

INDUSTRIAL DIESEL GENSET

DV-410

POWER RATING	1500 rpm/50 Hz	1800 rpm/60 Hz
<i>Prime</i>	410 kVA, 329 kW	455 kVA, 364 kW
<i>Standby</i>	451 kVA, 361kW	500 kVA, 400 kW

Generator set consisting of engine and alternator mounted on a fabricated steel profile base, finished 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

4-stroke diesel engine with direct injection.

Manufacturer.....	Volvo Penta
Model	TWD 1630 G
N° 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	488 / 532 hp ISO 3046
Fuel consumption 100% load 50 / 60 Hz.....	87 / 101 ltr/h
Fuel tank capacity	620 litres
Approximate running time without refill 50 / 60 Hz	7 / 6 hours

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 / 60 Hz	213 / 246 m3/min
Cooling system capacity.....	67 litres

Lubrication system

Forced lubrication using gear driven pump. Oil filter

Oil sump capacity	57 litres
Consumption	0.13 ltr/h

Aspiration system

Turbocharged aspiration via dry air filter and intermediate water cooling system of aspirated air

Aspired air flow	27 m3/min
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Injection system

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

Electrical system

24 V electric starting system. Axial starter motor. 2x180 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. Manufactured 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 C
Power rating.....	450 kVA at 1500
.....	550 kVA at 1800rpm
Voltage (*).....	380/220 V three phase
Frequency	50 / 60 Hz
Speed	1500 / 1800 rpm
Regulation.....	Electronic
Nominal current	684 A

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

VERSIONS

The **DV 410** generator set may be supplied in the following versions:

STATIONARY
STATIONARY WITH CANOPY
MOBILE WITH CANOPY AND
AUTOMATIC VERSION

PowerSource

Produktion u. Vertrieb

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STAT

DV-410

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operated manually using an ignition

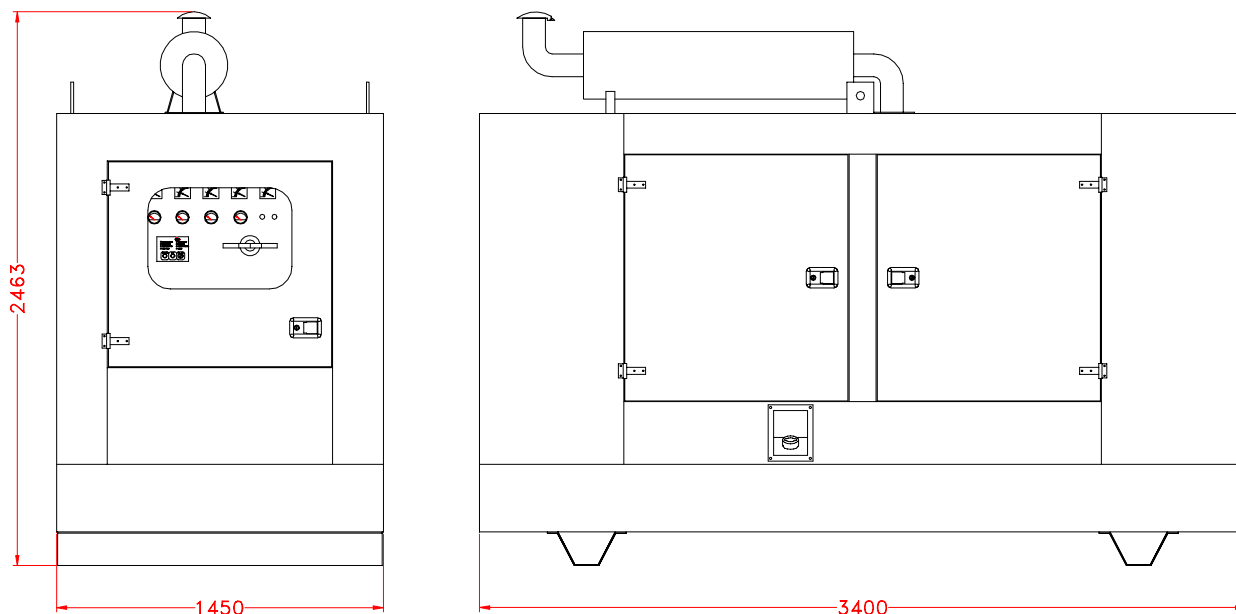
frame with anti-vibration pads. Equipped with:

017

STATIONARY VERSION WITH CANOPY

DV-410-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:

- 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.

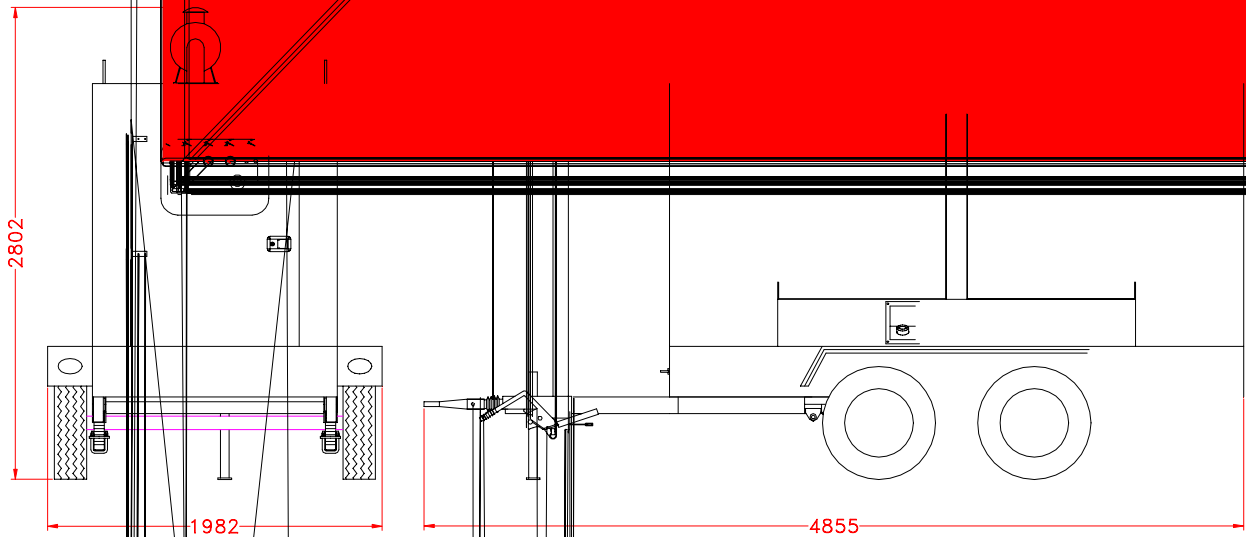
Equipped with automatic circuit breaker.

POWER
Produktion u. Vertrieb

Mobile

Set on basefr
is operated m

M e t a l c



... WHERE THE POWER COMES FROM ... - 5/6 -

AUTOMATIC VERSION

DV-410-N

The automatic version generator set is supplied on a skidbase 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, 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.
- Start-up selector switch.
- Heater indicator lamp.
- Battery maintenance system.
- Audible alarm for faults
- Visual 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 changeover.

Transfer system

Made up of two 800 A contactors with mechanical and electrical activation.
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.