

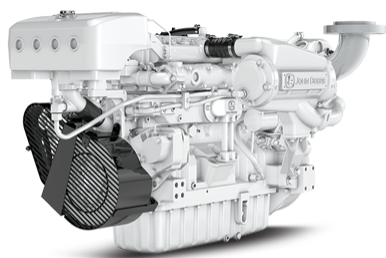
PowerTech™

6090AFM85 Diesel Engine

Marine Propulsion Engine Specifications

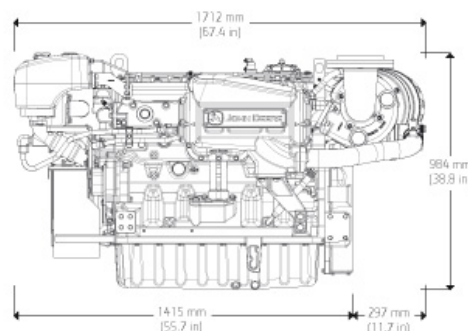
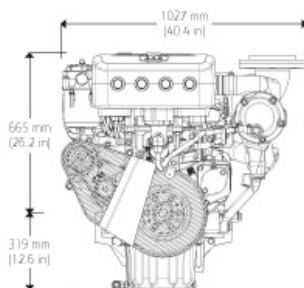


JOHN DEERE



6090AFM85 shown

Dimensions



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

Emissions

EPA Commercial Marine Tier 3

IMO MARPOL Annex VI Tier II 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)	1712 (67.4)
Length to rear face of flywheel housing - mm (in)	1415 (55.7)
Flywheel housing SAE	2
Height - mm (in)	984 (38.8)
Height, crankshaft centerline to top - mm (in)	665 (26.2)
Height, crankshaft centerline to bottom - mm (in)	319 (12.6)
Weight, dry - kg (lb)	1055 (2326)

Classification Societies

ABS,BV,CCS,DNV-GL,LR

*SOLAS and other accessories available. Contact your distributor for details.

Engine Specifications

Performance ratings	Power kW (bhp)	Rated Speed (rpm)	Rated fuel consumption L/hr (gal/hr)
M1	213 (286)	2100	64.6 (17.1)
M2	242 (325)	2200	71.4 (18.9)
M3	280 (375)	2300	80.9 (21.4)
M4	317 (425)	2400	91.2 (24.1)

Metric hp = Brake hp x 1.01387

M rating	M1	M2	M3	M4
Typical load factor	> 65%	< =65%	< =50%	< =40%
Typical annual usage (hr)	Unrestricted	3,000-5,000 hr	2,000-4,000 hr	1,000-3,000 hr
Typical full-power operation (hr)	Uninterrupted	16 of each 24 hr	4 of each 16 hr	1 of each 12 hr

Ratings are based on ISO 8655 standard power rating and the SAE J1 228 crankshaft power rating.

Flexibility of installation due to range of options.

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

Features and Benefits

High Torque and Low Rated RPM

- High torque provides excellent vessel control and maneuverability. Lower rated propulsion RPM reduces vibration and noise for improved crew comfort.

4-Valve Cylinder Head

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

High-pressure Common-rail (HPCR)

- The HPCR fuel system provides variable common-rail pressure, multiple injections, and controls fuel injection timing and provides precise control for the start, duration, and end of injection.

Water-cooled Exhaust Manifold

- Integrated components eliminate external hoses and fittings that can leak or break. 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.

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 engine installation.

Multiple Service Options

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