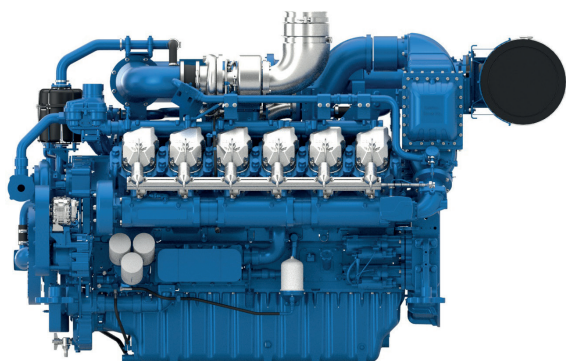




# 12M33

Biogas Engine





Bore & Stroke (mm)	150 x 185
Displacement (L)	39.2
N° of Cylinders	12
Cylinders Arrangement	AtVee
Fuel System	Open chamber/ Lean burn
Governor (Gov)	ECU
Aspirator (ASP)	Turbocharged & air-to-water cooled

### Customer benefits

Low emission standard, lean burn technology resulting in lower NOx emissions  
 High transient and block load capabilities  
 Full duty cycle capability, from prime to continuous power  
 Low energy fuel capability (landfill & biogas)  
 Electronically controlled high efficiency engines

Model	Speed (RPM)	Gross Engine Output		Typical Generator Output				Asp.	Gov.
		COP	PRP	COP		PRP			
		kWm		kWe	kVA	kWe	kVA		
12M33G10B0/5	1500	748	880	680	850	800	1000	T/A-W	ECU
12M33G10B0/6	1800	816	960	720	900	850	1063	T/A-W	ECU

## Standard Equipment

### Engine and block

Cast iron cylinder block with inspection door per cylinder  
 Cast iron cylinder liners, wet type and replaceable valves guides and seats  
 Hardened steel forged crankshaft with induction hardened journals, crank pins and radius  
 Lube oil cooled light alloy pistons with high performance piston rings

### Cooling System

Thermostatically-controlled system with belt driven coolant pump

### Lubrication system

Full flow screwable oil filters  
 Lube oil purifier with replaceable cartridge  
 Water cooled lube oil cooler

### Fuel system

Low pressure gas supply- open chamber combustion  
 Optimum performance and efficient use of fuel for COP, CHP and PRP applications

### Air intake and exhaust system

Top mounted turbocharger optimized for gen-set application  
 Special rear mounted air filter with restriction indicator  
 Exhaust manifold and turbocharger shield for heat isolating

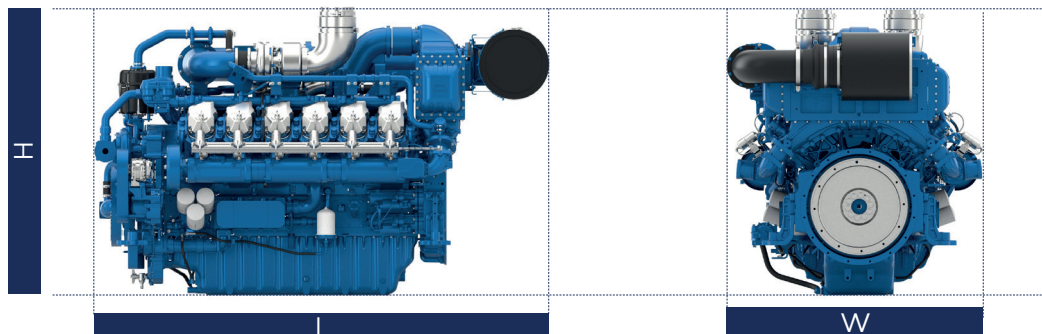
### Electrical System

24 V DC electric starter motor and battery charging alternator  
 Low oil pressure & high water temperature sensors

### Flywheel and housing

SAE 0 flywheel housing and 18" flywheel

## Dimensions and dry weight (mm/kg)



Gas Engine	Speed RPM	Dimensions and dry weights excluding radiator			
		L mm	W mm	H mm	Weight Kg
12M33G10B0/5	1500	2789	1558	1636	4600
12M33G10B0/6	1800	2789	1558	1636	4600

## Ratings definitions

### Continuous Power (COP)

Continuous Power is the maximum power available for an unlimited period of use at a constant load factor. No overload capability is allowed.

### Unlimited Prime Rated Power (PRP)

Prime Power is the maximum power available for unlimited hours of usage in a variable load application. The average load factor should not exceed 70% of the engine's PRP power rating during any 24 hour period. An overload capability of 10% is available, however, this is limited to 1 hour within every 12 hour period.

- 1) All ratings are based on operating conditions under ISO 8528-1, ISO 3046, DIN6271. Performance tolerance of  $\pm 5\%$ .
- 2) Test conditions: 100 kPa, 25°C air inlet temperature, relative humidity of 30%, with fuel density 0.84 kg/L.  
Derating may be required for conditions outside these; please contact the factory for details.
- 3) Power output curves are based on the engine operating with fuel system, water pump and lubricating oil pump; not included are battery charging alternator, fan and optional equipment.

