

# **Cummins Diesel Generator Set**

Model No.: BCSS1320

Standby Power 1320KW/1650KVA



#### **GUANGDONG BINSHI POWER TECHNOLOGY CO., LTD.**

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#### **Powered by**

**Cummins: KTA50-GS8** 

Standby 1650KVA at 50Hz, 400V



### Genset Technical Data:

Genset Model:	BCSS1320
Prime Power:	1200 KW / 1500KVA
Standby Power:	1320 KW / 1650KVA
Frequency/Speed:	50Hz/1500rpm
Rated Voltage:	400V
Power Factor:	0.8
Phase:	three-phases, four-wires
Fuel consumption (100% load):	309 L/h
Oil tank:	2500 L
Engine:	Cummins
Alternator:	Stamford
Controller:	DeepSea
Dimensions (LxWxH):	5500×2000×2250 mm
Net Weight:	10000 kgs

- (1) PRP: Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1. A 10% overload capability is available for a period of 1 hour within 12-hour period of operation. In accordance with ISO 3046-1.
- (2) ESP: The Standby Power Rating is applicable for supplying emergency power in variable load applications for up to 200 hours per year in accordance with ISO8528-1. Overload is not allowed.

#### Advantages:

- 1. Unique engine injection pressure and construction: Unique Cummins fuel system, 4 valves per cylinder, direct injection, turbocharged & intercooled.
- 2. Advanced production technology: higher strengthen and reliability because of alloy cast iron cylinder body & cover and complete equilibrium structure crankshaft.
- **3.** Advanced electrical control technology: full control system design, use advanced ECU intelligent control patch, with real-time monitoring for engine. With fault reserve function.
- **4. High operating reliability:** high strength cast cylinder and crankcase provide solid crankshaft support and reduce weight. The engine has enough safety power reserve to cope with 50% over-speed.
- 5. Economy:
- 1) The engine set consumes less fuel and oil, so the operating costs are low, fuel consumption rate is 195-2D8 g / kWh.
- 2) With the world's longest working time before first overhaul.



# **Cummins Engine**

Model: KTA50-GS8

Origin: CCEC, China

### General features:

- Water cooled, turbocharged & intercooled.
- Direct injection fuel system
- ♦ 24V D.C starter
- Cooling radiator and fan with safety guard.
- Replaceable fuel filter, oil filter and dry element air filter.
- Fuel and water separator as optional.



### Main Technical Data:

Prime/standby power:	1287KW/1429KW
Rated Voltage:	400V
Frequency/Speed:	50Hz/1500rpm
Cylinders no. & Type:	16 cylinders, in V type, 4 cycle
Aspiration:	Turbocharging, Water to Air intercooling
Bore × Stroke:	159×159 mm
Displacement:	50.3 L
Compression ratio:	14.9 : 1

### Exhaust System

Max. back pressure	6.8kPa

### Air Intake System

Max. air intake resistance	
Dirty filter	6.2 kPa
Normal air cleaner and clean filter	2.5 KPa
Heavy air cleaner and clean filter	3.7 kPa



# Lubrication System

Oil pressure	
Idle speed	138 KPa
Governed speed	345-483 KPa
Max. oil temperature permitted in oil pan	121℃
Oil pan capacity (Max/Min)	178/148L
Total system capacity (including Bypass filter)	204L

# Fuel System

Fuel injection system	Direct injection Cummins PT
Total fuel overflow amount	570L/H

# Cooling System

Coolant capacity-engine only	165L	
Thermostat adjusting temperature (range)	82-93/℃	
Min. opening pressure of radiator cap	96 KPa	
Max. coolant temperature to aftercoolers (Standby	104/100℃	
/Base output Power)	104,100 €	

### Electric System

Starter	24V
Battery charging system	35A
Max. starting circuit resistance	0.002Ω
	(≥10°C) 1280A
Min. battery capacity (CCA: Cold Cranking Ampere)	(0-10℃) 1800A
	(-18℃-0℃) 1800A

# Dimension & Weight

Dimensions (LxWxH):	2857.1×1415.1×1765.8mm
Weight	4858kg



# Stamford Alternator

Model: GR450GS

Origin: Shanghai, China

### **General Features:**

- Meet word-leading alternator standard requirement
- Single bearing or double bearings structure
- ♦ Easy installation and maintenance
- Standard maintenance-free sealed bearing
- Self-excited control, provide continuous short-circuit current capacity
- ♦ H insulation grade can meet the requirements at hostile environment
- ♦ 2/3 winding pitch can restrain overmuch neutral current
- ◆ 12 stator leading-out terminal can be reconnected
- ♦ Standard protection class IP22
- ♦ Optional outlet box size

### Main Technical Data:

Prime power:	1320KW/1650KVA
Standby power:	1357KW/1696KVA
Rated Voltage:	400V / 380V
Frequency/Speed:	50Hz/1500rpm
Power Factor:	0.8
Efficiency:	93.7%
Design:	Brushless single bearing, revolving field
Regulator:	AVR self-regulation
Stator:	2/3 winding pitch
Rotor:	Single bearing, flexible disc
Exciter Type:	Brushless excitation
Windings:	100% copper
Stabilized voltage regulation	±0.5%
Overspeed:	2250min
Indication of protection:	IP23
Insulation class	Н
Short-circuit current capacity	300%(3 multiples): 10s
Dimensions (LxWxH):	231×105×154 mm
Weight	3265 kg





### DeepSea Control System

Model: DSE7320

Origin: Shanghai, China



### Operating Environment:

Operating temperature:	-20℃~60℃
Relative humidity:	95%
Operating voltage:	DC24V(range: 18-30V, withstand voltage: 50V/5mm)

#### **General Features:**

- ♦ Compact size, reliable performance, easy to operation.
- Automatic detection function and multi-protection function, protect the generator operating safety and steady.
- Multi-interface display generator's working and alarm condition, visualized and clear to watch.
- Microcomputer control panel: set parameters such as input, output, alarm and time delay.
- Multiple operating modes: maintenance mode, manual mode and automatic mode.
- Start automatically when main supply is abnormal (over-tension, voltage too low, voltage loss).
- LCD can show all the parameters for the diesel generator.
- Protective cutoff function when the generator set failed.
- ♦ LCD alarm display, sound-light alarm control output.
- Manual/automatic/three-remotes function and electric supply/generate electricity automatic switch on-off control.
- ♦ Support RS232/RS485 communication mode (MODBUS protocol).

#### **Protection:**

- High/low voltage & frequency.
- Revolving speed lack of /exceed.
- ♦ Low oil pressure.
- High water temperature.
- Over current/ short trouble, emergency stop



### DeepSea Paralleling Module (Optional)

#### **Full Automatic Paralleling Control Cabinet**

- Self-starting, safety protection, alarm.
- It can realize parallel operation by manual or automatic.
- Self-load distribution.
- Self- reactive power distribution.
- ♦ Self-put into or logout gen-set per load.
- It can at most control 16 sets gen-set parallel operation.
- Provide open type MODBUS protocol, RS232 and RS485 communication interface for monitoring function.
- ♦ It has manual, automatic, three-remote function, monitor by computer to reach three – remote.



#### Features:

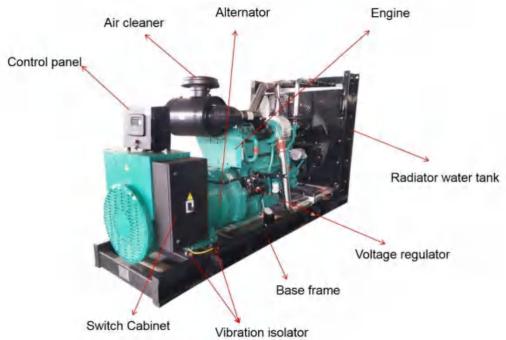
- Sheet steel lockable enclosure with hinged door,
- Removable base gland plate for cable entry/exit on all ratings
- ♦ Voltmeter (0-500) across L1-L2 on load output
- ♦ Load transfer push buttons
- ♦ 22.5mm multi-head LED indicators for "mains on load" and "generator on load"
- ♦ Interface to BS Power generator control panel
- Suitably rated earth bar

#### **Protection:**

- ♦ High/low voltage & frequency.
- ♦ Revolving speed lack of /exceed.
- Low oil pressure.
- ♦ High water temperature.
- Over current/ short trouble, emergency stop



# Genset Outlook





### Standard Supply Scope:

- ◆ Drive fan for engine and 40°C heat radiating water tank.
- Moulded case circuit breaker
- Battery and battery cable
- ♦ Float battery charger
- ♦ Base frame with vibration isolator
- Daily fuel tank
- ♦ Exhaust elbow, exhaust bellows, exhaust muffler
- Fuel filter, oil filter, air filter
- ♦ Tool kits
- Plastic membrane packing
- English testing report, quality certificate, service manual and warranty card



### Optional Supply Scope:

- ♦ Water jacket pre-heater
- Fuel and water separator
- ♦ Fuel pre-heater
- External daily fuel tank
- ♦ ATS
- Synchronization system
- Standard container
- ♦ Rain-proof canopy
- Sound-proof canopy
- ◆ Trailer



### Binshi Sales Promise

- 1. **Pre-sales service:** Our professional engineers give reasonable suggestions about selection, room design to all the technical solutions.
- 2. **Selling service:** we provide the technical support for the genset installation, test, room noise reduction, dust pollution ect.
- 3. We have **24 hours Standby** after-sales engineers and sufficient original plant components system.
- 4. **Quality Warranty** is according to our standard conditions: 12 months from BL date or 1,000 running hours. (whichever comes first.)

