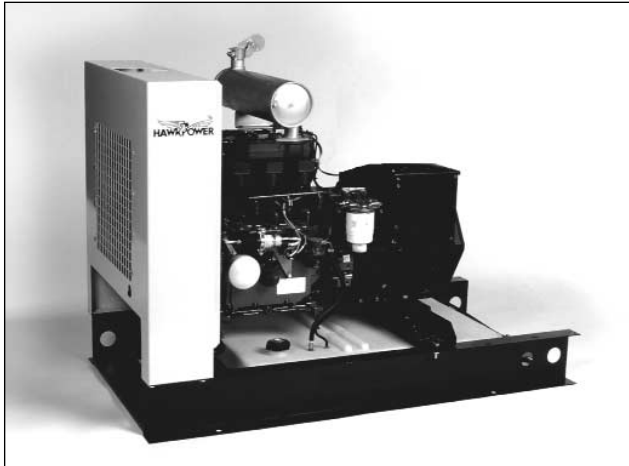


# GS8D - LP

Water-Cooled, Diesel  
Generator Set



## Technical Data Sheet



\*\*Photo displays GS12D-LP Generator set for illustration purposes only.

### Generator Set Data

Model Number GS8D-LP	Stand-by	Prime	Voltage Connection
<b>Stand-by kW (kVA) Ratings @1800 RPM</b>			
1 PH 60 Hz, 1.0 PF	7.6 (7.6)	6.9 (6.9)	120/240
3 PH 60 Hz, 0.8 PF	7.8 (9.7)	7.1 (8.9)	227/480

Consult Lister-Petters, Inc. for additional voltages.

#### Stand-by Power:

Defined as power available for one hour in twelve of continuous operation. For Prime (continuous) Power rating, divide by 1.1.

#### De-Rating:

Power outputs shown must be adjusted for site ambient conditions as follows:

- **Altitude:** Approximately 1.5% for every 300m (1000 ft.) above 100m (325 ft.).
- **Temperature:** Approximately 1% for every 5° C (9° F) above 25° C (77° F).
- **Humidity:** Up to approximately 10%, depending on ambient temperatures.

**NOTE:** These de-rate factors are approximate. For definitive specifications, consult Lister-Petters, Inc.

#### Arrangement:

Close-coupled with rotor bolted to flywheel and generator flange bolted to flywheel housing. Vibration isolators are fitted between base and generator assembly.

(See drawing for dimensions).

### Standard Genset Specification

- High Coolant Temperature Automatic Shutdown
- Radiator and Pusher Fan
- UV/Ozone Resistant Hoses
- Fan Guard
- Battery Charge Alternator
- Battery Cables
- Battery Tray and Holddown
- Vibration Isolation of Unit to Mounting Base
- Integral Base Frame
- Low Oil Pressure Automatic Shutdown
- Fuel Control Solenoid
- Mechanical Fuel Lift Pump
- 12 volt Starter Motor
- Medium-duty Air Cleaner
- Main Line Circuit Breaker
- Engine Mounted Muffler
- 15.8 U.S. Gallon (59.8 Liter) Fuel Tank with Fuel Level Gauge in Filler Cap

• Plus one of the following control panels:

#### ES - Basic Electric Start:

Manual start/stop. This control provides safety shutdowns for low oil pressure and high engine temperature.

**NOTE:** No engine gauges or AC meters are available for this control.

#### BD - Basic Digital Autostart:

Set comes with a two-wire control system capable or transfer switch, or other autostart applications initiating the starting sequences from an open to close contact. Control panel includes a running time meter, three-position toggle switch with auto/off/run positions, safety shutdowns for low oil pressure, high engine temperature, overspeed and overcrank.

**NOTE:** For fault indication and/or engine gauges and AC meters, use DS control.

#### DS - Digital Autostart with LCD:

As Basic Digital Autostart plus LCD screen read out. Control panel includes a three-position toggle switch with auto/off/run positions, an LCD display of running time, oil pressure, water temperature and battery voltage. Fault indication provided for low oil pressure, high engine temperature, overspeed and overcrank.

#### Options for DS Control Panel:

1. AC meter package includes a display of AC volts, AC phase, AC amps and AC frequency
2. Remote annunciator with LCD display and audible alarm
3. Communications package
4. NFPA 110 Configuration

### Genset Options

- 12 Volt Battery
- Battery Charger
- Weather Enclosure
- Coolant Heater
- AC Meters
- Electronic Governor
- Critical Silencer
- Sound Attenuation
- Heavy-duty Air Cleaner
- Export Crating

## Engine Specification

**Manufacturer:** Lister-Petter

**Model:** LPW2 water-cooled industrial diesel engine

**Design:** Four-cycle, two-cylinder, naturally aspirated diesel with direct injection combustion, cast iron crankcase and cylinder head.

**Displacement:** 0.9 Liter

**Bore x Stroke:** 3.38 in. (86 mm) x 3.15 in. (80 mm)

**Compression Ratio:** 18.5 : 1

**Lube Oil System:** Full flow pressure lube oil system with spin-on cartridge filter with bypass.

**Recommended Oil Filter change:**

250 hours up to 95° F (35° C) ambient  
125 hours above 95° F (35° C) ambient

**Air Cleaner:** Medium-duty

**Fuel System:** Individual fuel injection pumps operated by the camshaft. Lift of the fuel lift pump is 10 feet (3.04 m) maximum.

## Alternator Data

**Design:** 4-Pole, brushless, single bearing, rotating field, solid state AVR, 4-lead dedicated, single Phase. 3 Phase, 12-lead reconnectable outputs available.

**Construction:** Complies with NEMA, IEEE and ANSI standards. Self-ventilated, drip-proof construction. Triple-dip varnish and epoxy-coated windings to Class H insulation with 2/3 pitch wound stator for a smooth voltage wave form.

**Voltage:** 60 Hertz, 1 Phase 120/240 VAC, 3 Phase 277/480 VAC.  
*Consult LPI for additional voltages.*

## Engine Specifications at 60 Hz Rated Load

Engine Model LPW2	U.S.	Metric
Cylinder Displacement	56.7 cu. in.	0.9 liter
Exhaust Gas Flow	70.2 cfm	33.1 liters/sec.
Exhaust Temperature	950° F	510° C
Maximum Back Pressure	20" water	52 mbar
Governor Droop	5%	
Steady-State Frequency Regulation	+/- 0.5%	
Combustion Air	25.1 cfm	11.8 liters/sec.
Cooling Air Flow	1450 cfm	0.68 m³/sec.

## Fuel Consumption

Load	US Gal/Hr	Liter/Hr
100%	0.6	2.3
75%	0.5	1.9
50%	0.4	1.5

## Alternator Statistics at Rated Load

Alternator Manufacturer	Newage
Voltage Change with 100% Load Step Applied	Within 3% (1/4 sec.)
Telephone Influence Factor (TIF)	Less than 50
Voltage Regulation	2% all loads to 100%
Total Harmonic Factor (THF)	Less than 2%
Temperature Rise	125° C

A = 37.75"

B = 37.81"

C = 54.25"

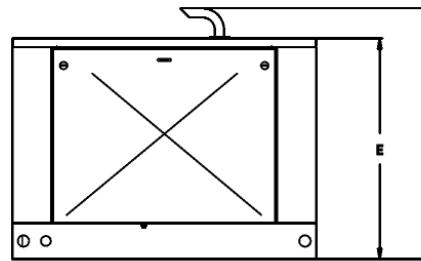
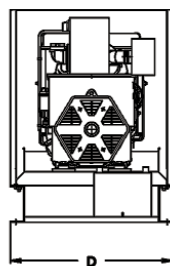
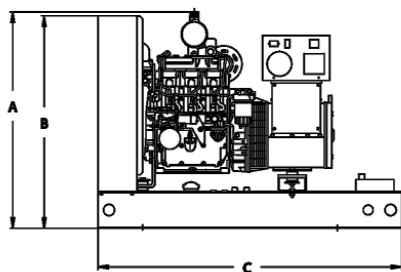
D = 29.0"

E = 39.34"

F = 44.75"

### Approximate Weight (includes coolant and oil):

Open Generator Set: 555 lbs.  
Enclosed Generator Set: 650 lbs.  
Sound Attenuated Generator Set: 730 lbs.



## Shipping Details

Crate Type	Open/Encl Length	Sound Att. Length	All Width	All Height	Open Weight	Encl. Weight	Sound Att. Weight
Pallet Only	59"	83"	37"	49"	605 lbs.	700 lbs.	780 lbs.
Open Crate	59"	83"	37"	53"	680 lbs.	775 lbs.	855 lbs.
Enclosed Crate	60"	84"	37"	53"	715 lbs.	810 lbs.	890 lbs.

For further information, contact:

*The information in this data sheet is of a general nature and does not form part of any contract or warranty. We have made efforts to ensure that the information is accurate but reserve the right to amend specification and information without notice or any obligation or liability. The set illustrated is not necessarily the standard build.*



555-00307 Rev. 7  
June, 2001  
Printed in the USA