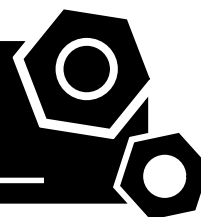


**Generator set**  
**Sound-proof type**  
**PK20S-AU**

# **SPECIFICATIONS**



## 1 Standards & Conditions

### Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (CE)
- China Compulsory Certification (CCC)
- ISO8528-5:2005
- GB/T2820.5-2009
- AS 3000-1997
- AS 3010.1-1988

### 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 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.

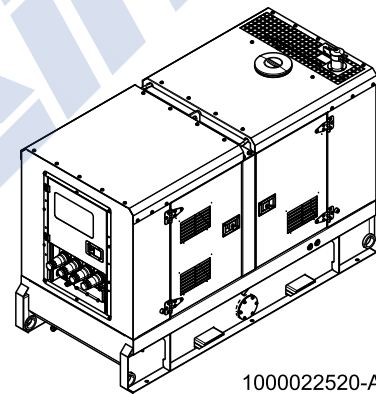
## 2 General Features

- KUBOTA engine V2203-BG
- Close coupled to a Stamford alternator PI144H
- Microprocessor control module PLC- 920
- SCHNEIDER main circuit breaker: 100A
- Rotate speed governor: Mechanical governor
- Excitation system: Self excited , SHUNT
- A.V.R model: AS480
- Key switch
- Emergency stop switch

- ATS (automatic transfer switch) receptacle
- 1x12V 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 forkslots
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank with 20 hours running
- Drain points for fuel tank
- Operator's Manual / Specifications

## 3 Equipment Specification

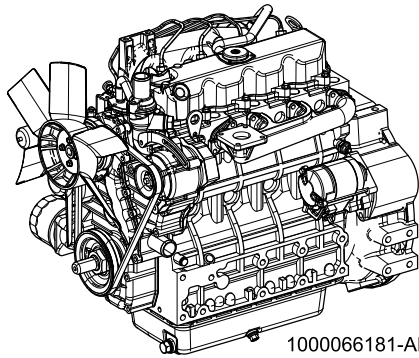
### General technical data



Model.....	PK20S-AU
Structure type .....	RS
Tank capacity.....	100L
Dry weight.....	854.2kg
Noise level @7m .....	<b>64 db(A)</b>
Dimensions L×W×H.....	2182x928x1303mm
Standby Power .....	22kVA/17.5kW
Prime Power .....	20kVA/16kW

Voltage	220V	230V	240V		
Ampere	90.9A	86.9A	83.3A		
<b>Genset Fuel Consumption</b>					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	2.6	3.8	5.0	6.0

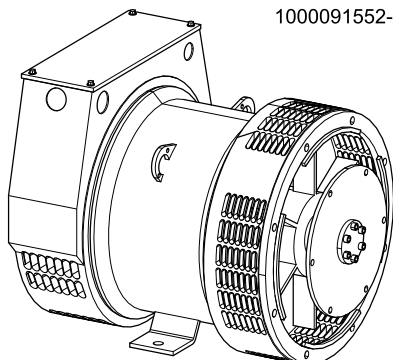
## Diesel engine



1000066181-AP1-A7

Engine Manufacturer/Brand.....	KUBOTA
Engine Model.....	V2203-BG
Dimensions L×W×H.....	608.4×548.3×642.8mm
Dry Weigh (approx.) .....	148kg
Number of Cylinders.....	3
Bore.....	87mm
Stroke.....	92.4mm
Displacement.....	1.647L
Compression Ratio.....	23
Type of injection.....	N/A
Intake System.....	Natural aspirated
Intake Resistance.....	1.96kPa
Cooling System.....	Water cooled
Fan.....	Pusher
Battery Voltage.....	12V
Type of Fuel.....	No.2-D(ASTM D975)
Type of Oil.....	Class CF lubricating oil
Oil Capacity.....	7.6L
Type of Coolant.....	Glycol mixture
Coolant Capacity.....	7.1L
Back Pressure.....	≤7.07kPa
Standby Power.....	18.1kW
Prime Power.....	15.0kW
Fuel Consumption(100%load).....	219g/kW.h

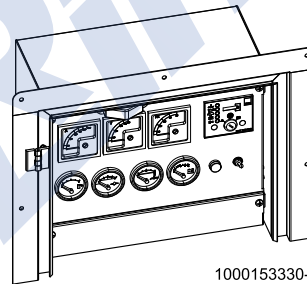
## Alternator



1000091552-AP1-A1

Alternator Manufacturer/Brand.....	Stamford
Alternator Model.....	P1144H
Exciter.....	Brushless
Cooling Fan.....	Plastic
Windings.....	100% copper
Insulation Class.....	H
Winding Pitch.....	2/3
Terminals.....	4
Drip Proof.....	IP23
Altitude.....	≤1000m
Overspeed.....	2250rpm
Air Flow.....	0.135m³/s(50HZ),0.165m³/s(60HZ)
Voltage Regulation.....	±1.0%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<50

## PLC-702 Control System



1000153330-AP1-A1

PLC-702 key manual start module is a manual engine control module 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.

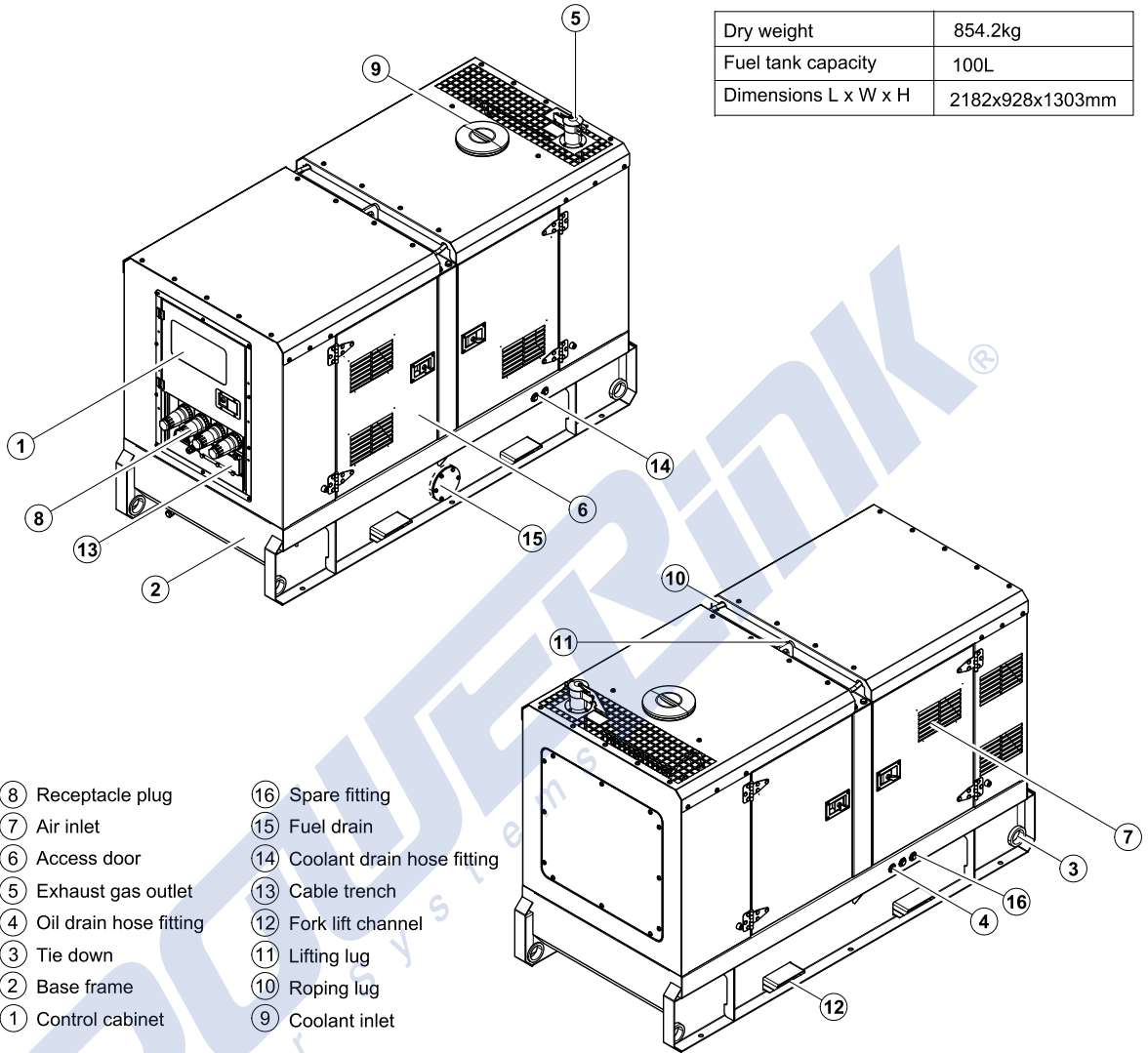
### Standard Control Function

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

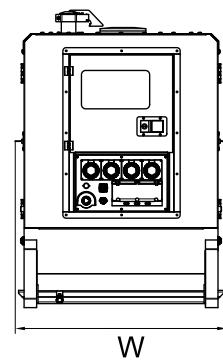
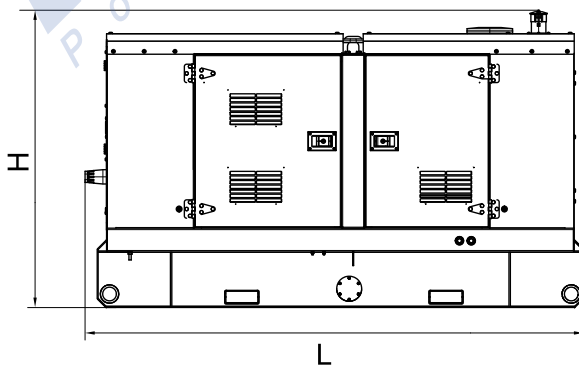
## 4 Overall Dimensions

1000022520-DR1-B2

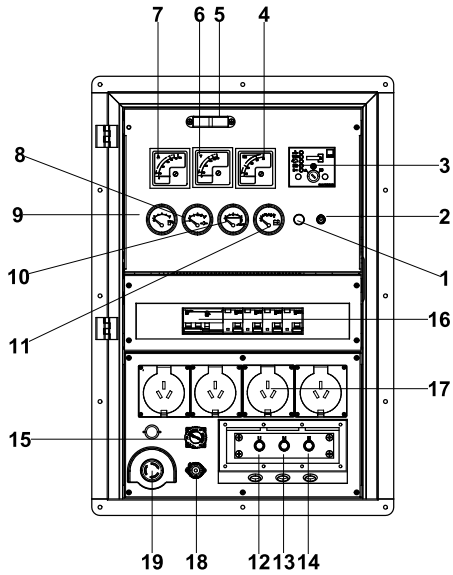
Dry weight	854.2kg
Fuel tank capacity	100L
Dimensions L x W x H	2182x928x1303mm



- ⑧ Receptacle plug
- ⑦ Air inlet
- ⑥ Access door
- ⑤ Exhaust gas outlet
- ④ Oil drain hose fitting
- ③ Tie down
- ② Base frame
- ① Control cabinet
- ⑬ Cable trench
- ⑫ Fork lift channel
- ⑪ Lifting lug
- ⑩ Roping lug
- ⑨ Coolant inlet
- ⑯ Spare fitting
- ⑮ Fuel drain
- ⑭ Coolant drain hose fitting

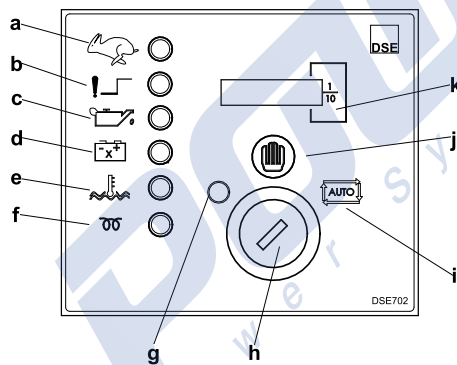


## 5 Control System



Control & field wiring cabinet

Ref.	Description
1	Charge indicator
2	Control cabinet lamp switch
3	Control module
4	Frequency meter
5	Control cabinet lamp
6	Voltage meter
7	Current meter
8	Oil pressure meter
9	Fuel level meter
10	Water temperature meter
11	Battery voltage meter
12	Live wire terminal
13	Neutral wire terminal
14	Ground wire terminal
15	ATS communication interface
16	Main circuit breaker
17	4xSingle-phase convenience receptacle
18	Remote run connector
19	Emergency stop switch



Control module

a	Over speed protection LED
b	Alarm LED
c	Low oil pressure protection LED
d	Charge failure warning LED
e	High engine temperature protection LED
f	Pre-heat LED
g	Stop model position
h	Control module key switch
i	Auto start position
j	Manual start button
k	Time counter

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07.2012
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