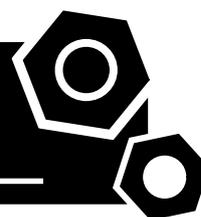


Generator set
Sound-proof type
WPS450S-AU

SPECIFICATIONS



1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (CE)
- ISO8528-1995
- GB/T2820-1997
- AS 3000-1997
- AS 3010.1-1988

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.

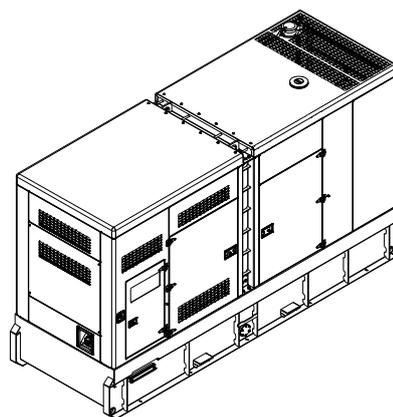
2 General Features

- Perkins engine 2506C-E15TAG1
- Close coupled to Leroy Somer alternator LSA47.3S5
- Microprocessor control module PLC-7420
- ABB circuit breaker: 800A
- Rotate speed governor: Electronic
- Excitation System: Self Excited,SHUNT
- A.V.R.Model: R250
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 2x12V sealed for life maintenance free battery

- Remote run connector
- 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 16 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operation Manual / Parts List / Specifications

3 Equipment Specification

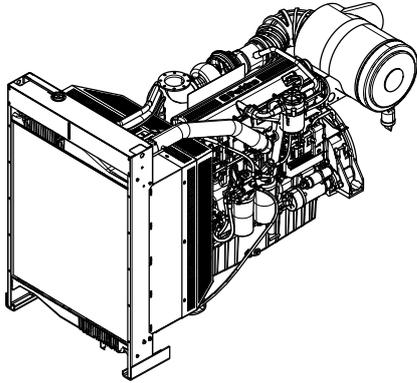
General technical data



Model.....	WPS450S-AU
Structure type	R
Tank capacity.....	1650L
Dry weight.....	5271.1kg
Noise level @7m	75.3dBA
Dimensions LxWxH.....	4586x1540x2556mm
Standby Power	500kVA/400kW
Prime Power	455kVA/364kW
Voltage/Ampere.....	415V/633A

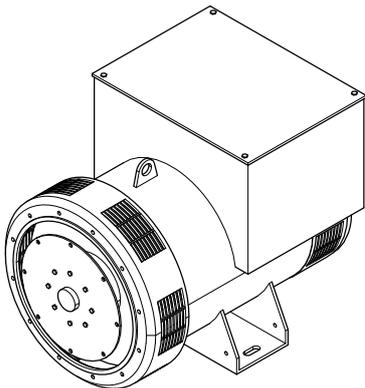
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	51	73	99	109

Diesel Engine



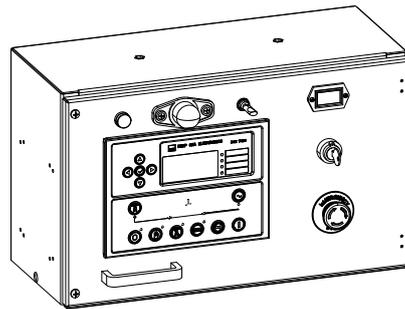
Engine Manufacturer/Brand.....	Perkins
Engine Model.....	2506C-E15TAG1
Dimensions LxWxH.....	2657x1120x1718mm
Dry Weigh (approx.)	1633kg
Number of Cylinders.....	6
Bore.....	137mm
Stroke	171mm
Displacement.....	15.2L
Compression Ratio.....	16
Type of Injection	MEUI
Intake System.....	Turbocharged, air-to-air charge cooled
Intake Resistance.....	≤6.2kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	24V
Type of Fuel.....	BS2869 class A2 or BS EN590
Type of Oil	API CI4 or ACEA E5
Oil Capacity	62L
Type of Coolant	Glycol Mixture
Coolant capacity.....	58L
Back Pressure.....	≤6.8kPa
Standby Power	451kW
Continuous Power	412kW
Fuel Consumption(100%load).....	216g/kW.h

Alternator



Alternator Manufacturer/Brand	Leroy Somer
Alternator Model	LSA47.3S5
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.....	0.9m³/s(50Hz), 1.1m³/s(60Hz)
Voltage Regulation	±0.5%
Total harmonic TGH / THCat no load < 1,5 % - on load < 2 %	
Telephone Interference.....	THF<2%;TIF<50

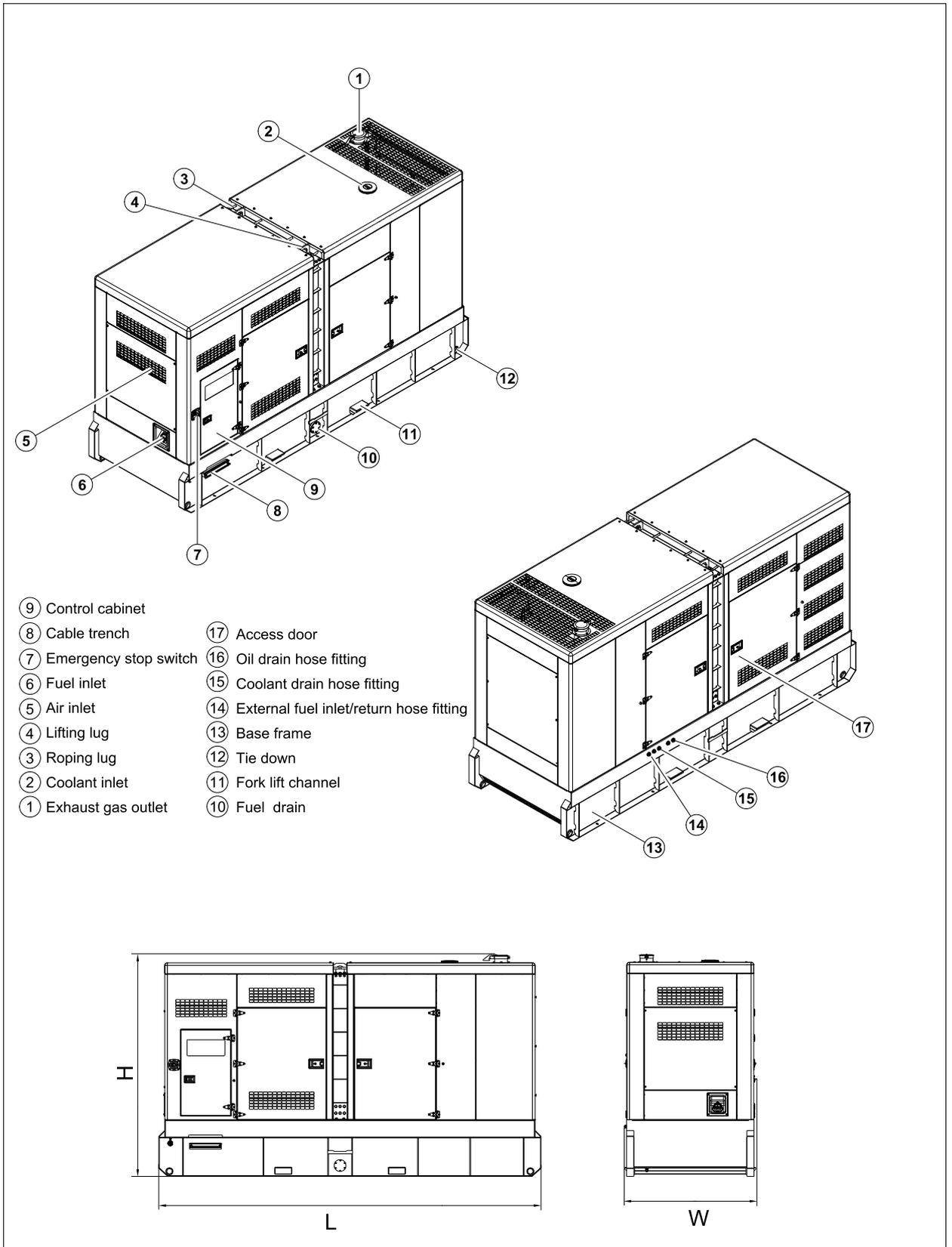
PLC-7420 Control System



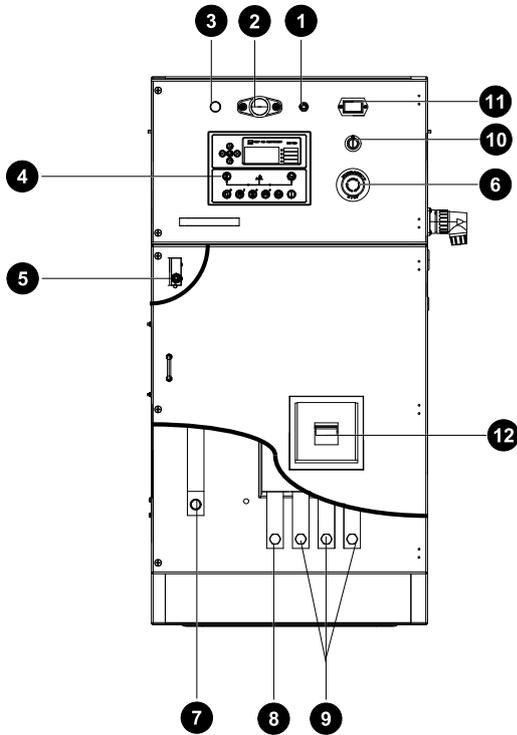
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

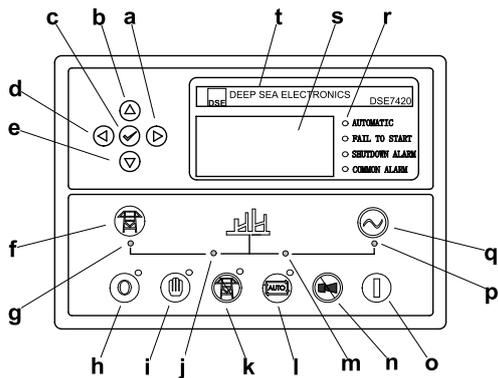
4 Overall Dimensions



5 Control System



Control & field wiring cabinet



Control module

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

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

1000023412-A2-E

09.2023

<http://www.powerlinkworld.com>

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