80KVA Cummins Diesel Generator Set Datasheet

Model:KH-64GF
Engine: CUMMINS
Alternator: STAMFORD
Control Panel: UK DEEPSEA
Prime Power:80KVA/64KW
Standby Power:88KVA/70.4KW

Prime power is available for an unlimited number of annual hours in variable load applications, in accordance with GB/T2820-97. A 10% overload capability is available for a period of 1 hour within a 12-hour operation cycle.

The standby power rating is intended for supplying emergency power during utility power interruptions. No overload, utility parallel, or negotiated outage operation capabilities are available at this rating..

Standard Specification

Genset model	Voltage	Frequency	Phase	Power Factory	Protection Class	Insulation Grade
KH-56GF	240/415V	50HZ	3	0.8(lagging)	IP23	H

Engine and genset output radting

Engine model	Engine Speed (RPM)	Prime (KW/HP)	Standby (KW/HP)	Genset Model	Prime (KVA/KW)	Standby (KVA/KW)
4BTA3.9-G11	1500	70/93	80/107	KH-64GF	80/64	88/70.4

Scope of standard supply

Engine:	CUMMINS
Alternator:	STAMFORD
Controller:	Automatic controller DSE7320MKII with AMF function
Breaker:	Manual circuit breaker 3-pole, China CHNT
Radiator:	Cummins 50°C
Vibration:	Vibration damper installed between the engine/alternator and the base frame.
Base:	Heavy duty steel channel base frame
Silencer:	Heavy duty industrial type silencer with flexible bellow,elbow
Battery:	High capacity sealed free maintenance battery C/W battery cables
Manuals:	Standard tools, operator's manual of engine ,alternator , controller, breaker

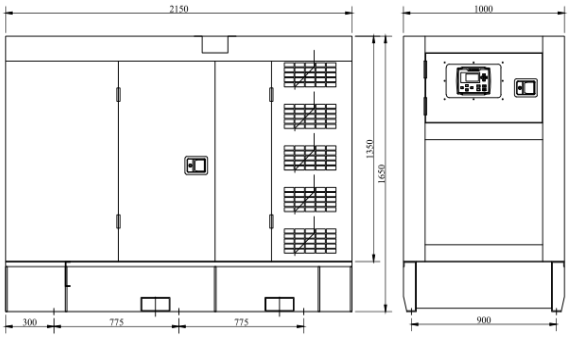
Optionals

Sound Attenuated Enclosure	Oil/ Water/Fuel Heating system	Anti condensation heater
Heater Preservation Cabinet	Automatic Transfer Switch (ATS)	Daily Fuel Tank
Rainproof Cabinet	Remote Control System	Output Cable
Sound Attenuated Container (20GP/20HC/40HC)	Synchronization System	Maintainance Spare Parts
Trailer (10-500KVA)	Breaker brand (ABB,Simens,Schneider)	Plywood Case Packing

DIMENSIONS(L*W*H) And Weight

PROCESS FLOW:Drawing→Cutting→Bending→Welding→Spraying→Assembling→Testing

Open Type	1150KG		Silent Type	1600KG
	1860*750*1200mm			2450*1000*1680mm



Sound Attenuated Enclosure

IP rated sound attenuated weatherproof enclosure designed for rugged conditions
Excellent security: The totally-enclosure is manufactured from 2 mm high quality galvanised cold-rolled steel plates.
Ventilation: combined combustion and ventilation cooling.
Excellent sound attenuation, with anti-drumming treatment which effectively lowers the sectional noise during normal running of the gen-sets.
The enclosure uses high frequency, medium frequency and low frequency type of PUR anti-flaming and sound-absorbing cotton, which could reduce the noise produced by the genset.
The door uses an EPDM type sealing system.
High efficiency absorbative mufflers which helps reduce exhaust noise.
Convenient transport using four point lifting arrangement.

Warranty

Warranty is according to our standard conditions:12 months or 1,000 running hours, subject to the earlier one (artificial damage to be an exception).

Certification

European Safety Standard: CE Certificate
ISO9001:2015 Quality Control System
CUMMINS OEM CERTIFICATE
STAMFORD OEM CERTIFICATE

CUMMINS Diesel Engine

Engine Brand	**Cummins**
Engine Manufacturer	**Cummins(China) Power Technology Co.,Ltd**
Engine Model	**4BTA3.9-G11**
Engine Rated Power	**70KW @1500RPM**
Cylinder Arrangement	4 in line
Cycle	Four stroke
Aspiration	Turbochanger& Aftercooler
Fuel System	BYC PB

Bore×Stroke (mm×mm)	102x120
Displacement(L)	3.9
Compression Ratio	17.3:1
Speed Governor	Electronic
Cooling System	Forced Water Cooling Cycle
Starter Motor	DC24V electrical starting
Exhaust System	
Exhaust Gas Flow (l/s)	134
Exhaust Temperature(℃)	
Standby Power	526
Prime Power	548
Max Back Pressure(kPa)	10
Air Intake System	
Max Intake Restriction(kPa）	
Dirty Element	6.2
Clean Element	3.7
Air Flow(l/s)	64
Fuel System	
Type Injection System	BYC PB Direct Injection
110%(Standby Power) Load(L/H)	20
100%(Prime Power) Load(L/H)	17.6
75%(Prime Power) Load(L/H)	13.2
50%(Prime Power) Load(L/H)	9.1
25%(Prime Power) Load(L/H)	5.3
Oil System	
Maximum Oil Temperature(℃)	121
Oil Pressure at Rated RPM(kPa)	207-345
Minimum Required Lube System Capacity (L)	10.9
Cooling System	
Coolant Capacity - Engine Only(L)	8.3
Thermostat range(℃)	83-95
Max Water Temperature Standby/Prime(℃)	104/100
Specification of STAMFORD alternator	
Alternator Brand	**Stamford**
Engine Manufacturer	**Cummins GeneratorTechnologies (China) Co., Ltd**
Alternator Model	**UCI224G**
Alternator Rated Power	**85KVA/68KW**
Rated Voltage	415V
Rated frequency	50HZ
Connecting Type	3 Phase and 4 Wires
Number of Bearing	1
Protection Grade	IP23
Altitude	≤1000m

Exciter Type	Brushless ,Self-exciting, AVR automatic voltage regulating,100% Copper winding wire
Insulation Class	H
Telephone Influence Factor (TIF)	≤50
THF	≤2%
Voltage Regulation, Steady State	≤±1%
Transient State Voltage	≤-15%～+20%

Specification of control System (Deepsea DSE7320MKII Module)

DSE7320 controller 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 eight outputs. 8 inputs are configurable and 4 outputs are configurable.

4 analog inputs for kinds of optional sensors that can be used for measuring oil pressure, coolant temperature, fuel level and so on; parameters can be configured by user.

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.

The firmware can be updated automatically, so customer can have the latest version.

Key Features

4-Line back-lit LCD text display

Multiple Display Languages

Five key menu navigation

LCD alarm indication

Heated display option available

Customisable power-up text and images

DSENet expansion compatibility

Data logging facility Internal PLC editor

Protections disable feature Fully configurable via PC using USB, RS232 & RS485 communication

Front panel configuration with PIN protection

Power save mode

3 phase generator sensing and protection

3 phase mains (utility) sensing and protection (DSE7320 MKII only)

Automatic load transfer control (DSE7320 MKII only)

Generator current and power monitoring (kW, kvar, kVA, pf)

Mains current and power monitoring (kW, kvar, kVA, pf) (DSE7320 MKII only)

kW and kvar overload and reverse power alarms
Over current protection
Unbalanced load protection
Independent earth fault protection Breaker control via fascia buttons
Fuel and start outputs configurable when using CAN
6 configurable DC outputs
2 configurable volt-free relay outputs
6 configurable analogue/digital inputs
Support for 0 V to 10 V & 4 mA to 20 mA sensors
8 configurable digital inputs
Configurable 5 stage dummy load and load shedding outputs
CAN, MPU and alternator frequency speed sensing in one variant
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Manual and automatic fuel pump control
Engine pre-heat and post-heat functions
Engine run-time scheduler
Engine idle control for starting & stopping
Fuel usage monitor and low fuel level alarms
Simultaneous use of RS232 and RS485 communication ports
True dual mutual standby using RS232 or RS485 for accurate engine hours balancing.
MODBUS RTU support with configurable MODBUS pages.
Advanced SMS messaging (additional external modem required)
Start & stop capability via SMS messaging
3 configurable maintenance alarms
Compatible with a wide range of CAN engines, including tier 4 engine support
Uses DSE Configuration Suite PC Software for simplified configuration
Licence-free PC software
IP65 rating (with supplied gasket) offers increased resistance to water ingress
Modules can be integrated into building management systems (BMS) using MODBUS RTU
Key Benefits
Automatically transfers between mains (utility) and generator (DSE7320 MKII only) for convenience.
Hours counter provides accurate information for monitoring and maintenance periods
User-friendly set-up and button layout for ease of use
Multiple parameters are monitored & displayed simultaneously for full visibility
The module can be configured to suit a wide range of applications for user flexibility
PLC editor allows user configurable functions to meet user specific application requirements.