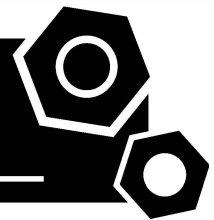


Generator set
Sound-proof type
PR550C-SAE

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. [November].[2024]

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 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.

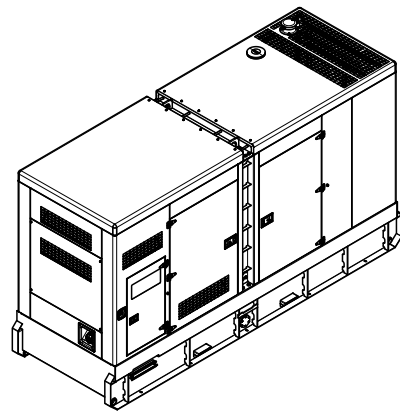
2 General Features

- Cummins engine QSZ13-G3
- Close coupled to Leroy Somer alternator LSA47.2M7
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 800A
- Rotate speed governor: Electrical governor
- Excitation system: Shunt
- A.V.R: D250
- Key switch
- Emergency stop switch
- Paralleling connector
- 2x12V/150AH 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 with 16.3 hours running
- Drain points for fuel tank
- Operator's Manual / Specifications

3 Equipment Specification

General technical data

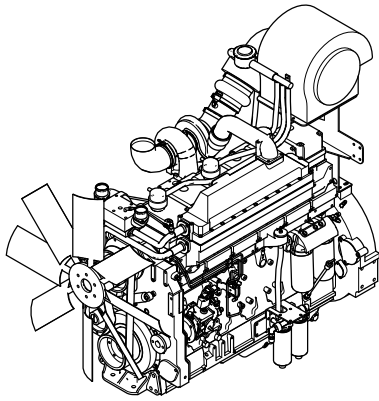


Model.....	PR550C-SAE
Structure type	R
Tank capacity.....	1650L
Dry weight.....	5227kg
Noise level @7m*	72.2dBA
Dimensions L×W×H.....	4520×1635×2536mm
Standby Power	550kVA/440kW
Prime Power.....	500kVA/400kW

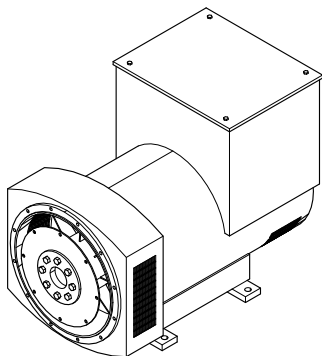
Voltage	380V	400V	415V	440V	
Ampere	759A	721A	695A	656A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	26.0	48.9	74.2	101.0	105.5

* Noise level free field, under normal operation condition

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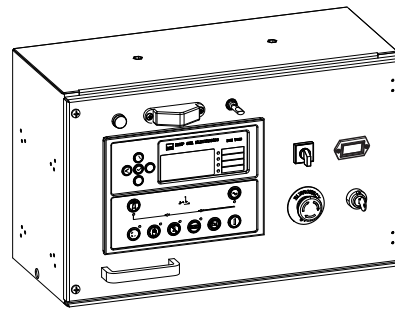


Engine Manufacturer/Brand	Cummins
Engine Model	QSZ13-G3
Dimensions L×W×H.....	2141.9×879.8×1733.5mm
Dry Weigh (approx.)	1245kg
Number of Cylinders.....	6
Bore.....	130mm
Stroke	163mm
Displacement.....	13.0L
Compression Ratio	17.0
Type of Injection	High pressure common rail
Intake System.....	Turbo charged
Intake Resistance	≤6.20kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	24V
Type of Fuel.....	NO.2 or ASTM D2
Type of Oil	API CD/SE or CCMCD4
Oil Capacity	45L
Type of Coolant	Glycol mixture
Coolant Capacity	23L
Back Pressure	≤13.0kPa
Standby Power	470kW
Prime Power	450kW
Fuel Consumption(100%load).....	101L/h



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	2250 rpm
Air Flow.....	1.035m³/s(50HZ), 1.312m³/s(60HZ)
Voltage Regulation	±1.0%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<50

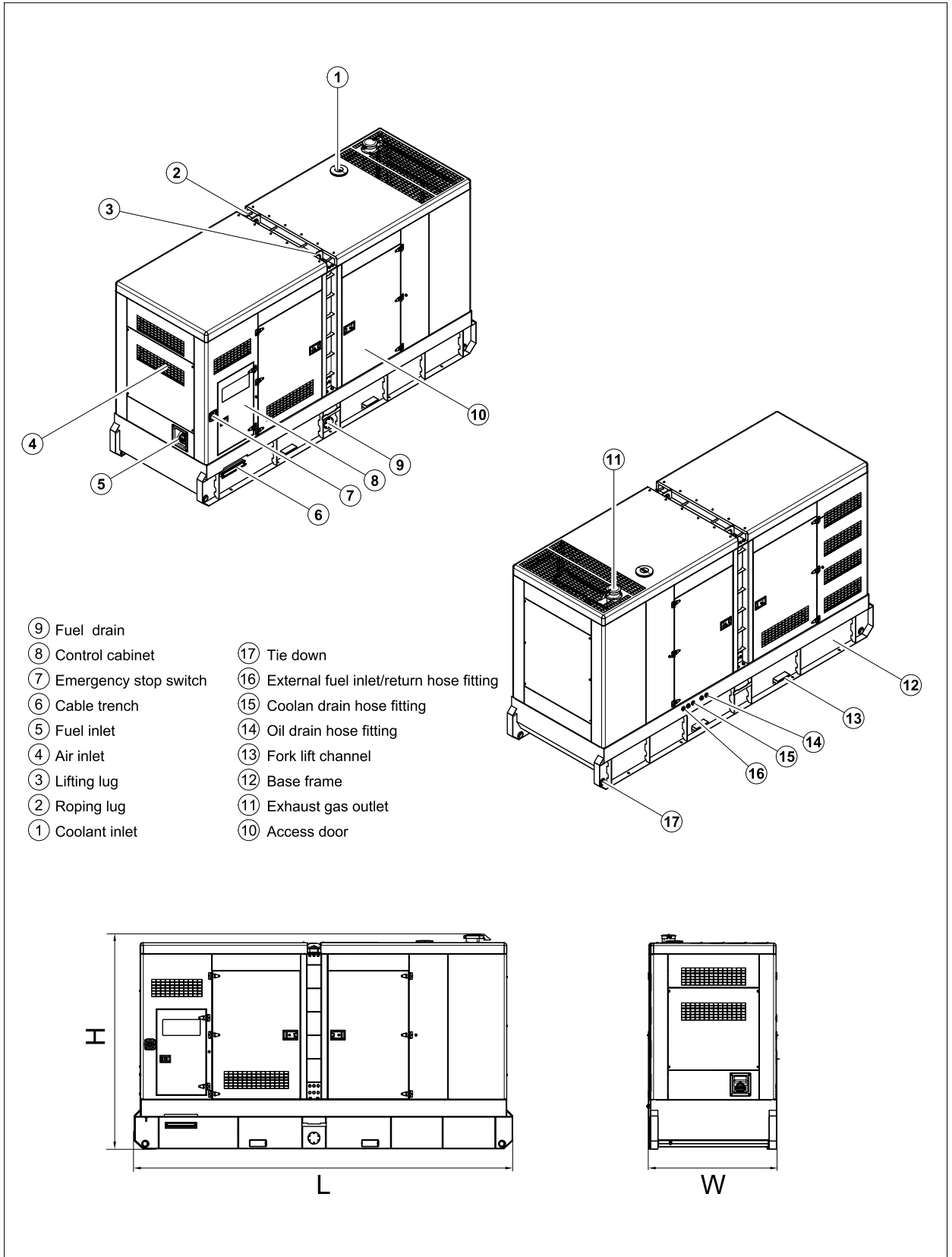
PLC-7420 Control System



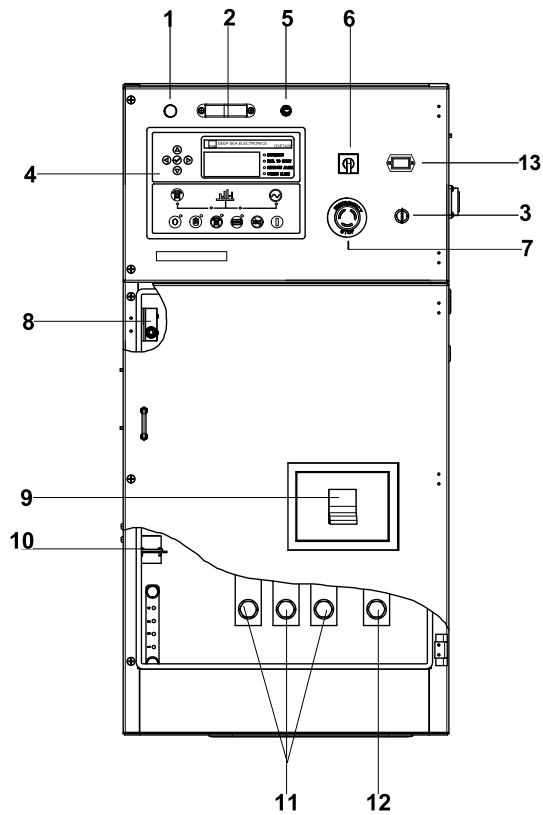
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

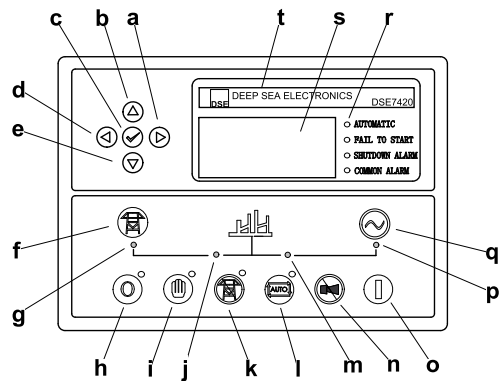
4 Overall Dimensions



5 Control System



Control & field wiring cabinet



Control module

Ref.	Description
1	Charge indicator
2	Control cabinet lamp
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
13	Time counter

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