

# SPECIFICATIONS

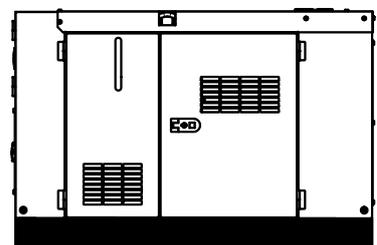
# Potise

**DP45C5S-AU**

**SOUND-PROOF TYPE**

**DIESEL GENERATOR SET**

[www.potise.com](http://www.potise.com)



## 1 Standards & Conditions

### Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (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.

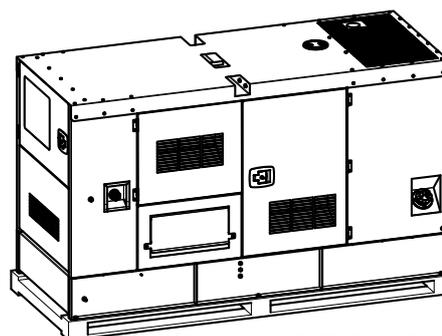
## 2 General Features

- Cummins engine 4BT3.9-G1
- Close coupled to a Stamford alternator PI144k
- Microprocessor control module PLC-220
- SCHNEIDER main circuit breaker: 63A
- RCD.
- Rotate speed governor: Mechanical governor
- Excitation system: Self excited,SHUNT
- A.V.R model: AS480
- Key switch

- Emergency stop switch
- ATS(automatic transfer switch)receptacle
- Remote run connector
- 2x12V/60AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 50°C radiator
- Steel base frame
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 9 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

## 3 Equipment Specification

### General technical data

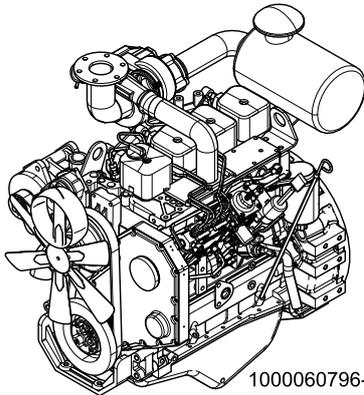


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Model.....	DP45C5S-AU
Tank capacity.....	98L
Dry weight.....	1096kg
Sound pressure level @ 7m.....	62dB(A)
Sound power acc. 2000/14/EC.....	89.8dB(A)
Dimensions L×W×H.....	2400×970×1466mm
Standby Power.....	47kVA/37.6kW
Prime Power.....	42.5kVA/34kW
Voltage/Ampere.....	415V/59.2A

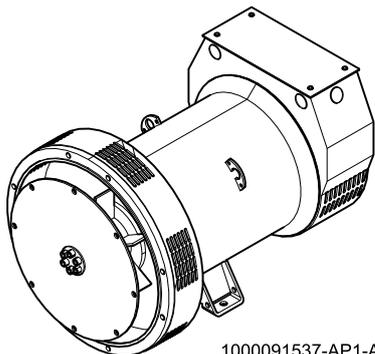
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	5	7.5	10	13	14

## Power System



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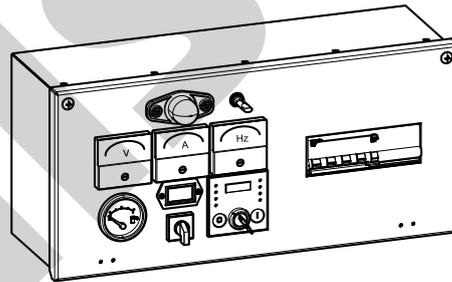
Engine Manufacturer/Brand.....	Cummins
Engine Model.....	4BT3.9G1
Dimensions L×W×H.....	N/A
Dry Weigh (approx.).....	321kg
Number of Cylinders.....	4
Bore.....	102mm
Stroke.....	120mm
Displacement.....	3.9L
Compression Ratio.....	N/A
Type of injection.....	Direct injection
Intake System.....	Turbo charged
Intake Resistance.....	6.2kPa
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.....	20.8L
Back Pressure.....	≤10.1kPa
Standby Power.....	40kW
Prime Power.....	36kW
Fuel Consumption(100%load).....	214g/kW.h



1000091537-AP1-A1

Alternator Manufacturer/Brand.....	Stamford
Alternator Model.....	PI144K
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.....	0.135m <sup>3</sup> /s(50HZ),0.165m <sup>3</sup> /s(60HZ)
Voltage Regulation.....	±1.0%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<50

## PLC-220 Control System



1000196305-AP1-A1

PLC-220 is designed to control the engine via a two position key switch on the front panel. The unit is used to start and stop the engine and provides automatic shutdown on detection of a fault condition. LEDs provide automatic indication of fault conditions and engine failure, giving true first up fault annunciation. In addition, it is configured with overspeed protection, a built-in running hours display and stop button.

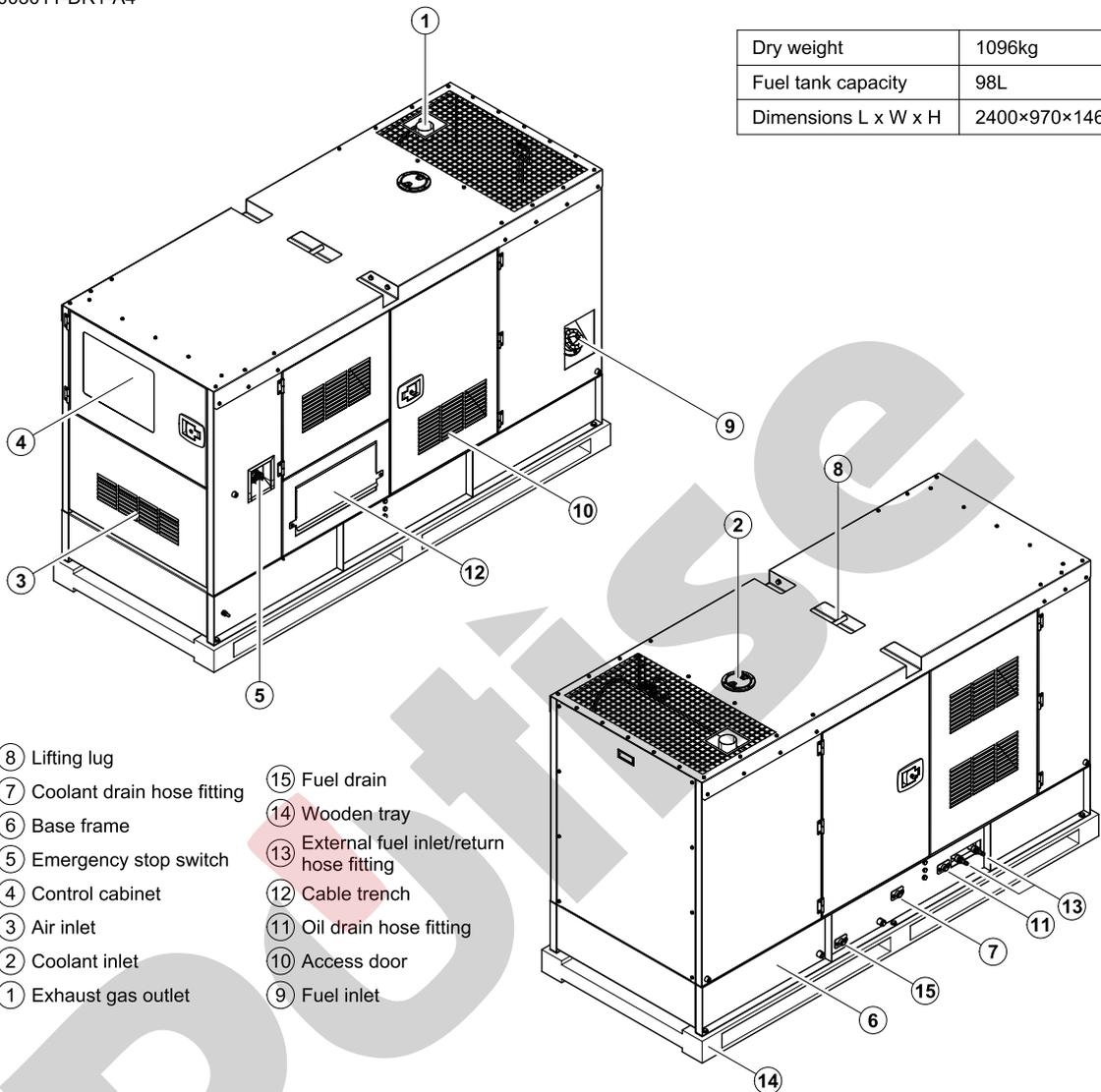
### Standard Control Function

- Start/stop engine
- Remote start
- Low oil pressure (shutdown)
- High water temperature (shutdown)
- Charge failure (shutdown)
- Overspeed (shutdown)
- Overvoltage (shutdown)
- Overfrequency (shutdown)
- Low water level (shutdown)
- Auxiliary shutdown (optional)

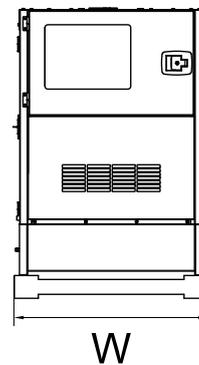
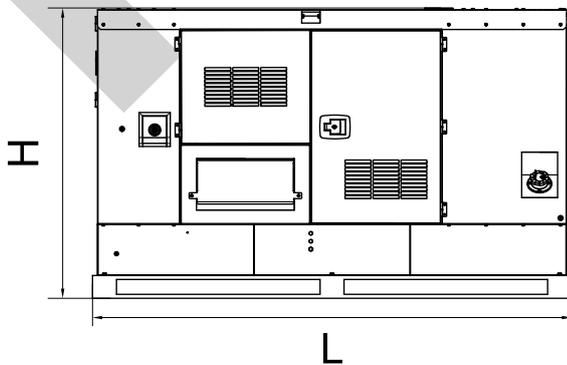
## 4 Overall Dimensions

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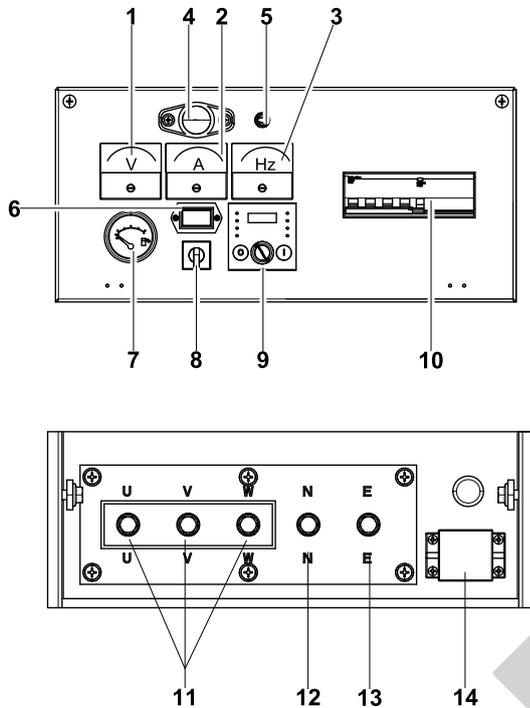
Dry weight	1096kg
Fuel tank capacity	98L
Dimensions L x W x H	2400×970×1466mm



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

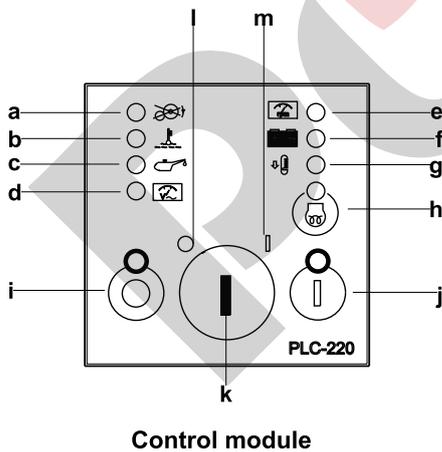


## 5 Control System



Ref.	Description
1	Voltage meter
2	Current meter
3	Frequency meter
4	Control cabinet lamp
5	Control cabinet lamp switch
6	Time counter
7	Fuel level meter
8	Remote start selector
9	Control module
10	Main circuit breaker
11	Live wire terminal
12	Neutral wire terminal
13	Ground wire terminal
14	Remote control/Mains input

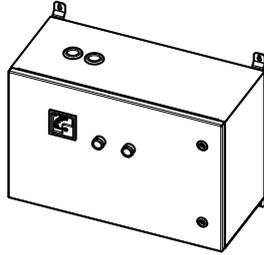
### Control & field wiring cabinet



a	Over frequency protection LED
b	High water temperature protection LED
c	Low oil pressure protection LED
d	Over voltage protection LED
e	Over speed protection LED
f	Charge failure warning LED
g	Low water level LED
h	Preheat button LED
i	Button (stop)
j	Button (start)
k	Control module key switch
l	OFF position
m	START position

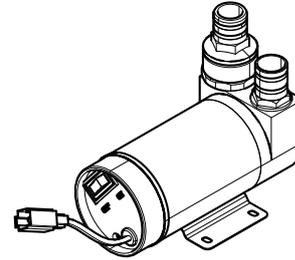
## 6 Optional Accessories

### 1. ATS Cabinet



- Adopt advanced ATS with high quality
- High reliability, high stability, ease of operation

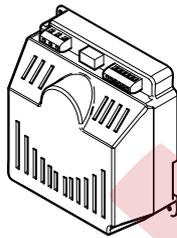
### 2. Automatic Oil Drain Pump



- Drain the oil from engine automatically
- Easy to operate with inching switch

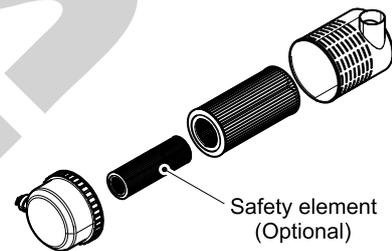
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### 3. Battery Charger



- Switch power supply structure, wide input alternating voltage range, small size, light weight, high efficiency rate
- Short-circuit protection

### 4. Double Layer Air Filter



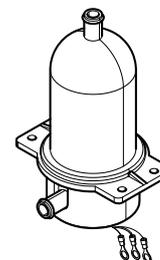
- Air filter with safety element
- High filtration precision and filtering ability

### 5. Spark Arrestor



- Any explosive exhaust particles can be captured in dangerous environment.

### 6. Water Jacket Preheat Unit



- Water jacket preheat unit should be used to start the engine quickly if the temperature is lower than 5°C
- The preheat unit is equipped with a thermostat

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Potise

<http://www.potise.com>

*Specification may change without prior notice. For more info.,  
contact Potise or your local distributors please.*