

# **QSV20PS**

# **DIESEL GENSET SPECIFICATION**

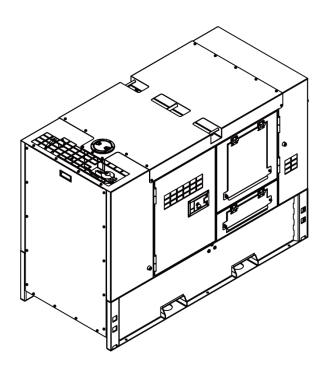
20kVA (PRP) / 22kVA (ESP)

ID: 1000033708











# Diesel Genset Specification QSV20PS

#### General technical data

Model	QSV20PS	Rated voltage V	Current A
Structure	PT	380	30.4
Prime power (PRP): kVA / kW	20 / 16	400	28.9
Standby power (ESP): kVA/kW	22 / 18	415	27.8
Frequency: Hz	50	440	26.2
Rotate speed: RPM	1500		
Phase: P	3		
Power factor: cosφ	0.8	Load	Fuel consumption L/h
Protection class	IP54	25%	N/A
Noise level: dB@7m	61.0	50%	2.9
Tank capacity: L	120	75%	4.0
Dimensions: mm	1850×776×1250	100%	5.3
Dry weight: kg	788	110%	6.1

#### **Main Features**

Advantage	Design Standards	<b>Environmental Operating Conditions</b>	
Low fuel consumption	Conformite Europeenne (CE)	Installation place: outdoor / indoor (well ventilated).	
<ul> <li>Optimized system</li> </ul>	• ISO8528-5:2005	• Ambient temperature: -25°C to 45°C (the	
High reliability		coolant heater is needed when the temperature is below 5°C)	
High availability		Humidity: Less than 80%	
		<ul> <li>Altitude: Below one thousand (1000) meters.</li> </ul>	

Factory Inspection		Service Support	Performance Guarantee	
•	Protection devices working test	Global product service support	Product design, manufacturing and performance have been verified by standards	
Starting ability in normal temperature		mperature	Generator set has passed transient	
50% rated power load moment capability		nent capability	response test according to ISO8528-5	
• Load test :0, 25%, 50%, 75%, 100%, 110%		%, 100%, 110%	<ul> <li>Both engine and alternator have passed prototype factory testing.</li> </ul>	





## **Power System**

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Manufacturer / brand	Perkins	Intake system	Natural aspirated
Model	404D-22G	Intake resistance: kPa	≦6.4
Cylinders	4L	Exhaust back pressure: kPa	≦10.2
Bore: mm	84	Oil capacity: L	10.6
Stroke: mm	100	Coolant capacity: L	7.0
Displacement: L	2.22	Battery voltage: V	12
Compression ratio	23.3	Dimensions: mm	915×477×840
Rotate speed: RPM	1500	Dry weight: kg	242
Prime power: kWm	18.7		
Standby power: kWm	20.6		
Rotate speed governor	Mech		
Type of fuel Injection	Direct		

#### Alternator

Manufacturer / brand	Stamford	Insulation class	Н
Model	S0L2-G1	Temperature rising class	Н
Exciter	Brushless	Protection class	IP23
Windings	100% copper	Voltage regulation	±1.0%
Winding pitch	2/3	Telephone harmonic factor THF	<2%
Number of poles	4	Telephone interference factor TIF	<50
Terminals	12		

## **Control System**

Brand POWERLINK Model PLC-920

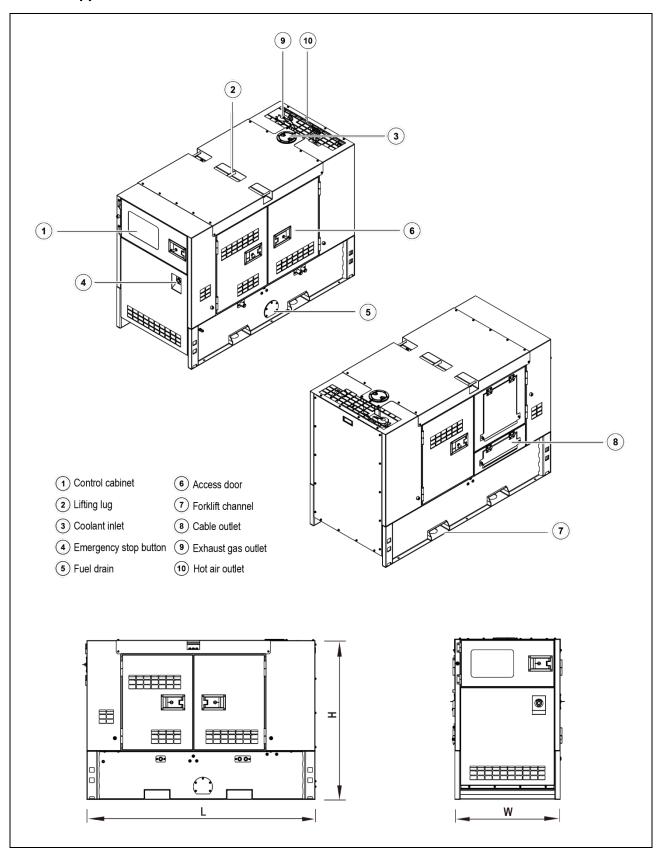
#### General Functions

_	Automatic start / stop control	Oil pressure	Over load
_	Manual/remote start control	Water temperature	Over current
_	Real time monitoring and display of multiple parameters	Rotate speed	Over voltage
_	RS232, RS485 interface and Ethernet can be used	Start	Under voltage
	simultaneously	Running time	Over frequency
_	CAN and Modbus communication	Battery voltage	Under frequency
_	Provide complete control solutions		

Monitoring and protection



## **Product Appearance**





#### **Product Configuration**

#### Standard configuration

Engine	Generator	Control switchgear	Canopy (sound-proof)	Base Frame
Electrical start motor Battery system Speed control system Natural aspirated Lockable isolator switch Battery charger	Alternator H class insulation H class temperature rising IP23 protection AVR voltage regulator	PLC control system Main circuit breaker Breaker cabinet Communication connector ATS connector Mains floating charger	Steel plate Corrosion-resistant coating Access door Stainless steel hinge Sound absorbing cotton	Steel base frame Engine bracket Alternator bracket Radiator bracket Vibration isolators
Fuel system  Base frame fuel tank  Fuel level sensor  Flexible connection  pipe  Fuel filter	Lubrication system Oil pressure sensor Oil temperature sensor Oil filter Manual oil drain pump Oil drain ball valve	Cooling system 50°C radiator Water level sensor Jacket water pipe Intercooling pipe	Intake / exhaust system Air filter Exhaust muffler Exhaust bellow Exhaust pipe and flange High temperature protective sleeve	Service documents Installation and operation manual Test report Circuit diagram Warranty manual Engine operation and maintenance manual Standard package

#### **Optional configuration**

Engine	Alternator	Control switchgear	Fuel system	Lubrication system
Jacket water preheater	Anti-condensation	4P Circuit breaker	Fuel three-way valve	Electric oil drain pump
Oil preheater	heater Treatments against humidity and corrosion	ATS cabinet	Daily fuel tank	
		Paralleling control system		
		Grid-connection system		

#### **Power Class Definition**

- Prime Power (PRP): the unit runs continuously with variable load, the number of operating hours is not limited, and 1h overload 10% operation is allowed per 12h, and the average load factor is less than 70% per 24h.
- Standby Power (ESP): operating time does not exceed 500h per year, continuous operating time does not exceed 300h, the average load factor is less than 80% per 24h. Overload operation is not allowed.

#### **Product Statement**

- The data of specifications is based on the following standard environmental test conditions.
  - Ambient temperature 25°C
  - Altitude 100m
  - Relative humidity 30%
- Dimensions, weight and other parame0ters are for reference only, which shall be subject to the final design drawing.



Data is subject to change without prior notice as new products are always developed.

Please contact PowerLink or local agent with any doubts or for more information.