

Features:

- Rotate speed governor: Mechanical governor
- Excitation system: self-excited
- A.V.R model: R250/R438
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 1x12V sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
(Only for Soundproofed sets)
- 50Ø radiator
- Oil pump on the engine
- Steel base frame with fork holes
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for daily running
- Drain points for fuel tank
- Operation Manual / Specifications



Output Ratings

Generating Set Model	Prime Power*	Standby Power**
EP100	100kVA/80kW	110kVA/88kW

Ratings at 0.8 power factor

Dimensions and Weights

Model	Length (L) mm	Width (W) mm	Height (H) mm	Dry Weight kg
EP100	3150	1150	1700	1852

Notes:

*Prime Power

Continuous duty operation, under variable load 24/24h-10% over load permissible 1 hour/12 hours;

**Standby Power

Standby duty, operation under variable load, without over load;

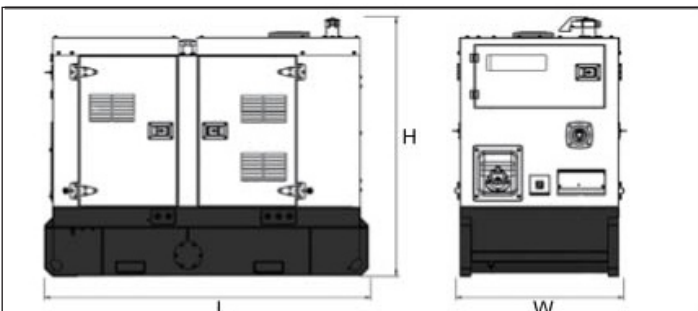
Standard Reference Conditions

Note: Standard reference conditions 25°C (77°F) Air Inlet Temp, 100m(328 ft) A.S.L. 30% relative humidity.

Fuel consumption data at full load with diesel fuel with specific gravity of 0.85 and conforming to BS2869: 1998, Class A2.

Ratings and Performance Data

Engine Make & Model:	Perkins 1104C-44TAG2
Alternator Brand:	Leroy somer
Alternator Model:	LSA44.2VS45
Control System:	Auto Gen
Circuit Breaker Type:	3 Pole MCCB
Frequency & Phase:	50Hz & 3PH
Engine Speed: RPM	1500
Fuel Tank Capacity: litres	
EP100	300
Fuel Consumption: l/hr (100% Load)	
- Prime Power	22.6
- Standby Power	24.9



Engine model:1104C-44TAG2

Engine Technical Data

No. of Cylinders / Alignment:	4 / In-line
Cycle:	4 Stroke
Bore / Stroke: mm	105/127
Induction:	Turbocharged
Cooling Method:	Water cooled
Governing Type:	Electronic
Governing Class:	ISO 8528, G3
Compression Ratio:	18.23:1
Displacement:	4.4L
Moment of Inertia: kg m²	0.162
Engine Electrical System:	
- Voltage / Ground	12/Negative
- Battery Charger Amps	12/65
Weight: kg	
- Dry	401
- Wet	N/A

Performance

Engine Speed: rpm	1500
Gross Engine Power: kW	
- Prime	93.6
- Standby	103
BMEP: kPa	
- Prime	1702
- Standby	1873

Lubrication System

Oil Filter Type:	Spin-On, Full Flow
Total Oil Capacity: l	8.0
Minimum: l	5.5
Oil Type:	API-CC/SE or CCMC-D1
Oil Cooling Method:	Water

Exhaust System

Silencer Type:	Industrial
Exhaust Outlet Size:	64mm
Silencer Noise Reduction Level:	N/A
Maximum Allowable Back Pressure: kPa	18
Exhaust Gas Flow: m³/min	
- Prime	15.2
- Standby	16.3
Exhaust Gas Temperature: °C	
- Prime	514
- Standby	543

Cooling System

Capacity with Radiator: l	12.6
Capacity without Radiator: l	7.0
Energy to Coolant and Lubricating Oil kWt	
- Prime	46.1
- Standby	50.7
Energy to Radiator: kWt	
- Prime 6.8	
- Standby 7.5	
Energy to Cooling Fan: kWm	3.5
Radiator Cooling Airflow: m³/min	165.6/165.6
External Restriction to Cooling Airflow: Pa	N/A

Designed to operate in ambient conditions up to 50°C (122°F).

Fuel System

Fuel Filter Type:	Replaceable Element			
Recommended Fuel:	Diesel Class A2			
Fuel Consumption: l/hr				
Prime	110% Load	100% Load	75% Load	50% Load
EP100	24.9	22.6	17.1	11.8

(Based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, Class A2)

Air Systems

Air Filter Type:	2 stage cyclonic/paper element
Combustion Air Flow: m³/min	
- Prime	6.01
- Standby	6.27
Max. Air Intake Restriction: kPa	
-clean filter	5
-dirty filter	8

The weights are approximate and without fuel.

Alternator model: LSA44.2VS45

Alternator Physical Data	
Manufactured by:	Leroy somer
Model:	LSA44.2VS45
No. of Bearings:	Single
Insulation Class:	H
Winding Pitch Code:	2/3
Wires:	12
Ingress Protection Rating:	IP23
Excitation System:	SHUNT, AREP OR PMG
AVR Model:	R250, R438

Alternator Operating Data	
Overspeed: rpm	2250min ⁻¹
Voltage Regulation: (Steady state)	± 0.5%
Wave Form NEMA = TIF:	<50
Wave Form IEC = THF:	<2%
Total Harmonic content LL/LN:	No load <2%-on load <2%
Radio Interference:	
Radiant Heat: kW (Btu/min)	
EP100	

Alternator Performance Data: EP100	
Data Item	
Motor Starting Capability* kVA	194.4/227.9
Short Circuit Ratio** %	0.35
Reactances: Per Unit	
Xd	362
X'd	14.1
X''d	8.5

Voltage Technical Data EP100				
Voltage	Prime:		Standby:	
	kVA	kW	kVA	kW
380/220V	105	84	110	88
400/230V	105	84	110	88
415/240V	105	84	110	88

Control System

PLC-7420

FEATURES

- Microprocessor control, with high stability and credibility .
- Mains supply and generator operation monitoring.
- Indicating operation status and fault conditions.
- Multiple protections; multiple parameters display, such as pressure, temperature.
- Manual and automatic work mode selectable.
- Real time clock for time and date display, overall runtime display, 99 log entries
- Overall power output display.
- Integral speed/frequency detecting, telling status of start, rated operation, overspeed.
- Communication with PC via RS485 or RS232 interface, using MODBUS protocol.
- Engine ECU is available.
- Common USB cable is usable for parameter configuration.
- Multi-language is available.

