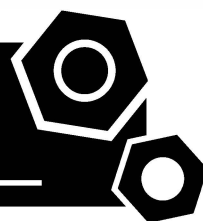


**Generator set**  
**Sound-proof type**  
**PK10S-AU**

# **SPECIFICATIONS**



## 1 Standards & Conditions

### Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (CE)
- ISO8528-5:2005
- AS 3000-2018
- AS 3010-2017

### Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25°C to 50°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.

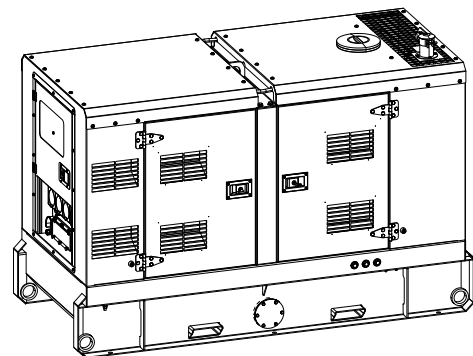
## 2 General Features

- Kubota engine D1105-BG
- Close coupled to Stamford alternator PI044H
- Microprocessor control module PLC-920
- SCHNEIDER main circuit breaker: 63A
- Rotate speed governor: Mechanical 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°C radiator
- Oil pump on the engine
- Steel base frame with forklifts
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 28 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

## 3 Equipment Specification

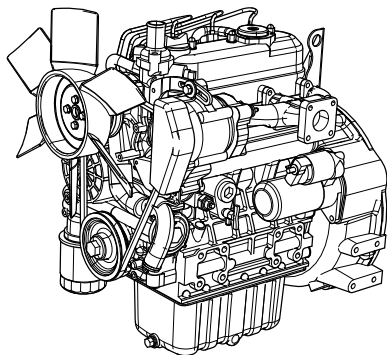
### General technical data



Model.....PK10S-AU  
 Structure type .....RS  
 Tank capacity.....100L  
 Dry weigh.....711kg  
 Noise level @7m ..... 66.6dBA  
 Dimensions L×W×H..... 1932x750x1209mm  
 Standby Power ..... 11kVA/8.8kW  
 Prime Power ..... 10kVA/8kW

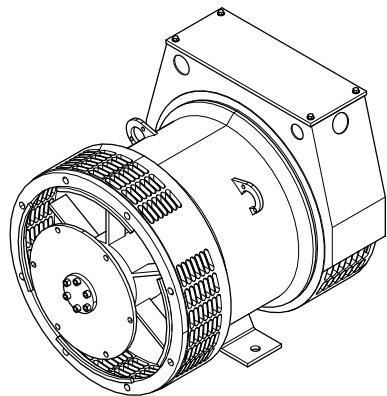
|                         |       |       |       |      |      |
|-------------------------|-------|-------|-------|------|------|
| Voltage                 | 220V  | 230V  | 240V  |      |      |
| Ampere                  | 45.5A | 43.5A | 41.7A |      |      |
| Genset Fuel Consumption |       |       |       |      |      |
| Frequency/Load          | 25%   | 50%   | 75%   | 100% | 110% |
| 50Hz (L/h)              | N/A   | 1.8   | 2.9   | 3.5  | 3.9  |

**Diesel engine**



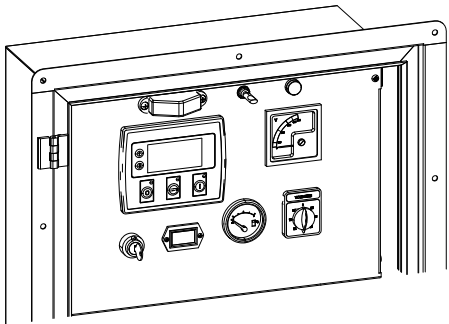
|                                 |                          |
|---------------------------------|--------------------------|
| Engine Manufacturer/Brand.....  | KUBOTA                   |
| Engine Model.....               | D1105-BG                 |
| Dimensions L×W×H.....           | 549.3×398.0×604.7mm      |
| Dry Weigh (approx.) .....       | 93kg                     |
| Number of Cylinders.....        | 3                        |
| Bore.....                       | 78mm                     |
| Stroke .....                    | 78.4mm                   |
| Displacement.....               | 1.123L                   |
| Compression Ratio.....          | 22                       |
| 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 .....               | Better than API CD class |
| Oil Capacity .....              | 5.1L                     |
| Type of Coolant .....           | Glycol mixture           |
| Coolant Capacity .....          | 6.4L                     |
| Back Pressure .....             | ≤7.07kPa                 |
| Standby Power .....             | 9.5kW                    |
| Prime Power .....               | 8.4kW                    |
| Fuel Consumption(100%load)..... | 3.5L/h                   |

**Alternator**



|                                                           |                                 |
|-----------------------------------------------------------|---------------------------------|
| Alternator Manufacturer/Brand .....                       | Stamford                        |
| Alternator Model .....                                    | PI044H                          |
| 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**

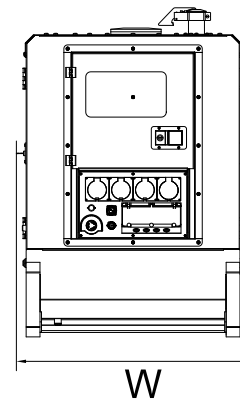
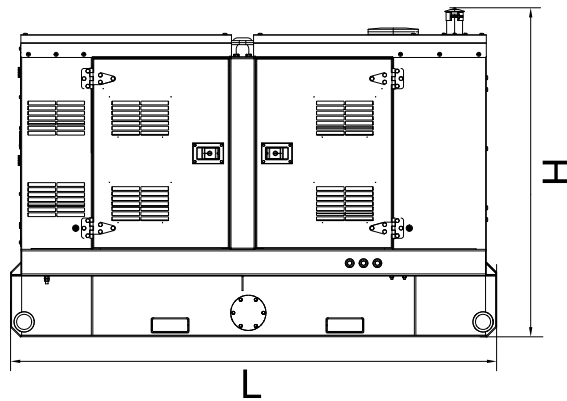
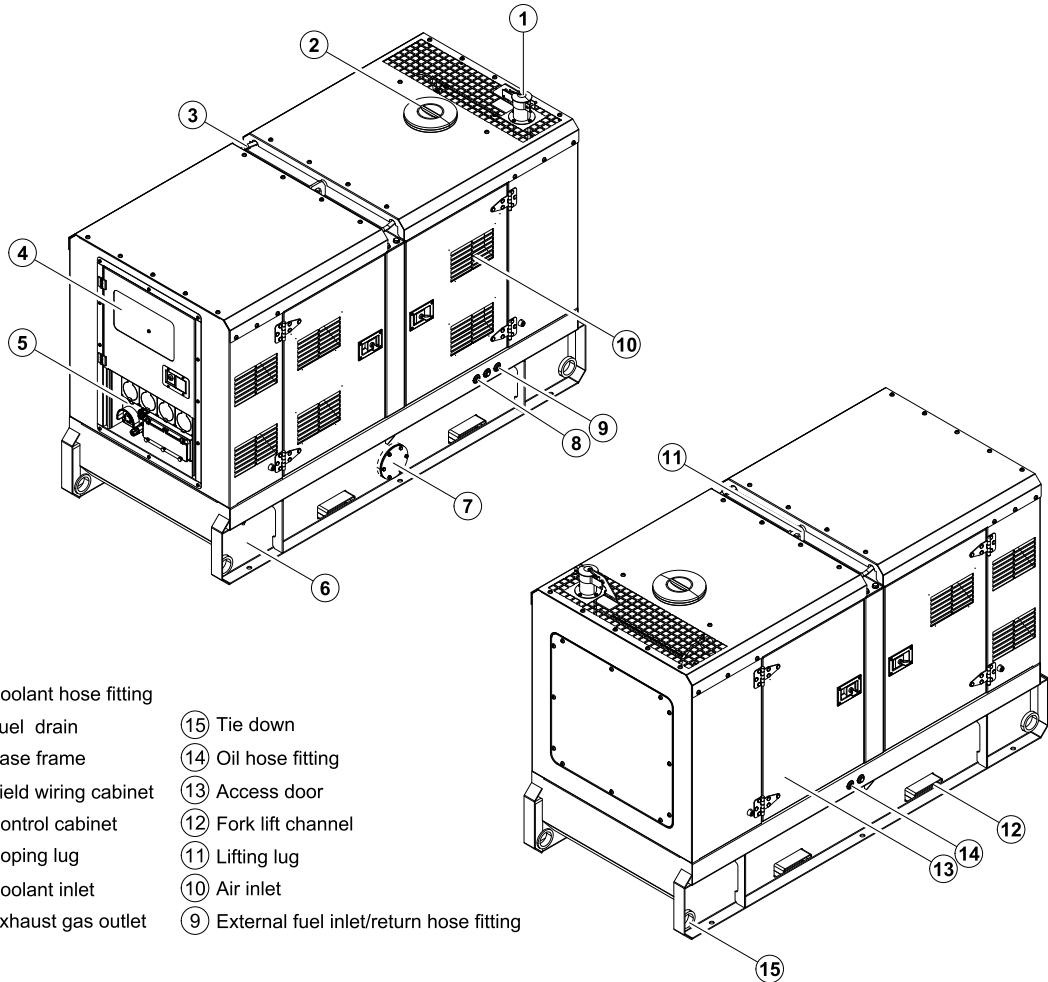


PLC-920 is an advanced control module based on microprocessor designed to control the engine via push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition of an engine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

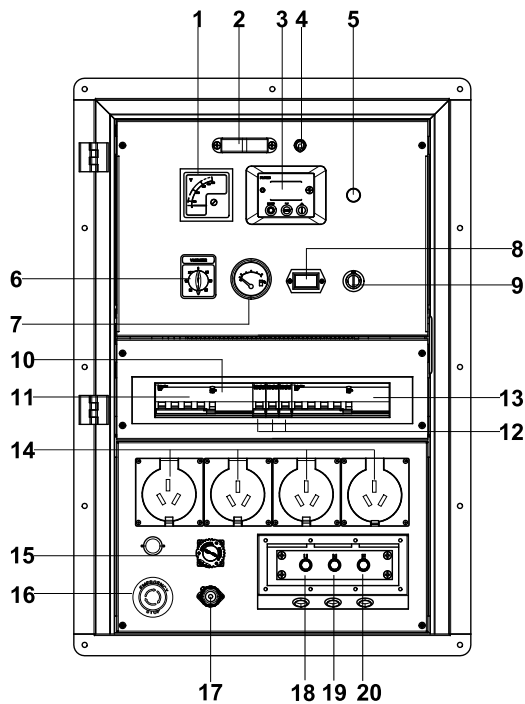
**Standard Control Function**

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

## 4 Overall Dimensions

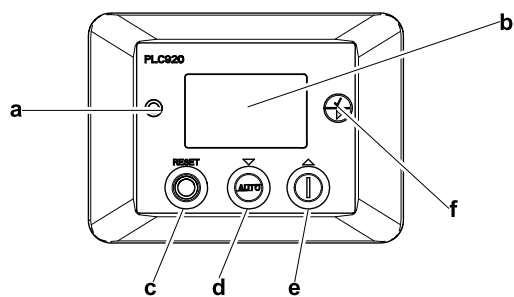


# 5 Control System



**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;<br>Next page (Configuration mode only)                |
| d    | Auto start button;<br>Decrease value/next item (Configuration mode only) |
| e    | Start button;<br>Increase value/next item (Configuration mode only)      |
| f    | Navigation button;<br>Accept (Configuration mode only)                   |

|                 |
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