

GK23S

50Hz @1500rpm,3- Phase / 4-wiring

A. STANDARDS & CONDITIONS

Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (CE)
- ISO8528-5:2005
- AS 3000-2018
- AS 3010-20

Environmental Operating Conditions

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

Factory Inspection

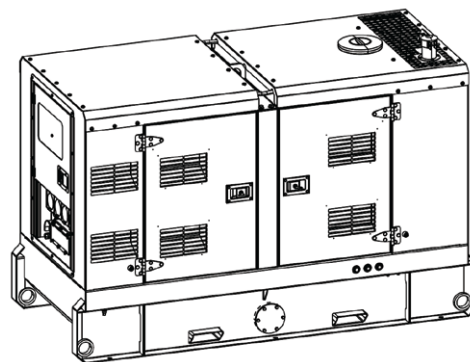
- Inspection items
- Protection devices working test
- Starting ability in normal temperature
- 50% rated power load moment capability
- Voltage deviation and speed varying: 0%, 25%, 50%, 75%, 100%, 110% Load

Painting Process

- Painting process specifications and colors are based on the manufacturer's standard
- The customer could also choose the color which the manufacturers.

- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 25 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

C. GENERAL TECHNICAL DATA



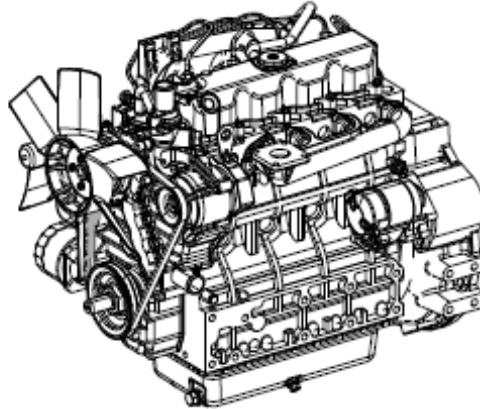
MODEL	GK23S
STRUCTURE TYPE	RS
TANK CAPACITY	140 L
DRY WEIGHT	871 kg
NOISE LEVEL @ 7M	65.1dBA
DIMENSIONS	2132 x 928 x 1304 mm
STANDBY POWER	25.3kVA / 20.24kW
PRIME POWER	23kVA / 18.4kW

B. GENERAL FEATURES

- Kubota Engine V2403-BG
- Close coupled to Leroy Somer alternator
- Microprocessor control module DSE-4520
- SCHNEIDER main circuit breaker: 100A
- Rotate speed governor: Mechanical governor
- Excitation System: Self Excited
- A.V.R., Key Switch, Emergency Stop Switch
- Automatic Transfer Switch receptacle
- Convenience Receptacles: 1P
- 1x12V/72AH 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 forkslots

Voltage	380V	400V	415V	440V	
Ampere	34.95A	33.2A	32.0A	30.18A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	2.8	4.1	5.5	6.1

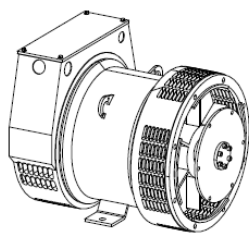
DIESEL ENGINE



ENGINE SPECIFICATIONS

1	ENGINE MANUFACTURER/BRAND	Kubota
2	ENGINE MODEL	V2403-BG
3	DIMENSIONS	667.1 x 507.1 x 635.0mm
4	DRY WEIGHT (APPROX.)	184kg
5	NUMBER OF CYLINDERS	4
6	BORE	87 mm
7	STROKE	102.4mm
8	DISPLACEMENT (LITER)	2.434L
9	COMPRESSION RATIO	23.8
10	TYPE OF INJECTION	Direct Injection
11	INTAKE SYSTEM	Natural Aspirated
12	INTAKE RESISTANCE	1.96 kPa
13	COOLING SYSTEM	Water Cooled
14	FAN	Pusher
15	BATTERY VOLTAGE	12V
16	TYPE OF FUEL	No.2-D (ASTMD975)
17	TYPE OF OIL	Class CF Lubricating Oil
18	OIL CAPACITY	7.6 L
19	TYPE OF COOLANT	Glycol Mixture
20	COOLANT CAPACITY	7.1 L
21	BACK PRESSURE	7.07 kPa
22	STANDBY POWER	20.24kW
23	CONTINUOUS POWER	18.4kW
24	FUEL CONSUMPTION (100% LOAD)	5.5 L/h

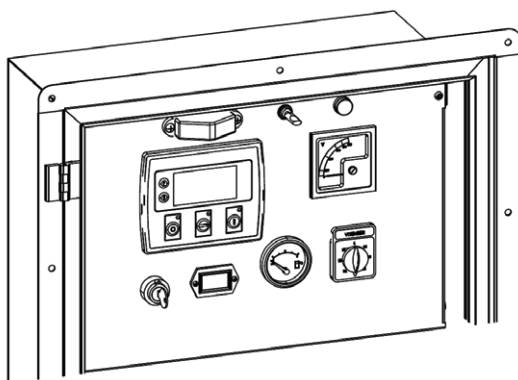
ALTERNATOR



ENGINE SPECIFICATIONS

1	ALTERNATOR MANUFACTURER / BRAND	Leroy Somer
2	ALTERNATOR MODEL	LSA40M7
3	EXCITER	Brushless
4	COOLING FAN	Synthetic Plastic
5	WINDINGS	100% Copper
6	INSULATION CLASS	H
7	WINDING PITCH	2 / 3
8	TERMINALS	12
9	DRIP PROOF	IP23
10	ALTITUDE	≤1000m
11	OVERSPEED	2250rpm
12	AIR FLOW	0.06 m³/s(50Hz), 0.072m³/s(60Hz)
13	VOLTAGE REGULATION	± 0.5%
14	TOTAL HARMONIC TGH / THCat No Load < 1.5%	TGH / THCat no load < 3.0 % - on load < 5%
15	TELEPHONE INTERFERENCE	THF < 2%; TIF <50

DSE-4520 CONTROL SYSTEM

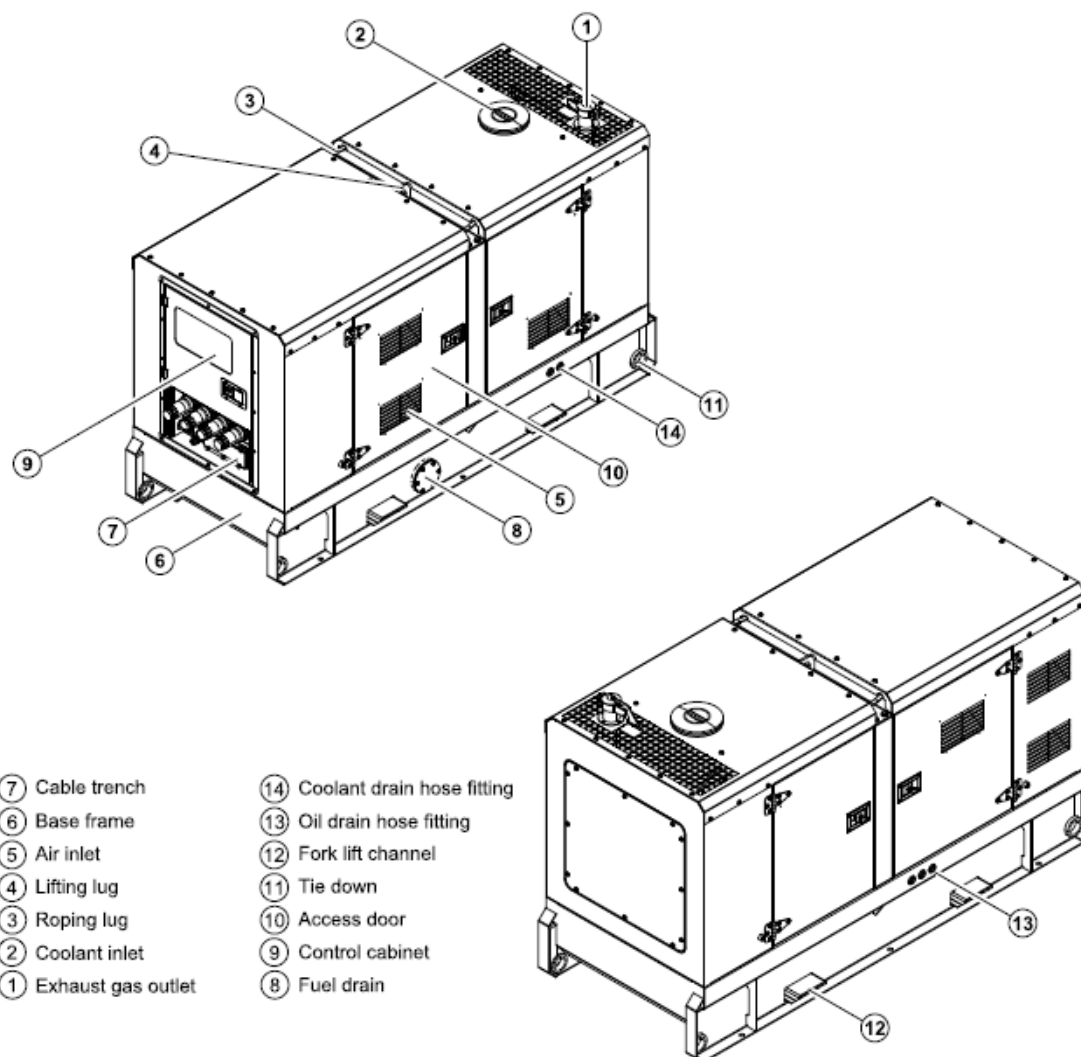
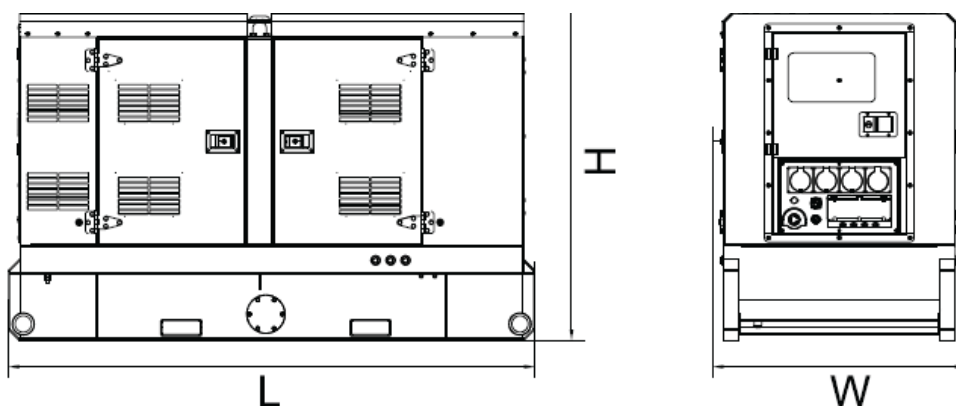


DSE-4520 is an advanced control module based on microprocessor designed to control the engine via push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition of an engine failure.

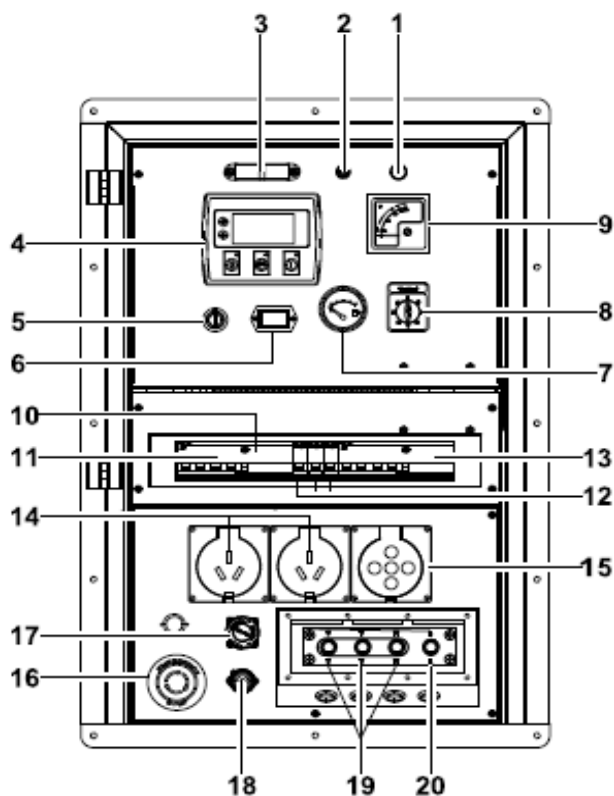
Standard Control Function

- Manual Engine Control Module
- Low Oil Pressure
- High Engine Temperature
- Auxiliary Shutdown
- Overspeed Protection
- Protection Hold-OFF Timer
- Charge Failure Warning

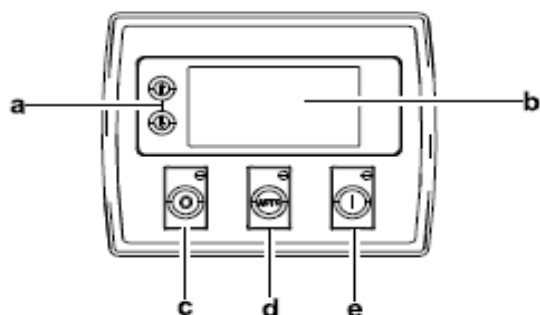
D. OVERALL DIMENSION



E. CONTROL SYSTEM



Control & field wiring cabinet



Control module

Ref.	Description
1	Charge indicator
2	Control cabinet lamp switch
3	Control cabinet lamp
4	Control module
5	Key switch
6	Time counter
7	Fuel level meter
8	Voltmeter change-over switch
9	Voltage meter
10	RCD.
11	Circuit breaker of three-phase convenience receptacle
12	Circuit breakers of single-phase convenience receptacle
13	Main circuit breaker
14	2x single-phase convenience receptacle
15	1x three-phase convenience receptacle
16	Emergency stop switch
17	Remote control/ATS communication connector
18	Mains input/Remote control communication connector
19	Live wire terminals
20	Neutral wire terminal

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)