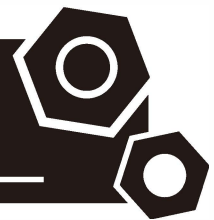


# **Generator set**

## **Sound-proof type**

### **PR385C-SAE**

# **SPECIFICATIONS**



**[www.prpower.com](http://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 European (CE)
- China Compulsory Certification (CCC)
- 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°C to 45°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.

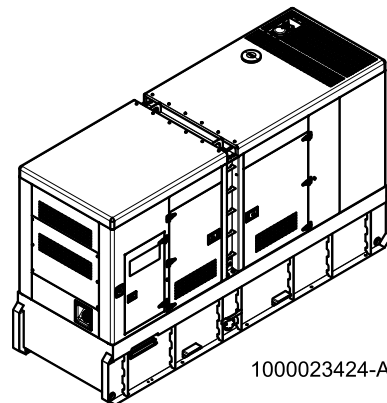
## 2 General Features

- Cummins engine NTA855-G4
- Close coupled to a LSA alternator LSA46.3L10
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 630A
- Rotate speed governor: Electrical governor
- Excitation System: Self Excited,SHUNT
- A.V.R.Model: AS440
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- Remote run connector

- 2x12V/120AH 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 forklifts
- 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

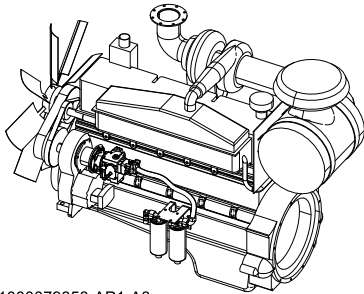


1000023424-AP1-C6

Model.....	PR385C-SAE
Structure type .....	R
Tank capacity.....	1650L
Dry weight.....	4790kg
Sound pressure level @ 7m .....	75.7dBA
Dimensions L×W×H.....	4242x1423x2426mm
Standby Power .....	385kVA/308kW
Prime Power.....	350kVA/280kW
Voltage/Ampere.....	415V/486.9A

Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	21	39	57	76	84

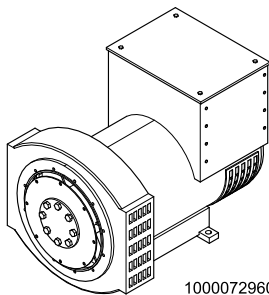
## Diesel engine



1000079858-AP1-A3

Engine Manufacturer/Brand.....	Cummins
Engine Model.....	NTA855-G4
Dimensions L×W×H.....	N/A
Dry Weight (approx.) .....	1410Kg
Number of Cylinders.....	6
Bore.....	140mm
Stroke.....	152mm
Displacement.....	14L
Compression Ratio.....	14
Type of injection.....	Direct injection
Intake System.....	Turbocharged
Intake Resistance.....	≤6.25kPa
Cooling System .....	Water cooled
Fan .....	Pusher
Battery Voltage.....	24V
Type of Fuel.....	No.2-D per ASTM D975
Type of Oil .....	API CD/SE or CCMCD4
Oil Capacity .....	38.6L
Type of Coolant .....	Glycol mixture
Coolant Capacity.....	60.6L
Heat Rejected To Exhaust System. 198kW(11280BTU/min)	
Heat Rejected To Water&Oil.....	238kW(13530BTU/min)
Back Pressure.....	≤10kPa
Standby Power .....	351kW
Prime Power.....	317kW
Fuel Consumption(100%load).....	197.2g/kW.h

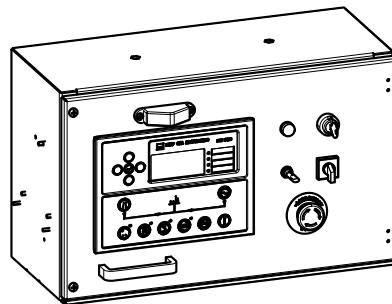
## Alternator



1000072960-AP1-A1

Alternator Manufacturer/Brand .....	Leroy Somer
Alternator Model .....	LSA46.3L10
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 .....	2250rpm
Air Flow.....	0.8m³/s(50HZ),0.99m³/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



1000177378-AP1-D3

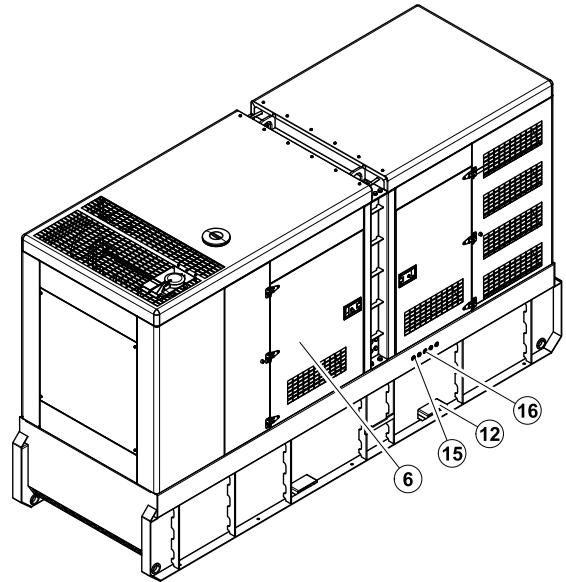
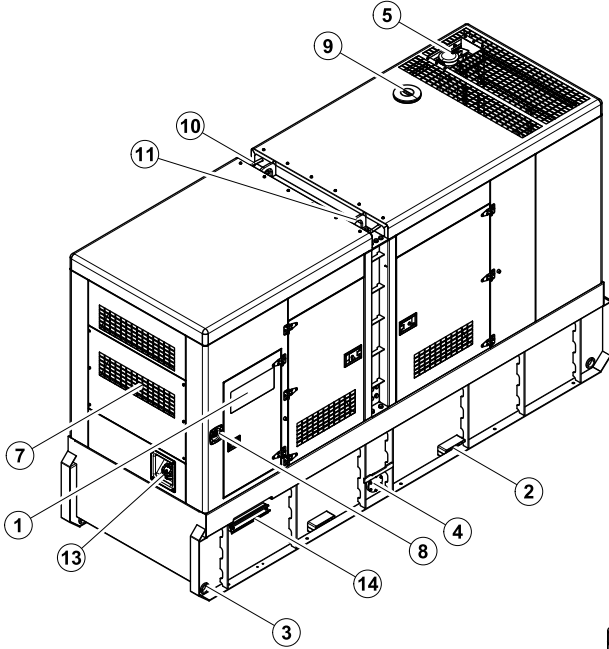
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

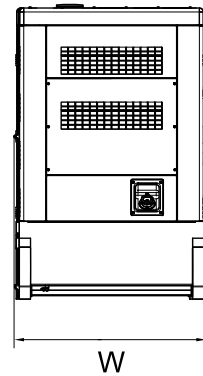
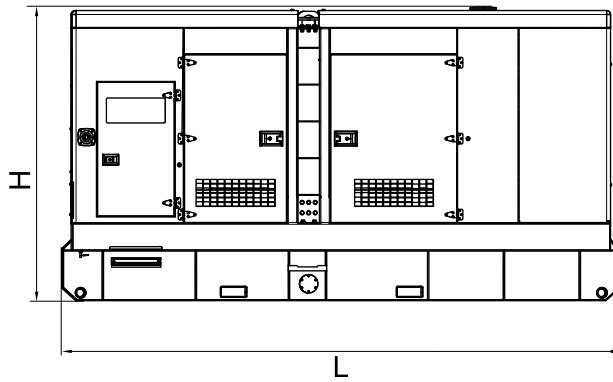
## Overall Dimensions

1000023424-DR1-C6

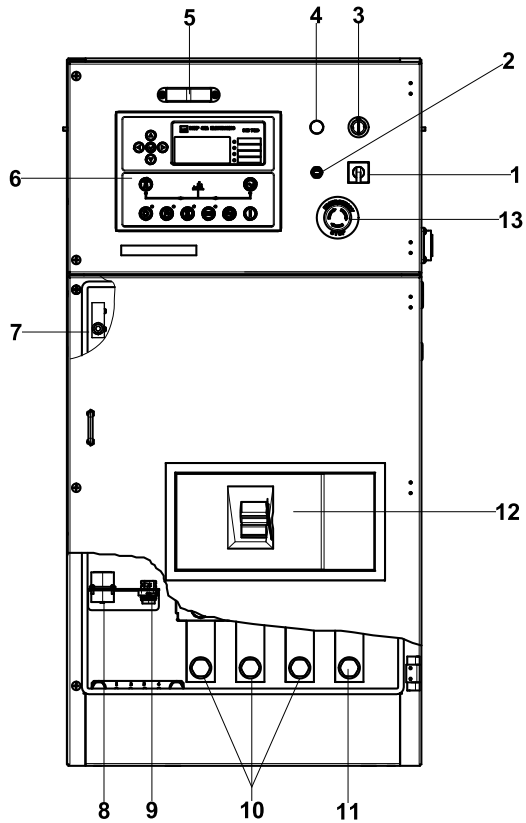
Dry weight	4786kg
Fuel tank capacity	1650L
Dimensions L x W x H	4242x1423x2426mm



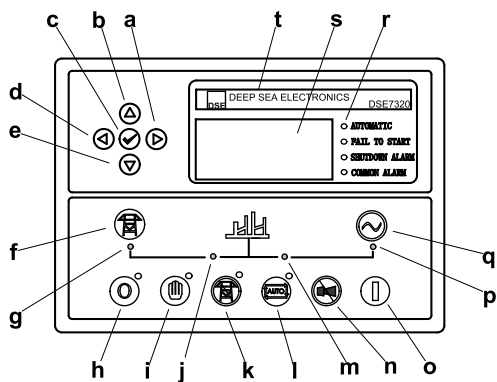
- ⑧ Emergency stop switch
- ⑦ Air inlet
- ⑥ Access door
- ⑤ Exhaust gas outlet
- ④ Fuel drain
- ③ Tie down
- ② Base frame
- ① Control cabinet
- ⑩ External fuel inlet/return hose fitting
- ⑨ Coolant/Oil drain hose fitting
- ⑭ Cable trench
- ⑬ Fuel inlet
- ⑫ Fork lift channel
- ⑪ Lifting lug
- ⑮ Roping lug
- ⑯ Coolant inlet



## 4 Control System



**Control & Field wiring cabinet**



**Control module**

Ref.	Description
1	Mains input changeover switch
2	Control cabinet lamp switch
3	Key switch
4	Charge indicator
5	Control cabinet lamp
6	Control module
7	Limit switch
8	ATS connector
9	Remote run connector
10	Live wire terminals
11	Neutral wire terminal
12	Main circuit breaker
13	Emergency stop 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