T SERIES

LAT Air Cooled Gensets

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

4.4 - 20.2 kVA | 5.4 - 24.9 kVA

LAT 8(A)*, LAT 15(A)*, LAT 24(A) | Meccalte alternator

Open Genset (LAT)

Acoustic Genset (LATA)

Note:
These engines do not comply with Harmonised International Regulated Emissions Limits.
* LAT series gensets do not comply with noise directive 2000/14/EC
* LAT 8(A) and LAT 15(A) - Please refer to Lister Petter Power Systems Applications Department for cyclic irregularity implications

BASIC CHARACTERISTICS

- 50Hz, 1500 r/min or 60Hz, 1800 r/min
- diesel fuelled and approved for operation on biodiesel, that conforms with ASTM D6751 and EN14214, concentrations of up to 20%
- Lister Petter T Series air cooled, direct injection, naturally aspirated diesel engine (1, 2 or 3 cylinders)
- open set (LAT) or acoustic set (LATA)

STANDARD FEATURES

- control system with electronic digital control module
- single bearing, 4-pole brushless alternator
- 66-litre polypropylene fuel tank with contents gauge
- zirconium phosphated powder coated base plate with forklift pockets
- bunded base retaining 110% of all fluids
- 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

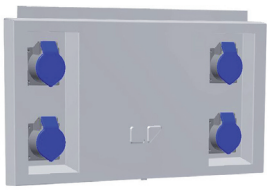
A comprehensive range of options allows you to select a specification that matches your requirements. Please ask your Lister Petter Power Systems distributor.

ACOUSTIC SETS ONLY

- acoustic canopy
- residential exhaust silencer
- 2 off roof mounted lifting eye bolt fixings
- external emergency stop button
- tough ripple effect paint finish
- earth straps on service doors
- large side door for easy service access
- document pocket in access door

ACOUSTIC SET OPTIONS

Sand filter unit



Industrial electrical output sockets

Rodent mesh

Large service doors showing fold-down front panel on cubicle and external emergency stop button *

Roof mounted lifting eye bolt fixings *

* These are standard features on canopied gensets

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 CUBICLE

All LAT and LATA sets have a vibration-isolated control cubicle, which has the following features:

- electronic digital control module with monitoring/control facility and warning indicators
- automatic solid-state 4-Amp battery charger
- automatic shutdown protection
- emergency stop button (lock-down type) – open sets only
- 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)
- generator output frequency
- mains voltage (phase-to-phase and phase-to-neutral) AMF sets only
- mains frequency (each phase displayed separately) AMF sets only
- engine speed
- battery voltage
- engine hours run

The control module has indicators for:

- over speed / under speed
- emergency stop
- failure to start
- battery charger failure

Automatic shutdown occurs under:

- low engine oil pressure
- high engine temperature
- over speed / under speed
- 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)

AMF control system integral with control cubicle

The AMF specification provides that 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 the following 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
- control module timer circuits set to delay start, delay transfer back to mains and delay stop to allow for engine cool down
- solid state automatic battery charger that maintains charge when set is not running
- switch allowing manual operation of the load-transfer contactor if automatic system fails and set is started manually

OPTIONAL ITEMS

- integral residential exhaust silencer as fitted to acoustic gensets (open sets only)
- remote residential exhaust silencer for plant room installations (open sets only)
- acoustic canopy kit (including residential silencer kit) for retro-fitting to open sets
- AMF system with remote mounted ATS panel
- sand filter unit, high efficiency, labyrinth type complete with washable dust element
- rodent mesh
- industrial electrical output sockets
- starting handle (not anti-kickback) – open sets only
- basic tool kit

POWER OUTPUTS [3] | UNREGULATED EMISSIONS RATINGS

Model	Engine	Rating	50Hz 1500 r/min Single phase 220V* 230V* 240V*		50Hz 1500 r/min Three Phase 380/220V* 400/230V* 415/240V*		60Hz 1800 r/min Single phase 220 or 110V* 230 or 115V* 240 or 120V*		60Hz 1800 r/min Three Phase 220/127V* 230/133V*	
			kVA	kW	kVA	kW	kVA	kW	kVA	kW
LAT 8(A)	TR1	COP [3]	4.4	4.4	5.9	4.7	5.4	5.4	7.3	5.8
		PRP [1]	4.6	4.6	6.2	5.0	5.7	5.7	7.6	6.1
		ESP [2]	4.8	4.8	6.5	5.2	5.9	5.9	8.0	6.4
LAT 15(A)	TR2	COP [3]	8.9	8.9	11.9	9.5	10.7	10.7	14.4	11.5
		PRP [1]	9.4	9.4	12.5	10.0	11.3	11.3	15.1	12.1
		ESP [2]	9.8	9.8	13.1	10.5	11.8	11.8	15.8	12.6
LAT 24(A) [5]	TR3	COP [3]	13.8	13.8	18.4	14.7	16.9	16.9	22.6	18.1
		PRP [1]	14.5	14.5	19.3	15.4	17.7	17.7	23.7	18.9
		ESP [2]	15.2	15.2	20.2	16.2	18.5	18.5	24.9	19.9

SOUND PRESSURE [4]

LATA (acoustic sets), 75% load at 7m		
Genset model	50 Hz, 1500 r/min	60 Hz, 1800 r/min
LAT 8A	64 dBA	65 dBA
LAT 15A	64 dBA	65 dBA
LAT 24A	64 dBA	65 dBA

APPROXIMATE FUEL CONSUMPTION

Genset	Engine	Load	50 Hz 1500 r/min g/kWh	50 Hz 1500 r/min l/h	60 Hz 1800 r/min g/kWh	60 Hz 1800 r/min l/h
LAT 8(A)	TR1	100%	229	1.5	238	1.9
		75%	224	1.1	234	1.4
LAT 15(A)	TR2	100%	237	3.1	237	3.7
		75%	234	2.3	239	2.8
LAT 24(A)	TR3	100%	230	4.6	229	5.5
		75%	233	3.5	227	4.1

Notes:

3. Power outputs are based on Meccalte alternators. Power Factor (pf); single phase 1.0 pf; three phase 0.8 pf.
4. LAT series gensets do not comply with noise directive 2000/14/EC.
5. ESP ratings are not available for the LAT 24A (acoustic canopied) generating set, this set is limited to operating at a maximum of 40°C.

* Other voltages are available on request

RATING DEFINITIONS TO ISO 8528-1

Standard Reference Conditions

A Lister Petter generating set is designed to operate in the following ISO 3046 environmental reference conditions.
Barometric pressure 100 kPa
Relative humidity 30%
Ambient air temperature at the inlet manifold 25°C

1. Prime Power (PRP)

This rating is for the supply of the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year.
The permissible average power output over 24 hours of operation shall not exceed 70 % of the PRP unless otherwise agreed by Lister Petter Power Systems Limited.

2. Emergency Standby Power (ESP)

Emergency standby power is defined as the maximum power available during a variable electrical power sequence, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 hours of operation per year.
The permissible average power output over 24 hours of operation shall not exceed 70% of the ESP unless otherwise agreed by Lister Petter Power Systems Limited. The actual average power output shall be below or equal to the permissible average power output as defined for ESP.
The above ratings are subject to the following ISO 3046 standard operating conditions, the use of fuel to BS EN 590 Class A1 or A2, lubricating oils of the correct performance specification and viscosity classification and that the maintenance intervals and procedures are carried out as prescribed by Lister Petter Power Systems Limited.

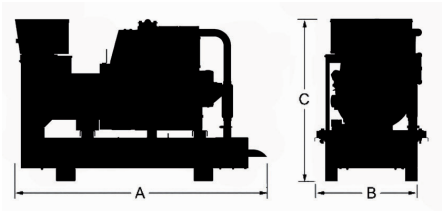
3. Continuous Power (COP)

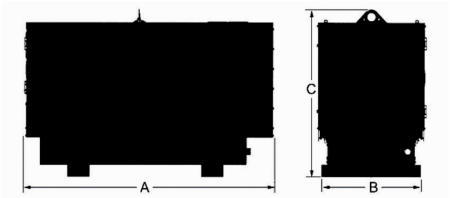
This rating is for the supply of a constant load for an unlimited number of hours annually.

Derating

For non-standard site conditions, reference should be made to relevant BS, ISO & DIN standards.

APPROXIMATE DIMENSIONS AND WEIGHT





		Open sets		
		LAT 8	LAT 15	LAT 24
Length (A)	mm		1400	
	in		55	
Width (B)	mm		698	
	in		27.5	
Height (C)	mm		972	
	in		38	
Dry weight	kg	358	428	518
	lb	789	944	1142
		Acoustic sets		
		LAT 8A (SF*)	LAT 15A (SF*)	LAT 24A*
Length (A)	mm		1675 (1775)	
	in		65.9 (69.9)	
Width (B)	mm		705	
	in		27.8	
Height (C)	mm		1100	
	in		43.3	
Dry weight	kg	412 (422)	521 (531)	625 (635)
	lb	908 (930)	1149 (1171)	1378 (1400)

* Length and weight with sand filter fitted

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