

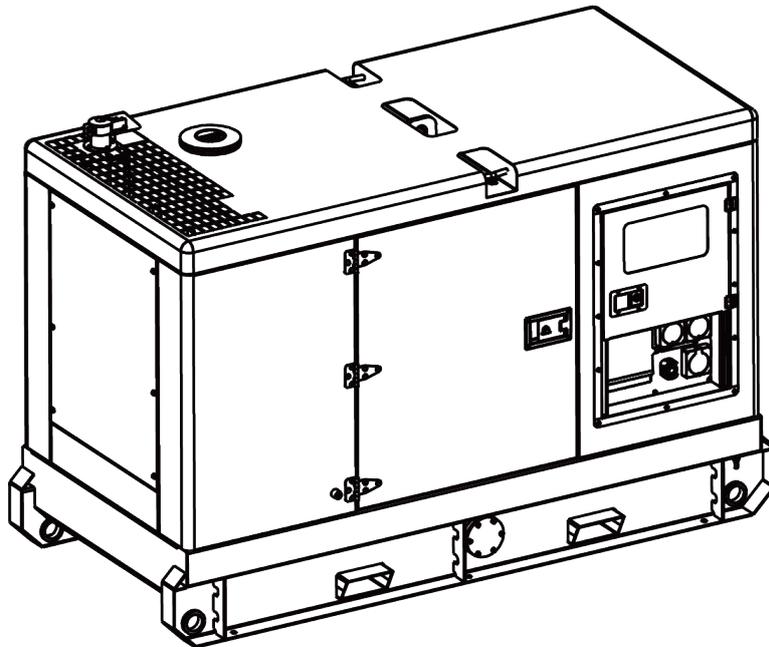
# WPS60S

## DIESEL GENSET SPECIFICATION

80kVA (PRP) / 88kVA (ESP)

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ID: 1000023021



### General technical data

|                               |                |                 |                        |
|-------------------------------|----------------|-----------------|------------------------|
| Model                         | WPS60S         | Rated voltage V | Current A              |
| Structure                     | R              | 380             | 91.2                   |
| Prime power (PRP): kVA / kW   | 60 / 48        | 400             | 86.6                   |
| Standby power (ESP): kVA / kW | 66 / 53        | 415             | 83.5                   |
| Frequency: Hz                 | 50             | 440             | 78.7                   |
| Rotate speed: RPM             | 1500           |                 |                        |
| Phase: P                      | 3              |                 |                        |
| Power factor: cosφ            | 0.8            | Load            | Fuel consumption g/kWh |
| Protection class              | IP54           | 25%             | N/A                    |
| Noise level: dB@7m            | 67.8           | 50%             | 7.2                    |
| Tank capacity: L              | 165            | 75%             | 10.4                   |
| Dimensions: mm                | 2300×1098×1554 | 100%            | 13.9                   |
| Dry weight: kg                | 1376           | 110%            | 15.4                   |

### Main Features

| Advantage  | Design Standards  | Environmental Operating Conditions   |
|--|---|--|
| <ul style="list-style-type: none"> <li>• Low fuel consumption</li> <li>• Optimized system</li> <li>• High reliability</li> <li>• High availability</li> </ul>  | <ul style="list-style-type: none"> <li>• Conformance Européenne (CE)</li> <li>• ISO8528-5:2005</li> </ul> | <ul style="list-style-type: none"> <li>• Installation place: outdoor / indoor (well ventilated).</li> <li>• Ambient temperature: -25°C to 45°C (the coolant heater is needed when the temperature is below 5°C)</li> <li>• Humidity: Less than 80%</li> <li>• Altitude: Below one thousand (1000) meters.</li> </ul> |
| Factory Inspection   | Service Support   | Performance Guarantee  |
| <ul style="list-style-type: none"> <li>• Protection devices working test</li> <li>• Starting ability in normal temperature</li> <li>• 50% rated power load moment capability</li> <li>• Load test :0, 25%, 50%, 75%, 100%, 110%</li> </ul> | <ul style="list-style-type: none"> <li>• Global product service support</li> </ul>                        | <ul style="list-style-type: none"> <li>• Product design, manufacturing and performance have been verified by standards</li> <li>• Generator set has passed transient response test according to ISO8528-5</li> <li>• Both engine and alternator have passed prototype factory testing.</li> </ul>                    |

Diesel Genset Specification

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**Power System**

**Engine**

|                        |             |                            |              |
|------------------------|-------------|----------------------------|--------------|
| Manufacturer / brand   | Perkins     | Intake system              | Turbocharged |
| Model                  | 1103A-33TG2 | Intake resistance: kPa     | ≅ 8.0        |
| Cylinders              | 3           | Exhaust back pressure: kPa | ≅ 10.0       |
| Bore: mm               | 105         | Oil capacity: L            | 8.31         |
| Stroke: mm             | 127         | Coolant capacity: L        | 10.2         |
| Displacement: L        | 3.3         | Battery voltage: V         | 12           |
| Compression ratio      | 17.25       | Dimensions: mm             | 1049×634×951 |
| Rotate speed: RPM      | 1500        | Dry weight: kg             | 420          |
| Prime power: kWm       | 55          |                            |              |
| Standby power: kWm     | 60.5        |                            |              |
| Rotate speed governor  | Electronic  |                            |              |
| Type of fuel Injection | Direct      |                            |              |

**Alternator**

|                      |                                 |                                   |       |
|----------------------|---------------------------------|-----------------------------------|-------|
| Manufacturer / brand | Leroy-somer                     | Insulation class                  | H     |
| Model                | LSA42.3L9                       | Protection class                  | IP23  |
| Exciter              | Standard self-excitation, SHUNT | Voltage regulation                | ±0.5% |
| Windings             | 100% copper                     | Telephone harmonic factor THF     | <2%   |
| Winding pitch        | 2/3                             | Telephone interference factor TIF | <50   |
| Number of poles      | 4                               |                                   |       |
| Terminals            | 12                              |                                   |       |

**Control System**

|       |           |
|-------|-----------|
| Brand | POWERLINK |
| Model | PLC-920   |

General Functions

- Automatic start / stop control
- Manual/remote start control
- Automatically start when mains are abnormal (AMF)
- Real time monitoring and display of multiple parameters
- RS232, RS485 interface and Ethernet can be used simultaneously
- CAN and Modbus communication
- Provide complete control solutions

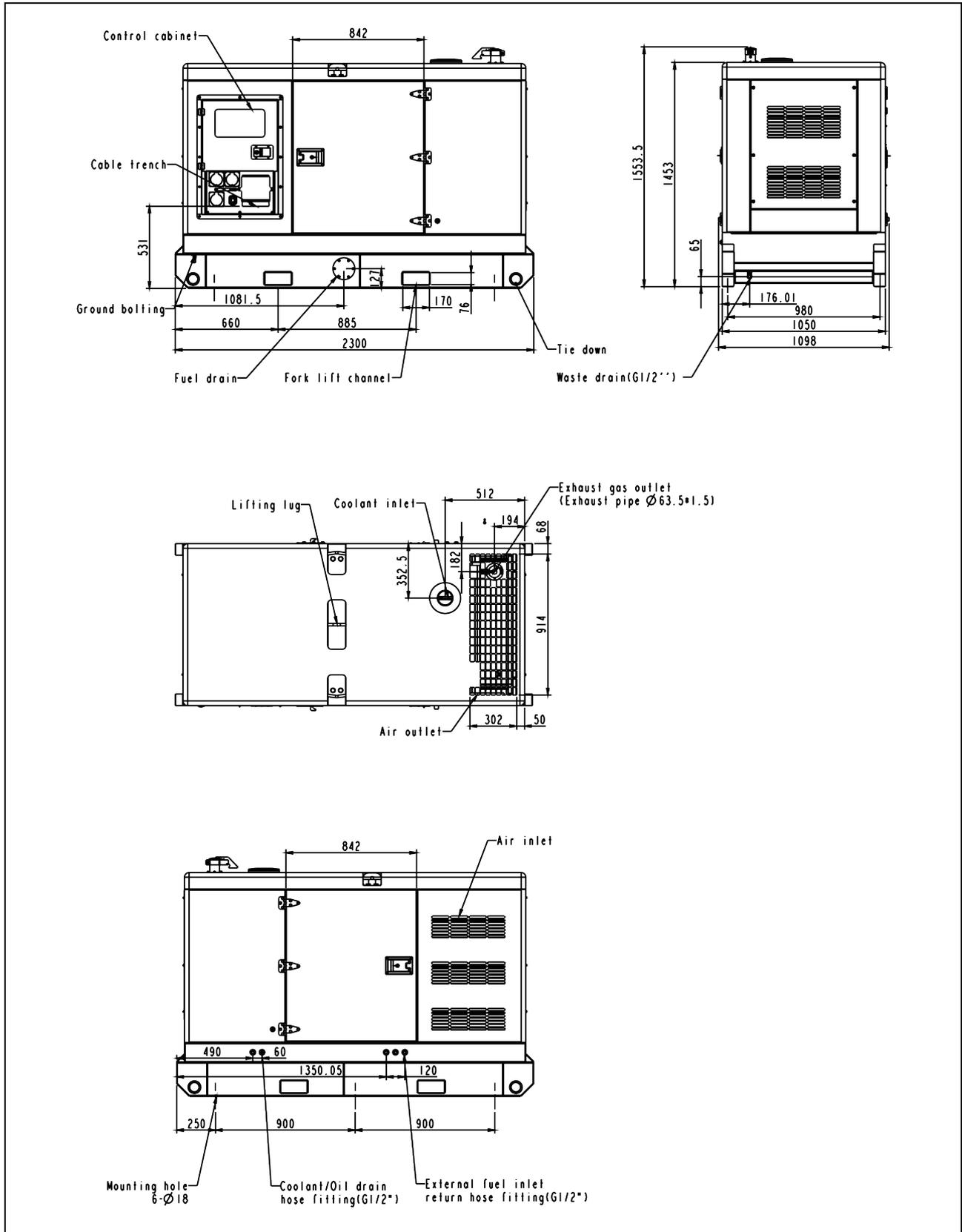
Monitoring and protection

|                   |                 |
|-------------------|-----------------|
| Oil pressure      | Over load       |
| Water temperature | Over current    |
| Rotate speed      | Over voltage    |
| Start             | Under voltage   |
| Running time      | Over frequency  |
| Battery voltage   | Under frequency |
| .....             | .....           |

Diesel Genset Specification

WPS60S

Product Appearance



## Product Configuration

### Standard configuration

| Engine                   | Generator                  | Control switchgear      | Canopy (sound-proof)               | Base Frame                              |
|--------------------------|----------------------------|-------------------------|------------------------------------|---|
| Electrical start motor   | Alternator                 | PLC control system      | SECC Electrogalvanized sheet       | Steel base frame                        |
| Battery system           | H class insulation         | Main circuit breaker    | Corrosion-resistant coating        | Engine bracket                          |
| Speed control system     | H class temperature rising | Breaker cabinet         | Access door                        | Alternator bracket                      |
| Turbocharger             | IP23 protection            | Communication connector | Stainless steel hinge              | Radiator bracket                        |
| Lockable isolator switch | AVR voltage regulator      | ATS connector           | Sound absorbing cotton             | Vibration isolators                     |
| Battery charger          |                            | Mains floating charger  |                                    |   |
| Fuel system              | Lubrication system         | Cooling system          | Intake / exhaust system            | Service documents                       |
| Base frame fuel tank     | Oil pressure sensor        | 50°C radiator           | Air filter                         | Installation and operation manual       |
| Fuel level sensor        | Oil temperature sensor     | Water level sensor      | Exhaust muffler                    | Test report                             |
| Flexible connection pipe | Oil filter                 | Jacket water pipe       | Exhaust bellow                     | Circuit diagram                         |
| Fuel filter              | Manual oil drain pump      |                         | Exhaust pipe and flange            | Warranty manual                         |
|                          | Oil drain ball valve       |                         | High temperature protective sleeve | Engine operation and maintenance manual |
|                          |                            |                         |                                    | Standard package                        |

### Power Class Definition

- Prime Power (PRP): the unit runs continuously with variable load, the number of operating hours is not limited, and 1h overload 10% operation is allowed per 12h, and the average load factor is less than 70% per 24h.
- Standby Power (ESP): operating time does not exceed 500h per year, continuous operating time does not exceed 300h, the average load factor is less than 80% per 24h. Overload operation is not allowed.

### Product Statement

- The data of specifications is based on the following standard environmental test conditions.
  - Ambient temperature 25°C
  - Altitude 100m
  - Relative humidity 30%
- Dimensions, weight and other parameters are for reference only, which shall be subject to the final design drawing.