



Cummins Diesel Generator Set

Model No.: BCS82

Standby Power 82KW/103KVA



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Powered by

Cummins: 6BT5.9-G2

Standby 103KVA at 50Hz, 400V



Genset Technical Data:

Genset Model:	BCS82
Prime Power:	75KW / 94KVA
Standby Power:	82 KW / 103KVA
Frequency/Speed:	50Hz/1500rpm
Rated Voltage:	400V
Power Factor:	0.8
Fuel consumption (100% load):	22.3L/h
Oil tank:	200 L
Phase:	three-phases, four-wires
Engine:	Cummins
Alternator:	Stamford
Controller:	DeepSea
Dimensions (LxWxH):	2120×860×1430mm
Net Weight:	1200kgs

- (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.: 6BT5.9-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:	86KW/92KW
Rated Voltage:	400V
Frequency/Speed:	50Hz/1500rpm
Cylinders no. & Type:	6 cylinders in line, 4 cycle
Aspiration:	Turbocharging
Bore × Stroke:	102×120mm
Displacement:	5.9L
Compression ratio:	17.3: 1

Exhaust System

Max. back pressure	10.1KPa
Diameter of exhaust pipe recommended	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
Diameter of intake pipe recommended	100mm

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)	14.2/12.3L
Lubrication system Min. capacity (oil pan + oil filter)	16.4L
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	7.9L
Max. coolant cycling resistance exterior engine	28KPa
Thermostat adjusting temperature (range)	82-95℃
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 capacity12℃ (CCA: Cold Cranking Ampere)	400CCA

Dimension & Weight

Dimensions (LxWxH):	1110×750×988mm
Weight	411kg



Stamford Alternator

Model: UCI 274C

Origin: Wuxi, China

General Features:

- ♦ Meet word-leading alternator standard requirement
- ♦ 2/3 winding pitch can restrain overmuch neutral current
- ♦ 12 stator leading-out terminal can be reconnected
- ♦ H insulation grade can meet the requirements at hostile environment
- ♦ Self-excited control, provide continuous short-circuit current capacity
- Single bearing or double bearings structure
- Easy installation and maintenance
- ♦ Standard protection class IP23

Main Technical Data:

Prime power	80KW/100KVA
Rated Voltage:	400V
Frequency/Speed:	50Hz/1500rpm
Power Factor:	0.8
Efficiency:	90.3%
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:	±1%
Overspeed:	2250min-1
Indication of protection:	IP23
Insulation class	Н
Total Harmonic Distortion:	NO LOAD < 1.5% NON-DISTORTING
	BALANCED LINEAR LOAD < 5.0%
Telephone Influence Factor(TIF):	<50
Telephone Harmonic Factor(THF):	<2%
Dimensions (LxWxH):	804 x538x 785mm
Weight	406 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:	160A



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.)

