

INDUSTRIAL GENSET

DVS 505

POWER RATING	1500 rpm/50 Hz	1800 rpm/60 Hz
Prime	505 kVA, 404 kW	569 kVA, 455 kW
Standby	556 kVA, 445 kW	631 kVA, 505 kW

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

4 stroke diesel engine with direct injection.
 Manufacturer Volvo Penta
 Model TAD 1631 G
 No. of cylinders 6
 Engine capacity 16 120 cc
 Bore 144 mm
 Stroke 165 mm
 Compression ratio 15 : 1
 Aspiration.....Turbocharged
 Cooling Water
 Engine speed 50 / 60 Hz ...1500 / 1800 rpm
 Prime power 50 / 60 Hz 584/ 643 hp ISO 3046
 Fuel consumption 50/60Hz...101/111 ltr/h, 100% load
 Fuel tank capacity.....964 litres
 Approximate running time 9.5/8.5h 50/60Hz w/o refill

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 temperature of up to 52° C.
 Cooling air flow from fan.....324/438m3/min 50/60Hz
 Cooling system capacity.....64 litres

Lubrication system

Forced lubrication using gear driven pump. Oil filter
 Oil housing capacity 57 litres
 Oil consumption.....0.12 ltr/h

Aspiration system

Turbocharged aspiration via dry air filter and intermediate water cooling system of combustion air
 Combustion air flow 31.8 m3/min

Injection system

Injection pump in line with GAC electronic speed governor. Diesel fuel filter and prefilter.

Electrical system

24 V electric starting system. Axial starter motor.
 2x180 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 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..... HC 544 D
 Power rating 500/593kVA at 1500/1800rpm
 Voltage (*).....380/220 V three phase
 Frequency..... 50 / 60 Hz
 Speed 1500 / 1800 rpm
 Regulation Electronic
 Nominal current 760 A

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

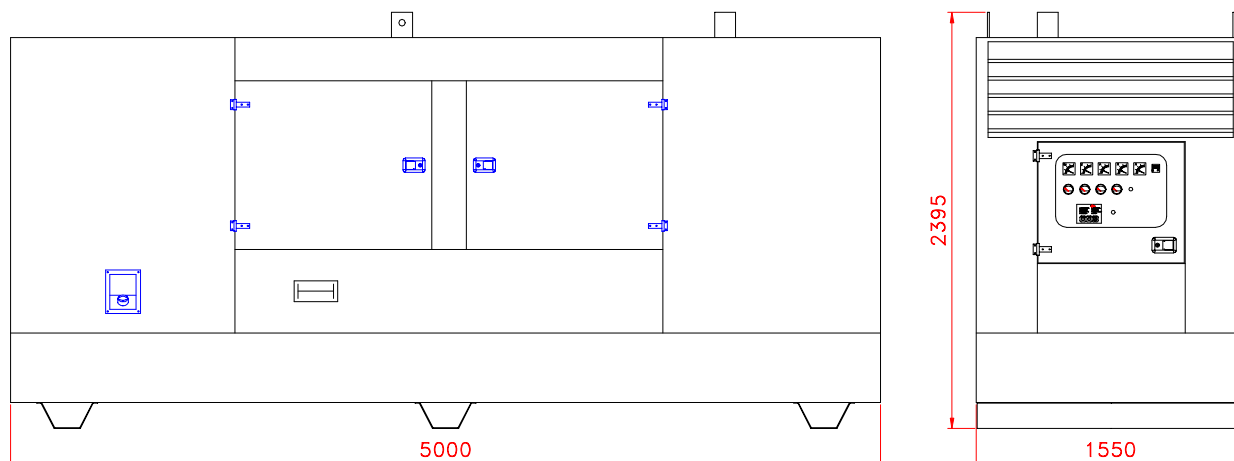
VERSIONS

The **DVS 505** generator set may be supplied in the following versions: **STATIONARY, MOBILE AND AUTOMATIC**

STATIONARY VERSION

DVS 505

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 painted with a phosphate coating and a long lasting top coat.

Control panel

Metal cabinet, with IP 54 protection, mounted on the baseframe 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 board 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

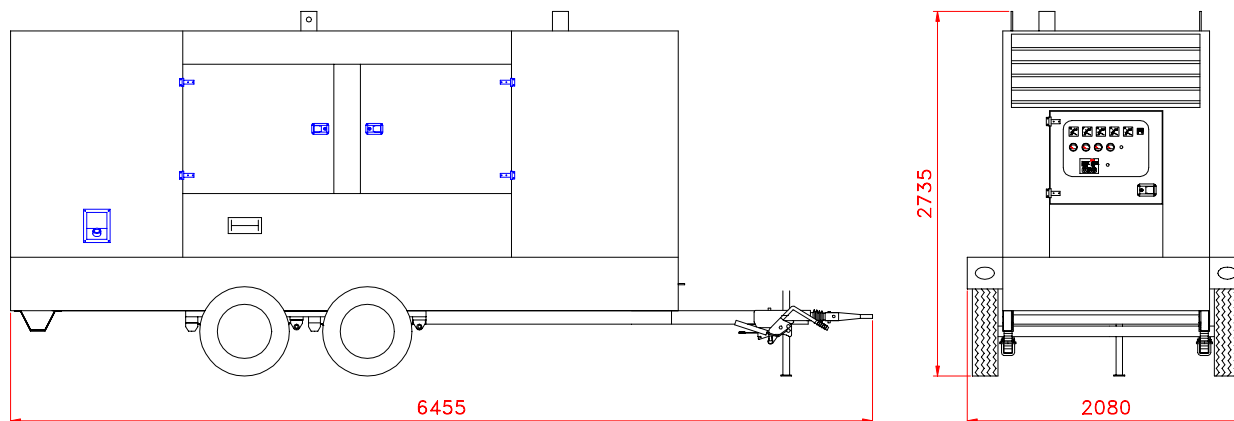
In metal cabinet, with IP 54 protection, mounted on frame with anti-vibration pads.

Equipped with automatic circuit breaker.

MOBILE VERSION

DVS 505-M

Set on baseplate mounted on independent trailer. Incorporates metal canopy which houses 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 stabiliser 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:

- 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 board 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 pads.

Equipped with automatic circuit breaker.

AUTOMATIC VERSION

DVS 505-N

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

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 contactors which are mechanically and electronically activated. 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:

- 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.
- Heater indicator lamp
- Audible alarm for faults
- Visible alarm system for low oil pressure, high temperature and/or overload
- Large 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 transfer.

Transfer system

Made up of two mechanically and electrically interlocking 800 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.