

## Greenpower DEUTZ diesel engine

1500 RPM

Type GP 510DZ

**Engine:** BF8M 1015 CP  
**Alternator:** ECO 40-3SN / 4

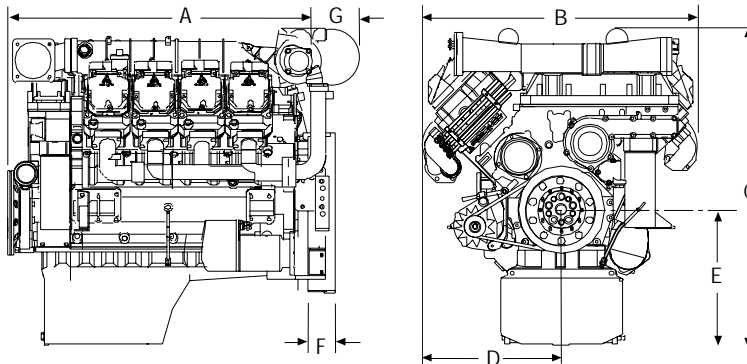
These are the characteristics of the **BF8M 1015CP**

- Extremely compact and powerful.
- Very low noise emissions.
- State-of-the-art technology with electronic control.
- Reliability, durability and long service intervals.

Our Benefits:

- ▶ The compact 1015 engines save installation space and thus installation costs, resulting in a favourable power to weight ratio.
- ▶ The silent 1015 engines reduce your noise attenuation requirements and thus cut down your installation costs as well.
- ▶ The advanced combustion system guarantees low fuel consumption as well as long service intervals, thus reducing operating costs.
- ▶ The 1015 engines meet exhaust emission regulations and are thus geared to the future

### ▶ Dimensions



Engine type		A	B	C	D	E	F	G
BF8M1015CP	mm	1010	955	1174	478	462	143	198

## ► Rating table: **BF8M1015CP** The Genset Engine **50Hz**



Engine type		BF8M 1015 CP
Speed	min <sup>1</sup>   rpm	1500
Frequency	Hz	<b>50</b>
<b>Engine/ genset ratings</b>		
Continuous power, ICN (COP)	kW   hp	339   535
Prime power, ICN (PRP)	kW   hp	448   601
Limited- time running power, IFN (LTP)	kW   hp	490   657
<b>Typical generator power output</b>		
Typical generator power output (COP )	kVA	450
Typical generator power output (PRP)	kVA	508
Typical generator power output (LTP)	kVA	558
<b>Spec. fuel consumption PRP (LTP)</b>		
100 % load	g/kWh   lb/hp-hr	219   0.360
75 % load	g/kWh   lb/hp-hr	210   0.345
50 % load	g/kWh   lb/hp-hr	208   0.342

### **Standard specification**

**Standard engine:** Adapter housing SAE 1 with 50 Hz, SAE 0 with 60 Hz; flywheel with 14" connection.

**Cooling system:** LT cooling system, charger air cooler, pusher type fan(raised), viscous fluid coupling guard.

**Exhaust system:** Turbocharger(flywheel end) with counterflange, without exhaust silencer.

**Filter:** Lube oil filter, air cleaner with restriction indicator mounted, fuel twin filter loose.

**Engine electrics:** Alternator 24V, 55A; starter motor with 5.4kW; monitoring; coolant temperature, oil pressure and coolant level.

**Governor:** Electronic speed control.

### **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.

#### **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.

## **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.

## TECHNICAL DATA

### ENGINE CHARACTERISTICS

MAKE	MODEL
DEUTZ	BF8M 1015 CP

### GENERAL DATA

Power PRP (kWm)	434.00
Power LTP (kWm)	475.90
No. cylinders	8
Cylinder capacity (L)	-
Diameter per stroke (mm)	132 x 145
Compression ratio	16.50
Cooling system	LIQUID
Injection	DIRECT
Suction	TURBO
Series regulator	ELECTRONIC
Fly wheel coupling	1 - 14"

### Lubrication system

Oil capacity (L)	45
Oil consumption (%)	0.30
Min. alarm oil pressure (bar)	3

### Ventilation system

Air cooling flow (m3/h)	33120
Combustion air flow (m3/h)	2002
Max. back pressure for fan (mbar)	0

### Exhaust system

Exhaust gas flow (m3/h)	6012
Exhaust back pressure (mbar)	50
Temp. exhaust gases (°C)	600

### Electrical system

VDC (V)	24
Battery (Ah)	2 x 180
Engine start-up (kW)	5.40

# ALTERNATOR CHARACTERISTICS

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MAKE	MODEL
MECC-ALTE	ECO 40-3SN / 4

## GENERAL DATA

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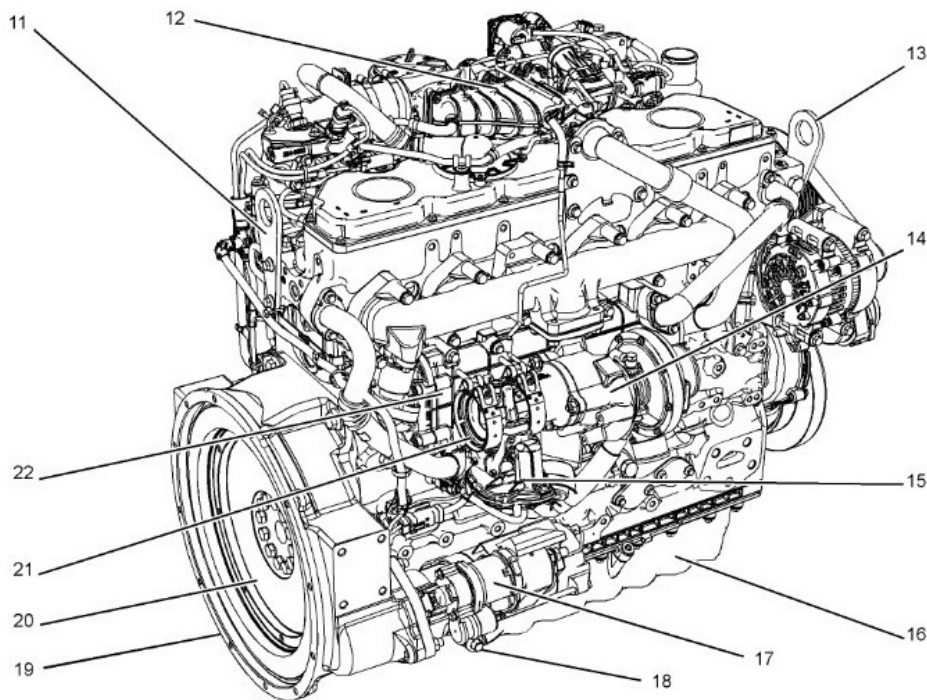
Power PRP (kVA)	500
Power LTP (kVA)	550.00
Efficiency Alt. 3/4 %	94.80
Efficiency Alt. 4/4 %	94.60
No. Poles	4
Voltage regulator	DER-1
No. wires	12
Insulation	H
Xd (%)	250.00
X'd (%)	21.00
X	11.40
Degree of protection	IP21

## ► Engine description

Type of cooling:	Water cooling
Crankcase:	Crankcase of grey cast iron with wet liner
Crankcase breather:	Closed-circuit system, vacuum-controlled
Cylinder head:	Individual cylinder heads of grey cast iron of crossflow design
Valve arrangement/ Timing:	Overhead valves in cylinder head, four valve technology, actuated via tappets, pushrods and rocker arms, driven by gears and central camshaft
Turbocharging:	V6 with one turbocharger and with charge air cooler V8 with two turbochargers and charge-air cooler
Piston:	Three-ring pistons: two compression rings and one oil scraper ring
Piston cooling:	Oil-cooled with spray nozzles (CP-engines: channel-cooled piston)
Crankshaft:	Drop-forged steel crankshaft with bolted counterweights. V6 with 30° offset crankpins (split-pin)
Main and big-end bearings:	Tri-metal plain bearings
Connecting rod:	Drop-forged steel rod with trapezoidal piston pin support
Camshaft:	Steel camshaft
Lubrication system:	Forced-feed circulation lubrication with gear pumps
Lube oil cooler:	Engine integrated
Lube oil filter:	Paper type microfilter as replaceable cartridge, full flow filter
Injection pump/ Governor:	In-line injection pump with mechanical centrifugal governor or electr. engine governor EMR-2 optional or electr. PLD-system (DEUTZ MV)
Fuel lift pump:	Mechanical reciprocating pump
Injection nozzle:	8-hole nozzle, central arrangement
Fuel filter:	Replaceable cartridge
Alternator:	Three-phase alternator, 28 V, 55 A
Starter motor:	24V; 6.6 kW
Heating system:	Optional connection for cab heating to engine cooling circuit
Options:	Intake/exhaust manifold connections, air compressors, hydraulic pumps, flywheels, flywheel housings SAE, electrical equipment, oil pans, cold-start facilities, several fan installation possibilities, air cleaners, engine mounting feet, engine brake, starters, alternators.

## Identification of engine parts

### Front side BF8M 1015CP



- 11 Read lifting eye
- 12 NOx reduction system (NRS)
- 13 Front lifting eye
- 14 Turbocharger
- 15 Back pressure valve
- 16 Engine oil pan (Sump)
- 17 Starting moto
- 18 Engine oil drain plug
- 19 Flywheel housing
- 20 Flywheel
- 21 Exhaust outlet
- 22 Exhaust gas cooler