

ACOUSTIC GENSETS (50 & 60 HZ)

**LLG 30A, LLG 50A, LLG 70A, LLG 100A, LLG 110A,
LLG 140A, LLG 165A, LLG 180A, LLG 200A**

50 Hz, 1500 r/min; 60 Hz, 1800 r/min

Prime power outputs: 30-203 kVA; 24-163 kWe

Standby power outputs: 33-226 kVA; 26 -181 kWe

LIQUID COOLED ACOUSTIC GENSET WITH ELECTRONIC CONTROL MODULE

SPECIAL ATTRIBUTES

- continuous operation in ambient temperatures up to 40°C (104°F)
- cold start down to -20°C (-4°F)
- low fuel consumption
- shutdown fault protection
- easy maintenance

DESIGN FEATURES

- Lister Petter Gamma Series diesel engine
- Leroy Somer single bearing, 4-pole, brushless alternator
- control system with electronic digital control module
- choice of manual/remote start and AMF operating modes
- rust resistant zirconium phosphate treated steel
- tough ripple effect powder coated finish
- integral fuel tank
- external emergency stop button
- emergency stop button (lock-down type)
- lifting points
- steel base frame
- mechanical and electric governing
- anti vibration mountings
- residential exhaust silencer
- flexible exhaust pipe
- pusher fan
- operators' handbook



GAMMA ACOUSTIC GENSET

OPTIONAL ITEMS

- additional tropical/marine grade alternator winding protection
- bunded fuel tank
- space heater
- automatic transfer switch (standard with AMF)
- battery charger
- output voltage of 220/127V for 60Hz
- phase sensing control panel
- control panel with remote monitoring capability

ENGINE SPECIFICATION

- Gamma Series diesel engine
- three, four or six cylinders
- water cooled
- direct injection
- LLGA 30: naturally aspirated (GW3 engine)
- LLGA 50: naturally aspirated (GW4 engine)
- LLGA 70, LLGA 100, LLGA 110: turbocharged (GWT4, GWT6 engines)
- LLGA 140, LLG 165A, LLG 180A, LLG 200A: turbocharged and intercooled (GWTA6 engine)
- cyclonic dry-type air cleaner
- standard oil and fuel filters
- fuel-lift pump
- 12V electric starting system with battery-charge alternator (24V optional)

ALTERNATOR SPECIFICATION

- Leroy Somer
- single bearing, 4-pole, brushless
- solid state AVR with $\pm 1.5\%$ as standard
- class H insulation on the rotor and stator
- IP23 protection class

CONTROL SYSTEM FEATURES**CONTROL CUBICLE**

The control cubicle has the following features:

- key isolating switch
- electronic digital control module with monitoring/control facility and warning indicators
- automatic shutdown protection
- emergency stop button (lock-down type)
- AC output circuit breaker with over-current protection
- DC circuit control switch and overload circuit breaker

The control module gives digital readouts of:

- generator voltage (phase-to-phase and

- phase-to-neutral)
- generator current (each phase displayed separately)
- output frequency
- engine speed
- engine oil pressure
- engine coolant temperature
- battery voltage
- engine hours run

The control module has indicators for:

- overspeed / underspeed
- emergency stop
- engine oil pressure
- engine temperature
- failure to start
- battery charger failure

Automatic shutdown occurs under:

- low engine oil pressure
- high engine temperature
- overspeed / underspeed
- failure to start after three attempts

MANUAL/REMOTE START SETS

These sets have the flexibility of either manual or remote automatic operation:

- manual operation is by **START** and **STOP** push-buttons on the control module
- remote operation is achieved by connecting a 2-wire circuit to the relevant terminals on the control module and is activated by setting the control module to **AUTO**

AUTOMATIC MAINS FAILURE SETS (AMF)

In the event of a mains failure, the generating set will automatically operate to supply the electrical load. In addition to the standard features, automatic mains failure sets have:

- wall mounted cubicle governing automatic mains failure operation
- control module timer circuits set to delay start, delay transfer back to mains and delay stop to allow for engine cool down

POWER OUTPUTS						
			50 Hz, 1500 r/min		60 Hz, 1800 r/min	
			Three phase		Three phase	
Model	Engine	Rating	kVA	kWe	kVA	kWe
LLG 30A	GW3	Prime	30	24	31	25
		Standby	33	26	34	27
LLG 50A	GW4	Prime	45	36	48	38
		Standby	50	40	53	42
LLG 70A	GWT4	Prime	63	50	69	55
		Standby	69	55	75	60
LLG 100A	GWT6-1A	Prime	90	72	94	75
		Standby	100	80	106	85
LLG 110A	GWT6-2A	Prime	100	80	113	90
		Standby	110	88	125	100
LLG 140A	GWT6-3A	Prime	125	100	138	110
		Standby	138	110	150	120
LLG 165A	GWT6-4A	Prime	150	120	168	135
		Standby	165	132	187	150
LLG 180A	GWT6-5A	Prime	162	135	187	150
		Standby	178	143	206	165
LLG 200A	GWT6-6A	Prime	182	144	203	163
		Standby	200	160	226	181
Power factor: 0.8 Voltages available: 380 V/220 V, three-phase, four-wire. Other voltages available on request.						

APPROXIMATE FUEL CONSUMPTION						
			Litres/hour		Standard Fuel Tank Size (L)	Bunded Fuel Tank Size (Option)
			50 Hz, 1500 r/min	60 Hz, 1800 r/min		
LLG 30A	GW3	100%	7.6	8.2	190	160
		75%	6.1	6.6		
LLG 50A	GW4	100%	10.8	11.9	230	180
		75%	8.6	9.6		
LLG 70A	GWT4	100%	17.5	20.0	300	220
		75%	14.2	16.2		
LLG 100A	GWT6-1A	100%	22.0	26.0	340	250
		75%	17.8	21.1		
LLG 110A	GWT6-2A	100%	24.0	28.7	380	250
		75%	19.4	23.2		
LLG 140A	GWT6-3A	100%	31.0	34.5	460	290
		75%	25.1	27.9		
LLG 165A	GWT6-4A	100%	32.0	36.0	460	290
		75%	24.0	26.0		
LLG 180A	GWT6-5A	100%	34.0	38.0	460	290
		75%	25.0	28.0		
LLG 200A	GWT6-6A	100%	39.0	44.0	460	290
		75%	28.0	32.0		

RATING DEFINITIONS TO ISO 8528-1

All ratings are in accordance with ISO 8528-1. Power outputs are based on the optimum make of alternator for the set. Gensets fitted with other manufacturers' alternators may not achieve the above ratings.

Rating Conditions

A standard generating set is designed to operate in environmental reference conditions of 25°C, 100 kPa and 30% humidity.

Prime Power

This rating is for the supply of continuous electrical power (at variable load). There is no limit on the annual hours of operation and 10% overload power can be supplied for 1 hour in 12.

Standby Power

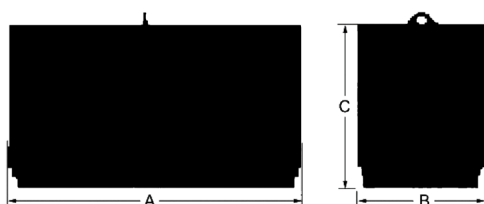
This rating is for the supply of continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted.

SOUND PRESSURE LEVEL

LLG 30A	LLG 50A	LLG 70A	LLG 100A	LLG 110A	LLG 140A	LLG 165A	LLG 180A	LLG 200A
74 dBA	75 dBA	75 dBA	76 dBA	76 dBA	77 dBA	82 dBA	82 dBA	82 dBA

* LLG series gensets do not comply with EU noise directive 2000/14/EC

APPROXIMATE WEIGHT AND DIMENSIONS



"Silent" sets		LLG 30A	LLG 50A	LLG 70A	LLG 100A	LLG 110A	LLG 140A	LLG 165A	LLG 180A	LLG 200A
Dry Weight	kg	1280	1608	1688	2100	2168	2298	2310	2550	2570
	lb	2820	3545	3721	4630	4780	5066	5082	5610	5654
Length (A)	mm	2100	2300	2300	2800	2800	2900	3000	3200	3200
	in	83.0	92.0	92.0	110	110	116	120	126	126
Width (B)	mm	1000	1050	1050	1100	1100	1200	1200	1300	1300
	in	39.0	42.0	42.0	44.0	44.0	48.0	48.0	51.0	51.0
Height (C)	mm	1650	1700	1700	1800	1800	1800	1850	1950	1950
	in	65.0	68.0	68.0	72.0	72.0	72.0	74.0	77.0	77.0

A comprehensive range of options allows you to select a specification that matches your requirements. Please ask your Lister Petter distributor (see panel below right).

UAE

LISTER PETTER FZE
Dubai Silicon Oasis Headquarters,
PO Box 341077, Dubai, UAE
TEL: +971 4 372 4315; FAX: +971 4 372 4318
E-mail: sales@listerpettergroup.com
www.lister-petter.co.uk

DISTRIBUTOR'S ADDRESS

Lister Petter have made efforts to ensure that the information in this data sheet is accurate but reserve the right to amend specifications and information without notice and without obligation or liability.