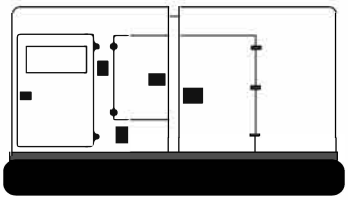
POWERLINK
Power Systems



Generator set

Sound-proof type

B125SE3-AU

SPECIFICATIONS

EB series
B125SE3-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

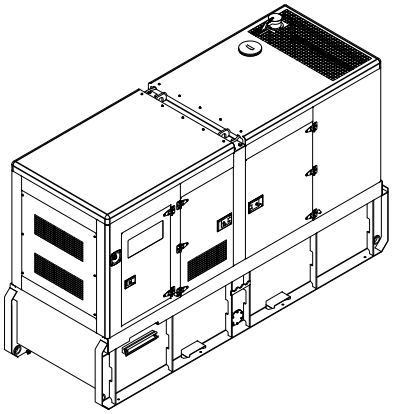
- Painting process specifications and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

2 General Features

- Baudouin engine 4M12G2D3/5
- Close coupled to Leroy Somer alternator LSA44.3M6
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 200A, 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℃ 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 21 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operator's Manual / Specifications

3 Equipment Specification

General technical data



Model.....B125SE3-AU

Structure type .....R

Tank capacity.....620L

Dry weight.....2257kg

Noise level @7m 72.4dBA

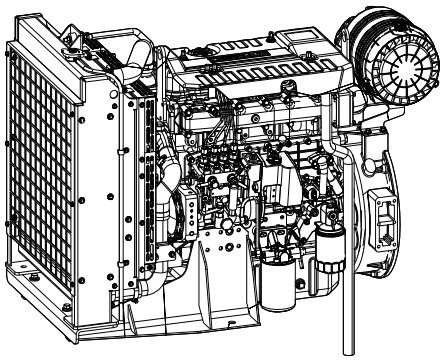
Dimensions L×W×H.....3312x1172x1974mm

Standby Power 150kVA/120kW

Prime Power 125kVA/100kW

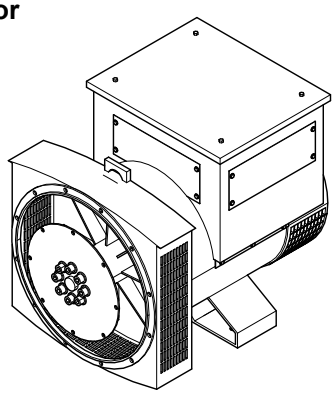
Voltage	380V		400V		415V
Ampere	190A		180A		174A
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	8.5	15.1	21.8	28.7	31.5

Diesel Engine



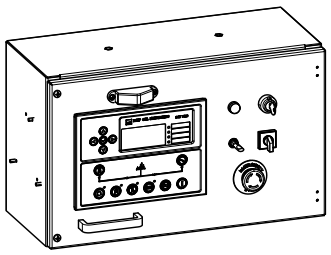
Engine Manufacturer/Brand.....Baudouin
Engine Model.....4M12G2D3/5
Dimensions L×W×H.....1220×800×1060mm
Dry Weigh (approx.) 480kg
Number of Cylinders.....4
Bore 108mm
Stroke 125mm
Displacement.....4.58L
Compression Ratio 16.9
Type of Injection .....High Pressure Common Rail
Intake System.....Turbocharged and aftercooled
Intake Resistance .....≦7.0kPa
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 16L
Type of Coolant .....Glycol Mixture
Coolant capacity.....7.12L
Back Pressure ..... ≦12kPa
Standby Power 138kW
Prime Power 125kW
Fuel Consumption(100%load).....18.8L/h

Alternator



Alternator Manufacturer/Brand ..... Leroy Somer
Alternator Model LSA44.3M6
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

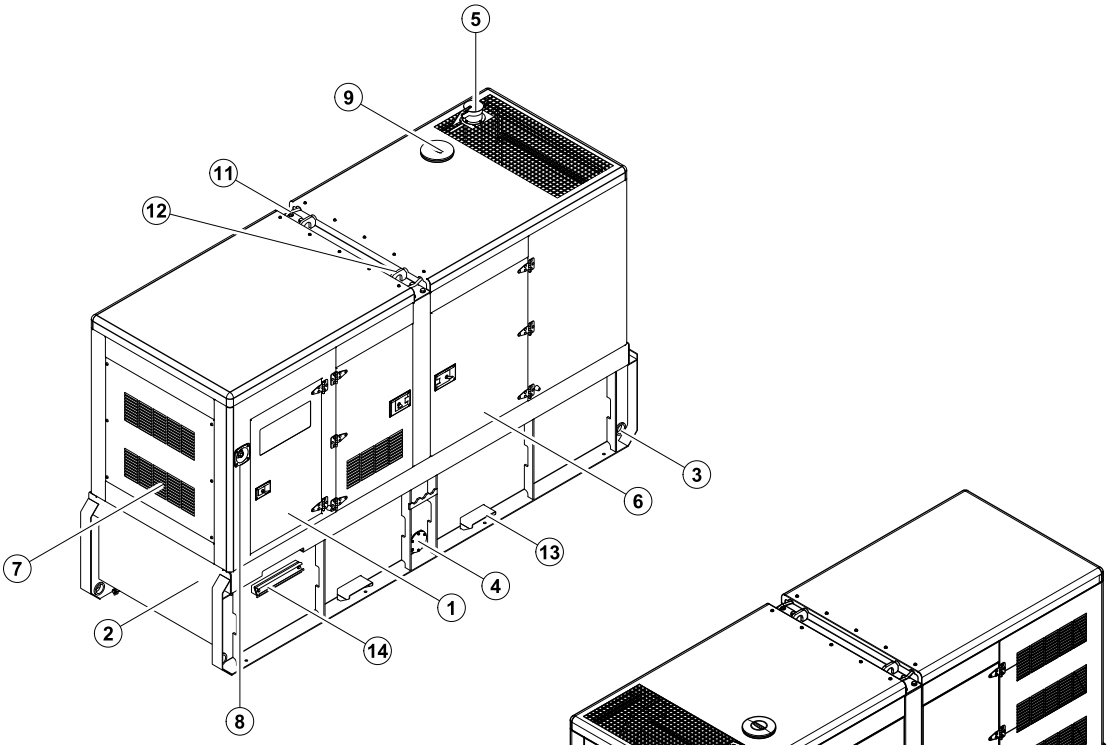
PLC-7420 Control System



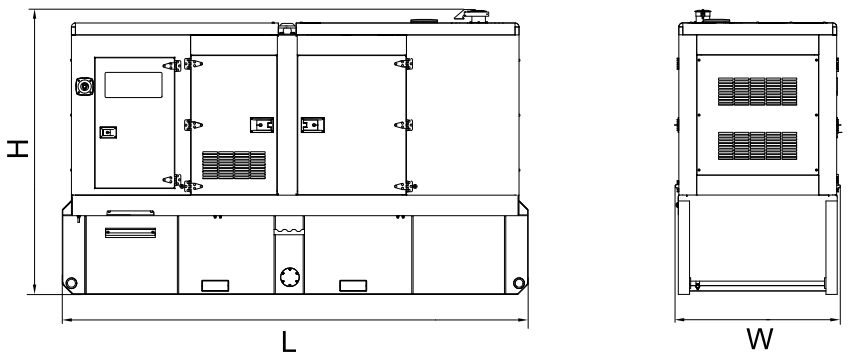
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

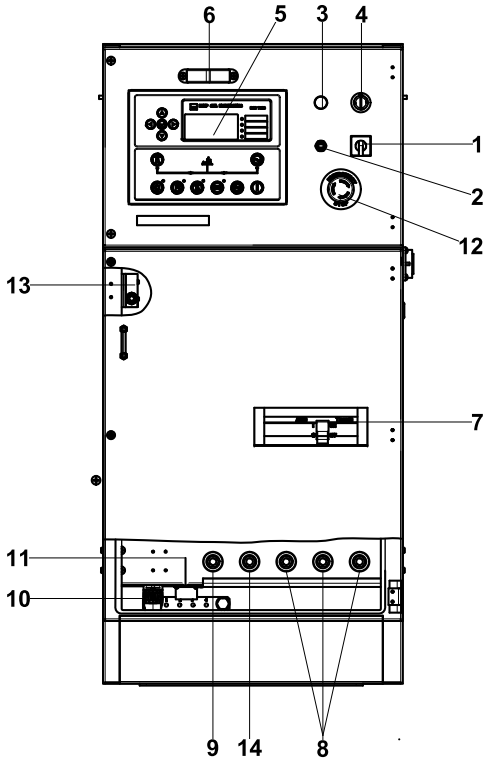
4 Overall Dimensions



8 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
15 Coolant/Oil drain hose fitting
14 Cable trench
13 Fork lift channel
12 Lifting lug
11 Roping lug
10 External fuel inlet/return hose fitting
9 Coolant inlet

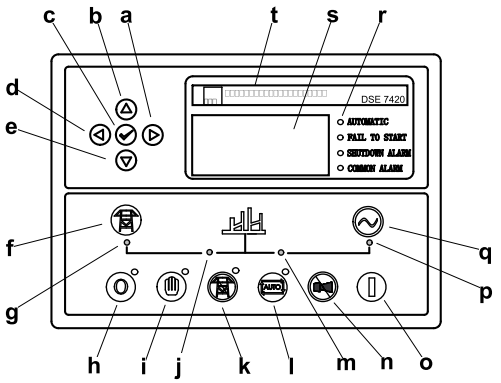


5 Control System



Control & Field wiring cabinet

Ref.	Description
1	Mains input changeover switch
2	Control cabinet lamp switch
3	Charge indicator
4	Key switch
5	Control module
6	Control cabinet lamp
7	Main circuit breaker
8	Live wire terminals
9	Neutral wire terminal
10	Mains input/Remote control communication connector
11	Mains input/Remote control/ ATS communication connector
12	Emergency stop switch
13	Limit switch
14	Ground wire terminal



Control module

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

1000034770-A2–E
10.2021