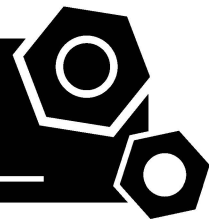


Generator set
Sound-proof type
QSV23KS

SPECIFICATIONS



1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance Europeene (CE)
- ISO8528-5:2005
- GB/T2820.5-2009

Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25°C to 50°C. Coolant heater is needed when temperature is below 5°C
- Humidity: Less than 90%.
- Altitude: Below one thousand (1000) meters above sea level.

Factory Inspection

- Protection devices working tests.
- Starting ability in normal temperature.
- Capability test to handle load moments at 50% of rated power.
- 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 colour which the manufacturer offers.

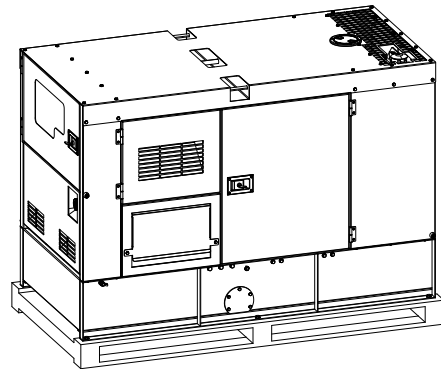
2 General Features

- Kubota engine V2403-M-DI-BG
- Coupled to Leroy Somer alternator LSA40M7
- Microprocessor control module PLC-920
- Main circuit breaker: 63A
- Rotation speed governor: Mechanical governor
- Excitation system: Self excited, SHUNT
- A.V.R model: R220
- Key switch
- Emergency stop switch
- ATS(automatic transfer switch)receptacle

- Remote run connector
- 1x12V/60AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 45°C radiator
- Steel base frame
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 20 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment

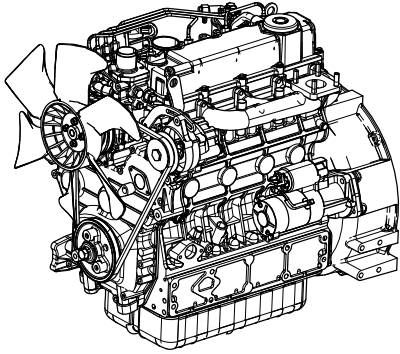
General technical data



| | |
|--------------------------------|-----------------|
| Model..... | QSV23KS |
| Tank capacity..... | 110L |
| Dry weight..... | 730kg |
| Sound pressure level @ 7m..... | 67.3dBA |
| Dimensions L×W×H..... | 1805x725x1206mm |
| Standby Power..... | 25kVA/20kW |
| Prime Power..... | 23kVA/18kW |

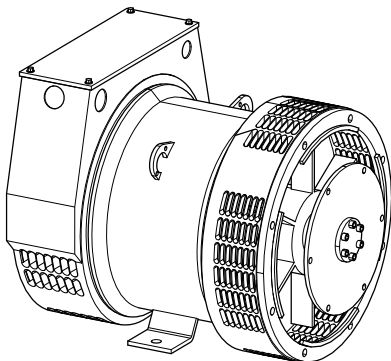
| Voltage | 380V | 400V | 415V | 440V | |
|-------------------------|-------|-------|-------|-------|------|
| Ampere | 34.9A | 33.1A | 32.0A | 30.2A | |
| Genset Fuel Consumption | | | | | |
| Frequency/Load | 25% | 50% | 75% | 100% | 110% |
| 50Hz (L/h) | 1.375 | 2.75 | 4.1 | 5.5 | 6.05 |

Diesel engine



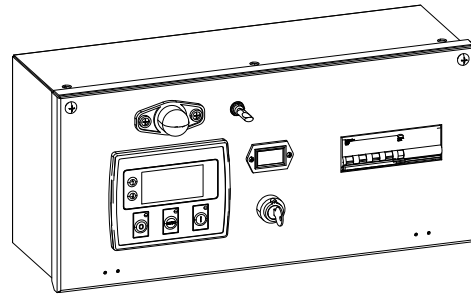
| | |
|---------------------------------|-------------------------------|
| Engine Manufacturer/Brand..... | KUBOTA |
| Engine Model..... | V2403-M-DI-BG |
| Dimensions L×W×H..... | 706.4×492×682.5mm |
| Dry Weigh (approx.) | 241kg |
| Number of Cylinders..... | 4 |
| Bore..... | 98mm |
| Stroke..... | 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..... | Diesel Fuel No.2-D(ASTM D975) |
| 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 |
| Prime Power..... | 20.7kW |
| Fuel Consumption(100%load)..... | 5.5L/h |

Alternator



| | |
|-----------------------------------------------------------|---------------------|
| Alternator Manufacturer/Brand | Leroy Somer |
| Alternator Model | LSA40M7 |
| 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

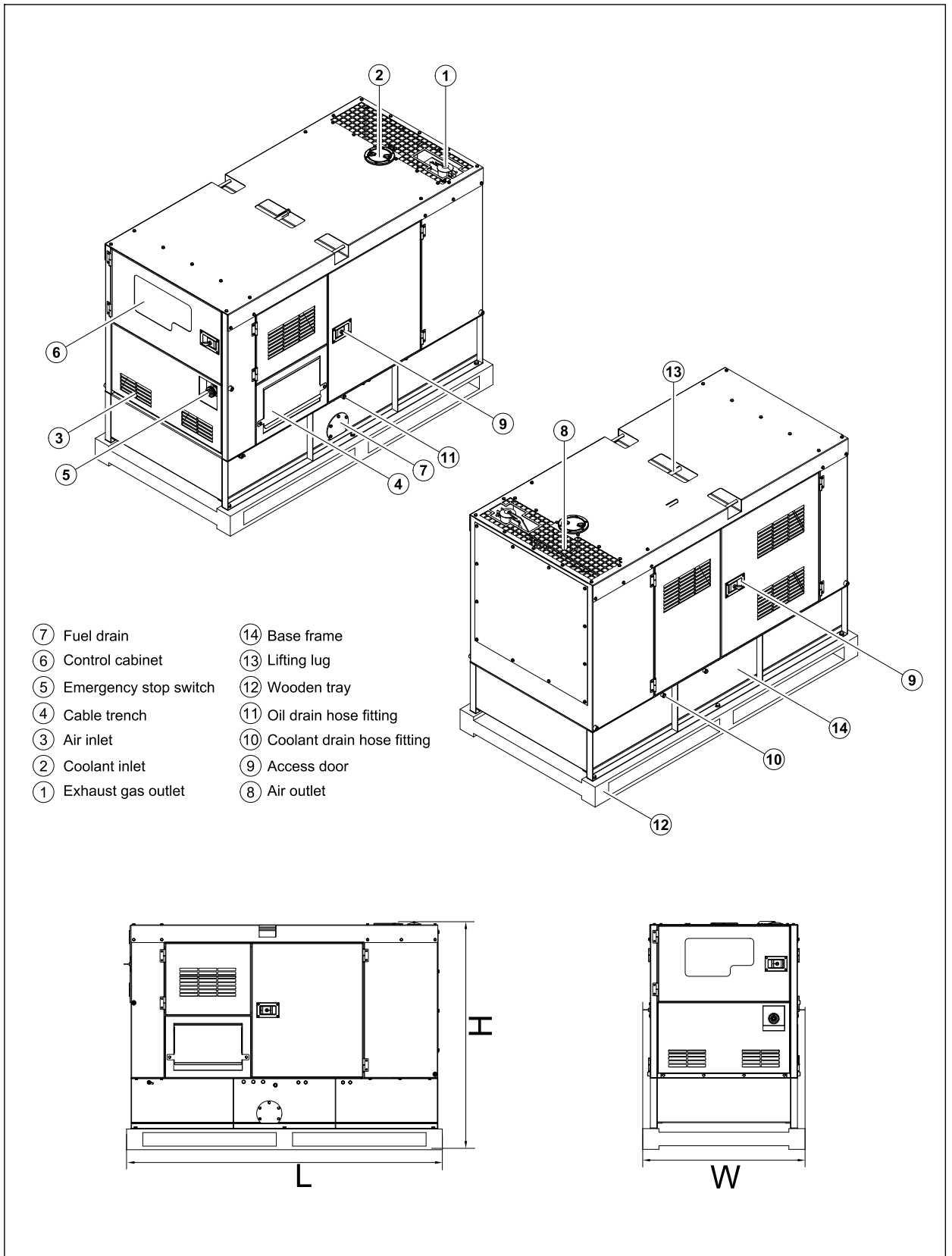


PLC-920 is an advanced control module based on microprocessor designed to control the engine via push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition of an engine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

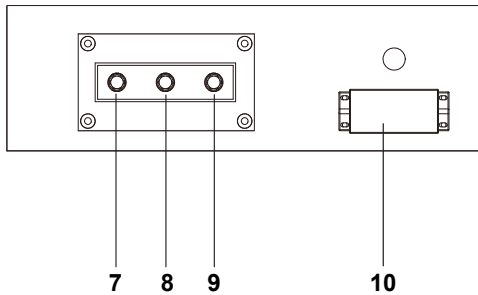
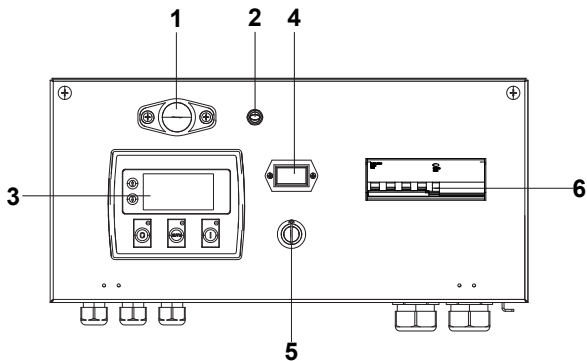
Standard Control Function

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

4 Overall Dimensions

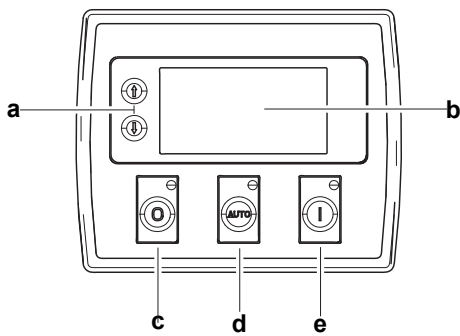


5 Control System



Control & field wiring cabinet

| Ref. | Description |
|------|--------------------------------------------|
| 1 | Control cabinet lamp |
| 2 | Control cabinet lamp switch |
| 3 | Control module |
| 4 | Time counter |
| 5 | Key switch |
| 6 | Main circuit breaker |
| 7 | Live wire terminals |
| 8 | Neutral wire terminal |
| 9 | Ground wire terminal |
| 10 | Mains input/remote communication connector |



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) |

| |
|-----------------|
| 1000035529-A2-E |
|-----------------|

| |
|---------|
| 02.2023 |
|---------|