

MTU 20V 4000 G23 (FO)	CGT Stamford LVSI 804	Generator Model: <b>BCMU 2500P-50</b>
		Generator Model: <b>BCMU 2750S-50</b>

50 Hz

3-Phase

 Power Factor  
 $\text{Cos } \Phi = 0.8$ 

RATINGS	PRIME POWER (PRP)		STANDBY POWER (LTP)		
	BCMU 2500P-50		BCMU 2750S-50		
Voltage	kVA	kWe	kVA	kWe	Amps
415/240	<b>2500</b>	2000	2750	2200	3826
400/230	<b>2500</b>	2000	2750	2200	3969
380/220	<b>2600</b>	2080	2800	2240	4254

**Definition of Ratings & Reference Conditions**

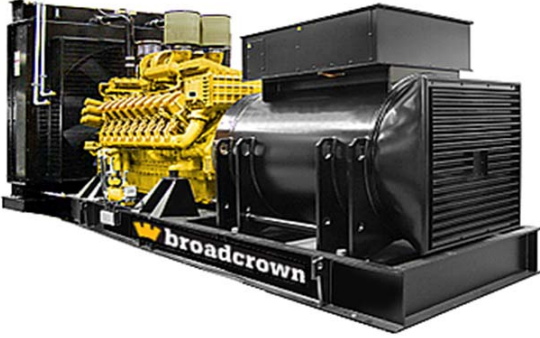
**Prime Power (PRP)** is the nominal output continuously available, where the average load (variable) does not exceed 75% of the prime power rating. 10% overload is available for a maximum of 1 hour in 12 hours of operation.

**Standby Power (LTP)** 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.

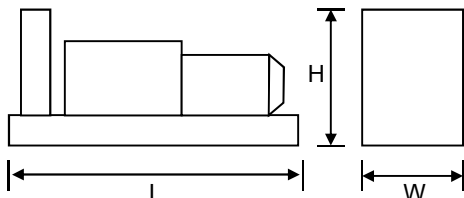
**Note:** The above ratings may be subject to derate at different operating conditions. Please see the Derate Guidelines on the Broadcrown website.

All power ratings and reference conditions in accordance with ISO 8528-1 and ISO 3046-1.



**Key Features:**

- Water cooled MTU diesel engine with ECU/CANBus
- Single bearing CGT Stamford alternator
- Radiator with pressure cap and drain point
- Fully guarded engine-driven fan
- Fully welded steel skid base with lifting points
- Integral fuel tank with filler cap and gauge
- 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 (15dBA reduction) supplied loose
- Auto Start control system with digital instrumentation
- Main line circuit breaker
- Factory Test Certificate
- Operation & Maintenance Guide
- Wide range of optional extra features available


**Overall Dimensions & Weights - Open Set**

Length (L) = 6920mm  
 Width (W) = 2360mm  
 Height (H) = 3200mm

Dry Weight (inc oil) = 19530kg  
 Operating Weight = 20480kg

	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

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**ENGINE & COOLING SYSTEM**
**MTU 20V 4000 G23 (FO)**

	SI Units	PRIME	STANDBY	
Performance	Engine Speed	r/min	1500	
	Gross Power	kWm	2200	2420
	Fan Power	kWm	50	50
	Net Power	kWm	2150	2370
	Emissions Certification		—	
	Altitude Capability	m	400	400
General	Cylinders / Type		20 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	95.4	
	BMEP	kPa	1846	2031
Fuel	Fuel Consumption at 100% Power	litres/h	502.9	547.5
	Fuel Consumption at 75% Power	litres/h	388.8	423.4
	Fuel Consumption at 50% Power	litres/h	274.7	297.9
	Total fuel flow	litres/h	1020	
	Standard Fuel Tank Capacity	litres	TBA	
Air	Engine Air Flow	m <sup>3</sup> /s	2.6	2.7
	Maximum Air Intake Restriction (used filter)	kPa	5	
Exhaust	Exhaust Gas Flow	m <sup>3</sup> /s	6.8	7.3
	Exhaust Gas Temperature	°C	500	530
	Maximum Exhaust Back Pressure	kPa	8.5	
	Typical Exhaust Pipe Diameter	mm	TBA	
Cooling	Radiator Cooling Air Flow	m <sup>3</sup> /s	33	
	Max Restriction to Cooling Air Flow	Pa	245	
	Max Radiator Air-On Temperature	°C	45	
	Maximum Coolant Temperature	°C	102	
	Coolant Capacity - Engine Only	litres	260	
	Total Coolant Capacity	litres	TBA	
Oil	Total Oil Capacity incl Filters	litres	390	
	Typical Oil Pressure at Rated Speed	kPa	460	
	Typical Oil Consumption (>250hrs Operation)	litres/h	1.57	
Thermal	Heat Rejection to Engine Cooling Water	kW	870	970
	Heat Rejection to Charge Cooler	kW	300	350
	Heat Radiated From Engine (Typical)	kW	105	105
Elec	Electrical System Voltage	V	24	
	Battery Type		TBA	
	Battery Capacity SAE CCA	A	TBA	

**ALTERNATOR**
**CGT STAMFORD LVSI 804 S2**

	SI Units	PRIME	STANDBY	
General Data	Manufacturer	Cummins Generator Technologies - STAMFORD		
	Model (may vary with voltage)	LVSI 804 S2	LVSI 804 S2	
	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 $\Phi$ = 0.8	
	Excitation		Separately excited by PMG	
	Insulation System		Class H	
	AVR Type		MA330	
	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 CANBus implementation for the 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 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 Supply 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.

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