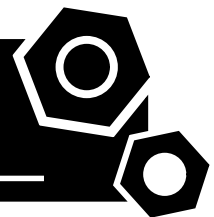


**Generator set**

**Open type**

**WPS1500**

# **SPECIFICATIONS**



## 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

### Environmental Operating Conditions

- Installation place: 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 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.

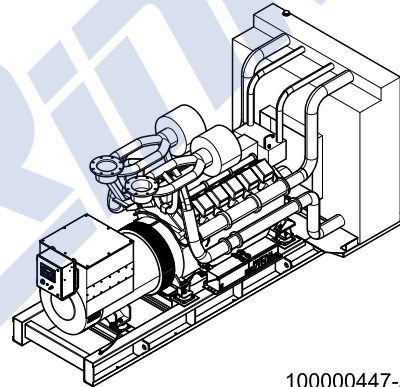
## 2 General Features

- Perkins engine 4012-46TAG2A
- Close coupled to a Leroy Somer alternator LSA50.2L8
- Microprocessor control module PLC-7320
- Rotate speed governor: Electronic fuel injection governor
- Excitation System: AREP
- A.V.R.Model: R448
- Key switch
- Emergency stop switch

- ATS (automatic transfer switch) receptacle
- 2x12V/150AH sealed for life maintenance free battery
- Lockable battery isolator switch
- 50°C radiator
- Oil pump on the engine
- Steel base frame with lifting lug
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Operation Manual / Specifications

## 3 Equipment Specification

### General technical data



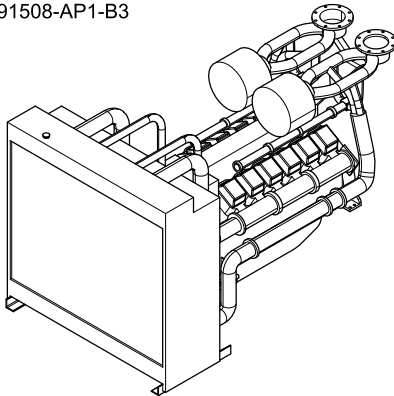
100000447-AP1-C2

Model.....WPS1500  
 Structure type ..... A  
 Dry weight.....9901kg  
 Noise level @7m .....N/A  
 Dimensions L×W×H.....5167×2192×2410mm  
 Standby Power ..... 1575kVA/1260kW  
 Prime Power..... 1500kVA/1200kW

Voltage	380V	400V	415V	440V	
Ampere	2279A	2168A	2087A	1968A	
<b>Genset Fuel Consumption</b>					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	162.0	237.0	301.0	335.0

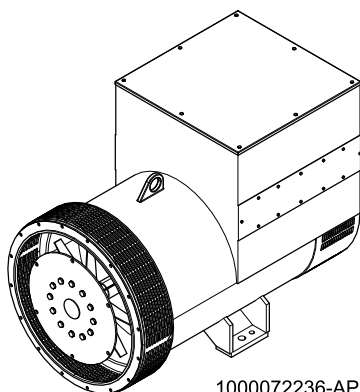
## Diesel Engine

1000091508-AP1-B3



Engine Manufacturer/Brand.....	Perkins
Engine Model.....	4012-46TAG2A
Dimensions L×W×H.....	3971×2192×2260mm
Dry Weigh (approx.).....	6000kg
Number of Cylinders.....	12
Bore.....	160mm
Stroke.....	190mm
Displacement.....	45.84L
Compression Ratio.....	13
Type of Injection.....	Direct injection
Intake System.....	Turbocharged
Intake Resistance.....	≤0.4kPa
Cooling System.....	Water cooled
Fan.....	Pusher
Battery Voltage.....	24V
Type of Fuel.....	BS2869 1998 Class A2 or BS EN590
Type of Oil.....	API CH4 15W/40
Oil Capacity.....	177L
Type of Coolant.....	Glycol mixture
Coolant capacity.....	210L
Back Pressure.....	≤0.5kPa
Standby Power.....	1459kW
Prime Power.....	1331kW
Fuel Consumption(100%load).....	201g/kW.H

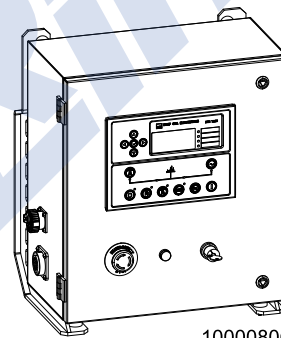
## Alternator



1000072236-AP1-A1

Alternator Manufacturer/Brand.....	Leroy Somer
Alternator Model.....	LSA50.2L8
Exciter.....	Brushless
Cooling Fan.....	Cast alloy aluminum
Windings.....	100% copper
Insulation Class.....	H
Winding Pitch.....	2/3
Terminals.....	6
Drip Proof.....	IP23
Altitude.....	≤1000m
Overspeed.....	2250rpm
Air Flow.....	1.8m³/s(50Hz),2.2m³/s(60Hz)
Voltage Regulation.....	±0.5%
Total harmonic TGH / THC.....	< 3.5%
Telephone Interference.....	THF<2%;TIF<50

## PLC-7320 Control System



1000080644-AP1-G4

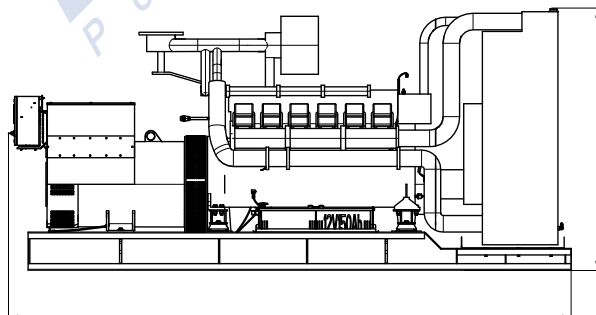
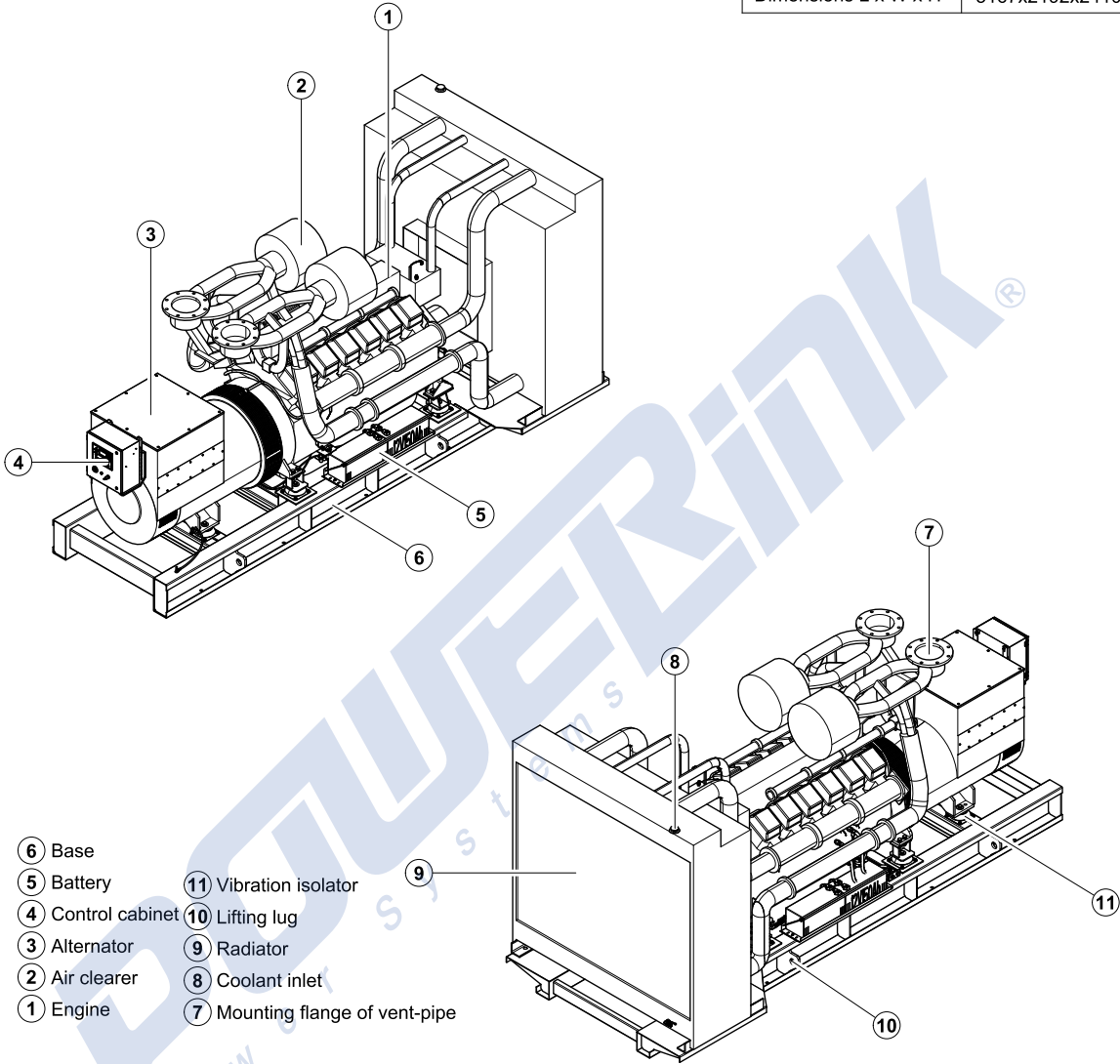
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

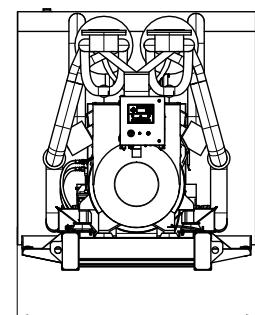
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Dry weight	9901kg
Dimensions L x W x H	5167x2192x2410mm



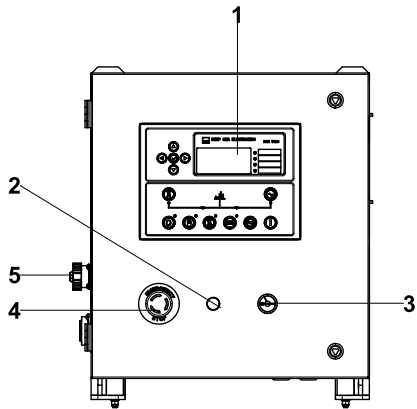
L

H

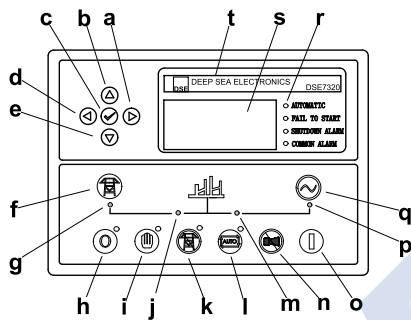


W

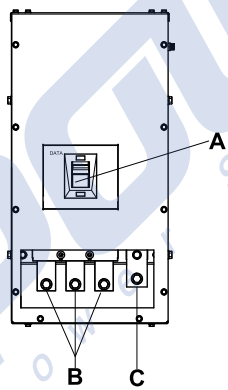
## 5 Control System



**Control cabinet**



**Control module**



**Field wiring cabinet**

1000080644-IT1-G4

Ref.	Description
1	Control module
2	Charge indicator
3	Key switch
4	Emergency stop switch
5	Mains input/remote/AMF communication connector

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

A	Main circuit breaker
B	Live wire terminals
C	Neutral wire terminal

100000447-C2-E
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01.2013
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