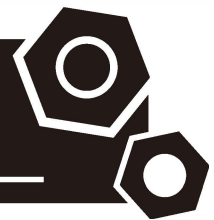


# **Generator set Sound-proof type PR88P-SAE**

## **SPECIFICATIONS**



**[www.prpower.com](http://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.

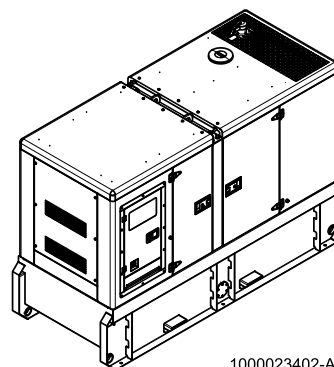
## 2 General Features

- Perkins engine 1104A-44TG2
- Close coupled to a Leroy Somer alternator LSA43.2L8
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 125A
- Rotate speed governor: Mechanical governor
- Excitation System: Self Excited SHUNT
- A.V.R.Model: R250
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle

- Remote run connector
- 1x12V/120AH sealed for life maintenance free battery
- 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
- Base fuel tank for 29 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operation Manual /

## 3 Equipment Specification

### General technical data



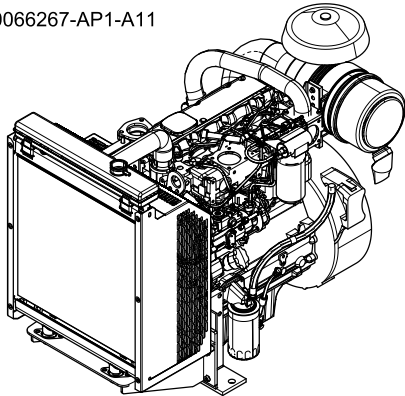
1000023402-AP1-C2

Model.....	PR88P-SAE
Structure type .....	R
Tank capacity.....	530L
Dry weight.....	1831kg
Noise level @7m .....	68.6dBA
Dimensions L×W×H.....	2788x1165x1900mm
Standby Power .....	88kVA/70kW
Prime Power .....	80kVA/64kW
Voltage/Ampere.....	415V/111A

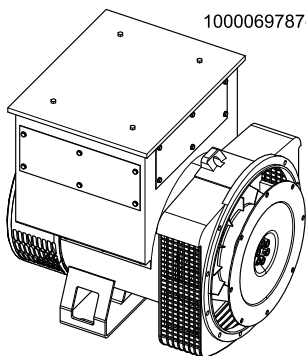
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	5.2	9.7	14	18.7	20.5

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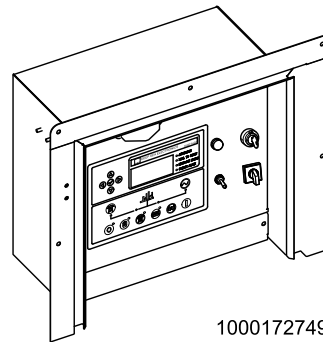
Engine Manufacturer/Brand.....	Perkins
Engine Model.....	1104A-44TG2
Dimensions L×W×H.....	1241×629×951mm
Dry Weigh (approx.) .....	463kg
Number of Cylinders.....	4
Bore.....	105mm
Stroke .....	127mm
Displacement.....	4.4L
Compression Ratio.....	17.25
Type of Injection .....	Direct
Intake System.....	Turbocharged
Intake Resistance.....	≤8.0kPa
Cooling System .....	Water cooled
Fan .....	Pusher
Battery Voltage .....	12V
Type of Fuel.....	Part 2 1998 Class A2 or DIN EN 590
Type of Oil .....	API-CG4/ CH4
Oil Capacity .....	8.0L
Type of Coolant .....	Glycol mixture
Coolant Capacity .....	13L
Back Pressure .....	≤10kPa
Standby Powe .....	80.7kW
Prime Power .....	73.4kW
Fuel Consumption(100%load).....	18.7L/h



1000069787-AP1-A1

Alternator Manufacturer/Brand .....	Leroy Somer
Alternator Model .....	LSA43.2L8
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.....	0.27m³/s(50Hz),0.32m³/s(60Hz)
Voltage Regulation .....	±0.5%
Total harmonic TGH / THC at no load < 2 % - on load < 2 %	
Telephone Interference.....	THF<2%;TIF<50

## PLC-7420 Control System



1000172749-AP1-G2

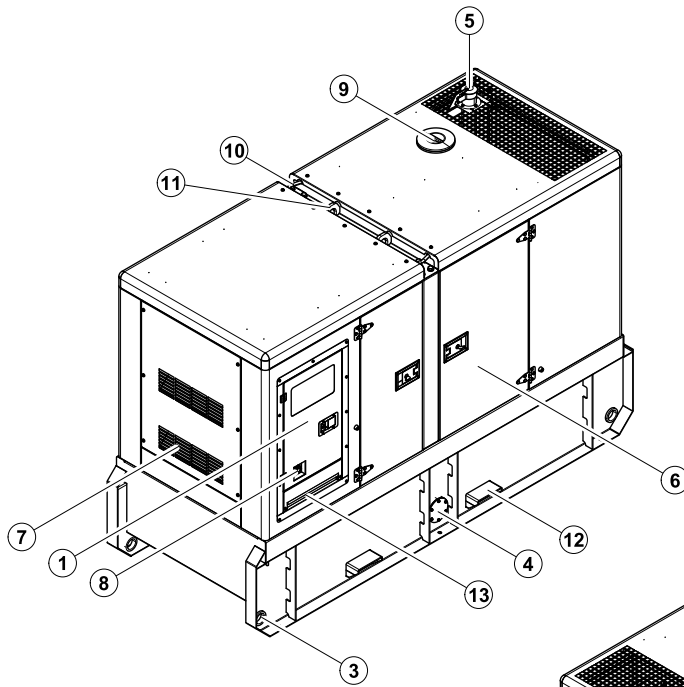
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and 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

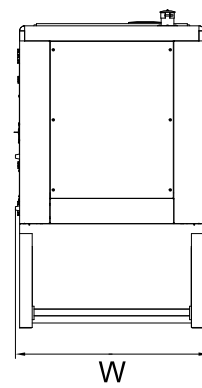
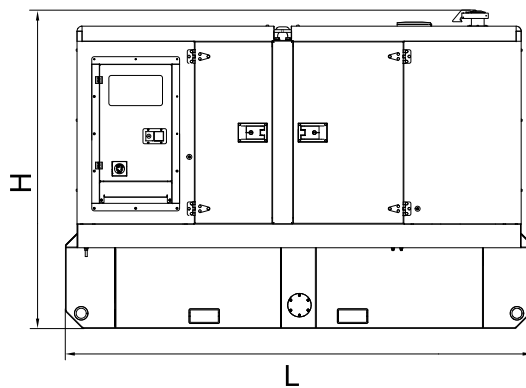
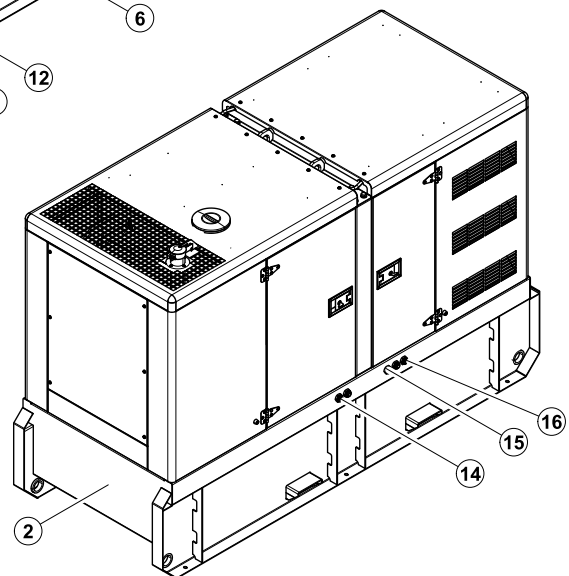
## 4 Overall Dimensions

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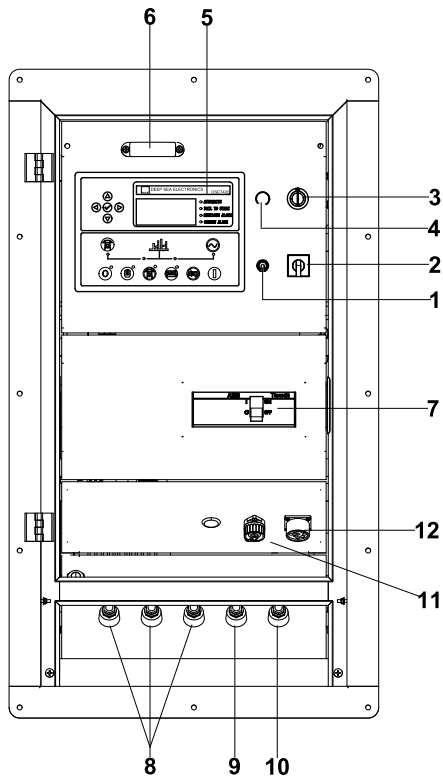
Dry weight	1828kg
Fuel tank capacity	550L
Dimensions L x W x H	2788x1150x1900mm



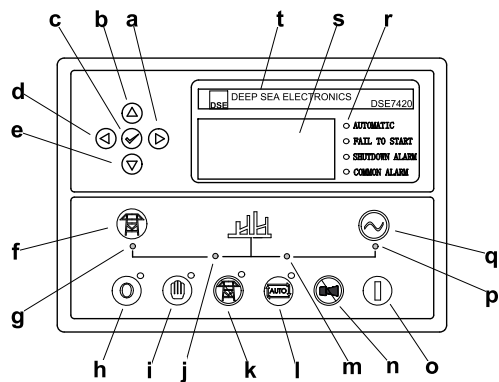
- |                         |                                           |
|-------------------------|-------------------------------------------|
| ⑧ Emergency stop switch | ⑬ Cable trench                            |
| ⑦ Air inlet             | ⑭ Coolant drain hose fitting              |
| ⑥ Access door           | ⑮ Oil drain hose fitting                  |
| ⑤ Exhaust gas outlet    | ⑯ External fuel inlet/return hose fitting |
| ④ Fuel drain            |                                           |
| ③ Tie down              |                                           |
| ② Base frame            |                                           |
| ① Control cabinet       |                                           |



## 5 Control System



**Control & field wiring cabinet**



**Control Module**

Ref.	Description
1	Mains input changeover switch
2	Control cabinet lamp switch
3	Charge indicator
4	Key switch
5	PLC-7420 control module
6	Control cabinet lamp
7	Main circuit breaker
8	Live wire terminals
9	Neutral wire terminal
10	Ground wire terminal
11	Mains input/Remote control communication connector
12	Mains input/Remote control/ATS communication connector

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