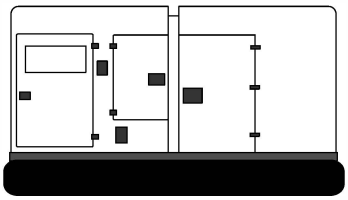
POWERLINK
Power Systems



Generator set

Sound-proof type

PK23S-AU

SPECIFICATIONS

www.powerlinkworld.com

RK series
PK20S-AU
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
- AS 3000-2018
- AS 3010-2017

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 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

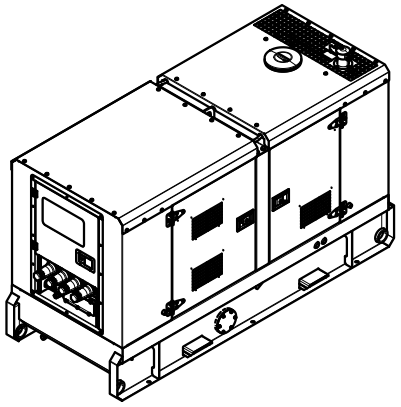
- Painting process specifications and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

2 General Features

- Kubota engine V2403-BG
- Close coupled to Stamford alternator PI144J
- Microprocessor control module PLC-920
- SCHNEIDER main circuit breaker: 100A
- Rotate speed governor: Electrical governor
- Excitation System: Self excited
- A.V.R
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- Convenience receptacles: 1P
- 1x12V/72AH sealed for life maintenance free battery
- 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 18 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

General technical data



Model.....PK23S-AU

Structure type .....RS

Tank capacity.....120L

Dry weigh.....880kg

Noise level @7m 67.0dBA

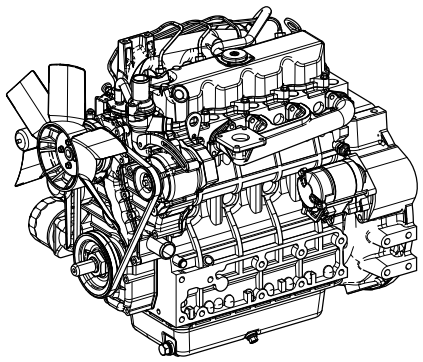
Dimensions L×W×H.....2132x750x1209mm

Standby Power 25.3kVA/20.24kW

Prime Power 23kVA/18.4kW

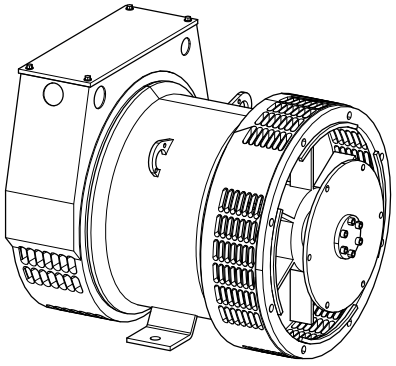
Voltage	220V		230V		240V
Ampere	105A		100A		96A
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	2.8	4.1	5.5	6.1

Diesel engine



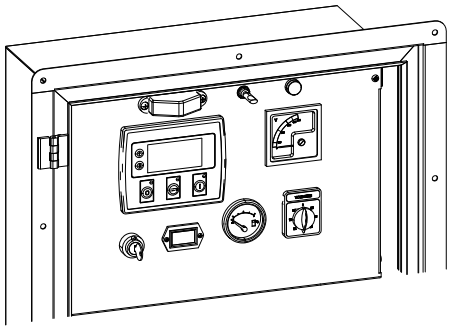
Engine Manufacturer/Brand..... KUBOTA
Engine Model..... V2403-BG
Dimensions L×W×H.....706.4×492×682.5mm
Dry Weigh (approx.) 241kg
Number of Cylinders.....4
Bore 98mm
Stroke 110mm
Displacement.....2.2L
Compression Ratio 19.6
Type of Injection .....Direct injection
Intake System..... Natural aspirated
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 9.7L
Type of Coolant .....Glycol mixture
Coolant Capacity .....N/A
Back Pressure .....≦7.07kPa
Standby Power 22.8kW
Continuous Power 20.7kW
Fuel Consumption(100%load).....5.5L/h

Alternator



Alternator Manufacturer/Brand ..... Stamford
Alternator Model PI144J
Exciter.....Brushless
Cooling Fan .....Synthetic plastic
Windings.....100% copper
Insulation Class ..... H
Winding Pitch.....2/3
Terminals 12
Drip Proof IP23
Altitude.....≤1000m
Overspeed 2250rpm
Air Flow..... 0.11 m³/s(50Hz),0.135m³/s(60Hz)
Voltage Regulation .....±0.5 %
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%
Telephone Interference..... THF<2%;TIF<50

PLC-920 Control System

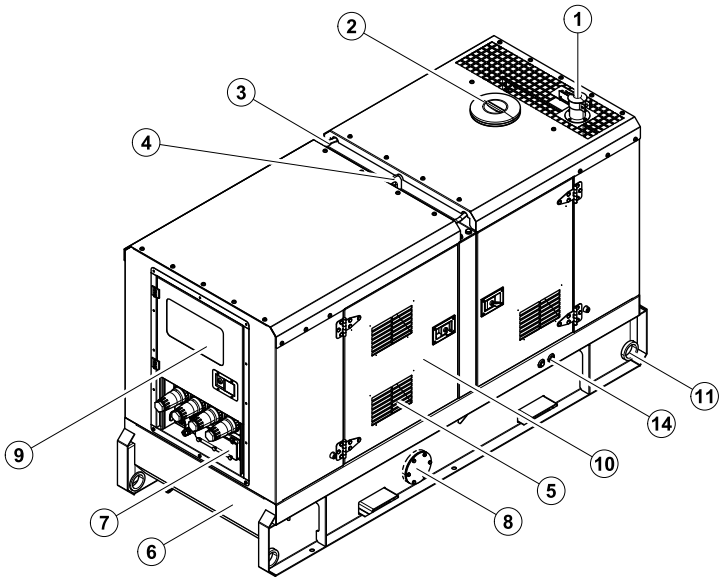


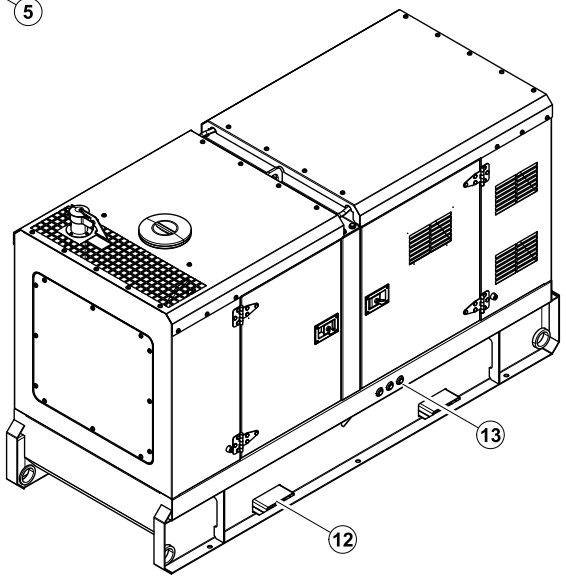
PLC-920 is an advanced control module based on microprocessor designed to control the engine via push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition of an engine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

Standard Control Function

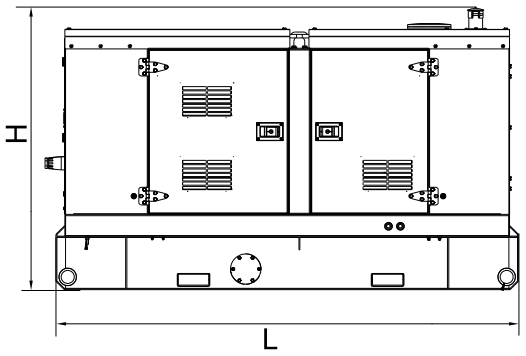
- Manual Engine Control Module
- Low Oil Pressure
- High Engine Temperature
- Auxiliary Shutdown
- Overspeed Protection
- Protection hold-off timer
- Charge Failure warning

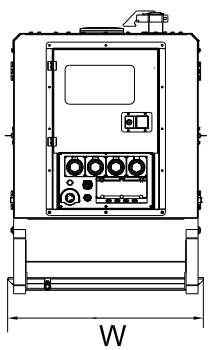
4 Overall Dimensions



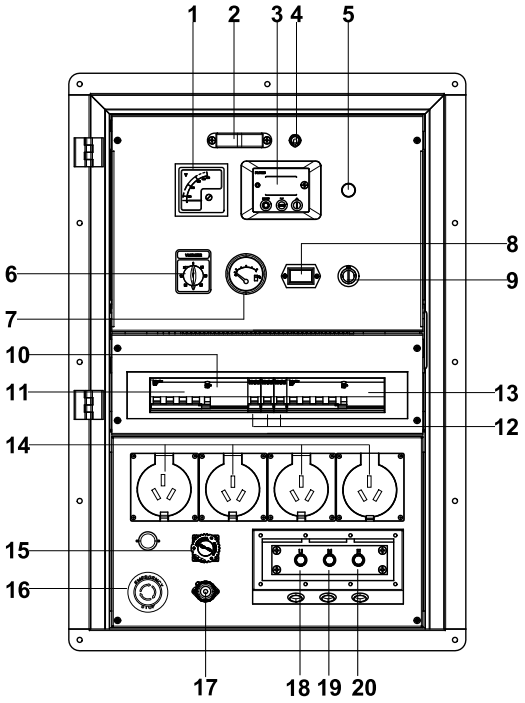


(7) Cable trench	(14) Coolant drain hose fitting
(6) Base frame	(13) Oil drain hose fitting
(5) Air inlet	(12) Fork lift channel
(4) Lifting lug	(11) Tie down
(3) Roping lug	(10) Access door
(2) Coolant inlet	(9) Control cabinet
(1) Exhaust gas outlet	(8) Fuel drain



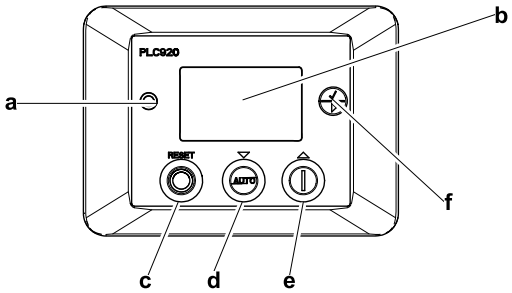


5 Control System



Control & field wiring cabinet

Ref.	Description
1	Voltage meter
2	Control cabinet lamp
3	Control module
4	Control cabinet lamp switch
5	Charge indicator
6	Voltmeter change-over switch
7	Fuel level meter
8	Time counter
9	Key switch
10	RCD.
11	Circuit breaker of three-phase convenience receptacle
12	Circuit breakers of single-phase convenience receptacle
13	Main circuit breaker
14	4x single-phase convenience receptacle
15	Remote control/ ATS communication connector
16	Emergency stop switch
17	Mains input/ Remote control communication connector
18	Live wire terminal
19	Neutral wire terminal
20	Ground wire terminal



Control module

Ref.	Description
a	Alarm indicator
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)
f	Navigation button; Accept (Configuration mode only)

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