



**JOHN DEERE**

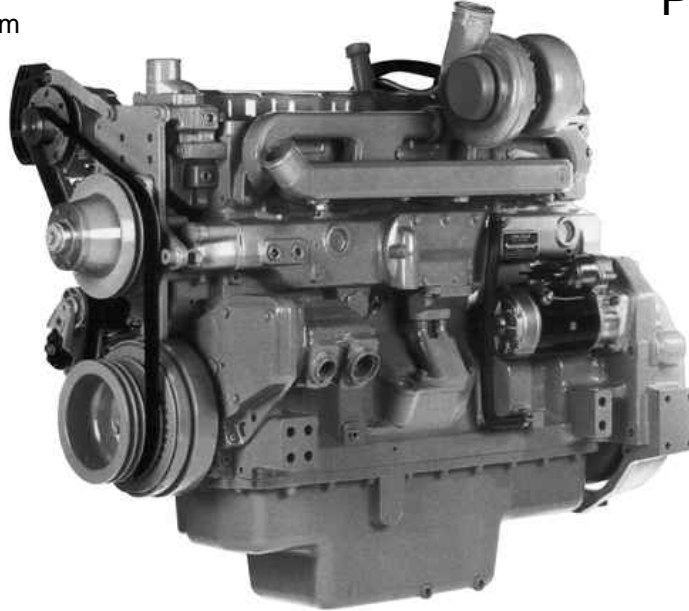
# 6081HF001B

## POWERTECH SPECIFICATIONS

For Gen Set Applications

TA LUFT approved @ 1500rpm  
EPA-CARB Tier 2 Certified @ 1800rpm

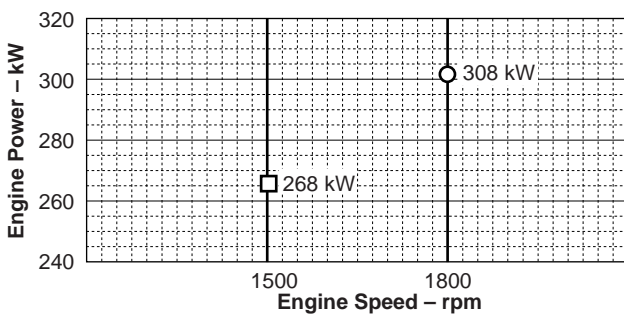
Power Units



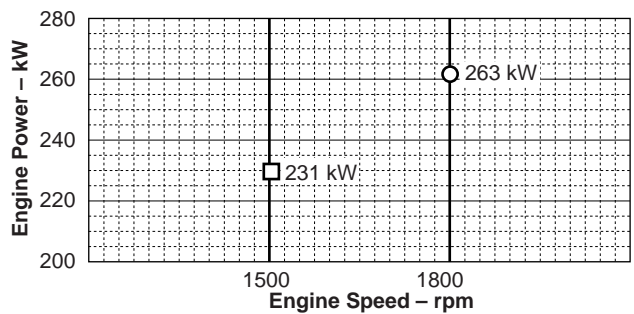
### PERFORMANCE DATA

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	9.5	0.8	221.5	244-255	195-204	258.5	284-297	227-238
1800 (60)	88-92	15.3	0.8	247.7	273-285	218-228	292.7	322-336	258-269

### STANDBY POWER



### PRIME POWER



Performance Data	1500rpm	1800rpm
Gross Rated Power (without fan)		
Prime = PRP – kW (hp)	231 (310)	263 (353)
Standby = LTP – kW (hp)	268 (359)	308 (413)
Rated Speed – rpm	1500	1800
Low Idle Speed – rpm	850	1000
BMEP		
Prime = PRP – kPa (psi)	2284 (331)	2167 (314)
Standby = LTP – kPa (psi)	2650 (384)	2538 (368)
Friction Power @ Rated Speed – kW (hp)	16 (21)	21 (28)
Altitude Capability – m (ft)		
Prime	2300 (7500)	2300 (7500)
Standby	1500 (5000)	1500 (5000)
Air: Fuel Ratio		
Prime = PRP	25.9 : 1	27.4 : 1
Standby = LTP	24.8 : 1	24.8 : 1
Noise		
Prime = PRP – dB(A) @ 1m	NA	NA
Standby = LTP – dB(A) @ 1m	NA	NA

**STANDARD 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.

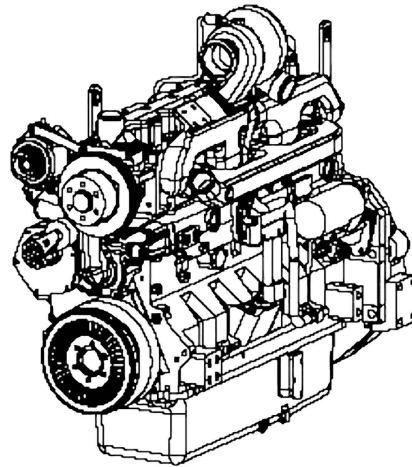
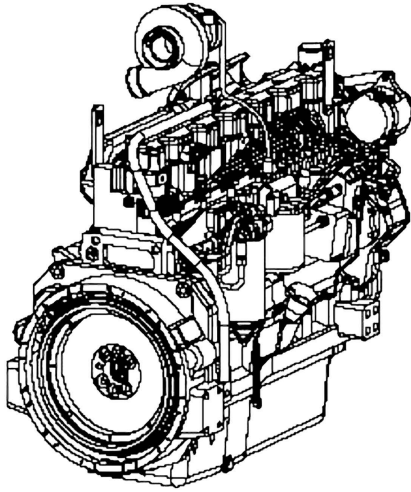
**PRIME POWER** is the nominal power an engine is capable of delivering with a variable load for an unlimited number of hours per year. This rating conforms to ISO 8528-1 "prime power (PRP)".

Photographs may show non standard equipment.  
Rated power guaranteed within + or – 5% at SAE J1995 and ISO 3046

**PowerSource International Pte Ltd**  
71 Tech Park Crescent, Tuas Tech Park, Singapore 638072.  
Tel: (65) 6863 4118 Fax: (65)6863 4378  
Website: [www.pwsources.com.sg](http://www.pwsources.com.sg)  
Email: [info@pwsources.com.sg](mailto:info@pwsources.com.sg)



# Power Units Specification Data



Fuel Consumption – l/h	1500 rpm		1800 rpm	
	Prime = PRP	Standby = LTP	Prime = PRP	Standby = LTP
25% Power.....	14.9.....	15.8.....	18.0.....	20.5.....
50% Power.....	28.0.....	30.6.....	33.2.....	38.1.....
75% Power.....	40.6.....	47.1.....	48.0.....	56.1.....
100% Power.....	54.2.....	64.8.....	64.4.....	75.1.....

## General Data

Model .....	6081HF001B
Number of cylinders .....	6
Bore and Stroke – mm (in.) .....	116 x 129 (4.56 x 5.06)
Displacement – dm <sup>3</sup> (in <sup>3</sup> ) .....	8.1 (496)
Compression Ratio .....	15.7 : 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 <sub>2</sub> O) .....	0.5 (2)

## Physical Data

Length – mm (in.) .....	1210 (47.6)
Width – mm (in.) .....	597 (23.5)
Height – mm (in.) .....	1152 (45.3)
Weight, dry – kg (lb) .....	776 (1710)
(includes flywheel housing, flywheel, & electrics)	
Centre of gravity location	
From Rear Face of block (X-axis) – mm (in.) .....	482 (19.2)
Right of Crankshaft (Y-axis) – mm (in.) .....	-8 (-0.3)
Above Crankshaft (Z-axis) – mm (in.) .....	145 (5.7)

## Electrical Data

Recommended Battery Capacity (CCA)	
12 Volt System – Amp .....	800
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 .....	950
At -30°C (-22°F) – Amp .....	1300
Starter Rolling Current-24 Volt System	
At 0°C (32°F) – Amp .....	600
At -30°C (-22°F) – Amp .....	700

Specifications and design subject to change without notice.

## Air System

	1500rpm	1800rpm
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 <sub>2</sub> O) .....	6.25 (25)	6.25 (25)
Clean Air Cleaner – kPa (in.H <sub>2</sub> O) .....	3 (12)	3 (12)
Engine Air Flow		
Prime = PRP – m <sup>3</sup> /min (ft <sup>3</sup> /min) .....	16.5 (583)	20.7 (731)
Standby = LTP – m <sup>3</sup> /min (ft <sup>3</sup> /min) .....	17.3 (611)	21.9 (773)
Recommended Intake Pipe Dia – mm (in.) .....	102 (4)	102 (4)

## Exhaust System

	1500rpm	1800rpm
Exhaust Flow		
Prime = PRP – m <sup>3</sup> /min (ft <sup>3</sup> /min) .....	44.4 (1568)	52 (1836)
Standby = LTP – m <sup>3</sup> /min (ft <sup>3</sup> /min) .....	47.3 (1670)	57.2 (2020)
Exhaust Temperature		
Prime = PRP – °C (°F) .....	640 (1184)	439 (822)
Standby = LTP – °C (°F) .....	703 (1297)	479 (894)
Max. Allow.Back Pressure – kPa (in.H <sub>2</sub> O) .....	7.5 (30)	7.5 (30)
Recommended Exhaust Pipe Dia – mm (in.) .....	101.6 (4)	101.6 (4)

## Cooling System

	1500rpm	1800rpm
Thermostat Start to open – °C (°F) .....	82 (180)	82 (180)
Engine coolant capacity – L (qt) .....	14 (15)	14 (15)
Minimum Air to Boil temperature – °C (°F) .....	47 (117)	47 (117)

## Fuel System

	1500rpm	1800rpm
Fuel Injection Pump .....	RBP 7100	RBP 7100
Governor Regulation .....	5%	5%
Governor Type .....	Mechanical	Mechanical
Total Fuel Flow		
Prime = PRP – kg/h (lb/h) .....	175 (384)	272 (600)
Standby = LTP – kg/h (lb/h) .....	175 (384)	272 (600)
Maximum Fuel Transfer Pump Suction – m (ft) .....	3(10)	3(10)
Fuel Filter Micron Size @ 98% Efficiency .....	2	2

## Lubrication System

	1500rpm	1800rpm
Oil Pressure at Rated Speed – kPa (psi) .....	240 (35)	275 (40)
Oil Pressure at Low Idle – kPa (psi) .....	210 (30)	210 (30)
In Pan Oil Temperature – °C (°F) .....	115 (240)	115 (240)
Total Engine Oil Capacity with filter – L (qt) .....	32 (34)	32 (34)
Engine Angularity Limits (continuous)		
Any Direction – degrees .....	20	20



**JOHN DEERE**

John Deere Power Systems  
3801 West Ridgeway Avenue  
P.O.Box 5100  
Waterloo, Iowa 50704-5100

Tel : 1-800-JD ENGINE  
1-1800-533-6446

Fax : (319) 292-5075

http : www.deere.com/jdpower

