EP Series

WPS100S

— Generator Set Specification

Super Quiet, Superior Life!

CE

WPS100S

3-Phase, 50Hz@1500RPM				
	Voltage	kW	kVA	Amps
Prime Power	380	80	100	151.9
	400	80	100	144.3
	415	80	100	139.1
	440	80	100	131.2
Standby Power	380	88.9	111.1	168.8
	400	88.9	111.1	160.4
	415	88.9	111.1	154.6
	440	88.9	111.1	145.8
Noise Level at 7 meters (dBA)			68.6	

Notes:

1) Ambient reference conditions: 1,000 mbar, 27℃, 30% relative humidity;
2) Standby Power: the maximum power available under varying loads. Only for standby and emergency use. No overload is permissible. Prime Power: the maximum power available under varying loads for continuous operation. A 10% overload is permissible for 1 hour every 12 hours.

Features	Benefits
l Excellent cooling system, reliable operation under harshest conditions. l PLC-5220 control panel with AMF function. l With sound attenuated enclosures available with high protection against water and dust. l Designed with safety in mind earth leakage protection. l Leroy Somer Alternator, IP 23 class 'H' insulation.	l Function stability credibility, service convenience. l Low operating cost results in optimal economy. l Gets the job done wherever you are. l Ease of installation, operation, and maintenance.

Performance Specification and Craftwork

Performance Specification	
Efficiency of Rated Power	96.3%
Time needed from start-up to full load (inductive)	125 seconds
Time needed from start-up to 50% load (inductive) allowed	8 seconds
1.1 times overload operation time (hour)	1
2.0 time overload operation time (minute)	1
Voltage Regulation, steady state	≤±1%
Voltage Regulation, transient state	20%-15%
Voltage Settle Time	≤5 seconds
Voltage Fluctuation Ratio	0.5%
Frequency Regulation, steady state	±0.5% adjustable
Frequency Regulation, transient state	±5%
Frequency Settle Time	5 seconds
Frequency Fluctuation Ratio	0.5%
Recovery Time	0.5 seconds

Telephone Interference, Electromagnetism	
TIF	≤50
THF	≤2%
Radio interference in compliance with BS800 and VED LEVELS G and N.	

Craftwork

- Steel base frame with AV mounting
- standard 8h fuel tank with flexible rubber fuel tube, fuel level indicator and drainage
- Overall sprayed powder coating
- Whole set documents, including Installation Manual, Operation Manual, Spare Parts Catalog, Circuit Diagram

Criterion

- ISO3046, ISO8528, BS4999, BS5514,
- BS5000PT99、AS1359, IEC34
- UTE5100, VDE0530
- ISO9001:2000

WPS100S

Engine Specification		Alternator Specification	
Brand	**Perkins (UK)**	**Brand**	**Leroy Somer**
Model	**1104C-44TAG2**	**Model**	**LAS44.2VS45**
No. of Cylinders and Cycle	4L, 4 Stroke	Rated Output (kVA)	105
Induction System	TCA	Ratedcurrent (A)	144.3
Compression Ratio	18.23：1	Exciter	Brushless
Displacement (L)	4.4	THF(BS EN60034- 1)	<2%
Bore x Stroke(mm)	105 x 127	Bearing number	Single
Ambient Temp (℃)	25	Windings	100% Copper
Continuous Rated Power (kW)	90.1	Connection Type	Star Connection
Speed (rev/min)	1500	Insulation Class	Class H
Cooling Air Flow (L/min)	142	Winding Pitch	2/3
Air Intake Flow (m^3/min)	6.01	Amortisseur Winding	Full
Exhaust Gas Flow (m^3/min)	15.2	A.V.R. Model	R438
Exhaust Temp (℃)	514	Voltage Regulation (no load- full load)	± 0.5%
Starting System	E	Underspeed Protection	Standard
Battery Voltage/Capacity	12VDC/200A/200	Protection	IP23
Fuel Consumption (L/h) 110% load		Phase Sequence	A(U), B(V), C(W)
Fuel Consumption (L/h) 100% load	21.8	TIF (NEMA MG 1-22)	<50
Fuel Consumption (L/h) 75% load	16.5	Excitation System	Self-excited, PMG optional
Fuel Consumption (L/h) 50% load	11.4	AmbientTemp (℃)	40
Governor Type	Mechanical	Stator Rated Temp (℃)	125

Cooling System		Fuel System	
Radiator		Type of Injection	Direct
Face Area (m^2)	0.25	Fuel injection pump	Rotary
Rows and Materials	38 Aluminium	Fuel inject	Multi-hole
Width of Matrix (mm)	439	Nozzle opening pressure (MPa)	29
Height of Matrix (mm)	570	**Fuel Lift Pump**	
Pressure Cap Setting (kPa)	100	120-150	120-150
		Pressure (kPa)	30-75
Fan		Governor Type	Perkins LCS electronic govemor
Diameter (mm)	559		
Drive Ratio	1: 1	**Lubricating System**	
Number of Blades	10	**Lubricating Oil Capacity**	
Material	Composite	Total System (L)	8.0
Type	Pusher	Minimum (L)	5.5-7.0
Coolant		**Lubricating Oil Pressure**	
Total System Capacity With Radiator (L)	12.6	Relief Valve Open(kPa)	415-470
Total System Capacity Without Radiator (L)	7	Max continuous normal Oil temp (℃)	125

Exhaust System		Electrical System	
Max. Back Pressure (kPa)	18	Alternator (V)	12/24
Exhaust Outlet Size (mm)	64	Starting Motor (V)	12/24

WPS100S

Control System

PLC-702

DSE-702 key manual start module is a manual engine control module designed to control the engine via a key switch and push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition of an engine failure.

Standard Control Function

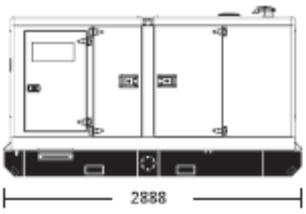
- Manual Engine Control Module
- Low Oil Pressure
- High Engine Temperature
- Auxiliary Shutdown
- Overspeed Protection
- Protection hold-off timer
- Charge Failure warning

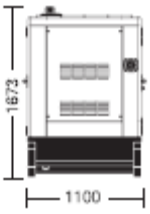
PLC-5220

DSE-5220 control pannel is applied

- Microprocessor control, with high stability and credibility
- Mains supply and generator operation monitoring
- Indicating operation status and fault conditions
- Multiple protections; multiple parameters display, like pressure, temp.
- 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.

Dimension and Weight





WPS100S

Length × Width × Height, (mm)	Weight (kg)
2888×1100×1673	1852

Optional

Engine	Alternator	Generator Set	Fuel System	Canopy
●Coolant heater	● Space heater ● AVR PMG with regulator ● Anti-damp and anti-corrosion treatment ● Anti-condensation heater	● Tools with the machine	● Low fuel level alarm ● Automatic fuel feeding system	● Trailer
Lubricating System	**Exhaust System**	**Cooling System**	**Control Panel**	**Voltages**
● Oil with the machine	● Protection board from hotness ● Low frequency silencer	● Front heat protection ● 50℃ radiator ● Coolant (-30°C)	● Remote control panel ● Automatic paralleling control panel ● Automatic Transfer Switch (ATS)	● 415/240V ● 400/230V ● 380/220V ● 220/127V ● 200-115V

Air Switch

Paralleling Control System

ATS

Mobile Trailer

Local Distributor