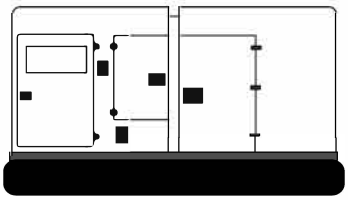
POWERLINK
Power Systems



Generator set

Sound-proof type

B310SE3-AU

SPECIFICATIONS

EB series
B310SE3-AU，STAGE III

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 45℃.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

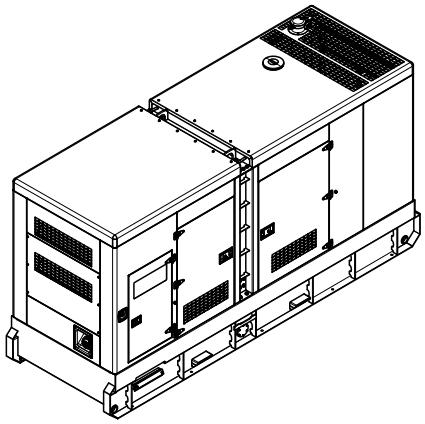
- Painting process specifications and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

2 General Features

- Baudouin engine 6M16G8D3/5
- Close coupled to Leroy Somer alternator LSA46.3L10
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 630A, 4P
- Rotate speed governor: ECU
- Excitation System: Self Excited,SHUNT
- A.V.R.Model: R250
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- Remote run connector
- 2x12V/120AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 50℃ radiator
- Oil pump on the engine
- Non-returning valve for fuel inlet hose of the engine
- Steel base frame with forkslots
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank with 25 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operator's Manual / Specifications

3 Equipment Specification

General technical data



Model.....B310SE3-AU

Structure type .....R

Tank capacity.....1590L

Dry weight.....3919kg

Noise level @7m 75.7dBA

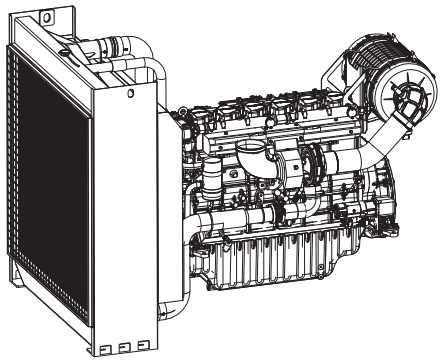
Dimensions L×W×H.....3970×1322×2401mm

Standby Power 350kVA/280kW

Prime Power 313kVA/250kW

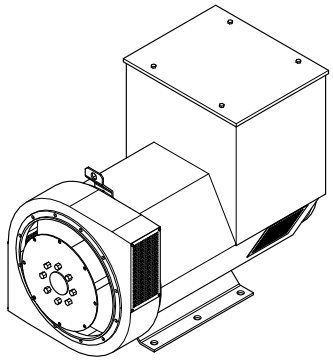
Voltage	380V		400V		415V
Ampere	476A		452A		436A
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	18.15	34.04	47.7	61.2	/

Diesel Engine



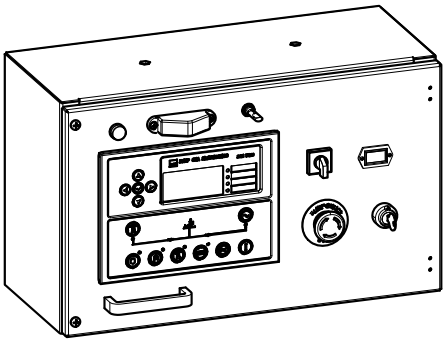
Engine Manufacturer/Brand.....Baudouin
Engine Model.....6M16G8D3/5
Dimensions L×W×H.....2042×1100×1300mm
Dry Weigh (approx.) 880kg
Number of Cylinders.....6
Bore 126mm
Stroke 130mm
Displacement.....9.726L
Compression Ratio 17
Type of Injection .....High Pressure Common Rail
Intake System.....Turbocharged and aftercooled
Intake Resistance .....≦7.5kPa
Cooling System .....Water cooled
Fan ..... Pusher
Battery Voltage 24V
Type of Fuel..... BS2869 class A2 or BS EN590
Type of Oil ..... API CH4 15W/40
Oil Capacity 24L
Type of Coolant .....Glycol Mixture
Coolant capacity.....50L
Back Pressure ..... ≦12kPa
Standby Power 320kW
Prime Power 290kW
Fuel Consumption(100%load).....61.2L/h

Alternator



Alternator Manufacturer/Brand ..... Leroy Somer
Alternator Model LSA46.3L10
Exciter..... Brushless
Cooling Fan ..... Cast alloy aluminum
Windings.....100% copper
Insulation Class ..... H
Winding Pitch 2/3
Terminals 6
Drip Proof IP23
Altitude.....≤1000m
Overspeed 2250rpm
Air Flow..... 1m³/s(50Hz),1.2m³/s(60Hz)
Voltage Regulation .....±0.5%
Total harmonic TGH / THC at no load < 4 % - on load < 4%
Telephone Interference..... THF<2%;TIF<50

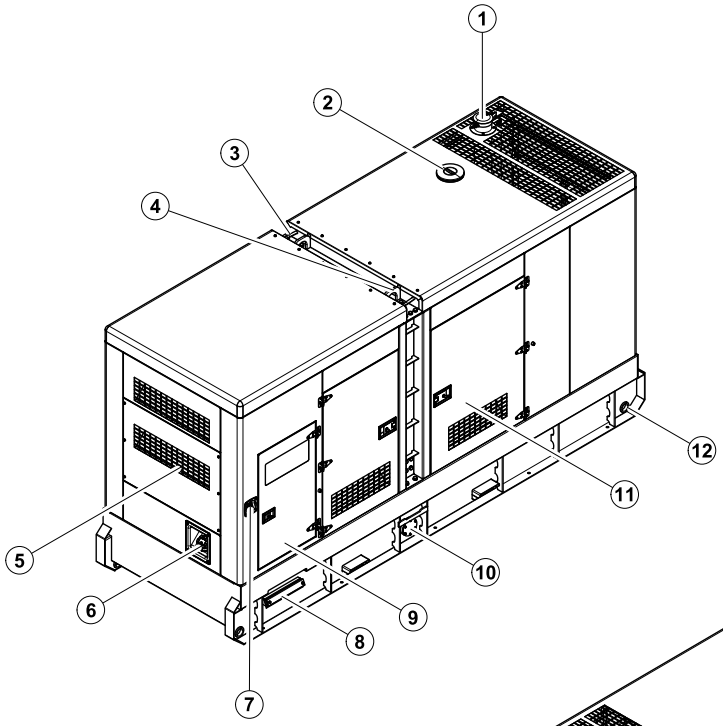
PLC-7420 Control System

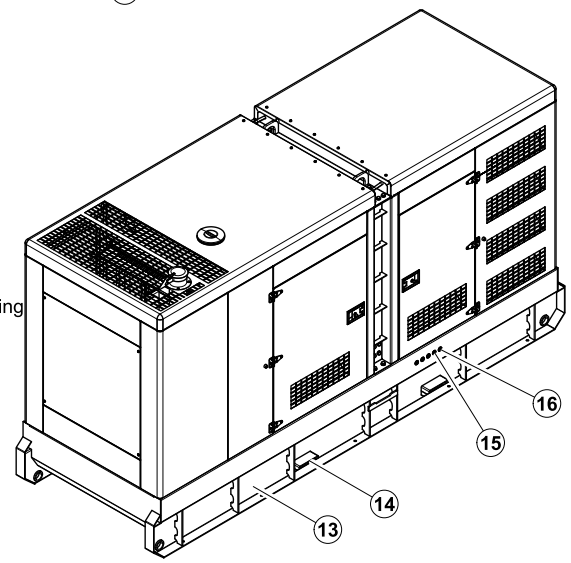


PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

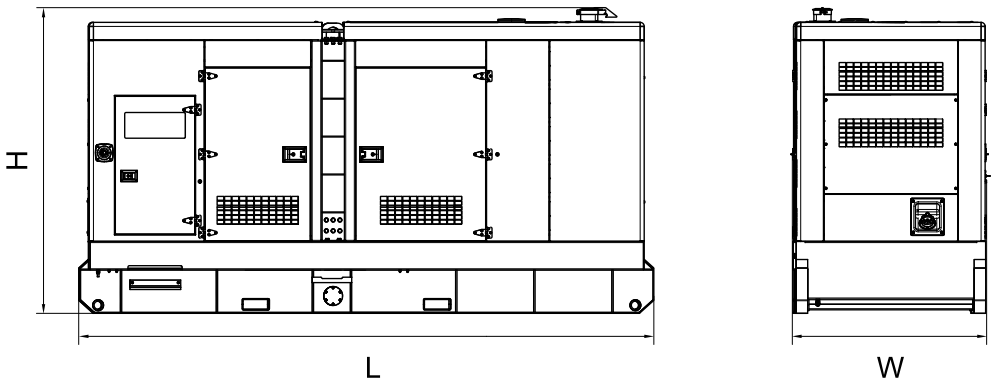
- Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the mains supply and genset
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections; multiple parameters display, like pressure, temp. etc.
- Manual,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

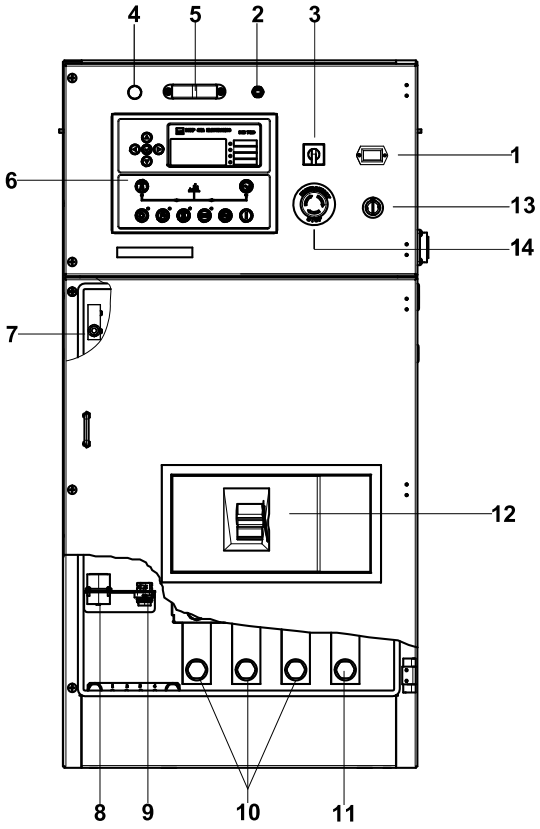




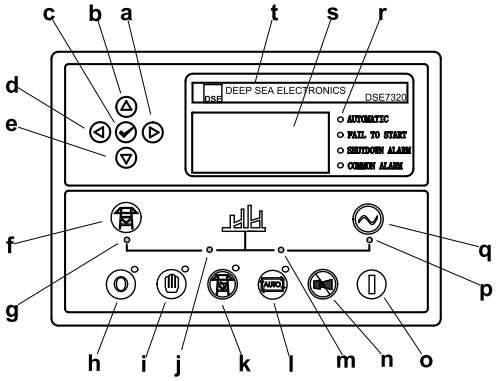
8 Cable trench
7 Emergency stop switch
6 Fuel inlet
5 Air inlet
4 Lifting lug
3 Roping lug
2 Coolant inlet
1 Exhaust gas outlet
16 External fuel inlet/return hose fitting
15 Coolant/Oil drain hose fitting
14 Fork lift channel
13 Base frame
12 Tie down
11 Access door
10 Fuel drain
9 Control cabinet



5 Control System



Control & Field wiring cabinet



Control module

Ref.	Description
1	Time counter
2	Control cabinet lamp switch
3	Mains input changeover switch
4	Charge indicator
5	Control cabinet lamp
6	Control module
7	Limit switch
8	ATS connector
9	Remote run connector
10	Live wire terminals
11	Neutral wire terminal
12	Main circuit breaker
13	Key switch
14	Emergency stop 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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Specification may change without prior notice. For more info., contact Power Link or your local distributors please.

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