

GS Model GS32DE

Standby Power Range: 29.3 - 32.4 kW 60Hz Prime Power Range: 26.6 - 29.5 kW 60Hz

Generator Set Technical Data Sheet

GS Series Delta Diesel Series

Genset	Alternator	Hz	Stand	by kW	Prime kW		
Model	Brand	ПΖ	3 ph	1 ph	3 ph	1 ph	
GS32DE-LM	Mecc Alte	60	32.1	30.1	29.2	27.4	
GS32DE-LN	Newage	60	31.6	29.3	28.7	26.6	
GS32DE-LM	Mecc Alte	50	26.7	25	24.3	22.8	
GS32DE-LN	Newage	50	26.3	24.4	23.9	22.1	

Rating Conditions: All ratings calculated at sea level, 77°F and 30% humidity with generator set at normal operating temperature. **Standby Rating**: The power that the generator set will deliver continuously under normal varying load factors for the duration of a power outage.

Prime Power: Power that the generator set will deliver when used as a utility type power plant under normal varying load factors to run continuously. This rating requires a minimum momentary overload capability of 10%.



The set illustrated is not necessarily the standard build.

Standard Features and Options (*consult with factory for full list of options)

Standard Features

- ◆ Lister Petter Delta engine
- ♦ Full flow fuel and oil filters
- ♦ Self-priming fuel system
- ♦ Mechanical governor
- ♦ 12 volt starter and alternator
- ♦ Belt and fan guard
- ♦ Oil drain
- ♦ Fuel control solenoid
- ◆ Dry type air-cleaner
- ♦ Fabricated steel skid base

- ♦ Powder-coated finish
- ♦ Vibration isolator mounts
- Digital auto-start controls with safety shut-down and fault indication
- ◆ Battery hold down rack and cables
- ◆12-wire re-connectable brushless Mecc Alte alternator
- ♦ Operator handbook
- ◆ Fuel lift pump
- ◆ Based mounted radiator cowling

Optional Items*

- ♦ Weather protective enclosure
- ♦ Full sound attenuated enclosure
- ◆ Aluminium enclosures
- ◆ Complete AC/DC instrumentation
- ♦ Variety of fuel tanks including UL142
- ♦ Main-line circuit breaker
- ♦ Industrial muffler
- ♦ Auto-battery charger
- ♦ Newage alternator
- ◆ Electronic governor

Benefits of choosing a Lister Petter Generator Set

The Lister Petter GS series of generator sets are designed and assembled in our own facility. Drawing from several decades of generator set assembly experience our customers receive generators that are fully tested before shipment, built to all codes and standards, and provide stable, clean electrical power with a very steady voltage and frequency output. Lister Petter engines are extensively used in generator sets, with tens of thousands of installations, for a proven track record in power generation demonstrating high reliability, longer maintenance intervals and a lower cost of ownership. For after-market support our customers can rely on a comprehensive network of product service centers, with single source product support and full parts availability. A wide range of options are available.

Generator Models GS32DE-LM & GS32DE-LN Specification

Power Ratings

Model	Voltage	Ph	pf	Hz	S	Standby Powe	er	Prime Power			
Number	Range	FII	ρı	ПZ	kW	kVA	Amps	kW	kVA	Amps	
	120/240	1	1.0	60	30.1	30.1	125.4	27.4	27.4	114.2	
GS32DE-LM	120/208	/208 3 (60	32.1	.1 40.4 89.2		29.2	36.5	81.1	
	120/240	3 0.8 6		60	32.4	40.5	78	29.5	39.9	71.1	
	277/480	3	0.8	60	32.4	40.5	39	29.5	36.9	35.5	
	120/240	1	1.0	60	29.3	29.3	122.1	26.6	26.6	110.8	
GS32DE-LN	120/208	3	0.8	3 60 31.6		39.5	87.8	28.7	35.9	79.8	
	120/240	3	0.8	60	31.9	39.9	76.8	29	36.3	69.8	
	277/480	3	0.8	60	31.9	39.9	38.4	29	36.3	34.5	

Application Air, Exhaust and Cooling Requirements US (Metric) @ 60Hz

Cooling data and requirements	Standby Rating	Prime Power Rating		
Total coolant including radiator US gal (liters)	2.4 (9.0)	2.4 (9.0)		
Coolant flow rate US gal/min (Liters/min)	26.6 (121)	26.6 (121)		
Heat rejection to coolant Btu/min (kW)	2133 (37.5)	1963 (34.5)		
Heat rejection to surroundings Btu/min (kW)	339 (6.0)	321 (5.5)		
Application A	ir-Flow Requirements			
Maximum air-restriction inH2O (mmH2O)	25.0 (635)	25.0 (635)		
Radiator cooling-air cfm (m³min)	4278 (121.2)	4278 (121.2		
Combustion-air cfm (m³min)	93 (2.6)	93 (2.6)		
MeccAlte alternator cooling-air cfm (m³min)	512 (14.5)	512 (14.5)		
Newage alternator cooling-air cfm (m³min)	458 (13.0)	458 (13.0)		
Exha	ust Gas Data			
Exhaust gas flow cfm (m³min)	280 (7.9)	258 (7.3)		
Maximum back pressure inH2O (mmH2O)	27.2 (690)	27.2 (690)		
Exhaust temperature °F (°C)	986 (528)	896 (480)		

Fuel, Lube Oil and Ratings Data @ 60Hz

Recommended oil change @ ambient temp.	Up to 95°F (35°)	Above 95°F (35°)			
Hours interval between oil changes	250	250			
Fuel consumption US gal/Hr (Liters/Hr)	Standby Rating	Prime Power Rating			
100%	2.7 (10.3)	2.4 (9.3)			
75%	2.0 (7.4)	1.8 (6.6)			
50%	1.4 (5.2)	1.2 (4.6)			
De-rating factors	Altitude	Temperature			
Ratings are calculated at normal temperatures and pressures, with an ambient less than 77°F and altitude less than 325ft above sea level	4% for every 1000ft (300m) above 325ft (150m)	2.5% for every 9°F (5°C) above 77°F (25°C)			
Humidity derate up to a maximum of 10% depending on the	ambient temperature				

* Noise Data dB(A) @ 7 meters (8 position average)

Configuration of set	Open	Enclosed	Sound attenuated
Noise rating: dB(A)	77.7	75.5	70



Engine and Alternator Specifications

Engine

Basic Engine Da	ta	Valve Train					
Manufacturer	Lister Petter	Lifter type	Mechanical				
Delta model naturally-aspirated	DWS4 404	Emissions					
Cylinders	4	EPA Certified	Yes				
Displacement Cu.in (Liters)	203 (3.33)	Engine G	Sovernor				
Bore inches (mm)	3.7 (94.0)	Standard mechanical system	Hz no load to full load 5.0%				
Stroke inches (mm)	4.7 (120.0)	Optional electronic system	Hz no load to full load 0.5%				
Compressions ratio	22.0:1	Steady regulation mechanical	±0.5%				
Number of main bearings	5	Steady regulation electronic	±0.25%				
Connection rods	4	Cooling System					
Piston material	Aluminium alloy	Type of system	Pressurized				
Cylinder head material	Cast iron	Water pump	Sealed				
Oil capacity gals (liters)	2.6 (1.0)	Type of fan	Pusher				
Engine Electrical Sy	stem	Fuel System					
Glow plugs	Yes 12V	Fuel	#2 Diesel Fuel				
Battery charge alternator	60 amp	Fuel injection pump	Delphi				
Starter motor	12V	Fuel pump type	Rotary				
Recommended lead acid battery	800 CCA	Combustion	In-direct				
Ground polarity	Negative	Firing order	1-3-4-2				

Alternator

Basic Alternator D	ata	Coupling arrangement	Close			
Туре	4 - pole	Load capacity (standby)	110%			
Rotor insulation	Class "H"	Load capacity (prime)	100%			
Stator insulation Class		Excitation System				
Total harmonic factor	Less than 2%	Brushless	AVR			
Telephone influence factor (TIF)	Less than 50	Volts change 100% load step	Under 3%(1/4 sec)			
Alternator cooling	Self ventilating	Voltage regulation	2% all loads to 100%			
Bearings	Single	Temperature rise	125°C			

Alternator Features

- ♦ The alternators are dipped in varnish and have expoxy-coated windings.
- ♦ The alternators are designed to meet the temperature rise standards of class "H" insulation. The windings have a 2/3 pitch in order to reduce the harmonic content of voltage.
- ♦ Mecc Alte motor starting is 3 times running kVA and Newage regulated is 2 times running KVA.

- ♦ Four pole, revolving field alternator, close-coupled to the engine by means of generator flange bolting directly to flywheel housing. Drive is by flexible disc.
- ♦ All Lister Petter gensets are fully factory tested, a test sheet is available for each set. A performance test is made by increasing load steps up to 110% of continuous rating.
- ♦ The alternator complies with VDE0530, BS4999 or 5000 and is CSA approved. The alternator is self ventilated dripproof construction. The standard of enclosure protection is IP21 or IP23.

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

Delta GS Series Control Panel Options





'DA' Standard Auto Start Panel

Standard 'DA' Control Panel: This control comes complete as a manual or auto start control with hour meter. When in "Auto" position a simple switch closure of any kind will signal the set to start. Controls provide safety shutdown protection, with LED indication for low oil pressure, high temperature, over/under speed and over crank fault after three attempts to start. Low battery voltage will have a warning. It comes standard with two configurable input/outputs.

'DB' Auto Start Panel with LCD

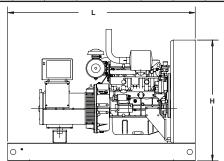


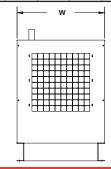
Standard 'DB' Control Panel: This control comes complete as a manual or auto start control. When in "Auto" position a simple switch closure of any kind will signal the set to start. The controls provide safety shutdown protection for low oil pressure, high temperature, over/under speed and a over crank fault after three failed attempts to start. Using a push button you can easily scroll through the LCD showing the generator sets A/C voltage, amperage and hertz. The engine will be monitored for oil pressure, temperature, D/C battery volts, and engine hours run. It comes standard with five fully configurable inputs and three configurable outputs for either warnings or shutdowns.

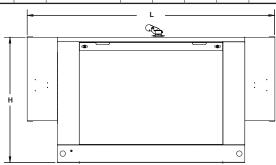
(Consult Lister Petter for additional control options including remote monitoring and communications)

Delta GS Series Dimensions and Weights

	Unpacked dimensions							Shipp	ing d	ng dimensions Weights (with packing options						ons)			
Dimension	Op	en	Encl	osed	Atten	uated	Op	en	Encl	osed	Atten	uated	Packing lbs (kg)	Op	en	Encl	osed	Atten	uated
	ins	cm	ins	cm	ins	cm	ins	cm	ins	cm	ins	cm	None	1685	(764.3)	1890	(857)	1965	(891)
"H" height	48	122	50.3	127.8	50.3	127.8	55	139.7	53.8	136.7	53.8	136.7	Pallet Only	1750	(793)	1955	(886)	2035	(923)
"W" width	32	81.3	32	81.3	32	81.3	37	94	37	94	37	94	Open Crate	1825	(827)	2030	(920)	2110	(957)
"L" length	68.5	174	68.5	174	90.4	229.6	75	190.5	75	190.5	101	256.5	Closed Crate	1860	(843)	2065	(936)	2145	(972)







Distributors Addresses

Lister Petter Limited, Dursley, Glouchestershire GL11 4HS England Tel: +44 (0)1453 544141; Fax: +44 (0)1453 546732; E-mail: sales@lister-petter.co.uk http://www.lister-petter.co.uk USA

Lister Petter Americas Inc. 815 E. 56 Highway, Olathe, Kansas 66061 USA Tel: +1 913 764-3512; Fax: +1 913 764-5493; E-mail: info@lister-petter.com; http://www.lister-petter.com **FRANCE**

Lister Petter France, 17 Avenue de L'escouvrier, Zone d'Activities, 95842 Sarcelles, Cedex France Tel: +33 (0)1 39330420; Fax: +33 (0)1 34195760; E-mail: commercial@lister-petter-france.fr INDIA

Lister Petter India Pvt Ltd, 32/2/5/1, Kondhawa Budruk, Pune 411 048 India Tel: +91 20 2693 2688 / 3644 / 3645 / 4138 ; Fax: +91 20 2693 3286 CHINA

Lister Petter China, Jinan Fuqiang Power Co. Ltd. 159 Ying Xiong Shan Street, Jinan PC 250002. P.R. China Tel: +86 531 271 0148; Fax: +86 531 297 1113



