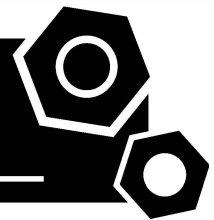


Generator set Containerized type PR990C-SAE

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 and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

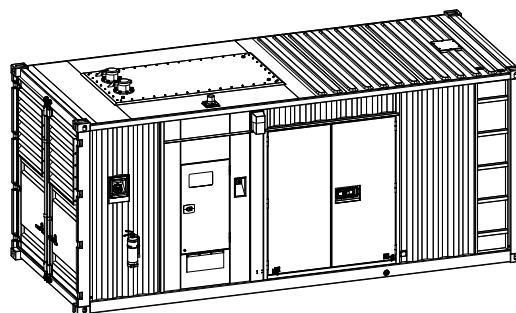
2 General Features

- Cummins engine KTA38-G2A
- Close coupled to Leroy somer alternator LSA49.3L9
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 1600A, 4P
- Rotate speed governor: Electrical governor
- Excitation System: AREP
- A.V.R.Model: D350
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 4x12V/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 for 7 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operation Manual / Specifications

3 Equipment

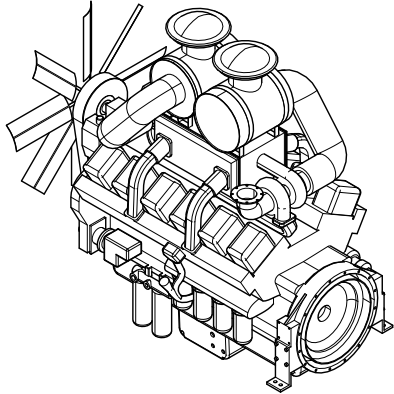
General technical data



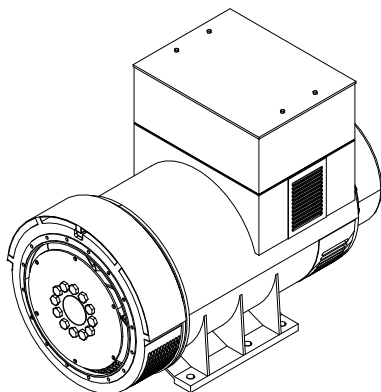
Model.....PR990C-SAE
 Structure type C
 Tank capacity.....1450L
 Dry weight..... 11722kg
 Noise level @7m 79.3dBA
 Dimensions L×W×H..... 6058x2438x2591mm
 Standby Power 990kVA/792kW
 Prime Power 900kVA/720kW

Voltage	380V	400V	415V		
Ampere	1367A	1299A	1252A		
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	49	96	147	191	210

Power System

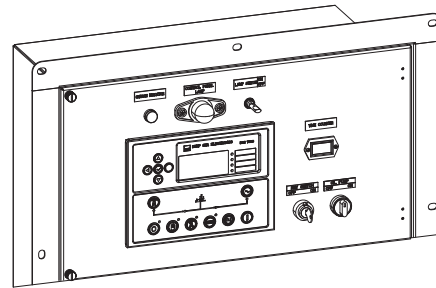


Engine Manufacturer/Brand.....	Cummins
Engine Model.....	KTA38-G2A
Dimensions L×W×H.....	2265.0*1379*2231.9
Dry Weigh (approx.).....	3723kg
Number of Cylinders.....	12
Bore.....	159mm
Stroke.....	159mm
Displacement.....	37.5L
Compression Ratio.....	14.5
Type of injection.....	Direct injection
Intake System.....	Turbo charged
Intake Resistance.....	6.23kPa
Cooling System.....	Water cooled
Fan.....	Pusher
Battery Voltage.....	24V
Type of Fuel.....	No.2 or ASTM D975
Type of Oil.....	CF4/SG15W-40
Oil Capacity.....	135L
Type of Coolant.....	Glycol mixture
Coolant Capacity.....	194L
Back Pressure.....	≤10kPa
Standby Power.....	.895kW
Prime Power.....	.813kW
Fuel Consumption(100%load).....	191L/h



Alternator Manufacturer/Brand.....	Leroy somer
Alternator Model.....	LSA49.3L9
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.....	2.18m³/s(50Hz),2.63m³/s(60Hz)
Voltage Regulation.....	±0.5%
Total Harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<50

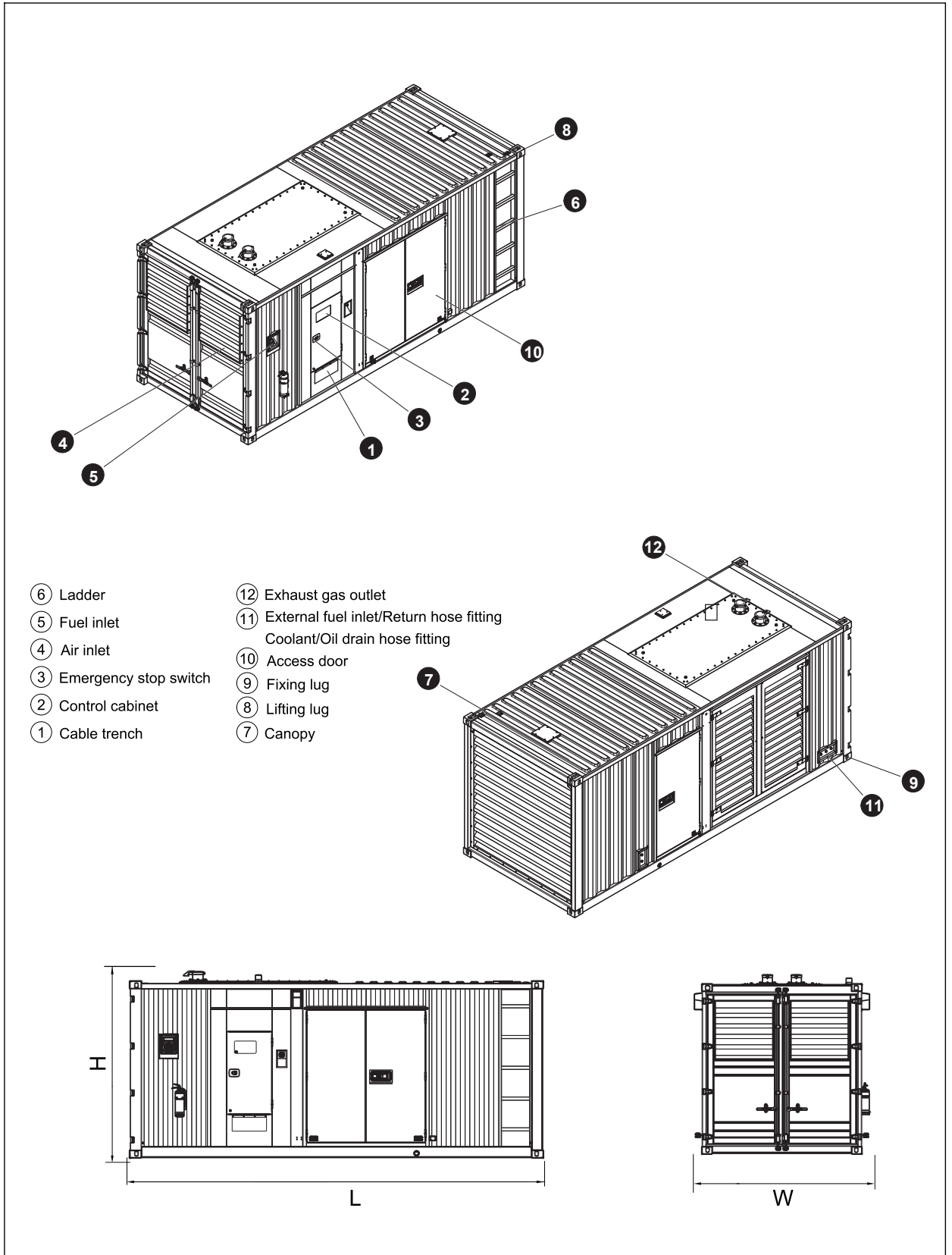
PLC-7420 Control System



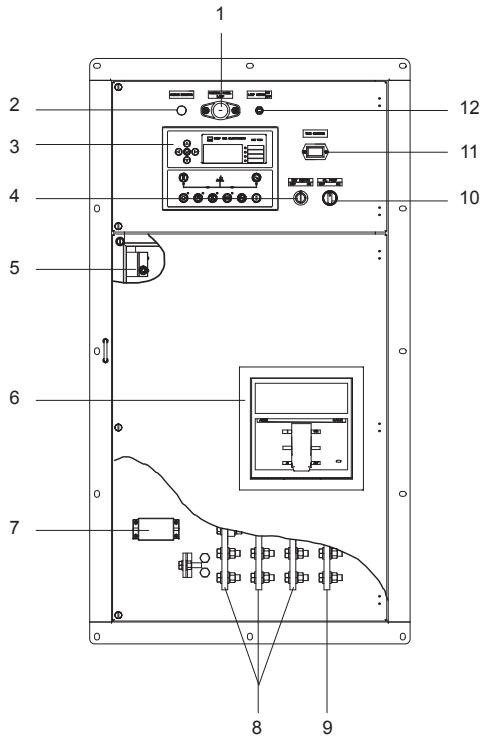
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

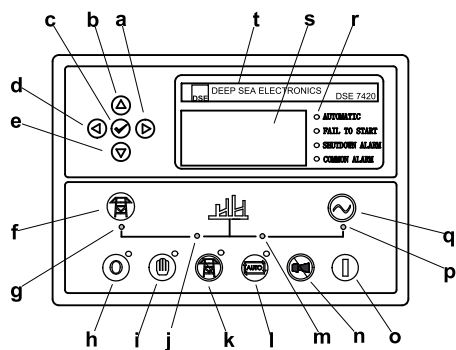
4 Overall Dimensions



5 Control System



Control & field wiring cabinet



Control module

Ref.	Description
1	Control cabinet lamp
2	Charge indicator
3	Control module
4	Key switch
5	Limit switch
6	Main circuit breaker
7	Mains input/remote communication connector
8	Live wire terminal
9	Neutral wire terminal
10	Oil pump
11	Time counter
12	Control cabinet lamp switch

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