



宾士动力
BS POWER

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



Cummins Diesel Generator Set

Model No.: BCSS450

Standby Power 450KW/563KVA



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Powered by

Cummins: KTA19-G3A

Standby 563KVA at 50Hz, 400V



Genset Technical Data:

| | |
|--------------------------------------|--------------------------|
| Genset Model: | BCSS450 |
| 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): | 102 L/h |
| Oil tank: | 800 L |
| Engine: | Cummins |
| Alternator: | Stamford |
| 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-G3A

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:

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|----------------------------------|---|
| 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: | 159x159mm |
| Displacement: | 19 L |
| Compression ratio: | 13.9: 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

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|---|--------|
| 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 | 30.3 L |
| --with HX 1134 Heat Exchanger. | 66.2 L |
| Thermostat adjusting temperature (range) | 82-93℃ |
| Minimum Pressure Cap | 48 kPa |
| Maximum Top Tank Temperature for Standby / Prime Power | 104/100℃ |
| Maximum Coolant Friction Head External to Engine | 68.9 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

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|---|-----------------------------|
| 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 | 425 L/H |

Electric System

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|--|--------|
| 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

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

Stamford Alternator

Model: GR355D

Origin: Shanghai, China



General Features:

- ◆ Advanced automatic voltage regulator control
- ◆ 2/3 winding pitch can restrain overmuch neutral current
- ◆ 12 stator leading-out terminal can be reconnected and can meet different voltage classes
- ◆ Single bearing or double bearings structure
- ◆ Easy installation and maintenance
- ◆ Standard maintenance-free sealed bearing
- ◆ Standard protection class IP23

Main Technical Data:

| | |
|---------------------------------------|---|
| Prime power: | 440KW/550KVA |
| Standby power: | 460KW/575KVA |
| Rated Voltage: | 400V / 380V |
| Frequency/Speed: | 50Hz/1500rpm |
| Power Factor: | 0.8 |
| Efficiency: | 94.3% |
| 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 |
| Stabilized voltage regulation | ±0.5% |
| Overspeed: | 2250min |
| Indication of protection: | IP23 |
| Insulation class | H |
| Short-circuit current capacity | 300%(3 multiples): 10s |
| Dimensions (LxWxH): | 170×95×116 mm |
| Weight | 1358 kg |

DeepSea Control System

Model: DSE7320

Origin: Shanghai, China



Operating Environment:

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|-------------------------------|--|
| 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

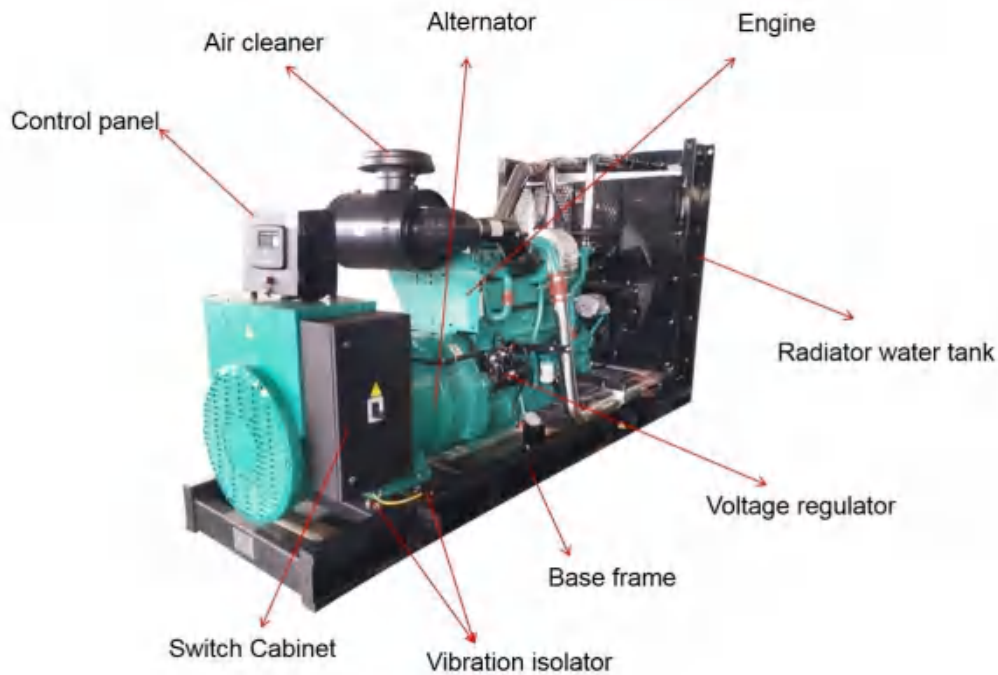
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Circuit Breaker

| | |
|------------------|----------|
| 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.)

