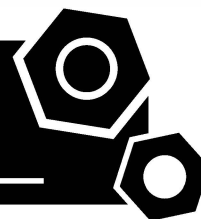


**Generator set**

**Sound-proof type**

**WPS45S-AU**

# **SPECIFICATIONS**



## 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.

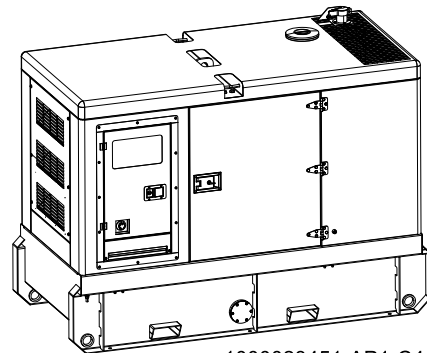
## 2 General Features

- Perkins engine 1103A-33TG1
- Close coupled to a Leroy Somer alternator LSA42.3M7
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 63A
- Rotate speed governor: Mechanical governor
- Excitation System: SHUNT
- A.V.R.Model: R220
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle

- Remote run connector
- 1x12V/72AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 50°C radiator
- Oil pump on the engine
- Steel base frame with forkslots
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 24 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operation Manual / Specifications

## 3 Equipment Specification

### General technical data



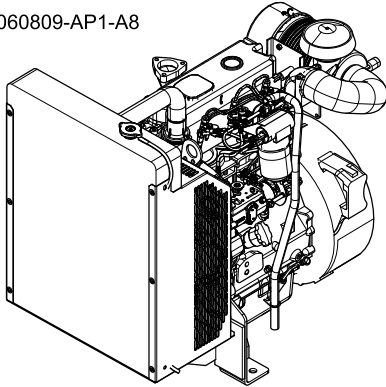
1000023451-AP1-C4

Model.....	WPS45S-AU
Structure type .....	R
Tank capacity.....	320L
Dry weigh.....	1390kg
Noise level @7m .....	67.8dBA
Dimensions L×W×H.....	2300x1115x1701mm
Standby Power .....	50kVA/40kW
Prime Power .....	45kVA/36kW
Voltage/Ampere .....	415V/63A

Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	3.4	5.7	8.2	10.7	12

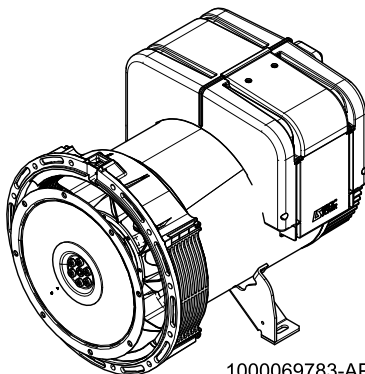
## Diesel Engine

1000060809-AP1-A8



Engine Manufacturer/Brand .....	Perkins
Engine Model .....	1103A-33TG1
Dimensions L×W×H.....	1049×634×951mm
Dry Weigh (approx.) .....	420kg
Number of Cylinders.....	3
Bore.....	105mm
Stroke .....	127mm
Displacement.....	3.3L
Compression Ratio .....	17.25
Type of Injection .....	Direct injection
Intake System.....	Turbocharged
Intake Resistance.....	≤8kPa
Cooling System .....	Water cooled
Fan .....	Pusher
Battery Voltage .....	12V
Type of Fuel.....	RF75-T-96 / DIN EN590 / BS2869 class A2
Type of Oil .....	API-CG4/ CH4
Oil Capacity .....	8.31L
Type of Coolant .....	Glycol mixture
Coolant Capacity .....	10.2L
Back Pressure .....	≤10kPa
Standby Power .....	46.5kW
Prime Power .....	42.2kW
Fuel Consumption(100%load).....	10.7L/h

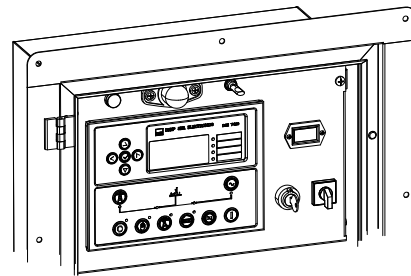
## Alternator



1000069783-AP1-B3

Alternator Manufacturer/Brand .....	Leroy Somer
Alternator Model .....	LSA42.3M7
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.....	0.10m³/s(50Hz),0.13m³/s(60Hz)
Voltage Regulation .....	±0.5%
Total harmonic TGH / THC at no load < 3 % - on load < 2%	
Telephone Interference.....	THF<2%;TIF<50

## PLC-7420 Control System



1000144406-AP1-G2

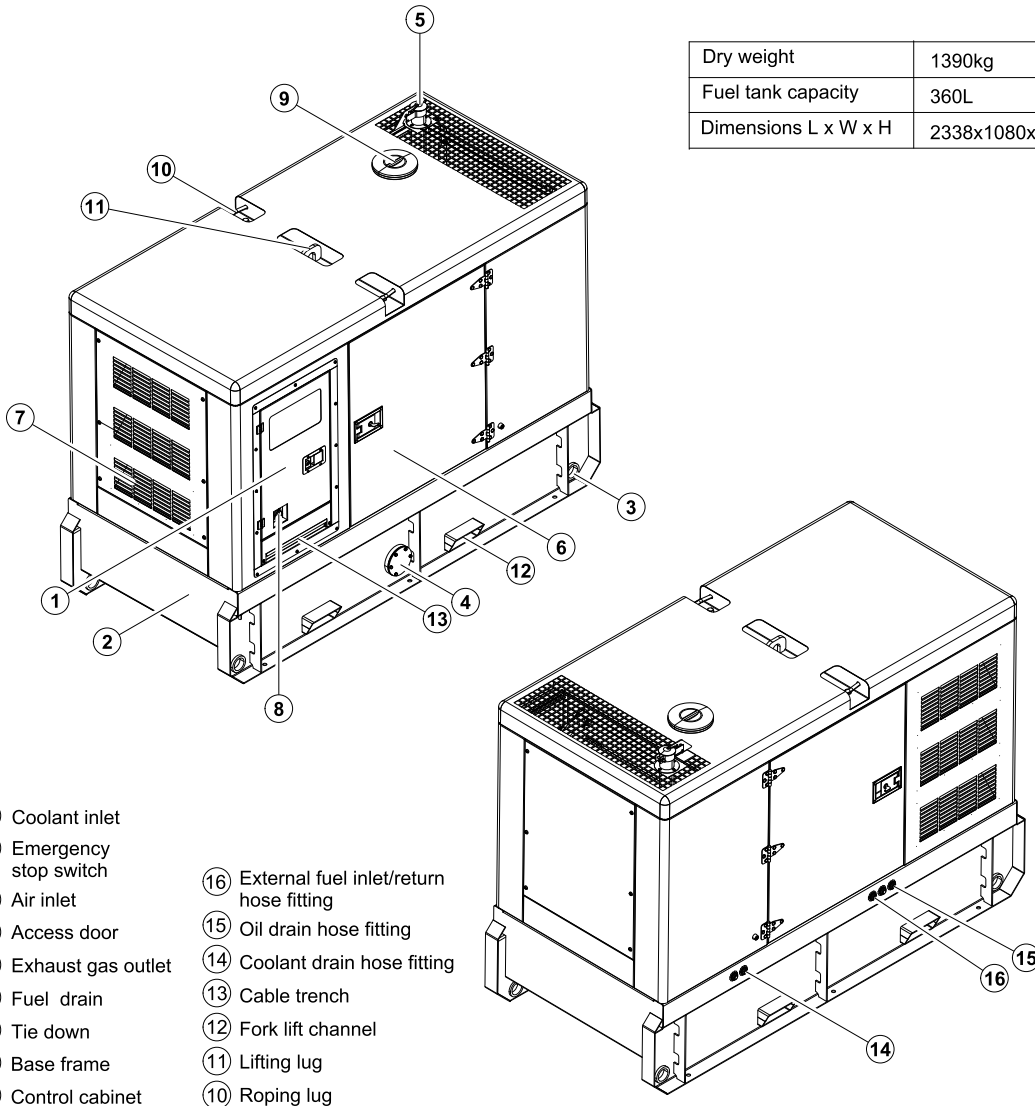
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

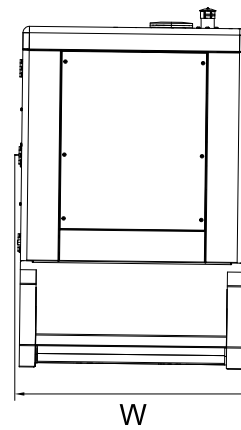
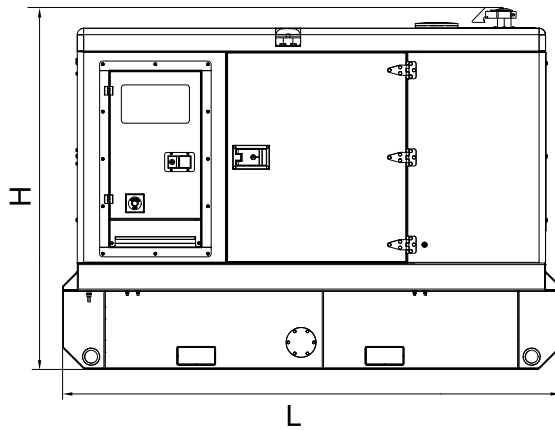
## 4 Overall Dimensions

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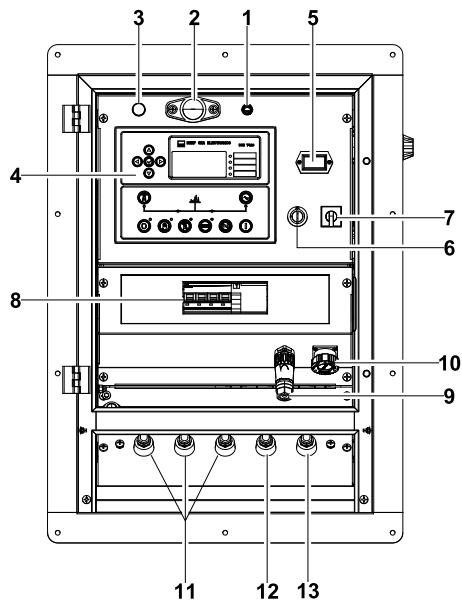
Dry weight	1390kg
Fuel tank capacity	360L
Dimensions L x W x H	2338x1080x1701mm



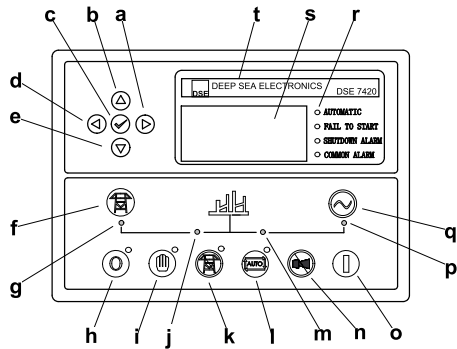
- ⑨ Coolant inlet
- ⑧ Emergency stop switch
- ⑦ Air inlet
- ⑥ Access door
- ⑤ Exhaust gas outlet
- ④ Fuel drain
- ③ Tie down
- ② Base frame
- ① Control cabinet
- ⑬ Cable trench
- ⑫ Fork lift channel
- ⑪ Lifting lug
- ⑩ Roping lug
- ⑮ Oil drain hose fitting
- ⑭ Coolant drain hose fitting
- ⑯ External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



## 5 Control System



**Control & field wiring cabinet**



**Control module**

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

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

1000023451-F2-E
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10.2020
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<http://www.powerlinkworld.com>

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