

MAKAWA POWER GENERATION BY KUBOTA

KUBOTA Diesel Series

Genset model	MKW-20KBS
Power (standby)	22 KVA / 18 KW
Power (prime)	20 KVA / 16 KW
Diesel engine brand	KUBOTA
Diesel engine model	V2203-E2BG
Frequency / Speed	50 Hz / 1500 RPM
Rated voltage	230 / 400 V
Rated current	-
Wiring method	three-phase, four-wire
Power factor	0.8
Fuel tank	70 L
Noise level	≤66dB(A)@7m
Dimensions of Silent type	1672*700*965 (mm)
Weight of Silent type	645 KG

Alternator brand	Leroy somer
Alternator model	TAL-A40-F
Control system brand	DEEPSEA
Control system model	DSE6120 MK II



INFORMATION TO BE CLARIFIED

- Other voltage levels 400/230V, 480/277V, 380/220V, 440/254V, 416/240V, 220/127V, 208/120V, etc. are available upon request.
- Standard reference conditions: All data are based on ISO 3046 standard reference conditions - Altitude 100m (328ft), Atmospheric Pressure 100kPa(29.53inHg), Ambient Temperature 50-55°C, Relative Humidity 30%.
- User load conditions do not match the standard reference conditions, please contact GOLDENLEO engineers to determine the choice of generator capacity improper selection can lead to shorten the unit overhaul period or other serious consequences.
- GOLDENLEO generator sets comply with all major standards, such as ISO8528, ISO 14000, ISO3046, GB755, BS5000, VDE0530, IEC34-1.

Visit the official website for more information: www.gd-leopard.com

PRODUCT INFORMATION

MKW-20KBS



STANDARD CONFIGURATION

Diesel engine	KUBOTA , including the body comes with: three filters (air filter, diesel filter, machine filter), starter motor, charging generator, etc.
Alternators	Leroy somer, TAL-A40-F
Standard cooling system	122°F (50°C) ambient radiator
Unit common base	I: (520kW and below) base tank and shock absorber, starter battery holder II: (520kW and above) Channel steel base and shock absorber, starter battery holder
Output Circuit breaker	DELIXI, OUTPUT CIRCUIT BREAKER
Control system	DEEPSEA, DSE6120 MK II
Starting battery	Maintenance-free batteries and battery float charger
Accessories for installation with machine	Corrugated vibration isolators, smoke bends, industrial silencers, and standard parts for connections. Standard tools kit
Accompanying documentation	Electrical drawings, unit operation and maintenance manuals, test report of generator, certificates of conformity, etc.

OPTIONAL CONFIGURATION

Engine Parts	◇Heavy-duty air filter ◇Water jacket heater ◇Oil-water separator
Alternator or accessories	-
Cooling system	◇50°C water tank ◇Heat exchanger + cooling water tower + external water circulation pump system ◇Distant horizontal water tank system
Control system	◇AMF function ◇Parallel function ◇Low-temperature environment application ◇Moisture-proof heater for control panel ◇Other
Output Circuit breaker	◇3/4-pole ◇fixed/drawer type ◇electric mechanism
ATS switchgear	◇ATS switching cabinet: AISIKAI (customized according to users' conditions of use and requirements)
Starter battery	◇Nickel-cadmium batteries ◆Maintenance-free batteries ◇Liquid float charge and selection switch ◇Charging current meter
Split fuel tank	◇Customized according to the user's conditions of use and requirements
Other optional requirements	

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PRODUCT INFORMATION

MKW-20KBS



ENGINE TECHNICAL PARAMETERS

ENGINE TECHNICAL PARAMETERS			
Engine manufacturer	KUBOTA	Prime Power	17.2 KW
Model	V2203-E2BG	Standby Power	20.1 KW
Compression ratio	23:1	Speed	1500 RPM
Structural form	Four stroke	Governor Type	All Speed Mechanical Governor
Number of cylinders	4 / in Line		
Displacement	2.197 L	Cooling method	Closed water cooling
Bore	87 mm	Dry weight (engine only)	186 KG
Stroke	92.4 mm	Wet weight (with radiator)	-

START SYSTEM	
Start rated power	1.4 KW
Start rated voltage	DC 12V

COOLING SYSTEM	
Coolant capacity	-
Coolant flow rate	-

FUEL SYSTEM	
Fuel type	Diesel oil
Fuel injection pump	-
Fuel injection nozzle	-
Fuel filter	-

AIR EXHAUST SYSTEM	
Heat rejection of exhaust	-
Exhaust flow rate (Prime)	-
Exhaust gas temperature after turbing	-

FUEL CONSUMPTION		
Generator output power	L/h	g/KWh
Standby	-	-
Prime	5.2	233
75% prime	4.2	-
70% prime	3.66	-
50% prime	2.7	-

LUBRICATION SYSTEM	
Total capacity of lubrication system	7.6 L
Maximum allowable oil temperature	-

OVERALL DIMENSIONS	
Length (without radiator)	-
Width (without radiator)	-
Height (without radiator)	-

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ALTERNATOR BASIC PARAMETERS

Alternator model	TAL-A40-F	Rated power of alternator	20 KVA / 16 KW
Power factor	0.8	Input voltage	230 / 400 V
Phase and Wiring method	3 phase, 6 or 12 wires	Frequency	50 Hz
Pole	4	Bear	single bearing
Winding pitch	2/3	Protection class	IP23
Insulation class	H	Telephone Impact Factor	TIF: <50
Total Harmonic distortion THD in no-load	<3.5 %	Voltage Adjustment Ratio	±1%
Total Harmonic distortion THD in linear load	<5 %	Regulation	AVR
Overspeed	2250 PRM	Excitation method	brushless self-exciting

BASIC PARAMETERS OF THE CONTROL SYSTEM

CONTROL SYSTEM	
Control system brand	DEEPSEA
Control system model	DSE6120 MK II

INPUT, OUTPUT & COMMUNICATION PORTS

- 6 Digital inputs
- 3 Analog Inputs
- 6 Custom DC Outputs
- USB Terminal

MAIN FEATURES

- Back-lit text LCD display
- Front panel editing
- LED and LCD alarm indication
- Power Save mode
- CAN and Magnetic Pick-up/Alt. versions available (specify on ordering)
- PC and front panel configuration
- 6 Outputs (4 configurable on Magnetic Pick-up/Alt., 6 configurable on CAN version)
- Configurable timers and alarms
- Alternative configuration
- Event Log (10)
- Remote Start input
- 3 Phase generator monitoring
- Current Monitoring and protection
- 3 Phase Mains (Utility) monitoring (DSE6120 MK II only)

- Test button (DSE6120 MK II only)
- Battery voltage monitoring
- Engine pre-heat
- Hours counter
- Comprehensive shutdown or warning on fault condition

KEY BENEFITS

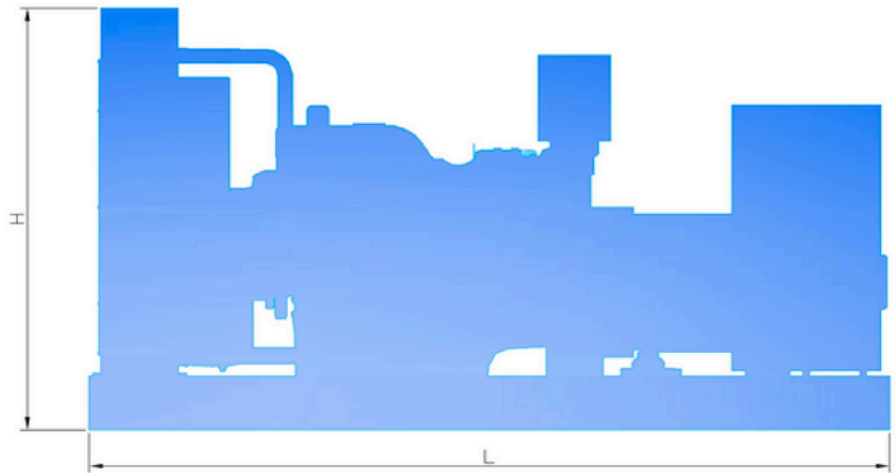
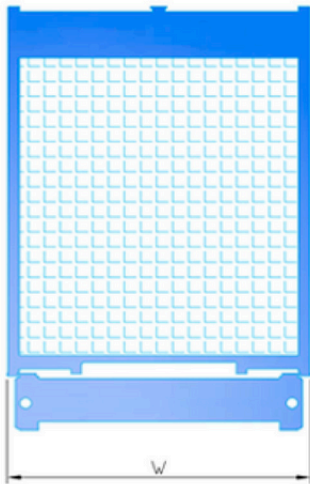
- Automatically transfers between mains (utility) and generator power (DSE6120 MK II only)
- Hours counter provides accurate information for monitoring and maintenance periods
- User-friendly set-up and button layout
- Multiple engine parameters are monitored simultaneously
- Module can be configured to suit individual applications

- Compatible with a wide range of CAN engines
- Tier 4 engine support
- Uses DSE Configuration Suite PC software for simplified configuration
- IP65 rating (with optional gasket) offers increased resistance to water ingress
- Licence-free PC software

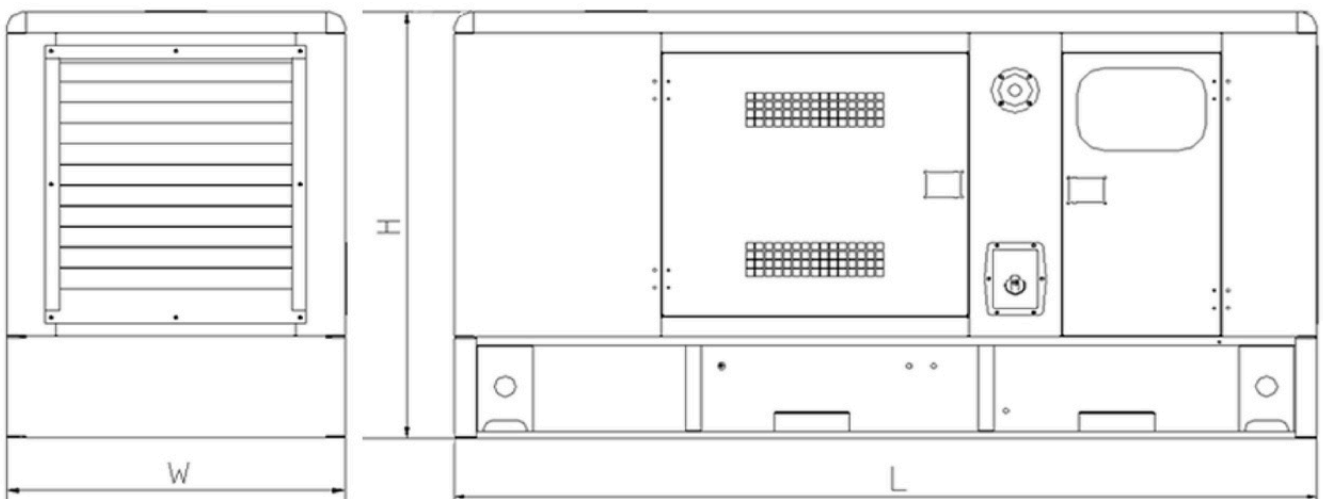
DSE6120 MKII



EXTERIOR DRAWING (FOR REFERENCE ONLY)



OVERALL DIMENSIONS	L	W	H
Open type	-	-	-



OVERALL DIMENSIONS	L	W	H
Slit type	1672 (mm)	700 (mm)	965 (mm)

Specifications are subject to change without notice.

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