

SPECIFICATIONS

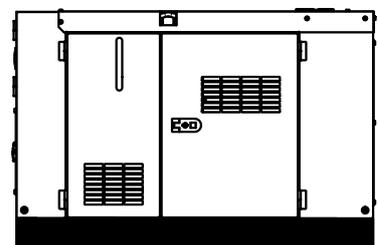
Potise

DP20K5S-AU

SOUND-PROOF TYPE

DIESEL GENERATOR SET

www.potise.com



1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance Europeenne (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.

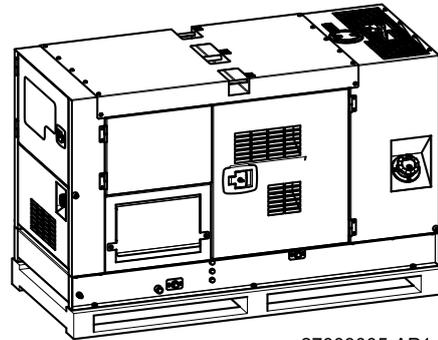
2 General Features

- Kubota engine V2203-BG
- Close coupled to a Mecc alternator ECP28-M/4
- Microprocessor control module PLC-220
- SCHNEIDER main circuit breaker: 32A
- Rotate speed governor: Mechanical governor
- Excitation system: Self excited,SHUNT
- A.V.R model: DSR
- Key switch

- Emergency stop switch
- 1x12V/60AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 50°C radiator
- Steel base frame
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 7 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

General technical data

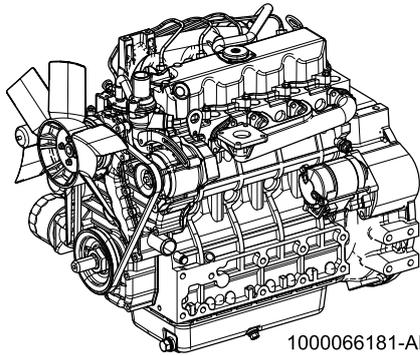


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Model.....	DP20K5S-AU
Tank capacity.....	37L
Dry weight.....	708kg
Sound pressure level @ 7m.....	61dB(A)
Sound power acc. 2000/14/EC.....	88.9dB(A)
Dimensions L×W×H.....	1650×750×1065mm
Standby Power.....	22kVA/18kW
Prime Power.....	20kVA/16kW

Voltage	380V	400V	415V	440V	
Ampere	30.4A	28.8A	27.8A	26.2A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	2.6	3.8	5.0	6.0

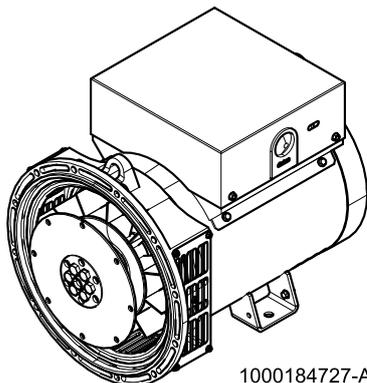
Diesel engine



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.....	4
Bore.....	87mm
Stroke.....	92.4mm
Displacement.....	2.197L
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.....	20.0kW
Prime Power.....	17.0kW
Fuel Consumption(100%load).....	5.3L/h

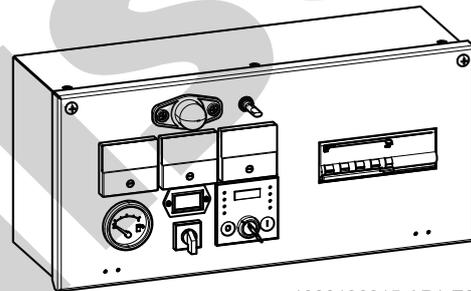
Alternator



1000184727-AP1-A2

Alternator Manufacturer/Brand.....	Mecc alte
Alternator Model.....	ECP28-M/4
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.....	5.3m³/min(50Hz),5.8m³/min(60Hz)
Voltage Regulation.....	±1.0%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<45

PLC-220 Control System



1000196015-AP1-E2

PLC-220 is designed to control the engine via a two position key switch on the front panel. The unit is used to start and stop the engine and provides automatic shutdown on detection of a fault condition. LEDs provide automatic indication of fault conditions and engine failure, giving true first up fault annunciation. In addition, it is configured with overspeed protection, a built-in running hours display and stop button.

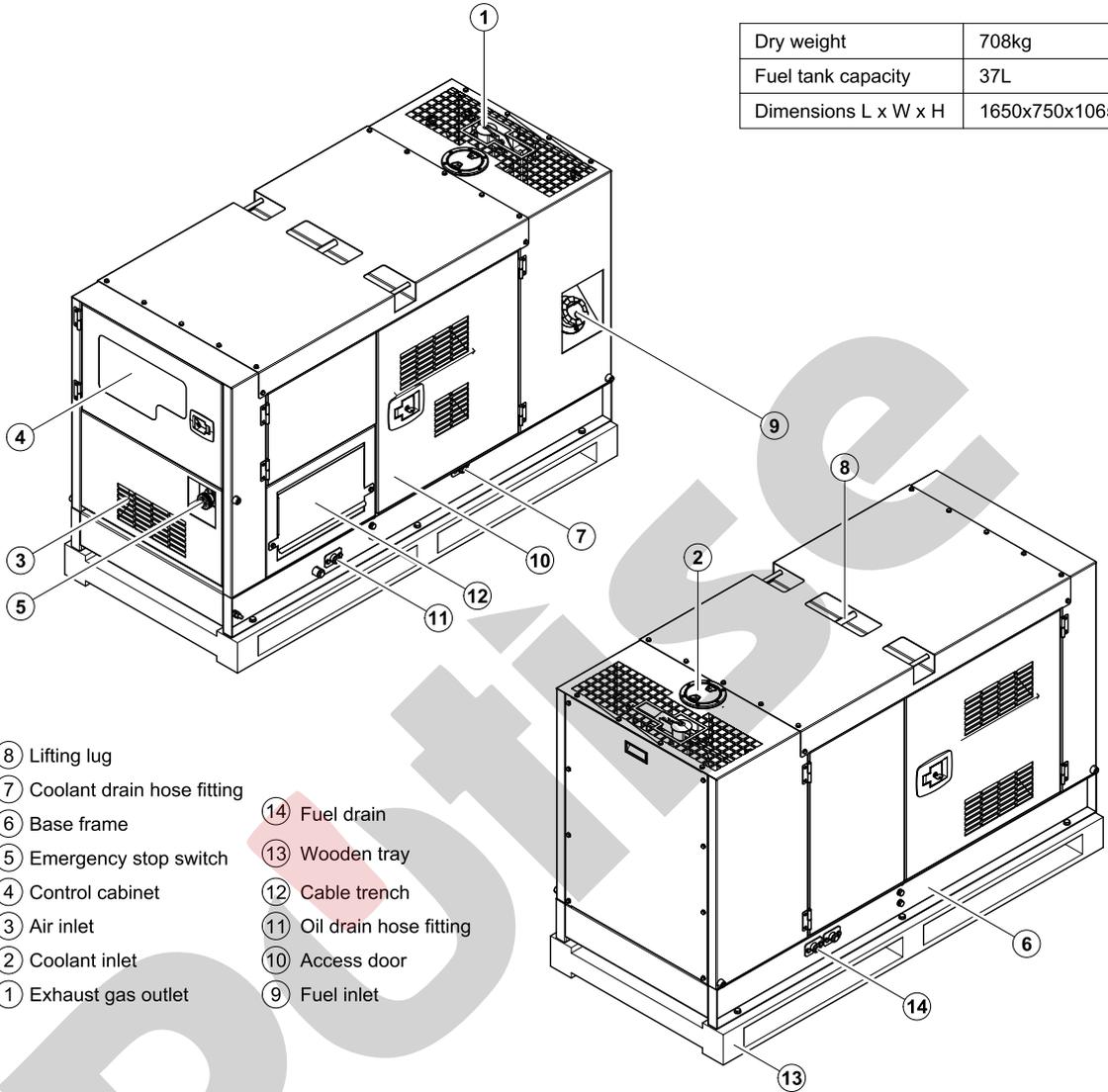
Standard Control Function

- Start/stop engine
- Remote start
- Low oil pressure (shutdown)
- High water temperature (shutdown)
- Charge failure (shutdown)
- Overspeed (shutdown)
- Overvoltage (shutdown)
- Overfrequency (shutdown)
- Low water level (shutdown)
- Auxiliary shutdown (optional)

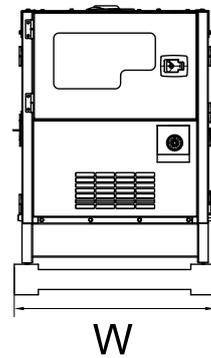
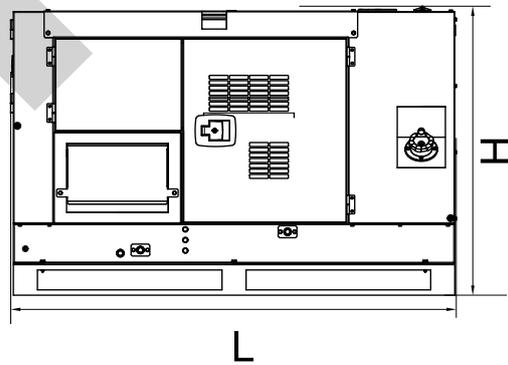
4 Overall Dimensions

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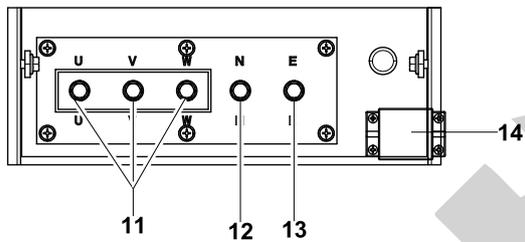
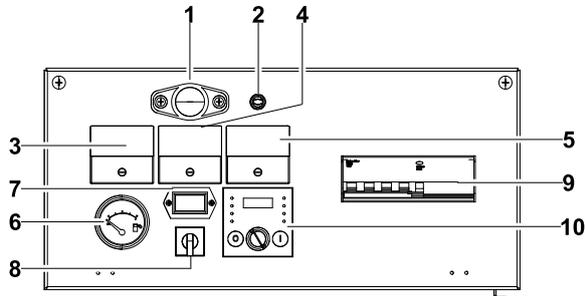
Dry weight	708kg
Fuel tank capacity	37L
Dimensions L x W x H	1650x750x1065mm



- ⑧ Lifting lug
- ⑦ Coolant drain hose fitting
- ⑥ Base frame
- ⑤ Emergency stop switch
- ④ Control cabinet
- ③ Air inlet
- ② Coolant inlet
- ① Exhaust gas outlet
- ⑭ Fuel drain
- ⑬ Wooden tray
- ⑫ Cable trench
- ⑪ Oil drain hose fitting
- ⑩ Access door
- ⑨ Fuel inlet

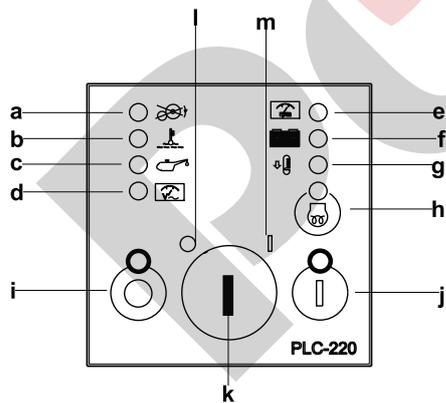


5 Control System



Control & field wiring cabinet

Ref.	Description
1	Control cabinet lamp
2	Control cabinet lamp switch
3	Voltage meter
4	Current meter
5	Frequency meter
6	Fuel level meter
7	Time counter
8	Remote start selector
9	Main circuit breaker
10	Control module
11	Live wire terminal
12	Neutral wire terminal
13	Ground wire terminal
14	Remote control/Mains input

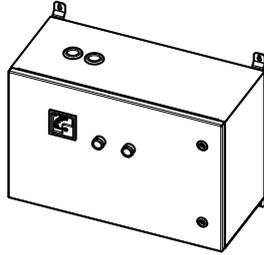


Control module

a	Over frequency protection LED
b	High water temperature protection LED
c	Low oil pressure protection LED
d	Over voltage protection LED
e	Over speed protection LED
f	Charge failure warning LED
g	Low water level LED
h	Preheat button LED
i	Button (stop)
j	Button (start)
k	Control module key switch
l	OFF position
m	START position

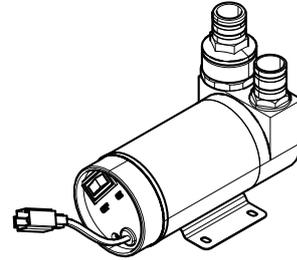
6 Optional Accessories

1. ATS Cabinet



- Adopt advanced ATS with high quality
- High reliability, high stability, ease of operation

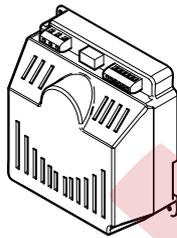
2. Automatic Oil Drain Pump



- Drain the oil from engine automatically
- Easy to operate with inching switch

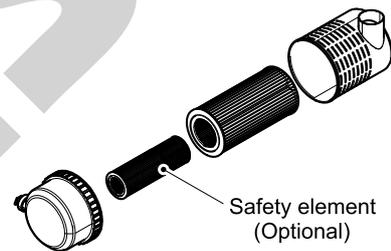
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3. Battery Charger



- Switch power supply structure, wide input alternating voltage range, small size, light weight, high efficiency rate
- Short-circuit protection

4. Double Layer Air Filter



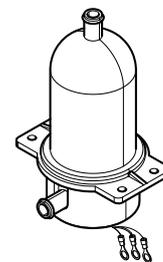
- Air filter with safety element
- High filtration precision and filtering ability

5. Spark Arrestor



- Any explosive exhaust particles can be captured in dangerous environment.

6. Water Jacket Preheat Unit



- Water jacket preheat unit should be used to start the engine quickly if the temperature is lower than 5°C
- The preheat unit is equipped with a thermostat

27003005-B2-E

01.2015

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*Specification may change without prior notice. For more info.,
contact Potise or your local distributors please.*