

INDUSTRIAL DIESEL GENSET

DD 40

POWER RATING	1500 rpm/50 Hz	1800 rpm/60 Hz
Prime	37kVA, 29.6kW	40.2kVA, 32.2kW
Standby	43.5kVA, 34.8kW	48.9kVA, 39.1kW

Generator set consisting of engine and alternator mounted on a fabricated steel profile base, painted with a phosphate coating and top coat.

The alternator is directly coupled to the engine flywheel housing to SAE standards. The rotor is fixed to the flywheel using steel discs for flexibility. Perfect alignment and the absence of vibration are thus guaranteed.

The unit is fixed to the baseframe using anti-vibration pads.

ENGINE

Type:..... 4-stroke diesel with direct injection.
Manufacturer Deutz
Model..... F4L-912
No. of cylinders..... 4
Engine capacity 3770 cc
Bore 100 mm
Stroke 120 mm
Compression ratio 17: 1
Aspiration..... Atmospheric
Engine speed 50 / 60 Hz 1500 / 1800 rpm
Prime power 50 / 60 Hz 50.3 / 61.1 HP ISO 3046/1 (IFN) Nb
Fuel consumption 100% load 50 / 60 Hz 8.9 / 10.4 ltr/h
Fuel tank capacity..... 109 litres
Approximate running time without refill 50 / 60 Hz 12.2 / 10.5 hours
Noise level 93 / 96 dB(A) at 1 metre

Cooling system

Air cooled by axial fan.

Cooling air flow 1500 / 1800 rpm..... 1810 / 2170 m3

Lubrication system

Forced lubrication using gear driven pump. Oil filter

Oil sump capacity 11.5 litres
Consumption 0.7 % of fuel consumption

Aspiration system

Natural aspiration via air filter soaked in oil.

Injection system

Injection pump in line with centrifugal mechanical regulator. Fuel filter.

Electrical system

12 V electric starting system. Axial starter motor. 70 A.h. battery. Battery charging alternator. Oil pressure and engine temperature sensors.

Protection system

Automatic engine shutdown for low oil pressure, low fuel level, high temperature or battery charge defect..

Exhaust system

Consists of silencer with 10 db(A) noise reduction, flexible exhaust pipe and brackets. Residential silencer optional.

Exhaust gas flow 1500 / 1800 rpm.....160 / 192 m3/h

ALTERNATOR

Synchronous, three phase and brushless. Self regulation via automatic voltage regulator maintaining voltage within +/- 1.5%. Class "H" insulation. All windings are impregnated with polyester resin, making them resistant to acids and oil. IP 22 protection. Electrical characteristics to BS 5000, VDE 0530, UTE 5100, NEMA MG 1-22, CMA IEC 34, CSA 22,2 and AS 1359. Harmonic distortion below 3.5%. Radio interference suppression to BS-800.

Manufacturer	Stamford
Model.....	UCD 224 C16
Power rating.....	42.5 kVA at 1500; 52.5 kVA at 1800 rpm
Voltage (*).....	380/220 V three phase
Frequency.....	50 / 60 Hz
Speed	1500 / 1800 rpm
Regulation.....	Electronic
Nominal current	64.6 A

(*) Other voltages: PLEASE CONSULT.

VERSIONS

The **DD 40** generator set may be supplied in the following versions:

STATIONARY, STATIONARY WITH CANOPY, MOBILE WITH CANOPY AND AUTOMATIC

STATIONARY VERSION

DD 40

In the stationary version, the set is supplied on a skidbase with a control panel operated manually using an ignition key.

Dimensions: 2100 x 850 x 1460 mm LengthxWidthXHeight

CONTROL PANEL

Metal cabinet with IP 54 protection mounted on frame with anti-vibration pads.

Equipped with:

- Thermo - magnetic circuit breaker
- 3 Ammeters.
- Frequency meter.
- Voltmeter with selector switch.
- Hours run meter.
- Three phase output terminals.
- Battery voltmeter.
- Fuel meter.
- On light.

Control card including: ignition key, start/stop buttons and indicator lamps for low oil pressure, battery charge, high temperature, low fuel level, overload and start-up failure.

STATIONARY VERSION WITH CANOPY

DD 40-C

In the stationary with canopy version, the set is supplied on a skidbase. It features a metal canopy housing a control panel which is operated manually using an ignition key.

Dimensions: 2116 x 850 x 1659mm Length x Width x Height

CONTROL PANEL

Metal cabinet with IP 54 protection mounted on frame with anti-vibration pads. Equipped with:

- Thermo - magnetic circuit breaker
- 3 Ammeters.
- Frequency meter.
- Voltmeter with selector switch.
- Hours run meter.
- Three phase output terminals.
- Battery voltmeter.
- Fuel meter.
- On light.

Control card including: ignition key, start/stop buttons and indicator lamps for low oil pressure, battery charge, high temperature, low fuel level, overload and start-up failure.

MOBILE VERSION WITH CANOPY

DD 40-MC

Generator set with base frame mounted on independent trailer. Features metal canopy housing a control panel which is operated manually using an ignition key.

Dimensions: 2871 x 1290 x 1807mm length x width x height

METAL CANOPY

Ideal for outdoor use, it is painted with a phosphate coating and a long lasting top coat.

TRAILER

Made up of: wheels with tyres, DIN towing eye, rubber axle suspension, and support leg. Jockey wheel on request.

As an option, A TRAILER ADAPTED FOR ROAD TRANSPORTATION may be supplied

CONTROL PANEL

Metal cabinet with IP 54 protection mounted on frame with anti-vibration pads. Equipped with:

- Thermo - magnetic circuit breaker
- 3 Ammeters.
- Frequency meter.
- Voltmeter with selector switch.
- Hours run meter.
- Three phase output terminals.
- Battery voltmeter.
- Fuel meter.
- On light.

Control card including: ignition key, start/stop buttons and indicator lamps for low oil pressure, battery charge, high temperature, low fuel level, overload and start-up failure.

AUTOMATIC VERSION

DD 40-A

The automatic version generator set is supplied on a skidbase with an automatic start/stop panel for mains failure.

Dimensions: 2100 x 850 x 1460mm length x width x height

ELECTRICAL PANEL

Mounted in a metal cabinet with IP 54 protection and supplied loose for wall mounting. Includes monitoring, measuring and changeover system.

MONITORING AND CONTROL SYSTEM

Automatically monitors the mains, and, if the mains fails (in one or all three phases) connects the consumers to the generator set via mechanically and electrically interlocking contactors. When the mains is restored, the load is reconnected to the mains, the set idles and then stops. Equipped with:

- Pushbutton controls, indicator lamp and protection fuses.
- No. of start up attempts: 3
- Three phase voltage monitor with adjustable values.

MEASURING EQUIPMENT

Consists of the following items:

- 3 Ammeters
- 1 Voltmeter
- 1 mains-generator set voltmeter selector switch.
- 1 Frequency meter
- 1 Battery voltmeter.
- Selector switch for Disconnect, Automatic Service, Manual Service and Test
- Off button.
- Selector switch for start-up.
- Heater indicator lamp
- Battery maintenance system
- Battery indicator lamp
- Audible alarm for faults
- Visible alarm system for low oil pressure, high temperature and/or overload
- Large mushroom type emergency stop push button.

The set may be selected to run manually or automatically. When running manually a pushbutton is used for shutdown and a selector switch is used for start-up and changeover.

TRANSFER SYSTEM

Made up of two mechanically and electrically interlocking contactors.

WORKING VOLTAGE: 380/220 V