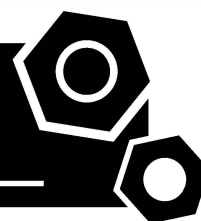


Generator set
Sound-proof type
WPS500D6S-EPA

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: 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 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.

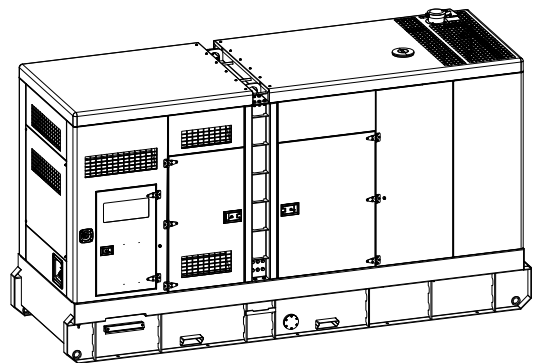
2 General Features

- Perkins engine 2506C-E15TAG3L
- Close coupled to LSA alternator LSA 47.3 S5
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 800A
- Rotate speed governor: ECU
- Excitation System: Self excited
- A.V.R model:R250
- 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 7 hours running
- Drain points for fuel tank
- Operation Manual / Parts List / Specifications

3 Equipment

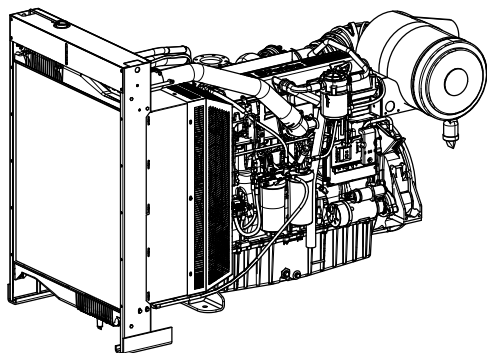
General technical data



Model.....	WPS500D6S-EPA
Structure type	R
Tank capacity.....	890L
Dry weigh.....	5192.3kg
Noise level @7m	78.6dBA
Dimensions L×W×H.....	4592x1563x2562mm
Standby Power	625kVA/500kW
Prime Power	563kVA/450kW

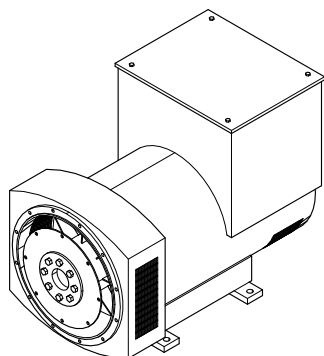
Voltage	416V	440V	460V	480V	
Ampere	694.0A	656.1A	627.6A	601.4A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
60Hz (L/h)	N/A	77	96	121	132

Diesel Engine



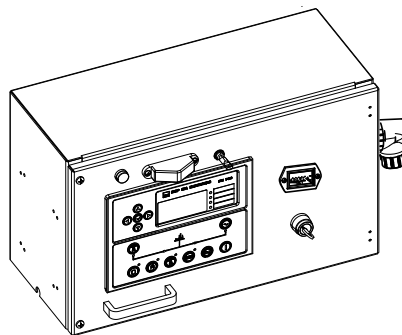
Engine Manufacturer/Brand	Perkins
Engine Model	2506C-E15TAG3L
Dimensions L×W×H	2657×1120×1718mm
Dry Weigh (approx.)	1633kg
Number of Cylinders	6
Bore	137mm
Stroke	165mm
Displacement	15.2L
Compression Ratio	16
Type of Injection	Direct injection
Intake System	Turbocharged, air to air charge cooling
Intake 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	60L
Type of Coolant	Glycol mixture
Coolant capacity	58L
Back Pressure	≤6.8kPa
Standby Power	568kW
Prime Power	519kW
Fuel Consumption(100%load)	211g/kW.h

Alternator



Alternator Manufacturer/Brand	LSA
Alternator Model	LSA 47.3 S5
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	2250 rpm
Air Flow	1.035m³/s(50HZ), 1.312m³/s(60HZ)
Voltage Regulation	±1.0%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference	THF<2%;TIF<50

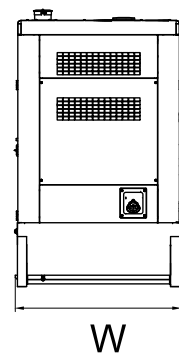
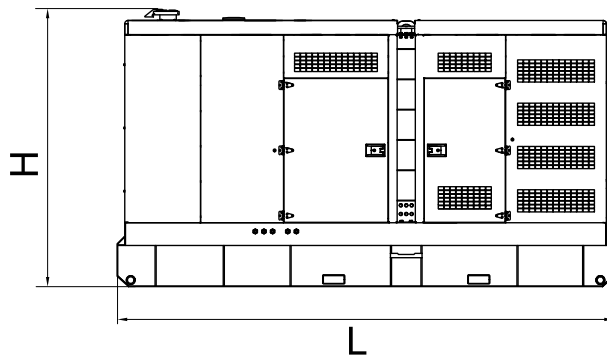
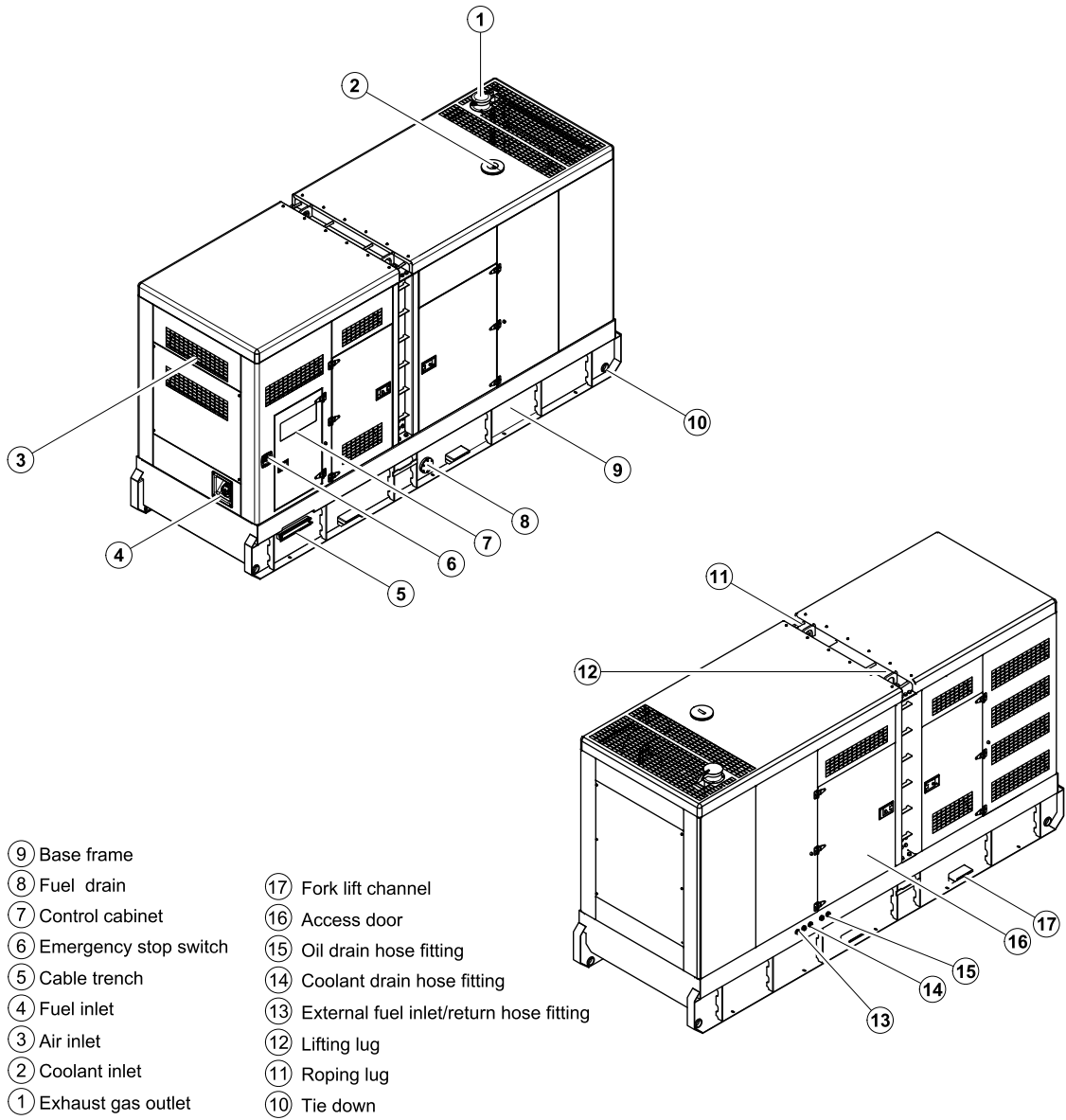
PLC-7420 Control System



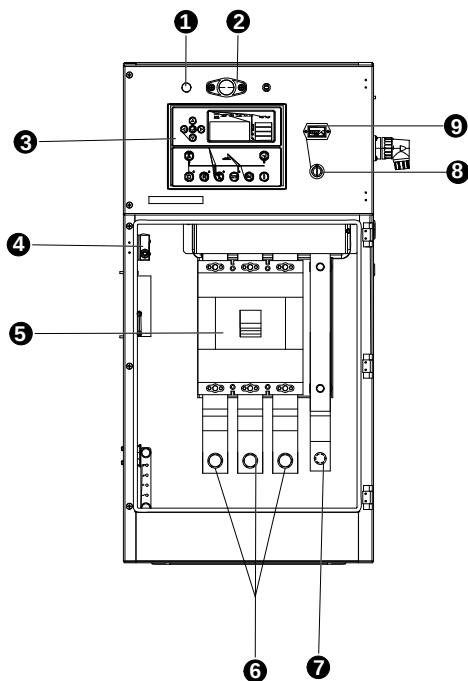
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

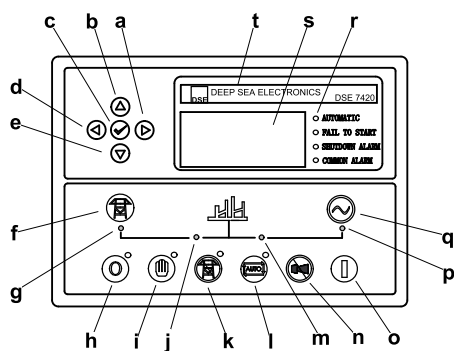
4 Overall Dimensions



5 Control System



Control & field wiring cabinet



Control module

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

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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