

DIESEL GENSET

# 2500 kVA



**12M55 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 and Three-phase sensing
- Power parameter monitoring: kW, kVA, kVAr, current, voltage, power factor

### Engine protections

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

### Generator monitoring:

- Battery voltage
- Engine runtime scheduler
- Maintenance alarm
- Automatic transfer between generator and mains available
- Remote start/stop facility (optional)
- IP42 – when module is installed in control panel without sealing
- IP65 – when installed with optional sealing to the panel

# APPLICATION DATA

## Basic Data

Engine model	12M55G2750/5
No of Cylinders / Valves	12 / 48
Cylinders arrangement	At Vee
Bore x Stroke (mm)	180 x 215
Displacement (L)	65.6
Thermodynamic Cycle	Diesel 4 stroke
Cooling System	Liquid (water +50% antifreeze)
Injection System	Direct
Fuel System	High Pressure Common Rail
Aspiration	Turbocharged and Aftercooled
Compression ratio	16.5 : 1
Flywheel housing	SAE 0
Flywheel	21"
Inertia of flywheel (kg·m²)	20.78
Inertia of crankshaft (kg·m²)	16.16
Emission standard	N/A
Overall Dimensions without radiator (L x W x H) (mm)	2934 x 1544 x 2654
Engine dry weight without radiator (kg)	9550
Engine wet weight without radiator (includes oil, coolant) (kg)	10416

## Air Intake System

Air intake temperature rise (°C)	≤ 5
Air intake restriction clean filter (mBar)	≤ 30
Air intake restriction dirty filter (mBar)	≤ 70
Recommended air flow @ RPM (m³/min)	N/A
Recommended air flow @ ESP (m³/min)	164.5
Min. diameter of intake pipe (mm)	250

## Aftercooler System

Aftercooler system type	Air to Water
Aftercooler heat dissipating capacity @ PRP (kJ/s)	N/A
Aftercooler heat dissipating capacity @ ESP (kJ/s)	620
Max intake temperature @ 25°C ambient temperature (°C)	55
Max intake pressure drop of aftercooler (mBar)	50

## Cooling System Without Radiator

System design for ambient temperature up to nsc (°C)	50
Radiator type	TBA
Fan type	TBA
Min. inside diameter of coolant outlet pipe (mm)	96
Coolant capacity of radiator and pipes (L)	TBA
Coolant alarm (shutdown) temperature (°C)	103
Thermostat opening temperature / full open temperature (°C)	78 / 90
Min. pressure cooling system (Bar)	TBA
Coolant capacity of the engine (L)	306
Cooling fan airflow (m³/min)	TBA
Max additional restriction – Duct allowance (Pa)	TBA
Noise – Diesel engine acoustic power level (dB(A))	123.3

## Exhaust System

Max. exhaust backpressure (mBar)	75
Max. exhaust temperature before turbocharger (°C)	≤ 650
Max. exhaust temperature after turbocharger (°C)	TBA
Exhaust flow @ PRP (m³/min)	N/A
Exhaust flow @ ESP (m³/min)	500.1
Max intake pressure drop of aftercooler (mBar)	280
Max. bending moment of exhaust gas exit flange (Nm)	TBA

## Lubrication System

Oil capacity Low / High (L)	380 / 480
Oil pressure in normal condition idlespeed (Bar)	≥ 2
Oil pressure in normal condition at 1500 RPM @ PRP (Bar)	4 – 5.5
Lowest oil pressure alarm (shutdown) (Bar)	2
Max. oil temperature (°C)	105
Oil flow (L/min)	≥ 130°
Oil fuel consumption ratio based on engine fuel consumption data	≤ 0.25 %
Total system capacity (including filters) (L)	580

## Fuel System

Governor	ECU
Max. restriction at fuel pump inlet (Bar)	0.1
Max. fuel return restriction (Bar)	0.2
Max. fuel inlet temperature (°C)	70
Fuel supply flow (L/hr)	2800
Min. pressure of fuel pump (Bar)	0.5
Min. diameter of fuel pipe (mm)	25
Min. diameter of return pipe (mm)	25

## Electrical System

Electrical system voltage (negative to ground) (Vdc)	24
Starter motor (kW)	2 x 8.5
Battery charger current (A)	55
Battery charger absorbed power (kW)	1.6
Max. electric resistance of starting circuit (Ω)	0.008
Min. sectional area of wire (mm²)	95
Min. cold start temperature without auxiliary starting device (°C)	-10
Min. cold start temperature with auxiliary starting device (°C)	TBA

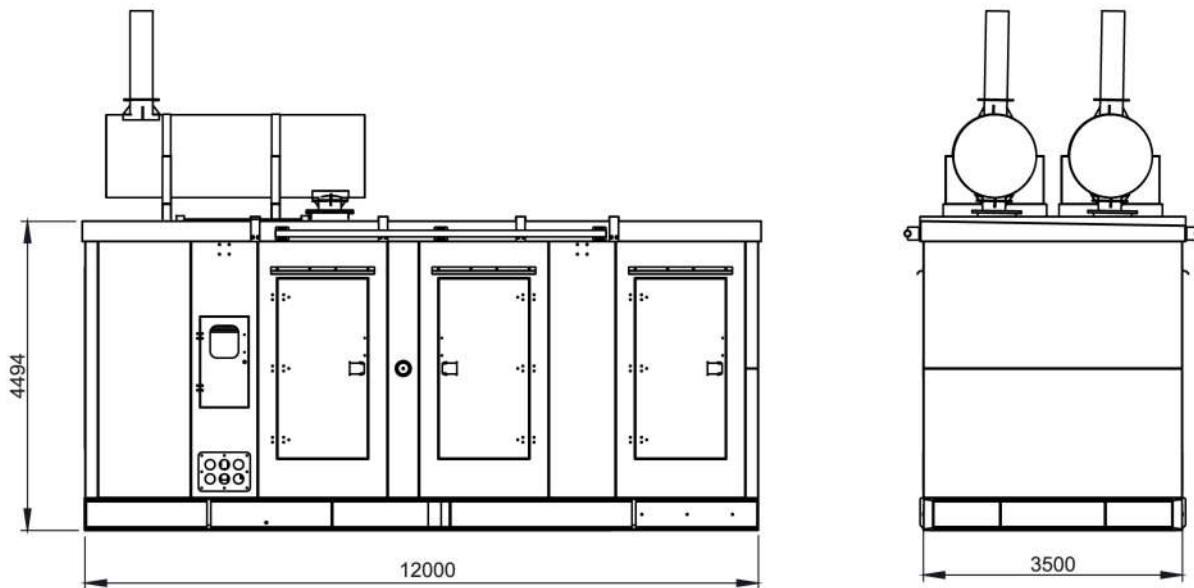
## Heat Balance Test Data (with ambient temperature 28°C)

Total heat dissipation @ ESP (kJ/s)	5555
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## Performance Data

Mean Piston Speed (m/s)	10.75
PMEP (Bar)	29.8
Fan absorbed power (kW)	N/A

# DIMENSIONS & WEIGHT



Acoustic Set	
Length	12000 mm
Width	3500 mm
Height without Silencer	4494 mm
Height with Silencer	5200 mm
Weight, Dry	29500 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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