PR16K-S-SAE

Kubota Powered Generator
Sound-proof type

Kubota series
PR16K-S-SAE
50 Hz @ 1500rpm,1-phase/3-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
- AS 3000-2018
- AS 3010.1-2017

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 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

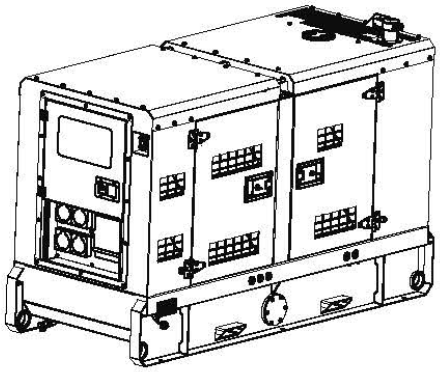
- Painting process specifications and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

2 General Features

- Kubota engine D1803-M-DI-BG
- Close coupled to a Lersoy somer alternator LSA42.3VS3
- Microprocessor control module PLC920
- ABB main circuit breaker: 1-Phase 80A
- Rotate speed governor: Electrical governor
- Excitation System: Self excited,SHUNT
- Remote start wiring terminals
- 1x12Vx72Ah sealed for life maintenance free battery
- Control power switch
- 2 x Emergency stop switch
- Lockable battery isolator switch
- Powder coated canopy
- 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
- Base fuel tank for 30 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

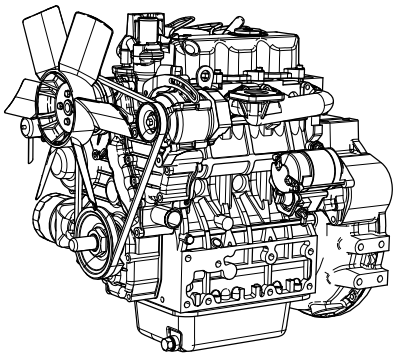
General technical data



Model.....PR16K-S-SAE
Structure type ..... RS
Tank capacity..... 120L
Dry weigh..... 771kg
Noise level @7m 64.8dBA
Dimensions L×W×H..... 1932x830x1273mm
Standby Power 19.8kVA/15.84kW
Prime Power 18kVA/14.4kW
Voltage/Ampere 230V/78A

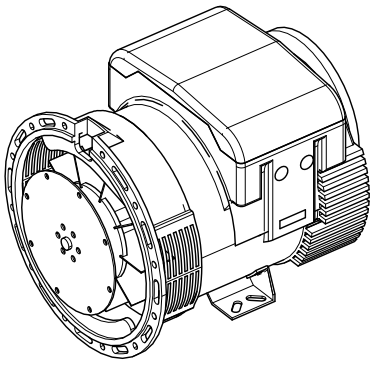
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	2.0	3.0	3.9	4.3

Diesel engine



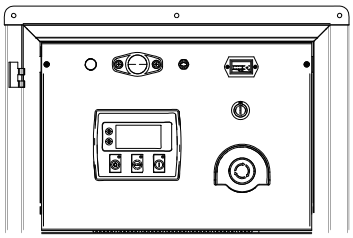
Engine Manufacturer/Brand..... KUBOTA
Engine Model.....D1803-M-DI-BG
Dimensions L×W×H.....575.9x499x685mm
Dry Weigh (approx.) 151kg
Number of Cylinders.....3
Bore 87mm
Stroke 102.4mm
Displacement.....1.826L
Compression Ratio 23.8
Type of Injection ..... Direct injection
Intake System..... Natural aspirated
Intake Resistance 1.96kPa
Cooling System .....Water cooled
Fan ..... Pusher
Battery Voltage 12V
Type of Fuel..... No.2-D(ASTMD975)
Type of Oil ..... Class CF lubricating oil
Oil Capacity 7.6L
Type of Coolant ..... Glycol mixture
Coolant Capacity 7.1L
Back Pressure 7.1kPa
Standby Power 17.2kW
Prime Power 15.6kW
Fuel Consumption(100%load).....3.9L/H

Alternator



Alternator Manufacturer/Brand .....Leroy Somer
Alternator Model LSA42.3VS3
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.....N/A
Voltage Regulation .....±1.0%
Total Harmonic TGH / THCat no load < 1.5 % - on load < 5%
Telephone Interference..... THF<2%;TIF<50

PLC-920 Control System

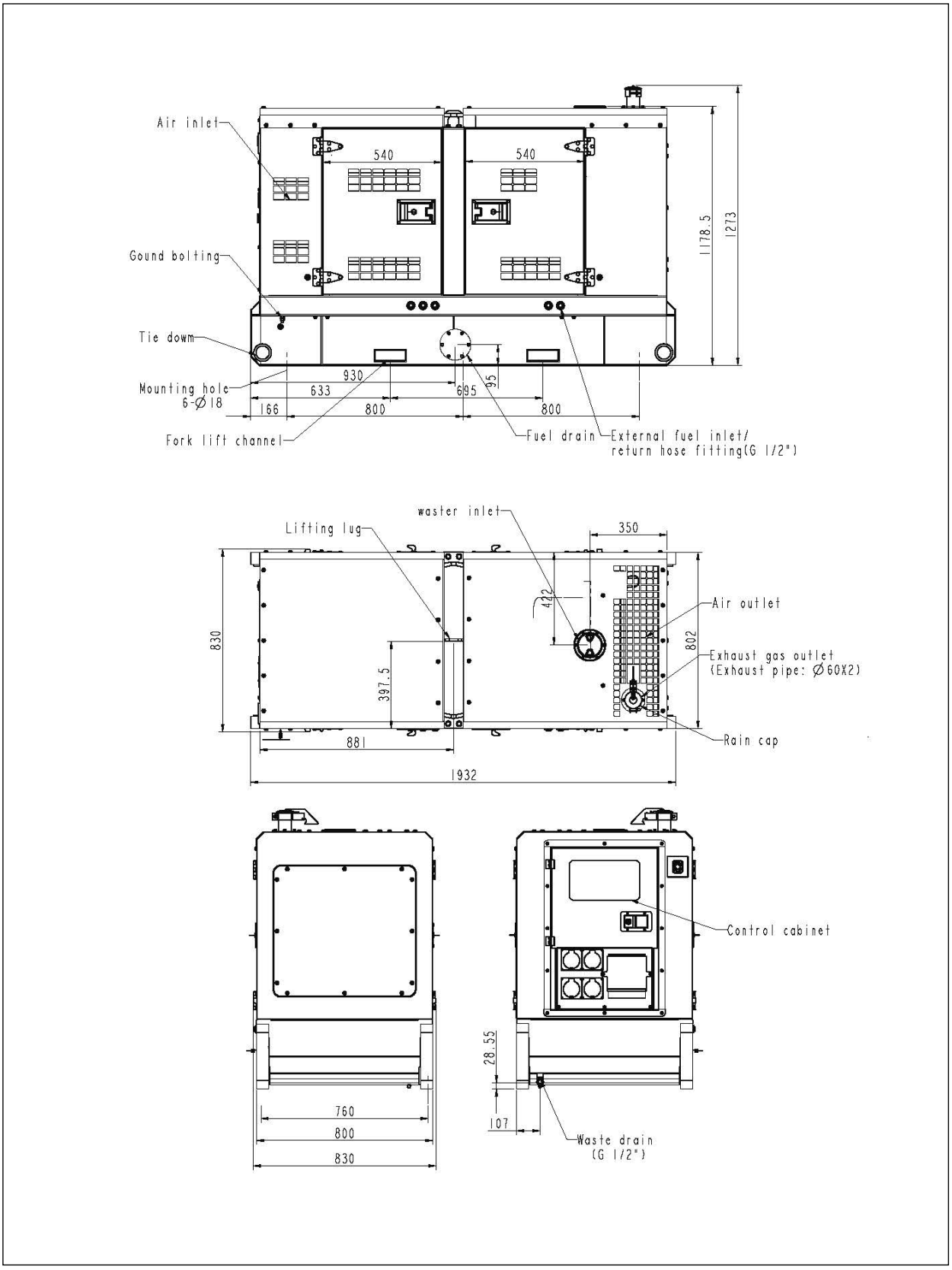


PLC-920 is an advanced control module based on micro-processor designed to control the engine via a key switch and push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition of an engine failure.

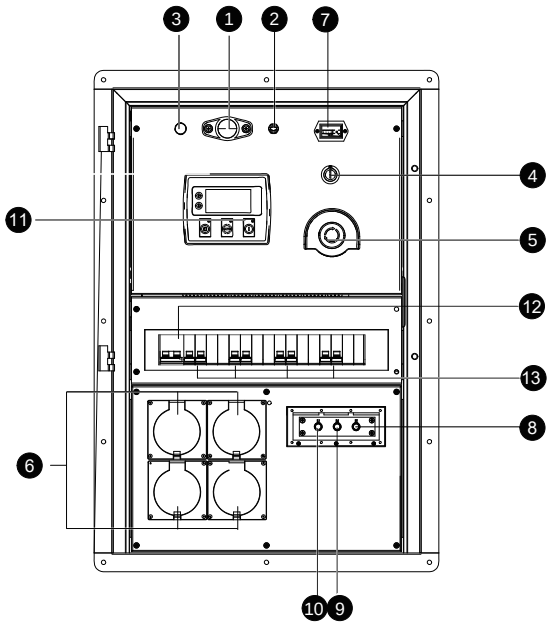
Standard Control Function

- Manual Engine Control Module
- Low Oil Pressure
- High Engine Temperature
- Auxiliary Shutdown
- Overspeed Protection
- Protection hold-off timer
- Charge Failure warning

4 Overall Dimensions

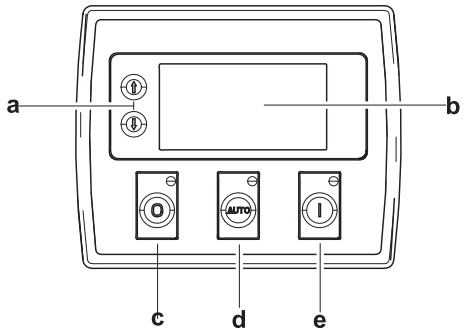


5 Control System



Control & field wiring cabinet

Ref.	Description
1	Control cabinet lamp
2	Control cabinet lamp switch
3	Charge indicator
4	Key switch
5	Emergency stop switch
6	4x single-phase convenience receptacle
7	Time counter
8	Ground wire terminal
9	Neutral wire terminal
10	Live wire terminal
11	Control module
12	Main circuit breaker
13	Circuit breakers of convenience receptacle



Control module

Ref.	Description
a	Navigation button£» Accept (Configuration mode only)
b	Main status display
c	Stop/reset button£» Next page (Configuration mode only)
d	Auto start button£» Decrease value/next item (Configuration mode only)
e	Start button£» Increase value/next item (Configuration mode only)