

Generating power solutions from 10 - 5,000 kVA



Cummins Powered Range 550 - 2500 kVA

Product Reference Specifications

Genset Model	Engine Model	50Hz		Weight (kg)		Dimensions(mm)			Fuel Consumption(l/hr) 50Hz
		kVA	kW	Wet	Dry	L	W	H	
BCC630P	VTA28G5	632	506	6000	5750	3705	1636	1986	140
BCC670S	VTA28G5	670	536	6000	5750	3705	1636	1986	154
BCC800P	QST30G2	797	638	6900	6580	4174	1636	2095	168
BCC880S	QST30G2	879	703	6900	6580	4174	1636	2095	187
BCC1010P	QST30G4	1000	800	7600	7100	4174	1636	2095	202
BCC1100S	QST30G4	1100	880	7600	7100	4174	1636	2095	224
BCC1020P	KTA38G5	1019	815	8900	8480	4457	1886	2482	209
BCC1130S	KTA38G5	1131	905	8900	8480	4457	1886	2482	228
BCC1250P	KTA50G3	1276	1021	10900	10410	5122	1886	2399	261
BCC1430S	KTA50G3	1437	1150	10900	10410	5122	1886	2399	293
BCC1500P	KTA50G8	1500	1200	12400	11620	5752	2136	2489	310
BCC1670S	KTA50G8	1676	1341	12400	11620	5752	2136	2489	345
BCC1700P	QSK60G2	1710	1368	16000	15090	5994	2286	3046	337
BCC1920S	QSK60G2	1920	1536	16000	15090	5994	2286	3046	373
BCC2000P	QSK60G4	2000	1600	16000	15090	5994	2286	3046	394
BCC2250S	QSK60G4	2250	1800	16000	15090	5994	2286	3046	437

Genset Model	Engine Model	60Hz		Weight (kg)		Dimensions(mm)			Fuel Consumption(l/hr) 60Hz
		kVA	kW	Wet	Dry	L	W	H	
BCC550P	KTA19G4	552	442	4700	4560	3400	1550	2000	122
BCC625S	KTA19G4	625	500	4700	4560	3400	1550	2000	136
BCC650P	VTA28G5	675	540	5900	5650	3705	1636	1986	154
BCC750S	VTA28G5	750	600	5900	5650	3705	1636	1986	173
BCC900P	QST30G2	911	729	6700	6380	4174	1636	2095	197
BCC1000S	QST30G2	1000	800	6700	6380	4174	1636	2095	219
BCC1000P	KTA38G3	1000	800	8400	7990	4356	1936	2482	217
BCC1120S	KTA38G3	1125	900	8400	7990	4356	1936	2482	238
BCC1100P	QST30G4	1100	880	7600	7130	4320	1936	2334	240
BCC1250S	QST30G4	1250	1000	7600	7130	4320	1936	2334	267
BCC1400P	KTA50G3	1415	1132	10700	10180	5122	1936	2399	291
BCC1610S	KTA50G3	1610	1288	10700	10180	5122	1936	2399	330
BCC1600P	KTA50G9	1609	1287	11800	11050	5517	2136	2489	330
BCC1875S	KTA50G9	1875	1500	11800	11050	5517	2136	2489	392
BCC1850P	QSK60G5	1875	1500	14100	13190	5556	2286	3046	380
BCC1950P	QSK60G5	1996	1597	14700	13790	5791	2286	3046	402
BCC2200S	QSK60G5	2206	1765	14700	13790	5791	2286	3046	447
BCC2250P	QSK60G6	2281	1825	14900	13990	5791	2286	3046	466
BCC2500S	QSK60G6	2500	2000	14900	13990	5791	2286	3046	521

Specification Notes



Rating Definitions

Prime Power (models with suffix 'P')
All ratings are suitable for continuous electrical power (at a variable load in lieu of main power network). There are no limitations to the annual hours of operation and all models can supply 10% overload power for 1 hour in 12 hours.

Standby Power (models with suffix 'S')
Standby ratings are for the supply of emergency power at variable load in the event of a main power network failure up to a maximum of 500 hours per year. No overloads permitted.
For base load (COP) power applications, consult Broadcrown Sales Department.

Standard Reference Conditions

Output ratings are typical for sets operating at 380-416V (3 phase). Ratings at 0.8p.f.25°C(77°F) ambient, 177m (600ft) above sea level. All data in accordance with BS5514, ISO 3046, DIN6271, ISO 8528.

Wet weights = with lube oil and coolant. Dry weights = with lube oil.
Generating set picture and drawing may include optional accessories.
Specifications and design subject to change without notice.



Standard Specifications

OUTPUT RATINGS

The following 3 phase voltages are available:-

50 Hz	416	400	380
	240	230	220
60 Hz	480	380	
	277	220	

Other voltages are available on request.

ENGINE

Cummins heavy duty industrial diesel engine.

Governor

Compliant with BS.5514 Class A1. Electronic governing standard on all engines at 1500 rpm and 1800 rpm.

Electrical System

24V system with battery charging alternator, axial type starter motor, high capacity maintenance free lead acid starting batteries, battery rack mounted on the generator set baseframe and heavy duty interconnecting cables with terminations.

Engine Filtration System

Sealed paper mesh type dry air filters. Cartridge type fuel filters and full flow lube oil filters. All filters have replaceable elements.

ALTERNATOR

Newage alternators have been carefully selected to match the overload performance of the engine and incorporate the following: Screen protected and drip proof, self exciting, self regulating brushless alternator with fully interconnected damper windings, IC06 cooling system and sealed for life bearings. PMG fitted as standard on BCC800P and above.

Insulation System

The insulation system is Class H. All windings are impregnated in either triple dip thermo-setting moisture, oil and acid resisting polyester or vacuum impregnated with a special polyester resin. Heavy coat of anti-tracking varnish for additional protection against moisture or condensation.

Electrical Characteristics

Electrical design in accordance with BS.5000 Part 99, IEC34-1, VDE0530, UTE5100, NEMA MG-122, CEMA, CSA 22.2 and AS1359.

Automatic Voltage Regulator

The fully sealed automatic voltage regulator maintains the voltage within the limits of $\pm 0.5\%$ ($\pm 1.0\%$ on HCl5 frame) from no load to full load including cold to hot variations at any power factor between 0.8 lagging and unity and inclusive of a speed variation of 4.0%. Nominal adjustment is by means of a trimmer incorporated in the AVR.

Radio Interference

Suppression is in line with the provisions of BSEN 50081 and VDE Class G.

CONTROL SYSTEM

Baseframe mounted, control panel of fabricated steel construction with a hinged lockable door. The control panel is isolated from vibration and comprises of the following instrumentation and controls: Oil pressure gauge, water temperature gauge, battery charge ammeter, voltmeter and selector switch, frequency meter and hours counter. An auto start control module and emergency stop button are fitted as standard.

Shutdown Protection Devices with Indicators for:-

High coolant temperature and low oil pressure.

FUEL SYSTEM

Fuel feed and return lines are fitted between the engine terminated at a bulkhead on the generator baseframe.

COOLING RADIATOR

Radiator and cooling fan complete with protection guards, designed to cool the engine at specified output, in air-on temperatures up to 50°C (122°F). Coolant drain valve fitted as standard.

MOUNTING ARRANGEMENT

Baseframe

The complete generator set is mounted as a whole on a heavy duty fabricated, welded steel baseframe. The baseframe incorporates specially designed lifting eyes for sling operation.

Coupling

The engine and alternator are directly coupled by means of an SAE flange so that there is no possibility of misalignment after prolonged use. The engine flywheel is flexibly coupled to the alternator and a full torsional analysis has been carried out to guarantee no harmful vibration will occur in the assembly.

Anti-Vibration Mounts

Anti-vibration mounts are supplied fitted between the engine/alternator combination and the baseframe for all generators up to and including the BCC1875S (60Hz) and BCC1670S (50Hz) all other combinations AVM's will be supplied loose for site installation between the baseframe and floor.

Safety Guards

The fan, fan drive and battery charging alternator drive are fully guarded for personnel protection. A stone guard protects the radiator core from accidental damage.

GENERAL ARRANGEMENT

The generator set is designed and constructed for installation in a weatherproof building. Various types of weatherproof and sound attenuated ISO containers are available.

DOCUMENTATION

A full set of operation and maintenance manuals and circuit wiring diagrams are supplied with each generating set.

FACTORY TESTS

The generator set is load tested before despatch. All protective devices, control functions are simulated and the generator and its systems checked, proved and then passed for despatch. A test certificate is provided as standard.

EQUIPMENT FINISH

Primer on all equipment. Final coat to manufacturers standard.

QUALITY STANDARDS

The equipment meets the following standards: BS.4999, BS.5000, BS.5514, IEC 34, VDE0530, NEMA MG-122

PRODUCT ENDORSEMENT

All equipment is guaranteed for a period of 12 months from date of commissioning or 18 months from shipping whichever occurs first. Where equipment is supplied by an authorised Broadcrown Distributor or Dealer, the 12 months guarantee period will commence from date of ex works shipment, whichever occur first.

Please see Broadcrown Warranty Statement for a full specification of terms. Extended warranty terms are available, for details please contact Broadcrown Customers Services Dept.

Equipment must only be used in accordance with recommended operating practices and subject to any specified load limitations.

MISCELLANEOUS

Shrink wrapped for export.

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MEMBER OF THE
ASSOCIATION OF MANUFACTURERS
OF POWER GENERATING SYSTEMS