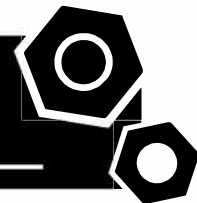


Generator set
Sound-proof type
PR46C-SAE

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. [March].[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 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.

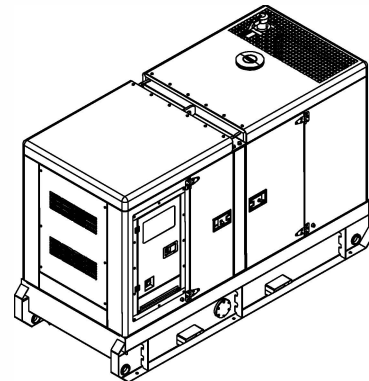
2 General Features

- Cummins engine 4BT3.9-G2
- Close coupled to LSA alternator LSA42.3M7
- Microprocessor control module PLC-7420
- Main circuit breaker: 63A
- Rotate speed governor: EFC
- Excitation System: Self Excited, SHUNT
- A.V.R. Model: R220
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle

- Remote run connector
- 2x12V/72AH 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 forkslots
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 21 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

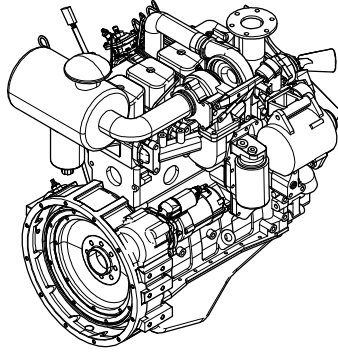
General technical data



Model.....	PR46C-SAE
Structure type	R
Tank capacity.....	270L
Dry weight.....	1404kg
Noise level @7m	67.0dBA
Dimensions L×W×H.....	2588x1081x1708mm
Standby Power	47kVA/37kW
Prime Power	43kVA/34kW
Voltage/Ampere	415V/59.8A

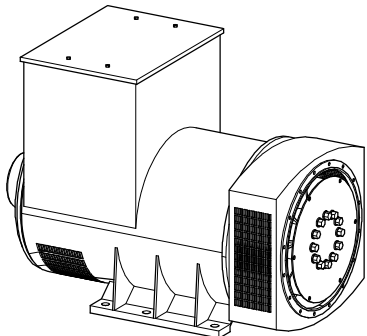
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	3.4	5.3	7.3	9.3	10.3

Diesel Engine



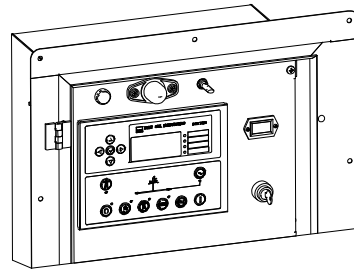
Engine Manufacturer/Brand.....	Cummins
Engine Model.....	4BT3.9G2
Dimensions L×W×H.....	889*703.6*1058.2
Dry Weigh (approx.)	321kg
Number of Cylinders.....	4
Bore	102mm
Stroke	120mm
Displacement.....	3.9L
Compression Ratio	18
Type of injection.....	Direct injection
Intake System.....	Turbocharger
Intake Resistance.....	≤3.7kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	12/24V
Type of Fuel.....	No.2 or ASTM D2
Type of Oil	API CD/SE or CCMCD4
Oil Capacity	10.9L
Type of Coolant	Glycol mixture
Coolant Capacity (Engine Only)	7.2L
Back Pressure	≤10.0kPa
Standby Power	40kW
Prime Power.....	36kW
Fuel Consumption(100%load).....	214g/kW,h

Alternator



Alternator Manufacturer/Brand	LSA
Alternator Model	LSA42.3M7
Exciter.....	Brushless
Cooling Fan	Plastic
Windings.....	100% copper
Insulation Class	H
Winding Pitch.....	2/3
Terminals	12
Drip Proof	IP23
Altitude.....	≤1000m
Overspeed	2250rpm
Air Flow.....	0.135m³/s(50HZ),0.165m³/s(60HZ)
Voltage Regulation	±1.0%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<50

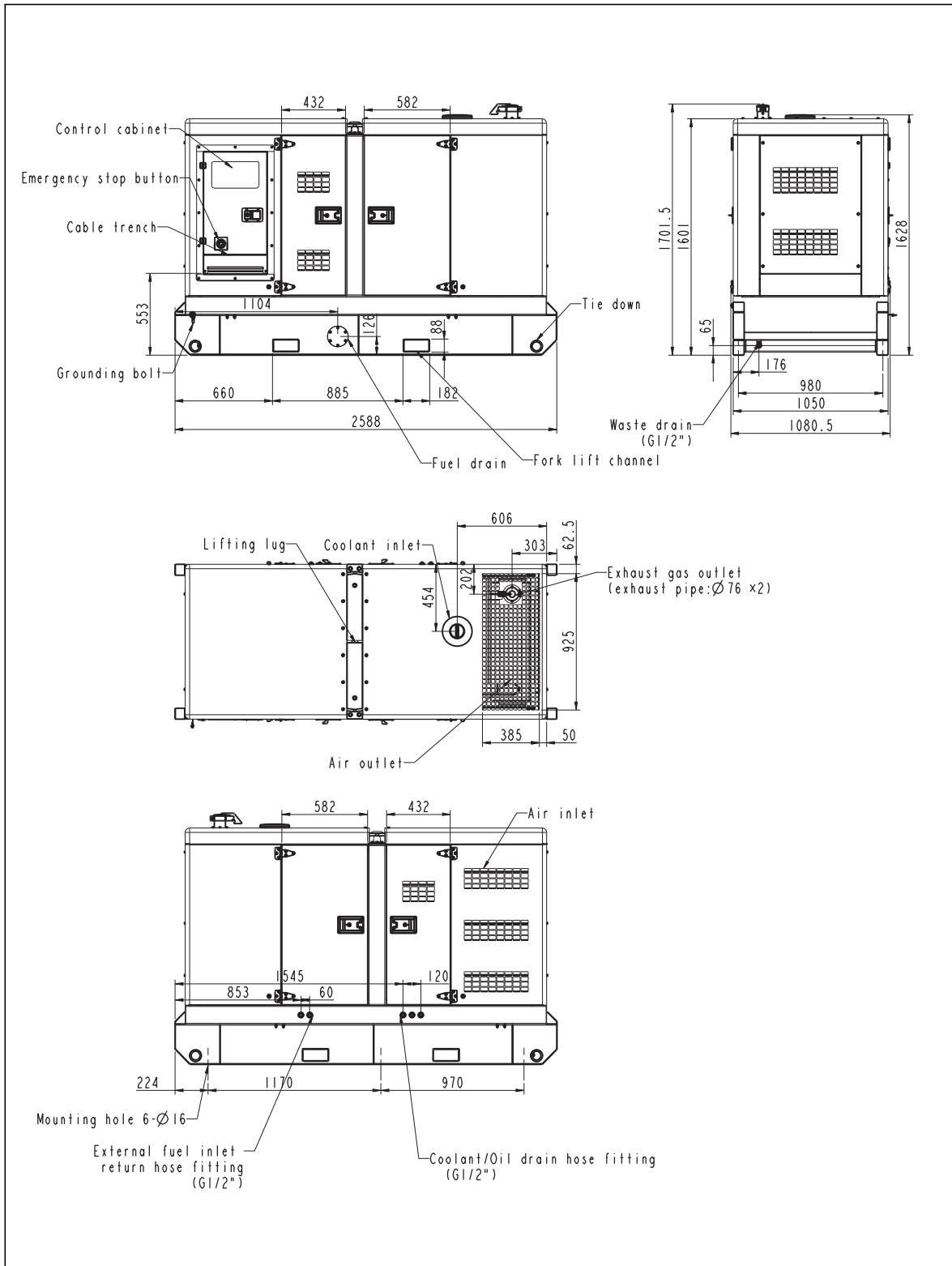
PLC-7420 Control System



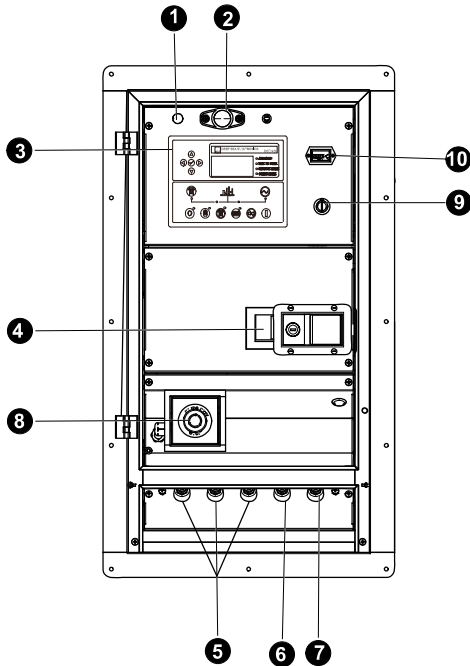
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

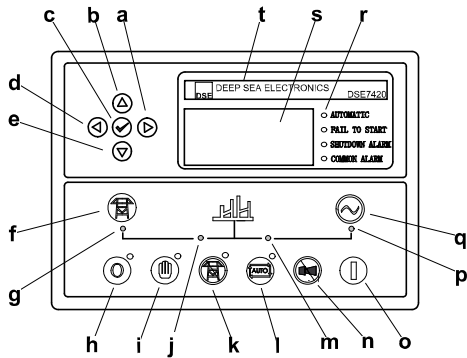
4 Overall Dimensions



5 Control System



Control & field wiring cabinet



Control Panel

Ref.	Description
1	Charge indicator
2	Control cabinet lamp
3	Control module
4	Main circuit breaker
5	Live wire terminals
6	Neutral wire terminal
7	Ground wire terminal
8	Emergency stop button
9	Key switch
10	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