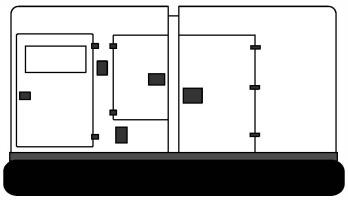
POWERLINK
Power Systems



Generator set
Sound-proof type
WPS137D6S-EPA

SPECIFICATIONS

www.powerlinkworld.com

EPA series
WPS137D6S-EPA, Tier 3
60 Hz @ 1800rpm,3-phase/4-wiring

1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- ISO8528
- GB/T2820
- 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℃ to 45℃.The coolant heater is needed when the temperature is below 5℃
- 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

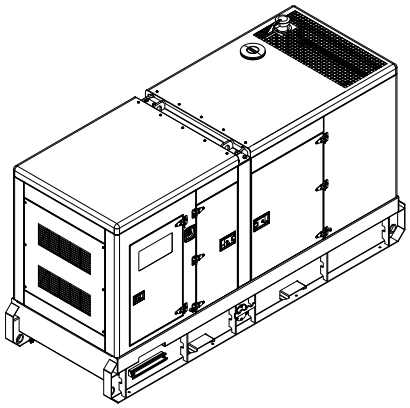
- Painting process specifications and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

2 General Features

- Perkins engine 1106D-E70TAG2
- Close coupled to a Stamford alternator UCI274E
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 500A
- Rotate speed governor: ECU
- Excitation System: Self Excited
- A.V.R.Model: AS440
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 1x12V/120AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 50℃ radiator
- Oil pump on the engine
- Steel base frame with forkslots
- 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 / Specifications

3 Equipment Specification

General technical data



Model.....WPS137D6S-EPA

Structure type ..... R

Tank capacity.....300L

Dry weight.....2456kg

Noise level @7m .....71.2dB(A)

Dimensions L×W×H.....3288×1112×1848mm

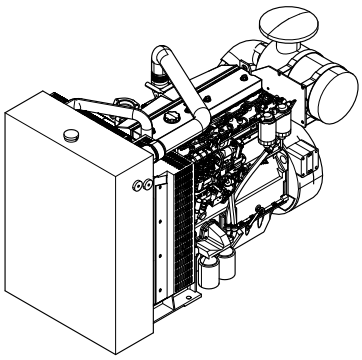
Standby Power 178kVA/143kW

Prime Power 169kVA/135kW

Voltage	208V	220V	230V	240V
Ampere	469.1A	443.5A	424.2A	406.6A

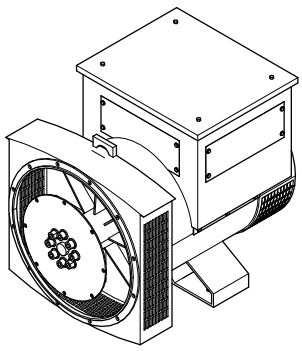
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
60Hz (L/h)	N/A	13.5	20.2	39.7	43.1

Diesel engine



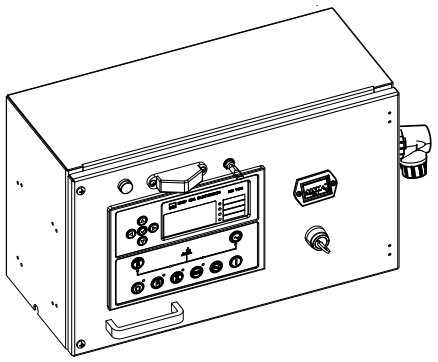
Engine Manufacturer/Brand.....Perkins
Engine Model.....1106D-E70TAG2
Dimensions L×W×H.....1763×788×1142mm
Dry Weigh (approx.) 788kg
Number of Cylinders.....6
Bore 105mm
Stroke 135mm
Displacement.....7.01L
Compression Ratio 16.8
Type of Injection ..... Direct
Intake System..... Turbocharged and air charge cooled
Intake Resistance .....≦4.0kPa
Cooling System .....Water cooled
Fan ..... Pusher
Battery Voltage 12V
Type of Fuel.....BS 2869 1983 class A2 ASTM D97566T Number 2D
Type of Oil ..... API CD/SE or CCMC D4
Oil Capacity 17.5L
Type of Coolant .....Glycol mixture
Coolant Capacity 21L
Back Pressure .....15 kPa
Standby Power 171kW
Prime Power 155.6kW
Fuel Consumption(100%load).....39.7L/h

Alternator



Alternator Manufacturer/Brand ..... Stamford
Alternator Model UCI274E
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..... 0.37m³/s(50Hz),0.44m³/s(60Hz)
Voltage Regulation .....±0.5%
Total harmonic TGH / THC at no load < 2 % - on load < 2%
Telephone Interference..... THF<2%;TIF<50

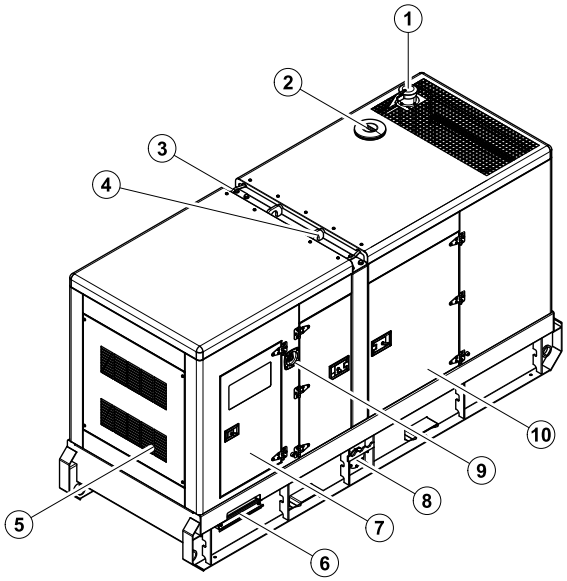
PLC-7420 Control System

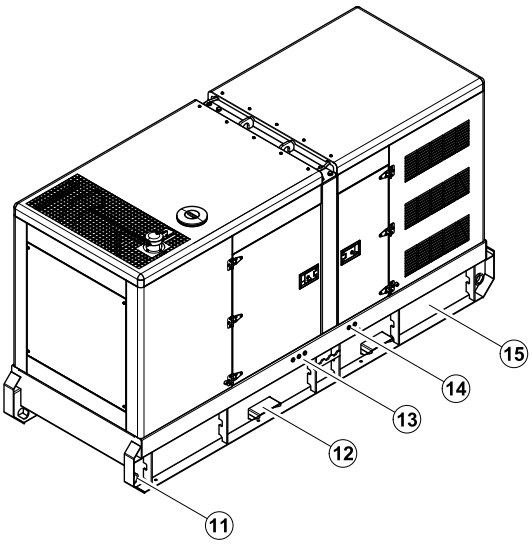


PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

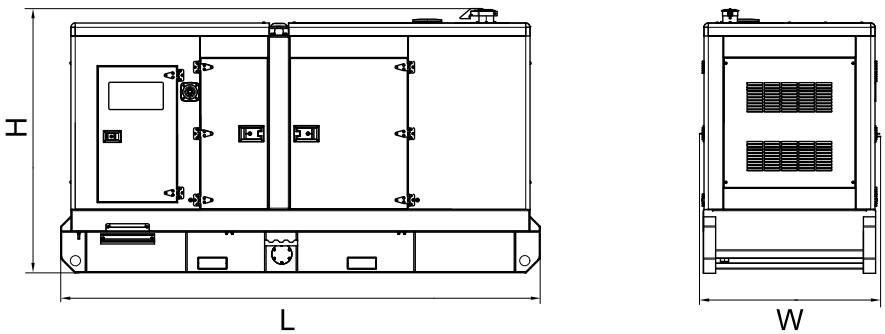
- Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the mains supply and genset
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections; multiple parameters display, like pressure, temp. etc.
- Manual, 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

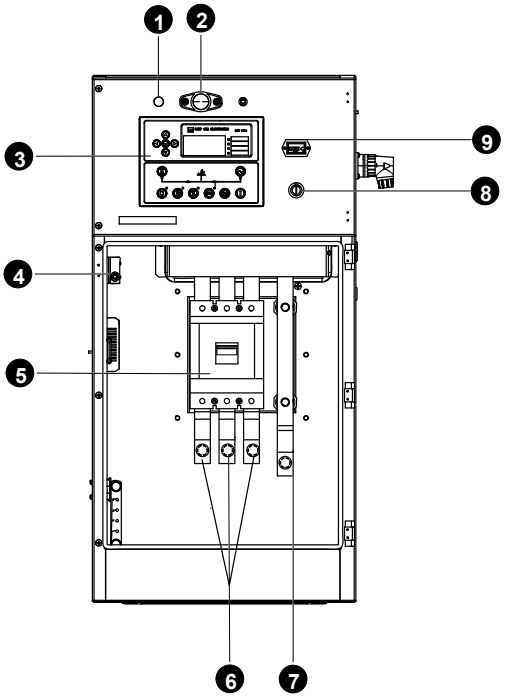




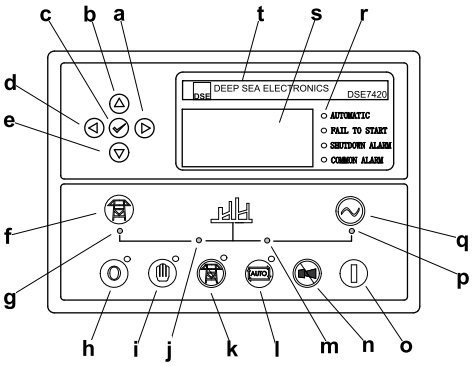
8 Fuel drain
7 Control cabinet
6 Cable trench
5 Air inlet
4 Lifting lug
3 Roping lug
2 Coolant inlet
1 Exhaust gas outlet
15 Base frame
14 Coolant / oil drain hose fitting
13 External fuel inlet/return hose fitting
12 Fork lift channel
11 Tie down
10 Access door
9 Emergency stop switch



5 Control System



Control & field wiring cabinet



Control module

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	Control panel lamp 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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