# PowerTech ™ 6068AFM85 Diesel Engine

Marine Generator Drive Engine Specifications





6068AFM85 shown

#### **Emissions**

EPA Commercial Marine Tier 3 @ 1800 rpm / 60Hz

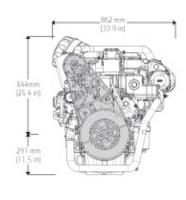
IMO MARPOL Annex VI Tier II Compliant

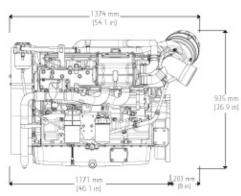
Marine China Stage I †

EU Inland Waterway Stage V \*

† Available on 129 and 139 kW (173 and 187 hp) prime generator drivce rating \* Available on 117 kW (157 hp) prime generator

#### **Dimensions**





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

# General Data (Based on Standard Option Configuration)

Model	6068AFM85
Number of cylinders	6
Displacement - L (cu in)	6.8 (415)
Bore and Stroke mm (in)	107 x 127 (4.21 x 5.00)
Engine Type	In-line, 4-Cycle
Aspiration	Turbocharged and air-to-coolant aftercooled

Lengti maximum - mm (m)	1374 (34.1)
Length to rear face of flywheel housing - mm (in)	1172 (46.1)
Flywheel housing SAE	2
Height - mm (in)	935 (36.9)
Height, crankshaft centerline to top - mm (in)	644 (25.4)
Height, crankshaft centerline to bottom - mm (in)	291 (11.5)
Weight, dry - kg (lb)	787 (1735)

#### Classification Societies

ABS, BV, CCS, CRS, DNV-GL, LR

## **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.

## 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 that can leak or break. Wet exhaust manifold creates a cooler and quieter environment for passengers and crew.

## Replaceable Cylinder Liners

Longth maximum mm (in)

 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.

<sup>\*</sup>SOLAS and other accessories available. Contact your distributor for details.

## Features and Benefits (cont'd)

# High-pressure Common-rail (HPCR)

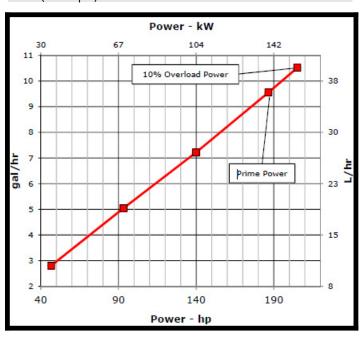
The HPCR fuel system provides variable common-rail pressure, multiple
injections, and higher injection pressures. It also controls fuel injection timing
and provides precise control for the start, duration, and end of injection.
 Electronic transfer pump is self-priming for ease of maintenance. Provides
high performance, excellent fuel economy, and low emissions.

# Multiple Service Options

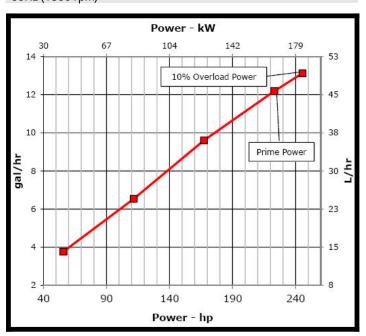
 Either-side oil fill/dipstick combinations and remote oil and fuel filter options are available for easier service access.

# **Performance Curves**

#### 50Hz (1500 rpm)



# 60Hz (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 Prime*		Power factor	Calculated generator set rating				
					Prin	ne*			
		kW	hp		kWe	kVA			
50 (1500)	88-92	139	186	0.8	122-129	153-161			
50 (1500)	88-92	129	173	0.8	114-119	143-149			
50 (1500)	88-92	117	157	0.8	103-108	129-135			
60 (1800)	88-92	166	223	0.8	146-153	183-191			

<sup>\*</sup>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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Phone: 33.2.38.82.61.19 Fax: 33.2.38.84.62.66 Preliminary Information

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