

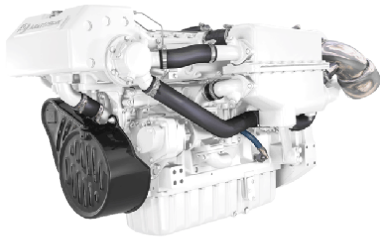
PowerTech

6090SFM Diesel Engine

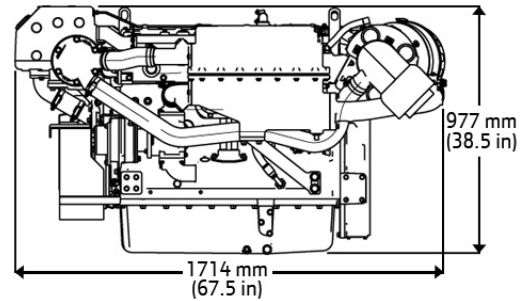
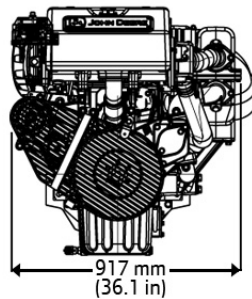
Marine Generator Drive Engine Specifications



Dimensions



6090SFM shown



Certifications

- American Bureau of Shipping
- Bureau Veritas
- Det Norske Veritas
- EU 2002/88/EC
- IMO MARPOL Annex VI
- Lloyd's Register
- US EPA Marine Tier 2 Compliant

General data

Model	6090SFM75	Length - mm (in)	1714 (67.5)
Number of cylinders	6	Width - mm (in)	917 (36.1)
Displacement - L (cu in)	9.0 (549)	Height, Centerline to Top-- mm. (in)	658 (25.9)
Bore and Stroke-- mm (in)	118 x 127 (4.65 x 5.00)	Height, Centerline to Bottom-- mm. (in)	319 (12.6)
Compression Ratio	16.0 : 1	Weight, dry-- kg (lb)	1066 (2350)
Engine Type	In-line, 4-cycle	Maximum Installed Angle	Front Up – degrees 0
Aspiration	Air-to-sea water		Front Down – degrees 0

Features and benefits

High Pressure Common Rail Fuel System

- Higher (33%) injection pressures, up to 1600 bar (23,000 psi)
- Variable injection pressure and timing control

John Deere Electronic Control Systems

- Built in controls eliminates the need for costly add on engine warning systems and associated components
- Service diagnostics and error codes automatically stored for later retrieval & ease of diagnostics
- Built in engine synchronization feature

Watercooled Turbocharger and Exhaust Manifold

- Cooler and quieter environment for vessel and crew
- Reduced external connections eliminates hoses and fittings that can leak or break

Replaceable Wet-type Cylinder Liners

- Excellent heat dissipation
- Hardened and precision machined for long life
- Rebuild to original specifications

High Torque and Low Rated RPM

- Excellent vessel control and maneuvering
- Lower rated rpm limits vibration and noise for better crew comfort

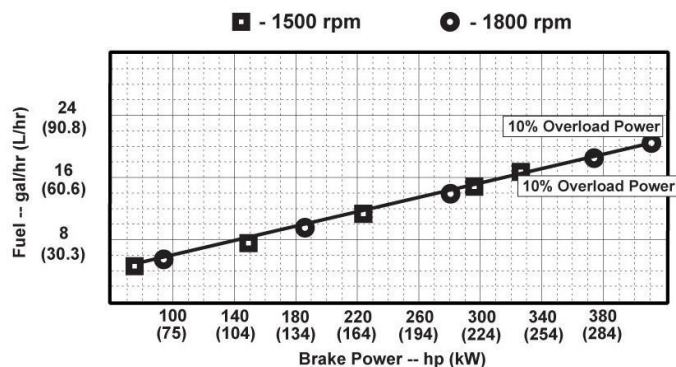
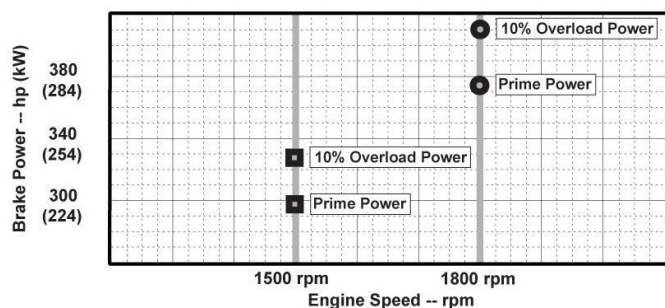
Heat Exchanger

- High-capacity heat exchanger designed for reliable operation in adverse conditions

High Power Density

- High power density offers more power in a smaller package

Performance curve



System data	1800 rpm	1500 rpm
Air system		
Engine air flow - m ³ /min (ft ³ /min)	23.7 (837.0)	15.2 (536.8)
Exhaust system		
Dry - mm (in)	152 (6.0)	152 (6.0)
Wet - mm (in)	152 (6.0)	152 (6.0)
Cooling system		
Coolant flow - L/min (gal/min)	250 (66.0)	216 (57.1)
Sea water system		
Pump flow - L/min (gal/min)	276 (72.9)	231 (61.0)
Fuel system		
Governor type	Electronic	Electronic
Governor regulation - %	Isochronous or Droop	Isochronous or Droop
Total fuel flow - L/hr (gal/hr)	240 (63.4)	0 (0.0)

Performance data	1800 rpm	1500 rpm
10% overload engine Power - kW (hp)	306 (410.4)	244 (327.2)
Prime engine power - kW (hp)	278 (372.8)	222 (297.7)
Low idle speed - rpm	1000	1000
BMEP - kPa (psi)	2267 (329)	2169 (315)

Performance data

Hz (rpm)	Generator efficiency %	Keel cooled		Power factor	Calculated gen-set rating	
		(no fan)			kW	kVA
50 (1500)	88-92	--	--	0.8	195-204	244-255
60 (1800)	88-92	--	--	0.8	245-256	306-320

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