

KDE-22DE Diesel Generator Set



General Features

- Engine (DEUTZ BFM3 G1), Radiator 50°C max, belt driven fans, with safety guard
- 24V charge alternator
- Alternator (Stamford, Leroy Somer & MeccAlte for option), single bearing alternator IP23, insulation class H/H
- Skid and vibration isolators
- Dry type air filter, fuel filter, oil filter
- Main line circuit breaker
- Standard control panel
- Two 12V batteries, rack and cable
- Ripple flex exhaust pipe, exhaust siphon, flange, industrial muffler

PHOTO FOR REFERENCE ONLY



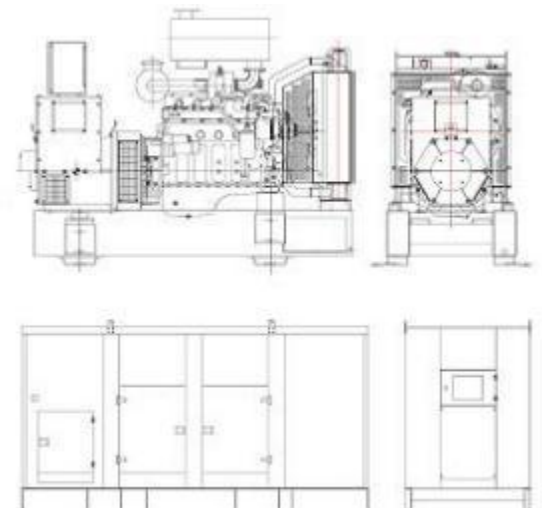
Technical Data

| | |
|----------------------------|--------------|
| Output Frequency | 50 Hz |
| Rated Speed | 1500RPM |
| Prime Power | 20KVA/16KW |
| Standby Power | 22KVA/17.6KW |
| Rated Voltage | 400/230V |
| Phase | 3 |
| Power Factor | 0.8 |
| Fuel Consumption 100% Load | 5.4L/Hr |
| Fuel Consumption 75% Load | 4.0L/Hr |
| Fuel Consumption 50% Load | 2.8L/Hr |
| Operation Altitude | ≤ 1500m |
| Ambient Temperature | ≤ 50°C |



Dimension and Weight

| Genset Type | Open Frame | Soundproof |
|----------------|------------|------------|
| Length(L) (mm) | 1600 | 2000 |
| Width(W) (mm) | 700 | 900 |
| Height(H) (mm) | 1300 | 1260 |
| Weight (kg) | 860 | 1170 |



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Engine Specification

| | |
|----------------------------------|--------------------------|
| Manufacturer / Model: | DEUTZ BFM3 G1, 4-cycle |
| Air Intake System: | Natural |
| Fuel System: | In-line pump |
| Cylinder Arrangement: | 4 in line |
| Displacement: | 3.168L |
| Bore and Stroke: | 98*105 (mm) |
| Compression Ratio: | 18.5:1 |
| Rated RPM: | 1500rpm |
| Max. Standby Power at Rated RPM: | 22KW |
| Governor Type: | Electric |
| Exhaust Gas Flow: | 4.17m ³ /min |
| Exhaust Temperature: | 530°C |
| Max Back Pressure: | 100mbar |
| Max Intake Restriction: | 30mbar |
| Burning Capacity: | 2.2m ³ /min |
| Oil Capacity: | 7.5L |
| Oil Consumption: | 0.5% of fuel consumption |
| Coolant Capacity (Engine): | 4.8L |
| Thermostat: | 78-90°C |
| Max Water Temperature: | 103°C |

Alternator Specification

| | |
|-------------------------------------|--------------------------|
| Manufacturer / Model: | STAMFORD S0L2-G1 |
| Number of Phase: | 3 |
| Stator Winding: | Double Layer Concentric |
| Winding Leads: | 12 |
| Number of Bearing: | 1 |
| Protection Grade: | IP23 |
| Exciter Type: | Brushless, self-exciting |
| Insulation Class, Temperature Rise: | H/H |
| Telephone Influence Factor (TIF): | < 50 |
| THF: | < 2% |
| Voltage Regulation, Steady State: | ≤ ± 1% |
| Alternator Capacity: | 20KVA |
| Alternator Efficiencies: | 85.3% |
| Air Cooling Flow: | 0.105m ³ /s |

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Control System

Standard Deepsea DSE6020 Auto Mains Failure Control Panel

- Manual or Auto Start Module for single genset applications. Designed to work with electronic and non-electronic engines, providing advanced engine monitoring and protection features.
- Includes a back-lit LCD display which shows the status of the engine at all times. Monitors engine speed, frequency, voltage and run hours and also displays the warning and shutdown status.
- Includes extensive outputs and inputs making this product ideal for a wide variety of applications. It can either be programmed using the front panel or by using DSEPC software.



Optional Deepsea DSE7320 Auto Mains Failure Control Panel

- Auto Mains (Utility) Failure Control Module suitable for a wide variety of single genset applications.
- Displays warnings, shutdown and engine status info on the back-lit LCD screen, illuminated LEDs, remote PC. Monitors the mains (utility) supply. Includes USB, RS232 and RS485 ports for system expansion.
- Compatible with electronic and non-electronic engines and offers flexible inputs, outputs and engine protections to meet extensive industry requirements.
- Includes enhanced event and performance monitoring, remote communication to reduce engine wear. It can either be programmed using the front panel or by using DSEPC software.



Optional Deepsea DSE8610 Auto Paralleling Control Panel

- Synchronizing Auto Start Control Module for multi-genset loadshare system, designed to synchronize up to 32 gensets including electronic and non-electronic engines.
- Monitors the genset and indicates operational status and fault conditions, automatically starting or stopping the engine on load demand or fault condition.
- System alarms are annunciated on the LCD screen, illuminated LED and audible sounder.
- Records 250 events log for maintenance. Extensive monitoring, metering and protection features are included as well as comprehensive communication and system expansion options.
- Using DSE PC Software allows alteration of the operational sequences, timers, alarms with all communication ports active.



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Optional

Engine

- Water Jacket Preheater
- Water Separator
- Oil Pump
- Oil Preheater
- Battery Charger

Fuel System

- Daily Fuel Tank
- External Fuel Tank
- Auto Fuel Filling System
- Fuel Level Sensor

Control System

- Auto Remote Control Panel
- AMF Function Control Panel
- Auto Paralleling Control Panel
- Auto Transfer Switch (ATS)
- ABB breaker

Alternator

- Anti Condensation Heater
- Permanent Magnet Generator
- Winding Temp Sensor

Enclosure

- Rainproof Type
- Soundproof Rental Type
- Mobile Type

Available Voltages

- 440/254V
- 415/240V
- 380/220V

Reference Standards

Generator Set: ISO 8528, CE

Engine: ISO 3046, BS 5514, DIN 6271

Alternator: BS EN 60034, IEC34, BS5000, NEMA MG1-32, VDE 0530, CSA C22.2-100, AS1359

Warranty

KNOX Power provides a full line of brand new and high quality products. Each and every unit is strictly factory tested.

Warranty is according to our standard conditions: A. 15 months, counted on the day KNOX sold to the first buyer; B. One year after installation; C. 1000 running hours (accumulated); subject to the earlier one.

Service and spare parts are available from KNOX Power or distributors in your location.