

GK18S

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

A. STANDARDS & CONDITIONS

Design Standards

The designs and the productions are in conformity with:

- Conformance Europeenne (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

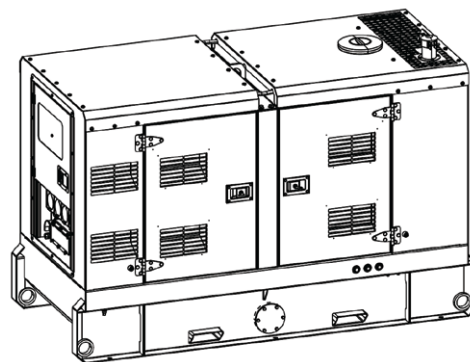
- Inspection items
- Protection devices working test
- Starting ability in normal temperature
- 50% rated power load moment capability
- Voltage deviation and speed varying: 0%, 25%, 50%, 75%, 100%, 110% Load

Painting Process

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

- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 30 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

C. GENERAL TECHNICAL DATA



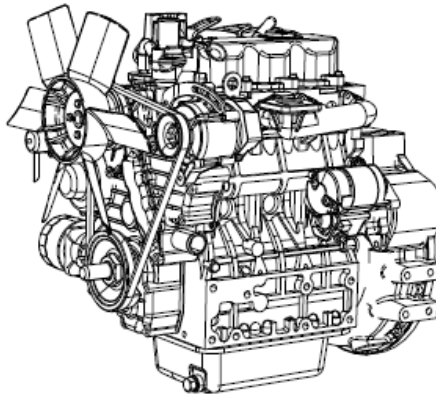
MODEL	GK18S
STRUCTURE TYPE	RS
TANK CAPACITY	120 L
DRY WEIGHT	736 kg
NOISE LEVEL @ 7M	62dBA
DIMENSIONS	1932 x 830 x 1262 mm
STANDBY POWER	19.8kVA / 15.87kW
PRIME POWER	18kVA / 14.4kW

B. GENERAL FEATURES

- Kubota Engine D1803-M-DI-BG
- Close coupled to Leroy Somer
- Microprocessor control module DSE-4520
- SCHNEIDER main circuit breaker: 32A
- Rotate speed governor: Mechanical governor
- Excitation System: Self Excited
- A.V.R., Key Switch, Emergency Stop Switch
- Automatic Transfer Switch receptacle
- Convenience Receptacles: 3P and 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	27.35A	25.98A	25.04A	23.62A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	N/A	2.0	3.0	3.9	4.3

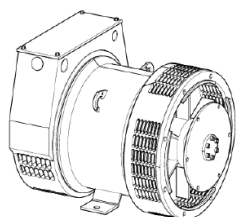
DIESEL ENGINE



ENGINE SPECIFICATIONS

1	ENGINE MANUFACTURER/BRAND	Kubota
2	ENGINE MODEL	D1803-M-DI-BG
3	DIMENSIONS	575.9 x 499 x 685mm
4	DRY WEIGHT (APPROX.)	151kg
5	NUMBER OF CYLINDERS	3
6	BORE	87 mm
7	STROKE	1024mm
8	DISPLACEMENT (LITER)	1.826L
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	15.87kW
23	CONTINUOUS POWER	18.4kW
24	FUEL CONSUMPTION (100% LOAD)	N/A

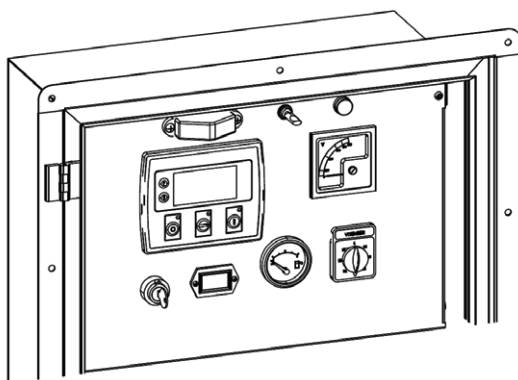
ALTERNATOR



ENGINE SPECIFICATIONS

1	ALTERNATOR MANUFACTURER/BRAND	Stamford
2	ALTERNATOR MODEL	SOL2-G1
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 AT no load < 1.5 % - on load < 5%
15	TELEPHONE INTERFERENCE	THF < 2%; TIF <50

DSE-4520 CONTROL SYSTEM

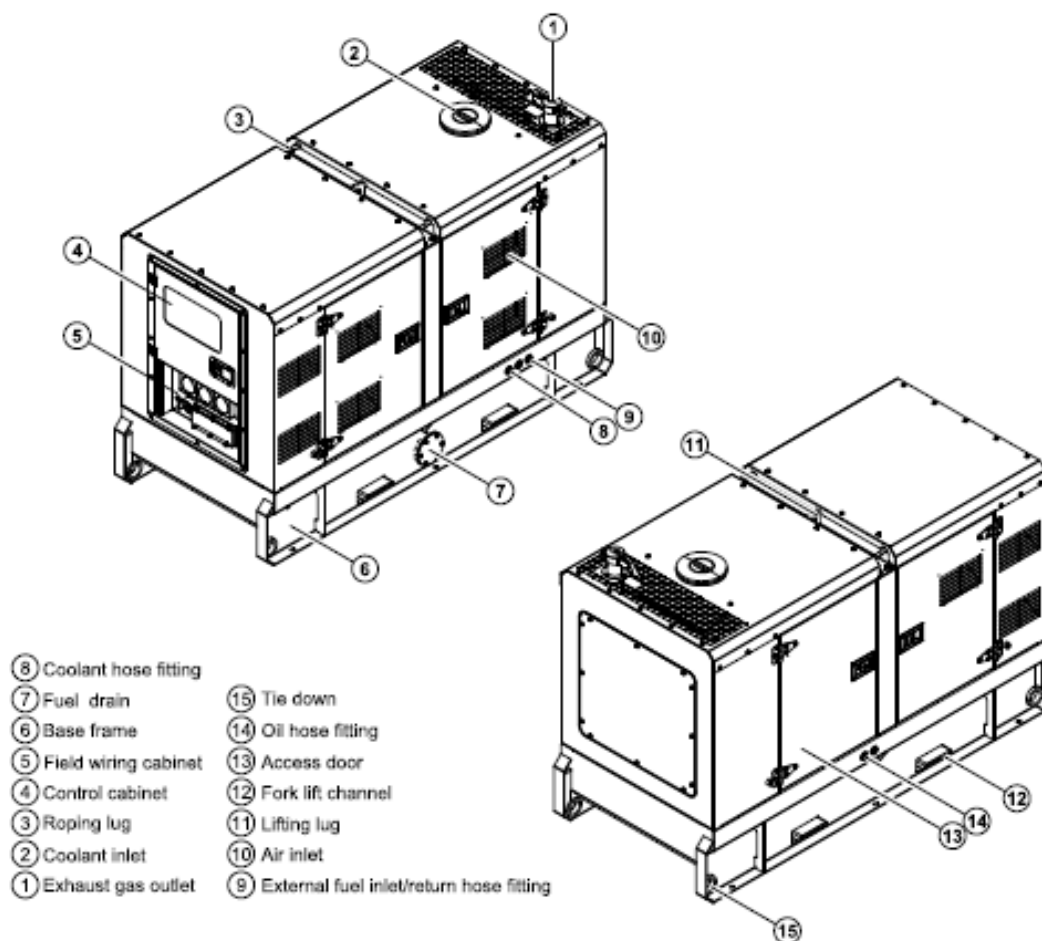
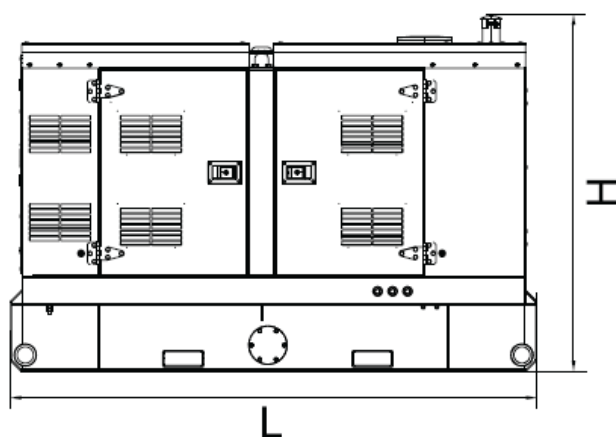
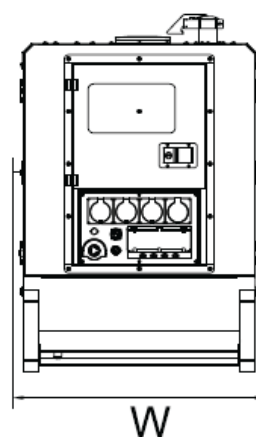


DSE-4520 is an advanced control module based on microprocessor designed to control the engine via push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true yrst up fault condition of an engine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

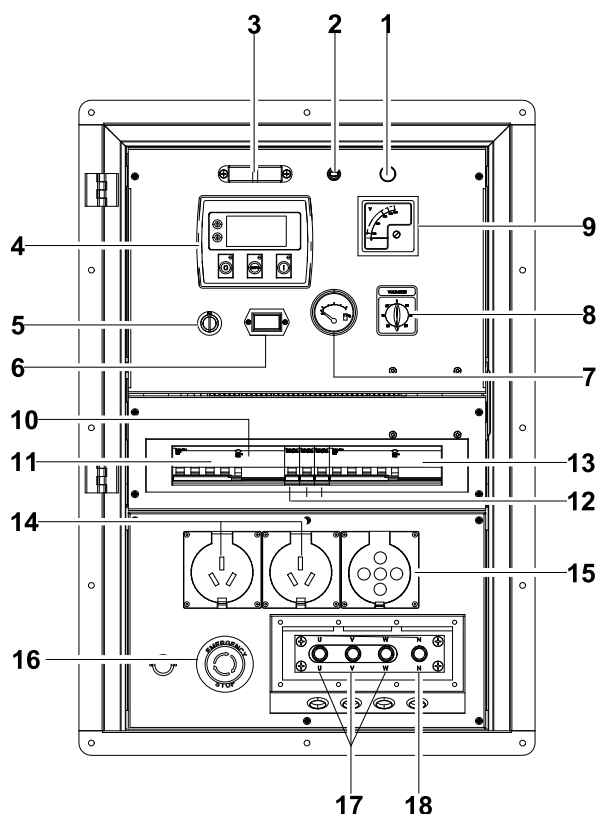
Standard Control Function

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

D. OVERALL DIMENSION

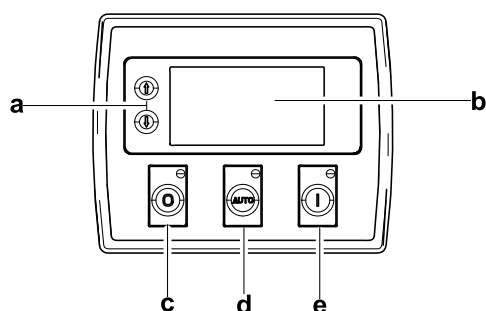


E. CONTROL SYSTEM



Control & field wiring cabinet

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	3x single-phase convenience receptacle
15	1x three-phase convenience receptacle
16	Emergency stop switch
17	Live wire terminals
18	Neutral wire terminal



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)