

High Power Industrial Generator

PS-DPS 90

POWER RATING	1500 rpm/50 Hz	1800 rpm/60 Hz
Prime	94.8 KVA, 75.8 KW	109.8 KVA, 87.8 KW
Standby	104.3 KVA, 83.4 KW	120.7 KVA, 96.6 KW

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

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 68 db(A)** at 7 mts.

ENGINE

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

Technical Data

Manufacturer..... Perkins
Model..... 1006TG1A
N° of cylinders..... 6
Engine capacity..... 6000 cc
Bore 100 mm
Stroke 127 mm
Compression ratio..... 16: 1
Aspiration..... Turbocharged
Cooling..... Water
Engine speed 50 / 60 Hz..... 1500 / 1800 rpm
Continous power 50 / 60 Hz..... 115.7 /136.2 bhp ISO 3046
Consumption 100% load 50 / 60 Hz 21.8 / 25.8 ltr/h
Fuel tank capacity 164 litres
Approximate running time without refill 7.5 / 6.3 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.....115 m3/min
Cooling system capacity..... 27.7 litres

Lubrication system

Forced lubrication using gear driven pump. Oil filter.

Oil sump capacity 16.1 litres
Consumption Max. 0.5% of fuel
consumption

Air intake system

Turbocharged aspiration via dry air filter.

Combustion air flow 5.45 m³/min

Injection system

Rotating injection pump with mechanical governor. Fuel filter and pre-filter.

Electrical system

12 V electric starting system. Axial starter motor. 95 Ah battery. 55 Amp battery charging alternator. Oil pressure and engine temperature sensors.

Protection system

Automatic engine shutdown for low oil pressure, low fuel level, overheating, defective battery charge and overload.

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..... UC 274 C
Power rating..... 95 kVA at 1500; 115 kVA at 1800 rpm
Voltage (*)..... 380/220 V three phase
Frequency..... 50 / 60 Hz
Speed 1500 / 1800 rpm
Regulation..... Electronic
Nominal current 145 A

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

VERSIONS

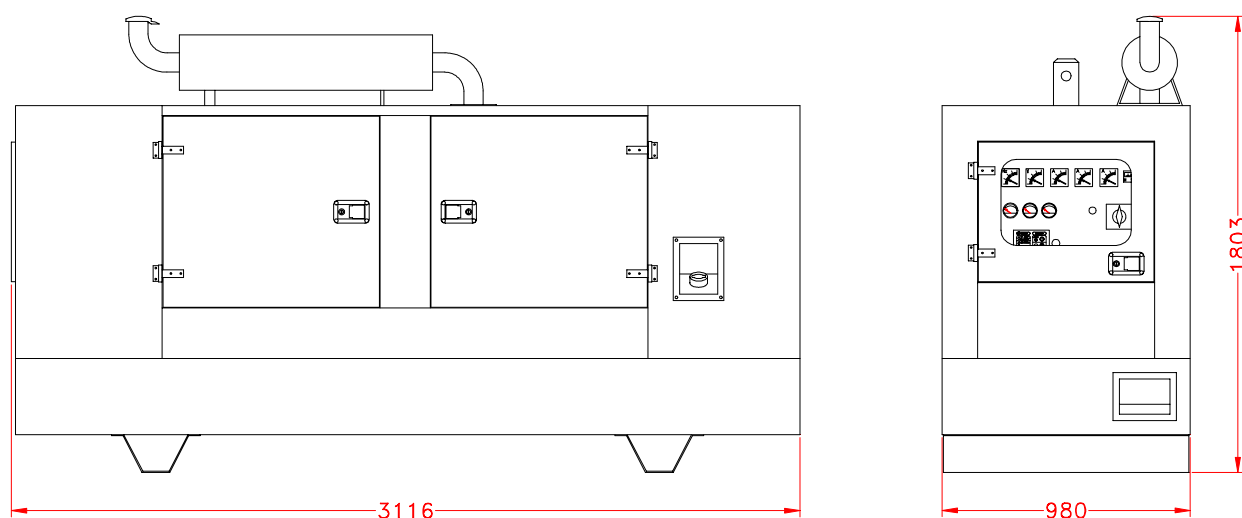
The **DPS 90** generator set may be supplied in the following versions:

STATIONARY - MOBILE - AUTOMATIC

Stationary Version

PS-DPS 90

In the STATIONARY version, the set is supplied on a skidbase with a **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.

Control panel

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

Equipped with:

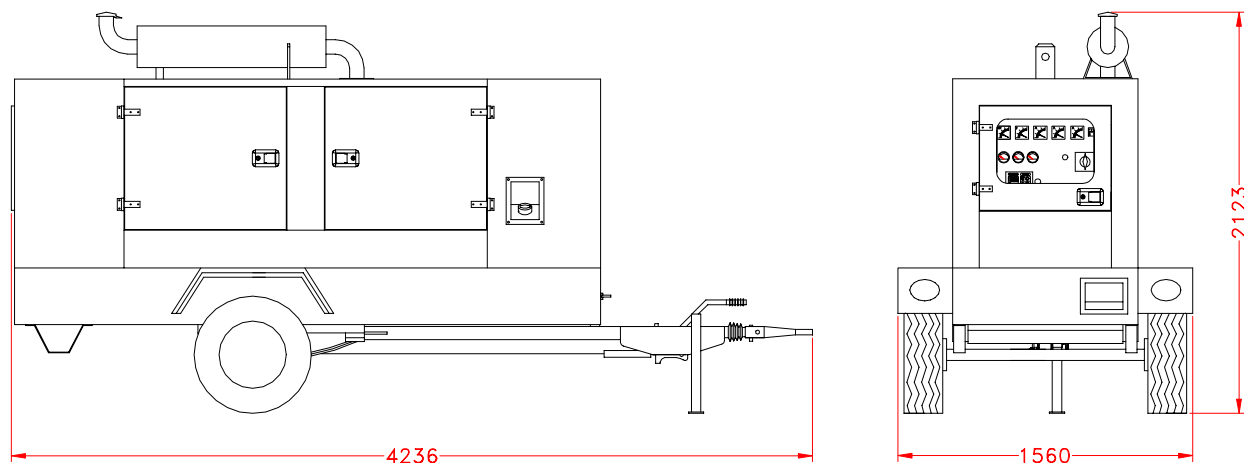
- Automatic circuit breaker.
- 3 Ammeters.
- Frequency meter.
- Voltmeter with selector switch.
- Hours run meter.
- Three phase output terminals.
- Engine temperature meter.
- Fuel level meter.
- Battery charge meter.
- On light.
- Heater button.
- Overcurrent indicator lamp.

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.

Mobiley Version

PS-DPS 90

Set on baseframe mounted on independent trailer. Incorporates **soundproofed metal canopy** housing the **control panel** which is operated manually via 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 pneumatic tyres, DIN towing eye, rubber axle suspension, surge brake 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 the frame with anti-vibration pads.

Equipped with:

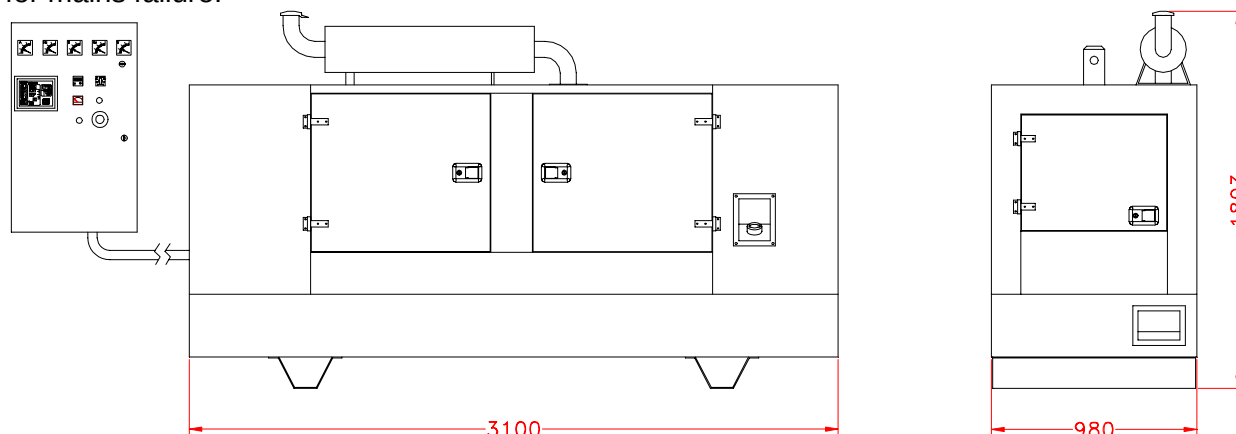
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Control card including ignition key, start/stop buttons and indicator lamps for: low oil pressure, battery charge, high temperature, low fuel level, overload and start-up failure.

Automatic Version

PS-DPS 90

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 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:

- 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 selectro switch.
- 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 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 200 A mechanically and electrically interlocking 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.