


Cummins KTA 50 GS8	CGT Stamford PI 734	Generator Model:	G1650SCU5
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50 Hz	3-Phase	Power Factor Cos Φ = 0.8	Emissions Non-Certified
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RATINGS	PRIME POWER (PRP)		
	G1650SCU5		
Voltage	kVA	kWe	Amps
415/240	1500	1200	1669
400/230	1500	1200	1732
380/220	1500	1200	1823

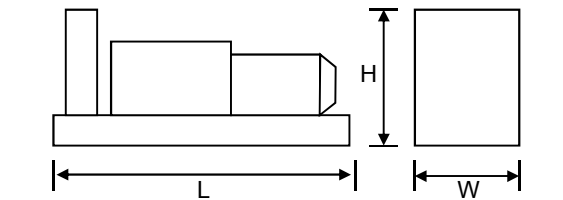
Definition of Ratings & Reference Conditions

This Generating set has a special rating definition. Please contact JCB Power Products 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
- Auto Start control system with digital instrumentation
- Factory Test Certificate
- Operation & Maintenance Manual
- Wide range of optional extra features available



Overall Dimensions & Weights - Open Set

Length (L) = 5914mm
 Width (W) = 2000mm
 Height (H) = 2431mm

Dry Weight (inc oil) = 10468kg
 Operating Weight = 11010kg

	Typical Open Generator Sound Pressure Level at 1m, Free Field (dB)							
Overall dBA	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



G1650SCU5

Jan 2017

ENGINE & COOLING SYSTEM

CUMMINS KTA 50 GS8

	SI Units	PRIME	
Performance	Engine Speed	r/min	1500
	Gross Power	kWm	1275
	Fan Power	kWm	18
	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	307
	Fuel Consumption at 50% Power	litres/h	236
	Total fuel flow	litres/h	486
	Standard Fuel Tank Capacity	litres	200
Air	Engine Air Flow	m³/s	1.60
	Maximum Air Intake Restriction (used filter)	kPa	6.23
Exhaust	Exhaust Gas Flow	m³/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	m³/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)	PI734		
	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		± 0.5%	

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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 8610 & BC 8620** control systems provide the same features as BC 7310 & BC 7320 respectively, plus :

- BC 8610 - Set-to-Set Synchronisation
- BC 8620 - 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 8660** (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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