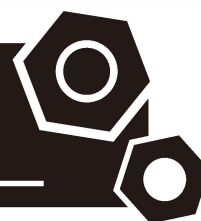


Generator set
Sound-proof type
WPS500S-AU

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.

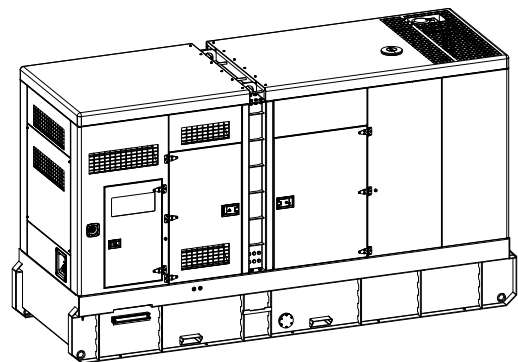
2 General Features

- Perkins engine 2506A-E15TAG2
- Close coupled to a Leroy Somer alternator LSA47.2M7
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 800A
- Rotate speed governor: Electronic fuel injection governor
- Excitation System: Self Excited, SHUNT
- A.V.R. Model: R250
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle

- 2x12V/150AH 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 12 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

General technical data

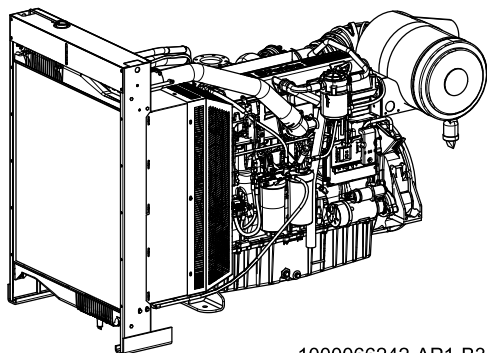


1000023413-AP1-C2

Model..... WPS500S-AU
 Structure type R
 Tank capacity..... 1600L
 Dry weight..... 5396kg
 Noise level @7m 77.2dBA
 Dimensions L×W×H..... 4586x1564x2556mm
 Standby Power 545kVA/436kW
 Prime Power 500kVA/400kW
 Voltage/Ampere 415V/696A

Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	55	79	108	117

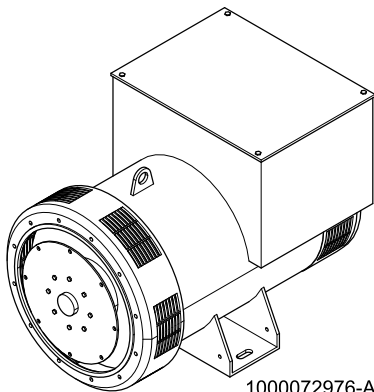
Diesel Engine



1000066242-AP1-B3

Engine Manufacturer/Brand	Perkins
Engine Model	2506A-E15TAG2
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	62L
Type of Coolant	Glycol mixture
Coolant Capacity	58L
Back Pressure	≤6.8kPa
Standby Power	503kW
Prime Power	459kW
Fuel Consumption(100%load)	202g/kW.h

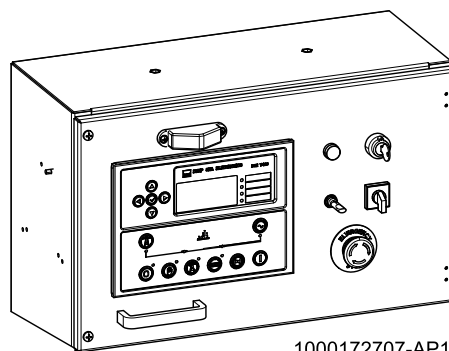
Alternator



1000072976-AP1-A2

Alternator Manufacturer/Brand	Leroy Somer
Alternator Model	LSA47.2M7
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



1000172707-AP1-A1

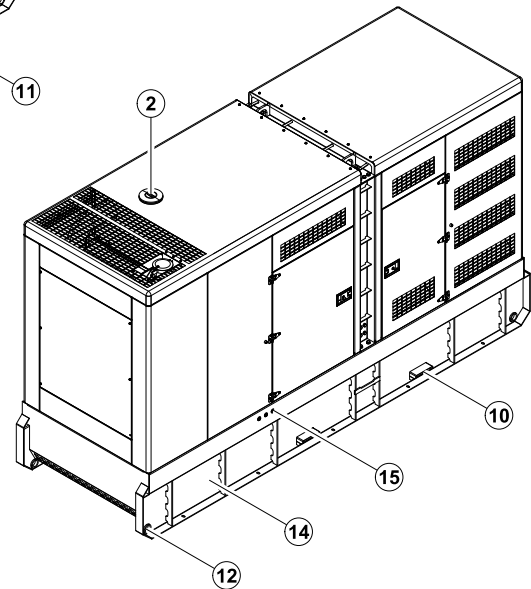
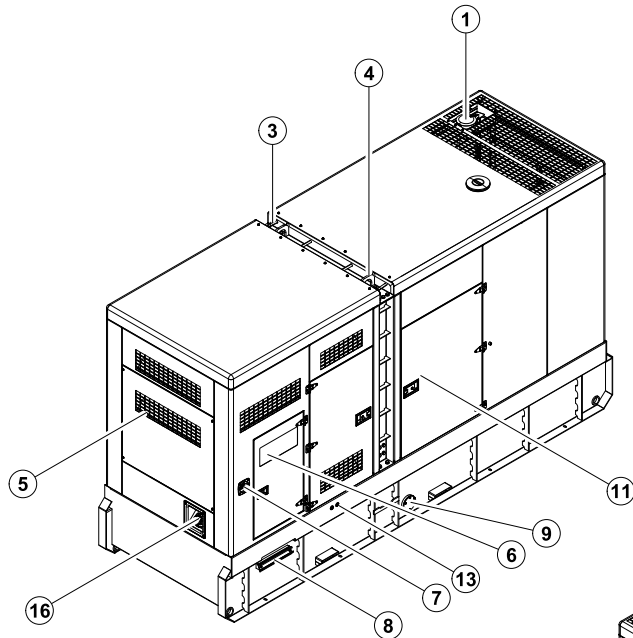
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

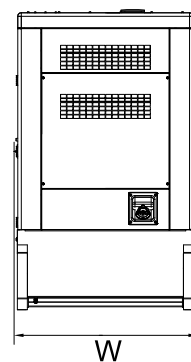
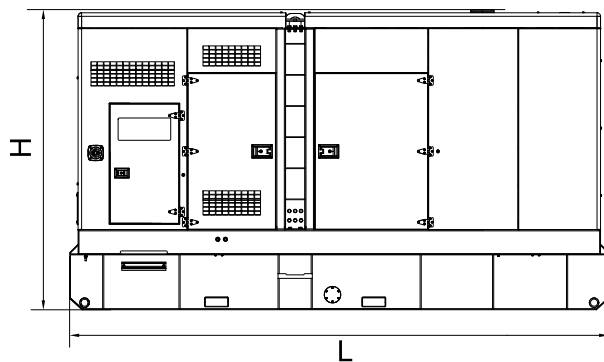
4 Overall Dimensions

1000023413-DR1-C2

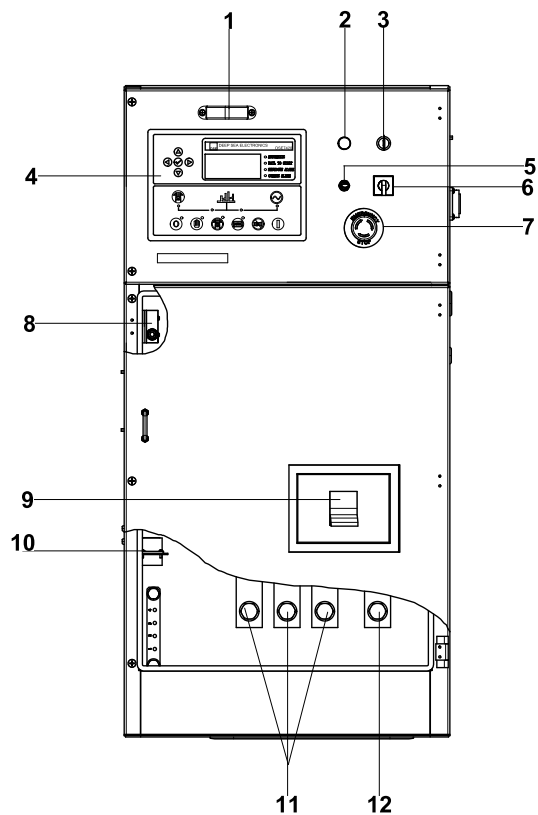
Dry weight	5396kg
Fuel tank capacity	1600L
Dimensions L x W x H	4586x1564x2556mm



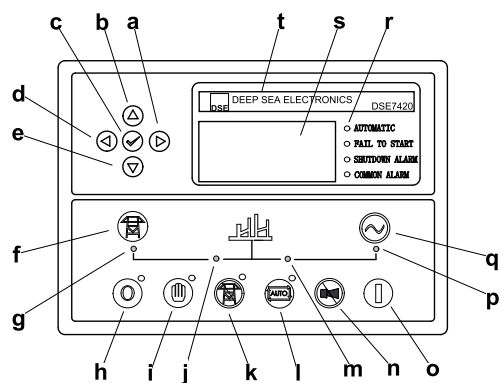
- ⑧ Cable trench
- ⑦ Emergency stop switch
- ⑥ Control cabinet
- ⑤ Air inlet
- ④ Lifting lug
- ③ Roping lug
- ② Coolant inlet
- ① Exhaust gas outlet
- ⑯ Fuel inlet
- ⑮ Coolant drain hose fitting
- ⑭ Base frame
- ⑬ Oil drain hose fitting
- ⑫ Tie down
- ⑪ Access door
- ⑩ Fork lift channel
- ⑨ Fuel drain



5 Control System



Control & field wiring cabinet



Control module

Ref.	Description
1	Control cabinet lamp
2	Charge indicator
3	Key switch
4	Control module
5	Control cabinet lamp switch
6	Mains input changeover switch
7	Emergency stop button
8	Limit switch
9	Main circuit breaker
10	Mains input/remote/AMF communication connector
11	Live wire terminals
12	Neutral 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

1000023413-E7-E
10.2020