

Cummins KTA 50 GS8	CGT Stamford PI 734	Generator Model:	BCC 1500P-50
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50 Hz	3-Phase	Power Factor Cos Φ = 0.8
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RATINGS	PRIME POWER (PRP)		STANDBY POWER (LTP)		
	kVA	kWe	kVA	kWe	Amps
Voltage					
415/240	1500	1200	1500	1200	2087
400/230	1500	1200	1500	1200	2165
380/220	1500	1200	1500	1200	2279

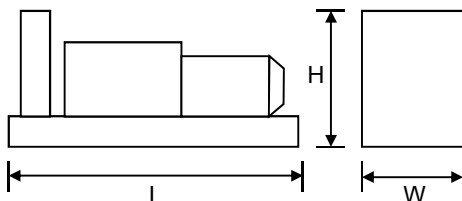
Definition of Ratings & Reference Conditions

This Generating set has a special rating definition.

Please contact Broadcrown Sales Department for further information.


Key Features:

- Efficient water cooled diesel engine.
- Single bearing CGT Stamford alternator
- Radiator with pressure cap and drain point
- Fully guarded engine-driven fan
- Fully welded steel baseframe with lifting / jacking points
- Various fuel system options
- Heavy duty rubber anti-vibration mountings
- 24V starter batteries and connecting cables
- Separate engine-driven battery charging alternator
- Spin on oil and fuel filters and dry type air filter element
- Industrial silencer(s) supplied loose
- Auto Start control system with digital instrumentation
- Main line circuit breaker
- Factory Test Certificate
- Operation & Maintenance Manual
- Wide range of optional extra features available


Overall Dimensions & Weights - Open Set

Length (L) = 5620mm
Width (W) = 2045mm
Height (H) = 2440mm

Dry Weight (inc oil) = 10470kg
Operating Weight = 11010kg

Overall dBA	Typical Open Generator Sound Pressure Level at 1m, Free Field (dB)							
	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
111	100	103	105	105	105	104	101	103

All specifications and design are subject to change without notice

ENGINE & COOLING SYSTEM
CUMMINS KTA 50 GS8

	SI Units	PRIME	STANDBY	
Performance	Engine Speed	r/min	1500	
	Gross Power	kWm	1275	
	Fan Power	kWm	18.0	
	Net Power	kWm	1257	
	Emissions Certification		—	
	Altitude Capability	m	1220	
General	Cylinders / Type	16 cyl / 60° Vee / 4-stroke		
	Aspiration / Charge Cooling	Turbocharged / Two Pump Two Loop		
	Governing / Engine Management	Electronic Governor / ECU		
	Bore / Stroke	mm	159 / 159	
	Cubic Capacity	litres	50.3	
	BMEP	kPa	2019	
Fuel	Fuel Consumption at 100% Power	litres/h	307	
	Fuel Consumption at 75% Power	litres/h	236	
	Fuel Consumption at 50% Power	litres/h	165	
	Total fuel flow	litres/h	570	
	Standard Fuel Tank Capacity	litres	200	
Air	Engine Air Flow	m ³ /s	1.595	
	Maximum Air Intake Restriction (used filter)	kPa	6.23	
Exhaust	Exhaust Gas Flow	m ³ /s	4.08	
	Exhaust Gas Temperature	°C	495	
	Maximum Exhaust Back Pressure	kPa	6.8	
	Typical Exhaust Pipe Diameter	mm	350	
Cooling	Radiator Cooling Air Flow	m ³ /s	18.5	
	Max Restriction to Cooling Air Flow	Pa	220	
	Max Radiator Air-On Temperature	°C	45	
	Maximum Coolant Temperature	°C	104	
	Coolant Capacity - Engine Only	litres	174	
	Total Coolant Capacity	litres	462	
Oil	Total Oil Capacity incl Filters	litres	204	
	Typical Oil Pressure at Rated Speed	kPa	345	
	Typical Oil Consumption (>250hrs Operation)	litres/h	0.77	
Thermal	Heat Rejection to Engine Cooling Water	kW	570	
	Heat Rejection to Charge Cooler	kW	225	
	Heat Radiated From Engine (Typical)	kW	175	
Elec	Electrical System Voltage	V	24	
	Battery Type		4 (Series-Parallel) 623	
	Battery Capacity SAE CCA	A	1730	

ALTERNATOR
CGT STAMFORD PI 734

	SI Units	PRIME	STANDBY	
General Data	Manufacturer	Cummins Generator Technologies - STAMFORD		
	Model (may vary with voltage)	PI 734 C		
	Operating Temperature	°C	40	
	Coupling / No. of Bearings	Direct / Single Bearing		
	Phase / Poles / Winding Type	3-Phase / 4-Pole / Winding 311		
	Power Factor	Cos Φ = 0.8		
	Excitation	Separately excited by PMG		
	Insulation System	Class H		
	AVR Type	MX 321		
	Voltage Regulation	± 1.0%		

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STANDARD CONTROL SYSTEM
BC 7210 Digital Auto Start

The standard control system for Export products is **BC 7210** (photo), based on the Deep Sea Electronics DSE7210 Digital Auto Start controller.

This provides for the manual and automatic remote start of the generator with a LCD digital display of :

- Coolant Temperature, with integral high temperature protection
- Oil Pressure, with integral low pressure protection
- Volts, Amps and Frequency
- Engine operating hours
- Battery volts

Also featuring :

- Automatic cool-down timer function
- Emergency Stop button
- Ample auxiliary inputs/outputs for optional features
- Optional - battery charger and door mounted illuminated switch.


CONTROL SYSTEM OPTIONS

BC 7310 & BC 7320 control systems (just the DSE modules shown here) provide complete power monitoring and protection facilities. Compared to BC 7210, addition features include :

- Pre-alarms for Low Oil Pressure and High Coolant Temperature
- Digital display of kW, kVA and Power Factor
- Under/Over Volts protection
- Over Current Protection
- Full RS485 Telemetry implementation as well as full SAE J1939 CANBus implementation. In fact, all generating sets driven by engines with onboard ECU/CANBus come with this system as standard.

The BC 7320 provides full AMF functionality with integrated mains monitoring and generator/mains contactor control.



Finally, **BC 7510 & BC 7520** control systems provide the same features as BC 7310 & BC 7320 respectively, plus :

- BC 7510 - Set-to-Set Synchronisation
- BC 7520 - Single Set-to-Mains Synchronisation with integrated mains monitoring

For Multi Set-to-Mains synchronisation, each set requires BC 7510 with the addition of one mains monitoring panel **BC 7560** (not illustrated). See the Synchronisation Guidelines for further details.

CONTROL SYSTEM OPTIONS - X-RANGE

The X-Range of control systems has been developed to suit larger generating sets (>500kVA) for the UK and Projects market.

The entry level is **Remote Start** and provides for the manual and automatic remote start of the generator with LCD digital display all operating parameters including :

- Coolant temperature with high temperature alarm and shutdown
- Oil pressure with low pressure alarm and shutdown
- Engine operating hours, battery charge volts and amps
- Volts, with Under/Over Volts protection
- Amps, with Over Current protection
- Frequency, kW, kVA, Power Factor

The **Automatic Mains Fail** variant adds full AMF functionality with integrated mains monitoring and generator/mains breaker control.

The **Generator Parallel** system makes provision for set-to-set synchronisation, whilst the Mains Parallel version allows single set-to-mains synchronisation with integrated AMF functionality.

By means of the **Multi-Set Mains Parallel** system (not illustrated) a number of sets can be synchronised with each other and the mains supply.



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