

DIESEL GENSET

1500 kVA



12M33 ENGINE SERIES

Designed in France | Made in India

Advantages

- Engineered with advanced French technology, proudly manufactured in India.
- Custom-engineered solutions designed with flexibility and creativity to meet diverse customer needs.
- Comprehensive 3S support model (Sales, Service, Spare parts)
- Fully compliant with current CPCB IV emission standards.
- Heavy-duty cast iron cylinder block with robust construction for reduced vibration and improved stability.
- High-strength forged steel crankshaft with induction hardening for extended durability.
- Cast iron wet liners and oil-cooled aluminium alloy pistons fitted with high-performance piston rings.
- Individual cast iron cylinder heads with 4-valve configuration for optimal performance and easier maintenance.
- Cast iron centrifugal-type freshwater pump ensures reliable cooling.
- Warranty coverage of 2 years or 5000 operational hours from the date of commissioning whichever occurs first.
- Multistage oil filtration system with electric priming pump for enhanced lubrication, reduced engine wear, and improved cold starts.
- Dual-layer fuel filtration system with built-in water separator to safeguard engine components.
- Turbocharger and exhaust manifold equipped with thermal shielding; designed to handle over 50% block loading capacity.
- 24x7 nationwide service support through dedicated helpline – +91 974 000 7700
- Certified for quality, environmental, and safety standards: ISO 9001

FEATURES OF OUR CONTROLLER

- Graphic LCD display with clear, icon-based interface
- True RMS measurement
- Engine parameter monitoring
- Fully configurable inputs
- Generator running hours counter
- Single-phase / Three-phase sensing
- Power monitoring (kW, kVA, Amps, Power Factor)

Generator protections

- Overload
- Overvoltage
- Undervoltage
- Low voltage
- Single phasing

Engine protections

- Low RPM
- High RPM
- Low lube oil
- High temperature

APPLICATION DATA

Engine	
Engine Make	Baudouin, India
Engine Model	12M33G1650/5
Distribution	4 Stroke
Aspiration	Turbocharged
No. of Cylinders	12
Type of Construction	Vee Type
Displacement	39.2 L
Bore / Stroke	150x185 mm
Mean Piston Speed	9.25 m/s
Compression Ratio	15:1
Gross Engine Power @100% PRP	1350 kWm/1810 bhp
Gross Engine Power @ 110%	1450 kWm/1945 bhp
Rated Speed	1500 RPM
Frequency	50 Hz

Electrical System	
Electrical System Voltage	24 V DC
Starter Motor Power	2x8.5 kW
Battery Size	4x12V, 180 - 200 Ah

Alternator	
Make	Stamford
Frame	S7L1D-C
Power Factor	0.8
No. of Phase	3
Frequency	50 Hz
Rated Voltage (L-L)	415 V
Rated Current	2085 Amps
Voltage Regulation	±0.5%
Insulation System	H Class
Temperature Rise Limit	H Class
Winding Pitch	2/3
Over Load	10 % Over Load for 1 hour once in 12 hours
Waveform Distortion	No-Load < 1.5% NDBLL<5%
Temperature Ambient	40 °C
Altitude	1000 m
Protection	IP23
Cooling	Air Cooled
Air flow	2.71 m³/sec
Coupling	Single Bearing
Maximum Over Speed	1650 RPM
Stator Winding	Double layer concentric
Control System	Separately excited
Excitation System	PMG
AVR Type	Analogue
AVR Model	MX 341

Performance: Efficiency @0.8 p.f	
100%	95.50%
75%	95.80%
Short Circuit Ratio	0.39
Xd Dir Axis Reactance	2.55
X'd Dir Axis Transient Reactance	0.20
X" d Dir Axis Sub Transient Reactance	0.13
Xq Quad Axis Reactance	1.82
X"q Quad Axis Subtransient Reactance	0.21
X1 Leakage Reactance	0.08
X2 Negative Sequence Reactance	0.17
X0 Zero Sequence Reactance	0.02

Cooling System	
Method of Cooling	Radiator
Coolant Capacity	303 L
Radiator Fan Power	55 kW
Thermostat Operating Range	80 – 92°C
Coolant Alarm (Shutdown) Temperature	103°C

Fuel System	
Governor	Electronic (ECU)
Governing Class	G3 as per ISO:8528-5
Fuel Injection type	High Pressure Common Rail (HPCR)
Recommended Fuel	IS 1460/ BS2869 Part1 Class A1
Fuel Tank Capacity	990 L
Fuel Consumption: Litres/Hour	
100% Load	302.00
75% Load	228.90

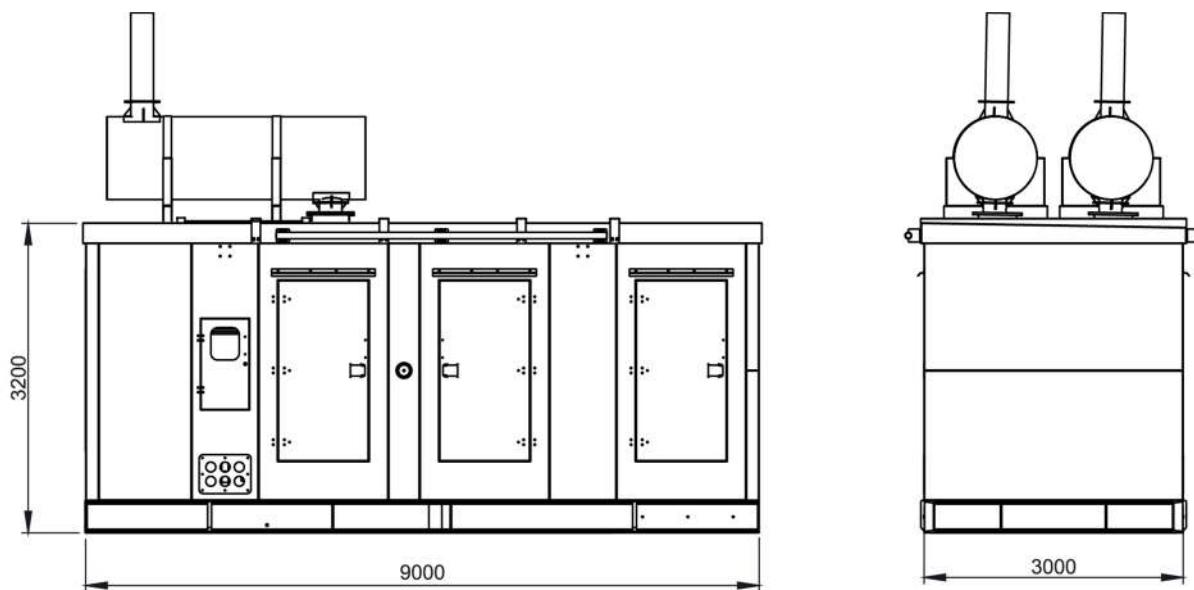
Note: Fuel Data Confirms to ISO 3046 with +5% tolerance

Lubrication System	
Recommended Lube Oil	CI4+SAE15W-40
Lube Oil System Capacity	155 L
Lube Oil Consumption	< 0.3 % of FC

Induction System	
Air Filter Type	Paper Element
Air Intake Restriction (Dirty element)	6.5 kPa

Exhaust System	
Silencer Type	Residential-grade
Number of Silencers	2 Nos.
Max Back Pressure Total System	7.5 kPa
Exhaust outlet pipe size (min)	220 mm
Exhaust Gas Temperature	≤ 550°C

DIMENSIONS & WEIGHT



Acoustic Set	
Length	9000 mm
Width	3000 mm
Height without Silencer	3200 mm
Height with Silencer	3880 mm
Weight, Dry	17000 kg
Fuel Day Tank	990 litres

Note: The drawing is intended for reference purposes only and should not be used for installation planning. For the latest information, please contact OJUS. All technical data reflects the specifications of respective manufacturers. OJUS reserves the right to alter product designs or specifications at any time, without prior notice or obligation.

Disclaimer: In line with ongoing product enhancements, specifications are subject to change without notice.



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