

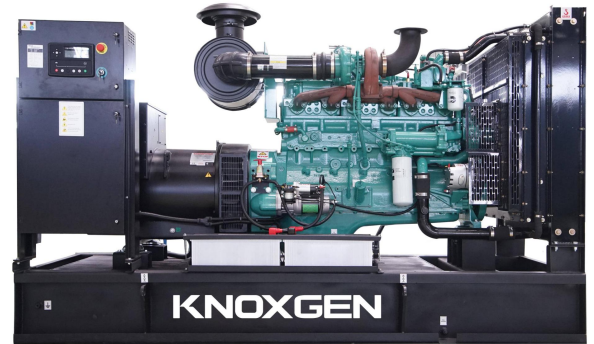
KDE-109 Diesel Generator Set

Powered by 

General Features

- Engine (DCEC Cummins 6BT5.9-G2), 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



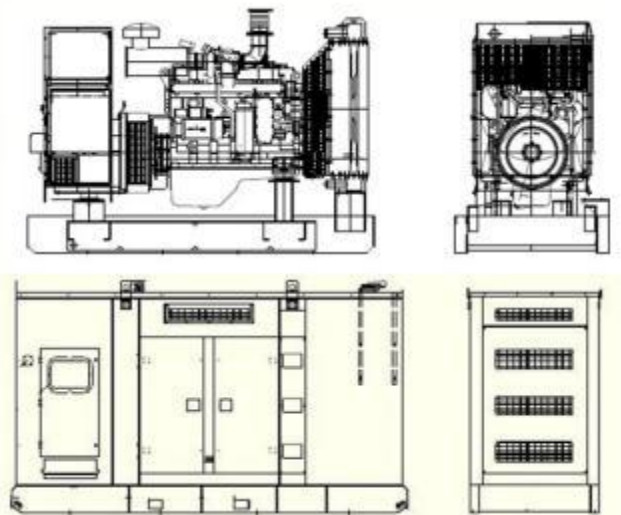
Technical Data

Output Frequency	50 Hz
Rated Speed	1500RPM
Prime Power	100KVA/80KW
Standby Power	109KVA/87KW
Rated Voltage	400/230V
Phase	3
Power Factor	0.8
Fuel Consumption 100% Load	22.3L/Hr
Fuel Consumption 75% Load	16.9L/Hr
Fuel Consumption 50% Load	11.3L/Hr
Operation Altitude	≤1500m
Ambient Temperature	≤50°C



Dimension and Weight

Genset Type	Open Frame	Soundproof
Length(L) (mm)	2185	2800
Width(W) (mm)	990	1150
Height(H) (mm)	1650	1800
Gross Weight (kg)	1380	1900



KDE-109C Diesel Generator Set




Engine Specification

Manufacturer / Model:	DCEC Cummins 6BT5.9-G2, 4-cycle
Air Intake System:	Turbo Charged
Fuel System:	BYCA/Electronic Governor
Cylinder Arrangement:	6 in line
Displacement:	5.9L
Bore and Stroke:	102*120 (mm)
Compression Ratio:	17.3:1
Rated RPM:	1500rpm
Max. Standby Power at Rated RPM:	92KW
Governor Type:	Electronic
Intake Air Flow:	108L/sec
Exhaust Gas Flow:	280L/sec
Exhaust Temperature:	565°C
Max Back Pressure:	10kPa
Max Intake Restriction:	6.2kPa
Total Oil Capacity:	16.4L
Oil Consumption:	≤ 4g/kwh
Total Coolant Capacity – Engine Only:	7.9L
Thermostat:	82-95°C
Max Water Temperature:	104°C

Alternator Specification

Manufacturer / Model:	STAMFORD UCI 274C1
Number of Phase:	3
Connecting Type:	3 Phase and 4 Wires, “Y” type connecting
Number of Bearing:	1
Protection Grade:	IP23
Exciter Type:	Brushless, self-exciting
Insulation Class, Temperature Rise:	H/H
TIF:	< 50
THF:	< 2%
Voltage Regulation, Steady State:	≤ ± 1%
Alternator Capacity:	100KVA
Alternator Efficiencies:	90.3%
Air Cooling Flow:	0.514m ³ /s

KDE-109C Diesel Generator Set

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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.



KDE-109C Diesel Generator Set



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.