

|                         |                         |                     |                    |
|-------------------------|-------------------------|---------------------|--------------------|
| Perkins<br>4006-23TAG2A | CGT Stamford<br>HCI 634 | Generator<br>Model: | <b>BCP 750P-50</b> |
|                         |                         | Generator<br>Model: | <b>BCP 800S-50</b> |

50 Hz

3-Phase

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

| RATINGS | PRIME POWER (PRP) |     | STANDBY POWER (LTP) |     |      |
|---------|-------------------|-----|---------------------|-----|------|
|         | BCP 750P-50       |     | BCP 800S-50         |     |      |
|         | kVA               | kWe | kVA                 | kWe | Amps |
| Voltage |                   |     |                     |     |      |
| 415/240 | <b>750</b>        | 600 | 800                 | 640 | 1113 |
| 400/230 | <b>750</b>        | 600 | 800                 | 640 | 1155 |
| 380/220 | <b>750</b>        | 600 | 800                 | 640 | 1215 |

**Definition of Ratings & Reference Conditions**

**Prime Power (PRP)** 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.

**Standby Power (LTP)** 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.

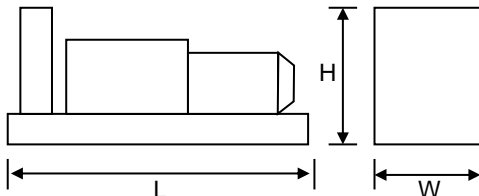
**Standard Reference Conditions:** air inlet temperature 25°C (77°F), barometric pressure 100kPa [110m (361ft) altitude] and 30% relative humidity.

**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
- Industrial silencer(s) supplied loose
- Auto Start control system with digital instrumentation
- Main line circuit breaker
- Factory Test Certificate
- Operation & Maintenance Manual
- Wide range of optional extra features available


**Overall Dimensions & Weights - Open Set**

Length (L) = 4227mm  
 Width (W) = 1832mm  
 Height (H) = 2166mm

Dry Weight (inc oil) = 6644kg  
 Operating Weight = 6754kg

| Overall dBA | Typical Open Generator Sound Pressure Level at 1m, Free Field (dB) |        |        |        |         |         |         |         |
|-------------|--|--------|--------|--------|---------|---------|---------|---------|
|             | 63 Hz  | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz |
| 107         | 95   | 100    | 101    | 102    | 102     | 100     | 97      | 96      |

All specifications and design are subject to change without notice

**ENGINE & COOLING SYSTEM**
**PERKINS 4006-23TAG2A**

|             | SI Units                                     | PRIME                              | STANDBY        |       |
|-------------|--|------------------------------------|----------------|-------|
| Performance | Engine Speed                                 | r/min                              | 1500           |       |
|             | Gross Power                                  | kWm                                | 654            | 717   |
|             | Fan Power (Total Parasitic Load)             | kWm                                | 22             | 22    |
|             | Net Power                                    | kWm                                | 632            | 695   |
|             | Emissions Certification                      |                                    | —              |       |
|             | Altitude Capability                          | m                                  | 1220           | 1220  |
| General     | Cylinders / Type                             | 6 cyl / Vertical Inline / 4-stroke |                |       |
|             | Aspiration / Charge Cooling                  | Turbocharged / Air to Air          |                |       |
|             | Governing / Engine Management                | Electronic Governor                |                |       |
|             | Bore / Stroke                                | mm                                 | 160 / 190      |       |
|             | Cubic Capacity                               | litres                             | 22.921         |       |
|             | BMEP   | kPa                                | 2283           | 2503  |
| Fuel        | Fuel Consumption at 100% Power               | litres/h                           | 161.0          | 176.0 |
|             | Fuel Consumption at 75% Power                | litres/h                           | 122.0          | TBA   |
|             | Fuel Consumption at 50% Power                | litres/h                           | 83.0           | TBA   |
|             | Total fuel flow                              | litres/h                           | 660            |       |
|             | Standard Fuel Tank Capacity                  | litres                             | TBA            |       |
| Air         | Engine Air Flow                              | m <sup>3</sup> /s                  | 1.067          | 1.183 |
|             | Maximum Air Intake Restriction (used filter) | kPa                                | 3.73           |       |
| Exhaust     | Exhaust Gas Flow                             | m <sup>3</sup> /s                  | 3.0            | 3.0   |
|             | Exhaust Gas Temperature                      | °C                                 | 430            | 430   |
|             | Maximum Exhaust Back Pressure                | kPa                                | 5.98           |       |
|             | Typical Exhaust Pipe Diameter                | mm                                 | 2 X 152.4      |       |
| Cooling     | Radiator Cooling Air Flow                    | m <sup>3</sup> /s                  | 20             |       |
|             | Max Restriction to Cooling Air Flow          | Pa                                 | 245            |       |
|             | Max Radiator Air-On Temperature              | °C                                 | 46             |       |
|             | Maximum Coolant Temperature                  | °C                                 | 98             |       |
|             | Coolant Capacity - Engine Only               | litres                             | —              |       |
|             | Total Coolant Capacity                       | litres                             | 105            |       |
| Oil         | Total Oil Capacity incl Filters              | litres                             | 113.4          |       |
|             | Typical Oil Pressure at Rated Speed          | kPa                                | 240            |       |
|             | Typical Oil Consumption (>250hrs Operation)  | litres/h                           | 0.42           |       |
| Thermal     | Heat Rejection to Engine Cooling Water       | kW                                 | 229            | 262   |
|             | Heat Rejection to Charge Cooler              | kW                                 | 194            | 205   |
|             | Heat Radiated From Engine (Typical)          | kW                                 | 64             | 73    |
| Elec        | Electrical System Voltage                    | V                                  | 24             |       |
|             | Battery Type                                 |                                    | 2 (Series) 623 |       |
|             | Battery Capacity SAE CCA                     | A                                  | 865            |       |

**ALTERNATOR**
**CGT STAMFORD HCI 634**

|              | SI Units                      | PRIME                                     | STANDBY                        |    |
|--------------|-------------------------------|---|--------------------------------|----|
| General Data | Manufacturer                  | Cummins Generator Technologies - STAMFORD |                                |    |
|              | Model (may vary with voltage) | HCI 634 G                                 | HCI 634 G                      |    |
|              | 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                      |   | 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 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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