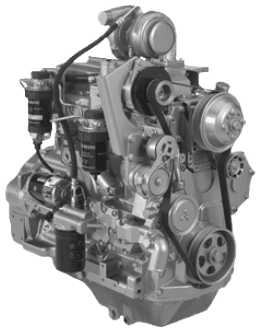
PowerTech ™ E 4045HF285 Diesel Engine

Generator Drive Engine Specifications

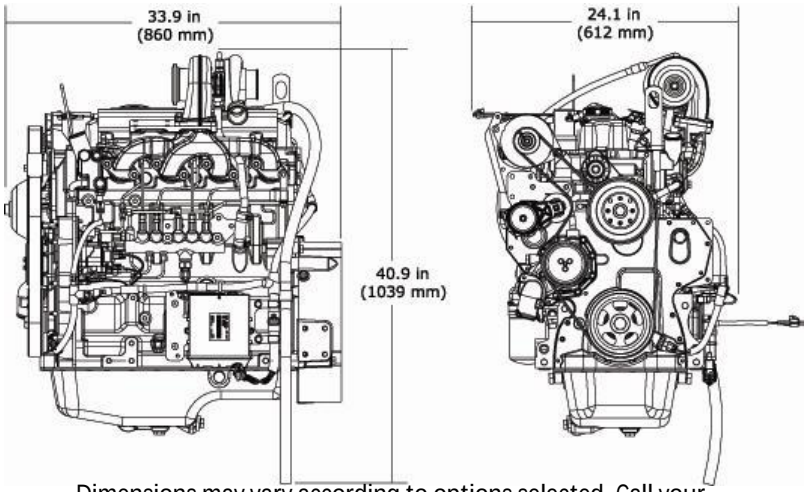


4045HF285 shown

Emissions

CARB
EPA Tier 3

Engine dimensions



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

General data

Model	4045HF285
Number of cylinders	4
Displacement - L (cu in)	4.5 (275)
Bore and Stroke-- mm (in)	106 x 127 (4.17 x 5.00)
Compression Ratio	19.0:1
Engine Type	In-line, 4-cycle
Aspiration	Turbocharged and air-to-air aftercooled

Length - mm (in) to rear of block	860 (33.9)
Width - mm (in)	612 (24.1)
Height-- mm (in)	1039 (40.9)
Weight, dry - kg (lb)	491 (1082)

Performance data range

Rated speed	Engine power				Generator efficiency	Rated fan power		Power factor	Calculated generator set output			
	Prime		Standby						Prime		Standby	
Hz(rpm)	kW	hp	kW	hp	%	kW	hp		kWe*	kVA	kWe	kVA
60(1800)	86-134	115-180	94-147	126-197	88-92	5.2-6.5	7-9	0.8	71-117	89-146	78-129	98-161

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.

Photographs may show non-standard equipment.

Features and Benefits

2-Valve Cylinder Head

- Cross-flow head design provides excellent breathing from a lower-cost 2-valve cylinder head

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

Fixed Geometry Turbocharger

- Fixed geometry turbochargers are precisely matched to the power level and application

Air-to-Air Aftercooled

- This is the most efficient meth od 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

Multiple Injection Strategy

- The new HPCR fuel system and engine control unit (ECU) allow for multiple fuel injections. The number of fuel injections, based on speed and load, help contribute to lower combustion temperatures, which reduce the formation of NOx and particulates. The multiple injection strategy also provides an added benefit of noise reduction

John Deere Electronic Engine Controls

- Electronic engine controls monitor critical engine functions, providing warning and/or shutdown to prevent costly repairs and eliminate the need for add-on governing components, all lowering total installed costs.

Compact Size

- Mounting points are the same as Tier 2/Stage II engine models

Engine Performance

- Block loading capability provided with standard electronic governor control

Additional Features

- Self-adjusting poly-vee fan drive
- Forged-steel connecting rods
- Replaceable wet-type cylinder liners
- Either-side service
- 500-h our oil change

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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.