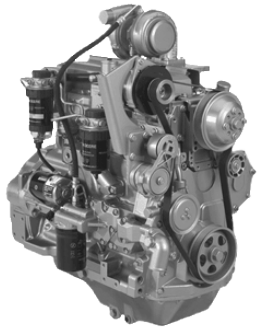


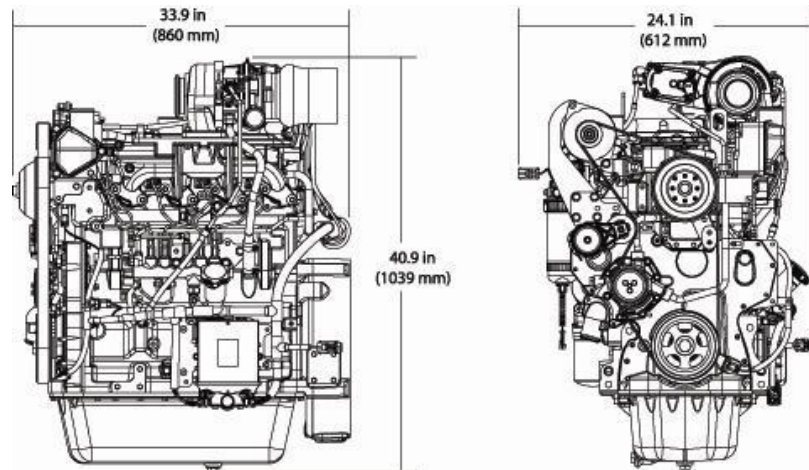
PowerTech E 4045H Diesel Engine

Generator Drive Engine Specifications



4045H shown

Dimensions



Certifications

CARB
EPA Tier 3

General data

| | | | |
|---------------------------|-------------------------|-----------------------|---|
| Model | 4045HF285 | Aspiration | Turbocharged and air-to-air aftercooled |
| Number of cylinders | 4 | Length - mm (in) | 860 (33.9) |
| Displacement - L (cu in) | 4.5 (275) | Width - mm (in) | 612 (24.1) |
| Bore and Stroke-- mm (in) | 106 x 127 (4.17 x 5.00) | Height-- mm (in) | 1039 (40.9) |
| Compression Ratio | 19.0:1 | Weight, dry-- kg (lb) | 491 (1082) |
| Engine Type | In-line, 4-cycle | | |

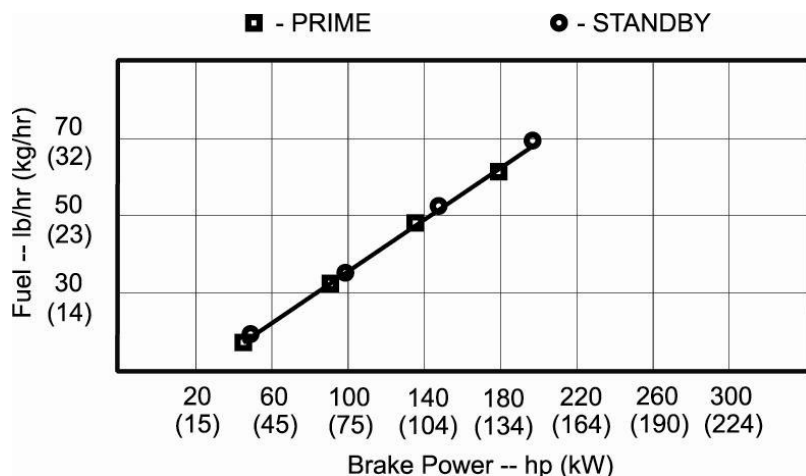
Performance data

| | |
|-----------------------------------|-----------------|
| Prime power at 60 Hz (1800 rpm) | 134 kW (180 hp) |
| Standby power at 60 Hz (1800 rpm) | 147 kW (197 hp) |

The prime power gen-set engine rating is the nominal power an engine is capable of delivering with a variable load for an unlimited number of hours per year with normal maintenance intervals observed. This rating incorporates a 10% overload capability which is available for up to 2 hours at a time. Operating time between 100% and 110% of the prime power rating is not to exceed 8% of the total engine operating time. This rating conforms to ISO 8528-1 "prime power (PRP)". The permissible average power for the prime or PRP rating is not to exceed 70% of rated prime power when calculated per ISO 8528-1.

The standby gen-set engine rating is the nominal engine power available at varying load factors for up to 200 hours per year with normal maintenance intervals observed. No overload capability is available for this rating. This rating conforms to ISO 8528-1 "Emergency Standby Power (ESP)". The permissible average power for the standby or ESP rating is calculated per ISO 8528-1.

Performance curve



Performance data

| Hz (rpm) | Generator efficiency % | Rated fan power | | Power factor | Calculated generator set output | | | |
|-----------|------------------------|-----------------|-----|--------------|---------------------------------|---------|---------|---------|
| | | kW | hp | | Prime | | Standby | |
| | | | | | kWe | kVA | kWe | kVA |
| 60 (1800) | 88-92 | 6.5 | 8.7 | 0.8 | 112-117 | 140-146 | 124-129 | 155-161 |

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 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

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-hour oil change

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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.