

PowerTech™

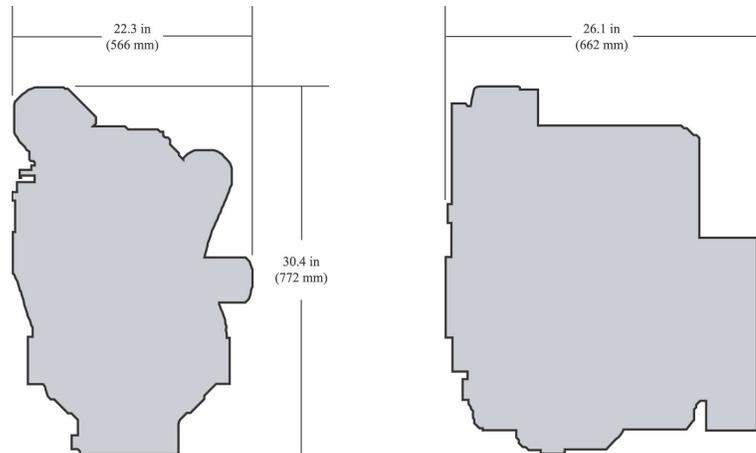
4024T Diesel Engine

Generator Drive Engine Specifications



4024T shown

Dimensions



Certifications

CARB
EPA Tier 2

General data

Model	4024TF270	Aspiration	Turbocharged
Number of cylinders	4	Length - mm (in)	662 (26.1)
Displacement - L (cu in)	2.4 (146)	Width - mm (in)	566 (22.3)
Bore and Stroke-- mm (in)	86 x 105 (3.39 x 4.13)	Height-- mm (in)	772 (30.4)
Compression Ratio	20.5:1	Weight, dry-- kg (lb)	251 (553)
Engine Type	In-line, 4-Cycle		

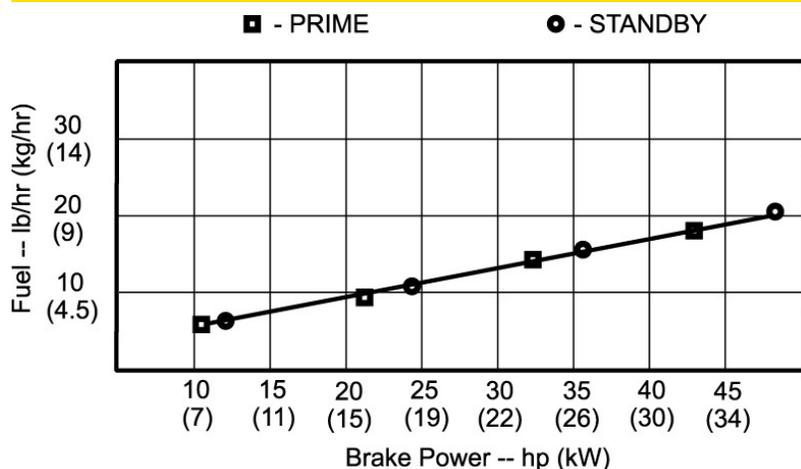
Performance data

Prime power at 60 Hz (1800 rpm)	32 kW (43 hp)
Standby power at 60 Hz (1800 rpm)	36 kW (48 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	1.8	2.4	0.8	27	34	30	38

Features and benefits

Optimized Gear Train

- Front gear train of two high-contact-ratio gears mounted to the block
- Impressive low noise characteristics

Independent Fan Drive

- Fan drive operates independently of water pump and is available in two heights to adapt to enclosures
- Fan drive ratios above and below 1:1 are available to match specific application requirements
- Automatic belt-tensioner and six rib poly-vee drive belt minimize maintenance and increases belt durability

Hydraulic Valve Lifters

- Automatic adjustment eliminates the need for valve-lash adjustment, contributes to lower noise levels in the valve train
- Lowers operating costs

Multiple-Function Component Integration

- Timing gear cover includes water pump housing, oil pump housing, governor housing and sensors
- Rocker arm cover includes intake manifold
- Integration results in higher quality, easier service, and reliability

Independent Water Pump

- Durable cast-iron water pump resists corrosion and pitting for increased wear life

Smooth Engine Operation

- Optional balancer shafts located inside the engine block with two bearings per shaft
- Decreased vibration reduces operator fatigue and need for instrument and control isolation

Starting Aids

- Quick acting glow plugs are standard equipment and provide exceptional cold weather starting at temperatures as low as -15 degree Fahrenheit
- Optional block heater is available

Innovative Fuel Systems

- Contributes to cost effectiveness and clean design
- Mechanically governed unit pumps mounted inside the block eliminate external high-pressure lines, minimize leak paths and reduce noise level
- The electronic controller is standard equipment and provides isochronous governing, engine stop/start and superior generator set performance

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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.