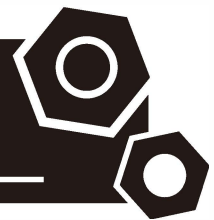


# **Generator set**

## **Sound-proof type**

### **PR550P-SAE**

# **SPECIFICATIONS**



**www.prpower.com | 1300 399 499**  
PR Power reserves the right to make changes in model, technical specification, color, configuration and accessories without prior notice. Please contact the sales team before ordering.  
Rev. [July].[2023]

## 1 Standards & Conditions

### Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (CE)
- ISO8528-5:2005
- AS 3000-2018
- AS 3010-2017

### 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 90%.
- Altitude: Below one thousand (1000) meters above sea level.

### 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.

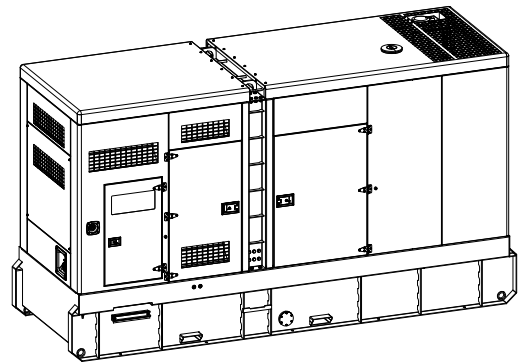
## 2 General Features

- Perkins engine 2506A-E15TAG2
- Close coupled to a Leroy Somer alternator LSA47.2M7
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 800A
- Rotate speed governor: Electronic fuel injection governor
- Excitation System: Self Excited,SHUNT
- A.V.R.Model: R250
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle

- 2x12V/150AH sealed for life maintenance free battery
- Remote run connector
- Lockable battery isolator switch
- Powder coated canopy
- 50°C radiator
- Oil pump on the engine
- Non-returning valve for fuel inlet hose of the engine
- Steel base frame with forklifts
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 12 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operation Manual / Specifications

## 3 Equipment Specification

### General technical data

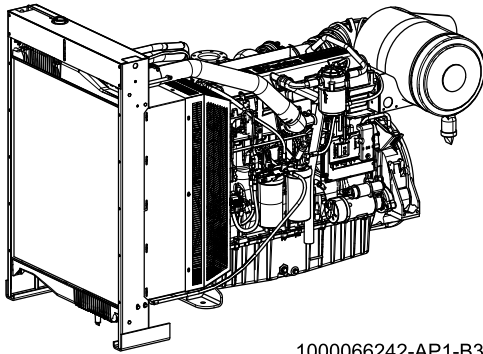


1000023413-AP1-C2

Model.....	PR550P-SAE
Structure type .....	R
Tank capacity.....	1600L
Dry weight.....	5396kg
Noise level @7m .....	77.2dBA
Dimensions L×W×H.....	4586x1564x2556mm
Standby Power .....	545kVA/436kW
Prime Power .....	500kVA/400kW
Voltage/Ampere.....	415V/696A

Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	55	79	108	117

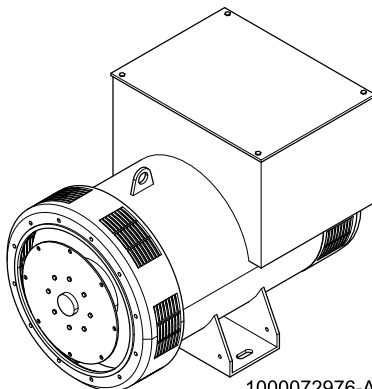
## Diesel Engine



1000066242-AP1-B3

Engine Manufacturer/Brand .....	Perkins
Engine Model .....	2506A-E15TAG2
Dimensions L×W×H.....	2657×1120×1718mm
Dry Weigh (approx.) .....	1633kg
Number of Cylinders .....	6
Bore .....	137mm
Stroke .....	165mm
Displacement.....	15.2L
Compression Ratio .....	16
Type of Injection .....	Direct injection
Intake System.....	Turbocharged, air to air charge cooling
Intake Resistance .....	≤6.2kPa
Cooling System .....	Water cooled
Fan .....	Pusher
Battery Voltage .....	24V
Type of Fuel.....	BS2869 class A2 or BS EN590
Type of Oil .....	API CI4 or ACEA E5
Oil Capacity .....	62L
Type of Coolant .....	Glycol mixture
Coolant Capacity .....	58L
Back Pressure .....	≤6.8kPa
Standby Power .....	503kW
Prime Power .....	459kW
Fuel Consumption(100%load) .....	202g/kW.h

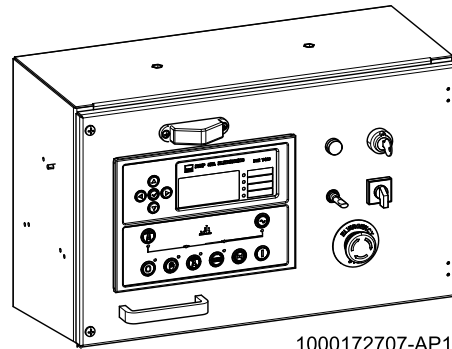
## Alternator



1000072976-AP1-A2

Alternator Manufacturer/Brand .....	Leroy Somer
Alternator Model .....	LSA47.2M7
Exciter.....	Brushless
Cooling Fan .....	Cast alloy aluminum
Windings.....	100% copper
Insulation Class .....	H
Winding Pitch.....	2/3
Terminals .....	12
Drip Proof .....	IP23
Altitude.....	≤1000m
Overspeed .....	2250rpm
Air Flow.....	0.9m³/s(50Hz),1.1m³/s(60Hz)
Voltage Regulation .....	±0.5%
Total harmonic TGH / THCat no load < 1,5 % - on load < 2 %	
Telephone Interference.....	THF<2%;TIF<50

## PLC-7420 Control System



1000172707-AP1-A1

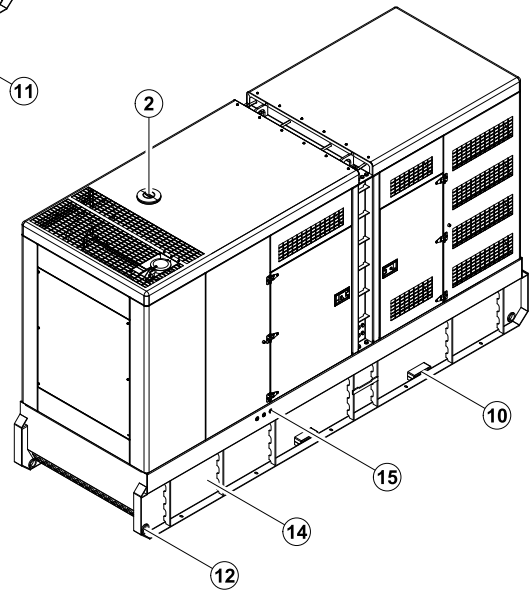
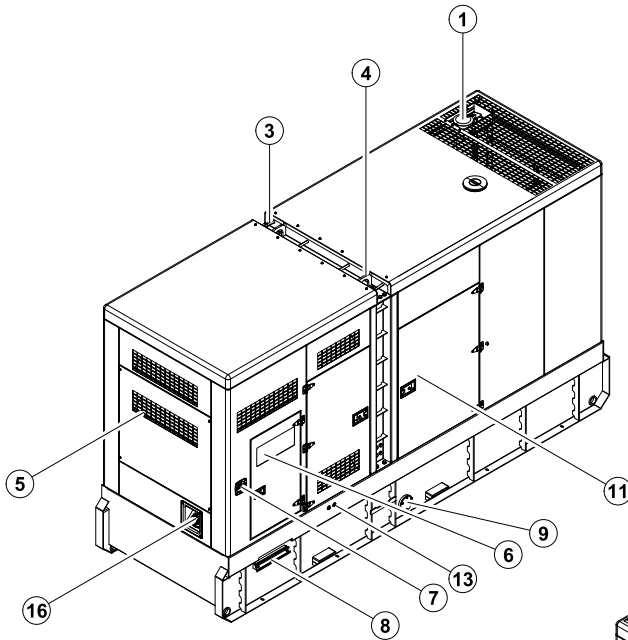
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and display all values and alarms information on the LCD. In addition, the control module can automatically shut down the engine and indicate the engine failure.

- Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the mains supply and genset
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections; multiple parameters display, like pressure, temp. etc.
- Manual, automatic and remote work mode selectable
- Real time clock for time and date display, overall runtime display, 250 log entries
- Overall power output display
- Integral speed/frequency detecting, telling status of start, rated operation, overspeed etc.
- Communication with PC via RS485 OR RS232 interface, using MODBUS protocol

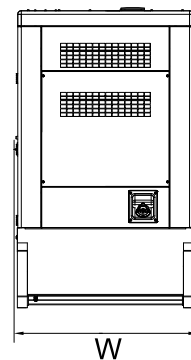
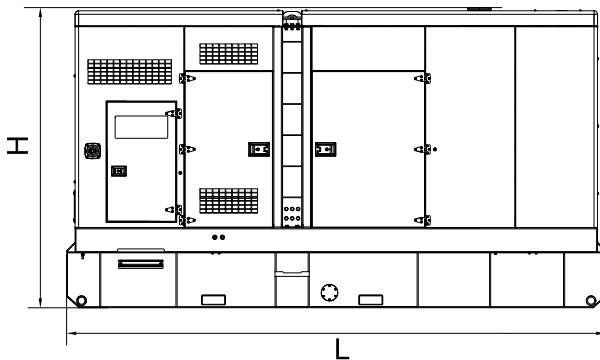
## 4 Overall Dimensions

1000023413-DR1-C2

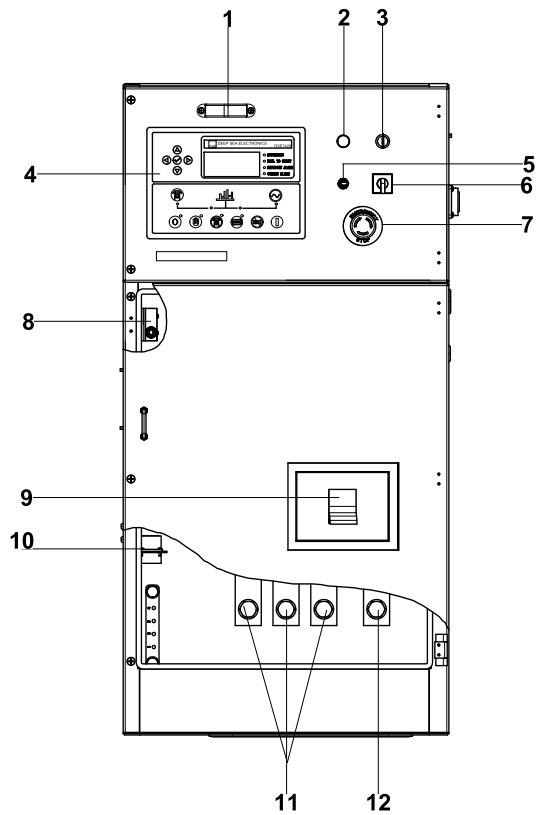
Dry weight	5396kg
Fuel tank capacity	1600L
Dimensions L x W x H	4586x1564x2556mm



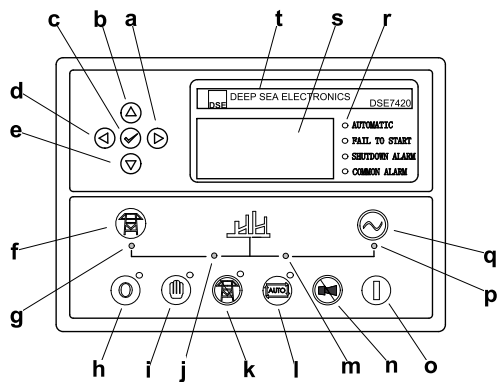
- ⑧ Cable trench
- ⑦ Emergency stop switch
- ⑥ Control cabinet
- ⑤ Air inlet
- ④ Lifting lug
- ③ Roping lug
- ② Coolant inlet
- ① Exhaust gas outlet
- ⑬ Fuel inlet
- ⑫ Coolant drain hose fitting
- ⑪ Base frame
- ⑩ Oil drain hose fitting
- ⑨ Tie down
- ⑧ Access door
- ⑦ Fork lift channel
- ⑥ Fuel drain



## 5 Control System



**Control & field wiring cabinet**



**Control module**

Ref.	Description
1	Control cabinet lamp
2	Charge indicator
3	Key switch
4	Control module
5	Control cabinet lamp switch
6	Mains input changeover switch
7	Emergency stop button
8	Limit switch
9	Main circuit breaker
10	Mains input/remote/AMF communication connector
11	Live wire terminals
12	Neutral wire terminal

a	Button (next page)
b	Button (increase value / previous item)
c	Button (accept)
d	Button (previous page)
e	Button (decrease value / next item)
f	Button (transfer the load to the mains supply, when in Manual mode only)
g	Mains supply available LED
h	Stop / Reset button
i	Manual button (Manual control mode)
j	Mains supply on load LED
k	Test button (Test mode)
l	Auto button (Auto mode)
m	Genset on load LED
n	Mute/Lamp test button
o	Start button (Manual)
p	Genset available LED
q	Button (transfer the load to the genset, when in Manual mode only)
r	Alarm LED (4 alarm items)
s	LCD display
t	Control module name