



宾士动力  
BS POWER

GB/T9001-2008 idt ISO9001:2008  
GB/T24001-2004 idt ISO14001:2004



## Cummins Diesel Generator Set

Model No.: BCM72

Standby Power 72KW/90KVA



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

Add: Shangtun industrial district, Liaobu Town, Dongguan City, Guangdong, China

Tel: 0769-88992216 Fax: 0769-82310548

[www.bs-power.com](http://www.bs-power.com)

**Powered by**

**Cummins: 4BTA3.9-G11**

**Standby 90KVA at 50Hz, 400V**



## Genset Technical Data:

|                                      |                          |
|--------------------------------------|--------------------------|
| <b>Genset Model:</b>                 | BCM72                    |
| <b>Prime Power:</b>                  | 64KW / 80KVA             |
| <b>Standby Power:</b>                | 72 KW / 90KVA            |
| <b>Frequency/Speed:</b>              | 50Hz/1500rpm             |
| <b>Rated Voltage:</b>                | 400V                     |
| <b>Power Factor:</b>                 | 0.8                      |
| <b>Fuel consumption (100% load):</b> | 17.6L/h                  |
| <b>Oil tank:</b>                     | 200 L                    |
| <b>Phase:</b>                        | three-phases, four-wires |
| <b>Engine:</b>                       | Cummins                  |
| <b>Alternator:</b>                   | Marathon                 |
| <b>Controller:</b>                   | DeepSea                  |
| <b>Dimensions (LxWxH):</b>           | 1750x710x1300mm          |
| <b>Net Weight:</b>                   | 1000kgs                  |

- (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 strength 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: 4BTA3.9-G11**

**Manufacture: DCEC, 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:

|                                  |  |
|----------------------------------|--|
| <b>Prime/standby power:</b>      | 70KW/80KW                                |
| <b>Rated Voltage:</b>            | 400V                                     |
| <b>Frequency/Speed:</b>          | 50Hz/1500rpm                             |
| <b>Cylinders no. &amp; Type:</b> | 4 cylinders in line, 4 cycle             |
| <b>Aspiration:</b>               | Turbocharging, Air-to-water intercooling |
| <b>Bore x Stroke:</b>            | 102x120mm                                |
| <b>Displacement:</b>             | 3.9L                                     |
| <b>Compression ratio:</b>        | 17.3: 1                                  |

## Exhaust System

|                           |       |
|---------------------------|-------|
| <b>Max. back pressure</b> | 10kPa |
|---------------------------|-------|

## Air Intake System

|                                       |        |
|---------------------------------------|--------|
| <b>Max. air intake resistance</b>     |        |
| --Dirty filter                        | 6.2kPa |
| --Normal air cleaner and clean filter | 3.7kPa |

## Lubrication System

|  |          |
|--|----------|
| <b>Oil pressure</b>  |          |
| ----Low idle speed   | 207KPa   |
| ----Rated speed  | 345 KPa  |
| <b>Max. oil temperature permitted in oil pan</b>               | 121℃     |
| <b>Oil pan capacity (Max/Min)</b>                              | 9.5/8.5L |
| <b>Lubrication system Min. capacity (oil pan + oil filter)</b> | 10.9L    |
| <b>Usage inclining degree permitted (any direction)</b>        | 40℃      |

## Fuel System

|                                  |                               |
|----------------------------------|-------------------------------|
| <b>Fuel injection pump model</b> | BYC PB pump with GAC governor |
| <b>Maximum fuel return flow</b>  | 30L/H                         |

## Cooling System

|   |          |
|---|----------|
| <b>Coolant capacity-engine only</b>                                   | 8.3L     |
| <b>Max. coolant cycling resistance exterior engine</b>                | 28KPa    |
| <b>Thermostat adjusting temperature (range)</b>                       | 83-95℃   |
| <b>Min. opening pressure of radiator cap</b>                          | 69 KPa   |
| <b>Max. coolant temperature permitted(Standby /Base output Power)</b> | 104/100℃ |

## Electric System

|  |        |
|--|--------|
| <b>Starter</b>   | 24V    |
| <b>Battery charging system</b>                                 | 40A    |
| <b>Max. starting circuit resistance</b>                        | 0.002Ω |
| <b>Min. battery capacity_ -12℃ (CCA: Cold Cranking Ampere)</b> | 312CCA |

## Dimension & Weight

|                            |               |
|----------------------------|---------------|
| <b>Dimensions (LxWxH):</b> | 860×750×930mm |
| <b>Weight</b>              | 350kg         |

# Marathon Alternator

**Model: MP-64-4**

**Origin: Shanghai, China**

## General Features:

- ◆ Brushless, self-exciting
- ◆ AC excitation, rotating rectification tube
- ◆ Class 'H' insulation
- ◆ Stator grease insulation covered
- ◆ Automatic Voltage Regulator Self regulating
- ◆ Rotator and excitation high polymer
- ◆ With fan cooling
- ◆ Resist the corruption of oil and acid.
- ◆ Resist humid grease
- ◆ High-quality lubrication sealed long-time bearing



## Main Technical Data:

|   |   |
|---|---|
| <b>Prime power</b>                      | 64KW                                      |
| <b>Rated Voltage:</b>                   | 400V                                      |
| <b>Frequency/Speed:</b>                 | 50Hz/1500rpm                              |
| <b>Power Factor:</b>                    | 0.8                                       |
| <b>Efficiency:</b>                      | 88.9%                                     |
| <b>Design:</b>                          | Brushless single bearing, revolving field |
| <b>Regulator:</b>                       | AVR self-regulation                       |
| <b>Stator:</b>                          | 2/3 winding pitch                         |
| <b>Rotor:</b>                           | Single bearing , flexible disc            |
| <b>Exciter Type:</b>                    | Brushless excitation                      |
| <b>Windings:</b>                        | 100% copper                               |
| <b>Voltage regulation:</b>              | $\geq \pm 10\%$                           |
| <b>Short-circuit current:</b>           | 300% (3in) 10S                            |
| <b>Overspeed:</b>                       | 2250min-1                                 |
| <b>Indication of protection:</b>        | IP21/IP23                                 |
| <b>Insulation class</b>                 | H   |
| <b>Total Harmonic Distortion:</b>       | No load <5%.                              |
| <b>Telephone Influence Factor(TIF):</b> | <50                                       |
| <b>Telephone Harmonic Factor(THF):</b>  | <2%                                       |
| <b>Dimensions (LxWxH):</b>              | 770x464x710mm                             |
| <b>Weight</b>                           | 308kg                                     |

# DeepSea Control System

**Model: DSE7320**

**Origin: Shanghai, China**



## Operating Environment:

|                               |  |
|-------------------------------|--|
| <b>Operating temperature:</b> | -20℃~60℃   |
| <b>Relative humidity:</b>     | 95%  |
| <b>Operating voltage:</b>     | 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

## Circuit Breaker

|                  |          |
|------------------|----------|
| <b>Brand:</b>    | Mingyang |
| <b>Capacity:</b> | 160A     |

## 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.)

