

Generator set
Sound-proof type
WPS180BS

SPECIFICATIONS



1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (CE)
- ISO9001:2015

Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25°C to 50°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.

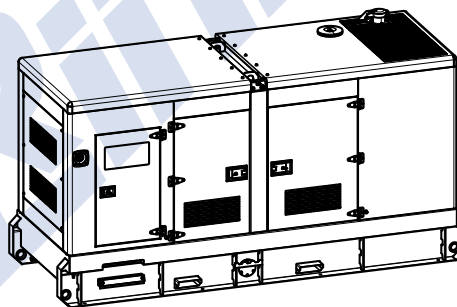
2 General Features

- Perkins engine 1106A-70TAG3
- Close coupled to a Leroy Somer alternator LSA44.3VL13
- Microprocessor control module PLC-920
- Main circuit breaker: 315A
- Rotate speed governor: Mechanical governor
- Excitation System: SHUNT
- A.V.R.Model: R250
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 12V/110AH sealed for life maintenance free battery

- Lockable battery isolator switch
- Powder 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 40 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

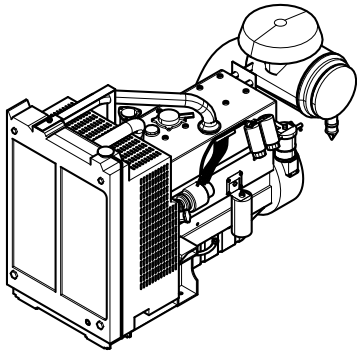
General technical data



Model.....	WPS180BS
Structure type	R
Tank capacity.....	420L
Dry weight.....	2680kg
Sound pressure level @7m	74.1dB(A)
Dimensions L×W×H.....	3468x1221x1843mm
Standby Power	220kVA/176kW
Prime Power.....	200kVA/160kW

Voltage	380V	400V	415V	440V	
Ampere	273.5A	259.8A	250.4A	236.2A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	10.8	20.1	31.8	41.6	44.6

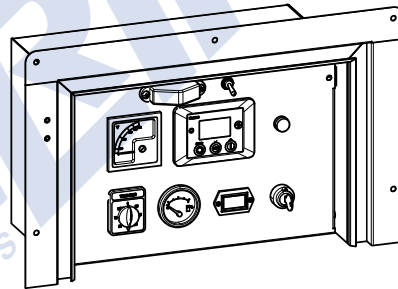
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Engine Manufacturer/Brand.....	Perkins
Engine Model.....	1106A-70TAG3
Dimensions L×W×H.....	1763×756×1142mm
Dry Weight (approx.)	788kg
Number of Cylinders.....	6
Bore.....	105mm
Stroke.....	135mm
Displacement.....	7.01L
Compression Ratio.....	16
Type of injection.....	Direct injection
Intake System.....	Turbocharged, air-to-air charge cooled
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	12V
Type of Fuel.....	ASTM D975, Class 1D & Class 2D.
Type of Oil	API-CH4/ACEA E5
Oil Capacity	16.5L
Type of Coolant	Glycol mixture
Coolant Capacity	21L
Standby Power	179.8kW
Prime Power	162.9kW
Fuel Consumption(100%load).....	41.6L/h

Alternator Manufacturer/Brand	Leroy Somer
Alternator Model	LSA44.3VL13
Exciter.....	Brushless
Cooling Fan	Cast alloy aluminum
Windings.....	100% copper
Insulation Class	H
Winding Pitch.....	2/3
Drip Proof	IP23
Altitude.....	≤1000m
Overspeed	2250rpm
Air Flow.....	0.8m³/s(50HZ),0.99m³/s(60HZ)
Voltage Regulation	±1.0%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<50

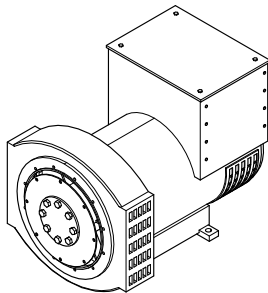
PLC-920 Control System



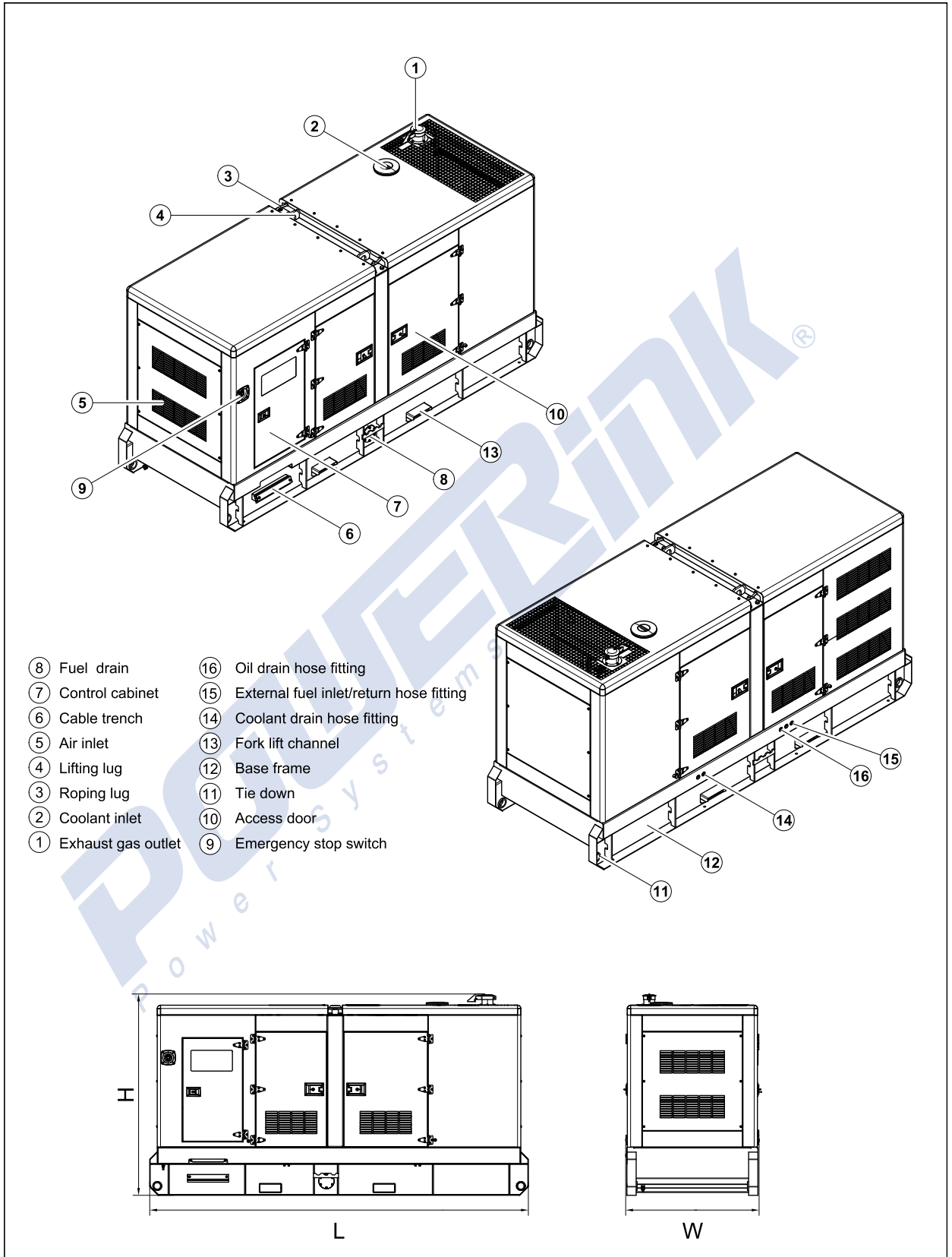
PLC-920 is an advanced control module based on micro-processor designed to control the engine via a key switch and push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition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

Standard Control Function

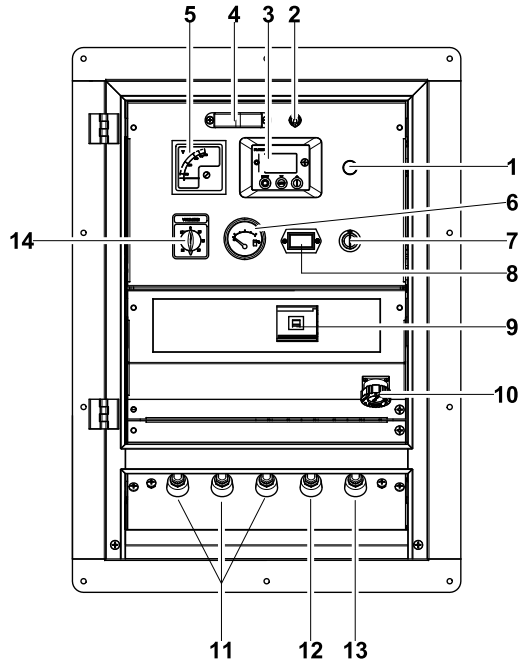
- Manual Engine Control Module
- Low Oil Pressure
- High Engine Temperature
- Auxiliary Shutdown
- Overspeed Protection
- Protection hold-off timer
- Charge Failure warning



4 Overall Dimensions

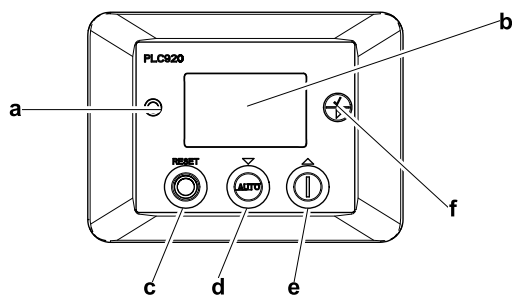


5 Control System



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)

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*Specification may change without prior notice. For more info.,
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