

750KVA CUMMINS DIESEL GENERATOR SET DATASHEET



Model: KH-600GF
 Engine: CUMMINS
 Alternator: STAMFORD

Control Panel: UK DEESEA
 Prime Power: 750KVA/600KW
 Standby Power: 825KVA/660KW



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	KH-600GF
Voltage	240/415V
Frequency	50HZ
Phase	3
Power Factor	0.8(lagging)
Protection Class	IP23
Insulation Grade	H

Engine and genset output rating

Engine model	KTA38-G2
Engine Speed (RPM)	1500
Prime (KW/HP)	664/890
Standby (KW/HP)	731/980
Genset Model	KH-600GF
Prime (KVA/KW)	750/600
Standby (KVA/KW)	825/660

Scope of standard supply

Engine:	CUMMINS brand new
Alternator:	STAMFORD brand new
Controller:	Automatic controller DSE7320MKII with AMF function.
Breaker:	Manual circuit breaker 3-pole, China CHNT.
Radiator:	Cummins brand new 40°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.

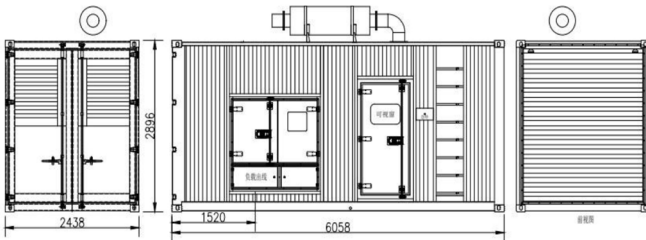
Options

Soundproof cabinet	Synchronisation system
Heater preservation cabinet	Breaker brand (ABB, Simens, Schneider)
Rainproof cabinet	Anti condensation heater
Sound Attenuated Container (20GP/20HC/40HC)	Daily fuel tank
Trailer (10-500KVA)	Output cable
Oil/ Water/Fuel heating system	Maintenance spare parts
Automatic Transfer Switch (ATS)	Plywood case packing
Remote control system	

DIMENSIONS(L*W*H) and Weight

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

Open Type	9600KG
	5000*2000*2450mm
Silent Type	11800KG
	6058*2438*2896mm



Container Silent cabinet Features

The whole container genset can be shipped as an international standard container, which can reduce the transportation cost sharply (certificate can be provided).

Diesel genset, power switch cabinet, control system and 6-8 hours fuel tank are fixed inside the container.

There're two explosive-proof lamps inside the roof of the container and one explosive-proof lamp above the control panel for user friendly.

Both the front and back doors of the container can be opened. Both sides also equips with doors for users operation and maintenance; there're ladders outside the container.

All the hinges, locks and bolts are made of stainless steel. There are installations against sea waves and rain waters inside the container.

The control panel and the output cabinet are on the same side of the container for user's daily operation and connecting power cables conveniently.

Highly effective shock absorbers are adapted between engine and base frame to reduce noise and vibration during gensets running.

The scientific ventilation system can make the heat energy generated during gensets running escape out of canopy effectively

Reasonable control space design to make the operation inside canopy easy and comfortable.

Impedance professional silencer make the noise come from the exhaust reduce sharply.

The output terminal is inside an output box fixed with the container. User can connect the cables from outside the container directly.

Container Silent cabinet Features

For the soundproof container type power generator, the container adapts the most advanced sound absorbing technology. The polymer materials combines the sound waves reflecting and absorbing technology, transfers the sound energy to heat energy, then expel the heat out of container through the ventilation system. Besides, the soundproofing doors applies double-layered glasses window, with perfect sealing along side the doors and windows so that the sound won't escape from the doors and windows.

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	Chongqing Cummins Engine Company Ltd
Engine Model	KTA38-G2
Engine Rated Power	664KW @1500RPM
Cylinder Arrangement	12 in line
Cycle	Four stroke
Aspiration	Turbocharged, Aftercooled
Fuel System	Cummins PT
Bore×Stroke (mm×mm)	159x159
Displacement(L)	37.8
Compression Ratio	14.5:1
Speed Governor	Electronic
Cooling System	Forced Water Cooling Cycle
Starter Motor	DC24V electrical starting



Exhaust System

Exhaust Gas Flow (l/s)	2398
Exhaust Temperature(°C)	550
Standby Power	541
Prime Power	552
Max Back Pressure(kPa)	10

Air Intake System

Max Intake Restriction (kPa)	5.0 (Clean Element)
Clean Element	2.49
Air Flow(L/min)	850

Fuel System

Type Injection System	Cummins PT
100%(Prime Power) Load(L/H)	167
75%(Prime Power) Load(L/H)	128
50%(Prime Power) Load(L/H)	90

Oil System

Maximum Oil Temperature(°C)	121
Oil Pressure at Rated RPM(kPa)	310-448
Minimum Required Lube System Capacity (L)	135

Cooling System

Coolant Capacity - Engine Only(L)	118
Thermostat range(°C)	82-93
Max Water Temperature Standby/ Prime(°C)	104/100

Specification of STAMFORD Alternator

STAMFORD

Alternator Brand	Stamford
Engine Manufacturer	Cummins Generator Technologies (China) Co., Ltd
Alternator Model	S5L1D-H4
Alternator Rated Power	750KVA/600KW
Rated Voltage	415V
Rated frequency	50HZ
Connecting Type	3 Phase and 4 Wires
Number of Bearing	1

Specification of STAMFORD Alternator

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 recover

Main Features

Automatic Mains Failure (AMF) and Automatic Transfer Switch (ATS) with communication and expansion function.

Designed to operate with electronic, non-electronic, or gas engines simultaneously, supporting various types of engine ECUs.

Selectable modes include Manual, Automatic, Test, and Remote Control.

Monitors and measures operational parameters of the mains supply and generator set.

Displays operational status, fault conditions, all parameters, and alarms.

Multiple protections and multiple parameters display.

Includes 12 inputs and 8 outputs, with 8 configurable inputs and 4 configurable outputs.

Main Features

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.



Key Features

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

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.