

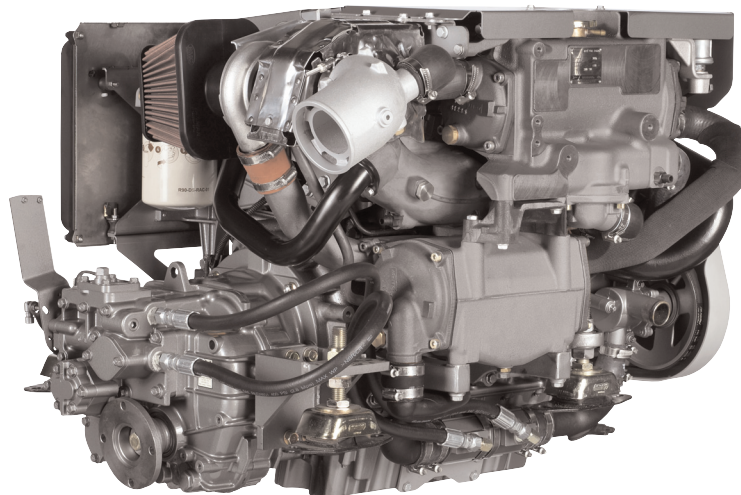
<b>Configuration</b>	In line, 4-stroke cycle, water cooled diesel engine
<b>Maximum output at crankshaft *</b>	162 kW ( 220 mhp) / 4000 rpm
<b>Continuous rating output at crankshaft</b>	124 kW (167 mhp) 3600 rpm
<b>Displacement</b>	2.993 L (183 cu in)
<b>Bore x stroke</b>	84 mm x 90 mm (3.31 in x 3.54 in)
<b>Cylinders</b>	6, Common Rail with vertical injectors
<b>Combustion system</b>	Direct injection
<b>Aspiration</b>	Wastegated, turbocharged with intercooler
<b>Starting system</b>	Electric starting 12 V - 2 kW
<b>Alternator</b>	12 V - 150 A
<b>Cooling system</b>	Fresh water cooling with heat exchanger, and sea water cooled charge air cooler
<b>Lubrication system</b>	Totally enclosed, forced lubricating system with pump
<b>Can Bus</b>	According to NMEA 2000 protocol
<b>Direction of rotation (crankshaft)</b>	Counter clockwise viewed from flywheel side
<b>Dry weight without gear</b>	315 kg (694 lbs)
<b>Environmental</b>	EU RCD, US EPA Tier2, BSO II & EMC
<b>Engine mounting</b>	Rubber type antivibration mounts

NOTE: Fuel condition: Density at 15°C = 0.84 g/cm<sup>3</sup>; 1kW = 1.3596 mhp = 1.3410 HP

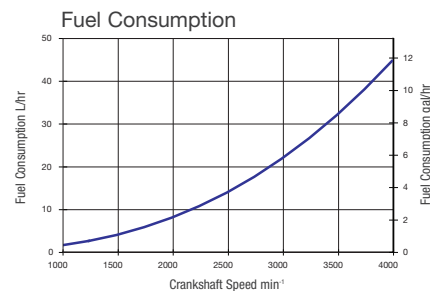
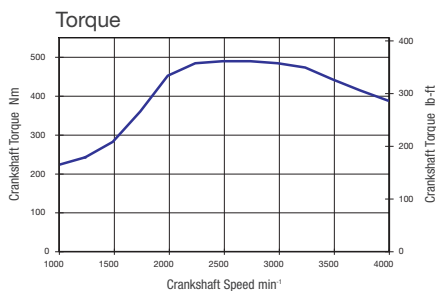
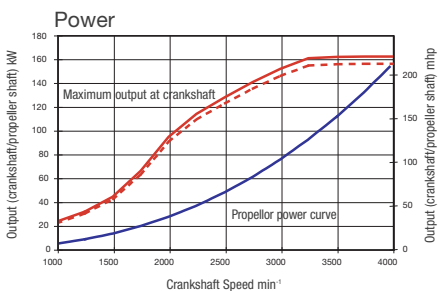
\* Fuel temperature 40°C at the inlet of the fuel injection pump (ISO 8665)

Technical data is according to ISO 8665 / 3046

**Dimensions** (For detailed line-drawings, please refer to our web-site: [www.yanmarmarine.com](http://www.yanmarmarine.com) or contact your supplier)



## Performance Curves (Output is according ISO 8665)

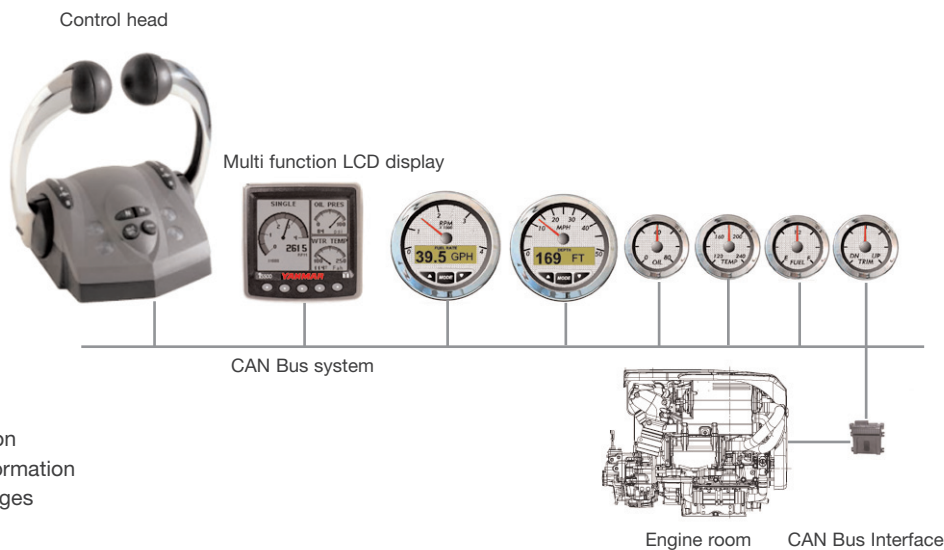


## Marine gear (examples) \*\*

Model	KMH50A		
Type	8° down hydraulic		
Dry weight	43 kg (95 lbs)		
Reduction ratio (fwd/asn)	1.67/1.67	2.13/2.13	2.43/2.43
Propeller speed (fwd/asn)	2395/2395	1878/1878	1646/1646
Direction of rotation (propeller shaft - fwd)	Counter clockwise viewed from flywheel side		
Dry weight engine with gear	358 kg (789 lbs)		
Length engine with gear	1166 mm (46 in)		

\*\* Other marine gearboxes and configurations available upon request. Contact your local supplier for more information.

## Instrument Panels



- Multi function LCD display:
- engine information
  - maintenance information
  - diagnosis messages

## Engine Accessories

### Standard Engine Package System

- Alternator 12V - 150A single pole
- Protection cover for engine transmission
- Exhaust mixing Elbow (L-type)
- Flexible Mounts
- Glow plug controller and related parts

### Optional Engine Package System

- High riser mixing elbow
- Exhaust side dipstick
- Electrical Gearshift
- Trolling

## Electronic Control System

### Standard Electronic Control

- Electronic Control Head
- LCD display
- Back-up throttle control system

### Optional Electronic Control

- Various engine Monitoring gauges
- Various engine Control heads