



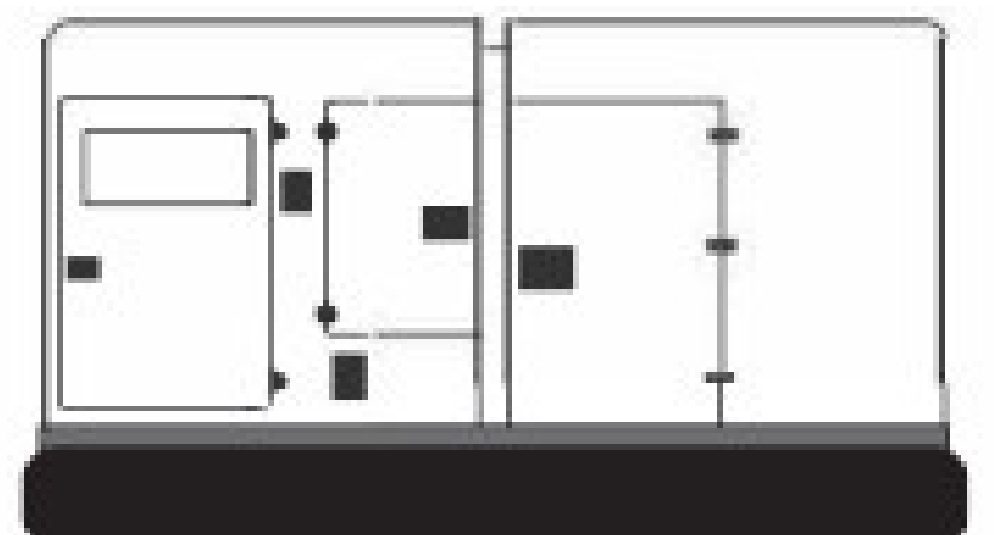
# ZENITH

THE PINNACLE OF POWER

## ZPDG110S

# SPECIFICATIONS

[www.zenithpowerltd.com](http://www.zenithpowerltd.com)



# ZPDG110S

50 Hz @ 1500rpm, 3-phase/5-wiring

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## Standards & Conditions

### Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (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 degrees C TO 45 degrees C. The coolant heater is needed when the temperature is below 5 degrees C
- Humidity: Less than 80%
- Altitude: Below one thousand (1000) metres.

### 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 colours are based on the manufacturer's standard.
- The customer could also choose the colour which the manufacturer offers.

## General Features

- Perkins engine 1104C-44TAG2
- Close coupled to a Leroy Somer alternator TAL-A44-D
- Microprocessor control module PLC-7420
- Main circuit breaker: 160A
- Rotate speed governor: Electronic fuel injection governor
- Excitation System: Self excited shunt
- A.V.R.Model: R150
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 1 x 12V/120AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 50 degrees C, radiator
- Oil pump on the engine
- Steel base frame with forkslots
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 11 hours running
- Drain points for fuel tank
- Operation Manual/Specifications

# Equipment Specifications

## General technical data

Model : ZPDG110S

Tank capacity: 550L

Dry weight: 1852kg

Noise Level: @7m: 70.2 dBA

Dimensions LxWxH: 2888\*1157\*1900mm

Standby Power: 110kVA/88kW

Prime Power: 100kVA/80kW

Voltage	380V	400V	415V	440V	
Ampere	151.9A	144.3A	139.1A	131.2A	
<b>Genset Fuel Consumption</b>					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	11.2	17.1	22.6	24.9



## Power System

### Engine

Engine Manufacturer/Brand: Perkins

Engine Model: 114C-44TAG2

Dimensions: L×W×H: 1259×721×966mm

Dry Weigh (approx.) : 401kg

Number of Cylinders: 4

Bore: 105mm

Stroke: 127mm

Displacement: 4.4L

Compression Ratio: 18.23

Type of injection: Direct injection

Intake System: Turbocharged, air-to-air charge cooled

Intake Resistance: 8kPa

Cooling System: Water cooled

Fan: Pusher

Battery Voltage: 12V

Type of Fuel: EPA2D 89.330-96

Type of Oil: API-CC/SE or CCMC-D1

Oil Capacity: 8.01L

Type of Coolant: Glycol mixture

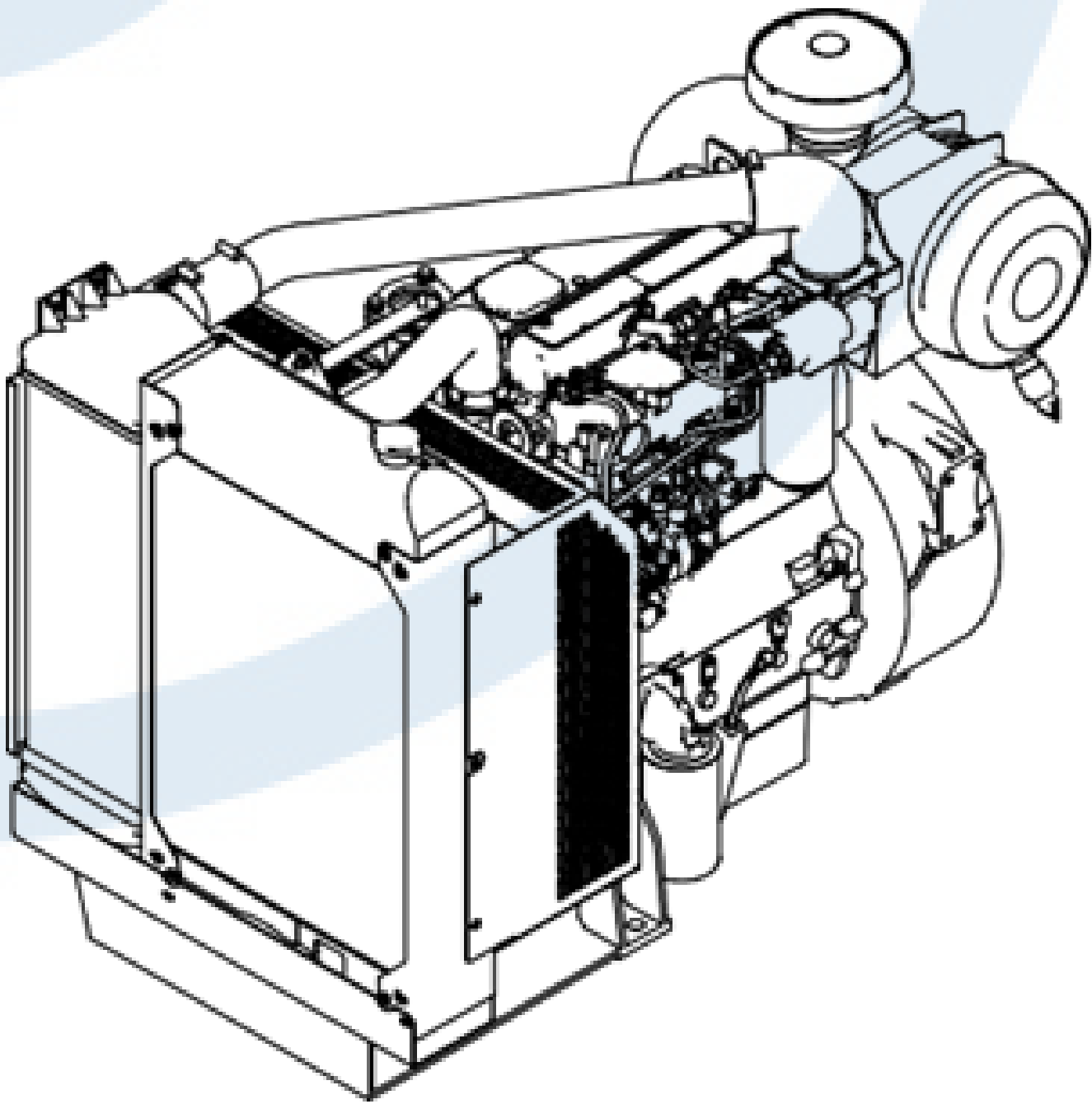
Coolant Capacity: 17.0L

Back Pressure: 18kPa

Standby Power: 103kW

Prime Power: 93kW

Fuel Consumption(100%load): 22.6L/h



## Alternator

Alternator Manufacturer/Brand: Leroy Somer

Alternator Model : TAL-A44-D

Exciter: Brushless

Cooling Fan: Cast alloy aluminium

Windings: 100% copper

Insulation Class: H

Winding Pitch: 2/3

Terminals: 12

Drip Proof: IP23

Altitude:  $\leq 1000\text{m}$

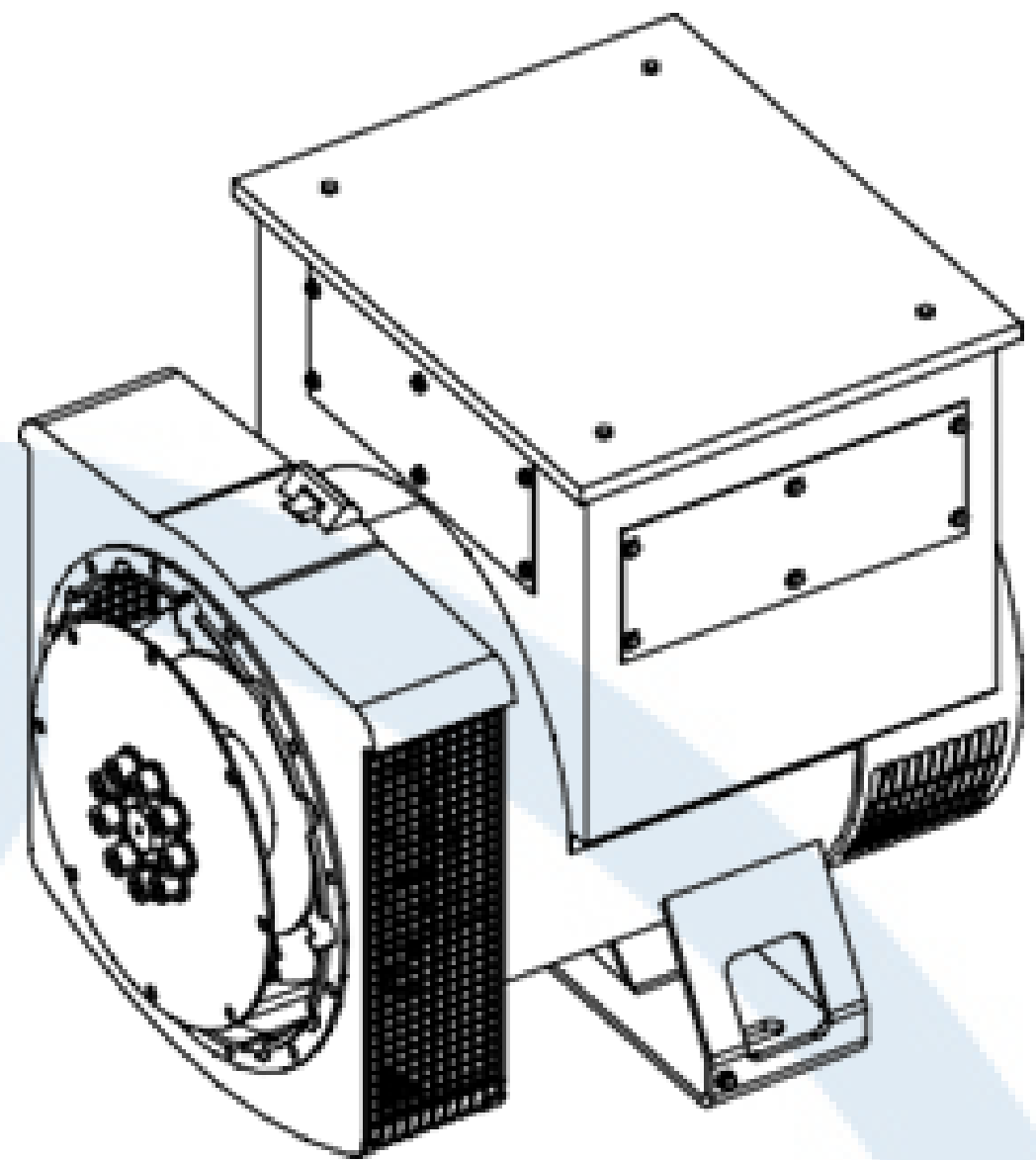
Overspeed: 2250rpm

Air Flow:  $0.37\text{m}^3/\text{s}$ (50Hz),  $0.44\text{m}^3/\text{s}$ (60Hz)

Voltage Regulation:  $\pm 0.5\%$

Total harmonic TGH / THC at no load  $< 2\%$  - on load  $< 2\%$

Telephone Interference: THF $<2\%$ ; TIF $<50$

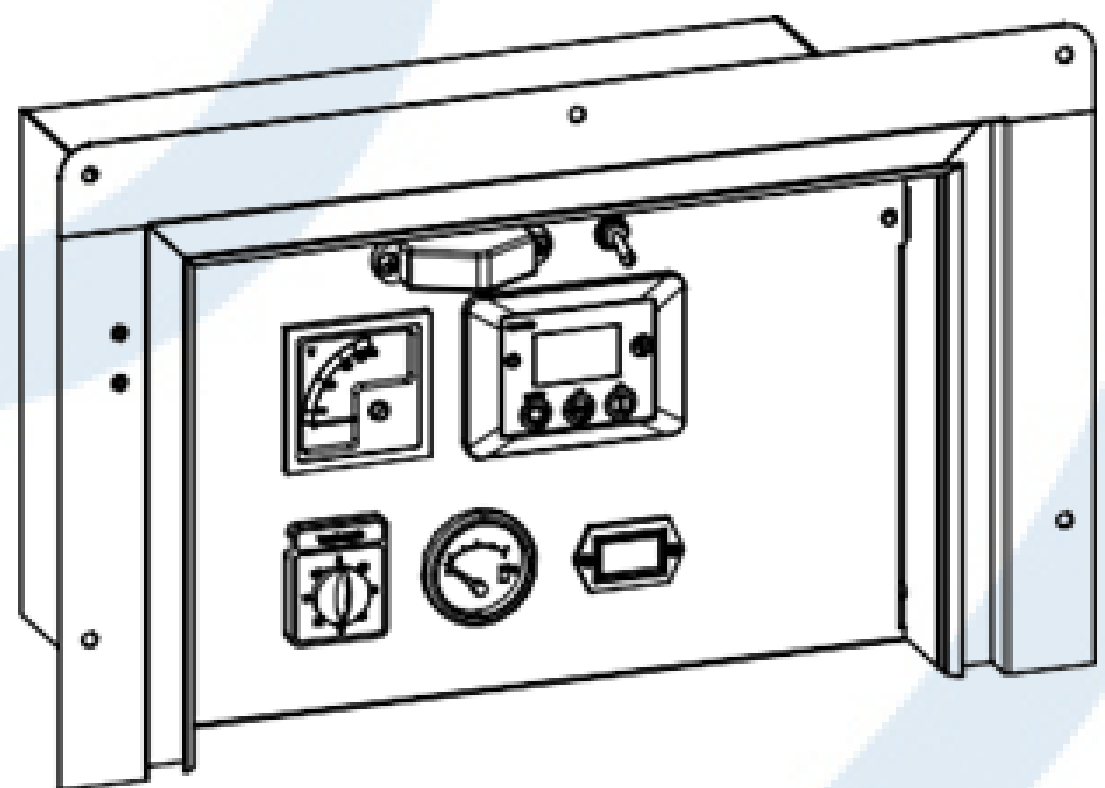


## PLC-920 Control System

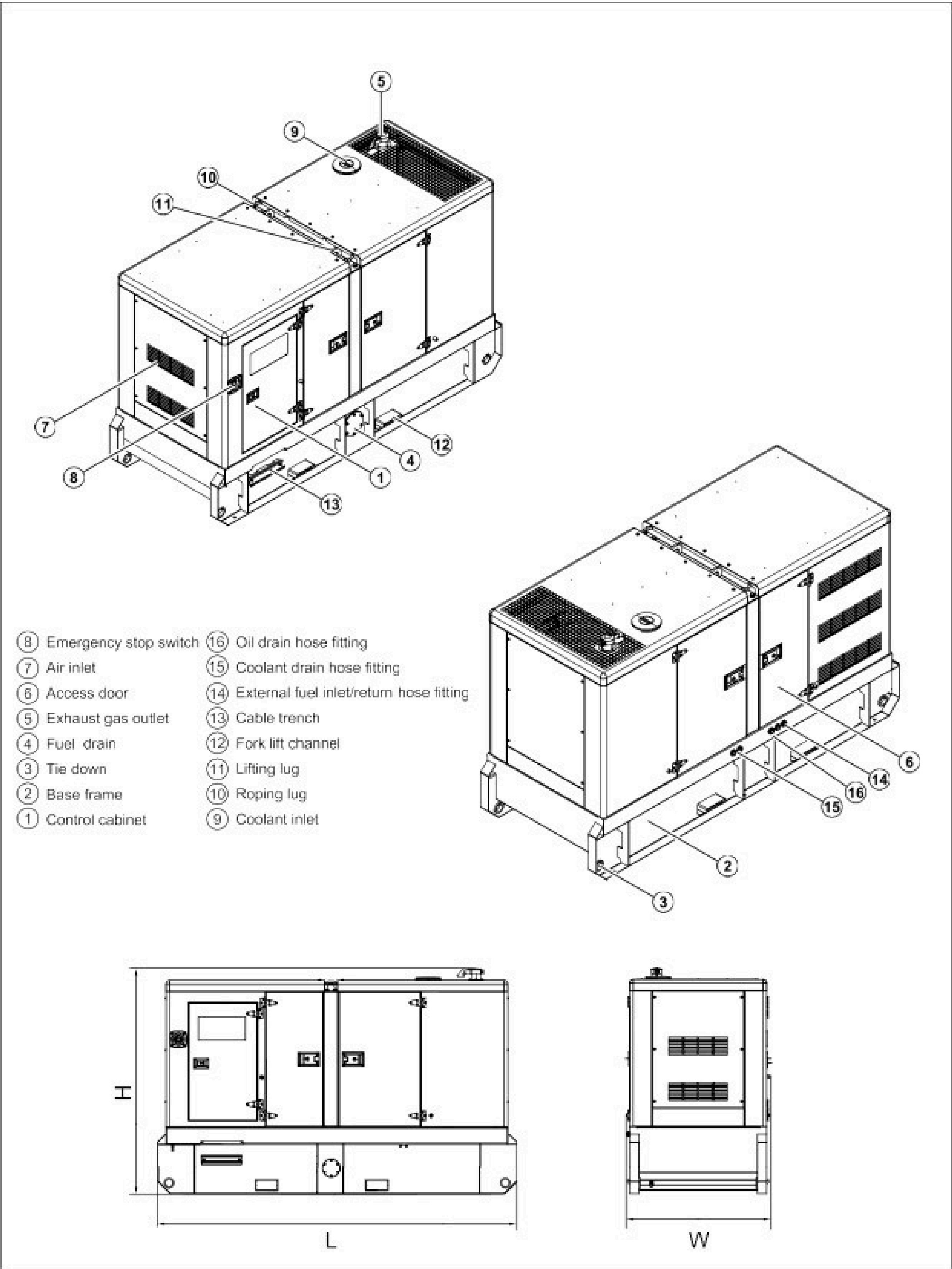
PLC920 is an advanced control module based on micro-processor designed to control the engine via a key switch and push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition of an engine failure.

### Standard Control Function

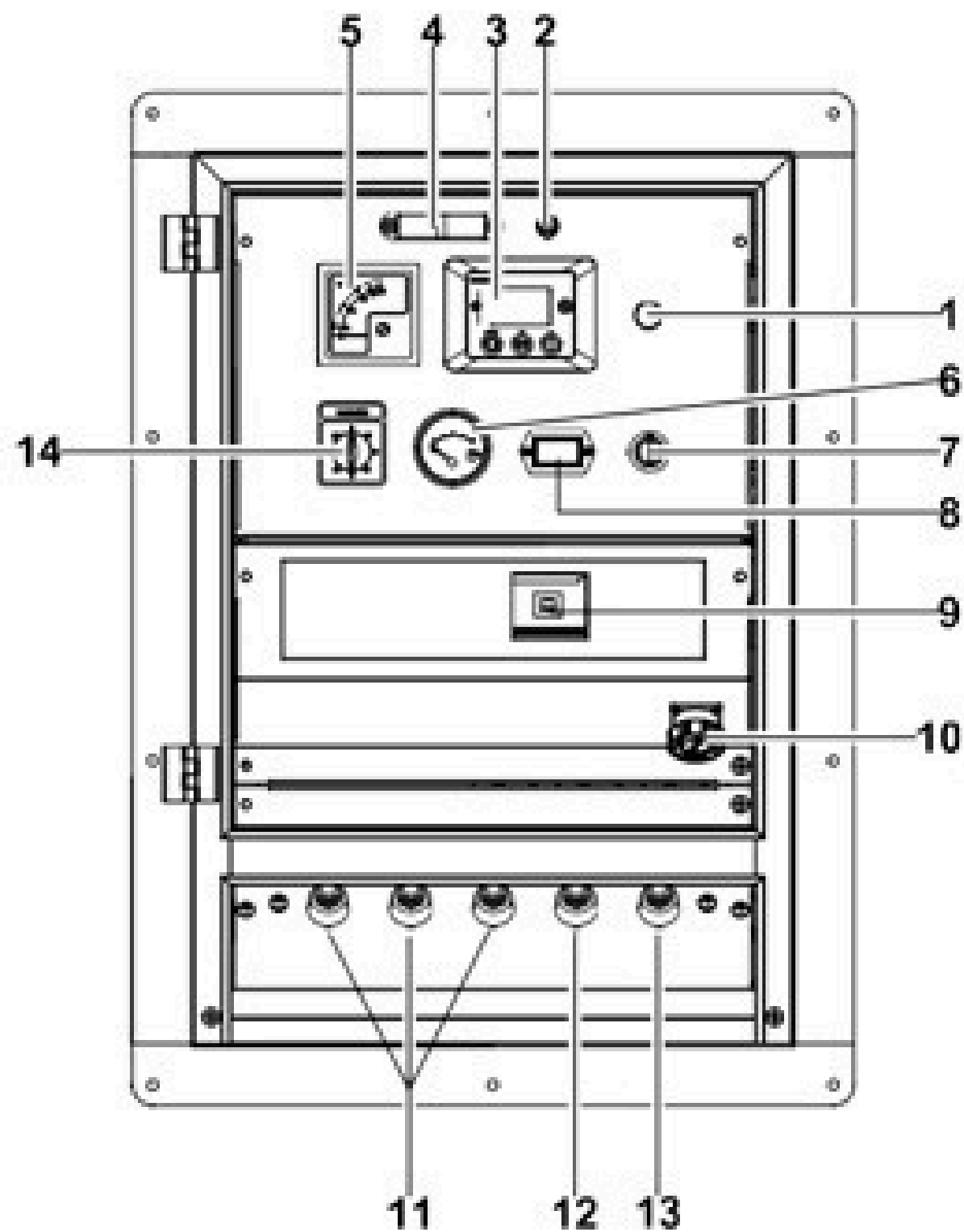
- Manual Engine Control Module
- Low Oil Pressure
- High Engine Temperature
- Auxiliary Shutdown
- Overspeed Protection
- Protection hold-off timer
- Charge Failure warning



# Overall Dimensions

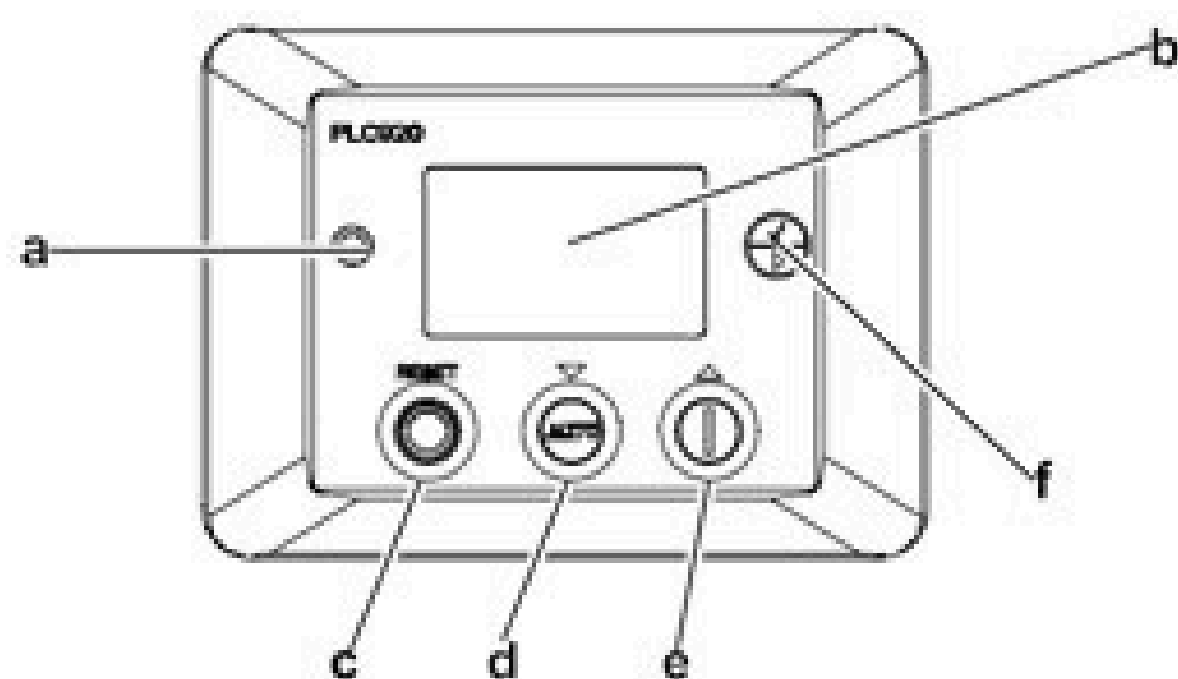


## Control System



- 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 & field wiring cabinet**



**Control module**

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

