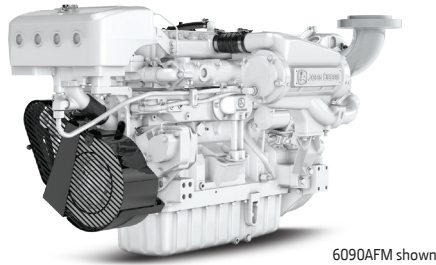


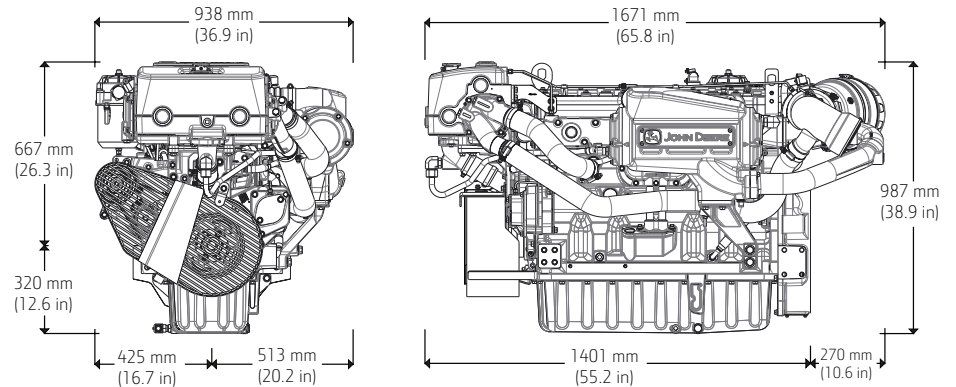
# PowerTech™ 6090AFM85 Diesel Engine

Marine Generator Drive Engine Specifications



6090AFM shown

## Dimensions



Dimensions shown in mm (in) may vary according to options selected.  
Contact your distributor for more information.

## Emissions

EPA Marine Tier 3 (60 Hz only)  
IMO MARPOL Annex VI Compliant

## General Data (based on standard option configuration)

Model	6090AFM85
Number of cylinders	6
Displacement – L(cu in)	9.0 (549)
Bore and Stroke – mm (in)	118 x 136 (4.65 x 5.35)
Engine Type	In-line, 4-cycle
Aspiration	Turbocharged and air-to-coolant aftercooled

Length maximum – mm (in)	1671 (65.8)
Length to rear face of flywheel housing – mm (in)	1401 (55.2)
Flywheel housing SAE	SAE #2
Width maximum – mm (in)	938 (36.9)
Crankshaft centerline right – mm (in)	513 (20.2)
Crankshaft centerline left – mm (in)	425 (16.7)
Height – mm (in)	987 (38.9)
Height, crankshaft centerline to top – mm (in)	667 (26.3)
Height, crankshaft centerline to bottom – mm (in)	320 (12.6)
Weight, dry – kg (lb)	1055 (2325)

## Classification Societies

SOLAS – Accessories available\*  
ABS, DNV, BV, LR

\*Other accessories available. Contact your distributor for details.

## Features and Benefits

### Optional low RPM operation

- A lower speed option provides the user the ability to start the engine without going to the gen-set rated speed and allows the user to clutch in an accessory that may be driven by the engine

### High-pressure common-rail (HPCR)

- The HPCR fuel system provides variable common-rail pressure, multiple injections, and higher injection pressures
- Controls fuel injection timing and provides precise control for the start, duration, and end of injection
- Transfer pump with priming option
- Provides high performance, excellent fuel economy, and low emissions

### Keel-cooled or heat exchanger

- Closed cooling system in keel-cooled engine option eliminates the need for a sea strainer, seawater pump, or anodes
- Heat exchanger option offers a lighter, more compact, and simpler installation for the vessel

### Multiple service options

- Either-side oil fill/dipstick combinations and remote oil filter options are available for easier service access

### 4-valve cylinder head

- Excellent airflow through 4-valve cylinder head delivers greater low-speed torque and better transient response time

### Water-cooled exhaust manifold

- Integrated components eliminate external hoses and fittings
- Wet exhaust manifold creates a cooler and quieter environment for passengers and crew

### Replaceable cylinder liners

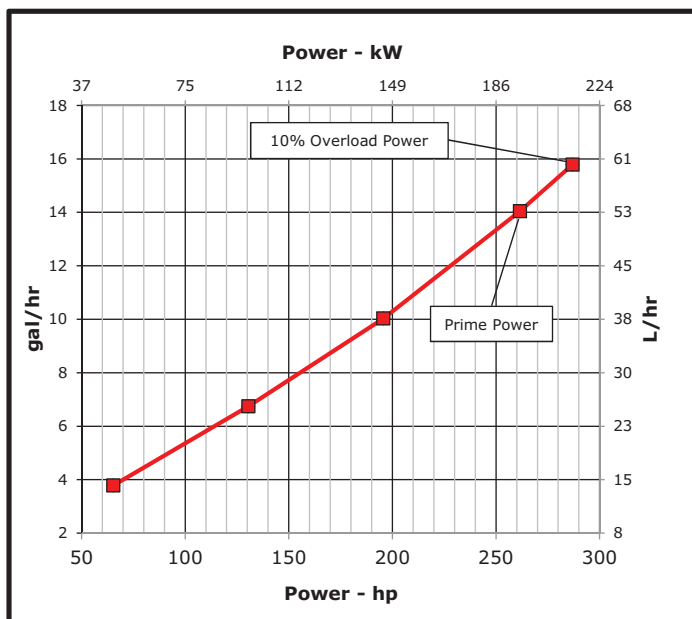
- Replaceable wet-type cylinder liners are precision-machined and hardened for long life
- Allows engine to be rebuilt to original specifications

### Electronic engine control unit (ECU)

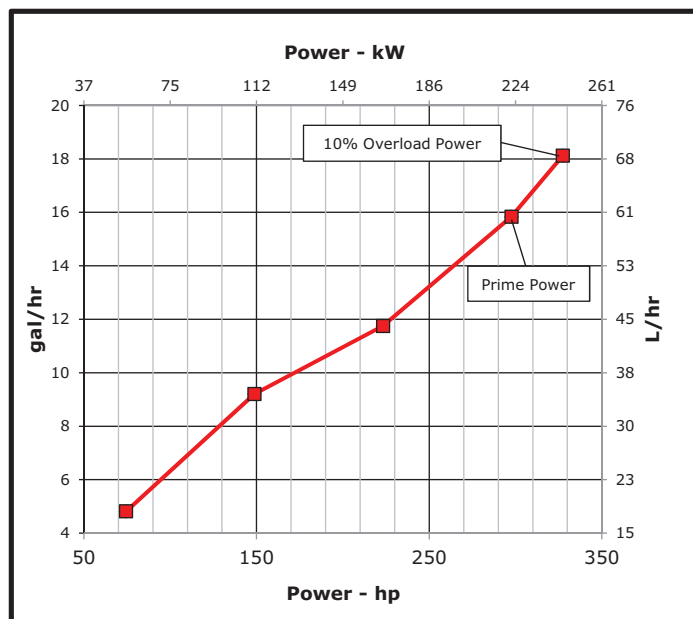
- Advanced fault code diagnostics and customizable engine protections ensure reliability and uptime
- Provides highly customizable features and trim to integrate your vessel

## Performance Curves

50 Hz (1500 rpm)



60 Hz (1800 rpm)



Performance data points shown at 25%, 50%, 75%, 100% (prime), and 110% (overload) power.

## Calculated Generator-set Rating

Rated speed Hz (rpm)	Generator efficiency %	Engine power		Power factor	Calculated generator set rating	
		Prime*			Prime*	
		kW	hp		kWe	kVA
50 (1500)	88-92	195	261	0.8	171-179	214-224
60 (1800)	88-92	222	297	0.8	195-204	244-255

\*Prime power is the normal power an engine is capable of delivering with a variable load for an unlimited number of hours per year. This rating conforms to ISO 3046 and SAE J1995. This rating incorporates a 10 percent overload capability, and conforms to ISO 8528 prime power.

See your John Deere Power Systems engine distributor or marine dealer for more detailed performance information.

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All values at rated speed and power with standard options unless otherwise noted. Specifications and design subject to change without notice.