

# LLD LONG RUNNING GENSETS

**LLD LR95(A) \*, LLD LR135, LLD LR140(A),  
LLD LR190(A), LLD LR200, LLD LR250(A)**

*50 Hz; 1500 r/min; power outputs: 5.6—21.9 kVA  
60 Hz; 1800 r/min; power outputs: 6.9—26.9 kVA*

**LIQUID COOLED GENSETS FOR UP TO 2000 HOURS UNATTENDED RUNNING**

## CHOICE OF:

- 50 Hz, 1500 r/min or 60 Hz, 1800 r/min
- Lister Petter Alpha Series water cooled, direct injection diesel engine (2, 3 or 4 cylinders)
- naturally aspirated or turbocharged
- open set (LLD) or acoustic set (LLDA)

## STANDARD FEATURES

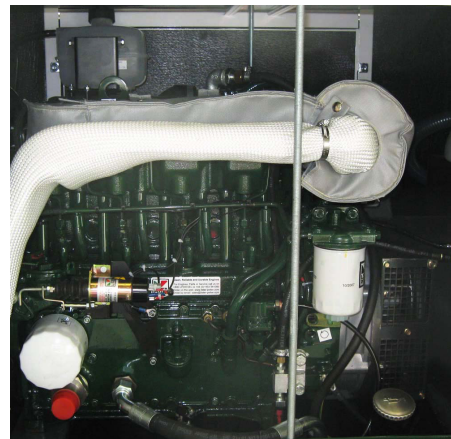
- control system with electronic digital control module
- single bearing, 4-pole brushless alternator
- 55-litre base-mounted lubricating oil tank with dipstick
- 5 micron Lister Petter bypass oil filter
- fuel/return fittings for bulk fuel systems
- engine coolant expansion tank (recovery)
- galvanised steel base plate with forklift pockets and bunding for the oil tank
- anti vibration mountings
- 12 V starter battery and leads
- mechanical governing
- emergency stop button (lock-down type)
- pusher fan
- operators' handbook
- electrical diagrams
- engine mounted exhaust silencer (open sets only)

## ACOUSTIC SETS ONLY

- residential exhaust silencer
- central point lifting eye
- external emergency stop button



**LLD LONG RUNNING  
ACOUSTIC GENSET**



**DETAIL OF INTERIOR**

**ENGINE ACCESSORIES**

- heavy duty air cleaner
- oil and fuel filters
- fuel-lift pump
- 12V electric starting system

**ALTERNATOR SPECIFICATION**

- single bearing, 2 or 4-pole brushless alternator
- solid state AVR with  $\pm 1.5\%$  as standard
- class H insulation on the rotor and stator
- IP23 protection class

**OPTIONAL ITEMS**

- residential exhaust silencer for open sets (as fitted to acoustic)
- acoustic canopy kit (including residential silencer kit) for retro-fitting to electric-start open sets only
- 2-wheel trailer

**CONTROL CUBICLE**

All LLD and LLDA sets have a control cubicle mounted on a vibration-isolated support, which has the following features:

- 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 cooldown
- solid-state automatic battery charger that maintains charge when set is not running

**The wall-mounted cubicle features:**

- mains monitoring unit to control set operation
- load-transfer contactors, mechanically and electrically interlocked (rated for set output)
- indicator for mains-on-load or plant-on-load

**POWER OUTPUTS TO ISO 8528-1<sup>1</sup> AND EMISSIONS COMPLIANCE**

			50 Hz, 1500 r/min				60 Hz, 1800 r/min			
Model	Engine	Rating	Single Phase		Three Phase		Single Phase		Three Phase	
			220V 230 V 240 V		380/220 V 400/230 V 415/240 V		220 or 110 V 230 or 115 V 240 or 120 V		220/127 230/133	
			kVA	kWe	kVA	kWe	kVA	kWe	kVA	kWe
LLD 95(A)	LPW2	Prime	5.6	5.6	7.0	5.6	6.9	6.9	8.6	6.9
		Standby	6.1	6.1	7.6	6.1	7.5	7.5	9.5	7.6
LLD 140(A)	LPW3	Prime	8.7	8.7	10.9	8.7	10.5	10.5	13.3	10.6
		Standby	9.5	9.5	12.0	9.6	11.5	11.5	14.6	11.7
LLD 190(A)	LPW4	Prime	12.2	12.2	15.0	12.0	14.8	14.8	18.5	14.8
		Standby	13.5	13.5	16.5	13.2	16.3	16.3	20.3	16.2
LLD <sup>2</sup> 250(A)	LPWT4	Prime	15.4	15.4	20.0	16.0	19.0	19.0	24.4	19.5
		Standby	17.0	17.0	21.9	17.6	20.9	20.9	26.9	21.5

- For rating definitions see page 4. Power Factor: single phase, 1.0 pf; three phase, 0.8 pf. Other voltages are available on request. Power outputs are based on standard Lister Petter alternators.
- LPWT4 single-phase outputs are based on Mecc Alte alternators.

**RATING DEFINITIONS TO ISO 8528-1**

Ratings are in accordance with ISO 8528-1. Power Factor: Single phase, 1.0 pf; three-phase, 0.8 pf. Other voltages are available on request.

**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.

**Key to Emissions Compliance**

EU Stage 3A only	
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**APPROXIMATE FUEL CONSUMPTION**

Values refer to litres/hour			50 Hz	60 Hz
Genset	Engine	Load	1500 r/min	1800 r/min
LLD 95(A)	LPW2	100%	1.9	2.3
		75%	1.5	1.8
LLD 140(A)	LPW3	100%	2.8	3.4
		75%	2.2	2.7
LLD 190(A)	LPW4	100%	3.8	4.6
		75%	2.9	3.6
LLD 250(A)	LPWT4	100%	4.9	6.0
		75%	3.7	4.6

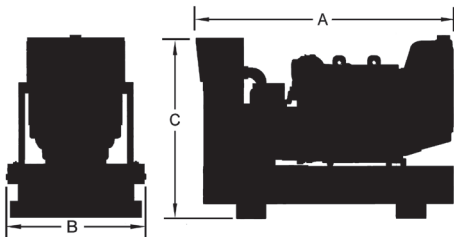

**SOUND PRESSURE <sup>3</sup>**

Acoustic sets, 75% load at 7m		
50 Hz, 1500 r/min		
LPW2/3	LPW4	LPWT4
64 dBA	65 dBA	62 dBA

3. In accordance with European Noise Directive 2001/14/EC.

**WEIGHT**

		Open Sets				Acoustic Sets			
		LLD 95	LLD 140	LLD 190	LLD 250	LLD 95A	LLD 140A	LLD 190A	LLD 250A
Dry weight	kg	396	417	456	466	500	540	580	590
	lb	873	919	1005	1027	1102	1190	1279	1301

APPROXIMATE DIMENSIONS			
	Open sets		
	Length (A)	mm	1442
		in	56.8
	Width (B)	mm	715
		in	28.1
	Height (C)	mm	997
in		39.25	
	Acoustic sets		
	Length (A)	mm	1693
		in	66.6
	Width (B)	mm	743
		in	29.2
	Height (C)	mm	1143
in		45.0	

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).

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**DISTRIBUTOR'S ADDRESS**

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