

Generator set
Sound-proof type
WPS150BS

SPECIFICATIONS



1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (CE)
- ISO9001:2015

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.

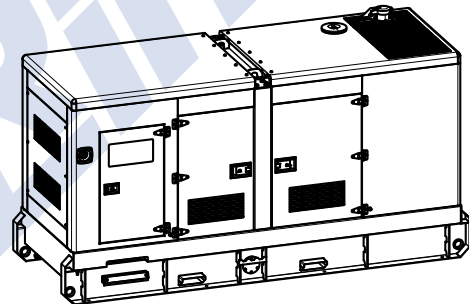
2 General Features

- Perkins engine 1106A-70TAG2
- Close coupled to a Leroy Somer alternator LSA44.3L10
- Microprocessor control module PLC-7420
- Main circuit breaker: 250A
- Rotate speed governor: Mechanical governor
- Excitation System: SHUNT
- A.V.R.Model: R220
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 12V/95AH 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 filter
- Base fuel tank for 1 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

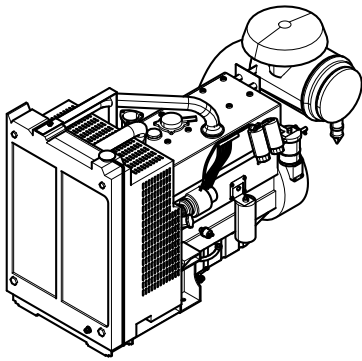
General technical data



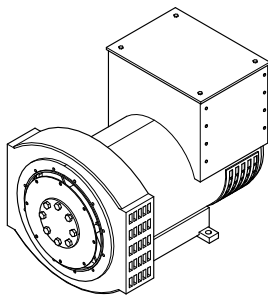
Model.....	WPS150S
Structure type	R
Tank capacity.....	420L
Dry weight.....	2532kg
Sound pressure level @7m	73.8dB(A)
Dimensions L×W×H.....	3468x1222x1843mm
Standby Power	165kVA/132kW
Prime Power.....	150kVA/120kW

Voltage	380V	400V	415V	440V	
Ampere	227.9A	216.5A	208.7A	196.8A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	9.1	16.4	24.7	33.4	36.1

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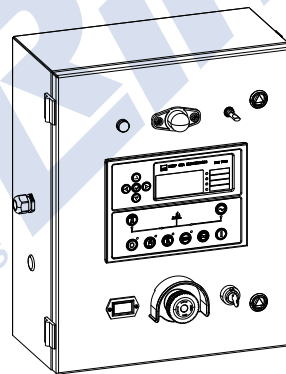


Engine Manufacturer/Brand.....	Perkins
Engine Model.....	1106A-70TAG2
Dimensions L×W×H.....	1764×755×1142mm
Dry Weight (approx.)	743kg
Number of Cylinders.....	6
Bore	105mm
Stroke	135mm
Displacement.....	7.0L
Compression Ratio.....	18.2
Type of injection.....	Direct injection
Intake System.....	Turbocharged, air-to-air charge cooled
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	12V
Type of Fuel.....	ASTM D975, Class 1D & Class 2D
Type of Oil	API-CH4/C14 ACEA E5
Oil Capacity	19L
Type of Coolant	Glycol mixture
Coolant Capacity	21L
Standby Power	149.1kW
Prime Power	136.0kW
Fuel Consumption(100%load).....	33.4L/h



Alternator Manufacturer/Brand	Leroy Somer
Alternator Model	LSA44.3L10
Exciter.....	Brushless
Cooling Fan	Cast alloy aluminum
Windings.....	100% copper
Insulation Class	H
Winding Pitch.....	2/3
Drip Proof	IP23
Altitude.....	≤1000m
Overspeed	2250rpm
Air Flow.....	0.8m³/s(50HZ),0.99m³/s(60HZ)
Voltage Regulation	±1.0%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<50

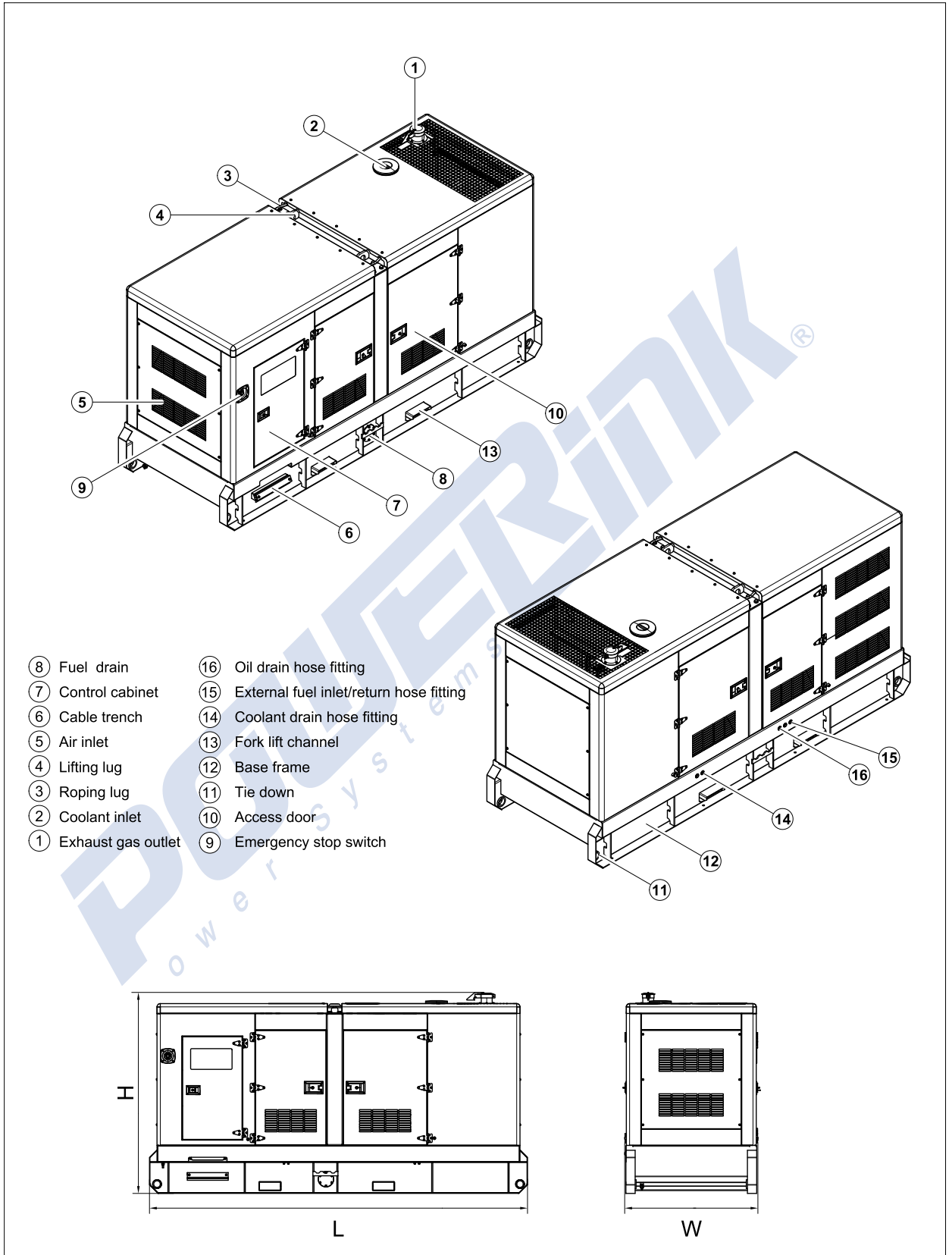
PLC-7420 Control System



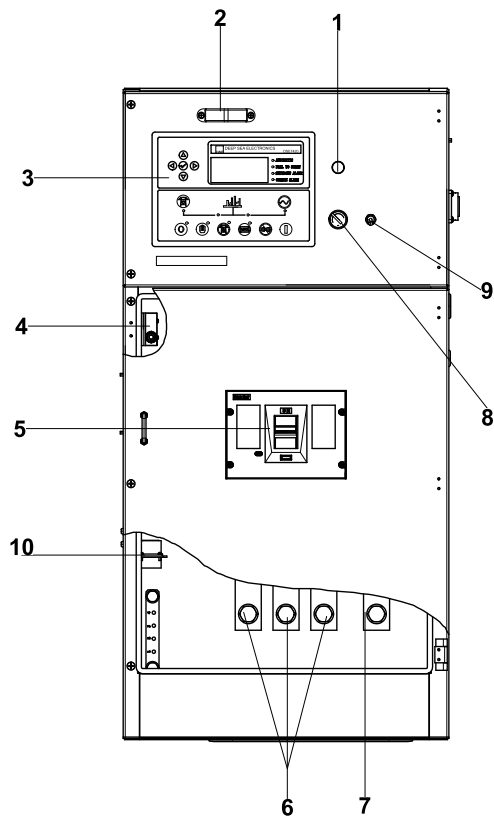
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

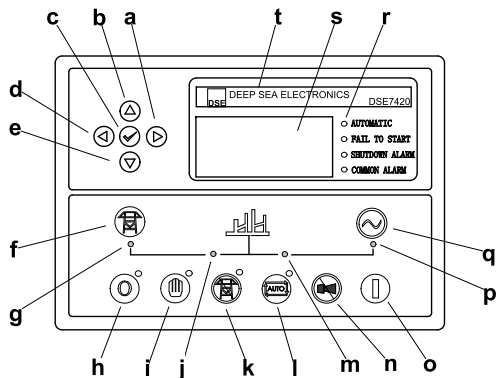
4 Overall Dimensions



5 Control System



Control & field wiring cabinet



Control Panel

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	Control cabinet lamp switch
10	Mains input/remote/AMF communication connector

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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*Specification may change without prior notice. For more info.,
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