LEYPOWER

Diesel Generating Sets 10 - 2000 kVA

POWERING YOUR NEEDS

CPCB COMPLIANT

ASHOK LEYLAND

ENGINEERING YOUR TOMORROWS

HINDUJA GROUP

ASHOK LEYLAND

1500 KVA

LEYPOWER
POWERING YOUR NEEDS

Ashok Leyland

Model : LP1500

Frequency : 50Hz

Diesel Generator

Model	Engine	Alternator	Voltage	PH	Frequency	Prime Rating KVA/kW	Amps	Power factor
LP1500	4012-46TAG2A	P1734C1	415V	3	50 Hz	1500 / 1200	2085	0.8

Engine Specification	Prime Power Rating
Engine Manufacturer	Perkins UK
Engine Model	4012-46TAG2A
Configuration	12 'Vee'
Aspiration	Turbo Charged and After Cooled
Gross Engine Power output, kWm / BHP	1309 / 1756
Net Engine power output, kWm / BHP	1267 / 1700
BMEP @ rated load, kPa	2260
Displacement, L	45.842
Bore , mm	160
Stoke, mm	190
Rated Speed, rpm	1500
Piston Speed, m/s	9.5
Compression Ratio	13.6 : 1
Lub oil capacity Max, L	159
Lub oil capacity Min, L	136
Governor Type	Electronics
Starting Voltage, V- DC	24

"Power solution Business Group: In the recent past, the Engines division, catering to the supply of diesel engines for applications such as, generating set application (DG sets) , Special application, which include engines for Earthmoving equipment , compressors , cranes , Harvestor combines , Road sweepers , etc and marine application, has now been rechristened as the Power Solutions Business (PSB).

The Power solutions Business Group has ventured into providing complete power solutions in the segment of DG sets, special application and marine . Trademark registrations are already underway for Leypower, Leymarine, Leypump, Leyair, Leyfire brands.

Over 30,000 Leypower diesel generating sets manufactured from various units of Ashok Leyland have already rolled out within a span of 30 months. The group turnover touched Rs 488 crore in 2009-10.

LEYPOWER Power Solutions is the fastest growing power solutions provider in India. With state-of-the-art technology in engine, alternator and controllers,

LEYPOWER provides a fully integrated power system at par with global standards at a very competitive overall cost of ownership.

LEYPOWER ready-to-use diesel generating sets meet with the latest CPCB norms in India are built to comfortably meet the international norms. These sets are powered by the compact multi cylinder diesel engines. Aesthetically designed, these DG sets are silent, environment-friendly require minimum maintenance and are low on operating costs as compared to competitors.

LEYPOWER diesel generating sets are manufactured in the state of the art plants located across the country using the latest machinery and skill sets, to roll out well engineered DG sets.

Fuel System	
Recommended fuel to conform to	BS2869 1998 Class A2 or BS EN590
Type of injection system	Direct injection
Fuel injection pump	Combined unit injector
Fuel injector	Combined unit injector
Fuel injector opening pressure, MPa	140
Fuel lift pump	Tuthill TCH 1-054
Delivery/hour at 1500 rev/min, L	1020
Heat retained in fuel to tank, kW	8
Fuel Inlet Temperature to be less than, °C	58
Delivery pressure, kPa	300
Maximum suction head at pump Inlet, m	2.5
Fuel filter spacing, microns	10
Tolerance on fuel consumption	+5%
• Governing to ISO8528-12 Class 3 & 4: ISO8528-5 ClassG2	

Air System	
Maximum air intake restriction of engine, clean filter	127 mm H2O
Maximum air intake restriction of engine, dirty filter	380 mm H2O
air filter type	cylinder paper pleat
Combustion air flow, m^3/min	99

Exhaust System	
Maximum back pressure for total system	612 mm H20
Exhaust gas temperature, after turbo, °C	470
Exhaust gas flow maximum, after turbo , m^3/min	270

Standard set with radiator (Liquid Cool)	
Ambient design, °C	52
Fan Load , KW	42
Coolant Capacity with radiator , L	235
Engine Coolant Flow, L/s	17
Cooling system air flow, m^3/min	1872

Weights*	
Unit dry weight, Kg	8934
Unit wet weight, Kg	10620
* Weight represent a set with standard feature	

Dimension	Length	Width	Height
Standard open set dimension (mm)	5300	2000	2800

Alternator Specification	
Rating	1500kVA - 3ph
Model	P1734C1
Rated Voltage	415V
Type	4 pole
Exciter type	Brushless
Insulation	Class - H
Temperature rise	125 °C
Enclosure Protection	IP23
Bearing	Single
Voltage regulation	± 0.5%
Efficiency	95.4

Prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with IS 8528-1.

A 10% overload capability is available for a period of 1 hour within 12-hour period of operation, in accordance with ISO3046-1.

Standby Power Rating is applicable for supplying emergency power for the duration of utility power interruption. No Overload, utility parallel or negotiated outage operation capability is available at this rating.

In installations served by unreliable utility sources (where outage last longer or occur more frequently), where operation is likely to exceed 2000 hours per year, the prime power should be applied. All ratings are based on the following reference conditions: Ambient temperature - 27°C (Altitude above sea Level-150metres) Relative humidity- 60%

Power rating as per Standard reference condition as per BS 5514/ ISO 3046 / ISO 8528

Reference condition 27 °C ambient Temp, 100KPA (750mm of Hg) Atmospheric Condition and 60% humidity – as per IS10002, ISO 3046

Fuel consumption of DG set is considering specific gravity of fuel as 0.8355 at NTP condition, Tolerance will be +5%

The above specification are liable to change due to continuous improvement and are for reference only, Ashok Leyland Limited reserve the right to revise the specification or dimension without notice.

Advanced Integrated Digital Woodward Controller (EasYgen-3000) Optional

- Operation mode : Auto , Stop, Manual and
- Breaker Control : Slip Frequency/ phase matching synchronization, open-close control, breaker monitoring
- Load transfer feature: open / closed transition, interchange, soft loading / soft unloading mains parallel
- Real and reactive load sharing with up to 32 units
- Remote control for adjusting speed, frequency, voltage,power, reactive power and power factor set point
- Counter for operating hours/ engine starts / maintenance / active / reactive energy
- Configurable trip levels / delay timers / alarm classes for monitoring and protective functions
- Clear text display and evaluation of up to 100 J1939 analog values
- Discrete and analog I/O expansion board connectivity
- Front panel and PC configurable (ToolKit software)
- Multi-level password protection for access via HMI or interface
- Event recorder (300 events, FIFO) with real time clock
- Measuring
    - o Generator voltage 3 phase/4wire, Current (3x true rms)
    - o Mains Voltage 3 phase/4wire, current (1x true rms)
    - o Bus bar voltage 1 phase / 2 wire

Advanced Integrated Digital Woodward Controller (DSE 6020) Optional

- Start/stop AMF function for Diesel engines
- Operating hours, start counters, maintenance period count
- 4 digital input / 3 analogue input- 6 output (configurable on CANbus)
- Configurable timer
- PC and front panel configurable
- Engine preheat
- 5 entry event logger
- Multiple engine parameter monitored simultaneously
- IP65
- Mains volt 3 phase/ Mains frequency
- AMF indication
- Metering and alarm indication for
    - Generator frequency
    - Under/over speed
    - Generator volt (L-L, L-N)
    - Generator current
    - Engine parameter (oil, coolant temperature)
    - Hour Run count
    - Battery volts
    - Fail to start / stop
    - Charging failure
    - Loss of Magnetic pick –up signal