

## SG23KS

# **DIESEL GENSET SPECIFICATION**

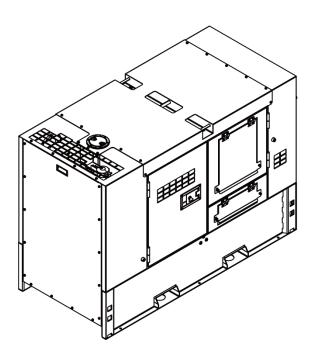
23kVA (PRP) / 25kVA (ESP)

ID: 1000035531











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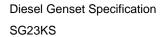
## General technical data

Model	SG23KS-AU	Rated voltage V	Current A
Structure	PT	220	95.8
Prime power (PRP): kVA / kW	23 / 18	230	100.0
Standby power (ESP): kVA/kW	25 / 20	240	104.5
Frequency: Hz	50		
Rotate speed: RPM	1500		
Phase: P	3		
Power factor: cosφ	0.8	Load	Fuel consumption L/h
Protection class	IP54	25%	1.4
Noise level: dB@7m	61.0	50%	2.8
Tank capacity: L	50	75%	4.1
Dimensions: mm	1700×750×1080	100%	5.5
Dry weight: kg	1000	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 $5^{\circ}\text{C}$ )		
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 te	emperature	Generator set has passed transient		
•	50% rated power load mor	ment capability	response test according to ISO8528-5		
•	Load test :0, 25%, 50%, 75	5%, 100%, 110%	<ul> <li>Both engine and alternator have passed prototype factory testing.</li> </ul>		





## **Power System**

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Manufacturer / brand	Kubota	Intake system	Natural aspirated
Model	V2403-M-DI-BG	Intake resistance: kPa	≦1.96
Cylinders	4L	Exhaust back pressure: kPa	<b>≦7.07</b>
Bore: mm	98	Oil capacity: L	9.7
Stroke: mm	110	Coolant capacity: L	N/A
Displacement: L	2.2	Battery voltage: V	12
Compression ratio	19.6	Dimensions: mm	706×492×683
Rotate speed: RPM	1500	Dry weight: kg	241
Prime power: kWm	22.8		
Standby power: kWm	20.7		
Rotate speed governor	Mech		
Type of fuel Injection	Direct		

### Alternator

Manufacturer / brand	Leroysomer	Insulation class	Н
Model	LSA42.3S5	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**

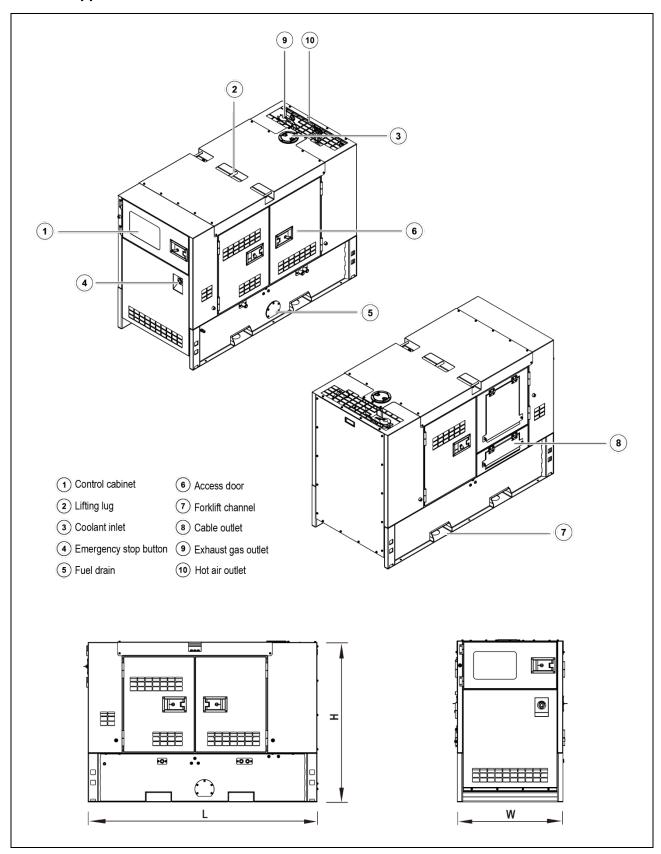
Brand POWERLINK Model PLC-920

General Functions Monitoring and protection

_	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		



## **Product Appearance**





## **Product Configuration**

### Standard configuration

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

#### **Optional configuration**

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