

1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance European (CE)
- China Compulsory Certification (CCC)
- ISO8528-5:2005
- GB/T2820.5-2009

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 80%.
- Altitude: Below one thousand (1000) meters.

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.

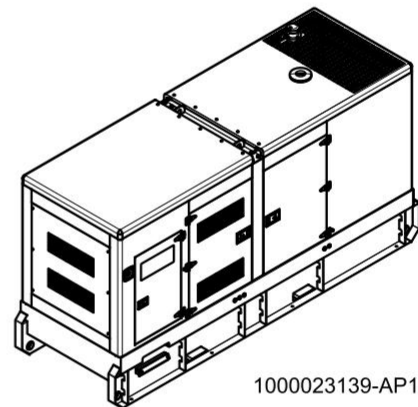
2 General Features

- Perkins engine 1606A-E93TAG5
- Close coupled to a Leroy Somer alternator LSA46.2VL12
- Microprocessor control module PLC-7420
- NADER main circuit breaker:500A
- Rotate speed governor: Electronic fuel injection governor
- Excitation system: Self excited , SHUNT
- A.V.R model: R250
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle

- 2x12V/120AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 50°C radiator
- Oil pump on the engine
- Steel base frame with forklifts
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 10 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

General technical data

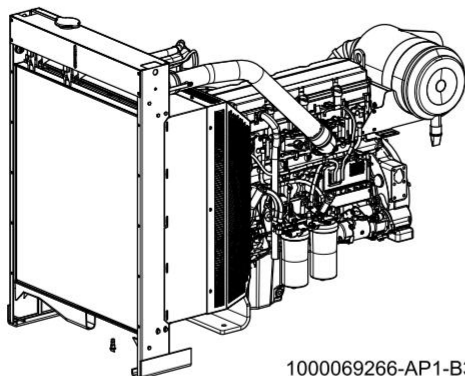


1000023139-AP1-B3

Model.....P300D5
Structure type R
Tank capacity.....620L
Dry weight.....3623kg
Noise level @7m N/A
Dimensions L×W×H..... 3970x1324x2102mm
Standby Power 330kVA/264kW
Prime Power 300kVA/240kW

Voltage	380V	400V	415V	440V	
Ampere	455.8A	433A	417.3A	417.4A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	34	47	61	66

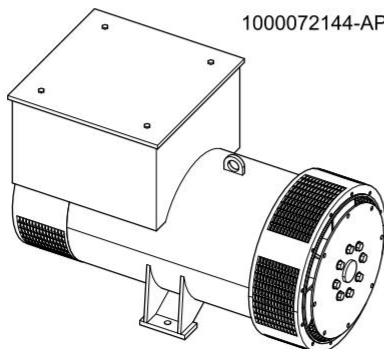
Diesel Engine



1000069266-AP1-B3

Engine Manufacturer/Brand.....	Perkins
Engine Model.....	1606A-E93TAG5
Dimensions L×W×H.....	1964×1074×1353mm
Dry Weight (approx.)	796kg
Number of Cylinders.....	6
Bore.....	116.6mm
Stroke.....	146mm
Displacement.....	9.3L
Compression Ratio.....	17.2
Type of injection.....	Direct injection
Intake System.....	Turbocharged, air-to-air charge cooled
Intake Resistance.....	≤ 6.22kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	24V
Type of Fuel.....	BS 2869 1998 CLASS A1, CLASS A2 or BSEN590
Type of Oil	API-CH-4, API-CG-4 or ACEA E3
Oil Capacity	36L
Type of Coolant	Glycol mixture
Coolant capacity.....	30.9L
Back Pressure	≤10.0kPa
Standby Power	264kW
Prime Power	240kW
Fuel Consumption(100%load).....	61L/h

Alternator

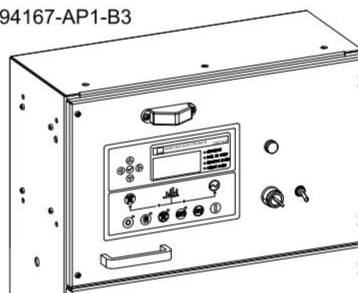


1000072144-AP1-A1

Alternator Manufacturer/Brand	Leroy Somer
Alternator Model	LSA46.2VL12
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.....	0.43m³/s(50Hz), 0.51m³/s(60Hz)
Voltage Regulation	±0.5%
Total harmonic TGH / THC	at no load < 2.5 % - on load < 2.5%
Telephone Interference.....	THF<2%;TIF<50

PLC-7420 Control System

1000094167-AP1-B3



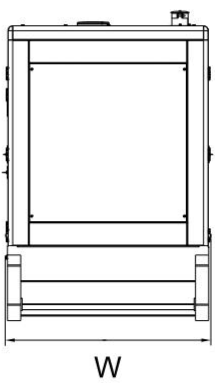
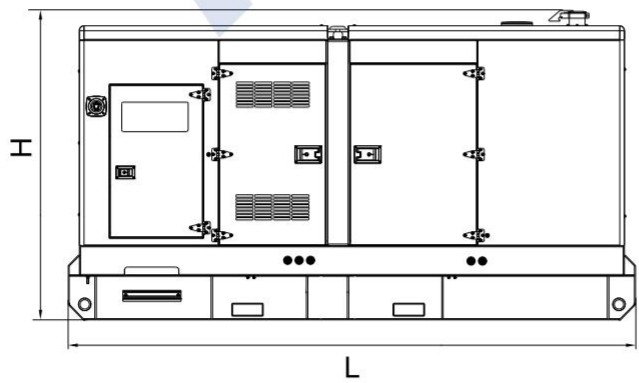
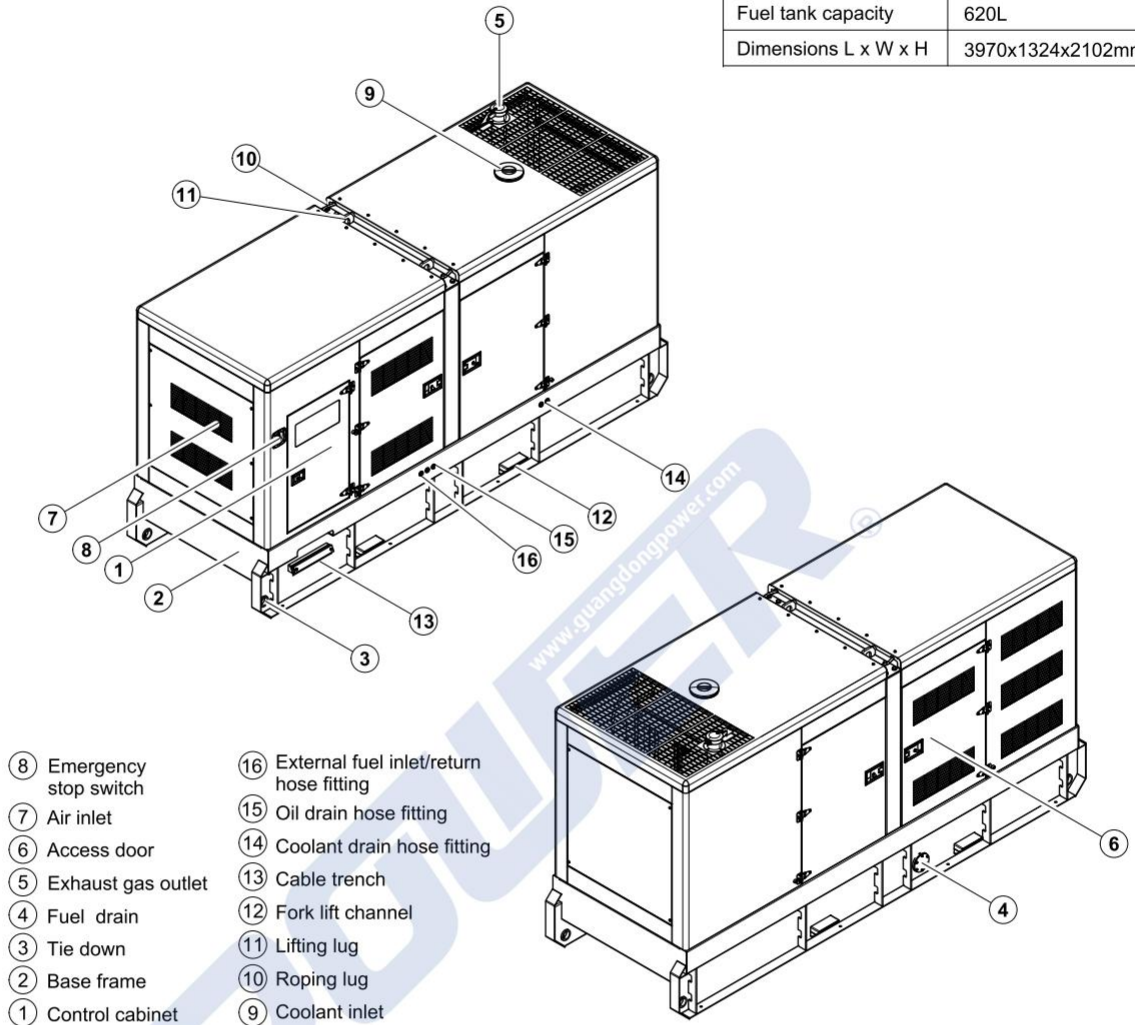
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

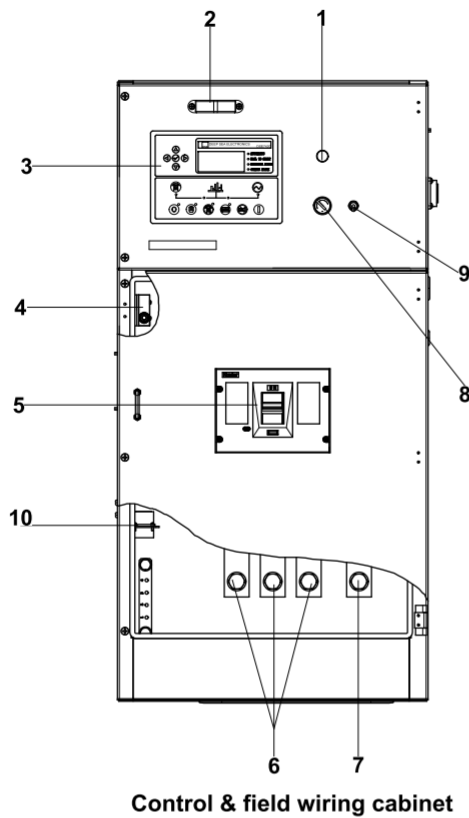
4 Overall Dimensions

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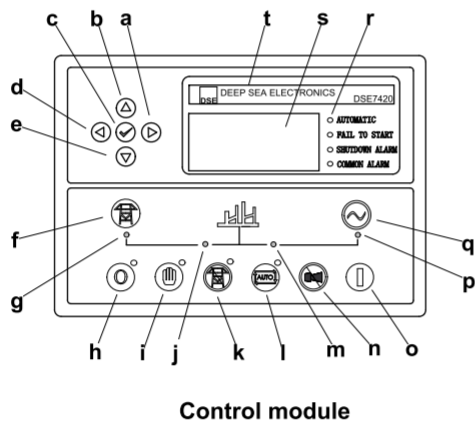
Dry weight	3623kg
Fuel tank capacity	620L
Dimensions L x W x H	3970x1324x2102mm



5 Control System



Control & field wiring cabinet



Control module

1000094167-IT1-B3

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

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