

HSL AIR COOLED GENSETS

HSL8, HSL8A, HSL15, HSL15A, HSL24, HSL24A

50 Hz; 1500 r/min; power outputs: 4.1 — 19.9 kVA

60 Hz; 1800 r/min; power outputs: 5.0 — 24.2 kVA

AIR COOLED GENSET WITH ELECTRONIC CONTROL MODULE

CHOICE OF:

- 50 Hz, 1500 r/min or 60 Hz, 1800 r/min
- Lister Petter T Series air cooled, direct injection, naturally aspirated diesel engine (one, two or three cylinders)
- open set (HSL) or acoustic set (HSLA)

STANDARD FEATURES

- Lister Petter T Series engine as above
- control system with electronic digital control module
- single-bearing, 4-pole brushless alternator
- 66-litre polypropylene fuel tank with contents gauge
- galvanised steel base-plate with forklift pockets and bunding for the fuel tank
- anti vibration mountings
- 12V starter battery and leads
- mechanical governing
- emergency stop button (lock-down type)
- flywheel mounted cooling fan
- operators' handbook
- electrical diagrams

OPEN SETS ONLY:

- engine-mounted exhaust silencer

ACOUSTIC SETS ONLY:

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



OPEN SET (HSL)



ACOUSTIC SET (HSLA)

OPTIONAL ITEMS:

- residential exhaust silencer for open sets (as fitted to acoustic version)
- AMF upgrade kit
- acoustic canopy kit (including residential silencer kit) for retro-fitting to manual/remote start open sets only
- 2-wheel trailer
- basic tool kit

ENGINE SPECIFICATION

- Lister Petter T Series, air cooled, direct injection, naturally aspirated diesel engine
- medium duty air cleaner
- oil and fuel filters
- fuel-lift pump
- 12 V electric starting system

ALTERNATOR SPECIFICATION

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

CONTROL SYSTEM FEATURES**CONTROL CUBICLE**

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

- 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
- automatic solid-state 4-Amp battery charger
- electronic digital control module with monitoring/control facility and warning indicators

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
- battery voltage
- 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)

The AMF specification provides that in the event of a mains failure the generating set will automatically operate to supply the electrical load.

Automatic mains failure sets have the following additional features:

- 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
- switch allowing manual operation of the load-transfer contactor if automatic system fails and set is started manually

AIR COOLED GENSET POWER OUTPUTS ³										
			50 Hz 1500 r/min				60 Hz 1800 r/min			
			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 V 230/133 V	
Model	Engine	Rating	kVA	kW	kVA	kW	kVA	kW	kVA	kW
HSL8 HSL8A	TR1	Prime	4.1	4.1	5.3	4.3	5.0	5.0	6.7	5.3
		Standby	4.5	4.5	5.9	4.7	5.5	5.5	7.3	5.9
HSL15 HSL15A	TR2	Prime	8.6	8.6	11.2	9.0	9.5	9.5	13.6	10.9
		Standby	9.4	9.4	12.3	9.9	10.5	10.5	15.0	12.0
HSL24 HSL24A ¹	TR3	Prime	14.0	14.0	18.1	14.5	17.3	17.3	22.0	17.6
		Standby	15.4	15.4	19.9	15.9	19.0	19.0	24.2	19.4

ACOUSTIC SET SOUND PRESSURE LEVELS ²		
Genset	dBA, at 75% load	
	50 Hz, 1500 r/min	60 Hz, 1800 r/min
HSL 8A	64	65
HSL 15A	64	65
HSL 24A	64	65

1. Standby ratings are not available for the HSL 24A (acoustic canopied) generating set, it is limited to operating at a maximum of 40°C.
2. Noise levels are in accordance with European Noise Directive 2001/14/EC.
3. Mecc Alte Alternators are available as an option, ratings are different

APPROXIMATE FUEL CONSUMPTION			
		litres/hour	
		50 Hz, 1500 r/min	60 Hz, 1800 r/min
HSL 8 HSL 8A	100%	1.5	1.9
	75%	1.2	1.5
HSL 15 HSL 15A	100%	3.1	3.7
	75%	2.4	2.9
HSL 24 HSL 24A	100%	4.6	5.5
	75%	3.6	4.3

RATING DEFINITIONS TO ISO 8528-1

All ratings in the table are in accordance with ISO 8528-1.
 Power Factor: Single phase, 1.0 pf; three-phase, 0.8 pf.
 Voltages: Other voltages are available; refer to Lister Petter.

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

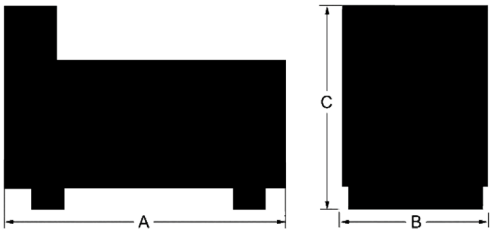
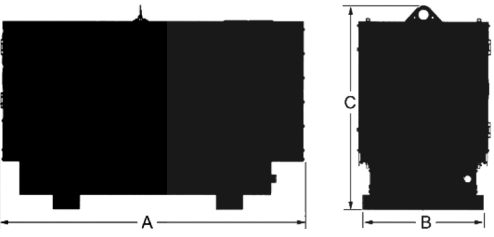
A standard generating set is designed to operate in environmental reference conditions of 25 °C, 100 kPa and 30% humidity.

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.

APPROXIMATE DIMENSIONS AND WEIGHT					
Open generating set model:			HSL 8	HSL 15	HSL 24
Open Set: side elevation (left); end elevation (right) 	Dry weight	kg	358	428	518
		lb	789	943	1142
	Length (A)	mm	1442	1442	1442
		in	56.8	56.8	56.8
	Width (B)	mm	715	715	715
		in	28.1	28.1	28.1
	Height (C)	mm	1020	1020	1020
		in	40.2	40.2	40.2
Acoustic generating set model:			HSL 8A	HSL 15A	HSL 24A
Acoustic Set: side elevation (left); end elevation (right) 	Dry weight	kg	555	625	715
		lb	1224	1378	1576
	Length (A)	mm	1693	1693	1693
		in	66.6	66.6	66.6
	Width (B)	mm	743	743	743
		in	29.2	29.2	29.2
	Height (C)	mm	1143	1143	1143
		in	45.0	45.0	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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