

John Deere 6068 HF158	Newage Stamford UCI 274	Generator Model:	BCJD 165-50
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50 Hz	3-Phase	Power Factor Cos Φ = 0.8	TA Luft-4g
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RATINGS	PRIME POWER (PRP)		STANDBY POWER (LTP)		
	kVA	kWe	kVA	kWe	Amps
Voltage					
415/240	150	120	165	132	230
400/230	150	120	165	132	238
380/220	150	120	165	132	251

Definition of Ratings & Reference Conditions


Prime Power (PRP) is the nominal output continuously available, where the average load (variable) does not exceed 70% of the prime power rating. 10% overload is available for a maximum of 1 hour in 12 hours of operation.

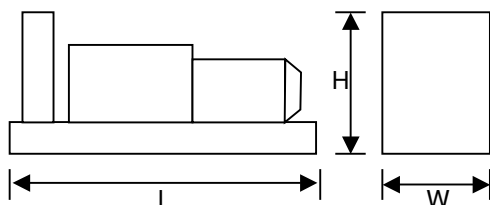
Standby Power (LTP) is the maximum output available, for up to 500 hours per year, where the average load (variable) does not exceed 70% of the standby power rating. No overload is available.

Standard Reference Conditions: air temperature 25°C (77°F), barometric pressure 99kPa, [110m(361ft) altitude], 30% relative humidity.

Note: The above ratings may be subject to derate at different operating conditions. Please see the Derate Guidelines on the Broadcastrown Website.

All power ratings and reference conditions in accordance with ISO 8528-1 and ISO 3046-1.

	Key Features:
	<ul style="list-style-type: none"> • Efficient water cooled John Deere Diesel engine. • Single bearing Newage Stamford alternator • Radiator with pressure cap and drain point • Fully guarded engine-driven fan • Fully welded steel skid base with fork lift pockets • Integral fuel tank with filler cap and gauge • Heavy duty rubber anti-vibration mountings • 12V starter battery and connecting cables • Separate engine-driven battery charging alternator • Spin on oil and fuel filters and dry type air filter element • Industrial silencer (15dBA reduction) supplied loose • Key Start control system with analogue instruments • Main line circuit breaker • Factory Test Certificate • Operation & Maintenance Manual • Wide range of optional extra features available



Overall Dimensions & Weights - Open Set

Length (L) = 2700mm
Width (W) = 800mm
Height (H) = 1610mm

Dry Weight (inc oil) = 1510kg
Operating Weight = 1790kg

	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
100	90	92	94	95	95	94	88	85

All designs and specifications subject to change without notice

ENGINE & COOLING SYSTEM
JOHN DEERE 6068 HF158

	SI Units	PRIME	STANDBY
Performance	Engine Speed	1500	
	Gross Power	140	155
	Fan Power	5.5	5.5
	Net Power	135	150
	Emissions Certification	TA Luft-4g	
	Altitude Capability	2285	1525
General	Cylinders / Type	6 cyl / inline / 4-stroke	
	Aspiration / Charge Cooling	Turbocharged / Air to Air	
	Governing / Engine Management	Mechanical Governor	
	Bore / Stroke	106 / 127	
	Cubic Capacity	6.8	
	BMEP	1666	1844
Fuel	Fuel Consumption at 100% Power	33.8	37.0
	Fuel Consumption at 75% Power	26.1	28.4
	Fuel Consumption at 50% Power	17.7	19.5
	Total fuel flow	109	
	Standard Fuel Tank Capacity	250	
Air	Engine Air Flow	0.150	0.163
	Maximum Air Intake Restriction (used filter)	6.25	
Exhaust	Exhaust Gas Flow	0.307	0.347
	Exhaust Gas Temperature	580	600
	Maximum Exhaust Back Pressure	7.5	
	Typical Exhaust Pipe Diameter	100	
Cooling	Radiator Cooling Air Flow	1.9	
	Max Restriction to Cooling Air Flow	160	
	Max Radiator Air-On Temperature	50	
	Maximum Coolant Temperature	105	
	Coolant Capacity - Engine Only	11.3	
	Total Coolant Capacity	26	
Oil	Total Oil Capacity incl Filters	24.6	
	Typical Oil Pressure at Rated Speed	345	
	Typical Oil Consumption (>250hrs Operation)	0.09	
Thermal	Heat Rejection to Engine Cooling Water	60	67
	Heat Rejection to Charge Cooler	16	18
	Heat Radiated From Engine (Typical)	18	19
Elec	Electrical System Voltage	12	
	Battery Type	1 X 656	
	Battery Capacity SAE CCA	810	

ALTERNATOR
NEWAGE STAMFORD UCI 274

	SI Units	PRIME	STANDBY
General Data	Manufacturer	NEWAGE STAMFORD	
	Model (may vary with voltage)	UCI 274 F	UCI 274 F
	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	Self Excited	
	Insulation System	Class H	
	AVR Type	SX 460	
	Voltage Regulation	$\pm 1.5\%$	

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STANDARD CONTROL SYSTEM

BC 701 Key Start

The standard control system for this model is **BC 701** (photo), based on the Deep Sea Electronics DSE701 Key Start controller.

This provides for the manual control of the generator via a two-position key switch and membrane push button for Start, together with Overspeed, Low Oil Pressure and High Coolant Temperature protection.

- LED indications for protection operation & charge alternator fail
- Analogue voltmeter with 7-position selector switch
- Analogue ammeter with 4-position selector switch
- Analogue frequency meter
- Analogue gauges for Oil Pressure, Coolant Temp & Charge Amps
- Engine hours counter
- Emergency Stop button
- One auxiliary input for optional features
- Optional - analogue kW meter, Generator Running volt-free output

The panel is constructed in 1.5mm steel, powder coated to RAL9001 for a high quality, durable finish with side-hinged door.



CONTROL SYSTEM OPTIONS

The **BC 704** Auto-Start control system (photo) features the DSE704 control module which provides for automatic remote start. Additional features include :

- Underspeed protection
- Fail to Start indication
- Automatic cool-down timer function
- Optional - Common Alarm & System In Auto volt-free contacts

The BC 704 is shown here with the optional internally mounted battery charger and door mounted illuminated switch.



As a digital alternative, there is the **BC 5110** Auto Start system, based on the DSE5110 control module.

This provides all the functionality of the BC 704 system but with digital displays for :

- Coolant Temperature, with integral high temperature protection
- Oil Pressure, with integral low pressure protection
- Volts, Amps and Frequency
- Engine operating hours

This system also has an increased digital input/output count for external options and, being cost effective in comparison with the analogue system, is now the preferred choice for most customers.

BC 5310 & BC 5320 control systems (just the DSE modules shown here) provide complete power monitoring and protection facilities. Compared to BC 5110, addition features include :

- Pre-alarms for Low Oil Pressure and High Coolant Temperature
- Digital display of kW, kVA and Power Factor
- Under/Over Volts protection
- Over Current Protection
- Full RS485 Telemetry implementation

The BC 5320 provides full AMF functionality with integrated mains monitoring and generator/mains contactor control.



Finally, **BC 5510 & BC 5520** control systems provide the same features as BC 5310 & BC 5320 respectively, plus :

- BC 5510 - Set-to-Set Synchronisation
- BC 5520 - Single Set-to-Mains Supply Synchronisation with integrated mains monitoring

For Multi Set-to-Mains synchronisation, each set requires BC 5510 with the addition of one mains monitoring panel **BC 5560** (not illustrated). See the Synchronisation Guidelines for further details.

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Typical SPL is a mean level, measured in free field conditions, with no contributory background noise.

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