

INDUSTRIAL DIESEL SUPERSILENT GENSET

DPS 630

POWER RATING	1500 rpm/50 Hz	1800 rpm/60 Hz
Prime	630kVA, 504kW	705kVA, 564kW
Standby	693kVA, 555kW	775kVA, 628kW

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.

The set is supplied with a **SOUNDPROOFED METAL CANOPY** in all versions. This canopy is lined on the inside with soundproofing material which added to the silencer gives a **noise level of 100 LWA..**

ENGINE

Type	4-stroke diesel engine with direct injection.
Manufacturer	PERKINS
Model	3012 TAG 1A
No. of cylinders	12 60° V
Engine capacity	26 110 cc
Bore	135 mm
Stroke	152 mm
Compression ratio	14.5:1
Aspiration	Turbocharged with intercooler
Cooling	Water
Engine speed 50 / 60 Hz	1500 / 1800 rpm
Prime power 50 / 60 Hz	728/800 HP DIN
Fuel tank capacity	1 120 l
Fuel consumption 100% load 1500 / 1800 rpm	135.3 / 153.6 ltr/h
Autonomy	8.27 / 7.3 hours
Noise level 1500 / 1800 rpm	105 / 108 dB(A) at 1 metre

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 56° C.

Cooling air flow from fan 1500 / 1800 rpm	914 / 1049 m3/min
Cooling system capacity	122.7 litres

Lubrication system

Forced lubrication using gear driven pump. Oil filter

Oil sump capacity	73.8 litres
Oil consumption	0.5 / 1% of fuel consumption

Air intake system

Turbocharged intake via dry air filter and intermediate air cooling of combustion air.

Combustion air flow 1500 / 1800 rpm 46.5 / 49.8 m3/min

Injection system

BOSCH FP/KD 22 P fuel lift pump. Direct injection. BARBER COLEMAN electronic speed governor.

Electrical system

24 V electric starting system. Axial starter motor. 4x180 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.

Exhaust gas flow 1500 / 1800 rpm 126.7 / 132.6 m3/min.

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 ployester 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 F
Power rating.....	670 kVA at 1500;738 kVA at 1800rpm
Voltage (*).....	380/220 V three phase
Frequency.....	50 / 60 Hz
Speed	1500 / 1800 rpm
Regulation.....	Electronic
Nominal current	1 017 A

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

VERSIONS

The **DPS 630** generator set may be supplied in the following versions:

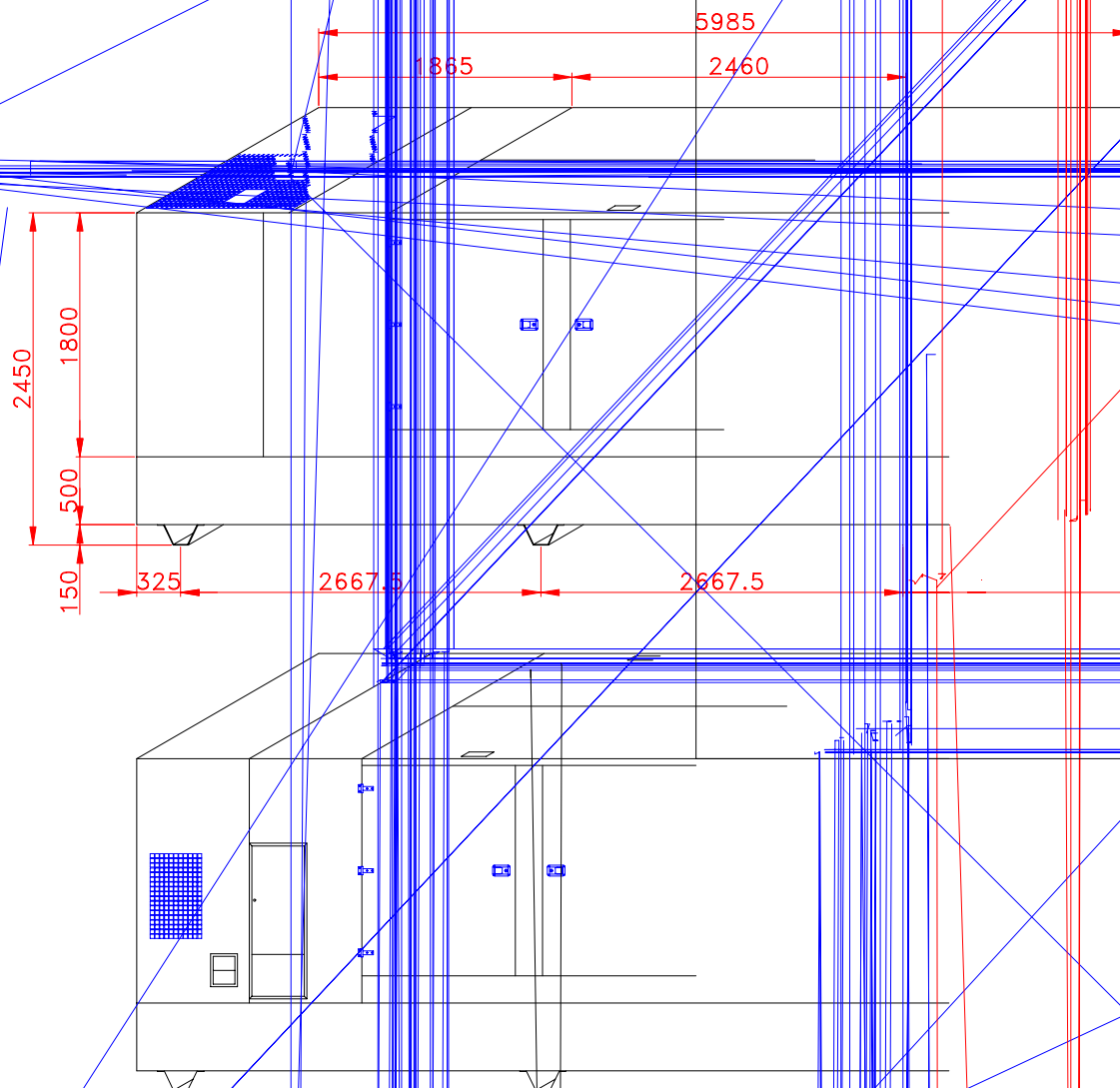
STATIONARY AND AUTOMATIC

STATIONARY VERSION

DPS 630

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

Mechanical Drawing



Physical Characteristics

Dimensions: 5985x1550x2450

Weight: 7.200kg

Control panel

Metal cabinet, with IP 55 protection, mounted on the frame with anti-vibration pads. Equipped with:

- Thermo-magnetic circuit breaker
- Earth fault relay
- 3 Ammeters.
- Frequency meter.
- Voltmeter with selector switch
- Hours run meter.
- Three phase output terminals.
- Engine temperature gauge.
- Fuel gauge.
- Battery charge meter.
- Battery charge ammeter
- On light.
- Heater button.

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

Power panel

In metal cabinet, with IP 55 protection, mounted on frame with anti-vibration pads and 1000 A automatic circuit breaker.

STATIONARY AUTOMATIC VERSION

DPS 630-N

The automatic version 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 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 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.
- Mushroom type emergency stop pushbutton.

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 1000 A mechanically and electrically interlocking contactors. 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.