



宾士动力
BS POWER

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



Cummins Diesel Generator Set

Model No.: BCM450

Standby Power 450KW/563KVA



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Powered by

Cummins: KTA19-G4

Standby 563KVA at 50Hz, 400V



Genset Technical Data:

Genset Model:	BCM450
Prime Power:	400 KW /500KVA
Standby Power:	450 KW / 563KVA
Frequency/Speed:	50Hz/1500rpm
Rated Voltage:	400V
Power Factor:	0.8
Phase:	three-phases, four-wires
Fuel consumption (100% load):	107 L/h
Oil tank:	800 L
Engine:	Cummins
Alternator:	Marathon
Controller:	DeepSea
Dimensions (LxWxH):	3600x1550x1900 mm
Net Weight:	4700 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: KTA19-G4

Manufacture: 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:	448KW/504KW
Rated Voltage:	400V
Frequency/Speed:	50Hz/1500rpm
Cylinders no. & Type:	6 cylinders in line, 4-cycle
Aspiration:	Turbocharging and Water to Air intercooling
Bore x Stroke:	159×159mm
Displacement:	18.9 L
Compression ratio:	14.5: 1

Air Intake System

Max. air intake resistance	
--Dirty filter	6.23 kPa
--Normal duty air cleaner and clean filter	2.49 kPa
--Heavy duty air cleaner and clean filter	3.74 kPa

Exhaust System

Max. back pressure	10 kPa
Maximum allowable static bending moment at exhaust outlet flange	27 N.m
Exhaust pipe size normally acceptable	127mm

Cooling System

Coolant capacity--engine only	30 L
--with HX 1134 Heat Exchanger.	66 L
Thermostat adjusting temperature (range)	82-93℃
Minimum Pressure Cap	69 kPa
Maximum Top Tank Temperature for Standby / Prime Power	104/100℃
Maximum Coolant Friction Head External to Engine	55 kPa

Lubrication System

Oil pressure---Low idle speed	138 kPa
---Governed Speed	345-483 kPa
Maximum Oil Temperature	121℃
Oil Capacity with OP 4019 Oil Pan : High/ Low	38/32 L
Lubrication system capacity (oil pan + oil filter)	50 L

Fuel System

Fuel injection pump model	Direct injection Cummins PT
Maximum Restriction at PT Fuel Injection Pump — with Clean Fuel Filte	13.3 kPa
— with Dirty Fuel Filter	26.7 kPa
Maximum Allowable Head on Injector Return Line (Consisting of Friction Head and Static Head)	22 kPa
Maximum Fuel Flow to Injection Pump	220 L/H

Electric System

Starter	24V
Battery charging system	35A
Max. starting circuit resistance	0.002Ω
Min. battery capacity -18 °C to 0 °C (CCA: Cold Cranking Ampere)	900CCA

Dimension & Weight

Dimensions (LxWxH):	2142 × 1067 × 1733.5 mm
Weight	1855 kg

Marathon Alternator

Model: MP-400-4

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	400KW
Rated Voltage:	400V
Frequency/Speed:	50Hz/1500rpm
Power Factor:	0.8
Efficiency:	94.9%
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):	1097x712x972mm
Weight	1090kg

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:	1000A

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.)

