

1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance European (CE)
- ISO8528-1995
- GB/T2820-1997
- AS 3000-1997
- AS 3010.1-1988

Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25°C to 50°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.

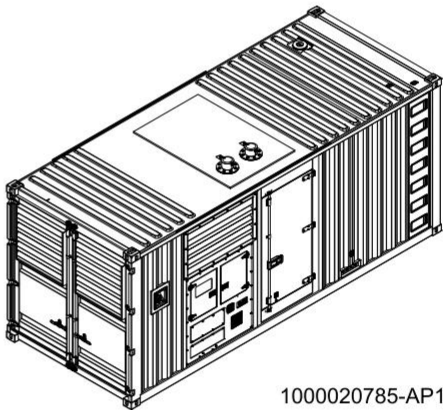
2 General Features

- Perkins engine 4008TAG2A
- Close coupled to a Leroy Somer alternator LSA49.3L9
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 3-Phase 1600A
- Rotate speed governor: Electronic fuel injection governor
- Excitation System: AREP
- A.V.R.Model: R448

- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- Remote run connexor
- 2x12V 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 forklifts
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 8 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operation Manual / Parts List / Specifications

3 Equipment Specification

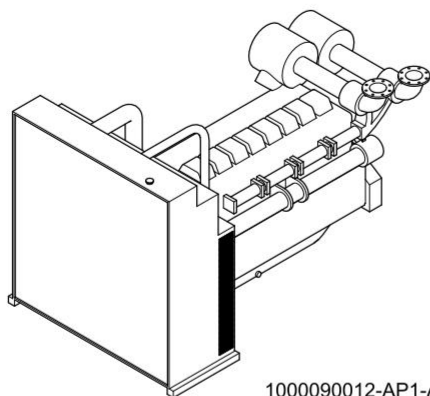
General technical data



1000020785-AP1-A1

Model.....	P900D5
Structure type	C
Tank capacity.....	1150L
Dry weight.....	11127.7kg
Noise level @7m	N/A
Dimensions L×W×H.....	6058x2438x2730mm
Standby Power	990kVA/792kW
Prime Power	900kVA/720kW
Voltage/Ampere	415V/1252A

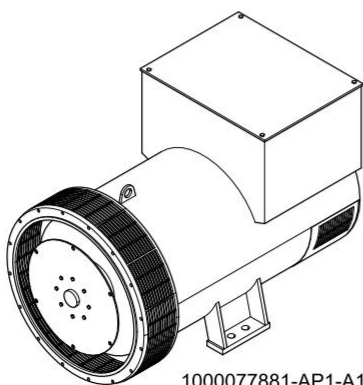
Diesel Engine



1000090012-AP1-A7

Engine Manufacturer/Brand.....	Perkins
Engine Model.....	4008TAG2A
Dimensions L×W×H.....	3711×2046×2146mm
Dry Weigh (approx.)	4320kg
Number of Cylinders.....	8
Bore.....	160mm
Stroke.....	190mm
Displacement.....	30.56L
Compression Ratio.....	13.6
Type of Injection	Direct injection
Intake System.....	Turbocharged
Intake Resistance.....	≤3.7kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	24V
Type of Fuel.....	BS2869 class A2 or BS EN590
Type of Oil	API 15W/40
Oil Capacity	153L
Type of Coolant	Glycol mixture
Coolant capacity.....	149L
Back Pressure	≤8.0kPa
Standby Power	985kW
Continuous Power	899kW
Fuel Consumption(100%load).....	220L/h

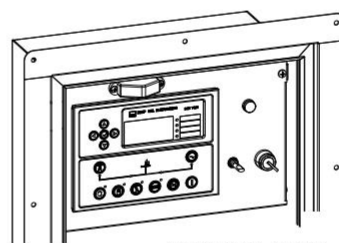
Alternator



1000077881-AP1-A1

Alternator Manufacturer/Brand	Leroy Somer
Alternator Model	LSA49.3L9
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
Telephone Interference.....	THF<2%;TIF<50

PLC-7420 Control System



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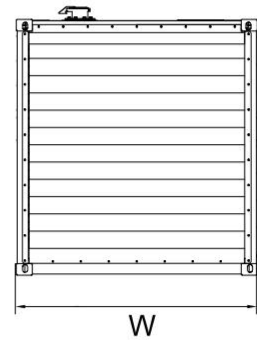
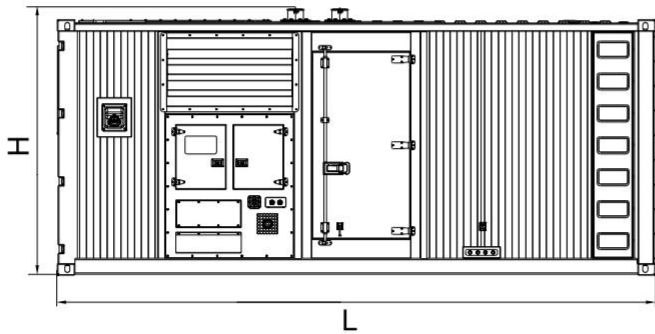
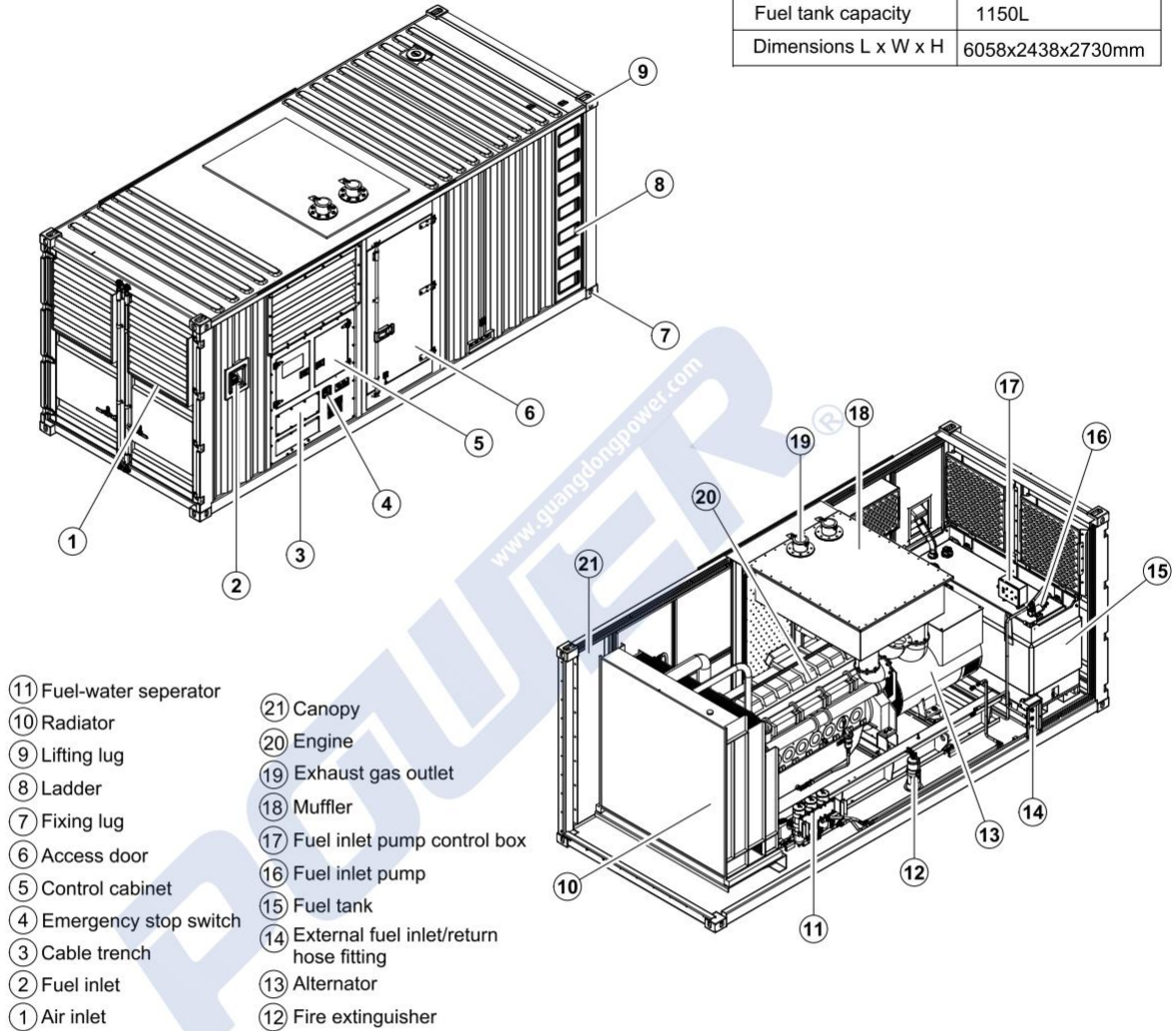
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

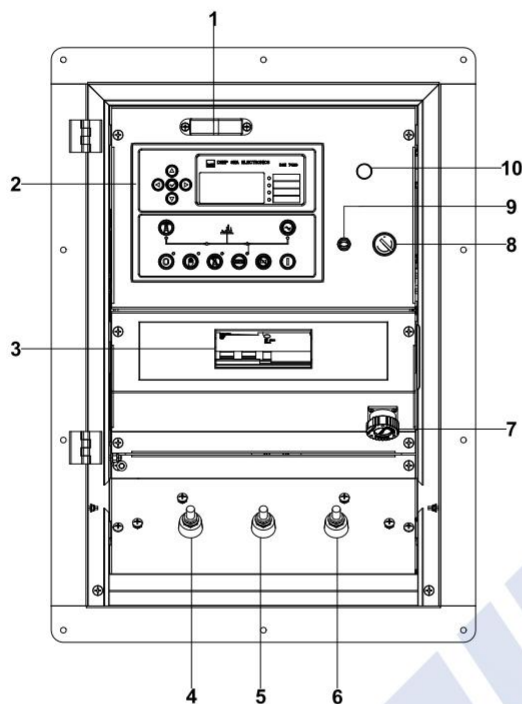
4 Overall Dimensions

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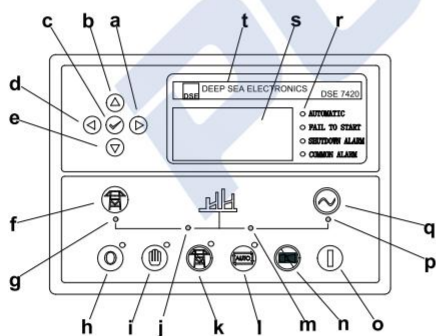
Dry weight	11127.7kg
Fuel tank capacity	1150L
Dimensions L x W x H	6058x2438x2730mm



5 Control System



Control & Field wiring cabinet



Control module

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

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

1000094400-IT1-F3