



DIESEL GENERATOR SET

Durable | Robust | Built to Last

12M55 ENGINE SERIES
2500 kVA

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) – includes erection and commissioning.
- Fully compliant with current CPCB norms and future-ready for 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 aluminum 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.
- 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

STANDARD SCOPE

Diesel Engine / AC Generator / Base frame / Standard Control Panel / Radiator / Silencer /
Battery & Battery Cable / AVMs / First Fill of Lube Oil / First fill of Coolant /
DG Set Controller / Fuel Tank / Wiring Harness / Sensors

OPTIONAL ONE-STOP POWER SOLUTION

End-to-end customized power services including system design, installation, commissioning, and operational support. Optional offerings include AMC/CAMC contracts, temporary power rental, hybrid energy solutions, electrical board approvals, advanced AMF setups, and auto-synchronizing panels.



Controller: DSE 7320 MKII

FEATURES OF OUR CONTROLLER

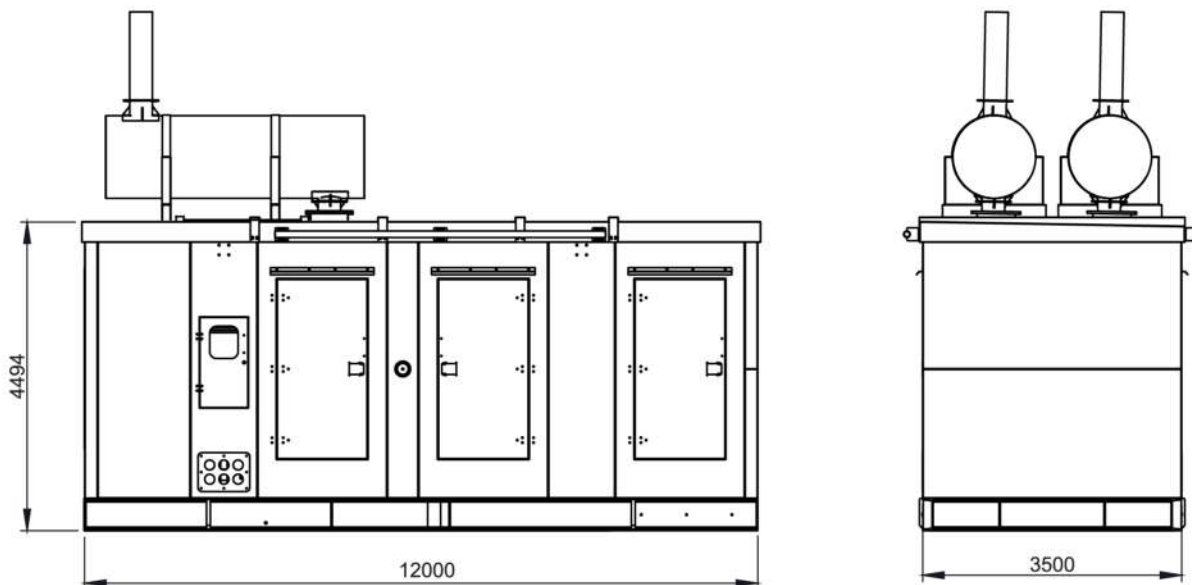
- Con-based LCD display
- True RMS voltage monitoring
- Current and power monitoring
- USB communications
- Engine parameter monitoring
- Fully configurable inputs for use as alarms or various functions
- ECU interface for electronic engines
- Compatible with DSE Configuration Suite PC Software
- Supports alteration of operational sequences, timers, alarms, and functions
- Operating Temperature: -30°C to +70°C (-22°F to +158°F)
- Operating Voltage: 0V to 70V DC (max continuous: 35V DC)
- USB Slave Port: Type B USB 2.0 (connects to PC with DSE Configuration Suite, max cable length 6 m / 20 ft)
- USB cable type: A to B (standard PC-printer cable)
- 4 configurable digital 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
 - Event log (stores 50 events)
- 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

2500 kVA DG SET TECHNICAL SPECIFICATIONS

Basic Data	
Engine model	12M55G2750/5
N° of Cylinders / Valves	12 / 48
Cylinders arrangement	At Vee
Bore x Stroke (mm)	180 x 215
Displacement (L)	65.65
Thermodynamic Cycle	Diesel 4 stroke
Cooling System	Liquid (water + 50% antifree ^{ze})
Injection System	Direct
Fuel System	High Pressure Common Rail
Aspiration	Turbocharged and Aftercooled
Compression ratio	16.5 : 1
Flywheel housing	SAE 00
Flywheel	21"
N° of teeth on flywheel ring gear	202
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 @ PRP (m³/min)	N/A
Recommended air flow @ ESP (m³/min)	164.5
Min. diameter of intake pipe (mm)	250
Aftercooling 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. difference between intake temp. and ambient temp. (°C)	TBA
Max. intake pressure drop of aftercooler (mBar)	50
Cooling System Without Radiator	
System designed for ambient temperature up to (°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 in 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 noise (Acoustic power level) (dB(A))	123.3

Exhaust System		
Max. exhaust back pressure (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
Min. diameter of exhaust pipe (mm)		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 idle speed (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)		≥ 1300
Oil fuel consumption ratio based on engine fuel consumption data		≤ 0.25 %
Total system capacity (including filters) (L)		560
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 inlet pipe (mm)		25
Min. diameter of return pipe (mm)		25
Electrical System		
Electrical system voltage (negative to ground) (Vdc)		24
Starter power (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
Performance Data		
Mean Piston Speed (m/s)		10.75
BMEP (Bar)		29.9
Fan absorbed power (kW)		N/A
Fuel Consumption		
Rating	gr/kWh	L/hr
100% ESP	192.0	566.7
100% PRP	N/A	N/A
75% PRP	N/A	N/A
50% PRP	N/A	N/A
25% PRP	N/A	N/A
(Note: Fuel consumption tolerance + 3 %)		

DIMENSIONS AND WEIGHT



Overall Size (L x W x H): 12000x3500x4494mm

Weight (Dry, Max): 29500 Kg

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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