T-Series
HSR Long Run Gensets

HSR 15, HSR 15A, HSR 24, HSR 24A

50 Hz; 1500 r/min; power outputs: 8.6 — 20.3 kVA

60 Hz; 1800 r/min; power outputs: 9.5 — 25.0 kVA

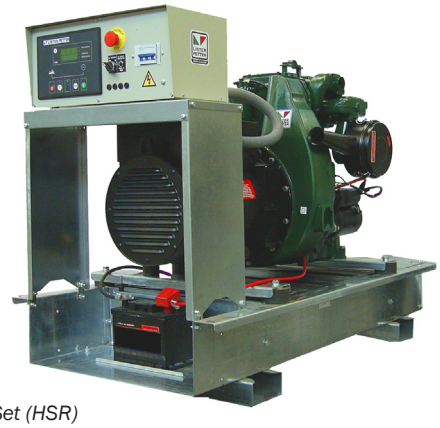
Air Cooled gensets for upto 2000 hours unattended running

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 (two or three cylinders)
- ✓ Open set (HSR)
- ✓ Acoustic Set (HSRA)

Standard Features

- Lister Petter T-Series engine as above
- Control system with electronic digital control module (for features see page 3)
- Single-bearing, 4-pole brushless alternator
- 55-litre steel lube oil tank with inspection cover
- 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)
- Flywheel-mounted cooling fan
- Operators' Handbook
- Electrical diagrams
- Heavy duty bypass filter
- Exhaust silencer
- Increased service intervals (upto 2000 hrs)



Open Set (HSR)

Open Sets Only:

- Engine mounted exhaust silencer

Acoustic Set (HSRA)

Acoustic Sets Only:

- Acoustic canopy
- Residential exhaust silencer
- Central point lifting eye
- External emergency stop button

HSR (T-Series) Long Run Genset Technical Data Sheet

Air-Cooled Genset Power Outputs[1]

50 Hz 1500 r/min						
			Single-Phase		Three-Phase	
			220V 230 V 240 V		380/220 V 400/230 V 415/240 V	
Model	Engine	Rating	kVA	kW	kVA	kW
HSR15	TR2	Prime	8.6	8.6	11.2	9.0
		Standby	9.4	9.4	12.3	9.9
HSR24	TR3	Prime	14.0	14.0	18.1	14.5
		Standby	15.4	15.4	19.9	15.9
60 Hz 1800 r/min						
			Single-Phase		Three-Phase	
			220 or 110 V 230 or 115 V 240 or 120 V		220/127 V 230/133 V	
HSR15	TR2	Prime	9.5	9.5	13.6	10.9
		Standby	10.5	10.5	15.0	12.0
HSR24	TR3	Prime	17.3	17.3	22.0	17.6
		Standby	19.0	19.0	24.2	19.4

Approximate Fuel Consumption

		Litres/Hour	
Genset	Load	50 Hz, 1500 r/min	60 Hz, 1800 r/min
HSR 15	100%	3.1	3.7
	75%	2.4	2.9
HSR 24	100%	4.6	5.5
	75%	3.6	4.3

Acoustic Set Sound-Pressure Levels[2]

Genset	dBA, at 75% load	
	50 Hz, 1500 r/min	60 Hz, 1800 r/min
HSR 15A	66 TBC	67 TBC
HSR 24A	66 TBC	67 TBC

1. Noise levels are in accordance with European Noise Directive 2001/14/EC.
2. Mecc Alte Alternators are available as an option, ratings are different.

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.

Optional Items:
- Residential exhaust silencer for open sets
- AMF upgrade kit
- Basic tool kit

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

Alternator Specification
- Single-bearing, 4-pole brushless alternator
- Solid state AVR with ±1.5% voltage regulation as standard
- Class "H" insulation on the rotor and stator
- IP23 protection class

Control System Features

Control Cubicle

All HSR and HSRA 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.

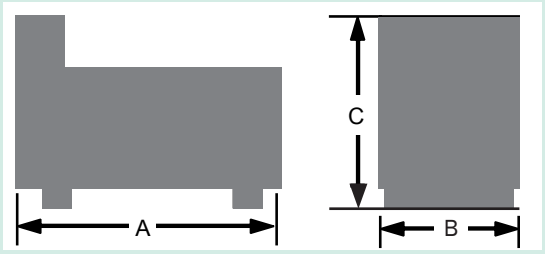
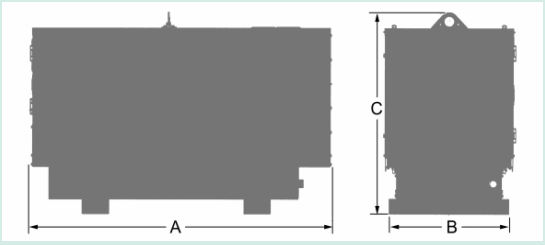
Automatic mains failure sets have the following additional features:

- 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

Approximate Dimensions and Weight

Open generating set model:			HSR 15	HSR 24
Open Set: side elevation (left); end elevation (right) 	Dry weight	kg	450.2	553.7
		lb	992.5	1220.7
	Length (A)	mm	1626.2	
		in	64	
	Width (B)	mm	837.4	
		in	33	
	Height (C)	mm	1229.7	
		in	48.4	
Acoustic generating set model:			**HSR 15A**	**HSR 24A**
Acoustic Set: side elevation (left); end elevation (right) 	Dry weight	kg	665.5	769
		lb	1467.2	1695.4
	Length (A)	mm	1946.8	
		in	76.6	
	Width (B)	mm	873	
		in	34.4	
	Height (C)	mm	1360	
		in	53.5	

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

Distributor's Address

UK
Lister Petter Limited, Dursley, Gloucestershire
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