

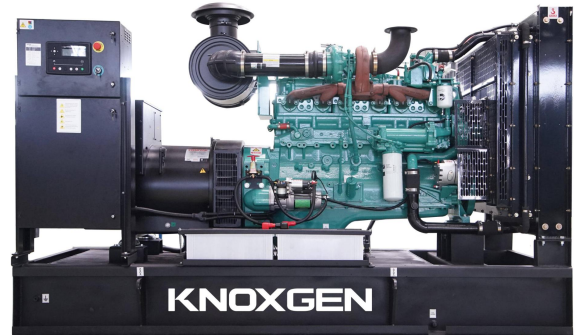
## KDE-412C Diesel Generator Set

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### General Features

- Engine (CCEC Cummins NTAA855-G7), Radiator 40°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



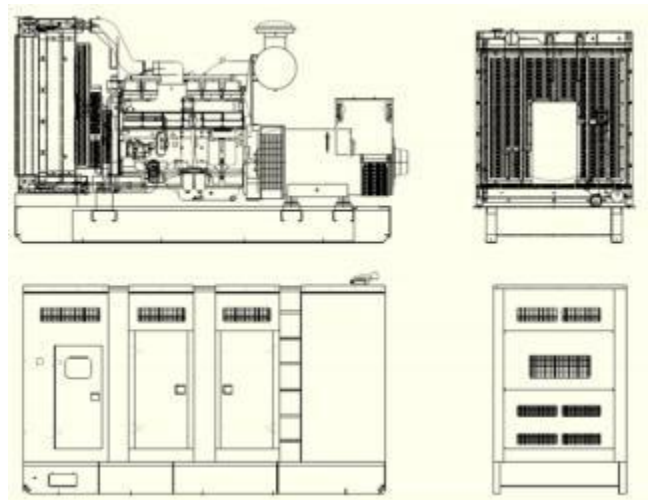
### Technical Data

Output Frequency	50 Hz
Rated Speed	1500RPM
Prime Power	375KVA/300KW
Standby Power	412KVA/330KW
Rated Voltage	400/230V
Phase	3
Power Factor	0.8
Fuel Consumption 100% Load	85.4L/Hr
Fuel Consumption 75% Load	64.7L/Hr
Fuel Consumption 50% Load	44.6L/Hr
Operation Altitude	≤ 1500m
Ambient Temperature	≤ 40 °C



### Dimension and Weight

Genset Type	Open Frame	Soundproof
Length(L) (mm)	3250	4350
Width(W) (mm)	1250	1450
Height(H) (mm)	1880	2350
Gross Weight (kg)	3330	4570



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### Engine Specification


Manufacturer / Model:	CCEC Cummins NTAA855-G7, 4-cycle
Air Intake System:	Turbo, Air/Air Cooling
Fuel System:	PT type fuel pump, EFC
Cylinder Arrangement:	6 in line
Displacement:	14L
Bore and Stroke:	140*152 (mm)
Compression Ratio:	14.0:1
Rated RPM:	1500rpm
Max. Standby Power at Rated RPM:	377KW
Governor Type:	Electronic
Intake Air Flow	485L/s
Exhaust Gas Flow:	1090L/s
Exhaust Temperature:	497°C
Max Back Pressure:	10kPa
Max Intake Restriction:	6.2kPa
Total Oil Capacity:	38.6L
Oil Consumption:	≤0.24L/h
Coolant Capacity – Engine Only:	20.8L
Thermostat:	82-94°C
Max Water Temperature:	96°C

### Alternator Specification

Manufacturer / Model:	STAMFORD S4L1D-F4
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:	415KVA
Alternator Efficiencies:	93.2%
Air Cooling Flow:	0.76m <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.