

EP Series WPS450

— Generator Set Specification



Your Partner for Power...

WPS450



3-Phase, 50Hz@1500RPM				
	Voltage	kW	kVA	Amps
Prime Power	380	360	450	683.7
	400	360	450	649.5
	415	360	450	626.1
	440	360	450	590.5
Standby Power	380	400	500	759.7
	400	400	500	721.7
	415	400	500	695.6
	440	400	500	656.1
Noise Level at 7 meters (dBA)			96.8	

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		

WPS450

Engine Specification		Alternator Specification	
Brand	Perkins (UK)	Brand	Leroy Somer
Model	2506C-E15TAG1	Model	LSA47.2S5
No. of Cylinders and Cycle	6L, 4 Stroke	Rated Output (kVA)	455
Induction System	TCA	Rated current (A)	649.5
Compression Ratio	16: 1	Exciter	Brushless
Displacement (L)	15.2	THF(BS EN60034- 1)	<2%
Bore x Stroke(mm)	137 x 171	Bearing number	Single
Ambient Temp (°C)	25	Windings	100% Copper
Continuous Rated Power kW)	500	Connection Type	Star Connection
Speed (rev/min)	1500	Insulation Class	Class H
Cooling Air Flow (L/min)	5.7	Winding Pitch	2/3
Air Intake Flow (m³/min)	35.8	Amortisseur Winding	Full
Exhaust Gas Flow (m³/min)	85	A.V.R. Model	R448
Exhaust Gas Temperature (°C)	550	Voltage Regulation (no load- full load)	± 0.5%
Max. fuel temperature (°C)	55	Underspeed Protection	Standard
Starting System	E	Protection	IP23
Fuel Consumption (L/h)	110% load	Phase Sequence	A(U), B(V), C(W)
	100% load	TIF (NEMA MG 1-22)	<50
	75% load	Excitation System	Self-excited, PMG optional
	50% load	AmbientTemp (°C)	40
Governor Type	E	Stator Rated Temp (°C)	125

Cooling System		Fuel System	
Radiator		Injection system	MEUI
Face Area (m²)	1.238	injection type	MEUI
Rows and Materials	2 rows, aluminium	Injection pressure (MPa)	200
Width of Matrix (mm)	1048	Fuel Lift Pump	
Height of Matrix (mm)	1100	Flow/hour (L/min)	413
Pressure Cap Setting (kPa)	69	Pressure (kPa)	550
Fan		Lubricati System	
Diameter (mm)	927	Lubricating Oil Capacity	
Drive Ratio	0.92 : 1	Total System (L)	62
Number of Blades	9	Minimum (L)	45
Material	B3WG6 or PA6GF30 Nylon 6 glass filled 30%	Lubricating Oil Pressure	
Type	ACS 367500	Oil pressure at bearings (kPa)	620
Coolant		Normal temperature (°C)	114
Total System Capacity (L)	58		

Exhaust System		Electrical System	
Max. Back Pressure (kPa)	6.8	Alternator (A/V)	70/24
Exhaust Outlet Size (mm)	150	Starting Motor (MT/V)	7.5/24

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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



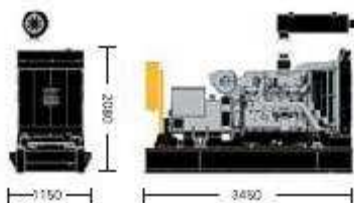
PLC-5220

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



WPS450

Length × Width × Height, (mm) Weight (kg)
3450×1150×2080 3785

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