

VOLVO PENTA INBOARD DIESEL

TAMD74CEDC

6-cylinder, 4-stroke, direct-injected, turbocharged marine diesel engine with aftercooler – crankshaft power* 294–331 kW (400–450 hp)

* Power rating – see Technical Data

Powerful performance for commercial applications

The TAMD74CEDC marine diesel is specially developed for fast planing and semi-planing craft. The engine's high output combined with a rich torque curve ensures excellent performance, acceleration and response, suitable for propeller and waterjet applications. Its compact dimensions optimizes boat layout, minimizes impact on living space onboard and improves service accessibility.

EDC – optimizing engine performance

EDC (Electronic Diesel Control) – an electronically controlled processing system that determines the precise quantity of fuel required at any given moment. The EDC system takes full account of variation in operating temperature, air pressure and other contributing factors, which optimizes engine performance and efficiency, reducing fuel consumption and emissions.

Enhanced onboard comfort

The Volvo Penta in-line six cylinder engine is an uncomplicated design with a minimum of moving parts, specially developed for highly demanding marine applications. The engine is a well-balanced unit with powerfully dimensioned crankshaft bearings. This ensures smooth, vibration-free operation and low noise levels.

The EDC system improves engine response with lower and more stable idling.

The electrical control levers are operated more smoothly and precisely, requiring much less force.

Automatic twin engine synchronization reduces noise and vibration levels, increasing service life of engine.

High-pressure injection in combination with six-hole nozzles and the EDC system optimizes fuel-air mixture. This greatly contributes to more efficient combustion with higher power and reduced noxious exhaust emissions. The engine is certified according to IMO and IMO US/EPA.



TAMD74CEDC
with MG5075A-E

Easy installation and maintenance

Plug-in electrical connectors, compact dimensions and the EDC system ensures an easy, simple and time-saving installation. The EDC system's self-diagnostic facility and easily accessible service and maintenance points contributes to the ease of service of the engine.

Worldwide service support in more than 100 countries

The Volvo Penta Parts and service dealer network is a truly international operation with authorized service dealers around the world. These service centers offer Genuine Volvo Penta Parts as well as skilled personnel to ensure the best possible service. Continuous product and service training ensures that our products are well supported.

Technical description:

Engine and block

- Cylinder block and cylinder heads made of cast iron alloy
- Two cylinder heads
- Replaceable wet cylinder liners and valve seats/guides

- Nitrocarburized crankshaft with seven main bearings
- Oil-cooled forged aluminum pistons
- Three piston rings, upper of keystone type

Lubrication system

- Freshwater-cooled oil cooler
- Side-mounted full-flow and by-pass filter of spin-on type
- Oil dipsticks on both sides of oil sump

Fuel system

- Fuel injection pump incl. fuel feed pump and electronically controlled actuator
- Electronically controlled central processing system (EDC – Electronic Diesel Control) with integrated stop function
- Compensation to allow max output at fuel temperatures of 5–55°C (41–131°F)
- Six-hole injectors
- Twin fine fuel filters of spin-on type

Turbocharger

- Freshwater-cooled turbocharger with wastegate

Cooling system

- Tubular heat exchanger with integrated expansion tank or 2-circuit keel cooling
- Seawater-cooled tubular aftercooler
- Gear-driven seawater pump

Electrical system

- 12 V or 24 V electrical system incl. alternator (60A) with charging sensor
- Rubber suspended electrical terminal box with semi-automatic fuses

VOLVO
PENTA

TAMD74CEDC

Technical Data

Engine designationTAMD74CEDC

No. of cylinders and configurationin-line 6

Method of operation4-stroke,
direct-injected, turbocharged
diesel engine with aftercooler

Bore, mm (in.)107 (4.21)

Stroke, mm (in.)135 (5.31)

Displacement, l (in³)7.28 (444)

Compression ratio17.2:1

Dry weight, kg (lb).....860 (1896)

Weight with reverse gear MG5075A-E,
excl. water and oil, kg (lb).....1045 (2304)

Crankshaft power,

Rating 4, kW (hp) 2600 rpm331 (450)

Rating 3, kW (hp) 2500 rpm316 (430)

Rating 3 is also available for 294 kW (400 hp).

Propshaft power with MG5075A-E,

Rating 4, kW (hp) 2600 rpm.....318 (432)

Rating 3, kW (hp) 2500 rpm.....303 (412)

Torque,

Rating 4, Nm (lbf.ft) 2600 rpm1214 (895)

Rating 3, Nm (lbf.ft) 2500 rpm1202 (887)

Recommended fuel to

conform toASTM-D975 1-D & 2-D,

EN 590 or JIS KK 2204

Specific fuel consumption,

R4, g/kWh (lb/hph) 2600 rpm235 (0.382)

R3, g/kWh (lb/hph) 2500 rpm229 (0.372)

Technical data according to ISO 3046 Fuel Stop Power and ISO 8665. Fuel with lower calorific value of 42,700 kJ/kg and density of 840 g/liter at 15°C (60°F). Merchant fuel may differ from this specification which will influence engine power output and fuel consumption.

Fuel temperature 5–55°C (41–131°F).

N.B. The product can also be used in an application with a higher rating than stated, e.g. R3 can be used for R4 or R5.

The engine is certified according to IMO and IMO US/EPA.

Optional equipment:

Engine

- Flexible suspension for engine and reverse gear

Lubrication system

- Electrically operated oil drain pump

- Rear-mounted full-flow and by-pass oil filters of spin-on types

Fuel system

- Single or twin fuel filters/water separators

Exhaust system

- Exhaust elbow, wet
- Exhaust riser, wet
- Exhaust boot, wet
- Exhaust elbow, dry
- Silencer, dry
- Flexible compensator, dry

Cooling system

- Seawater strainer
- Hot water outlet
- Separate expansion tank

Electrical system

- 12V 130A or 24V 100A extra alternators
- Various instrument panels
- Cable harness in different lengths
- EDC Monitoring panels
- Multistation unit
- Electrical control lever

Power transmission

- PTO crankshaft front end, type stub shaft incl. universal bracket
- Hydraulic pump for steering and other duties

Reverse gear

- MG5075A-E, MG5085A-E, MG5085SC-E, ZF 280A-EB, ZF 301A-EB, and ZF 302IV-EB, electrically shifted

Other equipment

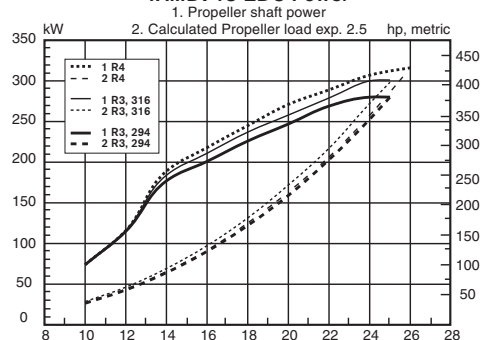
- Belt guard
- White-painted engine and reverse gear

Contact your local Volvo Penta dealer for further information.

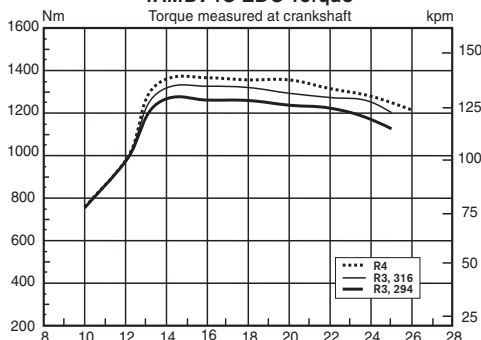
Not all models, standard equipment and accessories are available in all countries. All specifications are subject to change without notice.

The engine illustrated may not be entirely identical to production standard engines.

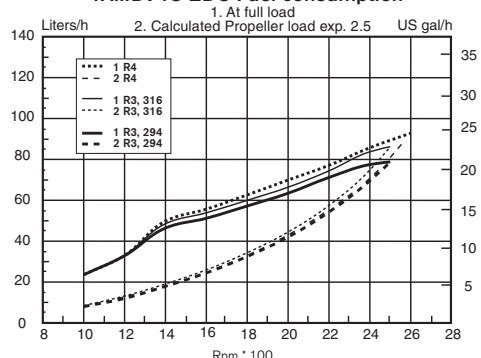
TAMD74C EDC Power



TAMD74C EDC Torque

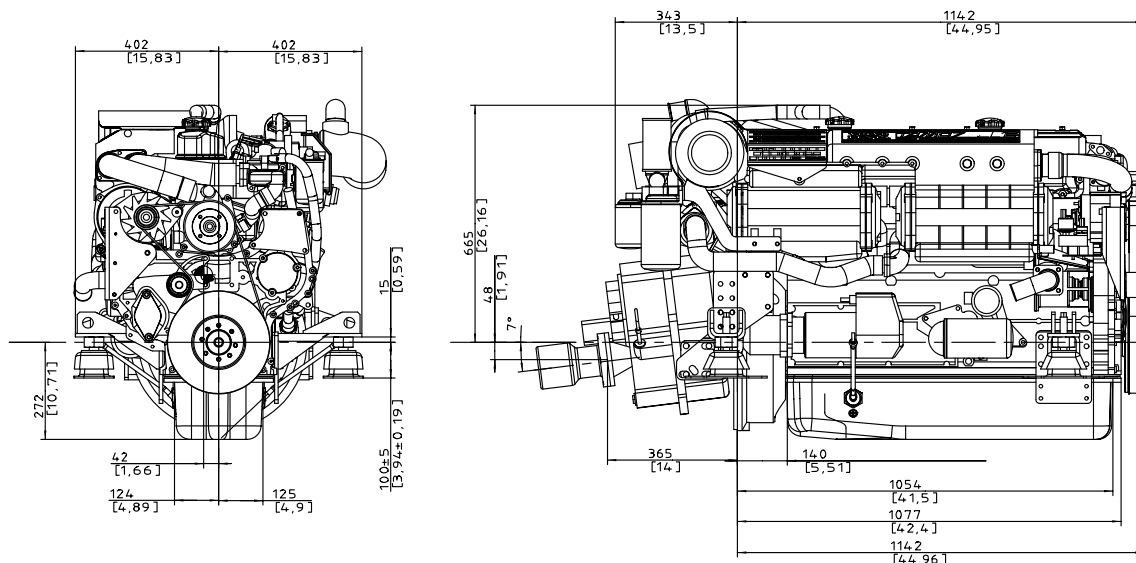


TAMD74C EDC Fuel consumption



Dimensions TAMD74C EDC with MG5075A-E

Not for installation



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