

SPECIFICATION

POWERLINK
Power Systems

Power Link the World

MODEL QSV20PS **QSV SERIES** **(FOR 50Hz DIESEL GENSET)**

Revision: A2 (12/21)

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QSV series QSV20PS



50 Hz @ 1500rpm, 3-phase/5-wiring

1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

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

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 80%.
- Altitude: Below one thousand (1000) meters.

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.

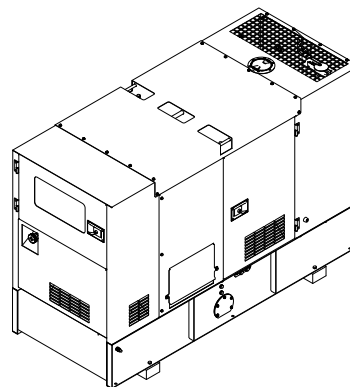
2 General Features

- Perkins engine 404D-22G
- Close coupled to a Stamford alternator S0L2-G1
- Microprocessor control module PLC-920
- SCHNEIDER main circuit breaker: 32A
- Rotate speed governor: Mechanical governor
- Excitation System: Self Excited SHUNT
- A.V.R. Model: SX440
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 1x12V/70AH 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 8 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

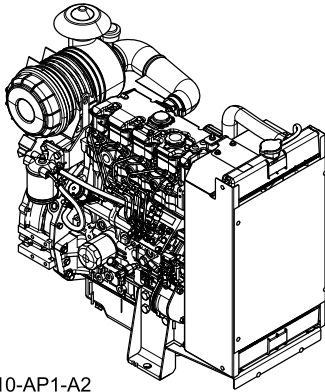
General technical data



Model.....QSV20PS
 Structure type R
 Tank capacity.....43L
 Dry weight.....780kg
 Noise level @7m 61dB(A)
 Dimensions L×W×H.....1850x776x1266.5mm
 Standby Power 21.5kVA/17.2kW
 Prime Power.....20kVA/16kW

Voltage	380V	400V	415V	440V	
Ampere	30.4A	28.9A	27.8A	26.2A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	2.9	4.0	5.3	6.1

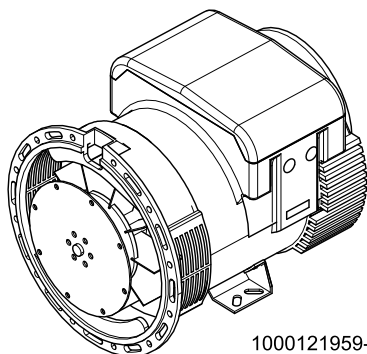
Diesel Engine



1000090010-AP1-A2

Engine Manufacturer/Brand.....	Perkins
Engine Model.....	404D-22G
Dimensions L×W×H.....	915×477×840mm
Dry Weigh (approx.)	242kg
Number of Cylinders.....	4
Bore.....	84mm
Stroke	100mm
Displacement.....	2.216L
Compression Ratio	23.3
Type of injection.....	Indirect injection
Intake System.....	Natural aspirated
Intake Resistance.....	≤6.4kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	12V
Type of Fuel.....	EPA2D 89.330-96/CEC RF-06-99
Type of Oil	API-CH-4/ ACEA E5
Oil Capacity	10.6L
Type of Coolant	Glycol mixture
Coolant Capacity	7.0L
Back Pressure	≤10.2kPa
Standby Power	20.6kW
Prime Power	18.7kW
Fuel Consumption(100%load).....	243g/kWh

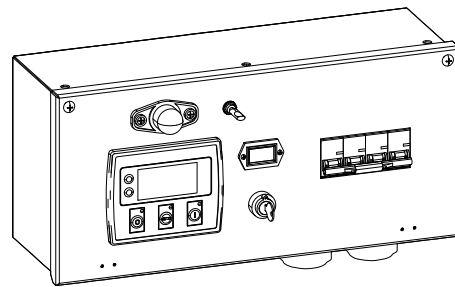
Alternator



1000121959-AP1-A3

Alternator Manufacturer/Brand	Stamford
Alternator Model	S0L2-G1
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.....	0.06m³/s(50HZ),0.072m³/s(60HZ)
Voltage Regulation	±1.0%
Total harmonic TGH / THC at no load < 3 % - on load < 2%	
Telephone Interference.....	THF<2%;TIF<50

PLC-920 Control System

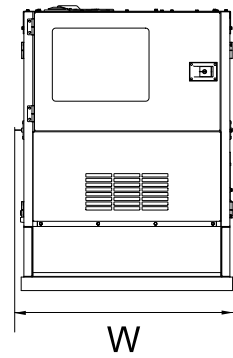
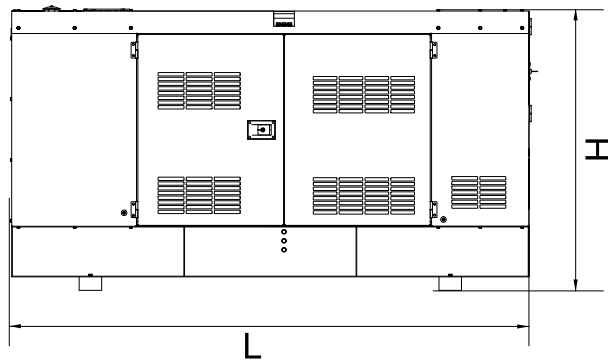
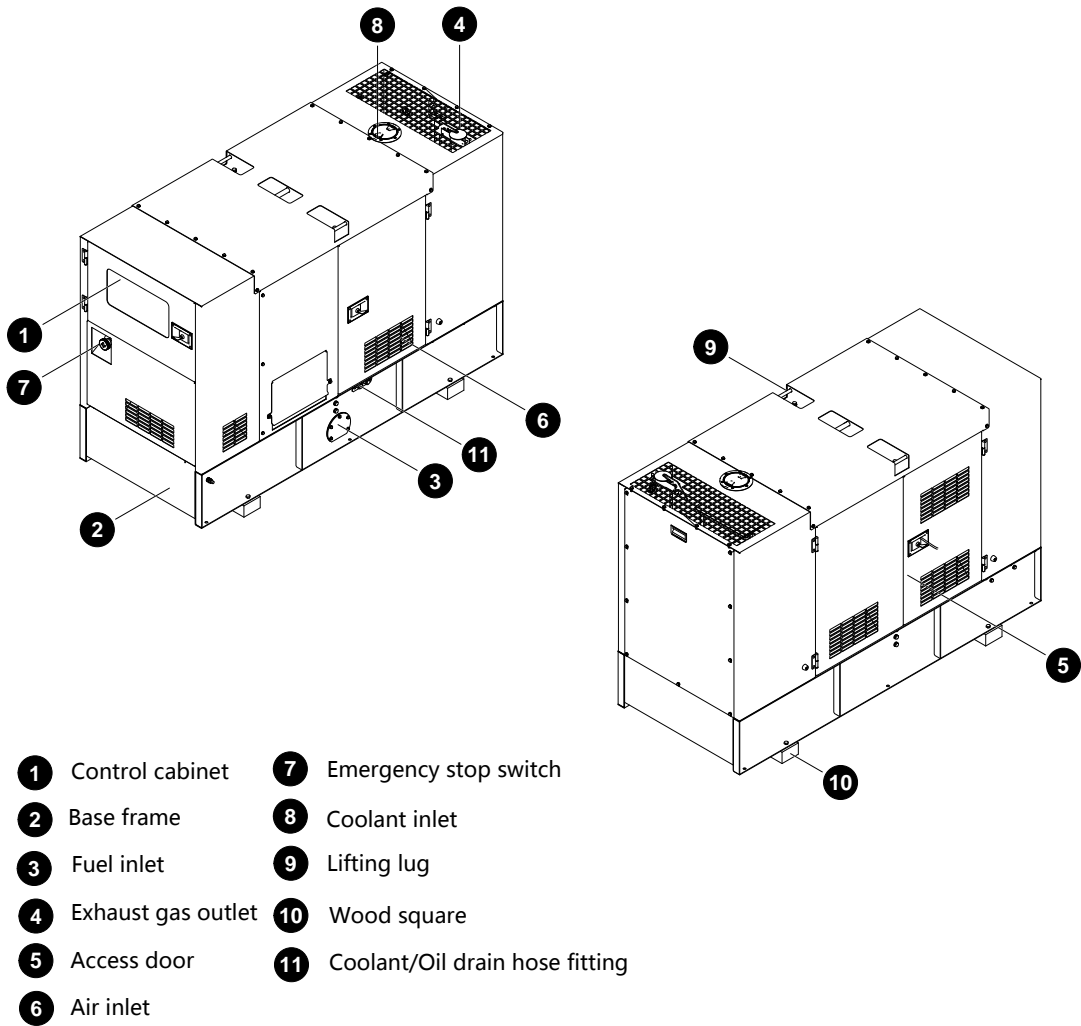


PLC-920 is an advanced control module based on micro-processor designed to control the engine via a key switch and push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition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

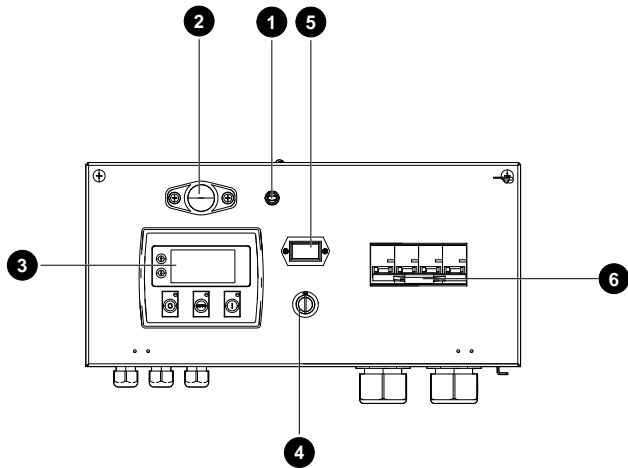
Standard Control Function

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

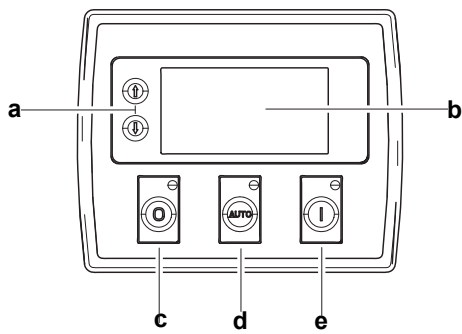
4 Overall Dimensions



6 Control System



Ref.	Description
1	Control cabinet lamp switch
2	Control cabinet lamp
3	Control module
4	Key switch
5	Time counter
6	Main circuit breaker



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)

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