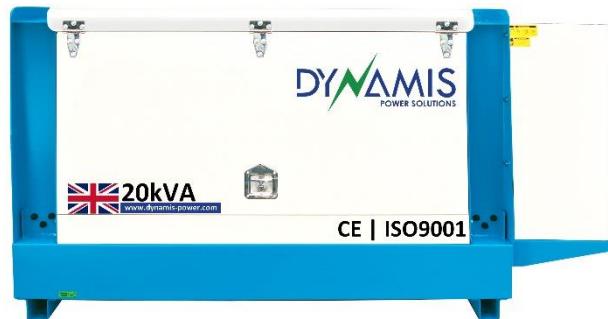


■ Model: D E 2 2 D 5

Powered by DEUTZ



■ Generator Specification

Service	PRP ⁽¹⁾	ESP ⁽²⁾
Power (kVA)	20	22
Power (kW)	16	18
Rated speed (r.p.m)	1500	
Standard voltage (V)	400/230V	
Rated at power factor(cos phi)	0.8	



Dynamis Power gensets are compliant with ISO9001 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):

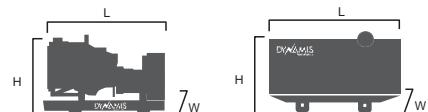
According to ISO8528-1, It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 hours of operation per year (of which no more than 300 hours for continuative use) with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. No overload capability is available.

Power Voltage (V)	ESP		PRP		Standby Amps
	KVA	KW	KVA	KW	
415/240	22	18	20	16	30.6
400/230	22	18	20	16	31.8
380/220	22	18	20	16	33.4

Performance Data		
Model	DE22D5	
Engine brand	Deutz	
Engine model	BFM3 G1	
Speed control type	Electronic	
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	5.4
	75% prime power	4
	50% prime power	2.8

Standard reference Conditions

Note: Standard reference condition 25°C[77°F] air inlet temp, 1000m(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)	1750mm	2300mm
Width (W)	750mm	950mm
Height (H)	1050mm	1276mm
Net Weight	410KG	800KG
Fuel Tank (L)	-	86L

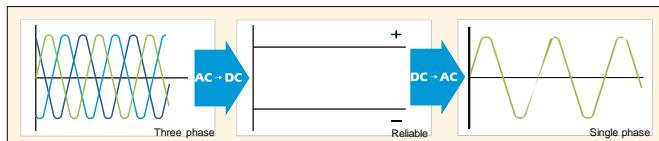
Note: This parameters allows for some acceptable deviations.

■ Engine Specification: BFM3 G1

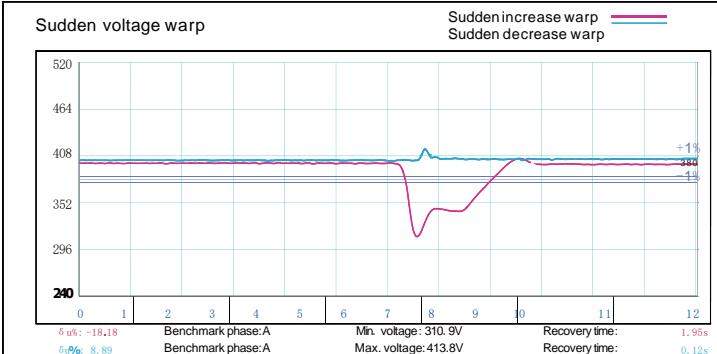
Basic technical data		Output	
No. of cylinders	4	Gross output (LTP)	22 KW
Cylinder arrangement	In-line	Fan reduction	2KW
Cycle	4 stroke	Net flywheel	TBD
Injection system	in-line pump	Electrical output	22kVA
Displacement	3.168 L	Gross output (PRP)	20KW
Bore	98mm	Gross output (Continous power)	19KW
Stroke	105 mm		
Compression ratio	18.5:1		
Mean effective pressure	5.6 bar		
Piston speed	5.25 m/s		
Rotation	CCW		
Exhaust emission standard	245kg		
Cooling system		Lubrication system	
Delivery of coolant pump	4.2 m ³ /h	Oil specification	CF-4
Min. pressure before coolant pump	0.15bar	Oil consumption (as % of fuel consumption)	0.5
Coolant capacity(engine)	4.8L	Oil capacity (sump)	7.5L
Coolant capacity (incl. cooling unit)	TBD	Min. oil pressure (warning)	1.5 bar
Air to boil	50°C	Min. oil pressure (shut down)	1.0bar
Fan power consumption	2 KW	Max. permissible oil temp(oil pan)	120°C
Cooling air flow	3960 m ³ /h		
Air pressure loss, external	1.5 mbar		
Heat balance		Electrical system	
Heat dissipation (engine radiator)	29KW	Voltage	12 V
Heat dissipation (CAC)	TBD	Starter	3 KW
Heat dissipation (Convection)	TBD	Alternator output	55 A
Inlet / Exhaust Data			
Max. intake depression(switch setting)	30 mbar		
Combustion air volume	132 m ³ /h		
Max. exhaust back pressure	100 mbar		
Max. exhaust gas temperature	530 °C		
Exhaust gas flow (at above temp)	250 m ³ /h		
Exhaust flange/pipe diameter	TBD		

■ Alternator Specification

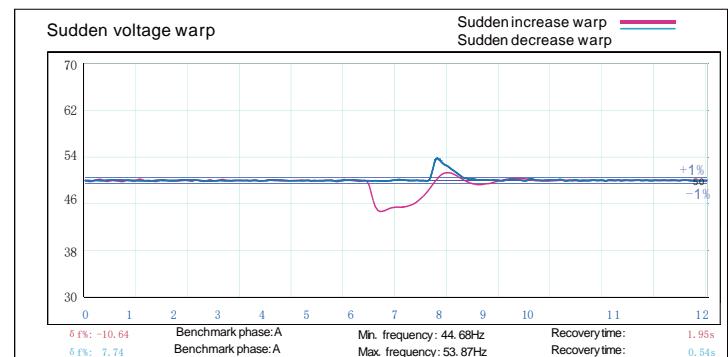
Alternator	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Terminals	12
Insulation type	H class
Winding Pitch	2 / 3
IP rating	IP23
Excitation system	Self-excited
Bearing	Single bearing
Coating	Vacuum impregnation
Voltage regulator	A.V.R
Coupling	Flexible 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	Benefits
<ul style="list-style-type: none"> Emergency stop button Protection MCB Battery charger Integrated aviation plug ATS connection Digital control module 	<ul style="list-style-type: none"> 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
Features	Operation conditions
<ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> - Over-/under voltage - Over-/under frequency - Current/voltage asymmetry - Over current/overload 3 phase AMF function <ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> 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: $a= 500m/s^2$



info.dynamis@netisgroup.net



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