



PowerTech® 6068H

6068HF120 – 153 kW @ 1500 rpm

6068HF150 – 166 kW @ 1800 rpm

JOHN DEERE

SPECIFICATIONS for GEN SET Applications

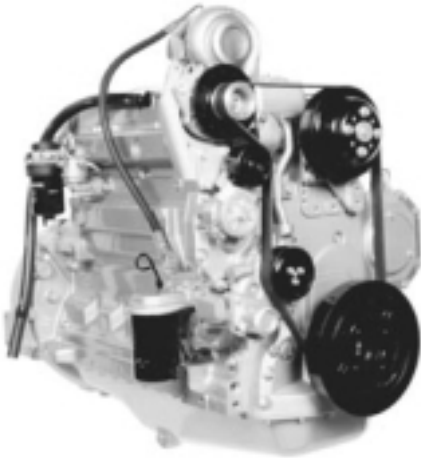
TA LUFT approved @ 1500 rpm

EPA - CARB Tier 1 Certified @ 1800 rpm

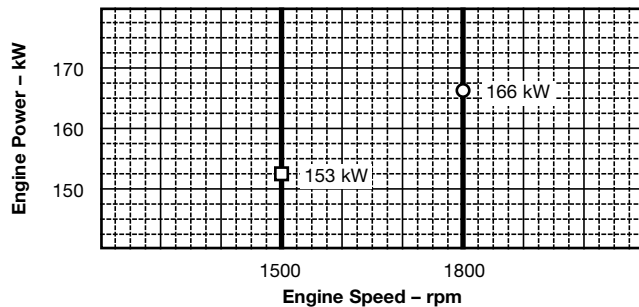
Bare Engines

PERFORMANCE DATA

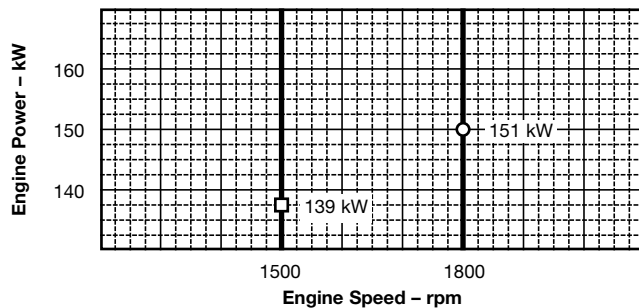
Speed (Hz)	Generator Efficiency %	Fan Power kW	Power Factor	Calculated Gen Set rating					
				Prime			Standby		
				kW net	kVA	kWe	kW net	kVA	kWe
1500 (50)	88-92	5	0.8	134	147-154	118-123	148	162-169	130-136
1800 (60)	88-92	6	0.8	145	160-167	128-134	160	176-184	140-147



STANDBY POWER



PRIME POWER



Photographs may show non standard equipment.

Performance Data

	1500 rpm	1800 rpm
Gross Rated Power (without fan)		
Prime = PRP – kW (hp)	139 (186)	151 (202)
Standby = LTP – kW (hp)	153 (205)	166 (222)
Rated Speed – rpm	1500	1800
Low Idle Speed – rpm	No	No
BMEP		
Prime = PRP – kPa (psi)	1635 (237)	1480 (215)
Standby = LTP – kPa (psi)	1800 (261)	1627 (236)
Friction Power @ Rated Speed – kW (hp)	13 (17)	17 (23)
Altitude Capability – m (ft)	1525 (5000)	1525 (5000)
Air: Fuel Ratio		
Prime = PRP	27.4 : 1	28.6 : 1
Standby = LTP	27.9 : 1	29.0 : 1
Noise		
Prime = PRP – dB(A) @ 1 m	93.6	95.5
Standby = LTP – dB(A) @ 1 m	94.9	96.9

STANDBY POWER is the nominal engine power available at varying load factors for up to 500 hours per year. This rating conforms to ISO 8528-1 "limited time running power (LTP)". The calculated generator set rating range for standby applications is based on minimum engine power (nominal -5%) to provide 100% meet-or-exceed performance for assembled standby generator sets.

PRIME POWER is the nominal power an engine is capable of delivering with a variable load for an unlimited number of hours per year. This rating conforms to ISO 8528-1 "prime power (PRP)".

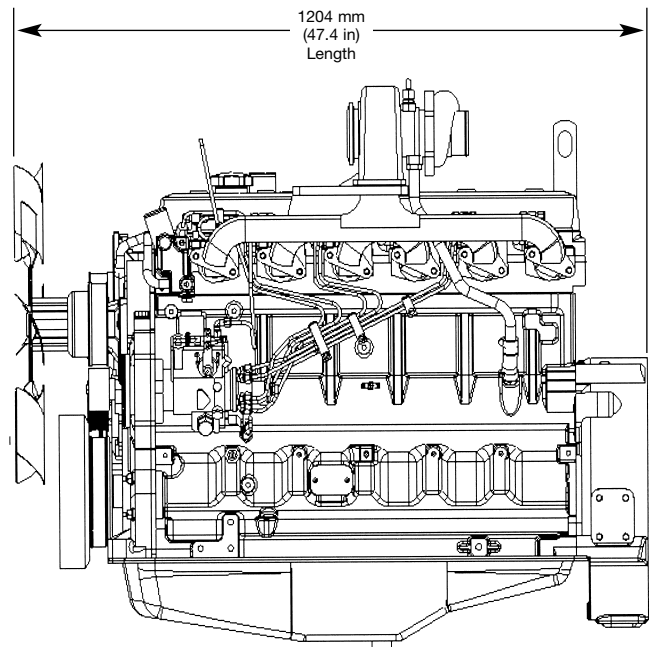
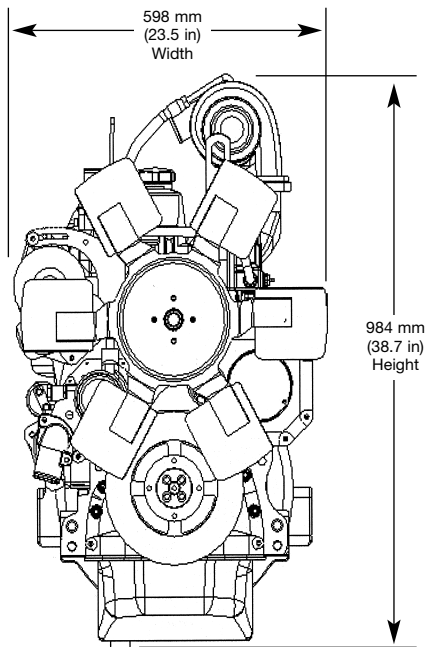
Fuel Consumption – l/h

	1500 rpm		1800 rpm	
	Prime = PRP	Standby = LTP	Prime = PRP	Standby = LTP
25% Power	9.5	10.5	11.5	12.5
50% Power	17.5	19.0	20.5	22.0
75% Power	25.0	28.0	29.0	32.0
100% Power	33.5	36.5	38.0	41.5

Rated power guaranteed within + or -5% at SAE J1995 and ISO 3046.



Bare Engine Specification Data



General Data

Models	6068HF120 @ 1500 rpm 6068HF150 @ 1800 rpm
Number of cylinders	6
Bore and Stroke – mm (in.)	106 x 127 (4.19 x 5.00)
Displacement – dm ³ (in ³)	6.8 (414)
Compression Ratio	17.0 : 1
Valves per Cylinder – Intake/Exhaust	1 / 1
Firing Order	1-5-3-6-2-4
Combustion System	Direct Injection
Engine type	In-line, 4-cycle
Aspiration	Turbocharged
Charge Air Cooling System	Air to air
Engine Crankcase Vent System	Open
Engine Crankcase Pressure – kPa (in.H ₂ O)	0.5 (2)

Physical Data

Length – mm (in.)	1204 (47.4)
Width – mm (in.)	598 (23.5)
Height – mm (in.)	984 (38.7)
Weight, dry – kg (lb)	569 (1250)
(Includes flywheel housing, flywheel, & electrics)	
Center of gravity location	
From Rear Face of block (X-axis) – mm (in.)	438 (17.2)
Right of Crankshaft (Y-axis) – mm (in.)	1 (0.05)
Above Crankshaft (Z-axis) – mm (in.)	157 (6.2)

Electrical Data

Recommended Battery Capacity (CCA)	
12 Volt System – Amp	640
24 Volt System – Amp	570
Maximum Allowable Starting Circuit Resistance	
12 Volt System – Ohm	0.0012
24 Volt System – Ohm	0.002
Starter Rolling Current – 12 Volt System	
At 0°C (32°F) – Amp	780
At -30°C (-22°F) – Amp	1000
Starter Rolling Current – 24 Volt System	
At 0°C (32°F) – Amp	600
At -30°C (-22°F) – Amp	700

Air System

	1500 rpm	1800 rpm
Maximum Allowable Temperature Rise		
Ambient Air to Engine Inlet – °C (°F)	8 (15)	8 (15)
Maximum Air Intake Restriction		
Dirty Air Cleaner – kPa (in. H ₂ O)	6.25 (25)	6.25 (25)
Clean Air Cleaner – kPa (in. H ₂ O)	3 (12)	3 (12)
Engine Air Flow		
Prime = PRP – m ³ /min (ft ³ /min)	10.2 (360)	12.8 (452)
Standby = LTP – m ³ /min (ft ³ /min)	11.2 (395)	14.1 (498)
Recommended Intake Pipe Dia – mm (in.)	76.2 (3)	76.2 (3)
Max. Temp. Out of Charge Air Cooler @ 25°C (77°F)		
Ambient Air – °C (°F)	60 (140)	60 (140)

Exhaust System

	1500 rpm	1800 rpm
Exhaust Flow		
Prime = PRP – m ³ /min (ft ³ /min)	23.1 (816)	28.4 (1003)
Standby = LTP – m ³ /min (ft ³ /min)	25.4 (897)	31.0 (1095)
Exhaust Temperature		
Prime = PRP – °C (°F)	555 (1031)	500 (932)
Standby = LTP – °C (°F)	575 (1067)	525 (977)
Max. Allow. Back Pressure – kPa (in.H ₂ O)	7.5 (30)	7.5 (30)
Recommended Exhaust Pipe Dia – mm (in.)	101.6 (4)	101.6 (4)

Cooling System

	1500 rpm	1800 rpm
Engine Heat Rejection		
Prime = PRP – kW (BTU/min)	57 (3241)	62.0 (3529)
Standby = LTP – kW (BTU/min)	64 (3640)	68.5 (3899)
Air/Air Cooling Exchanger Heat Rejection		
Prime = PRP – kW (BTU/min)	18 (1024)	21.5 (1223)
Standby = LTP – kW (BTU/min)	20 (1137)	23.5 (1336)
Coolant Flow – L/min (gal/min)	144 (38)	174 (46)
Thermostat Start to open – °C (°F)	82 (180)	82(180)
Max Water Pump Inlet Restrict – kPa (in.H ₂ O)	5 (20)	7 (27)
Engine Coolant Capacity – L (qt)	11.3 (12.0)	11.3 (12.0)
Recommended Pressure Cap – kPa (psi)	69 (10)	69 (10)
Maximum Top Tank Temp – °C (°F)	105 (221)	105 (221)
Minimum Coolant Fill Rate – L/min (gal/min)	11 (3)	11 (3)
Minimum Air to Boil temperature – °C (°F)	47 (117)	47 (117)

Fuel System

	1500 rpm	1800 rpm
Fuel Injection Pump	Stanadyne	Stanadyne
Governor Regulation	5%	5%
Governor Type	Mechanical	Mechanical
Total Fuel Flow		
Prime = PRP – kg/h (lb/h)	93 (205)	96 (212)
Standby = LTP – kg/h (lb/h)	93 (205)	96 (212)
Maximum Fuel Transfer Pump Suction – m (ft)	0.9 (3)	0.9 (3)
Fuel Filter Micron Size @ 98% Efficiency	8	8

Lubrication System

	1500 rpm	1800 rpm
Oil Pressure at Rated Speed – kPa (psi)	345 (50)	345 (50)
Oil Pressure at Low Idle – kPa (psi)	105 (15)	105 (15)
In Pan Oil Temperature – °C (°F)	115 (240)	115 (240)
Total Engine Oil Capacity with filter – L (qt)	19 (20.1)	19 (20.1)
Engine Angularity Limits (continuous)		
Any Direction – degrees	20	20

Specifications and design subject to change without notice.



JOHN DEERE

John Deere Power Systems
La Foulonnerie
 Usine de Saran – B.P. 11013
 45401 Fleury les Aubrais Cedex – France

Tel.: (33) 2 38 82 61 19
 Fax: (33) 2 38 84 62 66
<http://www.johndeere.com/engines>

