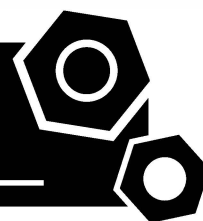


Generator set
Sound-proof type
PR165C-SAE

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. [August].[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.

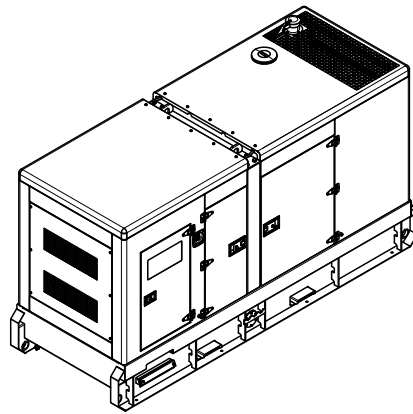
2 General Features

- Cummins engine 6BTAA5.9-G12
- Close coupled to LSA alternator LSA44.3L10
- Microprocessor control module PLC-7420
- Main circuit breaker: 250A
- Rotate speed governor: Electrical governor
- Excitation system: AREP
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle

- 2x12V/120AH Sealed for life maintenance free battery
- Lockable battery isolator switch
- 50°C radiator
- Oil pump on the engine
- Steel base frame with lifting lugs
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 32 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

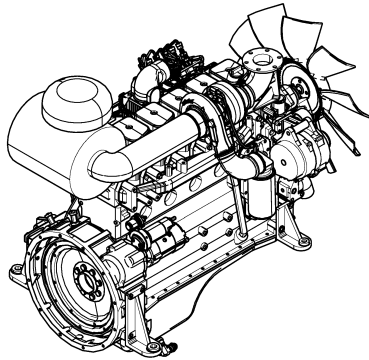
General technical data



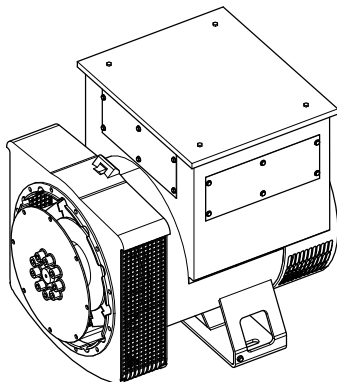
Model..... PR165C-SAE
 Structure typeR
 Tank capacity.....1100L
 Dry weight.....2533.95kg
 Noise level @7m 71.8dBA
 Dimensions L×W×H.....3308x1172x2246mm
 Standby Power 165kVA/132kW
 Prime Power 150kVA/120kW
 Voltage/Ampere 415V/209A

Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	10	17	26	34	38

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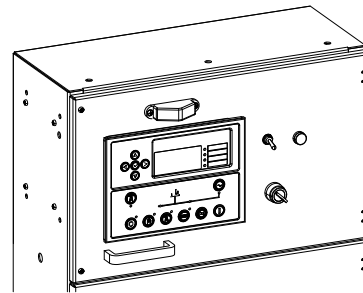


Engine Manufacturer/Brand	Cummins
Engine Model	6BTAA5.9-G12
Dimensions L×W×H.....	1215.8*730.5*1153.6
Dry Weigh (approx.)	653kg
Number of Cylinders.....	6
Bore.....	102mm
Stroke	120mm
Displacement.....	5.9L
Compression Ratio	17.3
Type of injection.....	Direct injection
Intake System.....	Turbocharged,water-to-air charge cooled
Intake Resistance	≤6.28kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	12/24V
Type of Fuel.....	Diesel
Type of Oil	ACEA E2, API CF, CF-4, CG-4
Oil Capacity	16.4L
Type of Coolant	Glycol mixture
Coolant Capacity	10.0L
Back Pressure	≤10.1kPa
Standby Power	155kW
Prime Power	140kW
Fuel Consumption(100%load).....	203g/kW.h



Alternator Manufacturer/Brand	Leroy Somer
Alternator Model	LSA44.3L10
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.....	0.216m³/s(50HZ),0.281m³/s(60HZ)
Voltage Regulation	±1.0%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<50

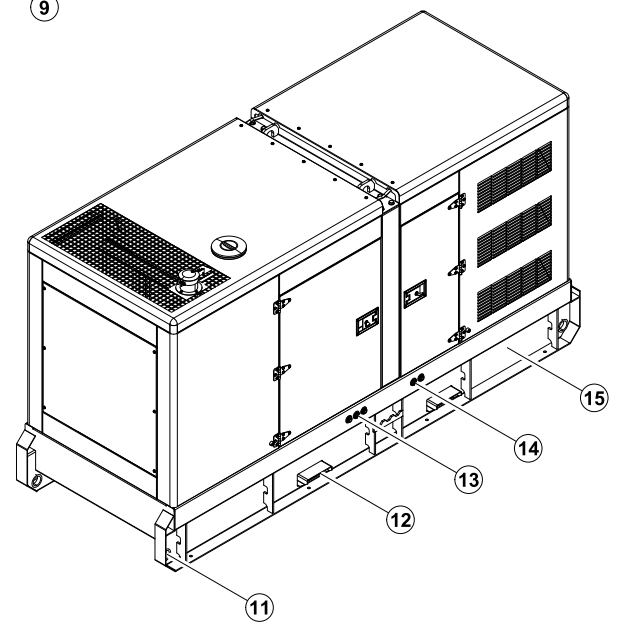
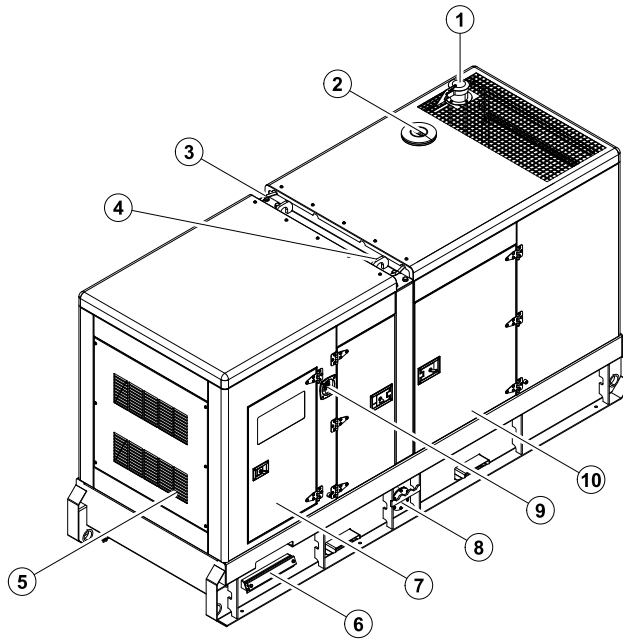
PLC-7420 Control System



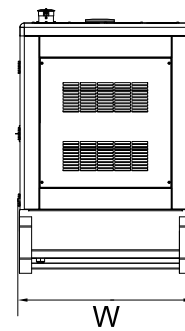
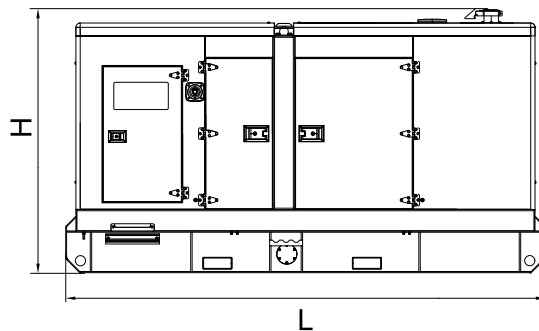
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

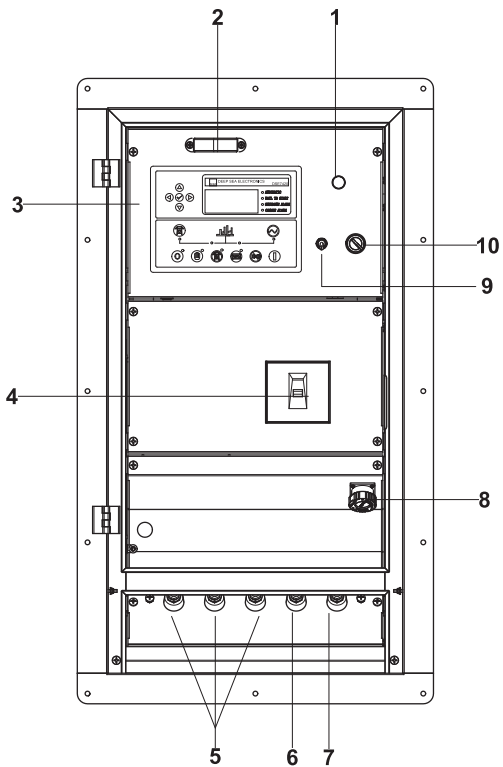
4 Overall Dimensions



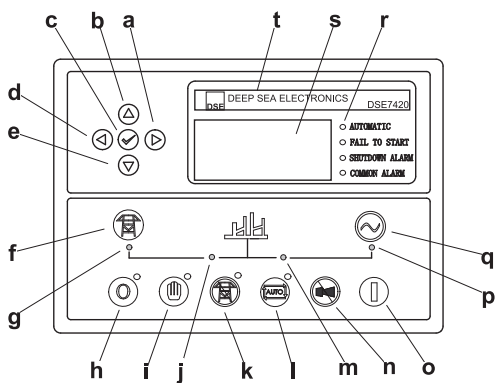
- | | |
|----------------------|---|
| ⑧ Fuel drain | ⑮ Base frame |
| ⑦ Control cabinet | ⑭ Coolant / oil drain hose fitting |
| ⑥ Cable trench | ⑬ External fuel inlet/return hose fitting |
| ⑤ Air inlet | ⑫ Fork lift channel |
| ④ Lifting lug | ⑪ Tie down |
| ③ Roping lug | ⑩ Access door |
| ② Coolant inlet | ⑨ Emergency stop switch |
| ① Exhaust gas outlet | |



5 Control System



Control & field wiring cabinet



Control module

Ref.	Description
1	Charge indicator
2	Control panel lamp
3	XC762 control module
4	Main circuit breaker
5	Live wire terminals
6	Neutral wire terminal
7	Ground wire terminal
8	Mains input/ remote/AMF communication connector
9	Control panel lamp switch
10	Key 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