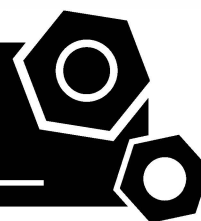


Generator set
Sound-proof type
WPS450D6S-EPA

SPECIFICATIONS



1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (CE)
- ISO8528-5:2005
- GB/T2820.5-2009

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 80%.
- Altitude: Below one thousand (1000) meters.

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 and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

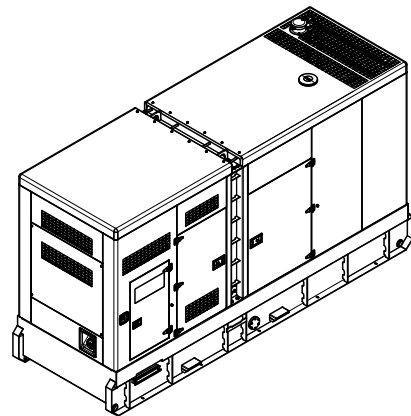
2 General Features

- Perkins engine 2506D-E15TAG1
- Close coupled to a Leroy Somer alternator LSA 47.3 S4
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 800A
- Rotate speed governor: ECU
- 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
- Lockable battery isolator switch
- Powder coated canopy
- 50°C radiator
- Oil pump on the engine
- Steel base frame with forklifts
- Vibration isolators between the engine/alternator and base frame
- Dry type air
- Base fuel tank with 8 hours running
- Drain points for fuel tank
- Operation Manual /

3 Equipment Specification

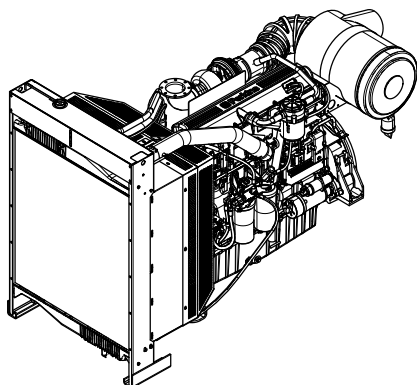
General technical data



Model.....WPS450D6S-EPA
 Structure type R
 Tank capacity..... 1020L
 Dry weigh.....5169kg
 Noise level @7m 78.6dB(A)
 Dimensions L×W×H.....4592×1563×2562mm
 Standby Power 563kVA/450kW

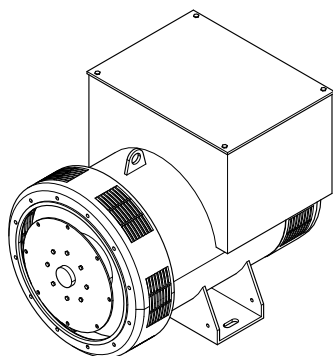
Voltage	380V	400V	415V	440V	
Ampere	683.7A	649.5A	626.1A	590.5A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
60Hz (L/h)	N/A	60.5	96	121	113.1

Diesel Engine



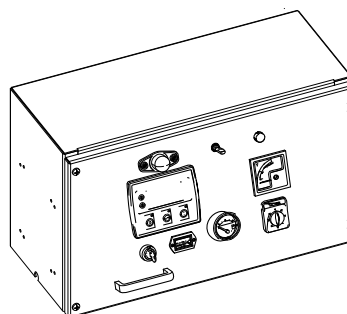
Engine Manufacturer/Brand	Perkins
Engine Model	2506D-E15TAG1
Dimensions L×W×H.....	2657×1120×1718mm
Dry Weigh (approx.)	1633kg
Number of Cylinders	6
Bore	137mm
Stroke	171mm
Displacement	15.2L
Compression Ratio	16
Type of Injection	MEUI
Intake System.....	Turbocharged, air-to-air charge cooled
Intake 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 C14 or ACEA E5
Oil Capacity	62L
Type of Coolant	Glycol Mixture
Coolant capacity	58L
Back Pressure	≤6.8kPa
Standby Power	514kW
Continuous Power	458kW
Fuel Consumption(100%load)	199g/kW.h

Alternator



Alternator Manufacturer/Brand	Leroy Somer
Alternator Model	LSA 47.3 S4
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

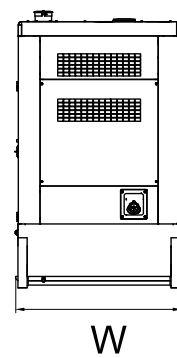
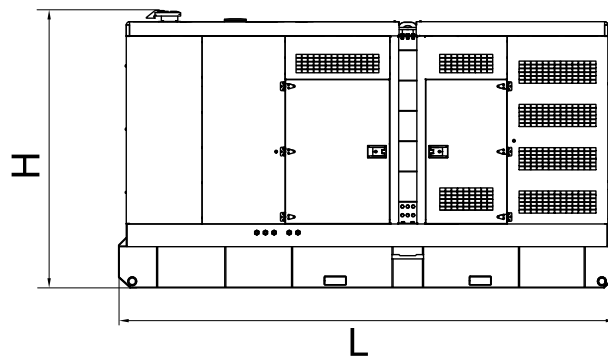
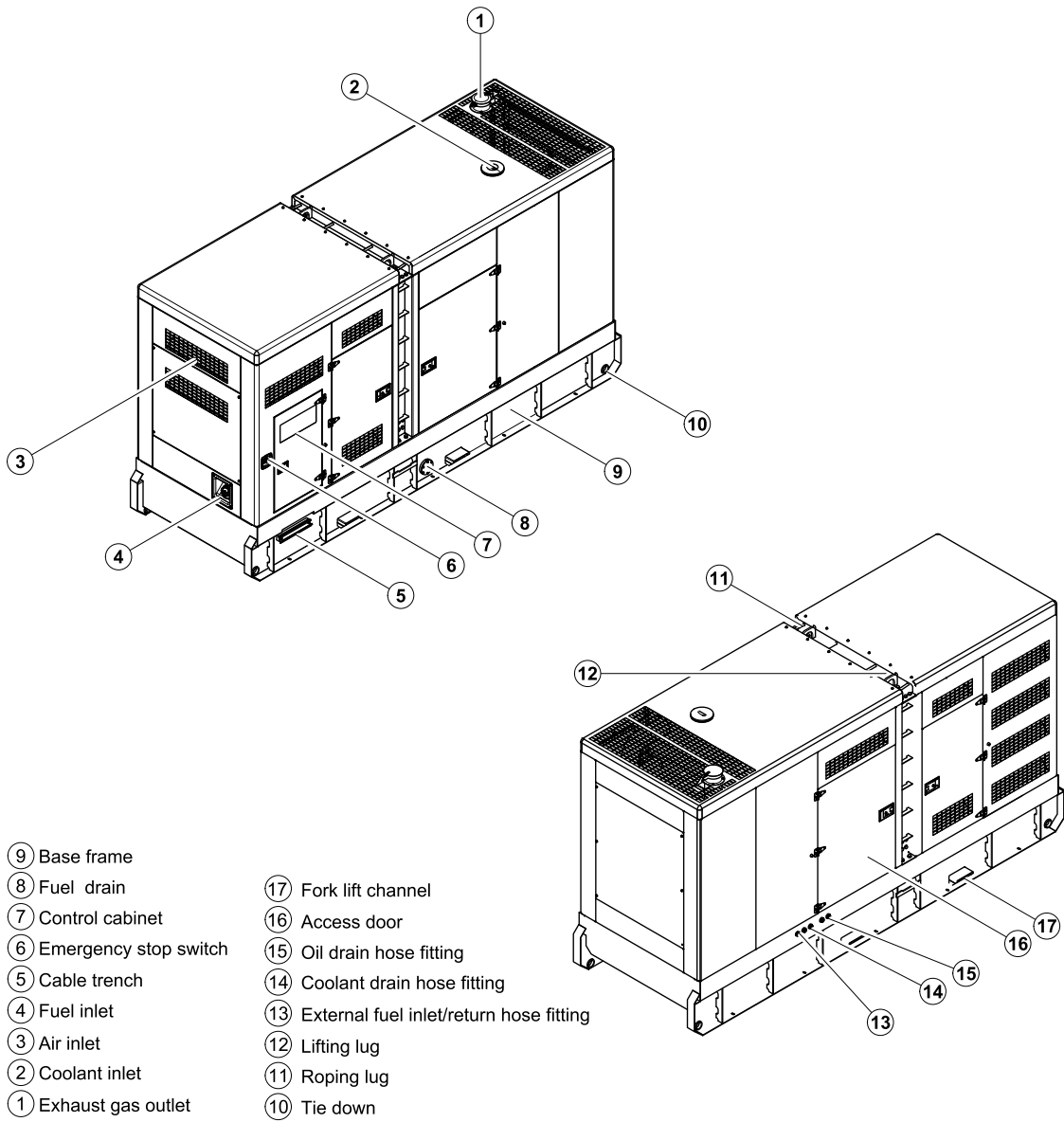
PLC-7420 Control System



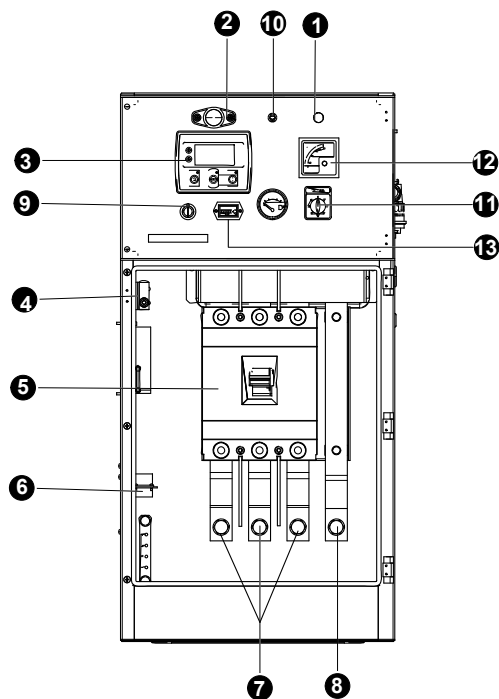
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

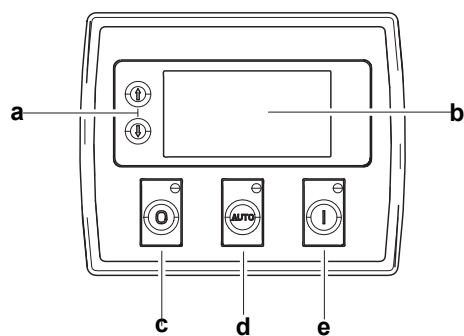


5 Control System



Control & field wiring cabinet

Ref.	Description
1	Charge indicator
2	Control panel lamp
3	PLC-7420 Control module
4	Limit switch
5	Main circuit breaker
6	Mains input/remote/AMF communication connector
7	Live wire terminals
8	Neutral wire terminal
9	Key switch
10	Control panel lamp switch
11	Voltmeter change-over switch
12	Voltage meter
13	Time counter



Control module

Ref.	Description
a	Navigation button«» Accept (Configuration mode only)
b	Main status display
c	Stop/reset button«» Next page (Configuration mode only)
d	Auto start button«» Decrease value/next item (Configuration mode only)
e	Start button«» Increase value/next item (Configuration mode only)

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