



宾士动力
BS POWER

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



Cummins Diesel Generator Set

Model No.: BCM50

Standby Power 50KW/63KVA



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

Powered by

Cummins: 4BTA3.9-G2

Standby 63KVA at 50Hz, 400V



Genset Technical Data:

Genset Model:	BCM50
Prime Power:	45KW / 56KVA
Standby Power:	50 KW / 63KVA
Frequency/Speed:	50Hz/1500rpm
Rated Voltage:	400V
Power Factor:	0.8
Fuel consumption (100% load):	12.9L/h
Oil tank:	200 L
Phase:	three-phases, four-wires
Engine:	Cummins
Alternator:	Marathon
Controller:	DeepSea
Dimensions (LxWxH):	1750x710x1300mm
Net Weight:	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-G2

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:

Prime/standby power:	50KW/55KW
Rated Voltage:	400V
Frequency/Speed:	50Hz/1500rpm
Cylinders no. & Type:	4 cylinders in line, 4 cycle
Aspiration:	Turbocharging, Air-to-water intercooling
Bore x Stroke:	102x120mm
Displacement:	3.9L
Compression ratio:	17.3: 1

Exhaust System

Max. back pressure	10.1Kpa
Standard exhaust pipe diameter	75mm

Air Intake System

Max. air intake resistance	
--Dirty filter	6.2Kpa
--Normal air cleaner and clean filter	2.5KPa

--Heavy duty cleaner and clean filter	3.7KPa
Standard intake pipe diameter	75mm

Lubrication System

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

Fuel System

Fuel injection pump model	BYC A pump with GAC governor
Maximum fuel return flow	30L/H

Cooling System

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

Electric System

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

Dimension & Weight

Dimensions (LxWxH):	860×750×930mm
Weight	350kg

Marathon Alternator

Model: MP-48-4

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:

Prime power	48KW
Rated Voltage:	400V
Frequency/Speed:	50Hz/1500rpm
Power Factor:	0.8
Efficiency:	87.3%
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
Voltage regulation:	$\geq \pm 10\%$
Short-circuit current:	300% (3in) 10S
Overspeed:	2250min-1
Indication of protection:	IP21/IP23
Insulation class	H
Total Harmonic Distortion:	No load <5%.
Telephone Influence Factor(TIF):	<50
Telephone Harmonic Factor(THF):	<2%
Dimensions (LxWxH):	680x464x710mm
Weight	254kg

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

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Circuit Breaker

Brand:	Mingyang
Capacity:	100A

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.)

