

Generating power solutions from 10 - 5,000 kVA



John Deere Powered Range 16 - 310 kVA

Product Reference Specifications

	Genset Model	Engine Model	50Hz		60Hz		Weight (kg)		Dimensions(mm)			Fuel Consumption(l/hr)		
			kVA	kW	kVA	kW	Wet	Dry	L	W	H	50Hz	60Hz	
Three Phase	BCJD22P	3029DF	22.5	18	27	22	785	700	1650	650	1390	6.0	7.0	
	BCJD28P	3029DF	28	22	32	26	785	700	1650	650	1390	6.8	7.9	
	BCJD30S	3029DF	30	24	35	28	785	700	1650	650	1390	8.4	9.1	
	BCJD40P	4039DF	40	32	46	37	990	830	2075	650	1410	9.1	10.8	
	BCJD44S	4039DF	44	35	52	42	990	830	2075	650	1410	10.6	12.5	
	BCJD60P	4039TF	60	48	70	56	1040	880	2075	650	1410	14.7	18.1	
	BCJD70S	4039TF	70	56	82	66	1040	880	2075	650	1410	17.4	19.3	
	BCJD80P	4045TF	80	64	90	72	1180	990	2130	700	1440	19.7	22.0	
	BCJD90S	4045TF	90	72	100	80	1180	990	2130	700	1440	22.1	24.2	
	BCJD100P	4045HF	100	80	115	92	1435	1190	2260	850	1580	23.1	28.1	
	BCJD110S	4045HF	110	88	125	100	1435	1190	2260	850	1580	25.2	30.8	
	BCJD120P	6068TF	120	96	140	104	1585	1300	2495	700	1580	26.5	31.2	
	BCJD130S	6068TF	130	104	156	125	1585	1300	2495	700	1580	29.4	34.1	
	BCJD140P	6068HF	140	112	n/a	n/a	1755	1450	2670	850	1750	31.0	n/a	
	BCJD150S	6068HF	150	120	n/a	n/a	1755	1450	2670	850	1750	33.5	n/a	
	BCJD150P	6068HF	150	120	175	140	1755	1450	2670	850	1750	34.0	42.0	
	BCJD165S	6068HF	165	132	188	150	1755	1450	2670	850	1750	36.6	45.7	
	BCJD200P	6081HF	200	160	230	184	2265	1850	3050	950	1800	42.0	51.1	
	BCJD220S	6081HF	220	176	250	200	2265	1850	3050	950	1800	48.0	56.7	
	BCJD230P	6081HF	230	184	n/a	n/a	2265	1850	3050	950	1800	50.0	n/a	
	BCJD260S	6081HF	260	208	n/a	n/a	2265	1850	3050	950	1800	58.0	n/a	
	BCJD250P	6081HF	250	200	240	192	2265	1850	3050	950	1800	55.0	55.1	
	BCJD275S	6081HF	275	220	281	225	2265	1850	3050	950	1800	60.0	64.0	
	BCJD280P	6081HF	n/a	n/a	280	224	2264	1850	3050	950	1800	n/a	64.8	
	BCJD300S	6081HF	n/a	n/a	313	250	2264	1850	3050	950	1800	n/a	70.5	
	Single Phase	BCJD16PSP	3029DF	16	16	21	21	785	700	1650	650	1390	4.3	5.5
		BCJD23SSP	3029DF	n/a	n/a	23	23	785	700	1650	650	1390	n/a	6.5
		BCJD20PSP	3029DF	20	20	25	25	785	700	1650	650	1390	4.9	7.0
BCJD28SSP		3029DF	n/a	n/a	27.5	27.5	785	700	1650	650	1390	n/a	7.5	
BCJD28PSP		4039DF	28	28	35	35	990	830	2075	650	1410	7.0	9.5	
BCJD40SSP		4039DF	n/a	n/a	40	40	990	830	2075	650	1410	n/a	10.5	
BCJD40PSP		4039TF	40	40	50	50	1040	880	2075	650	1410	8.5	11	
BCJD55SSP		4039TF	n/a	n/a	55	55	1040	880	2075	650	1410	n/a	14	
BCJD50PSP		4039TF	50	50	60	60	1040	880	2075	650	1410	12	15	
BCJD65SSP		4039TF	n/a	n/a	65	65	1040	880	2075	650	1410	n/a	16	
BCJD60PSP		4045TF	60	60	72	72	1180	990	2130	700	1440	16	19	
BCJD80SSP		4045TF	n/a	n/a	80	80	1180	990	2130	700	1440	n/a	20.5	
BCJD66PSP		4045HF	66	66	83	83	1380	850	1580	850	1580	15	19	
BCJD74PSP		4045HF	74	74	n/a	n/a	1380	1190	2260	850	1530	23	n/a	
BCJD88SSP	4045HF	n/a	n/a	88	88	1380	1190	2260	850	1580	n/a	20		
BCJD100SSP	4045HF	n/a	n/a	100	100	1380	1190	2260	850	1580	n/a	26		

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, 0.8 p.f. (3 phase) and 220-240V, 1.0p.f (single 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	416	400	380	220
	277	240	230	220	127

The following single phase voltages are available:-

50/60 Hz	240/120	230/115	220/110
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ENGINE

John Deere heavy duty industrial diesel engine. Lube oil drain valve fitted as standard.

Governor

Mechanical compliant with BS.5514 Class A1.

Electrical System

12 volt DC system standard (24 volt DC available as factory order).

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. 12 wire reconnectable windings provide a wide range of 3 phase voltages.

Insulation System

The insulation system is Class H. All windings are impregnated in either a 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 1.5% 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 manually operated control panel of fabricated sheet 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, ammeter and selector switch, frequency meter and hours counter. A key start control module and emergency stop button are fitted as standard.

Shutdown Protection Devices with Indicators for:-

High coolant temperature and low oil pressure via senders to the control module.

Circuit Breaker

3 pole moulded case circuit breaker independently mounted on the baseframe in a vibration isolated sheet steel box with adequate access for nominally rated incoming and outgoing cables.

FUEL SYSTEM

The baseframe design incorporates an integral fuel tank with a capacity of approx. 8 hours. The tank is supplied complete with level indicator, fuel fill cap, bosses for vent, drain and remote fuel tank connections and fuel feed and return lines to engine.

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.

EXHAUST SYSTEM

Heavy duty industrial capacity exhaust silencer. Stainless steel exhaust bellows.

STARTING SYSTEM

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

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 and apertures for either slings or fork-lift 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 rotor 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 fixed between engine/alternator feet and the baseframe thus ensuring complete vibration isolation of the rotating assemblies.

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 enclosures are available.

DOCUMENTATION

A full set of operation and maintenance manuals and circuit wiring diagrams are supplied with each generator 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 the date of delivery to the first retail purchaser or 18 months from date of ex works shipment, whichever occurs first.

Please see Broadcrown Warranty statement for a full specification of terms. Extended warranty terms are available, for details please contact Broadcrown Customer 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.

BROADCROWN

Airfield Industrial Estate, Hixon, Stafford, Staffordshire, ST18 0PF, England.

T: +44(0)1889 272200 F: +44(0)1889 272220

E: info@broadcrown.co.uk www.broadcrown.com



BS EN ISO 9001
Certificate Number FM 0709



CORGI REGISTER
OF GAS INSTALLERS



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ASSOCIATION OF MANUFACTURERS
OF POWER GENERATING SYSTEMS