

INDUSTRIAL GENSET

Series DV 115

POWER RATING	1500 rpm/50 Hz	1800 rpm/60 Hz
Prime	113 kVA, 90 kW	124 kVA, 99 kW
Standby	114 kVA, 91 kW	125 kVA, 100 kW

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 engine with direct injection.
Manufacturer	Volvo Penta
Model	TD 610 G
No. of cylinders	6
Engine capacity	5480 cc
Bore	98.43 mm
Stroke	120 mm
Compression ratio	15:1
Aspiration	Turbocharged
Cooling system	Water cooled
Engine speed 50 / 60 Hz	1500 / 1800 rpm
Prime power 50 / 60 Hz	136 / 138 hp ISO 3046
Consumption 100% load 50 / 60 Hz	25 / 29 ltr/h
Fuel tank capacity	180 litres
Approximate running time without refill 50 / 60 Hz	7.2 / 6.2 hours

Cooling system

Closed circuit water cooled with expander tank included in the radiator. Tropical radiator and pusher fan with guard. Equipped to work at ambient temperatures of up to 52° C.

Cooling air flow from fan 50 / 60 Hz	81 m ³ /min
Cooling system capacity	36 litres

Lubrication system

Forced lubrication using gear type pump. Oil filter

Oil sump capacity	22 litres
Consumption	0.21 ltr/h

Aspiration system

Turbocharged aspiration via dry air filter.

Combustion air flow	5.7 m ³ /min
---------------------------	-------------------------

Injection system

Injection pump in line with centrifugal governor. Fuel filter and pre-filter.

Electrical system

24 V electric starting system. Axial starter motor. 2x95 A.h. battery. 60 Amp battery charging alternator. Oil pressure and engine temperature sensors.

Protection system

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

Exhaust system

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

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 varnish, 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	UC 274 D
Power rating.....	114 kVA at 1500; 137 kVA at 1800 rpm
Voltage (*).....	380/220 V three phase
Frequency.....	50 / 60 Hz
Speed	1500 / 1800 rpm
Regulation.....	Electronic
Nominal current	173 A

(*) 12 wire output permitting reconnection to any existing voltage.

VERSIONS

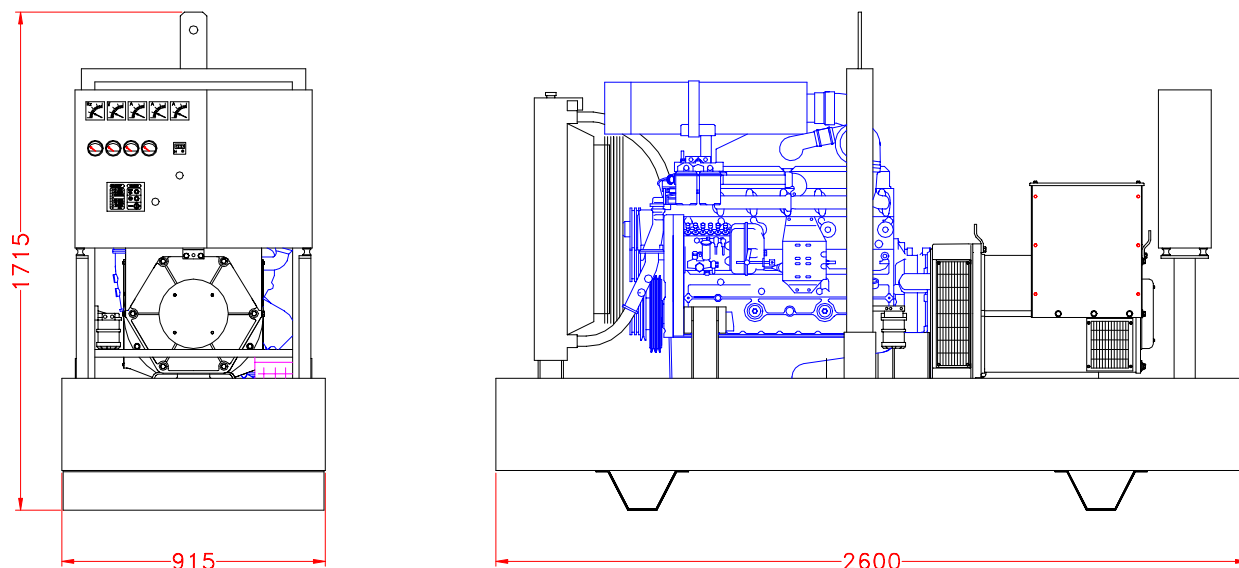
The **DV 115** generator set may be supplied in the following versions:

- **STATIONARY Version**
- **STATIONARY Version WITH CANOPY**
- **MOBILE Version WITH CANOPY**
- **AUTOMATIC Version**

STATIONARY Version

DV 115

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



Control panel

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

Equipped with:

- 3 Ammeters.
- Frequency meter.
- Voltmeter with selector switch.
- Hours run meter.
- Three phase output terminals.
- Engine temperature gauge.
- Fuel gauge.
- Oil pressure gauge.
- Battery charge ammeter.
- On light.
- Heater button.
- Overcurrent indicator lamp.

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.

Power panel

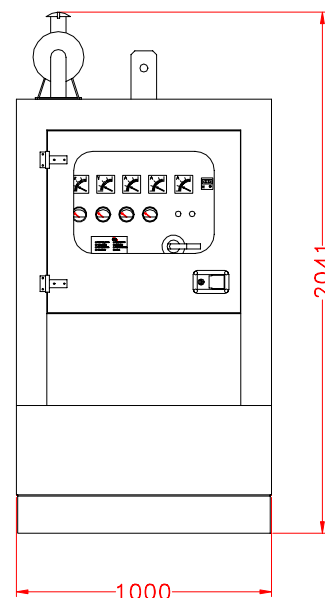
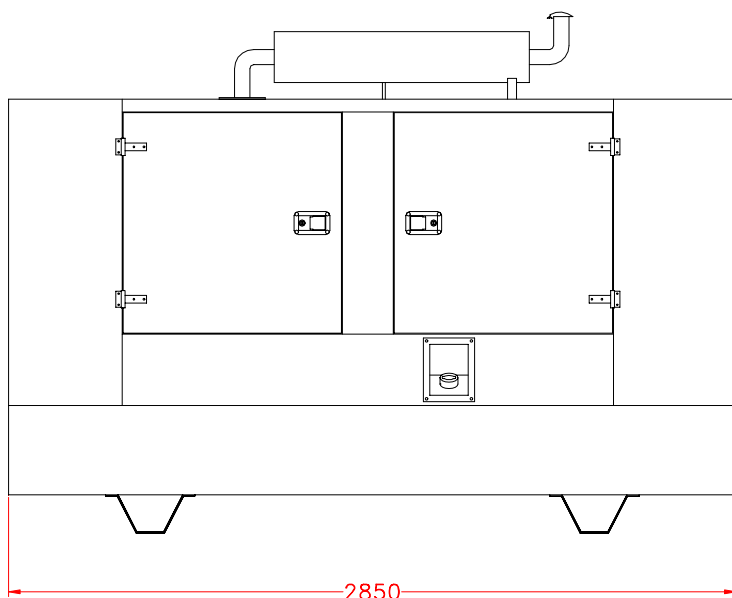
In metal cabinet, with IP 54 protection, mounted on frame with anti-vibration dampeners.

Equipped with automatic circuit breaker.

STATIONARY WITH CANOPY

DV 115-C

In this version, the set is supplied on a skidbase with a metal canopy for outdoor use. The control panel is set in the canopy and is operated manually using an ignition key.



Metal canopy

Ideal for outdoor use, it is finished with a phosphate coating and a long lasting top coat of paint

Control panel

Metal cabinet, with IP 54 protection, mounted on the baseframe with anti-vibration pads.

Equipped with:

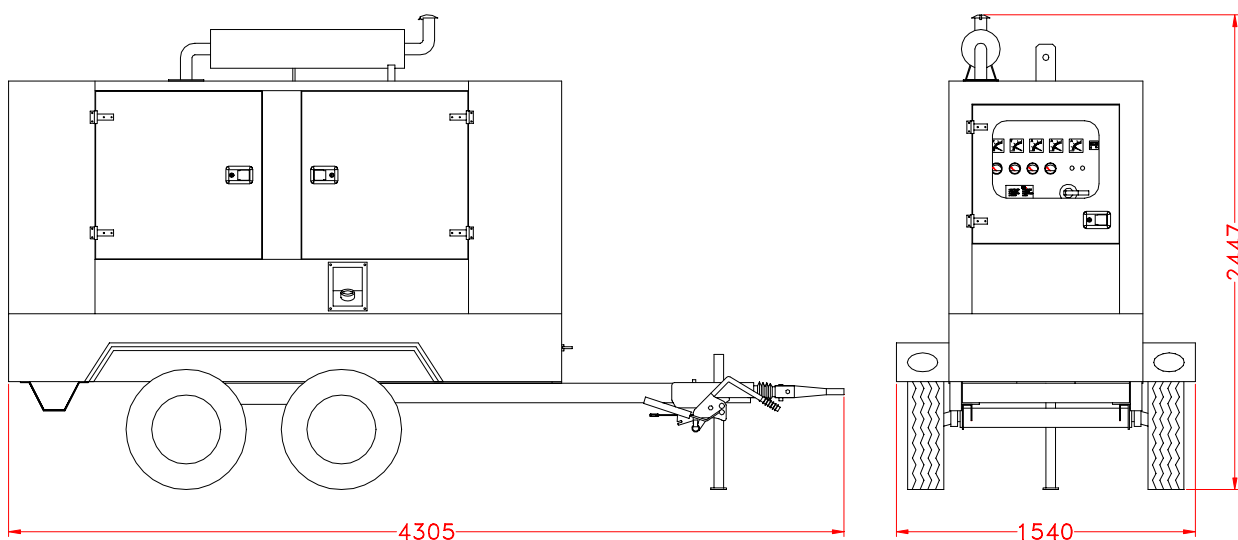
- Automatic circuit breaker.
- 3 Ammeters.
- Frequency meter.
- Voltmeter with selector switch.
- Hours run meter.
- Three phase output terminals.
- Engine temperature gauge.
- Fuel gauge.
- Oil pressure gauge.
- Battery charge ammeter.
- On light.
- Heater button.
- Overcurrent indicator lamp.

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 WITH CANOPY

DV 115-MC

Set on baseframe mounted on independent trailer. Incorporates metal canopy housing the control panel and is operated manually via an ignition key.



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, double rubber axle suspension, surge brake and support leg. Jockey wheel on request. Optionally, a trailer adapted for road transportation may be supplied.

Control panel

Metal cabinet, with IP 54 protection, mounted on the baseframe with anti-vibration pads.

Equipped with:

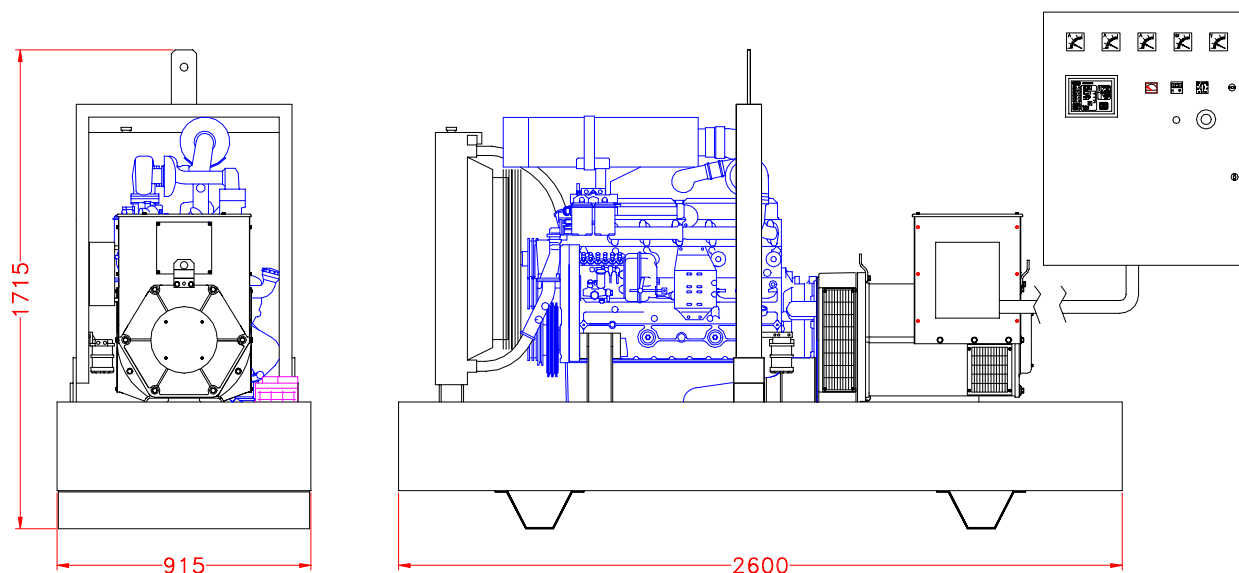
- Automatic circuit breaker.
- 3 Ammeters.
- Frequency meter.
- Voltmeter with selector switch.
- Hours run meter.
- Three phase output terminals.
- Engine temperature gauge.
- Fuel gauge.
- Oil pressure gauge.
- Battery charge ammeter.
- On light.
- Heater button.
- Overcurrent indicator lamp.

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

DV115-N

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



CONTROL PANEL

Mounted in a metal cabinet with IP 54 protection and supplied loose for wall mounting. Includes control, measuring and transfer 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:

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

Measuring equipment

Consists of the following items:

- | | | |
|--|---|---|
| • 3 Ammeters | • Off button | • Battery maintenance system. |
| • 1 Voltmeter | • Selector switch for Disconnect, Automatic Service, Manual Service and Test. | • Battery indicator lamp. |
| • 1 Mains-generator set voltmeter selector switch. | • Start-up selector switch. | • Audible alarm for faults. |
| • 1 Frequency meter | • Heater indicator lamp. | • Visible alarm system for low oil pressure, high temp., overload |
| • 1 Battery voltmeter | | • Large emergency stop 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 200 A contactors. WORKING VOLTAGE: 380/220 V

HEATER

In this version, the set incorporates a heater which aids diesel engine start-up and response. It consists of a tank connected to the engine cooling system and a heating element with an adjustable thermostat.