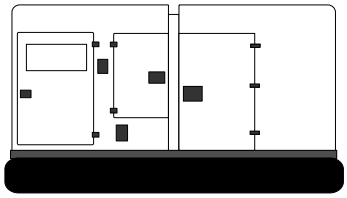
PRPOWER



Generator set

Sound-proof type

PR200C-SAE

SPECIFICATIONS

www.prpower.com | 1300 399 499

Rev. [Jan].[2024]

Cummins series
PR200C-SAE
50 Hz @ 1500rpm,3-phase/4-wiring

1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- ISO8528-5:2005
- GB/T2820.5-2009
- AS 3000-1997
- AS 3010.1-1988

Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25℃ to 45℃.The coolant heater is needed when the temperature is below 5℃
- Humidity: Less than 80%.
- 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

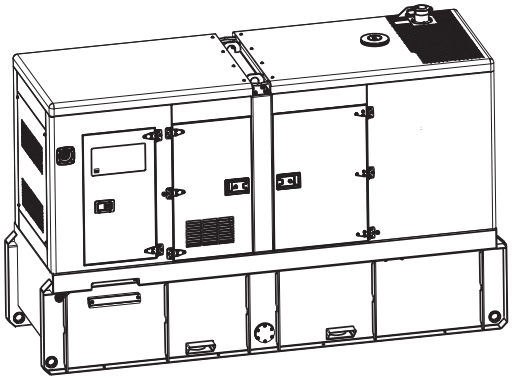
- Painting process specifications and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

2 General Features

- Cummins engine 6CTA8.3-G2
- Close coupled to LSA alternator LSA44.3VL13
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 320A,4P
- Rotate speed governor: EFC
- Excitation system: Self excited
- A.V.R model: R250
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 2x12V sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 50℃ 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 23 hours running
- Drain points for fuel tank
- Operation Manual / Parts List/ Specifications

3 Equipment Specification

General technical data



Model..... PR200C-SAE

Structure type ..... R

Tank capacity..... 1000L

Dry weight..... 2780kg

Noise level @7m 72.5dBA

Dimensions L×W×H.....3438x1100x2181mm

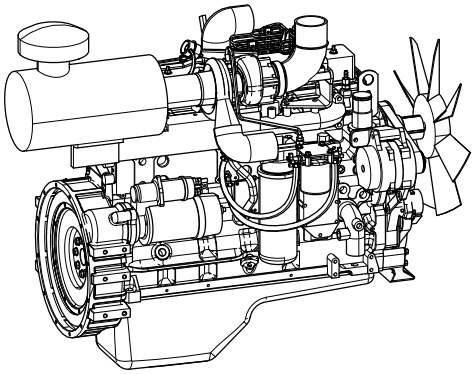
Standby Power 200kVA/160kW

Prime Power..... 180kVA/144kW

Voltage	380V	400V	415V	440V
Ampere	273.4A	260.0A	250.4A	236.2A

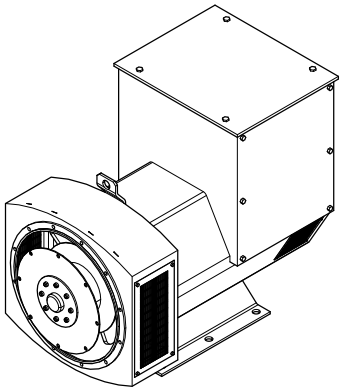
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	13	21	31	42	48

Diesel Engine



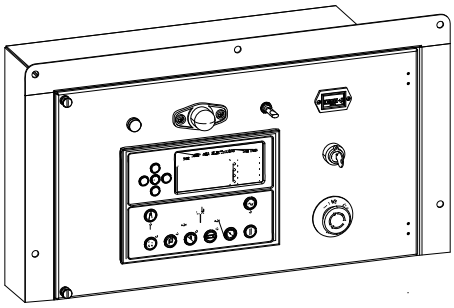
Engine Manufacturer/Brand.....Cummins
Engine Model.....6CTA8.3-G2
Dimensions L×W×H.....N/A
Dry Weigh (approx.) 637kg
Number of Cylinders.....6
Bore 114mm
Stroke 135mm
Displacement.....8.3L
Compression Ratio 17.3
Type of injection..... Direct injection
Intake System.....Jacket water Aftercooled
Intake Resistance .....≦6.28kPa
Cooling System .....Water cooled
Fan ..... Pusher
Battery Voltage 24V
Type of Fuel.....Diesel
Type of Oil .....ACEA E2, API CF, CF-4, CG-4
Oil Capacity 10.9L
Type of Coolant .....Glycol mixture
Coolant Capacity(Engine Only) 12.3L
Back Pressure .....≦10.1kPa
Standby Power 180kW
Continuous Power 163kW
Fuel Consumption(100%load).....212g/kW.h

Alternator



Alternator Manufacturer/Brand ..... LSA
Alternator Model LSA44.3VL13
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..... 0.514m³/s(50Hz),0.617m³/s(60Hz)
Voltage Regulation .....±1.0%
Total Harmonic TGH / THCat no load < 1.5 % - on load < 5%
Telephone Interference..... THF<2%;TIF<50

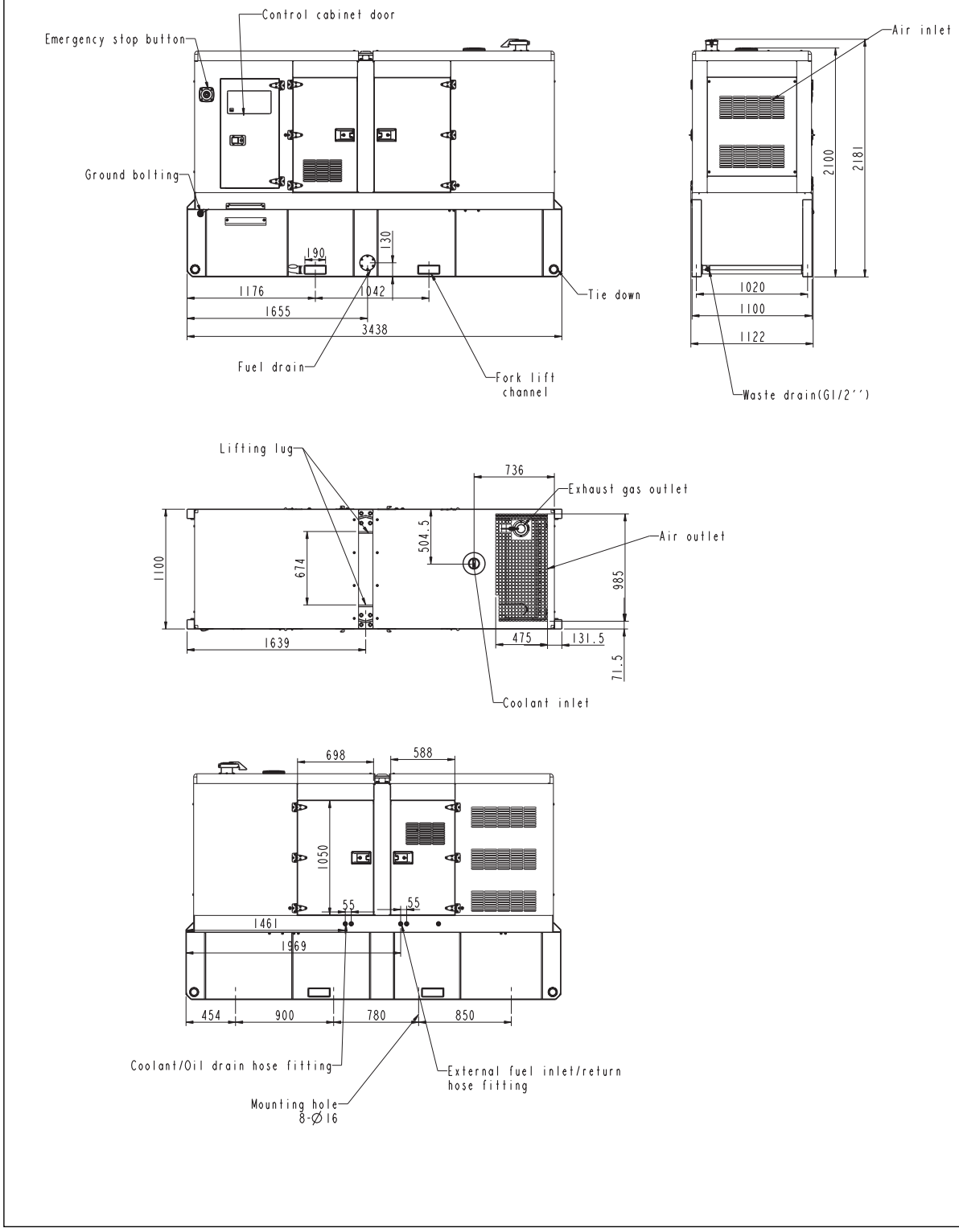
PLC-7420 Control System



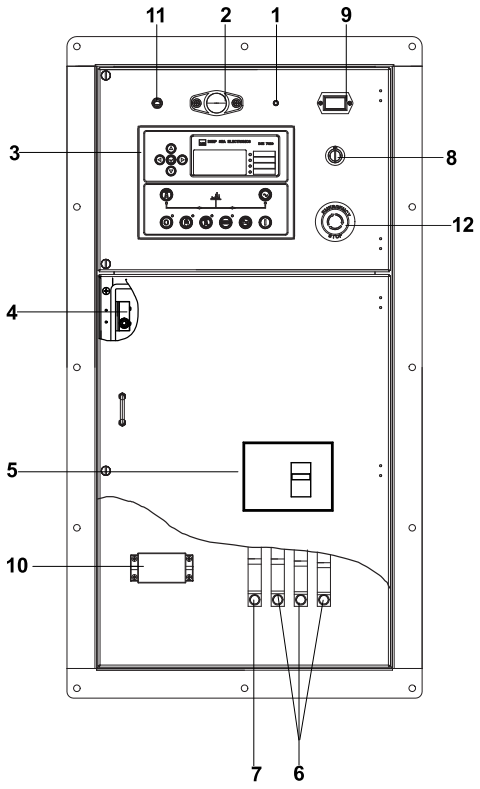
PLC-7420 is an advanced control module based on microprocessor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

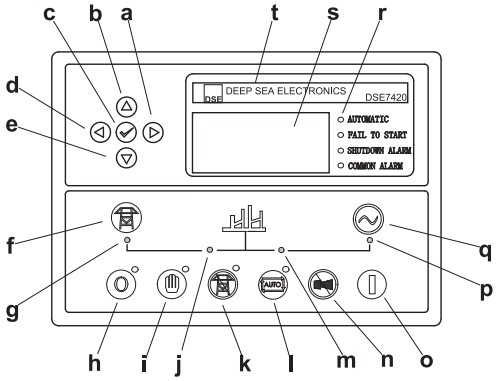


5 Control System



Control & field wiring cabinet

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



Control module

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