



# TNV DI Series Industrial Diesel Engine

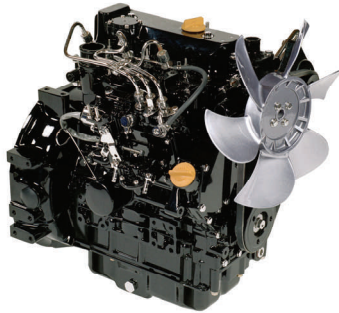


Image shown may not be actual engine

## 3TNV88-BDSA General Specification 36.0 HP (26.9 kW) @ 3000 rated rpm\*

Type	• • 3 Cylinder, 4-Cycle, Liquid Cooled Diesel Engine
Bore	• • • • • 88 mm
Stroke	• • • • • 90 mm
Displacement	• • • • • 1.642 L
Aspiration	• • • • • Naturally Aspirated
Combustion System	• • • • • Direct Injection
Rotation (from flywheel end)	• • • • • Counterclockwise
Dry Weight	• • • • • 341 lbs (154 kg)

### Features

#### Clean Emissions

Building off the proven TNE design, Yanmar has achieved superior exhaust emissions by improving the combustion chamber and fuel injection equipment design. Engines are compliant with 2008 EPA Tier 4 and EU stage III A exhaust emissions regulations.

#### Reliable and Durable

The TNV engines now proudly take up the running as Yanmar's premium small industrial diesel. They offer even more enhanced durability due to better block cooling, a stiffer crank and pistons, finer tolerance in the journal, and more. CAE analysis has brought lower vibrations and higher strength to the mounting structure for even better reliability in heavy-duty jobs.

#### Fuel Delivery and Economy

A newly designed, in-line MP type fuel injector pump is utilized to assure more precise fuel delivery and control. The result is reduced emissions, improved performance over a wide range of applications and good fuel economy which assures that Yanmar's reputation for superior starting characteristics continues.

#### Noise Level Reduction

Yanmar's original CAE techniques have optimized the stiffness, minimized transformation, and reduced radiant noise in the cylinder block. Gear noise reduction is achieved through an improved gear tooth profile resulting in less mechanical noise.

#### Additional Information

Yanmar America Corp  
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Buffalo Grove, IL 60089  
[www.yanmar.com](http://www.yanmar.com)

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### Standard Engine Equipment

#### General

Intake & Exhaust Manifold  
Exhaust Manifold Gasket (shipped loose)

#### Lubrication System

2.8 L Capacity Shallow Oil Pan  
Trochoid Oil Pump  
Paper Element Oil Filter  
Oil Pressure Switch  
Crankcase Breather, Closed Type

#### Electrical System

12V, 40 Amp Alternator  
12V Starter Motor  
12V, 400W Air Heater  
Preheat Relay (shipped loose)  
Preheat Timer, 15 second (shipped loose)  
Stop Solenoid Timer, 1 second (shipped loose)

#### Fuel System

In-line MP2 Fuel Injection Pump  
12V Electric Fuel Pump (shipped loose)  
Paper Element Fuel Filter  
Water Separator (shipped loose)  
Stop Solenoid, Integral to Fuel Injection Pump (shipped loose)

#### Cooling System

Water Pump, Belt Driven  
7-Blade, 360mm Cooling Fan—Puller Type  
70° F (21° C) Thermostat  
Temperature Switch  
Fan Belt

#### Power Take Off

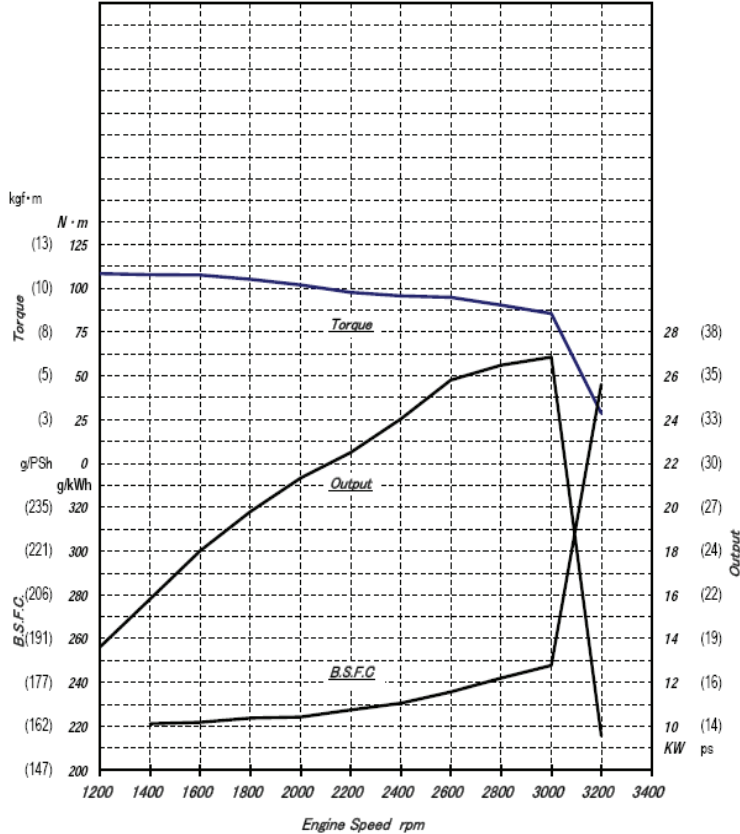
Flywheel, SAE 7 1/2"  
Flywheel Housing, SAE #5  
Aux Drive, 9-tooth w/SAE 2 bolt "A" Flange



# 3TNV88-BDSA

## Industrial Diesel Engine

### Performance Data



kW to Hp conversion used is expressed as:  $HP = (kW \text{ value}) \times 1.34$

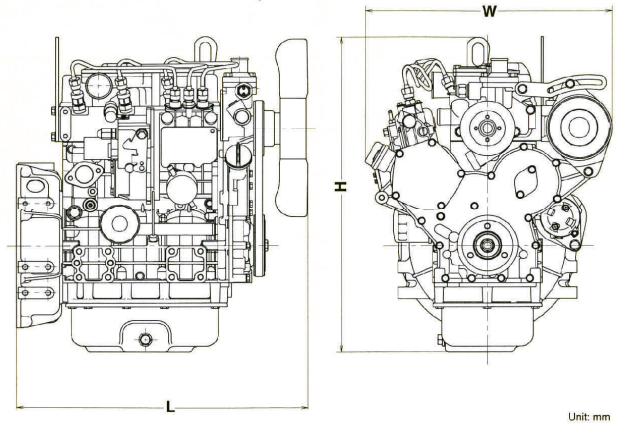
Rated Speed (rpm)	Net rated kW	Net rated HP	Max. Torque (ft-lb)
3000	26.9	36.0	79.5 @ 1800 rpm

### Ratings Definitions and Conditions

\*Rated power listed is NET engine output. The engine operating environment and driven machine conditions must be studied carefully when selecting an engine in order to ensure correct engine selection, maximize engine performance, extend engine service life and improve machine capacity.

Consult the TNV Application Manual for additional engine ratings and engine application information.

### Dimensions



Length	24.0 in (610 mm)
Width	19.7 in (502 mm)
Height	25.7 in (654 mm)

Note: Dimensions depend on final specifications.

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