


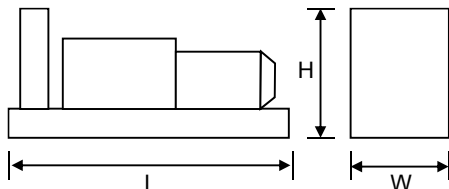
MTU 12V 4000 G23 TD (FO)	CGT Stamford PI 734	Generator Model:	G1770SMU5
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50 Hz	3-Phase	Power Factor Cos Φ = 0.8	Emissions Non-Certified
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RATINGS	PRIME POWER (PRP)		STANDBY POWER (ESP)			
	G1770SMU5					
	kVA	kWe	kVA	kWe	Amps	
Voltage	415/240	1650	1320	1770	1416	2462
	400/230	1650	1320	1770	1416	2555
	380/220	1615	1292	1715	1372	2606

Definition of Ratings & Reference Conditions
<p>Prime Power (PRP) is the nominal output continuously available, where the average load (variable) does not exceed 75% of the prime power rating. 8% overload is available for a maximum of 1 hour in 12 hours of operation.</p> <p>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.</p> <p>Standard Reference Conditions: air inlet temperature 25°C (77°F), barometric pressure 100kPa, [100m (328ft) altitude], 30% relative humidity.</p> <p>Note: The above ratings may be subject to derate at different operating conditions. Please see the Derate Guidelines on the Broadcrown website.</p> <p>All power ratings and reference conditions in accordance with ISO 8528-1 and ISO 3046-1.</p>

	Key Features: <ul style="list-style-type: none"> • 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
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Overall Dimensions & Weights - Open Set
Length (L) = 5635mm Width (W) = 1802mm Height (H) = 2471mm Dry Weight (inc oil) = 12882kg Operating Weight = 13602kg

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
TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA

All specifications and design are subject to change without notice



G1770SMU5

Jan 2017

ENGINE & COOLING SYSTEM

MTU 12V 4000 G23 TD (FO)

	SI Units	PRIME	STANDBY	
Performance	Engine Speed	r/min 1500		
	Gross Power	1420	1562	
	Fan Power	32	32	
	Net Power	1388	1530	
	Emissions Certification	—		
	Altitude Capability	m	400	400
General	Cylinders / Type	12 cyl / Vee form / 4-stroke		
	Aspiration / Charge Cooling	Turbocharged / 2 pump 2 loop		
	Governing / Engine Management	"ADEC" Electronic Governor/ECU/CANBus		
	Bore / Stroke	mm 170 / 210		
	Cubic Capacity	litres 57.2		
	BMEP	kPa	1986	2185
Fuel	Fuel Consumption at 100% Power	litres/h 314.6	347.9	
	Fuel Consumption at 75% Power	litres/h 243.5	266.4	
	Fuel Consumption at 50% Power	litres/h 169.0	183.1	
	Total fuel flow	litres/h 960		
	Standard Fuel Tank Capacity	litres	N/A	
Air	Engine Air Flow	m³/s 1.6	1.8	
	Maximum Air Intake Restriction (used filter)	kPa	5	
Exhaust	Exhaust Gas Flow	m³/s 4.0	4.4	
	Exhaust Gas Temperature	°C 430	440	
	Maximum Exhaust Back Pressure	kPa	8.5	
	Typical Exhaust Pipe Diameter	mm	350	
Cooling	Radiator Cooling Air Flow	m³/s	21.1	
	Max Restriction to Cooling Air Flow	Pa	196	
	Max Radiator Air-On Temperature	°C	45	
	Maximum Coolant Temperature	°C	104	
	Coolant Capacity - Engine Only	litres	200	
	Total Coolant Capacity	litres	TBA	
Oil	Total Oil Capacity incl Filters	litres	260	
	Typical Oil Pressure at Rated Speed	kPa	500	
	Typical Oil Consumption (>250hrs Operation)	litres/h	0.99	
Thermal	Heat Rejection to Engine Cooling Water	kW	540	580
	Heat Rejection to Charge Cooler	kW	200	260
	Heat Radiated From Engine (Typical)	kW	75	75
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 D	PI 734 D
	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%	

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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.

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