

MINIMAX IDI Series Industrial Diesel Engine



Image shown may not be actual engine

Features

Clean Emissions

Building off the Yanmar reputation for clean, quiet, fuel efficient and reliable compact diesel engines MINIMAX has achieved compliance with 2008 EPA Tier 4 and EU stage III A exhaust emissions regulations.

Reliable, Durable, and Quiet

MINIMAX offers enhanced noise and vibration characteristics due to its Ladder Frame block design, a stiffer crank and pistons and finer tolerance in the journal. Gear noise reduction is achieved through an improved gear tooth profile resulting in less mechanical noise.

Fuel Delivery and Economy

A newly designed, in-line MC type rotary 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.

Ultra-Compact and High Performance

MINIMAX offers best-in-class power density as measured by the ratio of the engine's output relative to the engine's overall external dimensions

Easy Installation

With 176 mm wide base, MINIMAX engines is an easy replacement for most major applications in this displacement category.

Additional Information

Yanmar America Corp 951 Corporate Grove Drive Buffalo Grove, IL 60089 Website www.yanmar.com Distributed By:

3TNM68-AMW General Specification 18.9 HP (14.1 kW) @ 3600 rated rpm*

Type• • • 3 Cylinder, 4-Cycle, Liquid Cooled Diesel Engine
Bore • • • • • • • • • • • • 68 mm
Stroke • • • • • • • • • • • • 72 mm
Displacement · · · · · · · · · · · · · · · · · · ·
Aspiration • • • • • • • • • • • • • • • • • Naturally Aspirated
Combustion System · · · · · · · Indirect Injection
Rotation (from flywheel end) · · · · · Couterclockwise
Dry Weight • • • • • • • • • • 160 lbs.

Standard Engine Equipment

General

Intake manifold & exhaust manifold Exhaust manifold gasket (shipped loose)

Lubrication System

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

Electrical System

12V, 20 Amp Alternator 12V Starter Motor 12V Super Quick Glow Plugs Preheat Relay (shipped loose) Preheat Timer, 15 second (shipped loose) Stop Solenoid Timer, 1 second (shipped loose)

Fuel System

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

Cooing System

Water Pump, Belt Driven 5-Blade, 290mm Cooling Fan—Puller Type 70 degree Thermostat Temperature Switch Fan Belt

Power Take Off

Flywheel, SAE 7 1/2" Backplate



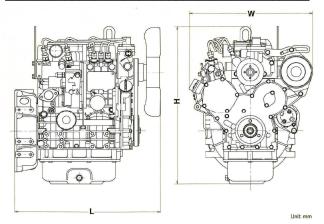
3TNM68-AMW

Industrial Diesel Engine

Performance Data

(27) (3) (24) (2) (22)(1) (19) Output (16) 12 (14)_ට(294) (265) **36**0 (11) (8) (235) 320 B.S.F.C (5) (206) 286 (3) (177) (147) 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000 3200 3400 3600 3800 4000

Dimensions



Length	16.9 in (431 mm)
Width	15.7 in (400 mm)
Height	19.6 in (500 mm)

Note: Dimensions depend on final specifications.

kW to Hp conversion used is expressed as: HP = (kW value) x 1.34

Engine Speed rpm

Rated Speed (rpm)	Net rated kW	Net rated HP	Max. Torque (ft-lb)
3600	14.1	18.9	33.1 @ 2400 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.

Application standards for Yanmar industrial engines: Inlet air standard conditions with a total barometric pressure of 100kPa (29.5 in. Hg), with a vapor pressure of 1 kPa (.295 in. Hg), and 25°C (77°F).

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