

# PowerTech™ Plus

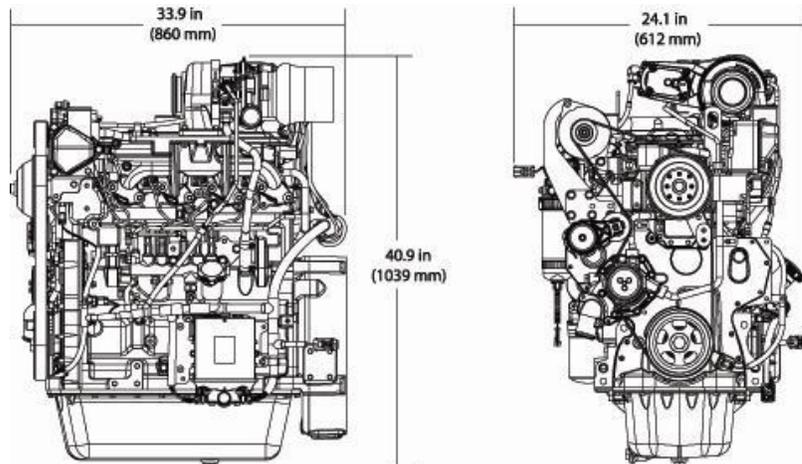
## 4045HFG85 Diesel Engine

Generator Drive Engine Specifications



4045HFG85 shown

### Engine dimensions



Dimensions may vary according to options selected. Call your distributor for more information.

### Certifications

CARB  
EPA Tier 3

### General data

Model	4045HFG85	Length - mm (in) to rear of block	860 (33.9)
Number of cylinders	4	Width - mm (in)	612 (24.1)
Displacement - L (cu in)	4.5 (275)	Height-- mm (in)	1039 (40.9)
Bore and Stroke-- mm (in)	106 x 127 (4.17 x 5.00)	Weight, dry-- kg (lb)	491 (1082)
Compression Ratio	17.0 : 1		
Engine Type	In-line, 4-Cycle		
Aspiration	Turbocharged and air-to-air aftercooled		

### Performance data range

Rated speed Hz(rpm)	Engine power				Generator efficiency %	Rated fan power		Power factor	Calculated generator set output			
	Prime		Standby			kW	hp		Prime		Standby	
	kW	hp	kW	hp					kWe*	kVA	kWe	kVA
60(1800)	134	180	147	197	88-92	6.5	9	0.8	112-117	140-146	124-129	155-161

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 ISO3046 and SAE J1995.

Standby power is the maximum engine power available at varying load factors for up to 200 hours per year when applied to conform with ISO 8528-1. This rating conforms to ISO 3046 and SAE J1995. Calculated generator set rating range for standby applications is based on minimum engine power (nominal -5 percent) to provide 100 percent meet-or-exceed performance for assembled standby generator sets.

\*Electrical power is calculated from the typical generator efficiency and fan power percentages shown. Applications may vary.

## Features and benefits

### 4-Valve Cylinder Head

- The 4-valve cylinder head provides excellent airflow. Cross flow design

### High Pressure Common Rail Fuel System (HPCR) and Engine Control Unit (ECU)

- The HPCR fuel system provides variable common-rail pressure, multiple injections, and higher injection pressures, up to 1600 bar (23,000 PSI). It also controls fuel injection timing and provides precise control for the start, duration, and end of the injection

### Cooled Exhaust Gas Recirculation (EGR)

- EGR cools and mixes measured amounts of cooled exhaust gas with incoming fresh air to lower peak combustion temperatures, thereby reducing NOx

### Variable Geometry Turbocharger (VGT)

- Varies exhaust pressure based on load and speed to ensure proper EGR flow; greater low-speed maintaining low-speed torque, transient response time, and peak torque. It enables an engine to meet emissions regulations with better fuel economy and the lowest installed costs

### Air-to-Air Aftercooled

- This is the most efficient method of cooling intake air to help reduce engine emissions while maintaining low-speed torque, transient response time, and peak torque. It enables an engine to meet emissions regulations with better fuel economy and the lowest installed costs

### Compact Size

- Horsepower/displacement ratio is best-in-class
- Lower installed cost
- Mounting points are the same as Tier 2/Stage II engine models

### John Deere Electronic Engine Controls

- Electronic engine controls monitor critical engine functions providing warning and/or shutdown to prevent costly engine repairs; eliminates need for add-on governing components; all lowering total installed costs. Snapshot diagnostic data that can be retrieved using commonly available diagnostic service tools
- New common wiring interface connector for vehicles or available OEM instrumentation packages; new solid conduit and "T" connectors to reduce wiring stress, greater durability and improved appearance
- Factory installed engine mounted ECU or remote mounted ECU, wiring harness and associated components
- Industry standard SAE J1939 interface which communicates with other vehicle systems, eliminating redundant sensors and reducing vehicle installed cost

### Additional Features

- Self-adjusting poly-vee fan drive