

## Greenpower DEUTZ diesel engine

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1500 RPM	Type GP 60DZa
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The engine with integrated air cooling system.

**Engine:** F6L912

**Alternator:** ECO32-2L/4

These are the characteristics of the **F6L912 Gen:**

Air-cooled 6-cylinder naturally aspirated in-line-engines.

Direct injection.

Advanced injection and combustion system.

PTOs via gear, V-belt and crankshaft.

Extremely compact design.

High torque at low speeds.

Modular system with single cylinder arrangement and high degree of parts commonality.

Customized component system with many different peripheral parts.

Cold-starting ability even under extreme climatic conditions.

Your benefits:

- ▶ Fast response to load changes.
- ▶ Low noise emission, high cost savings thanks to less noise insulation requirement.
- ▶ Low operating costs thanks to lower fuel consumption and long maintenance intervals with reduced maintenance requirement.
- ▶ Excellent smooth-running characteristics thanks to low engine vibrations.
- ▶ Minimal environmental impact. Meets exhaust regulation EU-RL 97/68.
- ▶ Extremely reliable and durable.
- ▶ Easy-to-install unit (engine with integrated cooling system).

## ► Ratingtable: F6L912 The Genset Engine. 50Hz

Engine type	F6L912	
Speed	min <sup>-1</sup>   rpm	1500
Frequency	Hz	50
<b>Engine/genset ratings</b>		
Continuous power, ICN (COP)	kW   hp	50   67.1
Prime power, ICN (PRP) <sup>3)</sup>	kW   hp	52   69.7
Limited- time running power, IFN (LTP)	kW   hp	55   73.8
<b>Typical generator power output</b>		
Typical generator power output (COP )	kVA	58
Typical generator power output (PRP)	kVA	60
Typical generator power output (LTP)	kVA	64
<b>Spec. fuel consumption PRP (LTP)</b>		
100 % load	g/kWh   lb/hp-hr	215   0.348
75 % load	g/kWh   lb/hp-hr	217   0.351
50 % load	g/kWh   lb/hp-hr	235   0.380
25 % load	g/kWh   lb/hp-hr	344   0.557

### PRP\* Kva/KW:

Available electrical power (at a variable load) with a medium of 80% of the indicated maximum power. A 10% overload capability is available

### LTP\*\* Kva/KW:

Available electrical load (at a variable load) during a maximum of 500 hours per year. No overload capability is available.

### Scope of Supply:

The engine and the alternator are mounted together forming a rigid monoblock, the shafts are connected by a flexible disc connection. The monoblock is mounted on a steel base frame via silent blocks. The base frame is including a fuel tank. Starting is electric and it includes a battery. The genset monitoring system consist of a control module.

## CONTROL PANEL

Manual or automatic start control panel

Manual or automatic remote boot controller, selector switch for Off, Man and Auto with the key.

Complete motor protection functions with alarms visualized via LEDs in the front.

The control unit 6 is set via DIP switches in the rear part of the case.

Standard circuit breaker and differential relay.

### Standard specification

Standard engine: Flywheel housing SAE 4 (5 for n = 3000 min<sup>-1</sup> | rpm); flywheel with 6.5 $\zeta$  connection.

Cooling system: Integrated cooling system, V- belt guard.

Filter: Dry air cleaner with mechanical restriction indicator, fuel filter.

Engine electrics: Alternator 14 V, 60 A; starter motor with 12 V, 2.2 kW.

Governor: Mechanical (Bosch).

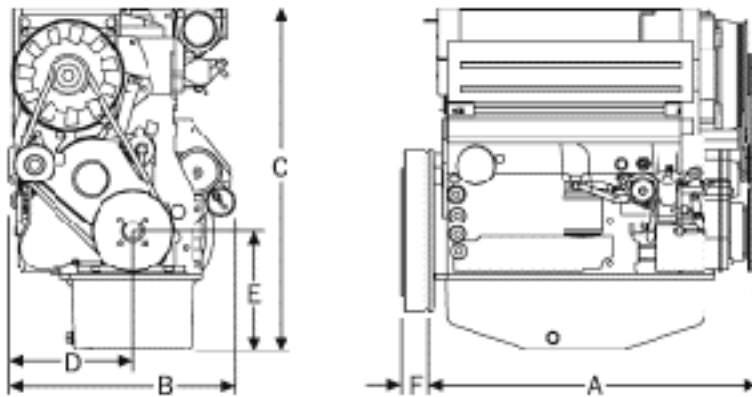
## ► Technical Data

<b>Engine type</b>		<b>F6L912</b>
Numer of cylinder		6
Bore/stroke	mm	100/120
Displacement	l	5.66
Compression ratio		18
Max. rated speed	rpm	2500
Mean piston speed	m/s	10

### Power ratings for construction equipment engines <sup>1)</sup>

Power ratings for automotive- and industrial engines <sup>2)</sup>		
	kW	82
at speed	rpm	2500
Mean effective pressure	bar	6.96
Power ratings for cont. operation <sup>3)</sup>		
	kW	82
at speed	rpm	2500
Mean effective pressure	bar	6.25
Max. torque	Nm	370
at speed	rpm	1450
Minimum idle speed	rpm	650
Specific fuel consumption <sup>4)</sup>	g/kWh	225
Weight to DIN 70020, Part 7A <sup>5)</sup>	kg	410

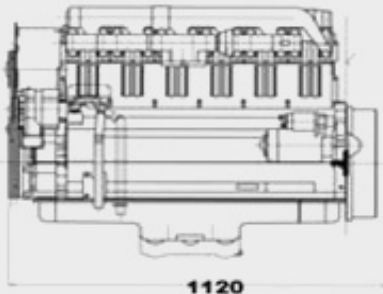
## ► Dimensions



Engine type		A	B	C	D	E	F
F3L2011	mm	519	451	678	243	220	80

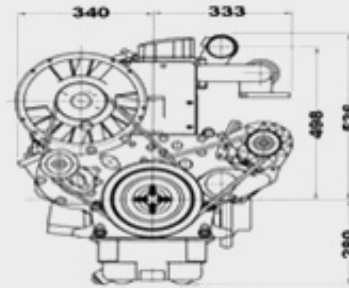
## ► Engine Description

<b>Cooling system:</b>	Air-cooled with integrated axial-flow blower
<b>Crankcase:</b>	Grey cast iron
<b>Cylinder head:</b>	Aluminium single cylinder heads
<b>Valve arrangement/ timing:</b>	Overhead valves in the cylinder head, one inlet and one exhaust valve per cylinder, actuated from gear-driven camshaft via tappets, push-rods and rocker arms
<b>Piston:</b>	Three-ring piston: two compression rings and one oil scraper ring
<b>Piston cooling:</b>	Oil spray via nozzle
<b>Crankshaft:</b>	Drop-forged steel crankshaft with bolted counterweights
<b>Connecting rod:</b>	Drop-forged steel rod, diagonally split
<b>Main and big end bearings:</b>	Ready-to-install tri-metal plain bearings
<b>Camshaft:</b>	Steel, seated in bi-metal bearing on the blower side
<b>Lubrication system:</b>	Forced-feed circulation lubrication with rotary pump which feeds both lubricating and heating systems (if heating is fitted)
<b>Engine oil cooler:</b>	Integrated aluminium cooler
<b>Oil cooler thermostat:</b>	Oil cooler flow thermostatically controlled on engines with heating system
<b>Lube oil filter:</b>	Paper-type micro-filter as replaceable-cartridge full flow filter
<b>Injection pump/ governor:</b>	In-line injection pump with mechanical centrifugal governor
<b>Injection nozzle:</b>	Five-hole-nozzle
<b>Fuel filter:</b>	Replaceable cartridge
<b>Starter motor:</b>	12V; 2,7 kW (Standard)
<b>Alternator:</b>	Three-phase alternator, 14 V; 55A (Standard)
<b>Heating system:</b>	Optional connection for cab heating
<b>Options:</b>	Intake manifold connections, exhaust manifold connections, compressors, hydraulic pumps, engine mounts rigid and flexible, oil pans, SAE 1/2/3/4 flywheel housings, three-phase alternators 12 and 24 Volt, integrated hydraulic oil cooler, cooling fans controlled by exhaust thermostat

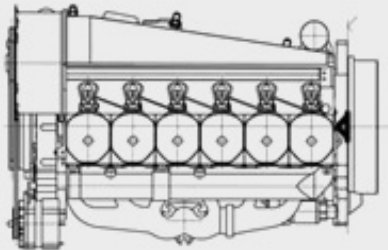


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Face diagram



Side portion diagram



Down side diagram