

# TECHNICAL DATA

DIESEL GENERATING SET

60HZ

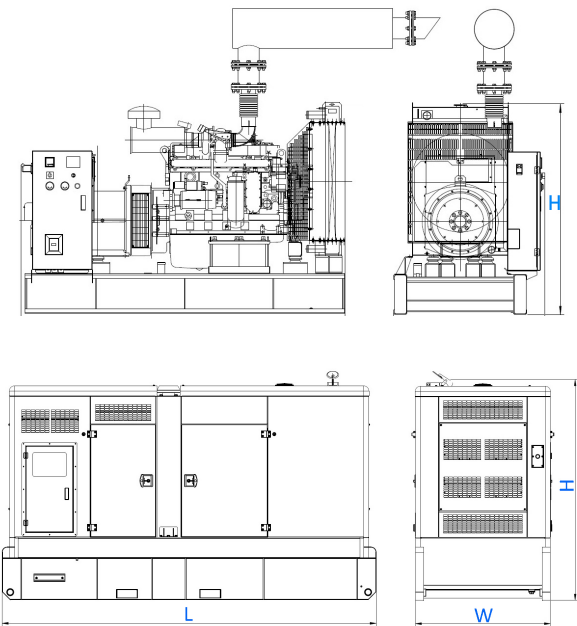
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# BC18KS-1

## Features

- Compact structure & high-strength chassis
- Easy for operation and maintenance
- Good performance anti-vibration system
- Compliance with international electrical safety standards
- 12 hours double-wall base fuel tank
- High-performance free-maintenance batteries with isolation switch
- 50°C radiator
- Top lifting point, Fork lift holes, easy for transportation.
- Industrial type muffler
- Noise reduction structure, Low overall noise
- Convenient power output interface and ATS Interface
- IP56 (control system)
- The customized design

Photos are for reference only



Genset Technical Data	
Output frequency	60 Hz
Rated speed	1800 rpm
Prime power	18KVA
Standby power	19.8KVA
Rated voltage	240 V
Phase	2
Engine model	V2203-M-E3BG-CHN-1(Tier 4)
Alternator model	PI 144D
Fuel consumption of 100% load(standby)	6.47 Litres/h
Fuel consumption of 75% load (standby)	4.85 Litres/h
Voltage regulation rate	≤±1%
Random voltage variation	≤±1%
Frequency regulation rate	≤±5%
Random frequency variation	≤±0.5%

Dimension and Weight	
Generating set model	BC18KS-1
Length(L) (mm)	2300
Width(W) (mm)	993
Height(H) (mm)	1367
Dry weight (k g)	1046
Tank capacity ( L )	120

Engine Specifications	
Engine model	V2203-M-E3BG-CHN-1(Tier 4)
Engine manufacturer	Kubota
Number of cylinders	4
Cylinder arrangement	Vertical in-line
Cycle	Four stroke
Aspiration	Naturally Aspirated
Bore x Stroke	87mm x 92.4mm
Displacement	2.197Liter
Compression Ratio	22.0:1
Prime power/speed	20.2kW/1800rpm
Standby power/speed	24.2 kW /1800rpm
Speed governor	Mechanical
Cooling system	Forced Water Cooling Cycle
Steady speed droop	≤5%
Total lubrication system capacity	7.56 Liter
Fuel consumption at 100% load(Standby)	1.71 US Gallon(at 1800RPM)
Starter motor	DC12V
Alternator	AC12V
Alternator Specifications	
Rated frequency	60 Hz
Rated speed	1800 rpm
Alternator model	PI 144D
Rated output prime power	21kVA
Efficiency	82.3%
Phase	1(2P)
Rated voltage	240 V
Exciter type	Self excited, Brushless
Power factor	1.0
Voltage adjust range	≥5.0%
Voltage regulation NL-FL	≤±1.0%
Insulation grade	H
Protection grade	IP23
Xd DIR. AXIS SYNCHRONOUS	1.89
X'd DIR. AXIS TRANSIENT	0.20
X''d DIR. AXIS SUBTRANSIENT	0.12
Xq QUAD. AXIS REACTANCE	0.91
X''q QUAD. AXIS SUBTRANSIENT	0.20

## Control System

### DSE-7320

DSE-7320 is an advanced control module based on micro-processor, It is an Auto Mains (Utility) Failure Control Module(AMF), have been designed to start and stop generating sets that include electronic And non-electronic engines. Include the additional capability of being able to monitor a mains (utility) supply. when main is not available, It can automatically start the engine and close generating sets breaker automatically, Accurately measure various operational parameters and display all values and alarms information on the LCD. In additional, it can automatically open breaker, and shutdown the engine after the main supply recovers.

### Main Features

- AMF and ATS and communication and expansion function
- Designed to work with electronic or non-electronic or gas engine simultaneously. (support many kinds of engines ECU).
- Manual, Automatic, Test and remote control mode selectable.
- Monitoring and measuring operational parameters of the mains supply and genset.
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections and multiple parameters display.
- Includes 12 inputs and 8 outputs. 8 inputs are configurable and 6 outputs are configurable.
- Can be programmed using the front panel or by using the PC software.
- Support twelve languages. The language was edited by customer.
- Graded protection: pre-alarm, shutdown and electrical trip, flexible setting.
- The module can be pre-set for four operating modes and protecting parameters.
- Add DSE890 module, internet network monitoring can be realized.
- The firmware can be updated automatically, so customer can have the latest version.



### The control module display

- Generator voltage
- Generator frequency
- Battery voltage
- Engine speed
- Load current
- Generator KVA, KW, PF
- Engine run-time Hours
- Engine oil pressure
- Engine coolant temperature
- Real time clock for time and date, overall runtime