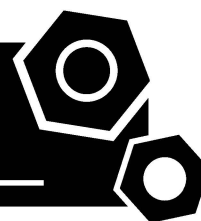


Generator set
Sound-proof type
WPS550D6S-EPA

SPECIFICATIONS



1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- ISO8528-5:2005
- GB/T2820.5-2009
- YD/502-2007
- JB/T20136-2006

Electrical devices have obtained the certification of:

- CSA
- UL

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

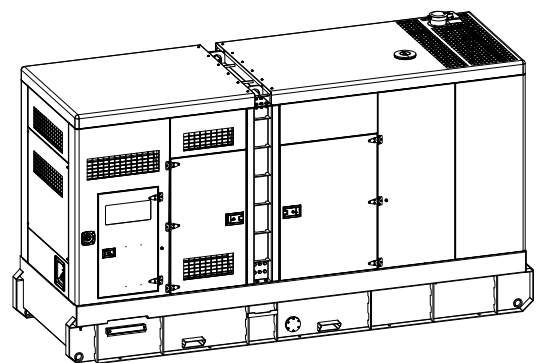
2 General Features

- Perkins engine 2506C-E15TAG4
- Close coupled to Stamford alternator S5L1D-D4
- Intelligent control module PLC-7420
- ABB Main circuit breaker: 800A
- Rotate speed governor: ECU
- Excitation system: Self excited
- A.V.R model: AS440
- Key switch
- Emergency stop switch

- ATS (automatic transfer switch) receptacle
- 2x12V150AH 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
- Base fuel tank for 5 hours running
- Drain points for fuel tank
- Operation Manual / Parts List / Specifications

3 Equipment Specification

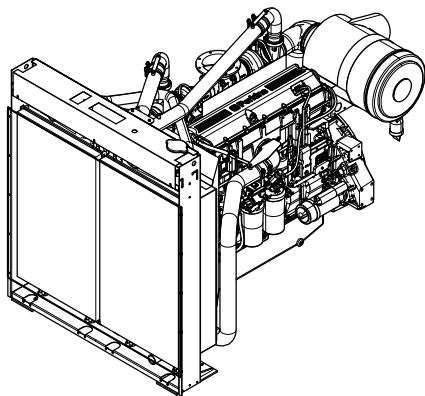
General technical data



Model..... WPS550D6S-EPA
Structure type R
Tank capacity..... 1020L
Dry weight..... 5424kg
Sound pressure level @7m..... 79.5dB(A)
Dimensions L×W×H..... 4592×1563×2562mm
Standby Power 687kVA/550kW

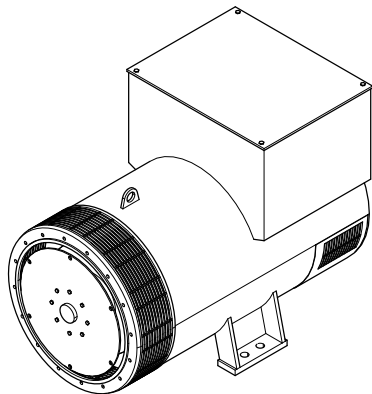
Voltage	416V	440V	460V	480V	
Ampere	953.4A	901.A	862A	826.3A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
60Hz (L/h)	N/A	89.5	129	179	196.9

Diesel Engine



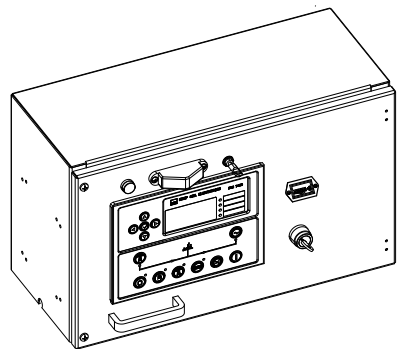
Engine Manufacturer/Brand.....	Perkins
Engine Model.....	2506C-E15TAG4
Dimensions L×W×H.....	2657×1120×1718mm
Dry Weigh (approx.)	1633kg
Number of Cylinders.....	6
Bore.....	137mm
Stroke.....	171mm
Displacement.....	15.2L
Compression Ratio.....	16
Type of Injection	MEUI
Intake System.....	Turbocharged, air to air charge cooling
Intake Resistance.....	≤3.7kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	24V
Type of Fuel.....	BS2869 class A2 or BS EN590
Type of Oil	API CG4 or APEA E5
Oil Capacity	60L
Type of Coolant	Glycol Mixture
Coolant capacity.....	58L
Back Pressure.....	≤6.8kPa
Standby Power	623kW
Prime Power	623kW
Fuel Consumption(100%load).....	146L/h

Alternator



Alternator Manufacturer/Brand	Stamford
Alternator Model	S5L1D-D4
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	2250Rev/Min
Air Flow.....	1m³/s(50Hz),1.2m³/s(60Hz)
Voltage Regulation	±0.5%
Total Harmonic TGH / THCat no load < 4 % - on load < 4%	
Telephone Interference.....	THF<2%;TIF<50

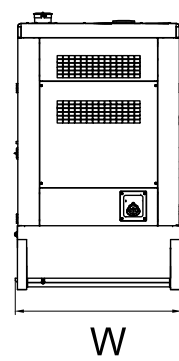
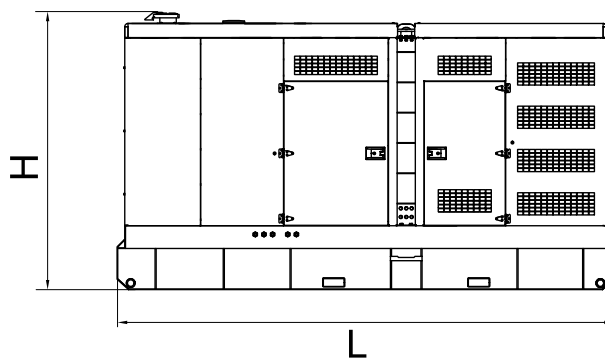
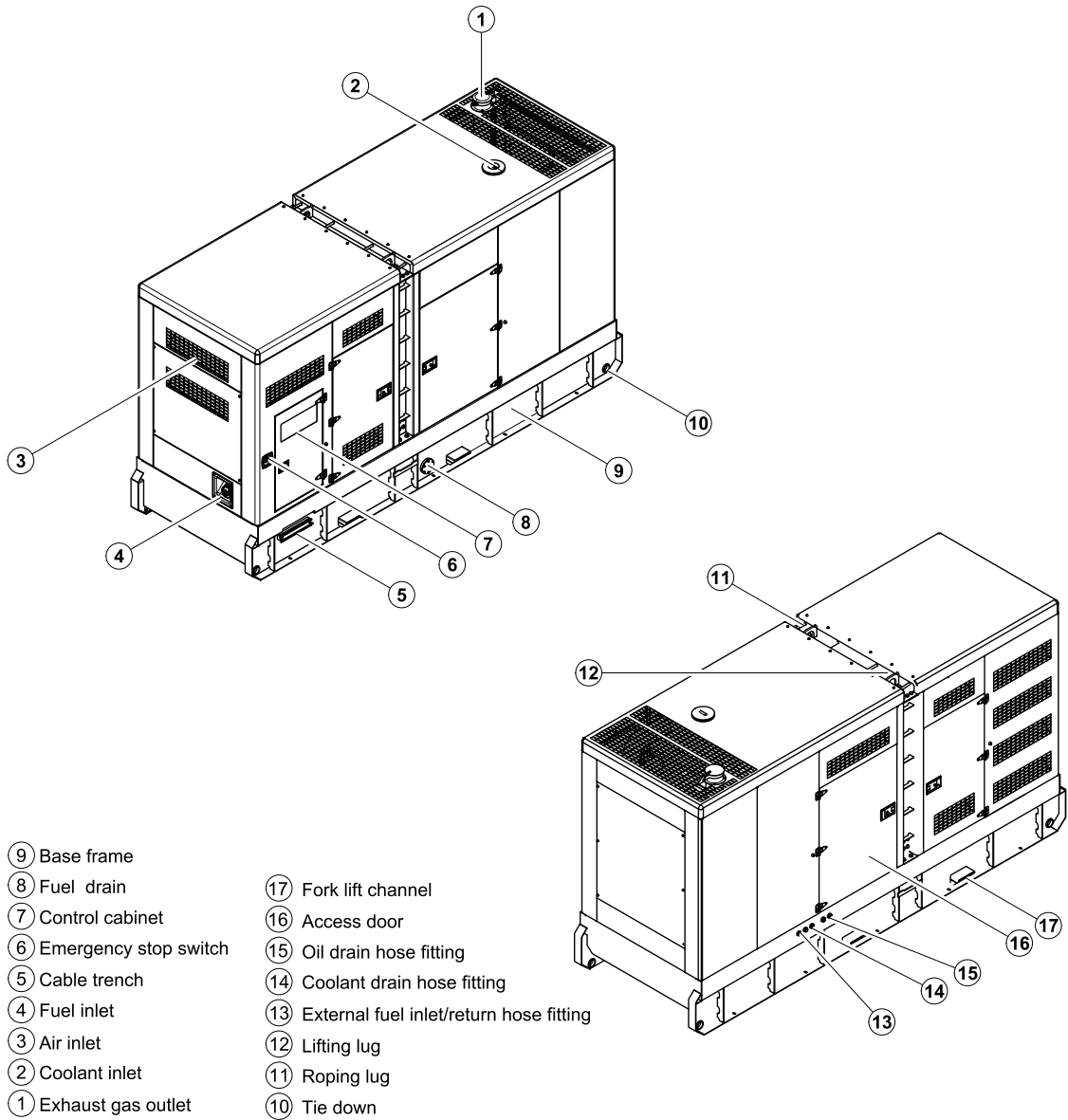
PLC-7420 Control System



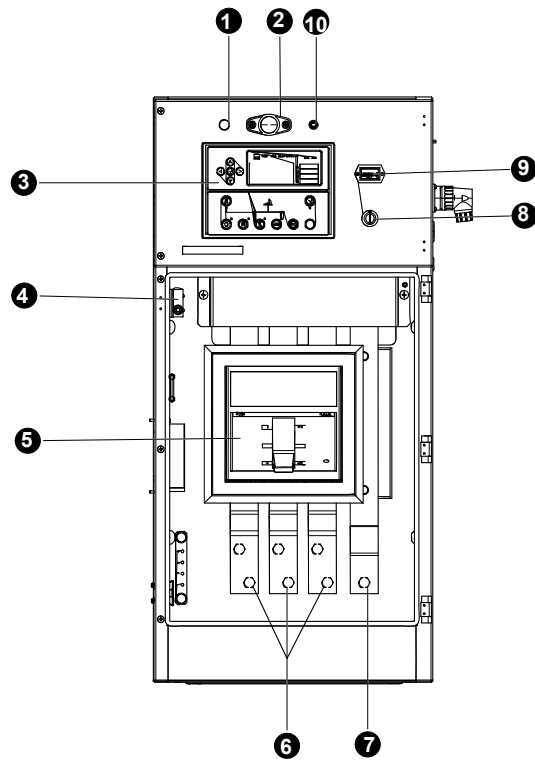
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

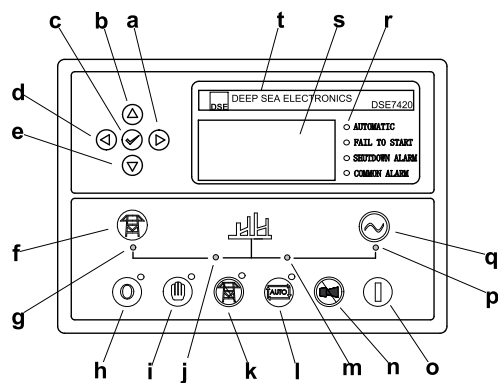
4 Overall Dimensions



5 Control System



Control & field wiring cabinet



Control panel

Ref.	Description
1	Charge indicator
2	Control panel lamp
3	PLC-7420 Control module
4	Limit switch
5	Main circuit breaker
6	Live wire terminals
7	Neutral wire terminal
8	Key switch
9	Time counter
10	Control panel lam switch

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

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