


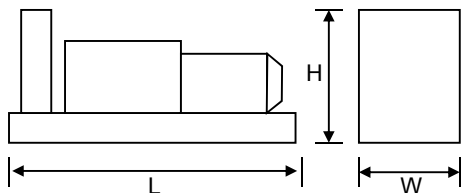
Perkins 4016TAG2A (FO)	CGT Stamford PI 734	Generator Model:	<b>G2250SPE5</b>
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50 Hz	3-Phase	Power Factor Cos $\Phi$ = 0.8	Emissions Non-Certified
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RATINGS	PRIME POWER (PRP)		STANDBY POWER (ESP)		
	G2250SPE5				
Voltage	kVA	kWe	kVA	kWe	Amps
415/240	<b>2050</b>	1640	2250	1800	3130
400/230	<b>2050</b>	1640	2250	1800	3248
380/220	<b>2020</b>	1616	2250	1800	3419

Definition of Ratings & Reference Conditions
<p><b>Prime Power (PRP)</b> is the nominal output continuously available, where the average load (variable) does not exceed 80% of the prime power rating. 10% overload is available for a maximum of 1 hour in 12 hours of operation.</p> <p><b>Standby Power (ESP)</b> the maximum output available (at variable load), for up to 500 hours per year. The average load (variable) must not exceed 80% of the standby power rating. No overload is available. The genset must not operate, at standby rating, in parallel with the public utility under any circumstances.</p> <p><b>Standard Reference Conditions:</b> air inlet temperature 25°C (77°F), barometric pressure 100kPa [110m (361ft) altitude] and 30% relative humidity.</p> <p><b>Note:</b> 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>

	<b>Key Features:</b> <ul style="list-style-type: none"> <li>• Efficient water cooled diesel engine.</li> <li>• Single bearing CGT Stamford alternator</li> <li>• Radiator with pressure cap and drain point</li> <li>• Fully guarded engine-driven fan</li> <li>• Fully welded steel baseframe with lifting / jacking points</li> <li>• Various fuel system options</li> <li>• Heavy duty rubber anti-vibration mountings</li> <li>• 24V starter batteries and connecting cables</li> <li>• Separate engine-driven battery charging alternator</li> <li>• Spin on oil and fuel filters and dry type air filter element</li> <li>• Auto Start control system with digital instrumentation</li> <li>• Factory Test Certificate</li> <li>• Operation &amp; Maintenance Manual</li> <li>• Wide range of optional extra features available</li> </ul>
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Overall Dimensions & Weights - Open Set
Length (L) = 6000mm Width (W) = 2290mm Height (H) = 2890mm  Dry Weight (inc oil) = 16577kg Operating Weight = 16833kg

	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
118	101	106	109	109	110	110	109	113

All specifications and design are subject to change without notice



G2250SPE5

Jan 2017

ENGINE & COOLING SYSTEM

PERKINS 4016TAG2A (FO)

	SI Units	PRIME	STANDBY
Performance	Engine Speed	1500	
	Gross Power	1766	1937
	Fan Power	51	51
	Net Power	1715	1886
	Emissions Certification	—	
	Altitude Capability	1220	1220
General	Cylinders / Type	16 cyl / 60° Vee / 4-stroke	
	Aspiration / Charge Cooling	Turbocharged / Air to Air	
	Governing / Engine Management	Electronic Governor	
	Bore / Stroke	160 / 190	
	Cubic Capacity	61.123	
	BMEP	2311	2535
Fuel	Fuel Consumption at 100% Power	434	483
	Fuel Consumption at 75% Power	316	352
	Fuel Consumption at 50% Power	210	234
	Total fuel flow	1380	
	Standard Fuel Tank Capacity	N/A	
Air	Engine Air Flow	2.3	2.417
	Maximum Air Intake Restriction (used filter)	3.73	
Exhaust	Exhaust Gas Flow	6.450	6.450
	Exhaust Gas Temperature	493	493
	Maximum Exhaust Back Pressure	6.6	
	Typical Exhaust Pipe Diameter	2 x 250	
Cooling	Radiator Cooling Air Flow	40.5	
	Max Restriction to Cooling Air Flow	150	
	Max Radiator Air-On Temperature	52	
	Maximum Coolant Temperature	98	
	Coolant Capacity - Engine Only	95	
	Total Coolant Capacity	316	
Oil	Total Oil Capacity incl Filters	214	
	Typical Oil Pressure at Rated Speed	340	
	Typical Oil Consumption (>250hrs Operation)	1.15	
Thermal	Heat Rejection to Engine Cooling Water	660	721
	Heat Rejection to Charge Cooler	560	610
	Heat Radiated From Engine (Typical)	130	150
Elec	Electrical System Voltage	24	
	Battery Type	4 (Series-Parallel) 623	
	Battery Capacity SAE CCA	1730	

ALTERNATOR

CGT STAMFORD PI 734

	SI Units	PRIME	STANDBY
General Data	Manufacturer	Cummins Generator Technologies - STAMFORD	
	Model (may vary with voltage)	PI 734 F	PI 734 F or G
	Operating Temperature	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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