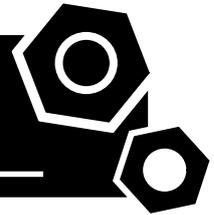


**Generator set**  
**Sound-proof type**  
**WPS45S**

# **SPECIFICATIONS**



## 1 Standards & Conditions

### Design Standards

The designs and the productions are in conformity with:

- Conformance European (CE)
- China Compulsory Certification (CCC)
- ISO8528-5:2005
- GB/T2820.5-2009

### Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25°C to 45°C. The coolant heater is needed when the temperature is below 5°C
- Humidity: Less than 80%.
- Altitude: Below one thousand (1000) meters.

### Factory Inspection

- Inspection items.
- Protection devices working test.
- Starting ability in normal temperature.
- 50% rated power load moment capability.
- Voltage deviation and speed variation: 0%, 25%, 50%, 75%, 100%, 110% Load.

### Painting Process

- Painting process specifications and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

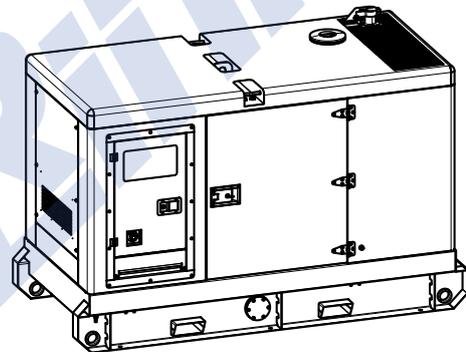
## 2 General Features

- Perkins engine 1103A-33TG1
- Close coupled to a Leroy Somer alternator LSA42.3M7
- Microprocessor control module PLC-920
- Main circuit breaker: 80A
- Rotate speed governor: Mechanical governor
- Excitation system: Self excited , SHUNT
- A.V.R model: R220
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 1x12V/70AH sealed for life maintenance free battery

- Lockable battery isolator switch
- Power coated canopy
- 50°C radiator
- Oil pump on the engine
- Steel base frame with forklifts
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 17 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

## 3 Equipment Specification

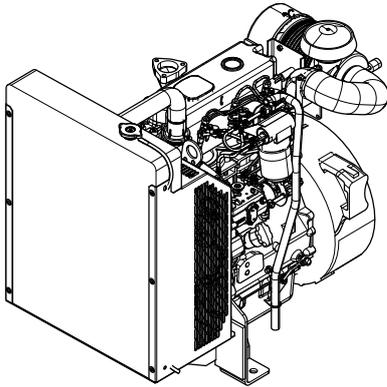
### General technical data



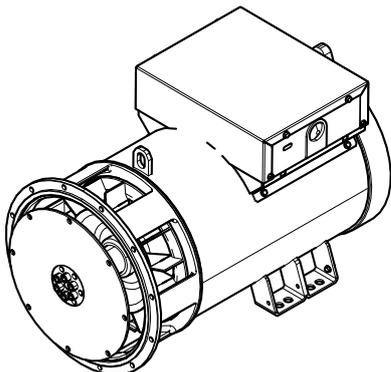
Model.....	WPS45S
Structure type .....	R
Tank capacity.....	180L
Dry weigh.....	1322kg
Sound pressure level @ 1m/7m .....	76.1dB(A)/65.9dB(A)
Sound power acc. 2000/14/EC.....	94.8dB(A)
Dimensions L×W×H.....	2338x1080x1551mm
Standby Power .....	49kVA/39kW
Prime Power .....	45VA/36kW

Voltage	380V	400V	415V	440V	
Ampere	68.4A	65.0A	62.6A	59.1A	
<b>Genset Fuel Consumption</b>					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	3.4	5.7	8.2	10.7	12.0

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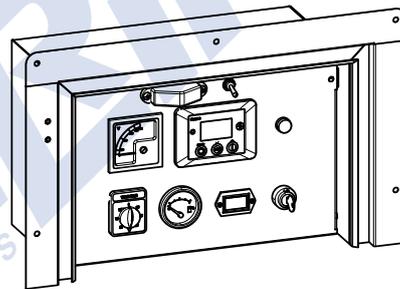


Engine Manufacturer/Brand .....	Perkins
Engine Model .....	1103A-33TG1
Dimensions L×W×H.....	1049×634×951mm
Dry Weigh (approx.) .....	420kg
Number of Cylinders.....	3
Bore.....	105mm
Stroke .....	127mm
Displacement.....	3.3L
Compression Ratio .....	17.25
Type of Injection .....	Direct injection
Intake System.....	Turbocharged
Intake Resistance.....	≤8kPa
Cooling System .....	Water cooled
Fan .....	Pusher
Battery Voltage .....	12V
Type of Fuel.....	RF75-T-96 / DIN EN590 / BS2869 class A2
Type of Oil .....	API-CG4/ CH4
Oil Capacity .....	8.31L
Type of Coolant .....	Glycol mixture
Coolant Capacity .....	10.2L
Back Pressure .....	≤10kPa
Standby Power .....	46.5kW
Prime Power .....	42.2kW
Fuel Consumption(100%load).....	10.7L/h



Alternator Manufacturer/Brand .....	Leroy Somer
Alternator Model .....	LSA42.3M7
Exciter.....	Brushless
Cooling Fan .....	Cast alloy aluminum
Windings.....	100% copper
Insulation Class .....	H
Winding Pitch.....	2/3
Terminals .....	12
Drip Proof .....	IP21
Altitude.....	≤1000m
Overspeed .....	2250rpm
Air Flow.....	11.8m³/min(50Hz), 14.5m³/min(60Hz)
Voltage Regulation .....	±1.5%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<45

## PLC-920 Control System

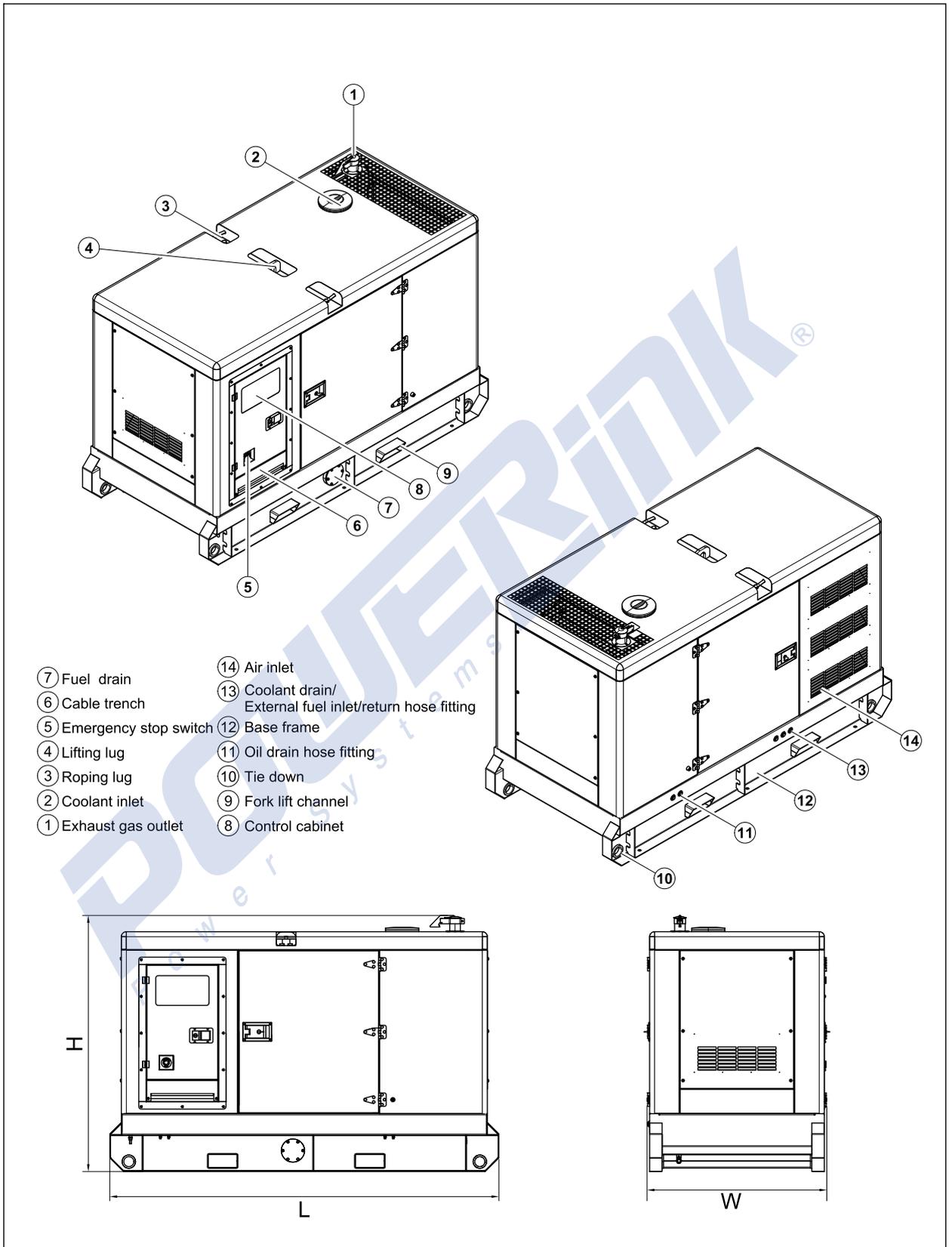


PLC-920 is an advanced control module based on micro-processor designed to control the engine via a key switch and push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition of an engine failure.

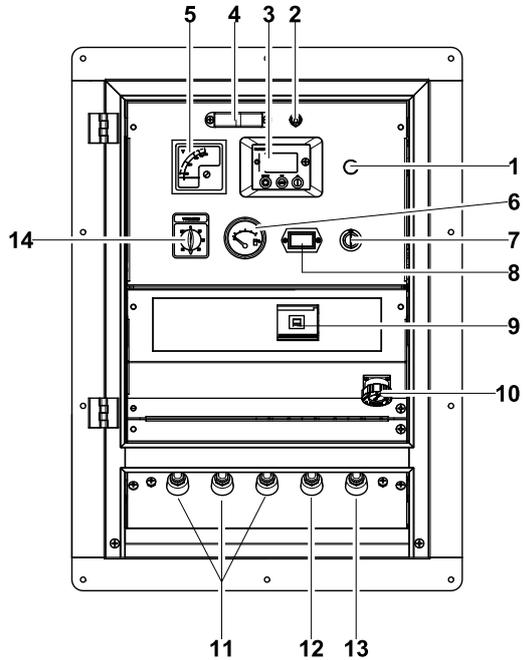
### Standard Control Function

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

## 4 Overall Dimensions

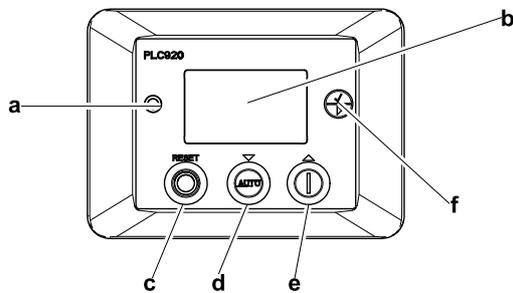


## 5 Control System



**Control & field wiring cabinet**

Ref.	Description
1	Charge indicator
2	Control cabinet lamp switch
3	Control module
4	Control cabinet lamp
5	Voltage meter
6	Fuel level meter
7	Key switch
8	Time counter
9	Main circuit breaker
10	Mains input /ATS /Remote communication connector
11	Live wire terminal
12	Neutral wire terminal
13	Ground wire terminal
14	Voltmeter change-over switch



**Control module**

Ref.	Description
a	Alarm indicator
b	Main status display
c	Stop/reset button; Next page (Configuration mode only)
d	Auto start button; Decrease value/next item (Configuration mode only)
e	Start button; Increase value/next item (Configuration mode only)
f	Navigation button; Accept (Configuration mode only)

1000032370
01.2021

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