

INDUSTRIAL SUPERSILENT GENSET

Series DVS 150

POWER RATING	1500 rpm/50 Hz	1800 rpm/60 Hz
Prime	150kVA, 120kW	142kVA, 114kW
Standby	164kVA, 131kW	156kVA, 125kW

Generator set consisting of engine and alternator mounted on a fabricated steel profile base, finished with a phosphate coating and top coat. Alternator is directly coupled to the engine flywheel housing to SAE standards. Rotor fixed to the flywheel using steel discs for flexibility. Perfect alignment and the absence of vibration are thus guaranteed. Unit is fixed to the baseframe using anti-vibration pads.

The set is supplied with a **SOUNDPROOFED METAL CANOPY** in all versions. This canopy is covered on the inside with soundproofing material which added to the silencer gives a **noise level of 70 db(A) at 7 mts.**

ENGINE

Type.....4 stroke diesel engine
with direct injection.

Technical Data

Manufacturer Volvo Penta
 Model TWD 610 G
 No. of cylinders 6
 Engine capacity 5.480 cc
 Bore 98.43 mm
 Stroke 120 mm
 Compression ratio 15:1
 Aspiration.....Turbocharged
 Cooling Water cooled
 Engine speed 50/60 Hz 1500 / 1800 rpm
 Prime power 50/60 Hz 180 / 171 hp ISO 3046
 Fuel consumption 50/60 Hz..25/29 ltr/h 100% load
 Fuel tank capacity.....180 litres
 Approx. run time 50/60Hz.....7.2 / 6.2 h without refill

Cooling system

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

Cooling air flow from fan 50/60Hz 78/90 m³/min
 Cooling system capacity.....36 litres

Lubrication system

Forced lubrication using gear driven pump. Oil filter
 Oil sump capacity 22 litres
 Consumption 0.13 ltr/h

Air intake system

Turbo-charged intake via dry air filter with intermediate cooling of combustion air.
 Combustion air flow.....6.6 m³/min

VERSIONS

The **DVS 150** generator set may be supplied in the following versions:

STATIONARY, MOBILE and AUTOMATIC

Injection system

Injection pump in line with centrifugal governor. Fuel filter and prefilter.

Electrical system

12 V electric starting system. Axial starter motor. 2x95 Ah 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 or 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, 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.

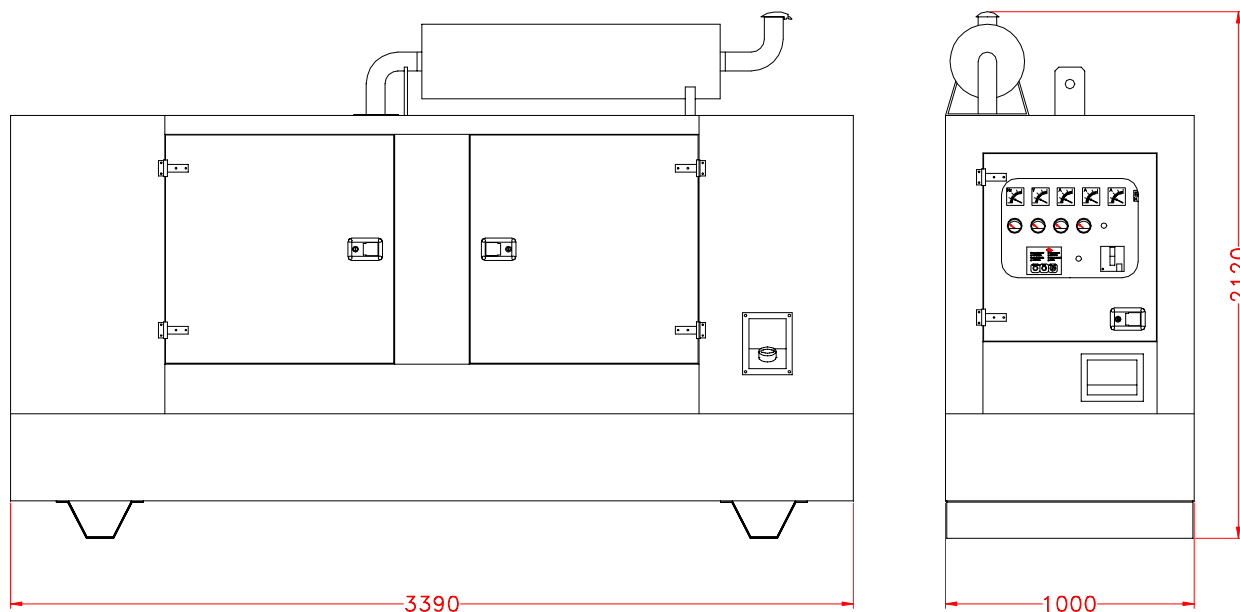
Manufacturer Stamford
 Model.....UC 274 E
 Power rating 140 / 167.5 kVA at 1500/1800 rpm
 Voltage (*).....380/220 V three phase
 Frequency.....50 / 60 Hz
 Speed 1500 / 1800 rpm
 Regulation Electronic
 Nominal current 213 A

(*) 12 wire output permits reconnection to any voltage.

STATIONARY Version

DVS 150

In the STATIONARY version, the set is supplied on a skidbase with a soundproofed metal canopy housing a manual control panel operated using an ignition key.



Metal canopy

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

Control panel

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

Equipped with:

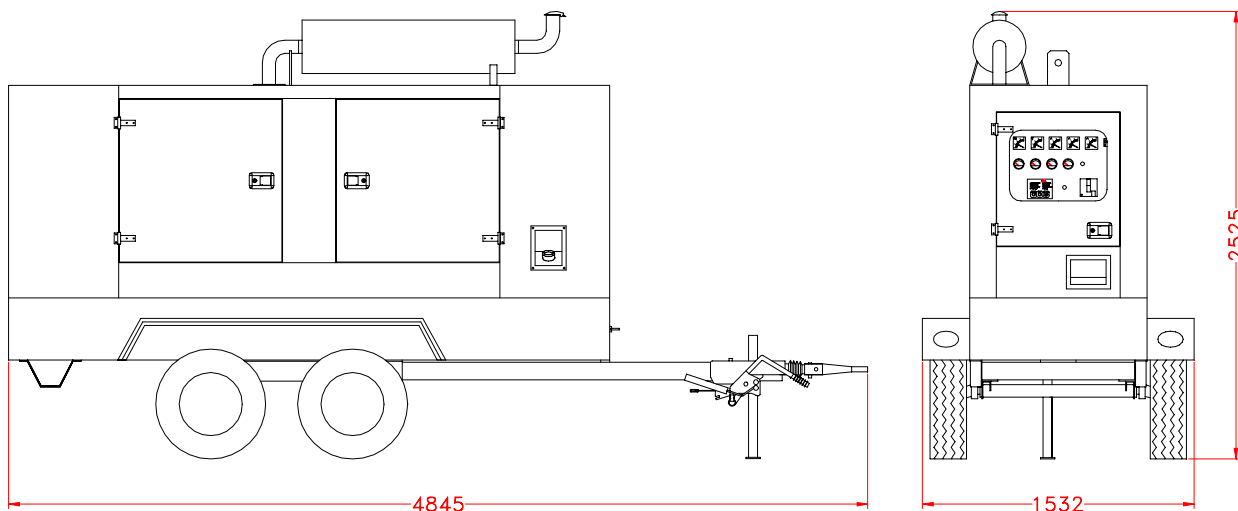
- Automatic circuit breaker.
- 3 Ammeters.
- Frequency meter.
- Voltmeter with selector switch.
- Hours run meter.
- Three phase output terminals.
- Engine temperature gauge.
- Fuel gauge.
- Oil pressure gauge.
- Battery charge ammeter.
- On light.
- Heater button.
- Overcurrent indicator lamp.

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

MOBILE Version

DVS 150-M

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



Metal canopy

Ideal for outdoor use, it is painted with a phosphate primer 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. As an option, A TRAILER ADAPTED FOR ROAD TRANSPORTATION may also be supplied

Control panel

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

Equipped with:

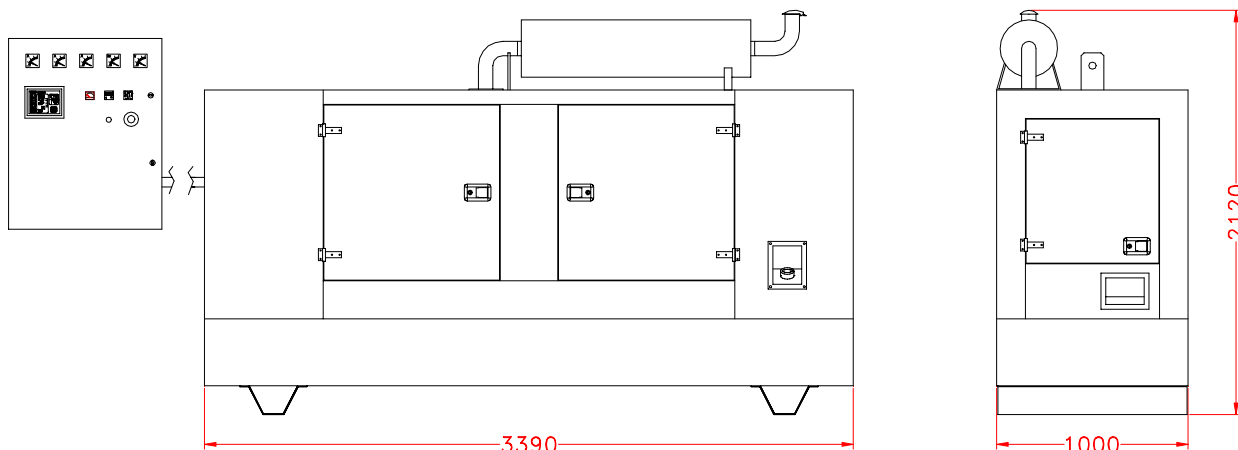
- Automatic circuit breaker.
- 3 Ammeters.
- Frequency meter.
- Voltmeter with selector switch.
- Hours run meter.
- Three phase output terminals.
- Engine temperature gauge.
- Fuel gauge.
- Oil pressure gauge.
- Battery charge ammeter.
- On light.
- Heater button.
- Overcurrent indicator lamp.

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

AUTOMATIC Version

DVS 150-N

Supplied on a skidbase with an automatic start/stop panel for mains failure.



Metal canopy

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

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

Measuring equipment

Consists of the following items:

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

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 275 A contactors. WORKING VOLTAGE: 380/220V

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.