Technical Data

Jan 2017

MTU 18V 2000 G65 TD (FO)	CGT Stamford PI 734	Generator Model: **G1240SMU5**

50 Hz	3-Phase	Power Factor Cos Φ = 0.8	Emissions Non-Certified

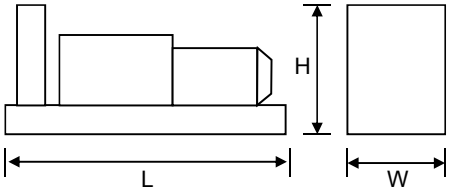
RATINGS	PRIME POWER (PRP)		STANDBY POWER (ESP)		
	G1240SMU5				
Voltage	**kVA**	kWe	kVA	kWe	Amps
415/240	**1130**	904	1240	992	1725
400/230	**1130**	904	1240	992	1790
380/220	**1130**	904	1240	992	1884

Definition of Ratings & Reference Conditions

Prime Power (PRP) is the nominal output continuously available, where the average load (variable) does not exceed 75% of the prime power rating. 10% overload is available for a maximum of 1 hour in 12 hours of operation.
Standby Power (ESP) is the maximum output available, for up to 500 hours per year, where the average load does not exceed 85% of the standby power rating. No overload is available.
Standard Reference Conditions: air inlet temperature 25°C (77°F), barometric pressure 100kPa, [100m (328ft) altitude], 30% relative humidity.
Note: The above ratings may be subject to derate at different operating conditions. Please see the Derate Guidelines on the Broadcrown website.
All power ratings and reference conditions in accordance with ISO 8528-1 and ISO 3046-1.

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) = 5021mm
Width (W) = 1920mm
Height (H) = 2367mm

Dry Weight (inc oil) = 8008kg
Operating Weight = 8310kg

	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	96	101	103	104	105	104	101	103

All specifications and design are subject to change without notice

JCB POWER PRODUCTS

G1240SMU5

Jan 2017

ENGINE & COOLING SYSTEM — MTU 18V 2000 G65 TD (FO)

		SI Units	PRIME	STANDBY
Performance	Engine Speed	r/min	1500	
	Gross Power	kWm	1000	1100
	Fan Power	kWm	45	45
	Net Power	kWm	955	1055
	Emissions Certification		—	
	Altitude Capability	m	400	400
General	Cylinders / Type		18 cyl / Vee form / 4-stroke	
	Aspiration / Charge Cooling		Turbocharged / Air to Air	
	Governing / Engine Management		"ADEC" Electronic Governor/ECU/CANBus	
	Bore / Stroke	mm	130 / 150	
	Cubic Capacity	litres	35.82	
	BMEP	kPa	2232	2456
Fuel	Fuel Consumption at 100% Power	litres/h	236.8	263.1
	Fuel Consumption at 75% Power	litres/h	175.8	193.4
	Fuel Consumption at 50% Power	litres/h	119.6	129.6
	Total fuel flow	litres/h	600	
	Standard Fuel Tank Capacity	litres	N/A	
Air	Engine Air Flow	m³/s	1.15	1.25
	Maximum Air Intake Restriction (used filter)	kPa	5.0	
Exhaust	Exhaust Gas Flow	m³/s	3.3	3.6
	Exhaust Gas Temperature	°C	555	560
	Maximum Exhaust Back Pressure	kPa	8.5	
	Typical Exhaust Pipe Diameter	mm	300	
Cooling	Radiator Cooling Air Flow	m³/s	24.1	
	Max Restriction to Cooling Air Flow	Pa	300	
	Max Radiator Air-On Temperature	°C	45	
	Maximum Coolant Temperature	°C	105	
	Coolant Capacity - Engine Only	litres	120	
	Total Coolant Capacity	litres	TBA	
Oil	Total Oil Capacity incl Filters	litres	130	
	Typical Oil Pressure at Rated Speed	kPa	600	
	Typical Oil Consumption (>250hrs Operation)	litres/h	1.25	
Thermal	Heat Rejection to Engine Cooling Water	kW	450	470
	Heat Rejection to Charge Cooler	kW	190	225
	Heat Radiated From Engine (Typical)	kW	50	50
Elec	Electrical System Voltage	V	24	
	Battery Type		TBA	
	Battery Capacity SAE CCA	A	TBA	

ALTERNATOR — CGT STAMFORD PI 734

		SI Units	PRIME	STANDBY
General Data	Manufacturer		Cummins Generator Technologies - STAMFORD	
	Model (may vary with voltage)		PI 734 A	PI 734 A
	Operating Temperature	°C	40	27
	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%	

G1240SMU5

Jan 2017

STANDARD CONTROL SYSTEM — BC 7310 Digital Auto Start

The standard control system for this model is **BC 7310** (photo), based on the Deep Sea Electronics DSE7310 Digital Auto Start controller.

This provides for the manual and automatic remote start of the generator, together with full control and protection of the engine via the ECU. LCD digital display of :

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

Also featuring :

- Full RS485 Telemetry implementation
- Automatic cool-down timer function
- Emergency Stop button
- Ample auxiliary inputs/outputs for optional features
- Optional (shown) - battery charger and door mounted illuminated switch.

CONTROL SYSTEM OPTIONS

The **BC 7320** control system (just the DSE7320 module is shown here) has an identical feature set to the BC 7310 but with the addition of full AMF functionality with integrated mains monitoring.

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 Supply Synchronisation with integrated mains monitoring

For Multi Set-to-Mains synchronisation, each set requires BC 8610 with the addition of one mains monitoring panel **BC 8660** (not illustrated).
See the Synchronisation Guidelines for further details.