



Cummins Diesel Generator Set

Model No.: BCSS505

Standby Power 505KW/631KVA



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Powered by

Cummins: KTAA19-G5

Standby 631KVA at 50Hz, 400V



Genset Technical Data:

| Genset Model: | BCSS505 |
|-------------------------------|--------------------------|
| Prime Power: | 420 KW /525KVA |
| Standby Power: | 505 KW / 631KVA |
| Frequency/Speed: | 50Hz/1500rpm |
| Rated Voltage: | 400V |
| Power Factor: | 0.8 |
| Phase: | three-phases, four-wires |
| Fuel consumption (100% load): | 113 L/h |
| Oil tank: | 800 L |
| Engine: | Cummins |
| Alternator: | Stamford |
| Controller: | DeepSea |
| Dimensions (LxWxH): | 3600×1550×1900 mm |
| Net Weight: | 4800 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: KTAA19-G5

Origin: 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: | 470KW/555kw |
|-----------------------|---|
| Rated Voltage: | 400V |
| Frequency/Speed: | 50Hz/1500rpm |
| Cylinders no. & Type: | 6 cylinders, in line, 4 cycle |
| Aspiration: | Turbocharging and Air to Air intercooling |
| Bore × Stroke: | 159×159 mm |
| Displacement: | 18.9 L |
| Compression ratio: | 13.5:1 |

Exhaust System

| Max. back pressure | 10 kPa |
|--------------------|--------|

Air Intake System

| Max. air intake resistance | |
|-------------------------------------|--------|
| Dirty filter | 6.2kPa |
| Normal air cleaner and clean filter | 2.5kPa |
| Normal air cleaner and clean filter | 3.7kPa |



Lubrication System

| Oil pressure | |
|---|-------------|
| Idle speed | ≥138 KPa |
| Governed speed | 345-483 KPa |
| Max. oil temperature permitted in oil pan | 121℃ |
| Oil pan capacity (Max/Min) | 38/32L |
| Total system capacity (including compound filter) | 50L |

Fuel System

| Fuel injection system | Direct injection Cummins PT |
|-----------------------|-----------------------------|
| Max. supply fuel flow | 242 L/H |

Cooling System

| Coolant capacity-engine only | 30L |
|--|-----------|
| Maximum Coolant Friction Head External to Engine | 55KPa |
| Thermostat adjusting temperature (range) | 82-93/°C |
| Min. pressure cap at sea level | 69КРа |
| Max. coolant temperature to top tank for standby/prime power | 104/100°C |

Electric System

| Starter | 24V |
|-----------------------------------|------------------|
| Battery charging system | 35A |
| Max. starting circuit resistance | 0.002Ω |
| | (≥10°C) 600A |
| Min. recommended battery capacity | (0-10°C) 640A |
| , , , | (-18°C-0°C) 900A |

Dimension & Weight

| Dimensions (LxWxH): | 2142×990×1730mm |
|---------------------|-----------------|
| Weight | 1905kg |



Stamford Alternator

Model: GR355DX

Origin: Shanghai, China

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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:

| | 4501/04//5001/040 |
|--------------------------------|---|
| Prime power: | 450KW/563KVA |
| Standby power: | 477KW/596KVA |
| Rated Voltage: | 400V / 380V |
| Frequency/Speed: | 50Hz/1500rpm |
| Power Factor: | 0.8 |
| Efficiency: | 94.5% |
| 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 | $\pm 0.5\%$ |
| Overspeed: | 2250min |
| Indication of protection: | IP23 |
| Insulation class | Н |
| 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:

| 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: | 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.)

