EP Series

WPS180

— Generator Set Specification

Your Partner for Power…

WPS180

3-Phase, 50Hz@1500RPM				
	Voltage	kW	kVA	Amps
Prime Power	380	144	180	273.5
	400	144	180	259.8
	415	144	180	250.4
	440	144	180	236.2
Standby Power	380	160	200	303.9
	400	160	200	288.7
	415	160	200	278.2
	440	160	200	262.4
Noise Level at 7 meters (dBA)			94.2	

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
I Excellent cooling system, reliable operation under harshest conditions. I PLC-5220 control panel with AMF function. I Leroy Somer Alternator, IP 23 class 'H' insulation.	I Function stability credibility, service convenience. I Low operating cost results in optimal economy. I Gets the job done wherever you are. I 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

WPS180

Engine Specification			Alternator Specification	
Brand		**Perkins (UK)**	**Brand**	**Leroy Somer**
Model		**1106C-E66TAG4**	**Model**	**LSA46.2M3**
No. of Cylinders and Cycle		6L, 4 Stroke	Rated Output (kVA)	180
Induction System		TCA	Ratedcurrent (A)	259.8
Compression Ratio		17.25：1	Exciter	Brushless
Displacement (L)		6.6	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)		158.8	Connection Type	Star Connection
Speed (rev/min)		1500	Insulation Class	H
Engine coolant flow (L/min)		180	Winding Pitch	2/3
Combustion Air Flow (m³/min)		11.3	Amortisseur Winding	Full
Exhaust Gas Flow (m³/min)		29.4	A.V.R. Model	R448
Exhaust Temp (℃)		480	Voltage Regulation (no load- full load)	± 0.5%
Starting System		E	Underspeed Protection	Standard
Battery Voltage/Capacity		12VDC/250A/300	Protection	IP23
Fuel Consumption (L/h)	110% load		Phase Sequence	A(U), B(V), C(W)
	100% load	43	TIF (NEMA MG 1-22)	<50
	75% load	34	Excitation System	Self-excited, PMG optional
	50% load	22	AmbientTemp (℃)	40
Governor Type		E	Stator Rated Temp (℃)	125

Cooling System			Fuel System	
Radiator			Injector	Electronic
Face Area (m^2)		0.3512	Fuel Pump	CR200
Rows and Materials		5 row, Aluminium	Max. Suction Head at Engine Fuel Pump Inlet(kPa)	30
Width of Matrix (mm)		439		
Height of Matrix (mm)		800	Max. Static Pressure Head (kPa)	600
Pressure Cap Setting (kPa)		100	Priming Pump Type	Manual / Electronic
Fan			Max. Fuel Flow (L/min)	1.5
Diameter (mm)		686		
Drive Ratio		1.2 : 1	**Lubricating System**	
Number of Blades		7	**Lubricating Oil Capacity**	
Material		Nylon	Total System (L)	16.5
Type		Pusher	Minimum (L)	12.5
Coolant			**Lubricating Oil Pressure**	
Total System Capacity	With Radiator (L)	21	Relief Valve Open(kPa)	430
	Without Radiator (L)	9.5	Normal Oil Temp (℃)	125

Exhaust System		Electrical System	
Max. Back Pressure (kPa)	10	Alternator (A/V)	100/12
Exhaust Outlet Size		Starting Motor (kW/V)	5.0/24
Inside diameter of outlet flange (mm)	90		

WPS180

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

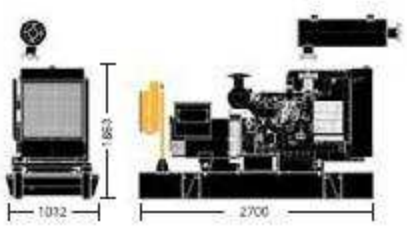
- Manual Engine Control Module
- Low Oil Pressure
- High Engine Temperature
- Auxiliary Shutdown
- Overspeed Protection
- Protection hold-off timer
- Charge Failure warning

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



WPS180

Length × Width × Height, (mm)	Weight (kg)
2700×1032×1863	1648

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	● Canopy
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

Canopy

Local Distributor