



Cummins Diesel Generator Set

Model No.: BCM360

Standby Power 360KW/450KVA



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Powered by

Cummins: NTAA855-G7A

Standby 450KVA at 50Hz, 400V



Genset Technical Data:

| Genset Model: | BCM360 |
|-------------------------------|--------------------------|
| Prime Power: | 320 KW /400KVA |
| Standby Power: | 360 KW / 450KVA |
| Frequency/Speed: | 50Hz/1500rpm |
| Rated Voltage: | 400V |
| Power Factor: | 0.8 |
| Phase: | three-phases, four-wires |
| Fuel consumption (100% load): | 108L/h |
| Oil tank: | 600 L |
| Engine: | Cummins |
| Alternator: | Marathon |
| Controller: | DeepSea |
| Dimensions (LxWxH): | 3200×1250×1900 mm |
| Net Weight: | 3750 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: NTAA855-G7A

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: | -/407KW |
|-----------------------|--|
| Rated Voltage: | 400V |
| Frequency/Speed: | 50Hz/1500rpm |
| Cylinders no. & Type: | 6 cylinders in line, 4-cycle |
| Aspiration: | Turbocharging, Air to Air intercooling |
| Bore × Stroke: | 140×152mm |
| Displacement: | 14 L |
| Compression ratio: | 14: 1 |

Exhaust System

| Max. back pressure | 10 kPa |
|--------------------------------|--------|
| Standard exhaust pipe diameter | 127 mm |

Air Intake System

| Max. air intake resistance | |
|--|----------|
| Dirty filter | 6.22 kPa |
| Normal air cleaner and clean filter | 3.74 kPa |
| Minimum Dirt Holding Capacity | 53 g/L/s |
| Maximum Allowable Intake Air Temperature | 17℃ |



Lubrication System

| Oil pressure | |
|---|-------------|
| Low idle speed | 103 kPa |
| Rated speed | 241-345 kPa |
| Maximum Oil Consumption | 0.24L/h |
| Max. oil temperature permitted in oil pan | 121℃ |
| Oil pan capacity (Max/Min) | 28.4/36 L |
| Lubrication system Min. capacity (oil pan + oil filter) | 38.6 L |
| Usage inclining degree permitted (any direction) | 38℃ |

Fuel System

| Fuel injection pump model | Direct injection Cummins PT |
|---------------------------|-----------------------------|
| Maximum Fuel Pump Supply | 426L/h |
| Fuel Rail Pressure | 1196kPa |
| Maximum Fuel Temperature | 71℃ |

Cooling System

| Coolant capacityengine only | 20.8 L |
|---|----------------|
| With radiator | 60.6 L |
| With Heat Exchanger | 49.2 L |
| Max. coolant cycling resistance exterior engine | 41 kPa |
| Thermostat adjusting temperature (range) | 82-94 ℃ |
| Min. opening pressure of radiator cap | 48.2 kPa |
| Max. coolant temperature permitted | 96℃ |
| Maximum Top Tank Temperature | 100℃ |
| Minimum Top Tank Temperature | 71℃ |

Electric System

| Starter | 24V |
|--|--------|
| Battery charging system | 35A |
| Max. starting circuit resistance | 0.002Ω |
| Min. battery capacity12℃ (CCA: Cold Cranking Ampere) | 900CCA |

Dimension & Weight

| Dimensions (LxWxH): | 1880×783×1597mm |
|---------------------|-----------------|
| Weight | 1300kg |



Marathon Alternator

Model: MP-320-4A

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:

| | 300KW |
|----------------------------------|---|
| Prime power | 300KVV |
| Rated Voltage: | 400V |
| Frequency/Speed: | 50Hz/1500rpm |
| Power Factor: | 0.8 |
| Efficiency: | 93.4% |
| 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: | ≥±10% |
| Short-circuit current: | 300% (3in) 10S |
| Overspeed: | 2250min-1 |
| Indication of protection: | IP21/IP23 |
| Insulation class | Н |
| Total Harmonic Distortion: | No load <5%. |
| Telephone Influence Factor(TIF): | <50 |
| Telephone Harmonic Factor(THF): | <2% |
| Dimensions (LxWxH): | 1124×603×855mm |
| Weight | 995kg |



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

Circuit Breaker

| Brand: | Mingyang |
|-----------|----------|
| Capacity: | 700A |



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.)

