

LEYPower DIESEL GENERATING SETS

Specification Sheet – 250 KVA

“LeyPower” is the brand name of Diesel Generators manufactured by Ashok Leyland Ltd.

LeyPower DG sets are all CPCB II compliant and approved by ARAI.

The LeyPower DG sets are in the range of 10 – 2500 kVA, which gives a complete solution for Power Requirements of various Segments.

250 kVA LeyPower DG set's is OEA factory assembled pre-aligned and pre-tested ready to use set incorporating the following.

ENGINE

Ashok Leyland make diesel engine AL8NTIDG6 , which is a 6 Cylinder, 4 stroke in-line water cooled engine with power output of 299.0 BHP (223 KW), with Electronic controlled Sedmac governor, electric start and designed to run at 1500 rpm continuous on 100% load & also capable to take 10% overload for 1 hours out of 12 hours of operation . Complies with current CPCB emission norms (as per GSR.448 (E) - MoEF, Govt of India)

Engine and Block

- ④ Optimized cast iron cylinder block with optimum distribution of forces
- ④ Drop forged steel connecting rods
- ④ Crankshaft hardened bearing surfaces and fillets for moderate load on main and big-end bearings
- ④ Keystone Top compression rings for long service life.
- ④ Replaceable valve guide and valve seats.
- ④ Lift eyelets
- ④ SAE 3 Flywheel Housing and SAE 10 Flywheel.
- ④ Fixed integrated radiator.
- ④ Fully electronic control Isochronous governing



Lubrication System

- ④ Full flow disposable spin-on oil filter for extra high filtration.
- ④ Rotary displacement oil pump driven by the crankshaft.
- ④ Deep front oil sump
- ④ Short oil dip stick at front
- ④ Integrated full flow oil cooler, side mounted
- ④ Oil Change Period **250 hrs or 6 months** whichever is earlier

Fuel system

- ⌚ Motorpal Inline FIP
- ⌚ Gear driven fuel feed pump
- ⌚ Six hole fuel injection nozzles
- ⌚ **Electronic governor – A0 Class**
- ⌚ Integrated fuel filter cum water separator.

Intake and exhaust system

- ⌚ Connection flange for exhaust line.

Cooling system

- ⌚ Poly V belt driven, maintenance-free coolant pump with high degree of efficiency
- ⌚ Efficient cooling with accurate cooling control through a water distribution duct in the Cylinder block
- ⌚ Reliable thermostat with minimum pressure drop
- ⌚ Aluminum Radiator with Pusher fan

Electrical System

- ⌚ 24 VDC electrical system with digital control panel
- ⌚ Engine maintenance system 2 (EMS2), an electronically controlled processing system which optimizes engine performance. It also includes advanced facilities for diagnostics and fault tracing.
- ⌚ Sensors for oil pressure, water temperature.
- ⌚ Connected with Sedmac governor

ALTERNATOR

Leroy Somer / LeyPower make 250 KVA single bearing alternator suitable for operation at 1500 rpm , 0.8 pf (lag) suitable for 50 Hz, 3 phase, 4 wire system, conforming to BS 5000 / IS 4722. The Alternators are brushless type, screen protected drip proof, revolving field, self-excited, self-regulated through an AVR.

ACCOUSTIC ENCLOSURE

The acoustic enclosure is made of 1.6 mm thick CRCA steel sheets and structural/ sheet metal base frame painted in White & Blue shade. The walls of the enclosure are insulated with fire retardant foam so as to comply with the 75 dBA at 1mtr sound levels specified by CPCB.

The Key Features of the Enclosure are :

- ⌚ Specially designed to meet CPCB norms of 75 dBA @ 1mtr at 75% load
- ⌚ Four point lifting for easy handling
- ⌚ Made on special purpose CNC machines for consistent quality & workmanship

- ⦿ CRCA used is Powder coated and pre-treated in 7 Stage pre-treatment plant for long lasting service life and superior finish
- ⦿ With UV resistant powder coating.
- ⦿ Insulation material meets exacting IS 8183 specifications for better sound attenuation
- ⦿ Flush styling - no projections
- ⦿ Fluid drains for lube oil and fuel
- ⦿ Fuel filling point

BASE FRAME

Suitable to couple the above mentioned Engine and Alternator, with a C type construction, made of 3 mm CRCA Steel.

FUEL TANK

The Genset constitutes a 340 Liters Diesel Tank , with Inlet & outlet arrangement with Drain Plug and Air vents

BATTERY

105 AH X 2Nos Batteries of Exide Make is supplied with DG set.

OTHER FEATURES

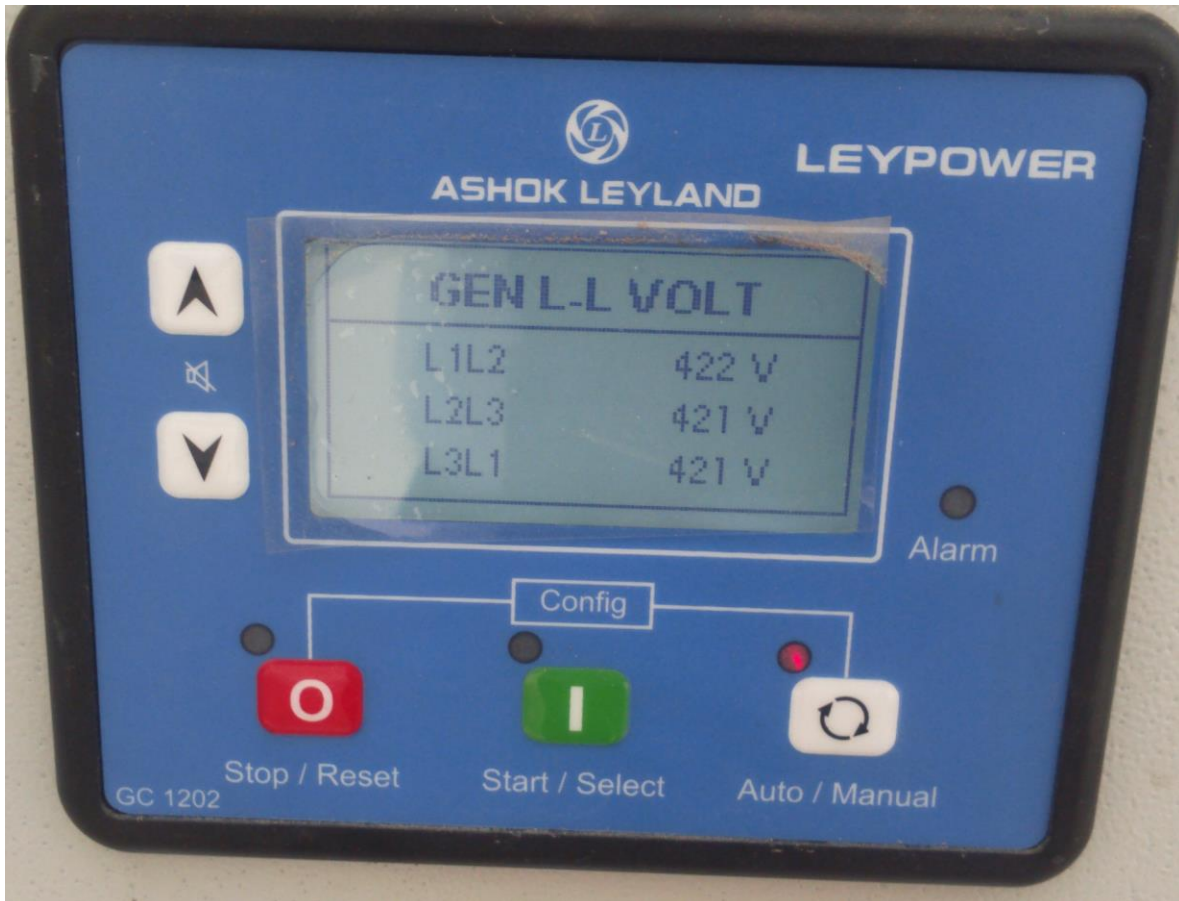
- ⦿ Robust, Compact, Fuel efficient Diesel Generator sets designed to operate under arduous site conditions
- ⦿ Latest Technology & Highly Reliable
- ⦿ Highly Engineered for Optimized Power SOLUTIONS
- ⦿ Designed to operate continually 24 x 7 @ 100% load
- ⦿ Better Fuel Consumption
- ⦿ Low Running cost
- ⦿ Compact Foot Print
- ⦿ Easy access for maintenance

GENSET CONTROL UNIT

Genset Control Unit with Integrated E-Governor helps in reading all genset inputs and controls the genset. GCU help in monitoring following parameters:

- ⦿ Controls the engine speed (Speed governing)
- ⦿ Supports Auto-Mains-Failure (AMF) functions for 1-Ph and 3-Ph genset
- ⦿ Low Fuel Level
- ⦿ Supports Manual-control-Panel (MCP) functions for 1-Ph and 3-Ph genset
- ⦿ Measures genset voltages & currents

- ⊗ Measures mains supply voltages & currents
- ⊗ Measures mains supply voltages & currents
- ⊗ Measures electrical parameters like Frequency, Power factor, Genset Power
- ⊗ Monitors critical engine safety parameters
- ⊗ Starts and Stops the genset
- ⊗ Have counters for genset starts and stops, run hours, kWh, power factor



Detailed Technical Specifications:

Technical Data	250 kVA @ 1500 RPM	
No. of cylinders and configuration	In-line 6	
Method of operation	4-stroke	
Rated Current Amp	348	
Bore, mm	112	
Stroke, mm	135	
Displacement, l	5.76	
Compression ratio	15.5 ± 0.5 : 1	
Fuel Tank Capacity Ltr	340	
Coolant Capacity approx. Ltr	41	
Lube Oil Capacity	25	
DG weight approx.	4500 Kg	
Performance		
with fan, kW (hp) at:	<i>kW</i>	<i>Hp</i>
Prime Power	223	299
Max. Standby Power	245.3	328.9
Lubricating system		
Oil consumption at:	<i>liter/h</i>	
<i>Prime Power</i>	0.115	
Fuel system		
Fuel consumption at Prime power	<i>Lit/Hr</i>	
50%	35.5	
75%	40.3	
100%	47	
Governing : Electronic Governor with A0 Class Governing		
Oil Change Period	600 Hours or 1 year whichever is earlier	
Safety Protection		
<i>Safety Protection HWT</i>	Yes	
Safety Protection for Low lube oil pressure trip	Yes	
<i>Safety Protection for Over speed Trip</i>	Yes	
Safety Protection for Low Fuel Level	Yes	
DG Size		
Length (mm)	4700	
<i>Width (mm)</i>	1600	
Height including base (mm)	2020	