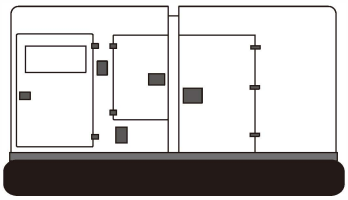
POWERLINK
Power Systems



Generator set

Sound-proof type

WPS80S-AU

SPECIFICATIONS

www.powerlinkworld.com

EP series
WPS80S-AU
50 Hz @ 1500rpm,3-phase/5-wiring

1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformite Europeenne (CE)
- ISO8528-5:2005
- AS 3000-2018
- AS 3010-2017

Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25℃ to 50℃.The coolant heater is needed when the temperature is below 5℃
- 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

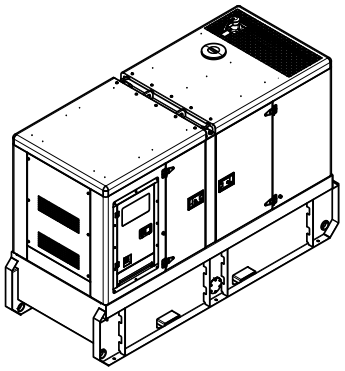
- Painting process and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

2 General Features

- Perkins engine 1104A-44TG2
- Close coupled to a Leroy Somer alternator LSA44.3S3
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 125A
- Rotate speed governor: Mechanical governor
- Excitation System: Self ExcitedSHUNT
- A.V.R.Model: R250
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 1x12V/120AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Power 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 28 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

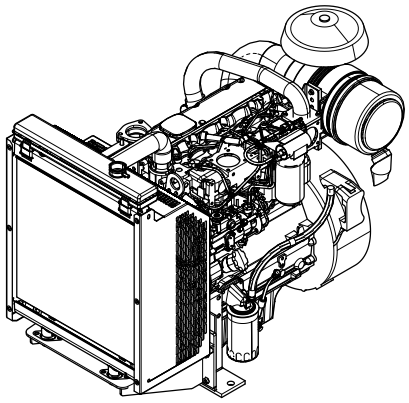
General technical data



Model.....WPS80S-AU
Structure type.....R
Tank capacity.....530L
Dry weight.....1831kg
Noise level @7m.....68.6dBA
Dimensions L×W×H.....2788x1165x1901mm
Standby Power.....88kVA/70kW
Prime Power.....80kVA/64kW
Voltage/Ampere.....415V/111A

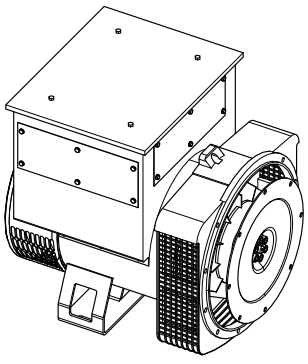
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	5.2	9.7	14	18.7	20.5

Power System



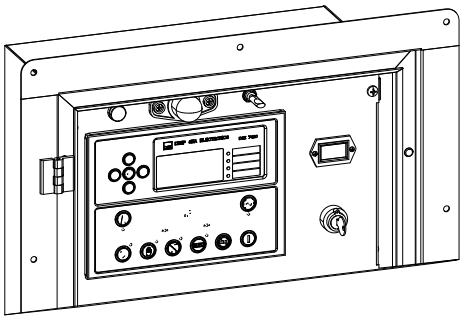
Engine Manufacturer/Brand.....Perkins
Engine Model..... 1104A-44TG2
Dimensions L×W×H.....1241×629×951mm
Dry Weigh (approx.) 463kg
Number of Cylinders.....4
Bore 105mm
Stroke 127mm
Displacement.....4.4L
Compression Ratio 17.25
Type of Injection ..... Direct
Intake System..... Turbocharged
Intake Resistance .....≦8.0kPa
Cooling System .....Water cooled
Fan ..... Pusher
Battery Voltage 12V
Type of Fuel..... Part 2 1998 Class A2 or DIN EN 590
Type of Oil APi-CG4/ CH4
Oil Capacity 8.0L
Type of Coolant .....Glycol mixture
Coolant Capacity 13L
Back Pressure .....≦10kPa
Standby Powe 80.7kW
Prime Power.....73.4kW
Fuel Consumption(100%load).....18.7L/h

Alternator



Alternator Manufacturer/Brand ..... Leroy Somer
Alternator Model LSA44.3S3
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..... 0.27m³/s(50Hz),0.32m³/s(60Hz)
Voltage Regulation .....±0.5%
Total harmonic TGH / THC at no load < 2 % - on load < 2%
Telephone Interference..... THF<2%;TIF<50

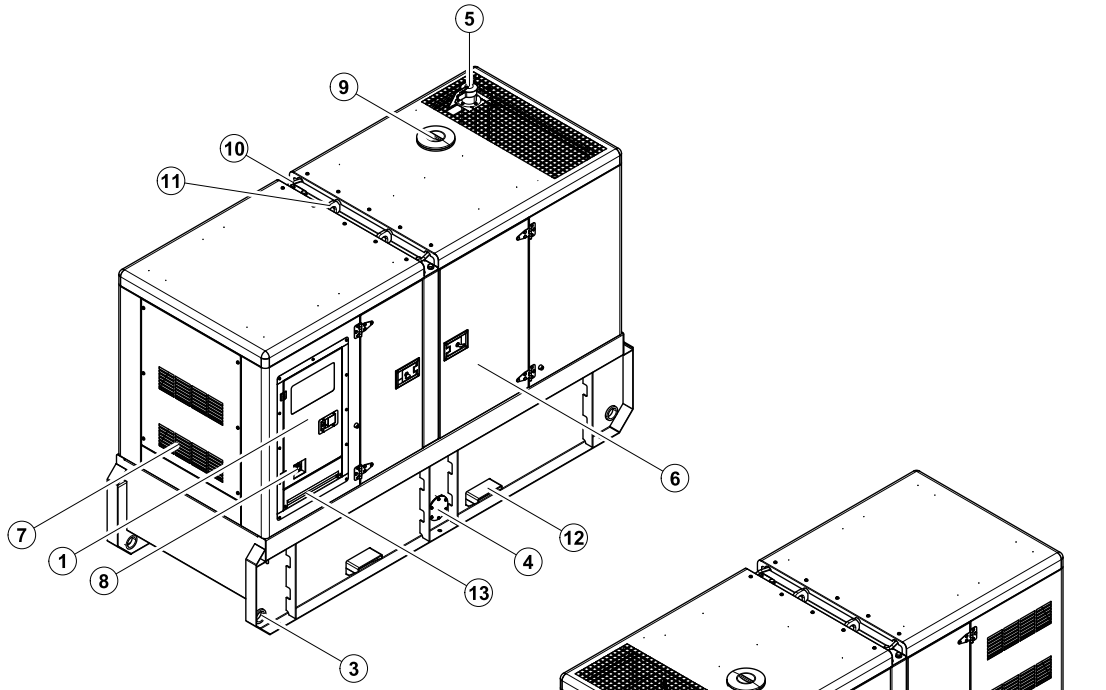
PLC-7420 Control System



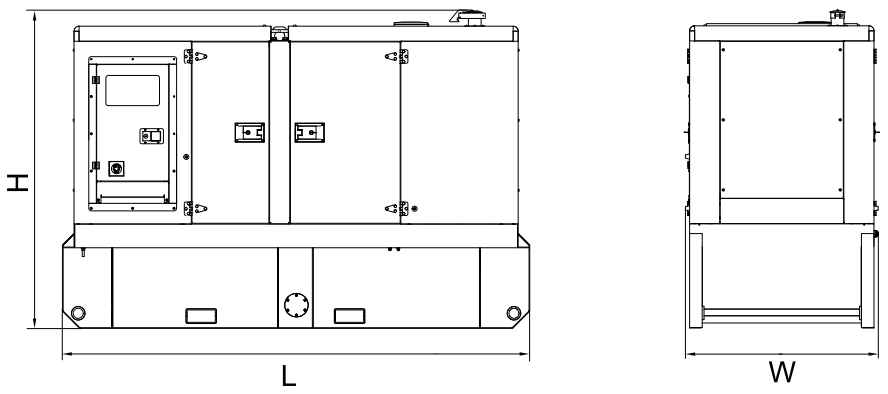
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

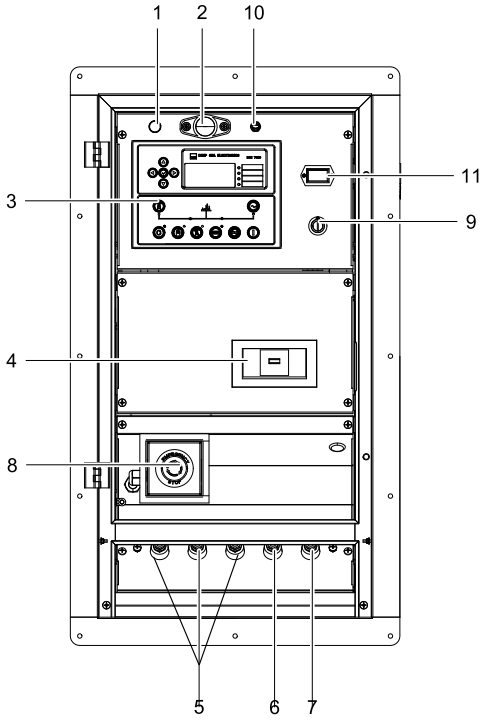
4 Overall Dimensions



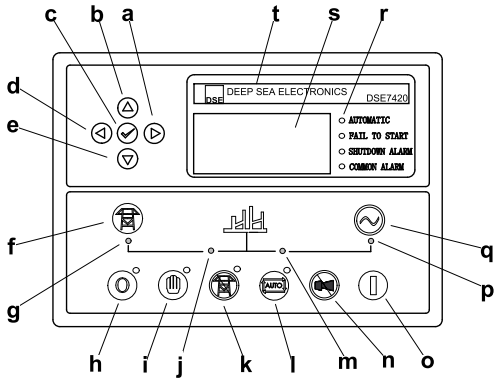
8 Emergency stop switch
7 Air inlet
6 Access door
5 Exhaust gas outlet
4 Fuel drain
3 Tie down
2 Base frame
1 Control cabinet
16 External fuel inlet/return hose fitting
15 Oil drain hose fitting
14 Coolant drain hose fitting
13 Cable trench
12 Fork lift channel
11 Lifting lug
10 Roping lug
9 Coolant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



5 Control System



Control & field wiring cabinet



Control module

Ref.	Description
1	Charge indicator
2	Control cabinet lamp
3	Control module
4	Main circuit breaker
5	Live wire terminals
6	Neutral wire terminal
7	Ground wire terminal
8	Emergency stop button
9	Key switch
10	Control cabinet lamp switch
11	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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