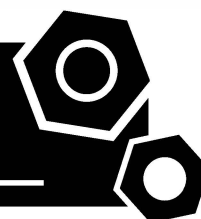


**Generator set**  
**Sound-proof type**  
**B100SE3-AU**

# **SPECIFICATIONS**



# EB series B100SE3-AU, STAGE III

50 Hz @ 1500rpm, 3-phase/5-wiring



## 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 45°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.

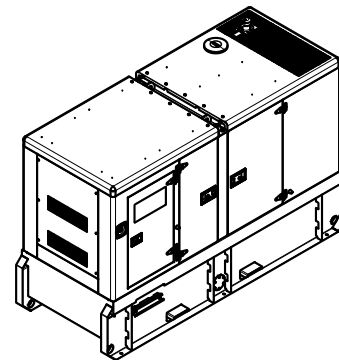
## 2 General Features

- Baudouin engine 4M10G6D3/5
- Close coupled to Leroy Somer alternator LSA44.3S5
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 160A, 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
- 1x12V/120AH sealed for life maintenance free battery

- 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 forkslots
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank with 24 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operator's Manual / Specifications

## 3 Equipment Specification

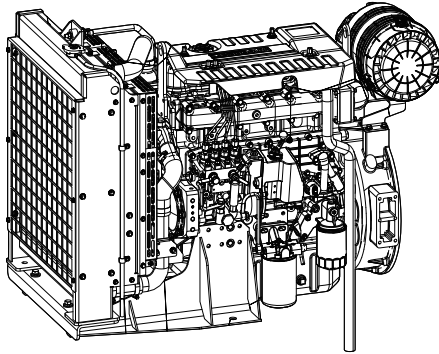
### General technical data



Model.....	B80SE3-AU
Structure type .....	R
Tank capacity.....	530L
Dry weight.....	1979kg
Noise level @7m .....	70.1dBA
Dimensions L×W×H.....	2888×1171×1900mm
Standby Power .....	113kVA/90kW
Prime Power .....	100kVA/80kW

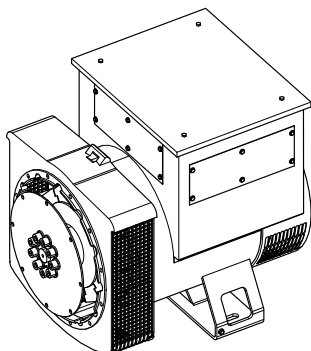
Voltage	380V	400V	415V		
Ampere	152A	144A	139A		
<b>Genset Fuel Consumption</b>					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	6.0	10.6	16.0	21.3	TBA

## Diesel Engine



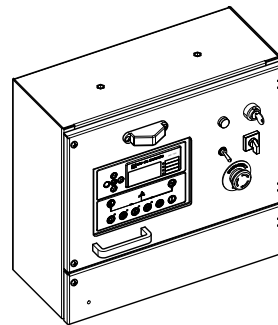
Engine Manufacturer/Brand.....	Baudouin
Engine Model.....	4M10G6D3/5
Dimensions L×W×H.....	1330×741×995mm
Dry Weigh (approx.) .....	500kg
Number of Cylinders.....	4
Bore.....	105mm
Stroke .....	118mm
Displacement.....	4.1L
Compression Ratio .....	17.5
Type of Injection .....	High Pressure Common Rail
Intake System.....	Turbocharged and aftercooled
Intake Resistance .....	≤6.0kPa
Cooling System .....	Liquid (water + 50% antifreeze)
Fan .....	Pusher
Battery Voltage .....	12V
Type of Fuel.....	BS2869 class A2 or BS EN590
Type of Oil .....	API CH4 15W/40
Oil Capacity .....	14L
Type of Coolant .....	Glycol Mixture
Coolant capacity .....	23.6L
Back Pressure .....	≤5kPa
Standby Power .....	100kW
Prime Power .....	90kW
Fuel Consumption(100%load) .....	18.8L/h

## Alternator



Alternator Manufacturer/Brand .....	Leroy Somer
Alternator Model .....	LSA44.3S5
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

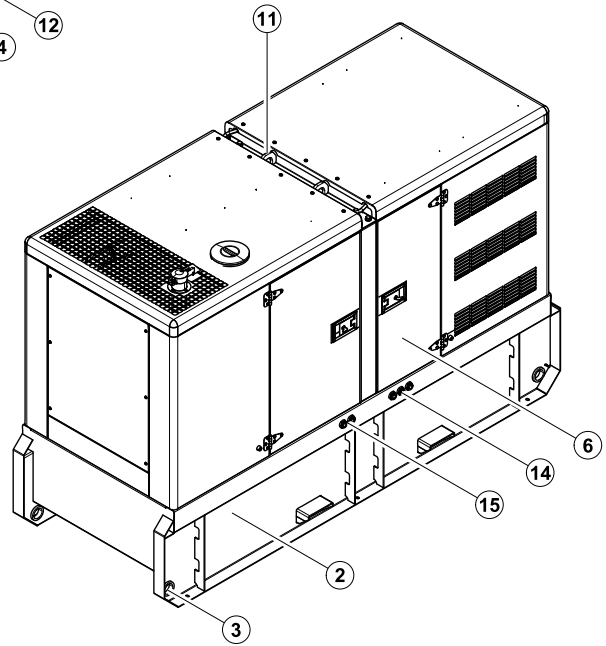
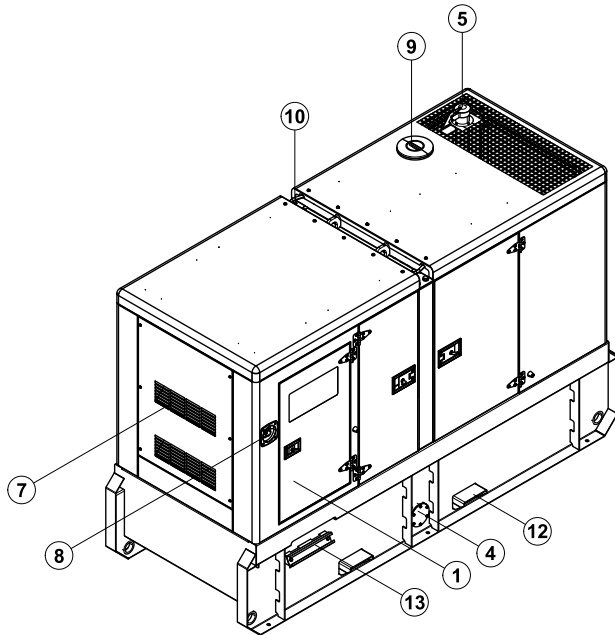


PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

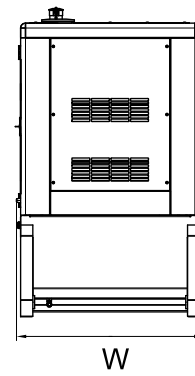
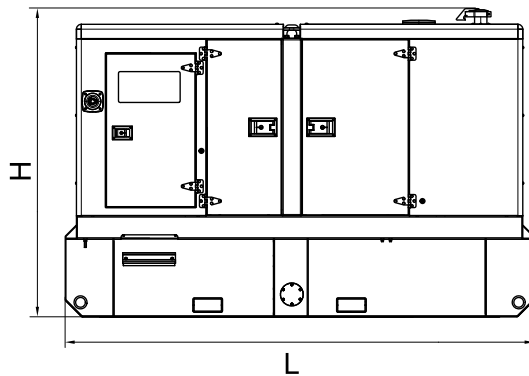
- Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the mains supply and genset
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections; multiple parameters display, like pressure, temp. etc.
- Manual,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

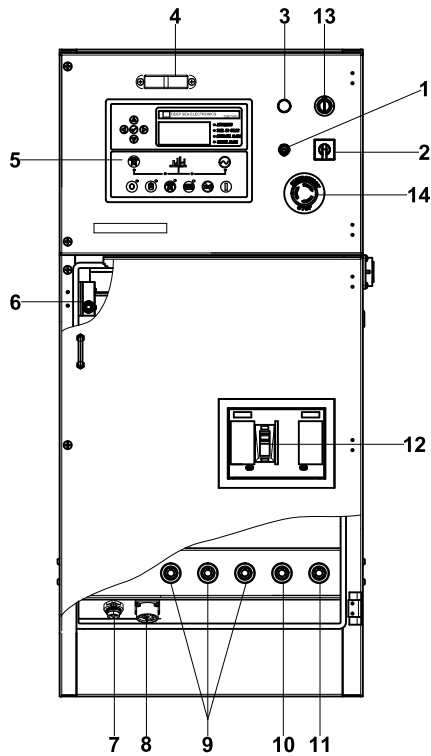
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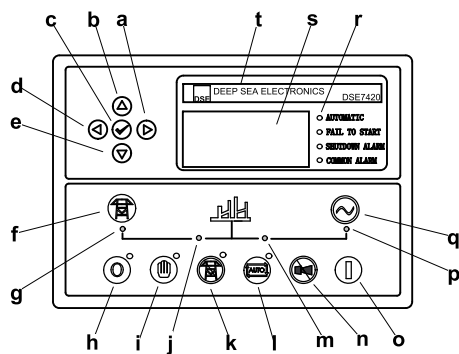
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|-------------------------|---|
| ⑧ Emergency stop switch | ⑮ External fuel inlet/return hose fitting |
| ⑦ Air inlet             | ⑭ Coolant/Oil drain hose fitting          |
| ⑥ Access door           | ⑬ Cable trench                            |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



## 5 Control System



**Control & Field wiring cabinet**



**Control Module**

Ref.	Description
1	Control cabinet lamp switch
2	Mains input changeover switch
3	Charge indicator
4	Control cabinet lamp
5	Control module
6	Limit switch
7	Remote communication interface
8	ATS communication interface
9	Live wire terminals
10	Neutral wire terminal
11	Ground 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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10.2021
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<http://www.powerlinkworld.com>

*Specification may change without prior notice. For more info.,  
contact Power Link or your local distributors please.*