

Widely applied in Telecom, Industry, Rental,
Outdoor Projects, Mining, Military, etc.



EP Series WPS180S

— Generator Set Specification



NO: DT12220014S- 02

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Super Quiet, Superior Life!





| 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) | | | 69.2 | |

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. With sound attenuated enclosures available with high protection against water and dust. Designed with safety in mind earth leakage protection. 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 | | |

| 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 | Rated current (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 (°C) | 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 (°C) | 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 | TIF (NEMA MG 1-22) | <50 |
| | 75% load | Excitation System | Self-excited, PMG optional |
| | 50% load | Ambient Temp (°C) | 40 |
| Governor Type | E | Stator Rated Temp (°C) | 125 |

| Cooling System | | Fuel System | |
|----------------------------|------------------|--|---------------------|
| Radiator | | Injector | Electronic |
| Face Area (m²) | 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 | Max. Static Pressure Head (kPa) | 600 |
| Height of Matrix (mm) | 800 | Priming Pump Type | Manual / Electronic |
| Pressure Cap Setting (kPa) | 100 | Max. Fuel Flow (L/min) | 1.5 |
| Fan | | Lubricating System | |
| Diameter (mm) | 686 | | |
| Drive Ratio | 1.2 : 1 | | |
| Number of Blades | 7 | | |
| Material | Nylon | Lubricating Oil Capacity | |
| Type | Pusher | Total System (L) | 16.5 |
| Coolant | | Minimum (L) | 12.5 |
| Total System Capacity | | Lubricating Oil Pressure | |
| | | Relief Valve Open(kPa) | 430 |
| With Radiator (L) | 21 | Normal Oil Temp (°C) | 125 |
| Without Radiator (L) | 9.5 | | |

| 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 | | |

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



WPS180S

Length × Width × Height, (mm) Weight (kg)
3592×1300×1924 2466

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"> • Trailer |
| 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 |



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*Specification may change without prior notice.
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