

SINGLE PHASE

Performance data

BCJD16PSI

BCJD23SSI

GENERATING
POWER

SOLUTIONS



NEWAGE
INTERNATIONAL



Powered by
DEERE
DIESEL

3 WIRE MODELS 220/110-240/120V SPECIFICATIONS

Genset Model	Engine Type	50Hz		60Hz		Weight Nett kg	L	Dimensions (mm)	
		kVA	kW	kVA	kW			W	H
BCJD16PSP	3029DF	16.0	16.0	21.0	21.0	700	1650	650	1390
BCJD23SSP	3029DF	N/A	N/A	23.0	23.0	700	1650	650	1390

Rating: **Prime Power** BCJD16PSP. All ratings are suitable for continuous electrical power (at variable load in lieu of main power network).

There is no limitation to the annual hours of operation and all models can supply 10% overload power for 1 hour in 12 hours.

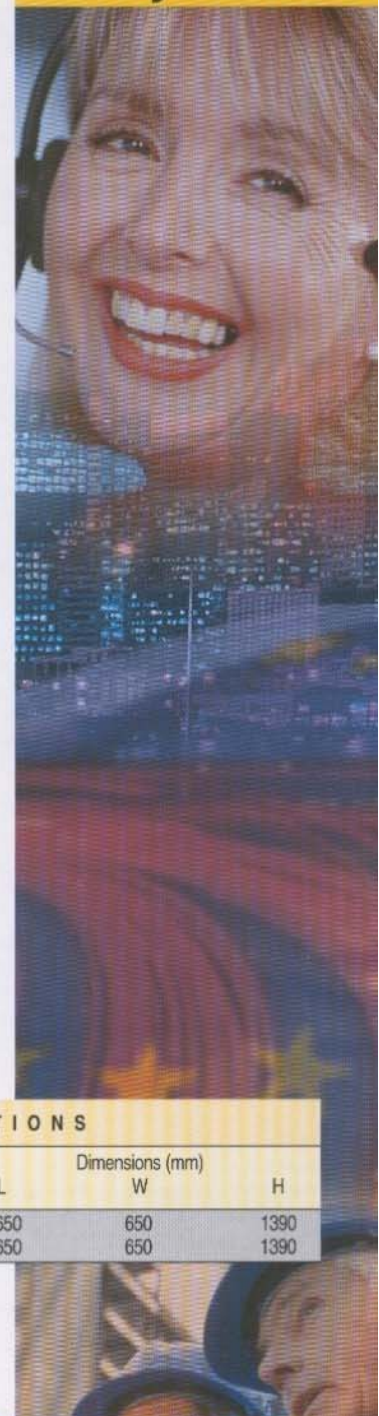
Standby Power BCJD23SSP. Standby ratings are for the supply of emergency power at variable load in the event of a main power network failure up to a maximum of 500 hours per year. No overload is permitted.

Output ratings are typical for sets operating at 220-240Volts. For other Voltages see price list.

TECHNICAL DATA

Engine Model:	3029DF				BCJD16PSP		BCJD23SSP			
	3 In line				1500 r/min	1800 r/min	1500 r/min	1800 r/min		
Number of Cylinders:	3 In line									
Cubic Capacity: Litres (cu.in)	2.9 (179)									
Bore/Stroke: mm (in)	106 x 110 (4.19 x 4.33)				Fuel Consumption: l/hr (US g/hr)		4.3 (1.1)	5.5 (1.5)	N/A	6.5 (1.7)
Compression Ratio:	17.8 : 1				Heat Rejection to Exhaust System:		14.3	18.8	N/A	20.6
Aspiration:	Natural				kW (Btu/min)		(813.7)	(1069.8)		(1172.2)
Genset Model:	BCJD16PSP		BCJD23SSP		Heat Rejection to Cooling System:		9.7	12.7	N/A	13.9
Frequency:	50 Hz	60 Hz	50 Hz	60 Hz	kW (Btu/min)		(552.0)	(722.7)		(791.0)
Engine Speed:	1500 r/min	1800 r/min	1500 r/min	1800 r/min	Total Radiated Heat : kW (Btu/min)		2.1 (119.5)	2.8 (159.3)	N/A	3.0 (170.7)
Maximum Net Power at Flywheel (with fan) : kW (hp)	26.0 (34.9)	30.0 (40.2)	N/A	33.5 (44.9)	Exhaust Temperature : °C (°F) Prime		525 (977.0)	530 (986.0)	N/A	540 (1004.0)
BMEP Prime: kPa (psi)	744 (107.9)	712 (103.3)	N/A	804 (116.6)	Cooling Air Flow : m ³ /min (cfm)		2.0 (70.6)	2.4 (84.8)	N/A	2.4 (84.8)
Fuel Tank Capacity : Litres (US Gal)	70 (18.5)	70 (18.5)	N/A	70 (18.5)	Combustion Air Flow : m ³ /min (cfm)		1.3 (45.9)	1.6 (56.5)	N/A	1.7 (60.0)
					Exhaust Gas Flow : m ³ /min (cfm)		3.0 (106.0)	4.0 (141.3)	N/A	4.7 (166.0)

Note: Standard reference conditions 1.0 p.f. 25°C (77°F) ambient, 177m (600 ft) Altitude and 40°C (104°F) Fuel Inlet Temperature. All engine performance data based on the above mentioned maximum prime ratings. Fuel consumption data at full load (100%) with diesel fuel with a specific gravity of 0.85 and conforming to BS2869:1988, Class A2.



Output Ratings

The following single phase ratings are available:
 50HZ 230/115V 220/110V
 60HZ 240/120V 230/115V
 220/110V

Engine

John Deere heavy duty industrial diesel engine (technical details are supplied on the reverse of this sheet). Lube oil drain valve fitted as standard.

Governor

Mechanical compliant with BS5514, Class A1.

Electrical System

12 volt DC. Energised to run shutdown solenoid. Oil pressure and water temperature shutdown via senders and switch gauges.

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.

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 varnish or vacuum pressure 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 BS5000 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 BS EN 50081 and VDE Class G.

Control Sytem

Independently 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/ Low Oil Pressure

Circuit Breaker

3 Pole moulded case circuit breaker independently mounted on the baseframe in a vibration isolated sheet steel box with adequate access for 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.

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.

Exhaust System

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

Electrical 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 Mounting Pads

Anti-Vibration pads are affixed 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 weather-protected building. Various types of weatherproof and sound attenuated enclosures are available.

Documentation

A full set of operation and maintenance manuals and circuit wiring diagrams.

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 manufacturer's standard.

Quality Standards

The equipment meets the following standards: BS4999, BS5000, BS5514, 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 date of ex works shipment, whichever occurs first.

Where equipment is supplied by an authorised Broadcrown Distributor or Dealer, the 12 month 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 Department.

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

Miscellaneous

Shrink wrapped for export.

SPECIFICATIONS NOTES

Rating Definitions

Prime Power (models with suffix 'P'):

All ratings are suitable for continuous electrical power (at variable load in lieu of main power network). There is no limitation 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'):

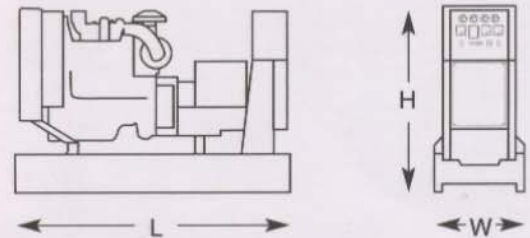
Standby ratings are for the supply of emergency power at variable load in the event of a main power network failure up to a maximum of 500 hours per year. No overload is permitted.

Ratings at unity p.f. 25°C(77°F) ambient, 177 m (600 ft) above

sea level.

All ratings are in compliance with BS5514, ISO 3046, DIN6271, ISO 8528.

Note: For base load (COP) power applications, consult Broadcrown Export Sales department.



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