

EP Series WPS80

— Generator Set Specification



Your Partner for Power...

WPS80



3-Phase, 50Hz@1500RPM

	Voltage	kW	kVA	Amps
Prime Power	380	64	80	121.6
	400	64	80	115.5
	415	64	80	111.3
	440	64	80	105.0
Standby Power	380	71.1	88.9	135.1
	400	71.1	88.9	128.3
	415	71.1	88.9	123.7
	440	71.1	88.9	116.6
Noise Level at 7 meters (dBA)			93.1	

Notes:

- 1) Ambient reference conditions: 1,000 mbar, 27°C, 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
<ul style="list-style-type: none"> Excellent cooling system, reliable operation under harshest conditions. PLC-5220 control panel with AMF function. Leroy Somer Alternator, IP 23 class 'H' insulation. 	<ul style="list-style-type: none"> Function stability credibility, service convenience. Low operating cost results in optimal economy. Gets the job done wherever you are. Ease of installation, operation, and maintenance.

Performance Specification and Craftwork

Performance Specification		Telephone Interference, Electromagnetism	
Efficiency of Rated Power	96.3%	TIF	≤50
Time needed from start-up to full load (inductive)	125 seconds	THF	≤2%
Time needed from start-up to 50% load (inductive) allowed	8 seconds	Radio interference in compliance with BS800 and VED LEVELS G and N.	
1.1 times overload operation time (hour)	1	Craftwork <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • ISO3046, ISO8528, BS4999, BS5514, • BS5000PT99, AS1359, IEC34 • UTE5100, VDE0530 • ISO9001:2000 	
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		

WPS80

Engine Specification			Alternator Specification		
Brand	Perkins (UK)		Brand	Leroy Somer	
Model	1104A-44TG2		Model	LSA43.2L8	
No. of Cylinders and Cycle	4L, 4 Stroke		Rated Output (kVA)	80	
Induction System	TC		Rated current (A)	115.5	
Compression Ratio	17.25: 1		Exciter	Brushless	
Displacement (L)	4.4		THF(BS EN60034- 1)	<2%	
Bore x Stroke(mm)	105 x 127		Bearing number	Single	
Ambient Temp (°C)	25		Windings	100% Copper	
Continuous Rated Power (kW)	71.9		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 (m³/min)	4.8		Amortisseur Winding	Full	
Exhaust Gas Flow (m³/min)	12.5		A.V.R. Model	R438	
Exhaust Temp (°C)	555		Voltage Regulation (no load- full load)	± 0.5%	
Starting System	E		Underspeed Protection	Standard	
Battery Voltage/Capacity	12VDC/160A/100		Protection	IP23	
Fuel Consumption (L/h)	110% load		Phase Sequence	A(U), B(V), C(W)	
	100% load	18.7	TIF (NEMA MG 1-22)	<50	
	75% load	14.0	Excitation System	Self-excited, PMG optional	
	50% load	9.7	Ambient Temp (°C)	40	
Governor Type	Mechanical		Stator Rated Temp (°C)	125	

Cooling System			Fuel System		
Radiator			Type of Injection	Direct	
Face Area (m²)	0.276		Fuel injection pump	Rotary	
Rows and Materials	2 row, Aluminium		Fuel inject	Multi-hole	
Width of Matrix (mm)	526		Nozzle opening pressure (MPa)	29	
Height of Matrix (mm)	524		Fuel Lift Pump		
Pressure Cap Setting (kPa)	107		Flow/hour (L/h)	120-150	
			Pressure (kPa)	30-75	
Fan			Governor Type	M / E	
Diameter (mm)	457				
Drive Ratio	1.25 : 1		Lubricating System		
Number of Blades	7		Lubricating Oil Capacity		
Material	Composite		Total System (L)	8.0	
Type	Pusher		Minimum (L)	5.5	
Coolant			Lubricating Oil Pressure		
Total System Capacity	With Radiator (L)	13	Relief Valve Open(kPa)	415-470	
	Without Radiator (L)	7	Max continuous normal Oil temp (°C)	125	

Exhaust System			Electrical System		
Max. Back Pressure (kPa)	10		Alternator (A/V)	65/12	
Exhaust Outlet Size (mm)	64		Starting Motor (kW/V)	3/12	

WPS80

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



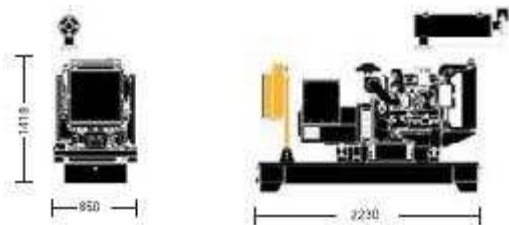
PLC-5220

DSE-5220 control panel 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

	WPS80 Length × Width × Height, (mm) Weight (kg) 2230×850×1419 1399
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Optional

Engine	Alternator	Generator Set	Fuel System	Canopy
<ul style="list-style-type: none"> • Coolant heater 	<ul style="list-style-type: none"> • Space heater • AVR PMG with regulator • Anti-damp and anti-corrosion treatment • Anti-condensation heater 	<ul style="list-style-type: none"> • Tools with the machine 	<ul style="list-style-type: none"> • Low fuel level alarm • Automatic fuel feeding system 	<ul style="list-style-type: none"> • Canopy
Lubricating System	Exhaust System	Cooling System	Control Panel	Voltages
<ul style="list-style-type: none"> • Oil with the machine 	<ul style="list-style-type: none"> • Protection board from hotness • Low frequency silencer 	<ul style="list-style-type: none"> • Front heat protection • 50°C radiator • Coolant (-30°C) 	<ul style="list-style-type: none"> • Remote control panel • Automatic paralleling control panel • Automatic Transfer Switch (ATS) 	<ul style="list-style-type: none"> • 415/240V • 400/230V • 380/220V • 220/127V • 200-115V



Local Distributor