

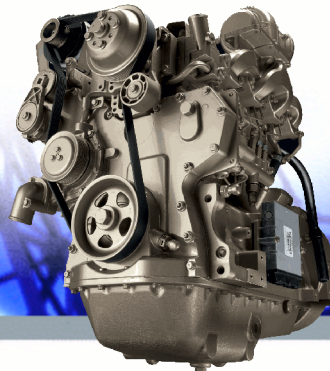


JOHN DEERE

PowerTech™ E

4045T Diesel Engine

for Generator Set Applications



4045TF Engine shown

General Data

Model	4045TF285	Aspiration	Turbocharged
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		

Ratings

Prime power at 60 Hz (1800)	67 kW (90 hp)
Standby power at 60 Hz (1800)	74 kW (99 hp)

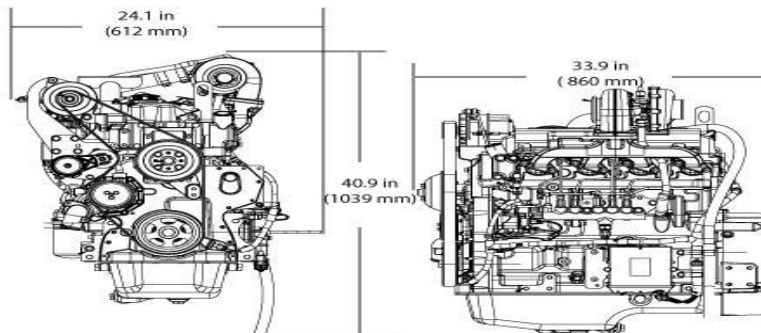
Prime power is the nominal power an engine is capable of delivering with a variable load for an unlimited number of hours per year. This rating conforms to ISO 3046 and SAI J1995.

Standby power is the nominal engine power available at varying load factors for up to 500 hours per year. This rating conforms to ISO 3046 and SAE J1995. The calculated generator set rating range for standby applications is based on minimum engine power (nominal -5%) to provide 100% meet-or-exceed performance for assembled standby generator sets.

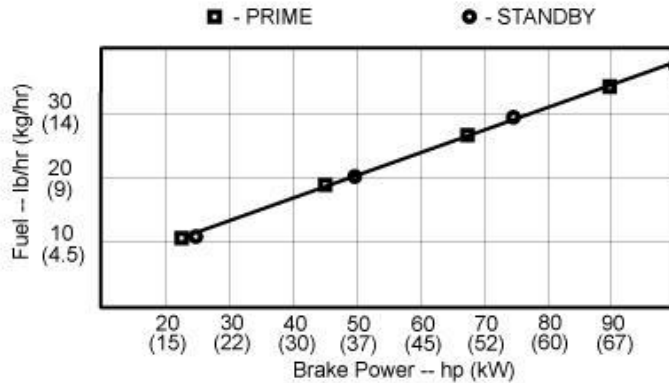
Certifications

- CARB
- EPA Tier 3

Dimensions



Performance curve



Performance data

Hz (rpm)	Generator efficiency %	Fan power		Power factor	Calculated generator set output			
		kW	hp		Prime		Standby	
					kWe	kVa	kWe	kVa
60 (1800)	88-92	5.2	7.0	0.8	54-57	68-71	61-63	76-79

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

Turbocharged

- In turbocharged engines, the air is pre-compressed. Due to the higher pressure, more air is supplied into the combustion chamber allowing a corresponding increase in fuel injection which results in greater engine output

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 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

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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