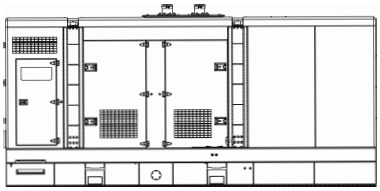
PR POWER



Generator set

Sound-proof type

PR880P-SAE

SPECIFICATIONS

www.prpower.com | 1300 399 499

Rev. 14.November.2022

Perkins series
PR880P-SAE
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
- GB/T2820.5-2009

Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25℃ to 50℃. The coolant heater is needed when the temperature is below 5℃
- 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

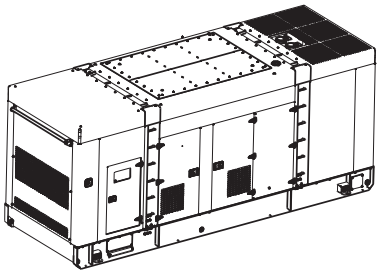
- Painting process specifications and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

2 General Features

- Perkins engine 4006-23TAG3A
- Close coupled to a Leroy Somer alternator S6L1D-C4
- Microprocessor control module PLC-7420
- DMA main circuit breaker: 1250A
- Rotate speed governor: Electronic governor
- Excitation system: Self excited
- A.V.R model: R448
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 2x12V/150AH sealed for life maintenance free battery
- Lockable battery isolator switch
- 50℃ radiator
- Oil pump on the engine
- Steel base frame with forkslots
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Fuel tank for 5 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

General technical data

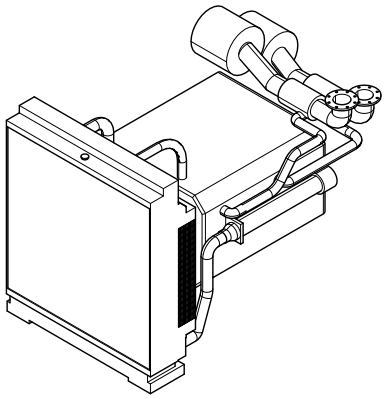


Model..... PR880P-SAE
Structure type ..... R
Tank capacity.....1250L
Dry weight.....10673kg
Sound pressure level @7m ..... 78dB(A)
Dimensions L×W×H.....5966×2200×2542mm
Standby Power 880kVA/704kW
Prime Power 800kVA/640kW

Voltage	380V	400V	415V	440V
Ampere	1215.5A	1154.7A	1112.9A	1049.7A

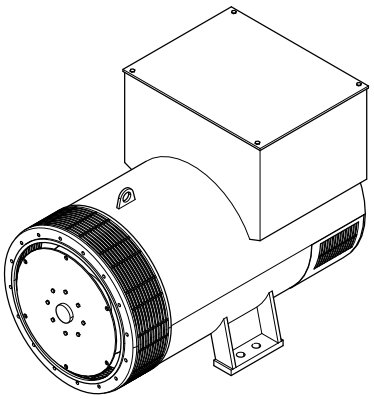
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	85.5	123.5	163.4	184.3

Diesel Engine



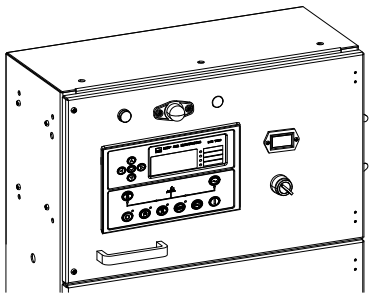
Engine Manufacturer/Brand.....Perkins
Engine Model.....4006-23TAG3A
Dimensions L×W×H.....3027×1706×1964mm
Dry Weigh (approx.) 2524kg
Number of Cylinders.....6
Bore 160mm
Stroke 190mm
Displacement.....22.92L
Compression Ratio 13.6
Type of Injection ..... Direct injection
Intake System..... Turbocharged air-to-air charge cooled
Intake Resistance .....≦3.7kPa
Cooling System .....Water cooled
Fan ..... Pusher
Battery Voltage 24V
Type of Fuel..... BS2869 1998 Class A1, A2
Type of Oil ..... API CG4 15W/40
Oil Capacity 113.4L
Type of Coolant .....Glycol Mixture
Coolant capacity.....105L
Back Pressure .....≦6.0kPa
Standby Power 786kW
Prime Power.....705kW
Fuel Consumption(100%load).....210g/kW.h

Alternator



Alternator Manufacturer/Brand ..... Stamford
Alternator Model S6L1D-C4
Exciter.....Brushless
Cooling Fan ..... Cast alloy aluminun
Windings.....100% copper
Insulation Class ..... H
Winding Pitch.....2/3
Terminals 6
Drip Proof IP23
Altitude.....≤1000m
Overspeed 2250Rev/Min
Air Flow..... 1m³/s(50Hz),1.2m³/s(60Hz)
Voltage Regulation .....±0.5%
Total Harmonic TGH / THCat no load < 4 % - on load < 4%
Telephone Interference.....THF<2%;TIF<50

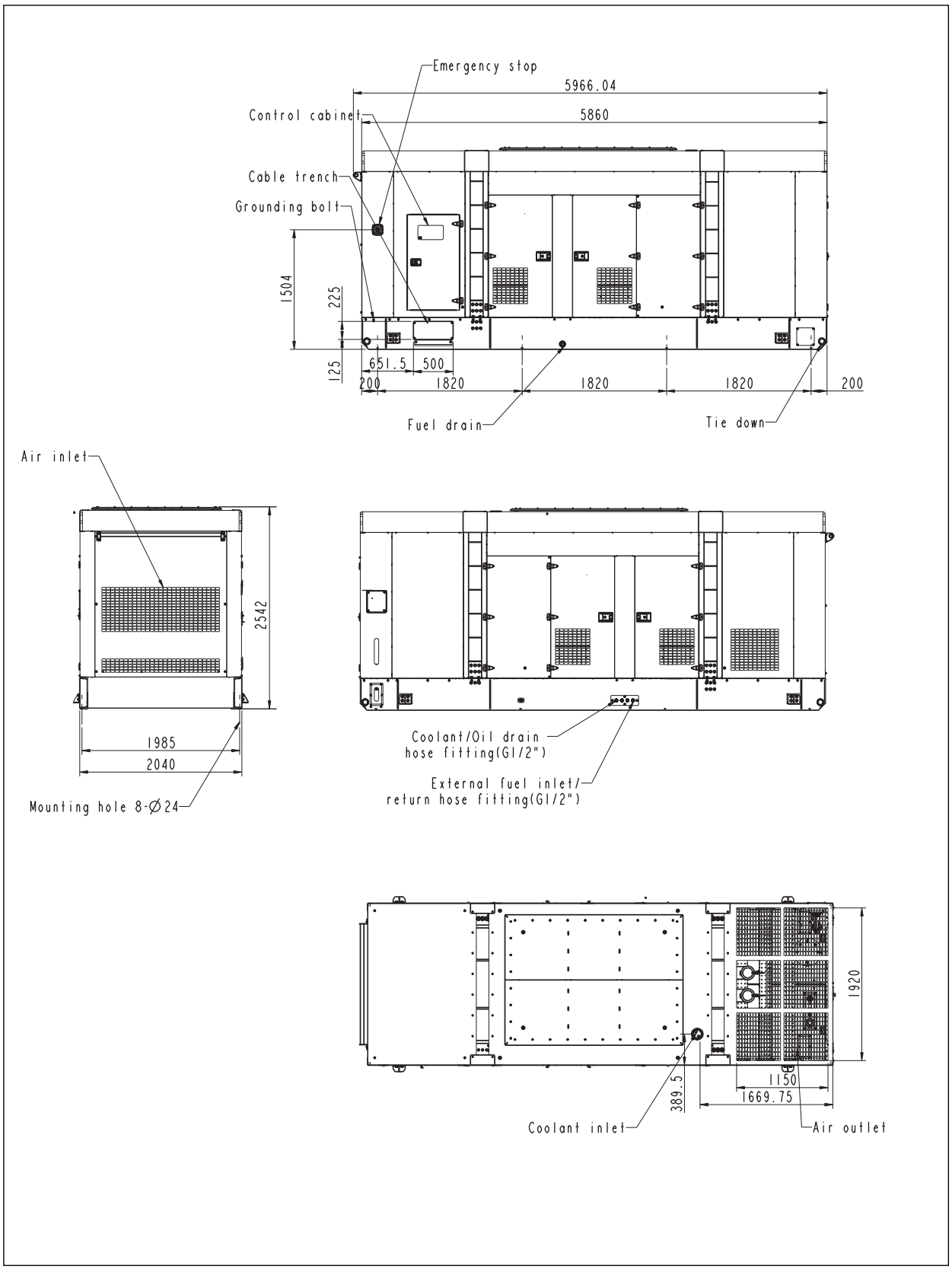
PLC-7420 Control System



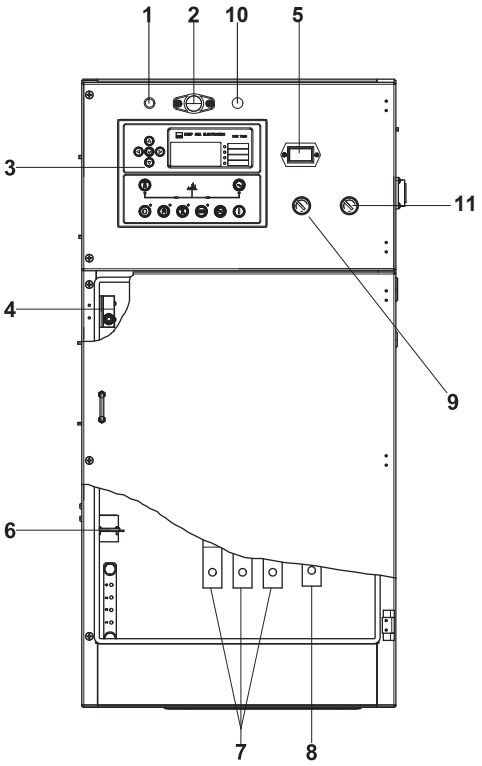
PLC-7420 is an advanced control module based on microprocessor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

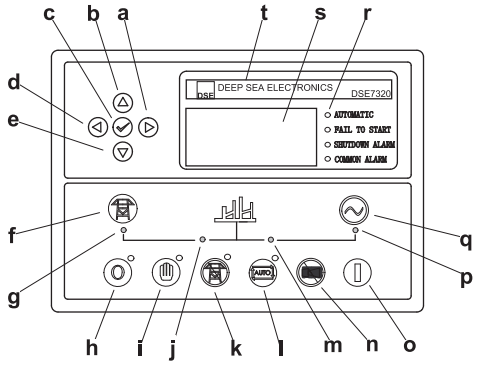
4 Overall Dimensions



5 Control System



Control & field wiring cabinet



Control module

1000093603-IT1-D2

Ref.	Description
1	Charge indicator
2	Control panel lamp
3	Control module
4	Limit switch
5	Time counter
6	Mains input/ remote/ AMF communication connector
7	Live wire terminals
8	Neutral wire terminal
9	Key switch
10	Control panel lamp switch
11	Changeover 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