

## KDE-28DE-60 Diesel Generator Set

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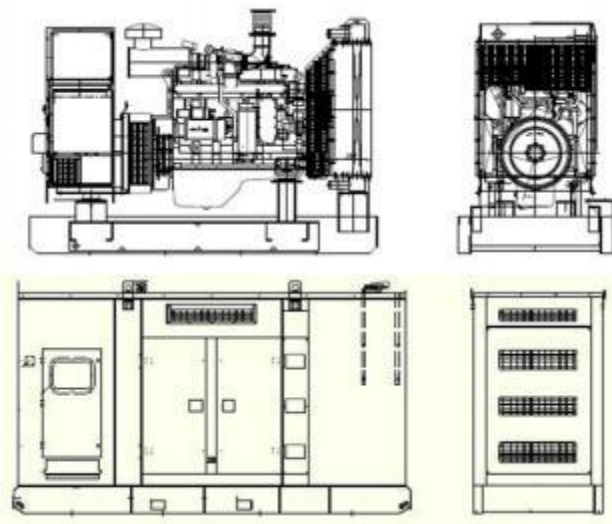
### General Features

- 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



### Technical Data

Output Frequency	60 Hz
Rated Speed	1800RPM
Prime Power	20KVA/16KW W
Standby Power	22KVA/17.6KW
Rated Voltage	440/254V
Phase	3
Power Factor	0.8
Fuel Consumption 100% Load	6.6L/Hr
Fuel Consumption 75% Load	5.2L/Hr
Fuel Consumption 50% Load	3.6L/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:	1800rpm
Max. Standby Power at Rated RPM:	28KW
Governor Type:	Electric
Exhaust Gas Flow:	6m <sup>3</sup> /min
Exhaust Temperature:	530°C
Max Back Pressure:	100mbar
Max Intake Restriction:	30mbar
Burning Capacity:	3m <sup>3</sup> /min
Oil Capacity:	7.5L
Oil Consumption: consumption	0.5% of fuel
Coolant Capacity (Engine):	4.8L
Thermostat:	78-90°C
Max Water Temperature:	103°C

### Alternator Specification

Manufacturer / Model:	STAMFORD S0L2-M1
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:	28KVA
Alternator Efficiencies:	88.5%
Air Cooling Flow:	0.126m <sup>3</sup> /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.