

PRODUCT GUIDE

# TONISSI MARINE

*In mare, da sempre*



[tonissi.com](http://tonissi.com)



## FROM THE ORIGINS TO THE PRESENT DAY, THE STORY OF AN ENDURING PASSION

Ranieri Tonissi, founder of the company that bears his name, began his activity in 1886 as an importer of industrial machinery.

In the early 1900s, the process of industrialization consumed and demanded more and more energy. It was then that Ranieri Tonissi began importing innovative gas and liquid-fuel engines.

After 1920, the use of Diesel engines started to spread in marine propulsion systems. Attention turned to large ships as well as to coastal and work vessels. The company played a significant role thanks to its expertise in industrial Diesel engines. At the helm were his successors, Felice and Cesare Tonissi.

Following the forced pause of the Second World War, Italy began its reconstruction. Ranieri Tonissi expanded its field of activity through close collaboration with the German company MAN. The company started supplying large diesel and steam power plants for energy production, as well as industrial equipment such as port cranes and steel mill machinery.

During this period, a great boost came from the new partner Ettore Airoldi. At the same time, the marine sector developed further with the supply of diesel marine propulsion systems, from large ships to fishing vessels and tugboats.

Today, the company is still guided by the Airoldi family. In addition to maintaining its traditional sales channels, the marketing of engines for pleasure boating has become increasingly important — and in a short time, it has grown to become one of the main business branches of Ranieri Tonissi S.p.A.



# TONISSI MARINE

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## WELCOME!

TONISSI MARINE, the marine division of RANIERI TONISSI, is a leading reference point in Italy for the sale and maintenance of marine diesel engines.

Its main activities include the exclusive importation into Italy of "MAN Engines" marine engines for pleasure craft, professional, and military applications, as well as "Emerson Aventics" electronic control systems.

TONISSI MARINE is also the exclusive European distributor for "TOP SYSTEM DRIVE" surface transmissions, and the exclusive agent for "LINDENBERG Anlagen" on-board generators.

The headquarters of TONISSI MARINE are located within the Port of Genoa, in the Ship Repair Area, where the waterfront facilities allow major maintenance and repair work to be carried out on marine and naval engines.

Since 1997, RANIERI TONISSI has also been present in France through its subsidiary RANIERI TONISSI FRANCE, located near Cannes. The company is a key service point for pleasure boats along the entire French Riviera, supported by a team of highly specialized technicians trained directly at the parent company and backed by a fully equipped spare parts warehouse, ensuring minimal intervention and resolution times.

Starting in 2025, Ranieri Tonissi France has also become the official ZF Hub for the distribution of original ZF spare parts in Italy, France, and Spain.

Since 2023, TONISSI MARINE has also been present in Viareggio with an operational office supporting the shipbuilding activities of Italy's most important nautical district.

In addition, TONISSI MARINE manages a service network of over 40 authorized dealers located throughout Italy.

In 1999, RANIERI TONISSI obtained the UNI EN ISO 9000:1994 Quality Certification with the aim of further improving the service offered to its customers, both in terms of workmanship and technical assistance, as well as in the management of spare parts from its own warehouse.

The Quality Management System was subsequently updated to comply with UNI EN ISO 9001:2000, and later with ISO 9001:2015.

In 2013, the company also achieved the OHSAS 18001:2007 Occupational Health and Safety Certification, pursuing continuous improvement in the management of risks related to occupational injuries and diseases. This system was then updated to the ISO 45001:2018 standard.

In 2025, the two systems were integrated into a single Integrated Management System, with the objective of optimizing manuals and procedures, ensuring greater efficiency and consistency in company processes.

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# OUR SERVICE NETWORK

## TONISSI **SERVICE**

Our Service Department relies on highly qualified personnel and manages a comprehensive assistance network throughout Italy. It provides rapid response and support services in full compliance with the standards set by the manufacturers we represent.

### I NOSTRI PARTNER



# MAN SMART HYBRID EXPERIENCE CHANGE OF MOBILITY ON THE WATER

## MAXIMUM FREEDOM

### EX-WORKS.

Every yacht is a statement and every working boat is the expression of an individual requirements profile. This makes it all the more important for the beating heart of a yacht or boat – the drive system – to perfectly match your personal needs and wishes. With the innovative, modular hybrid systems from MAN Engines, we meet your specific demands and can always offer you the ideal solution. This is because, in addition to choosing the important and necessary operating modes for your application, you can also individually adapt the overall system to your needs. Tailored to your needs.

### WHAT IS IMPORTANT TO YOU?

You decide which characteristic is most appropriate for your MAN Engines hybrid system. The system configurations at a glance: There is a suitable hybrid solution for every requirement and every driving experience.

Is efficiency particularly important to you? Or do you place more emphasis on comfort? Or perhaps performance is closer to your heart? No matter which characteristic is the most relevant for you, the flexible diesel engine and electric motor combinations offered by the MAN Engines hybrid system mean that you will always find the perfect solution for your needs. The components for the drive system and onboard power supply are modular and scalable. This allows the level of hybridization to be individually customized for your requirements.

## PERFORMANCE COMFORT EFFICIENCY

All benefits at a glance:

Individually configured operating modes

Components matched to the respective mode

High operating convenience thanks to ergonomic user interfaces

## UNIQUE HYBRID DRIVE SOLUTIONS FOR YACHTS. PERFORMANCE.

Quiet, with low vibrations and emissions – and maximum power and agility.

Pure emotion and untamed power.

First-class and practically silent driving experiences.

The innovative hybrid systems from MAN Engines allow you to experience unlimited freedom on the oceans and enjoy the advantages offered by the optimal combination of powerful combustion-engine technology with quiet and highly efficient electric drive systems.

No matter which configuration you finally choose, whether Performance, Comfort, or Efficiency, you always benefit from reduced emissions, lower vibrations, ultraquiet operation, and sustainably increased efficiency and dynamic response together with plenty of comfort.

### Zero-emission mode



### Dieselelectric mode



### Crossover mode



### Hotel mode



### Boost mode



### Diesel mode



No emissions and ultraquiet – in zero-emission mode, the energy for propulsion and electrical power consumption is provided exclusively by the battery. The battery can be charged in three ways:

- Land connection in the harbor
- Onboard generator sets
- Main drive engines

In dieselelectric mode, the electrical power supply and drive power are provided by the battery and/or the available onboard generator sets. This saves fuel and reduces the load on the engine.

In crossover mode, both drivelines are operated in different operating modes in a two-engine system. Here, one driveline operates in diesel mode, while the electric motor functions as a generator and supplies the electric power for the ship. In the second driveline, the diesel engine is disengaged so that the electric machine receives its energy from the first diesel engine. It operates in motor mode in this case and provides the drive energy.

In comfortable hotel mode, the power supply is provided only by the battery, and the diesel engines are switched off. The innovative technology ensures that power consumption is possible for an extended period without diesel engines. Independently of this, the batteries can be charged via a charging connection.

In boost mode, the combustion engines and battery-operated electric motors work together and complement each other. If power is needed, the electric motor provides energy from its power reserves. Boost mode therefore offers the highest power density and permits maximum power output. Combined operation of the 12-cylinder diesel engine and actuator thus makes it possible to achieve an output that corresponds to that of a pure 16-cylinder engine.

In classic diesel mode, the drive energy is provided by the conventional diesel engine or diesel engines in multi-engine systems. In this mode, the electric motor runs without any function and no power is generated.

### All benefits at a glance:

- No noise or exhaust gas emissions
- No vibrations
- Access to emission control areas

### All benefits at a glance:

- Low noise and exhaust gas emissions
- Low vibrations
- Efficient operation (low fuel consumption)

### All benefits at a glance:

- Very economical operation
- Long range
- Low vibrations
- Extended operating time before service (TBO)

### All benefits at a glance:

- No noise or exhaust gas emissions
- No vibrations
- Full operational readiness without engines

### All benefits at a glance:

- Combination of maximum power with the advantages of a hybrid and zero-emission drive system
- Increase in power by up to 20% compared with a conventional drive

### All benefits at a glance:

- Established drive system
- Long range
- Customized flexible driving styles ranging from economical to sporty

The logo for MAN, featuring the word "MAN" in a bold, sans-serif font inside a circular emblem with a stylized "M" shape.



# OPERATING PROFILES MAN ENGINE

## LIGHT DUTY

1,000 OPERATING HOURS PER YEAR, OF WHICH 20% AT FULL LOAD WITHOUT LIMITATION.

Average annual load factor: 50%  
Typical applications: patrol boats, general-purpose fast boats.

## MEDIUM DUTY

4,000 OPERATING HOURS PER YEAR, OF WHICH 60% AT FULL LOAD WITHOUT LIMITATION.

Average annual load factor: 70%  
Typical applications: pilot boats, patrol vessels, fishing boats, passenger vessels, ferries, and cruising boats.

## HEAVY DUTY

UNLIMITED ANNUAL OPERATING HOURS AT 100% LOAD. AVERAGE ANNUAL LOAD FACTOR: 100%

Typical applications: trawlers, sailing fishing boats, dredgers, tugs, push boats, tankers, and barges.



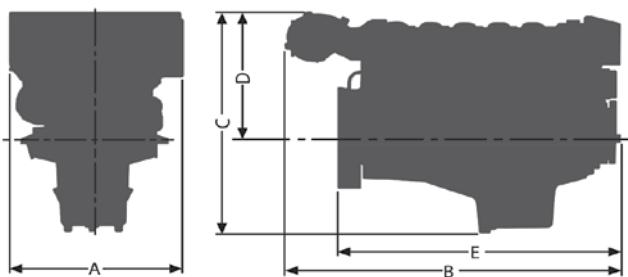
**Power (kw/CV)**  
537/730

**Speed (min.<sup>-1</sup>)**  
2300

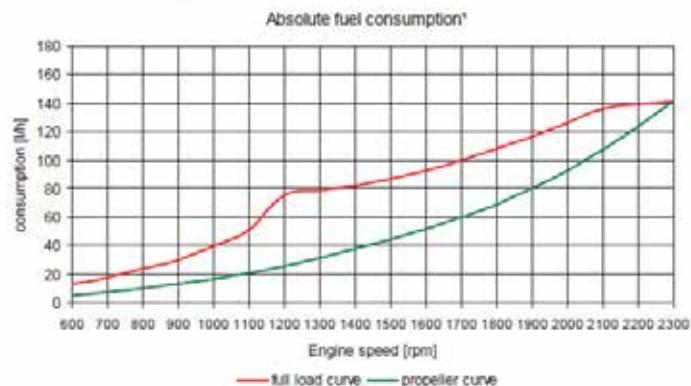
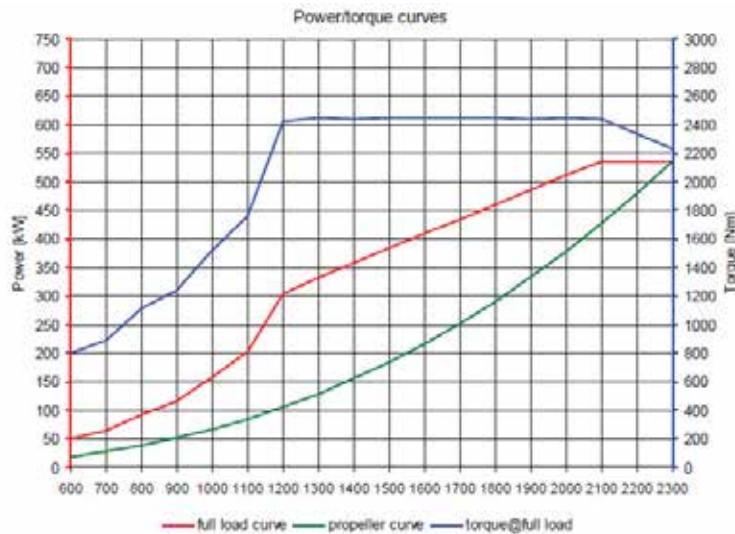
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 2) RCD 2013/53/EC, 97/68/EC
Cylinders	6
Displacement	[lt]
Maximum torque	[Nm]
Absolute fuel consumption	[lt/h]
Classification	si

## DIMENSIONS AND WEIGHT



Dimensions (mm)   A= 986   B=1795   C=1096   D= 674   E=1527   Weight=1215 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,5

Engine specifications are subjected to change without notice



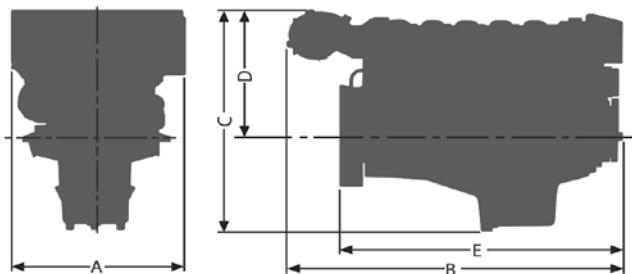
**Power (kw/CV)**  
588/800

**Speed (min.<sup>-1</sup>)**  
2300

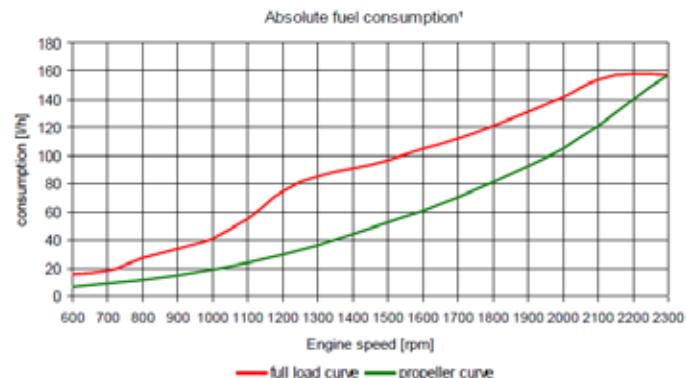
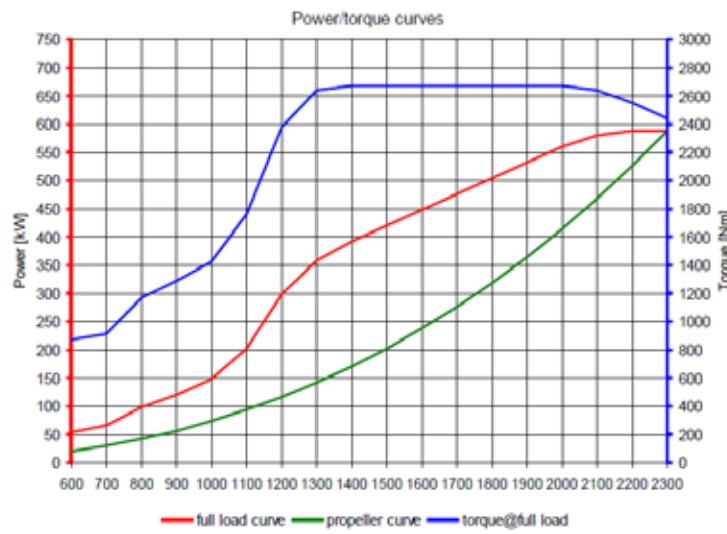
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 2) RCD 2013/53/EC, 97/68/EC
Cylinders	6
Displacement	[lt]
Maximum torque	[Nm]
Absolute fuel consumption	[lt/h]
Classification	-

## DIMENSIONS AND WEIGHT



Dimensions (mm)    A=986    B=1795    C=1096    D=674    E=1527    Weight=1215 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,5

Engine specifications are subjected to change without notice



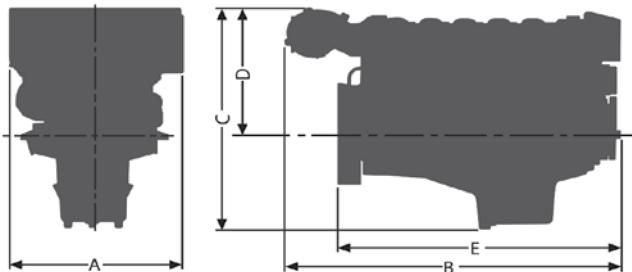
**Power (kw/CV)**  
625/850

**Speed (min.<sup>-1</sup>)**  
2300

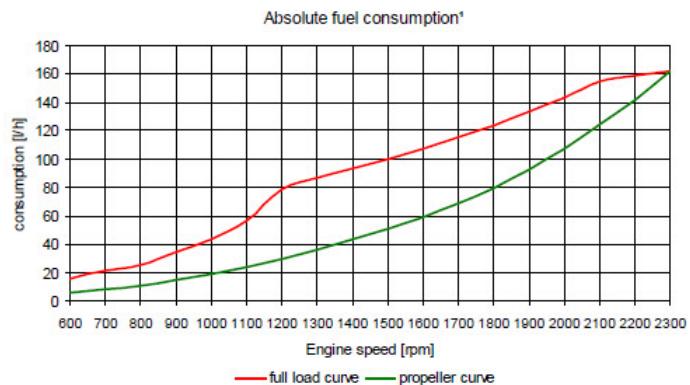
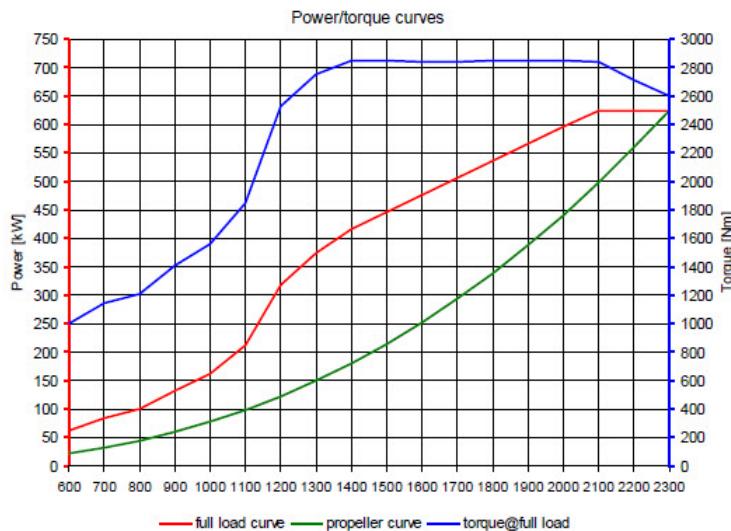
## TECHNICAL SPECIFICATIONS

Injection	Common Rail	
Exhaust status	IMO Tier 2, EU Stage IIIA - Epa Tier III	
Cylinders	6	
Displacement	[lt]	12,42
Maximum torque	[Nm]	2845
Absolute fuel consumption	[lt/h]	162
Classification	-	

## DIMENSIONS AND WEIGHT



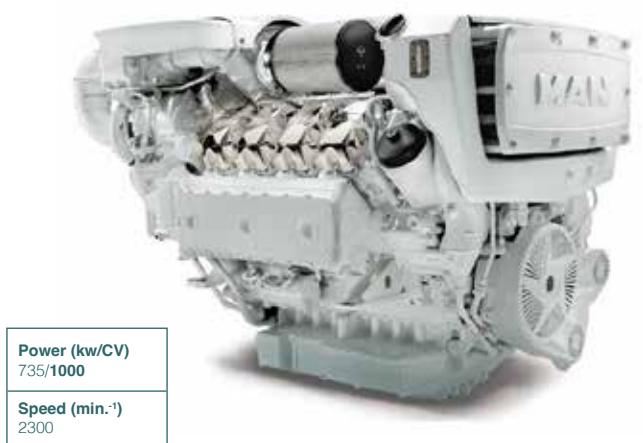
Dimensions (mm)   A=986   B=1795   C=1096   D=674   E=1527   Weight=1215 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,5

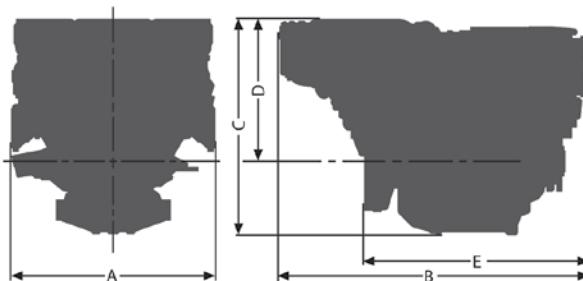
Engine specifications are subjected to change without notice



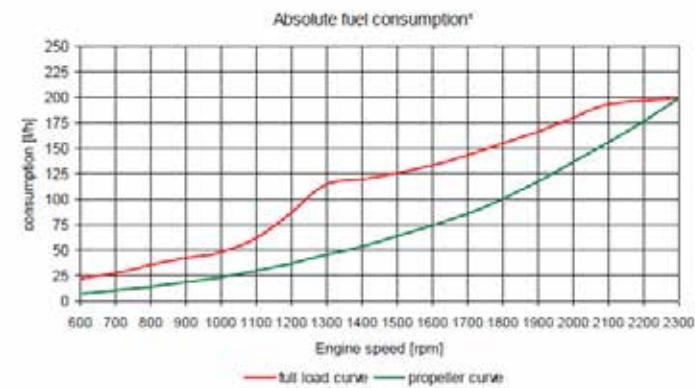
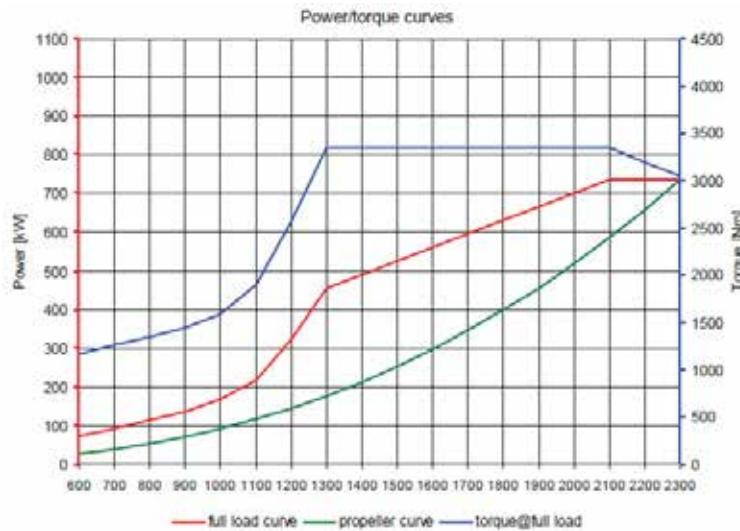
## TECHNICAL SPECIFICATIONS

Injection	Common Rail	
Exhaust status	IMO Tier 2, EPA Tier 3 2) RCD 2013/53/EC, 97/68/EC	
Cylinders	8	
Displacement	[l]	16,16
Maximum torque	[Nm]	3350
Absolute fuel consumption	[l/h]	195
Classification	si	

## DIMENSIONS AND WEIGHT



Dimensions (mm)   A=1153   B=1745   C=1236   D=825   E=1243   Weight=1780 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,5

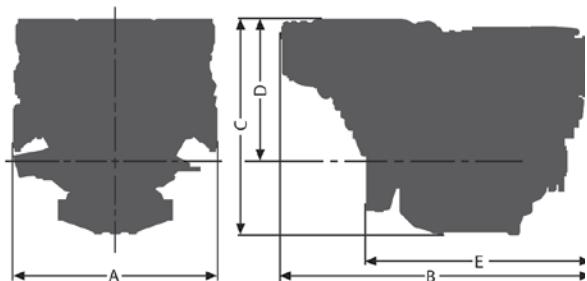
Engine specifications are subjected to change without notice



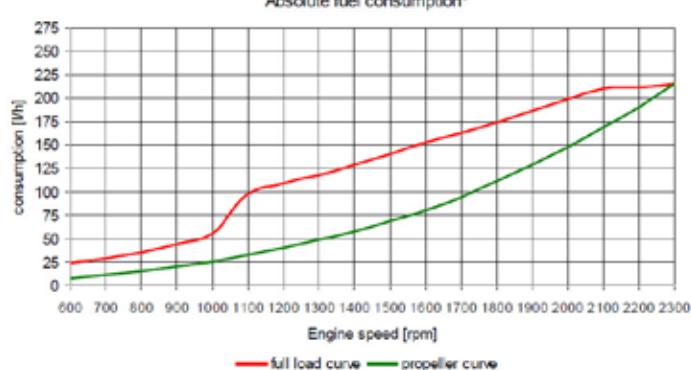
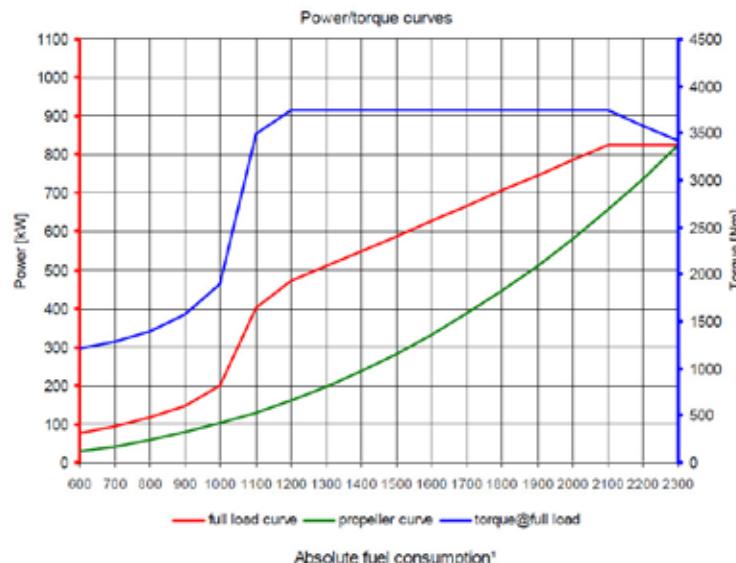
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 2) RCD 2013/53/EC, 97/68/EC
Cylinders	8
Displacement	[l]
Maximum torque	[Nm]
Absolute fuel consumption	[l/h]
Classification	si

## DIMENSIONS AND WEIGHT



Dimensions (mm) A=1153 B=1745 C=1222 D=811 E=1262 Weight=1941 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,5

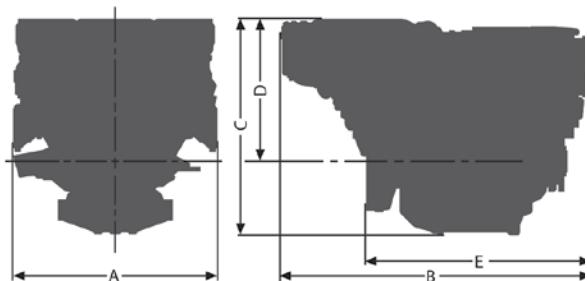
Engine specifications are subjected to change without notice



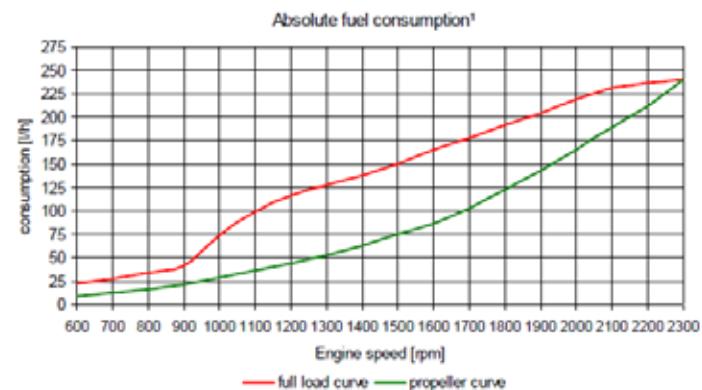
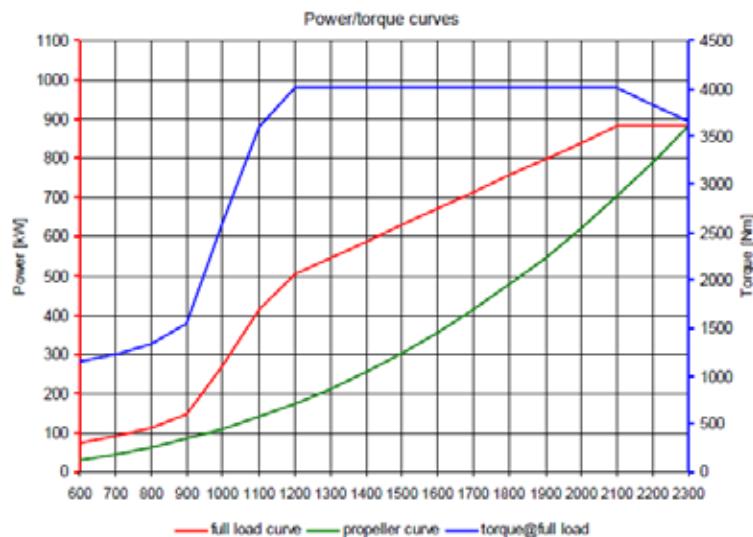
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3.2 RCD 2013/53/EC, 97/68/EC
Cylinders	8
Displacement	[lt]
Maximum torque	[Nm]
Absolute fuel consumption	[lt/h]
Classification	si

## DIMENSIONS AND WEIGHT



Dimensions (mm)    A=1153    B=1736    C=1222    D=811    E=1262    Weight=1875 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,5

Engine specifications are subjected to change without notice

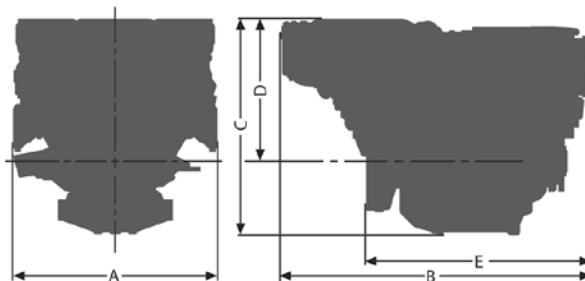


<b>Power (kw/CV)</b>
956/1300
<b>Speed (min.<sup>-1</sup>)</b>
2300

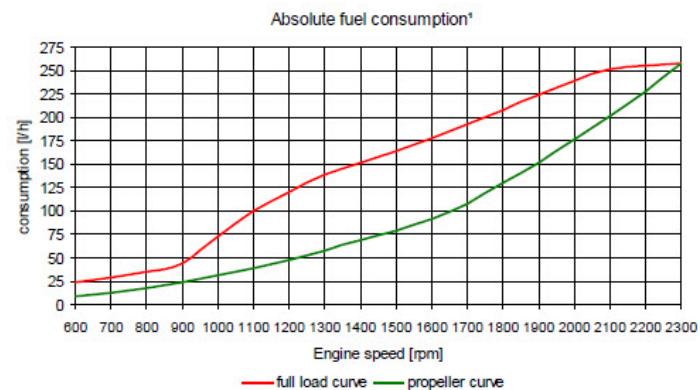
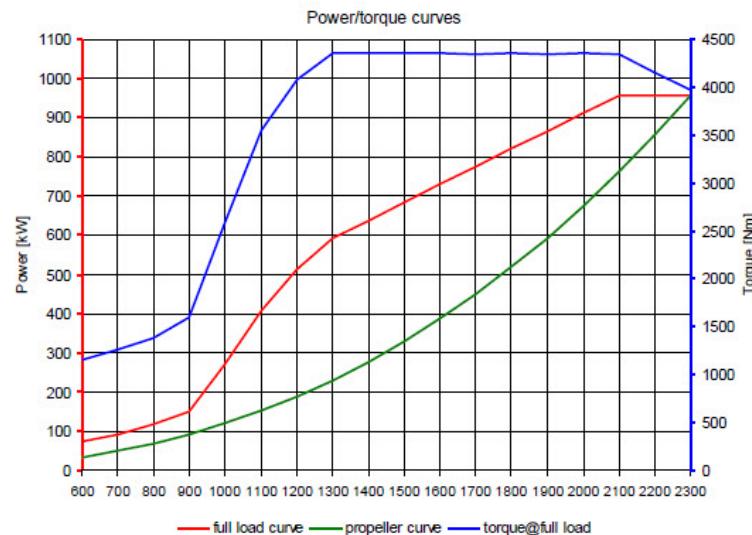
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 2) RCD 2013/53/EC, ,EU Stage IIIA
Cylinders	8
Displacement	[lt]
	16,16
Maximum torque	[Nm]
	4350
Absolute fuel consumption	[lt/h]
	257
Classification	si

## DIMENSIONS AND WEIGHT



Dimensions (mm)    A=1153    B=1736    C=1222    D=811    E=1262    Weight=1941 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,5

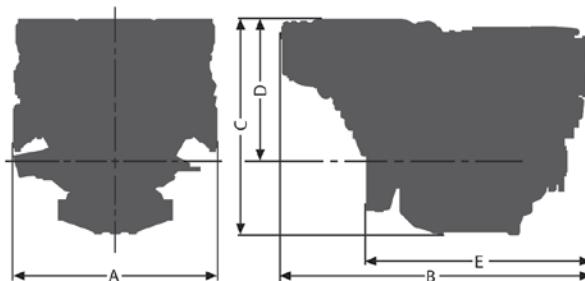
Engine specifications are subjected to change without notice



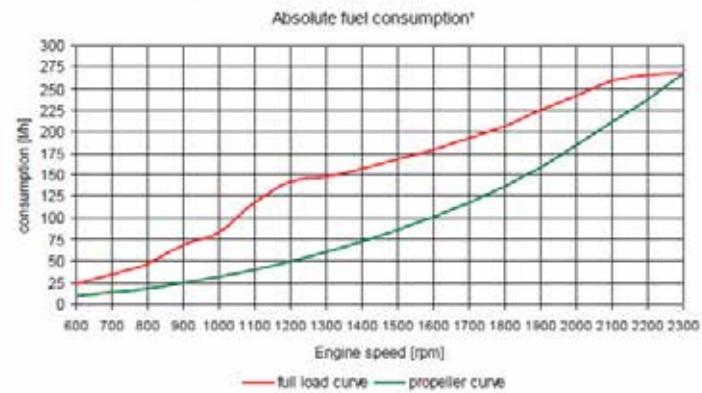
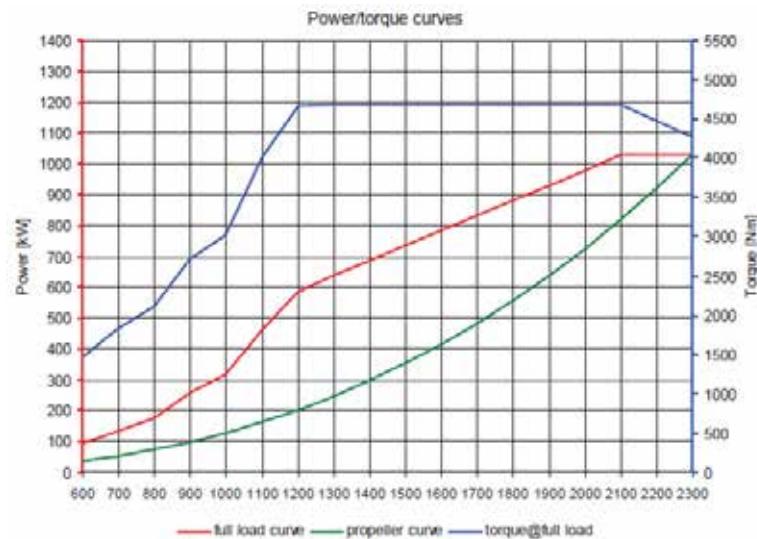
#### TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 (2) RCD 2013/53/EC, 97/68/EC
Cylinders	12
Displacement	[lt]
Maximum torque	[Nm]
Absolute fuel consumption	[lt/h]
Classification	si

#### DIMENSIONS AND WEIGHT



Dimensions (mm)   A=1153   B=2130   C=1230   D=765   E=1630   Weight=2270 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,5

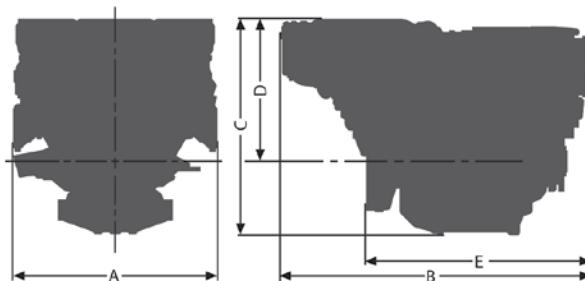
Engine specifications are subjected to change without notice



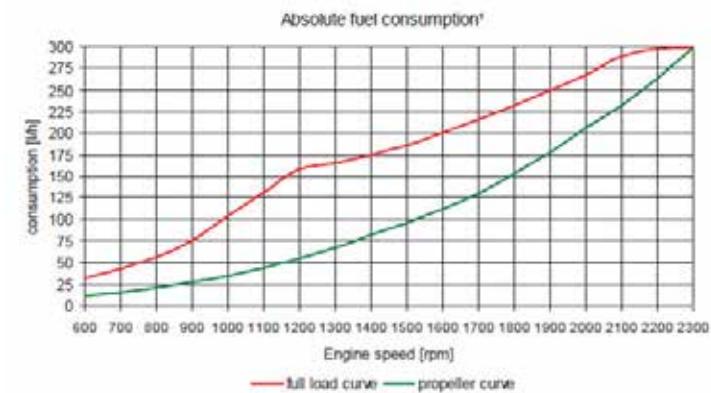
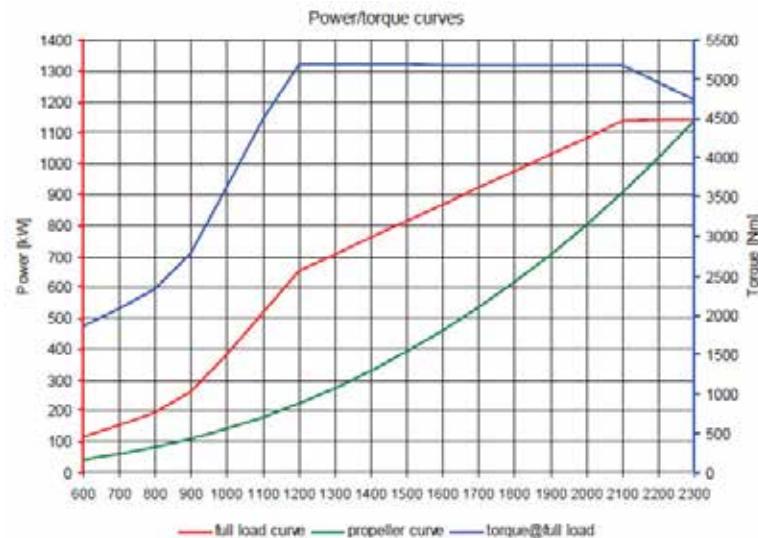
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 2) RCD 2013/53/EC, 97/68/EC
Cylinders	12
Displacement	[lt]
Maximum torque	[Nm]
Absolute fuel consumption	[lt/h]
Classification	-

## DIMENSIONS AND WEIGHT



Dimensions (mm)   A=1153   B=2130   C=1230   D=765   E=1630   Weight=2270 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,5

Engine specifications are subjected to change without notice

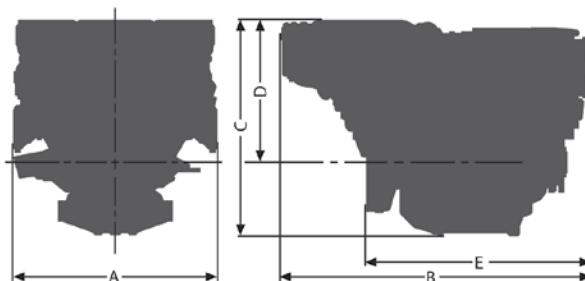


<b>Power (kw/CV)</b>
1213/1650
<b>Speed (min.<sup>-1</sup>)</b>
2300

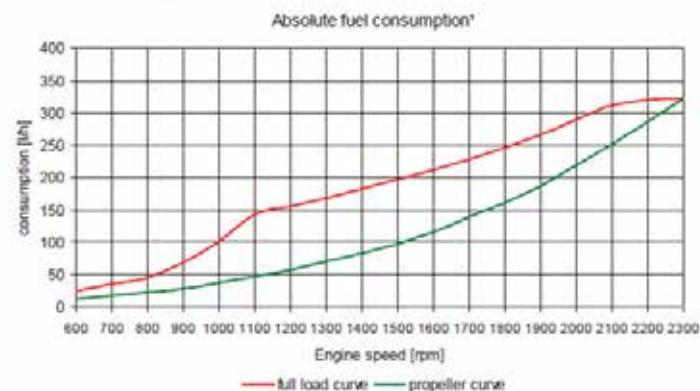
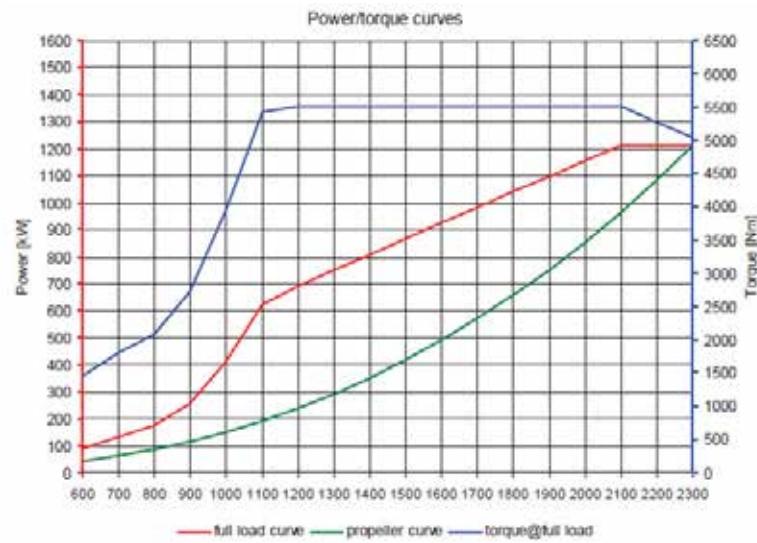
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 2) RCD 2013/53/EC, 97/68/EC
Cylinders	12
Displacement	[lt]
Maximum torque	24,24
Absolute fuel consumption	[lt/h]
Classification	5510
	315
	si

## DIMENSIONS AND WEIGHT



Dimensions (mm)   A=1153   B=2139   C=1272   D=808   E=1658   Weight=2365 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,5

Engine specifications are subject to change without notice

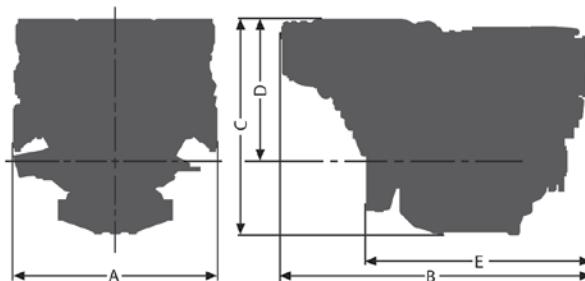


<b>Power (kw/CV)</b>
1324/1800
<b>Speed (min.<sup>-1</sup>)</b>
2300

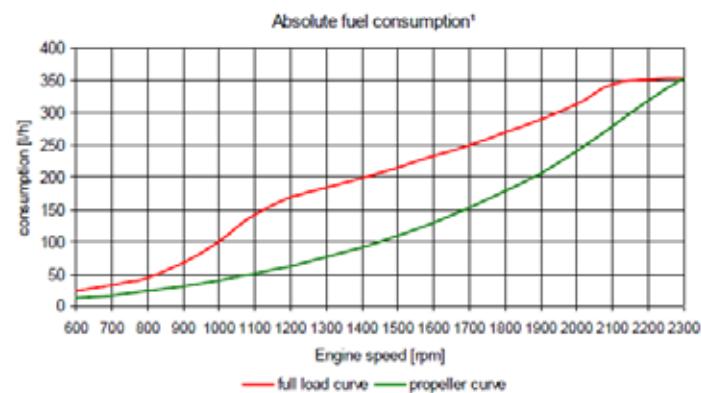
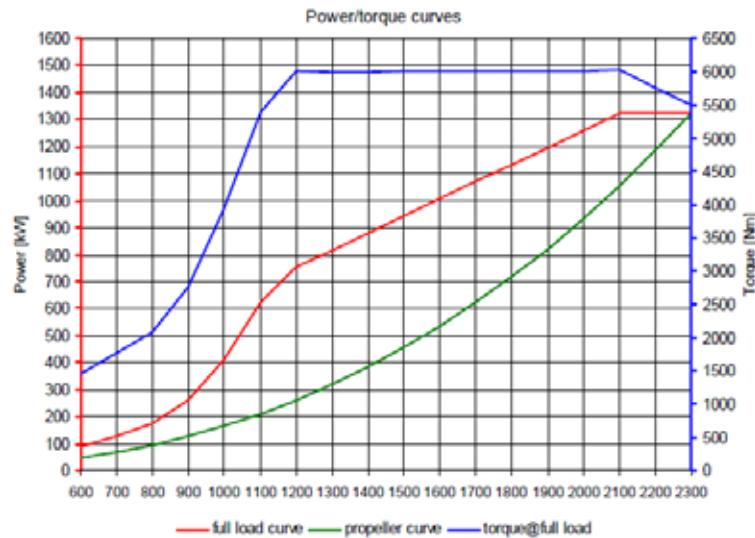
#### TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 2) RCD 2013/53/EC, 97/68/EC
Cylinders	12
Displacement	[lt]
Maximum torque	24,24
Absolute fuel consumption	[lt/h]
Classification	6020
	335
	si

#### DIMENSIONS AND WEIGHT



Dimensions (mm)   A=1153   B=2139   C=1272   D=808   E=1658   Weight=2365 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,5

Engine specifications are subjected to change without notice



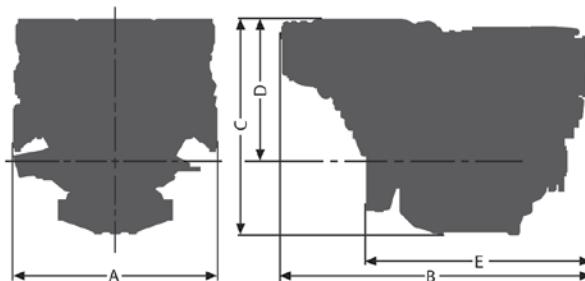
Power (kw/CV)  
1397/1900

Speed (min.<sup>-1</sup>)  
2300

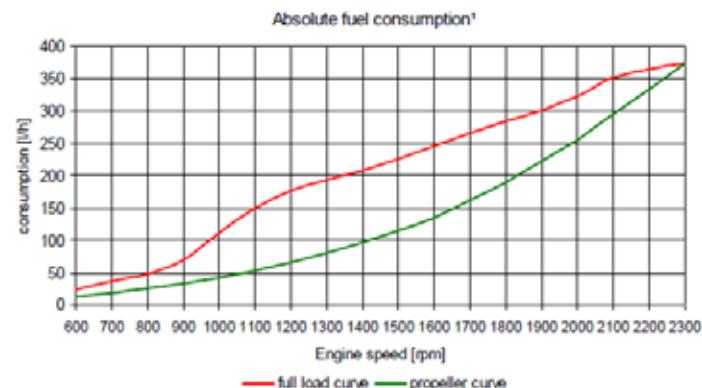
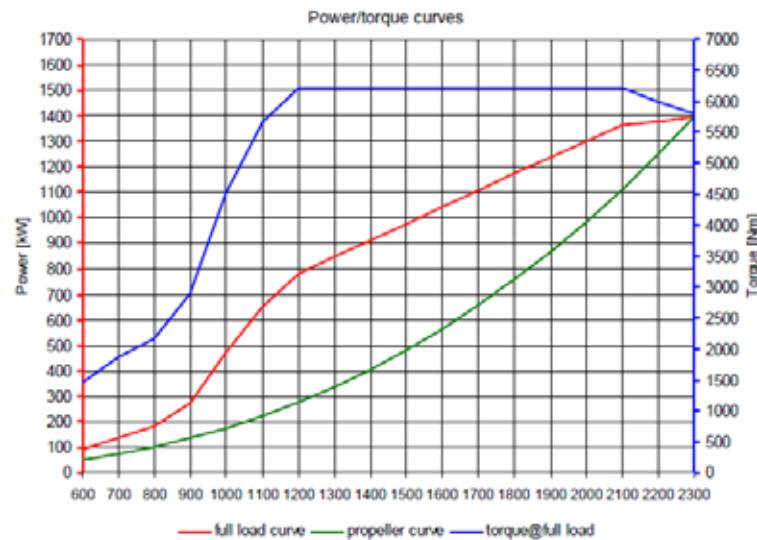
#### TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 2) RCD 2013/53/EC, 97/68/EC
Cylinders	12
Displacement	[lt]
Maximum torque	[Nm]
Absolute fuel consumption	[lt/h]
Classification	-

#### DIMENSIONS AND WEIGHT



Dimensions (mm) A=1153 B=2139 C=1272 D=808 E=1658 Weight=2380 Kg



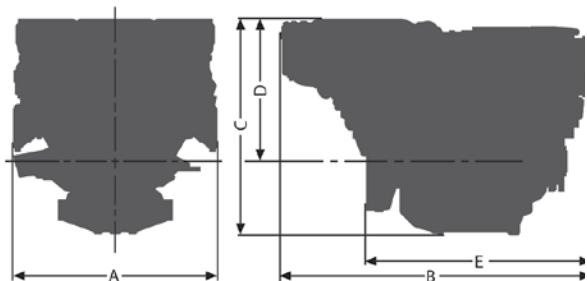
The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)  
Exponent for propeller curve 2,5  
Engine specifications are subjected to change without notice



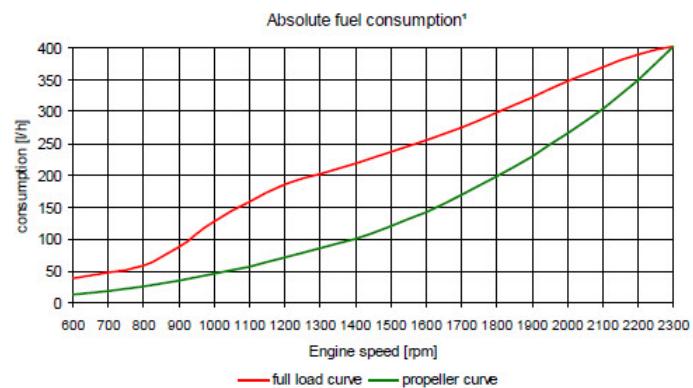
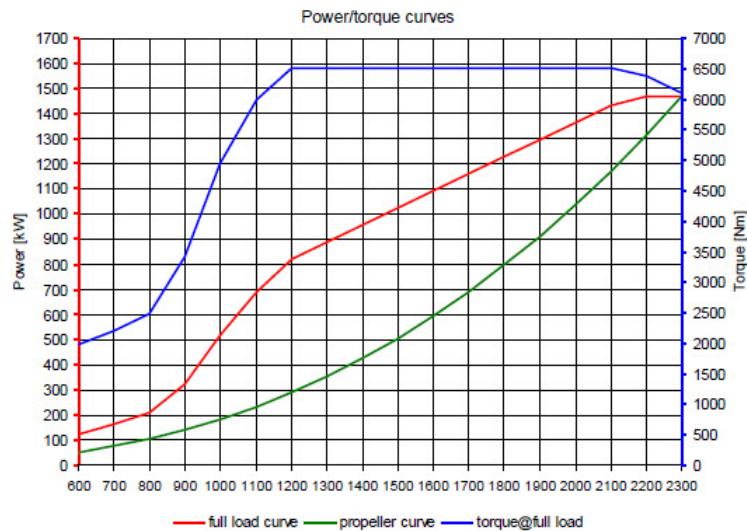
#### TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 2) RCD 2013/53/EC, EU Stage IIIA
Cylinders	12
Displacement	[lt]
Maximum torque	[Nm]
Absolute fuel consumption	[lt/h]
Classification	-

#### DIMENSIONS AND WEIGHT



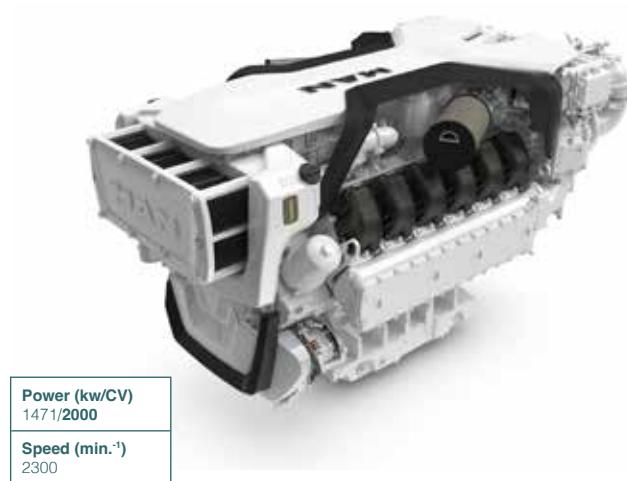
Dimensions (mm) A=1153 B=2139 C=1272 D=808 E=1658 Weight=2420 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,5

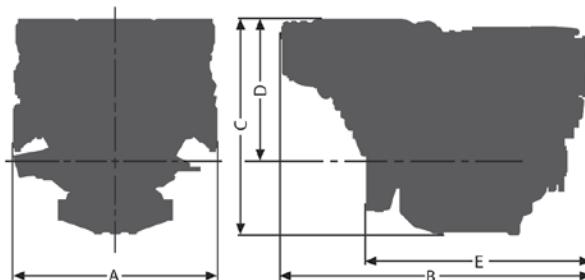
Engine specifications are subjected to change without notice



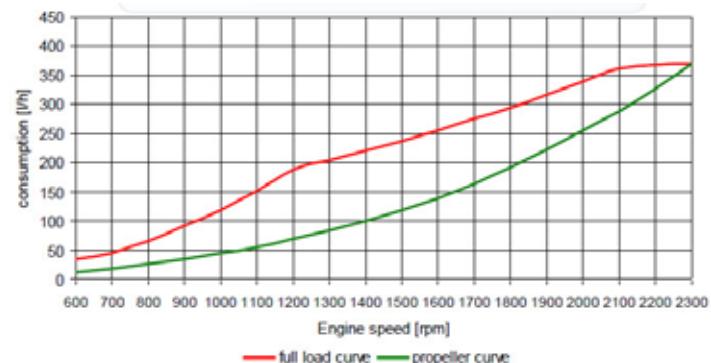
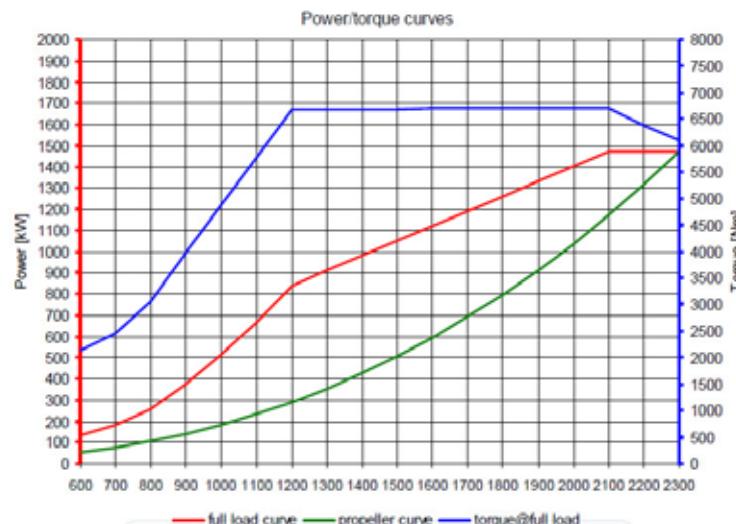
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 RCD 2013/53/EC
Cylinders	12
Displacement [lt]	29,62
Maximum torque [Nm]	6689
Absolute fuel consumption [lt/h]	370
Classification	-

## DIMENSIONS AND WEIGHT



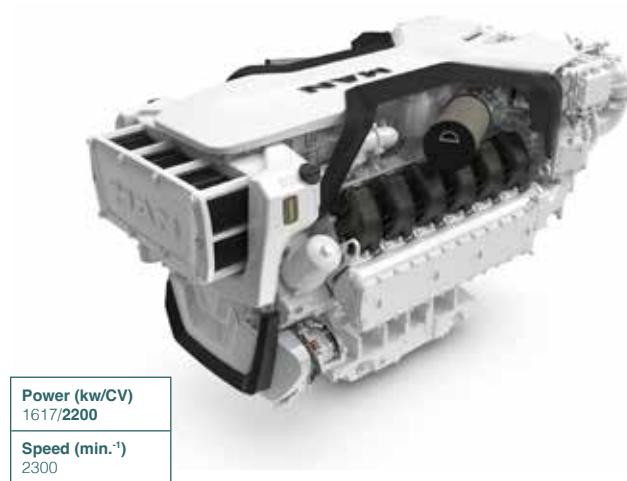
Dimensions (mm) A=1157 B=2374 C=1328 D=863 E=1792 Weight=2700 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,5

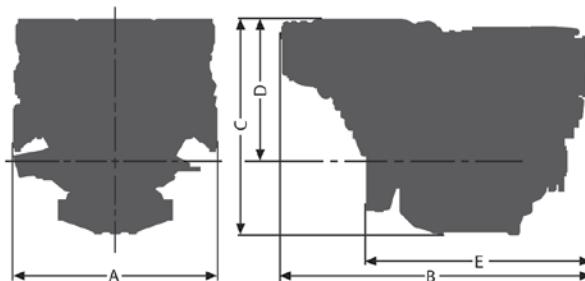
Engine specifications are subjected to change without notice



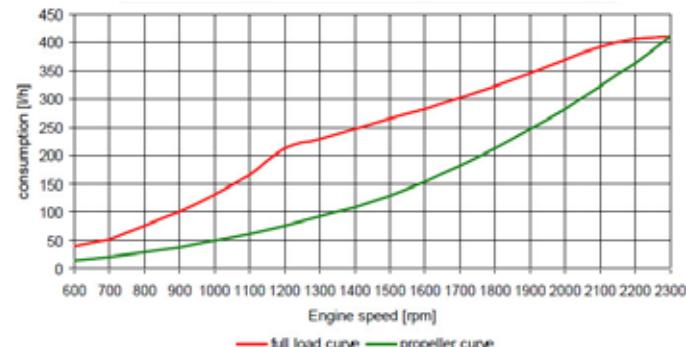
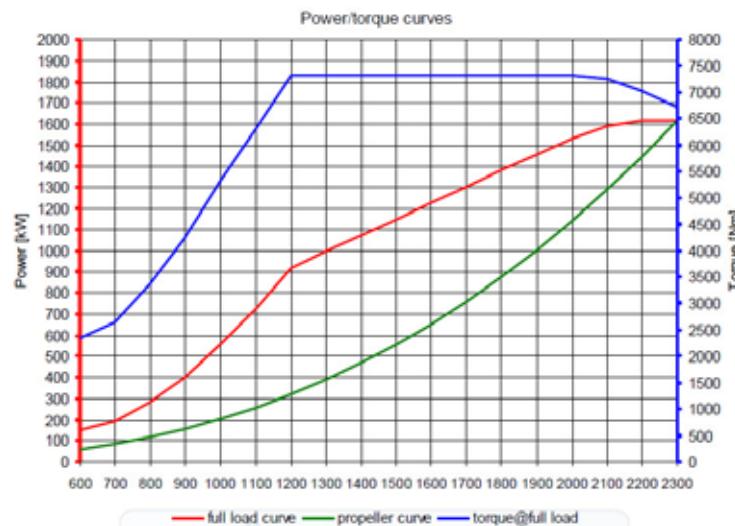
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 RCD 2013/53/EC
Cylinders	12
Displacement	[lt]
Maximum torque	[Nm]
Absolute fuel consumption	[lt/h]
Classification	-

## DIMENSIONS AND WEIGHT



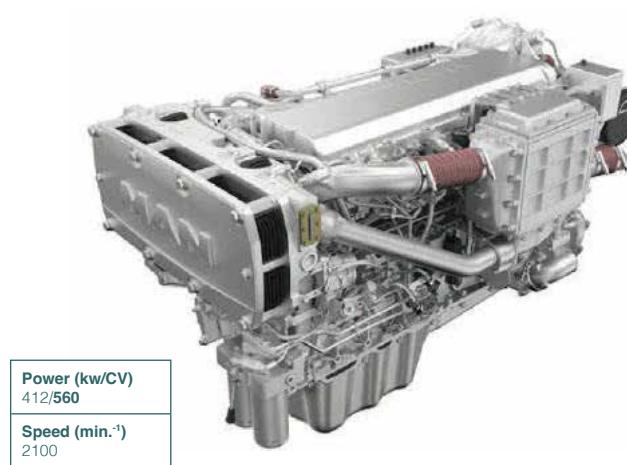
Dimensions (mm) A=1157 B=2374 C=1328 D=863 E=1792 Weight=2700 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,5

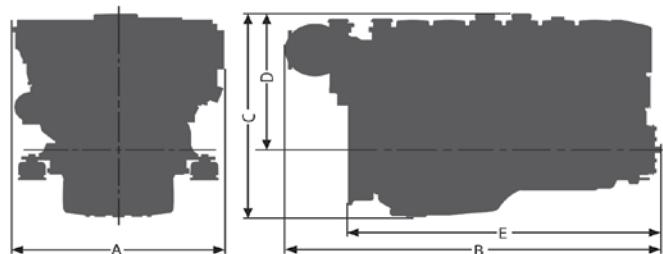
Engine specifications are subjected to change without notice



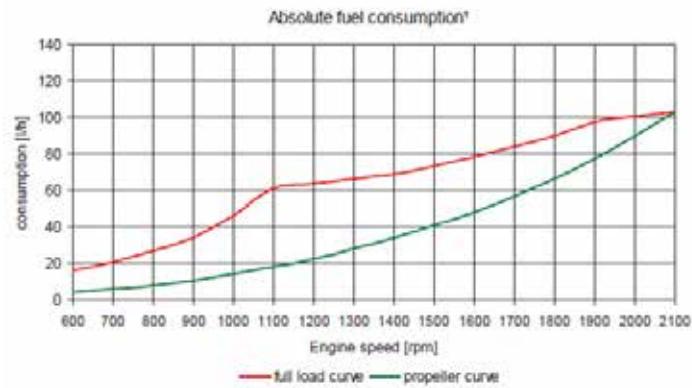
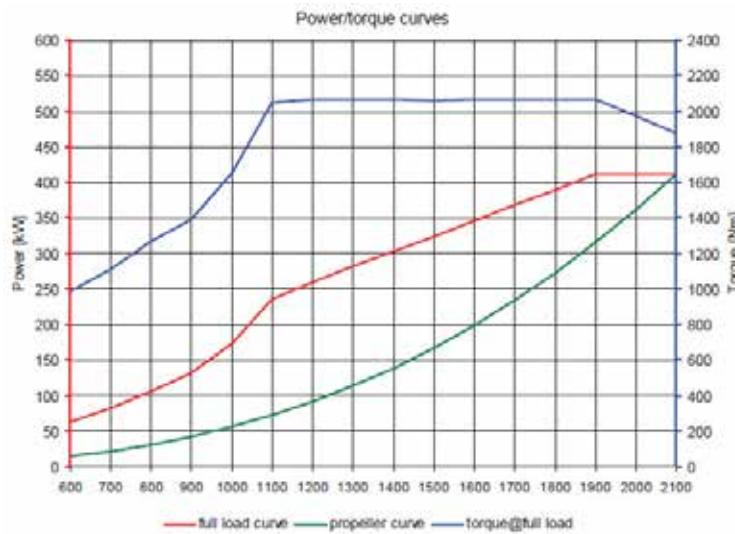
## TECHNICAL SPECIFICATIONS

Injection	Common Rail	
Exhaust status	IMO Tier 2, 97/68/EC, 97/68/EC	
Cylinders	6	
Displacement	[lt]	12,42
Maximum torque	[Nm]	2065
Absolute fuel consumption	[lt/h]	105
Classification	si	

## DIMENSIONS AND WEIGHT



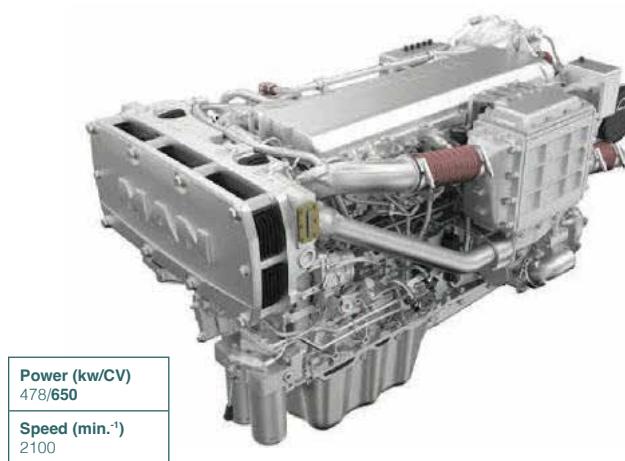
Dimensions (mm) A=986 B=1796 C=1096 D=674 E=1527 Weight=1215 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,7

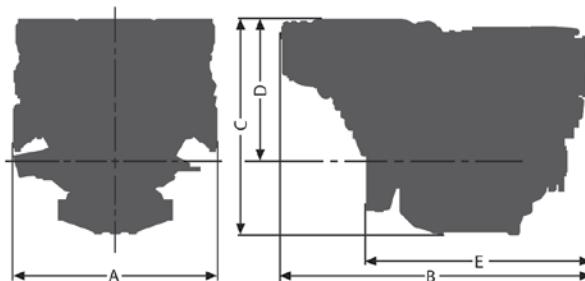
Engine specifications are subject to change without notice



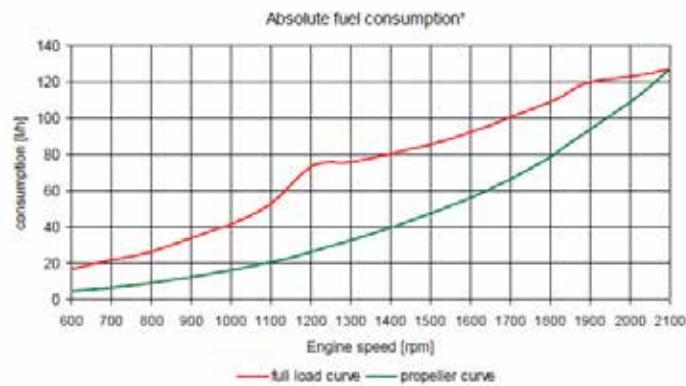
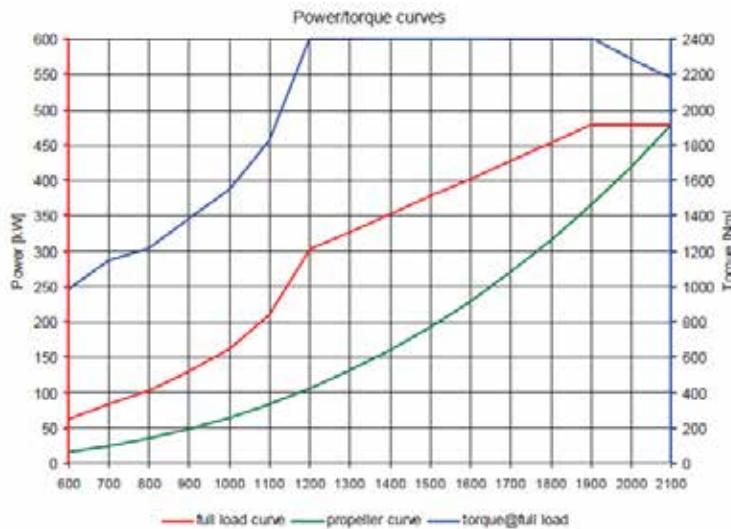
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 2) RCD 2013/53/EC 97/68/EC
Cylinders	6
Displacement	[l]
Maximum torque	[Nm]
Absolute fuel consumption	[l/h]
Classification	si

## DIMENSIONS AND WEIGHT



Dimensions (mm)   A=986   B=1795   C=1096   D=674   E=1527   Weight=1215 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,7

Engine specifications are subjected to change without notice



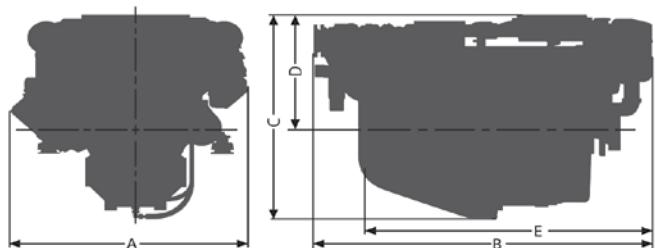
Power (kw/CV)  
588/800

Speed (min.<sup>-1</sup>)  
2100

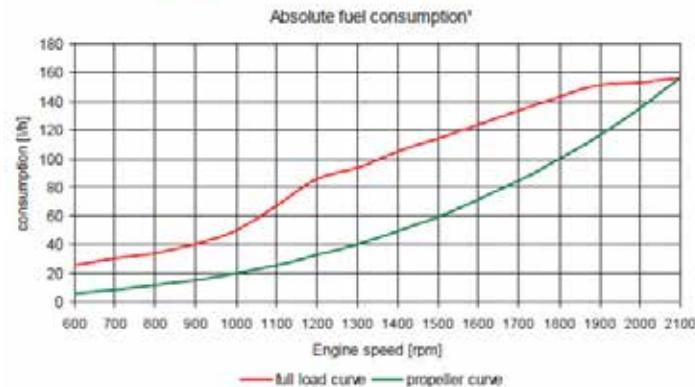
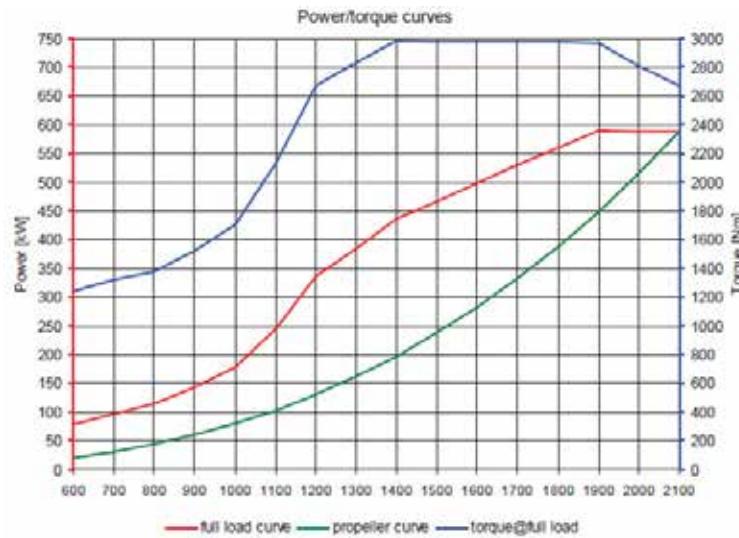
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 RCD 2013/53/EC, 97/68/EC
Cylinders	8
Displacement	[lt]
Maximum torque	[Nm]
Absolute fuel consumption	[lt/h]
Classification	si

## DIMENSIONS AND WEIGHT



Dimensions (mm)   A=1153   B=1745   C=1177   D=765   E=1243   Weight=1780 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,7

Engine specifications are subjected to change without notice

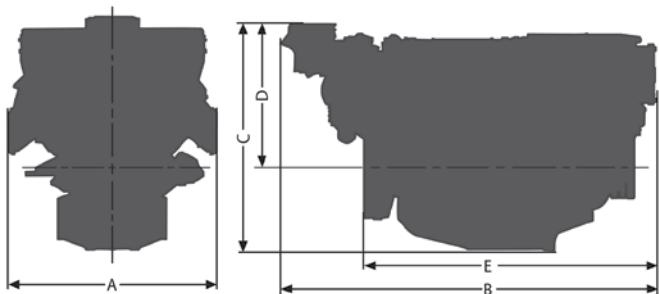


Power (kw/CV)  
662/900  
Speed (min.<sup>-1</sup>)  
2100

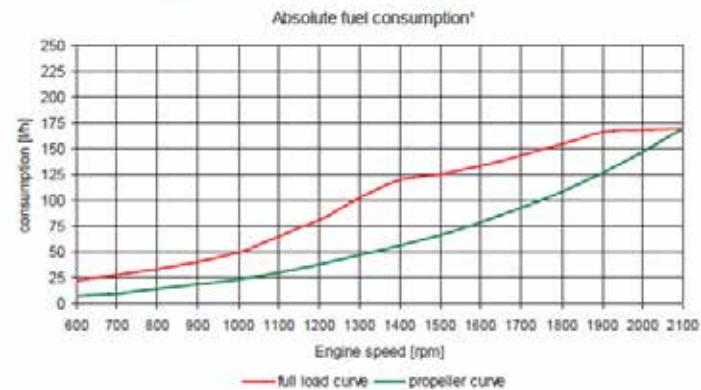
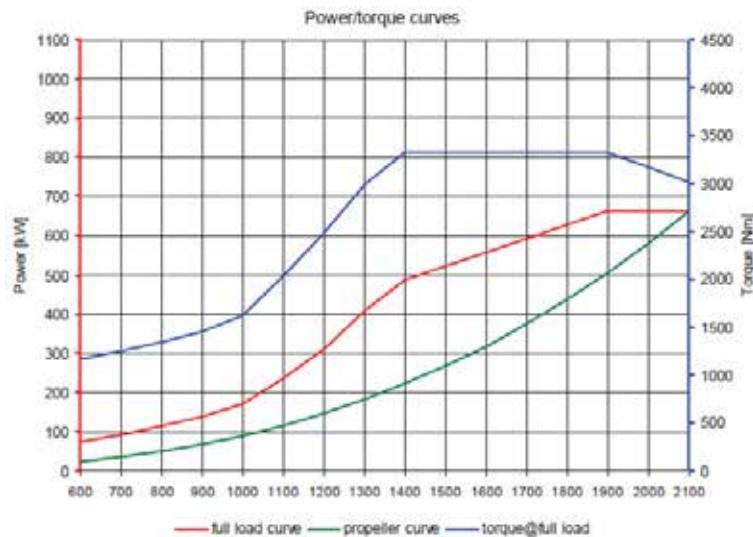
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 RCD 2013/53/EC, 97/68/EC
Cylinders	8
Displacement [lt]	16,16
Maximum torque [Nm]	3325
Absolute fuel consumption [lt/h]	169
Classification	si

## DIMENSIONS AND WEIGHT



Dimensions (mm) A=1153 B=1745 C=1177 D=765 E=1243 Weight=1780 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,7

Engine specifications are subject to change without notice

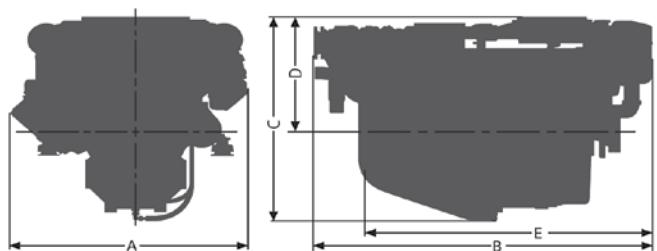


<b>Power (kw/CV)</b>
749/1019
<b>Speed (min.<sup>-1</sup>)</b>
2100

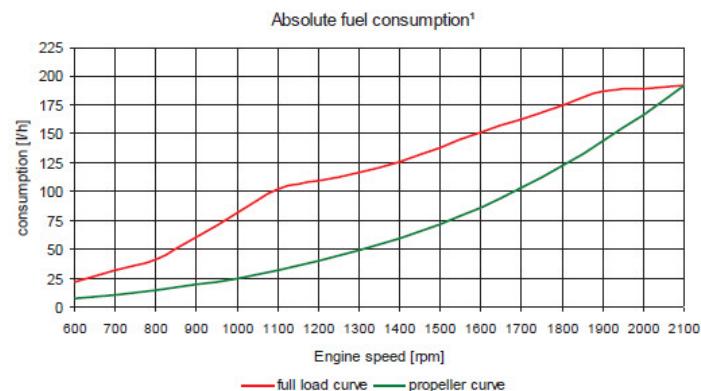
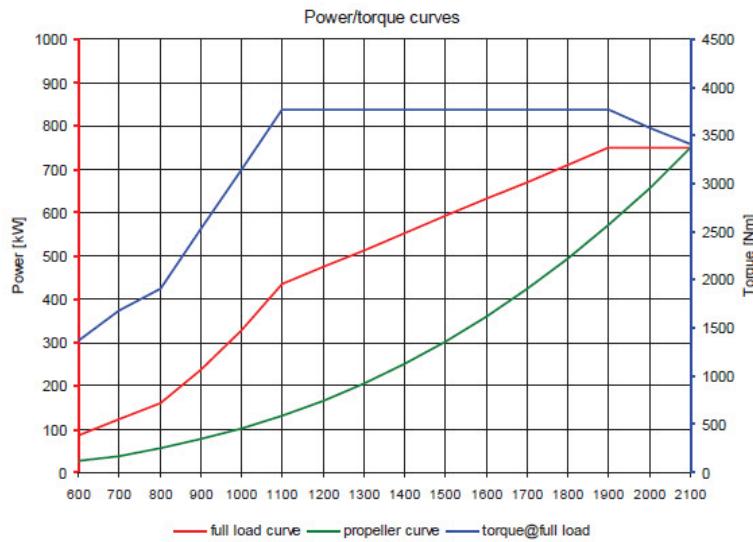
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 RCD 2013/53/EC 97/68/EC
Cylinders	12
Displacement	[lt]
Maximum torque	[Nm]
Absolute fuel consumption	[lt/h]
Classification	si

## DIMENSIONS AND WEIGHT



Dimensions (mm) A=1153 B=2130 C=1230 D=765 E=1630 Weight=2270 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,7

Engine specifications are subjected to change without notice

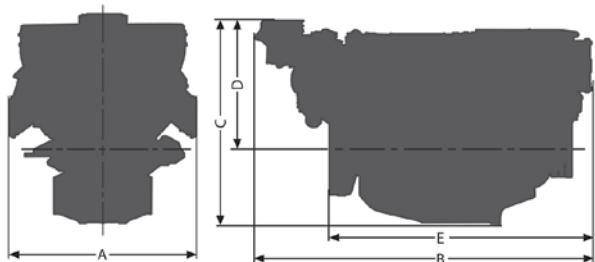


<b>Power (kw/CV)</b>
882/1200
<b>Speed (min.<sup>-1</sup>)</b>
2100

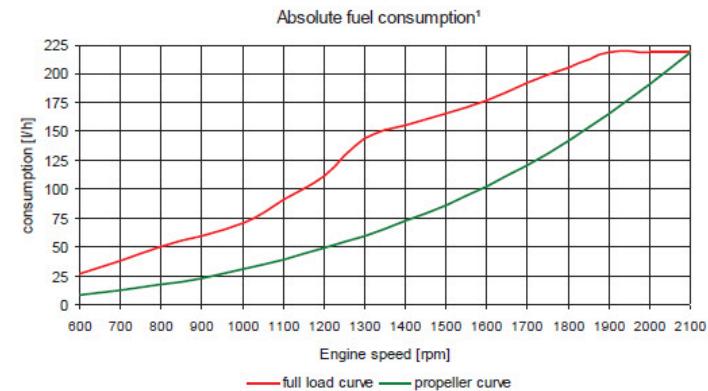
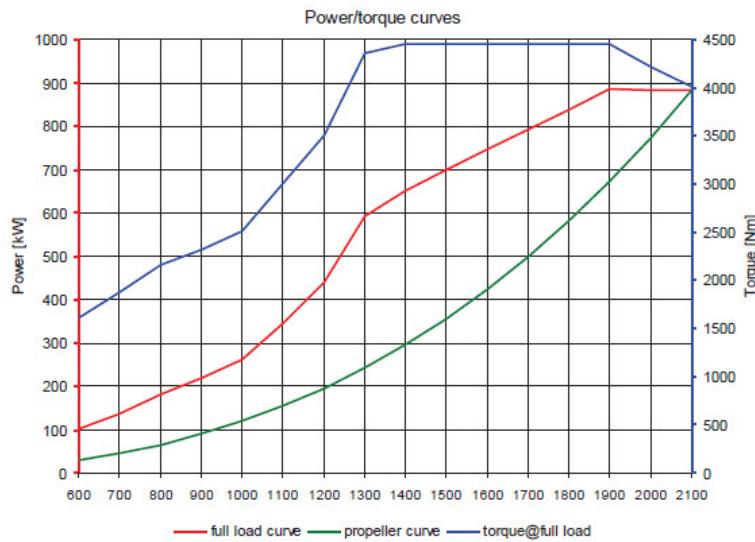
#### TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 RCD 2013/53/EC 97/68/EC
Cylinders	12
Displacement	[lt]
Maximum torque	[Nm]
Absolute fuel consumption	[lt/h]
Classification	si

#### DIMENSIONS AND WEIGHT



Dimensions (mm)   A=1153   B=2130   C=1230   D=765   E=1630   Weight=2270 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,7

Engine specifications are subject to change without notice

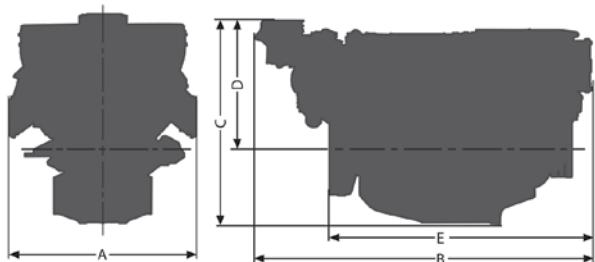


<b>Power (kw/CV)</b>
1029/1400
<b>Speed (min.<sup>-1</sup>)</b>
2100

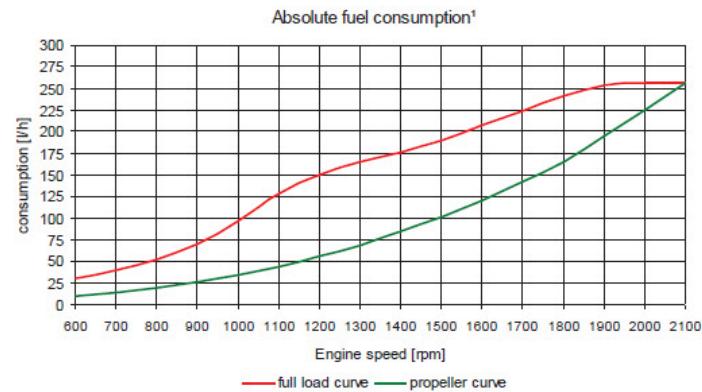
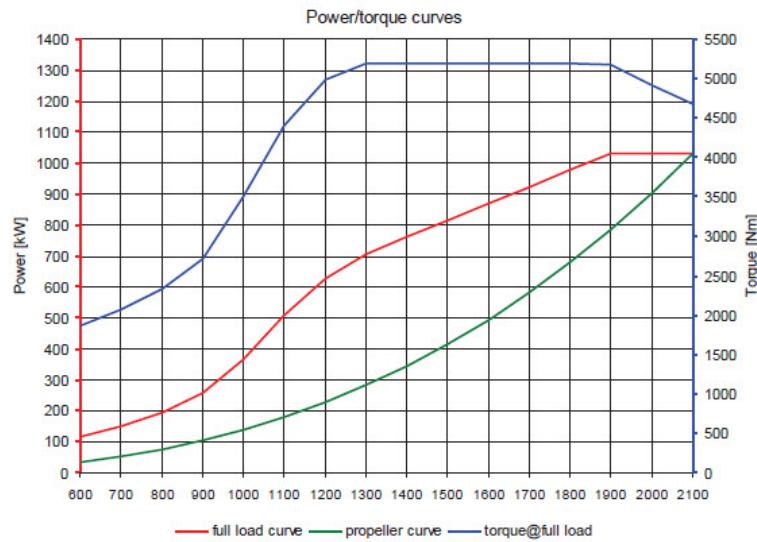
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 RCD 2013/53/EC 97/68/EC
Cylinders	12
Displacement	[l]
Maximum torque	[Nm]
Absolute fuel consumption	[l/h]
Classification	si

## DIMENSIONS AND WEIGHT



Dimensions (mm)   A=1153   B=2130   C=1230   D=765   E=1630   Weight=2270 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,7

Engine specifications are subjected to change without notice

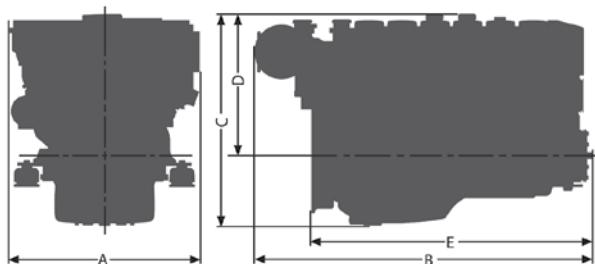


Power (kw/CV)	1066/1450
Speed (min. <sup>-1</sup> )	2100

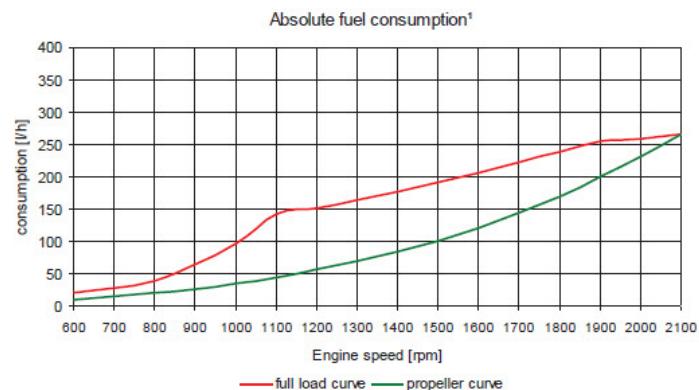
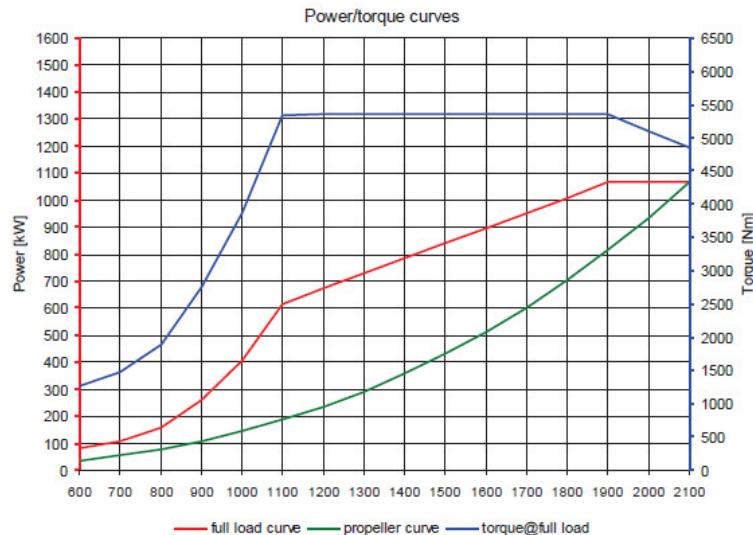
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 RCD 2013/53/EC, 97/68/EC
Cylinders	12
Displacement [lt]	24,4
Maximum torque [Nm]	5355
Absolute fuel consumption [lt/h]	265
Classification	si

## DIMENSIONS AND WEIGHT



Dimensions (mm) A=1153 B=2139 C=1272 D=808 E=1658 Weight=2365 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,7

Engine specifications are subjected to change without notice

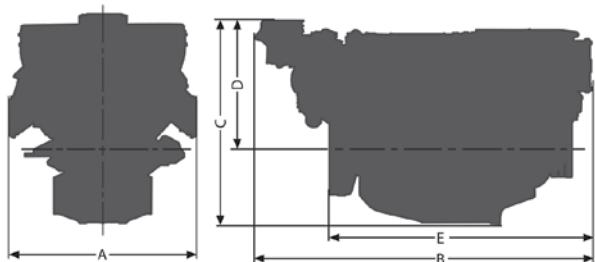


<b>Power (kw/CV)</b>
1213/1650
<b>Speed (min.<sup>-1</sup>)</b>
2100

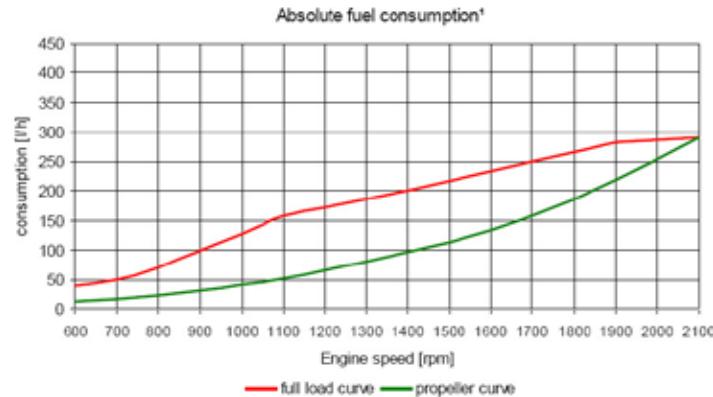
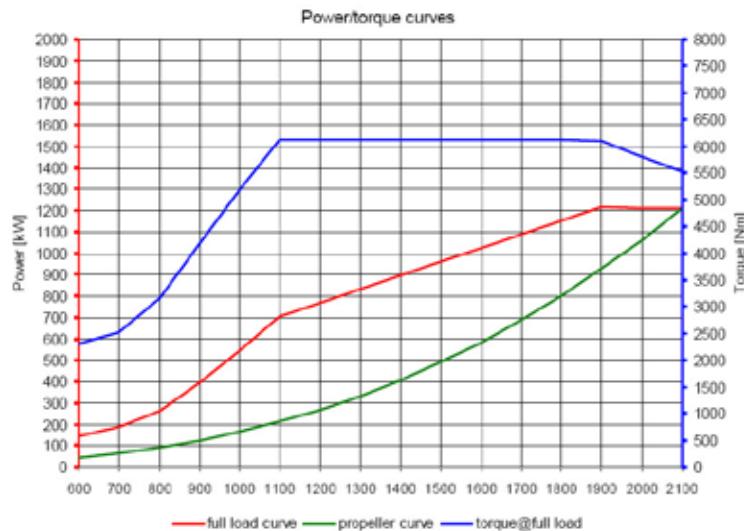
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 RCD 2013/53/EC,
Cylinders	12
Displacement [lt]	29,62
Maximum torque [Nm]	6120
Absolute fuel consumption [lt/h]	290
Classification	-

## DIMENSIONS AND WEIGHT



Dimensions (mm)   A=1157   B=2374   C=1328   D=863   E=1792   Weight=2700 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,7

Engine specifications are subjected to change without notice



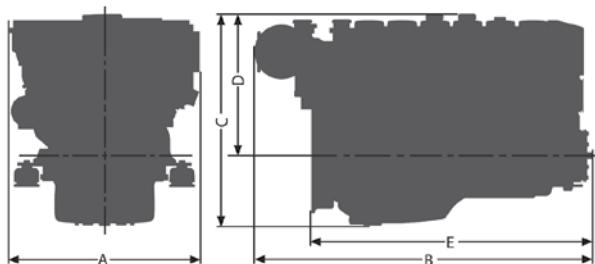
Power (kw/CV)  
290/394

Speed (min.<sup>-1</sup>)  
1800

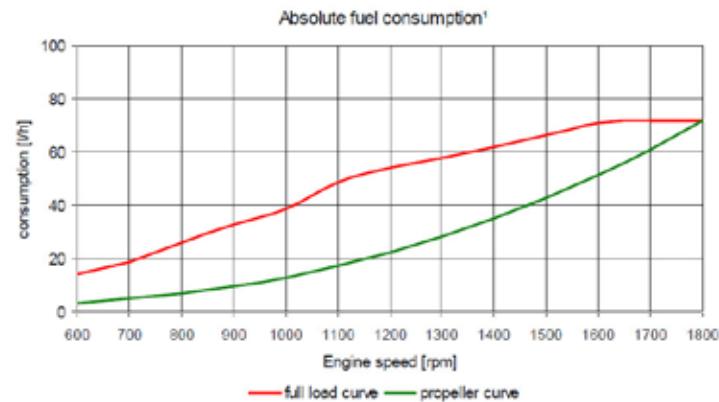
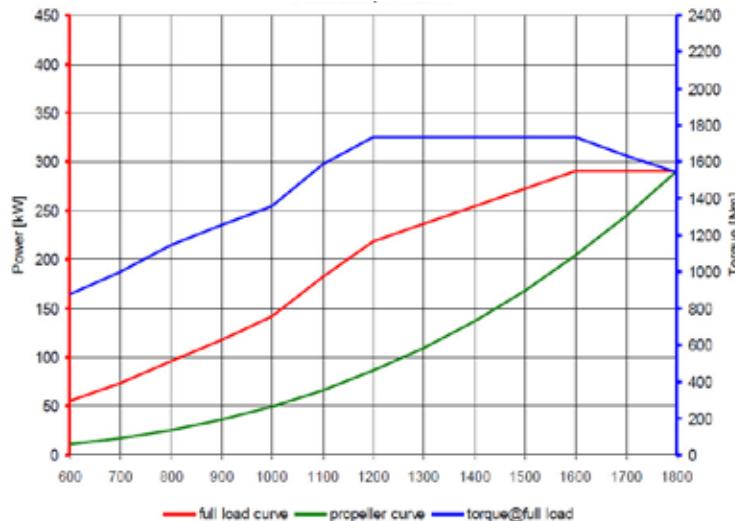
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 RCD 2013/53/EC, 97/68/EC
Cylinders	6
Displacement	[lt]
Maximum torque	12,42
Absolute fuel consumption	[Nm]
Classification	72
	si

## DIMENSIONS AND WEIGHT



Dimensions (mm) A=986 B=1795 C=1096 D=674 E=1527 Weight=1215 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,7

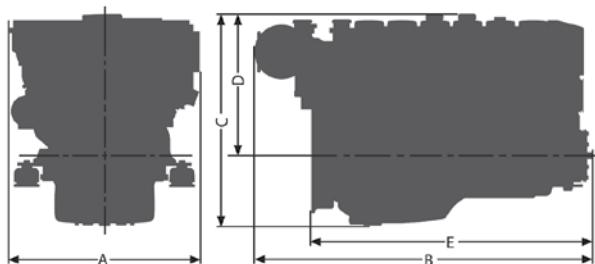
Engine specifications are subjected to change without notice



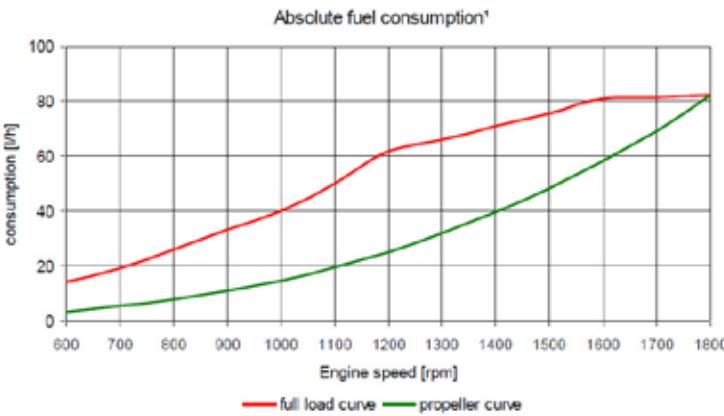
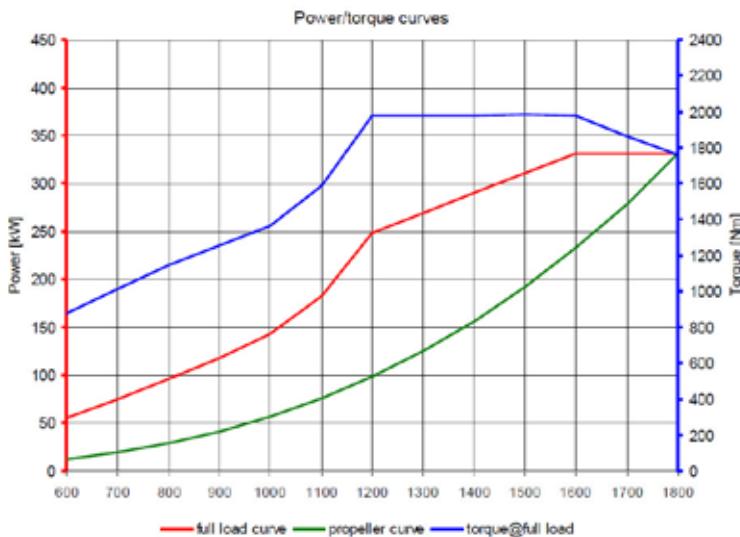
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 RCD 2013/53/EC, 97/68/EC
Cylinders	6
Displacement	[lt]
Maximum torque	[Nm]
Absolute fuel consumption	[lt/h]
Classification	si

## DIMENSIONS AND WEIGHT



Dimensions (mm) A=986 B=1795 C=1096 D=674 E=1527 Weight=1215 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,7

Engine specifications are subjected to change without notice



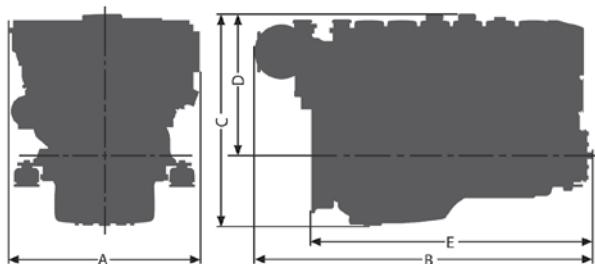
Power (kw/CV)  
368/500

Speed (min.<sup>-1</sup>)  
1800

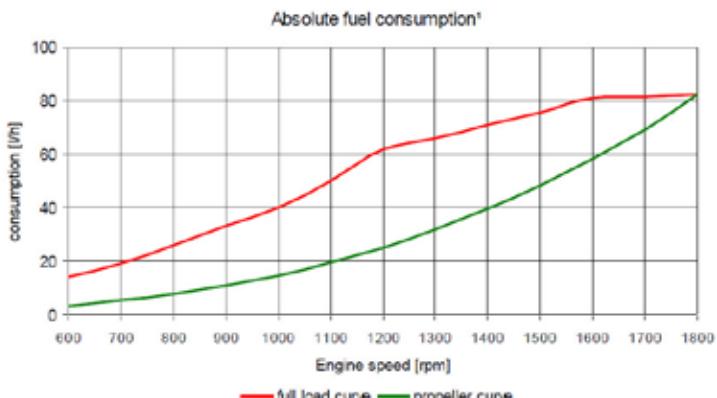
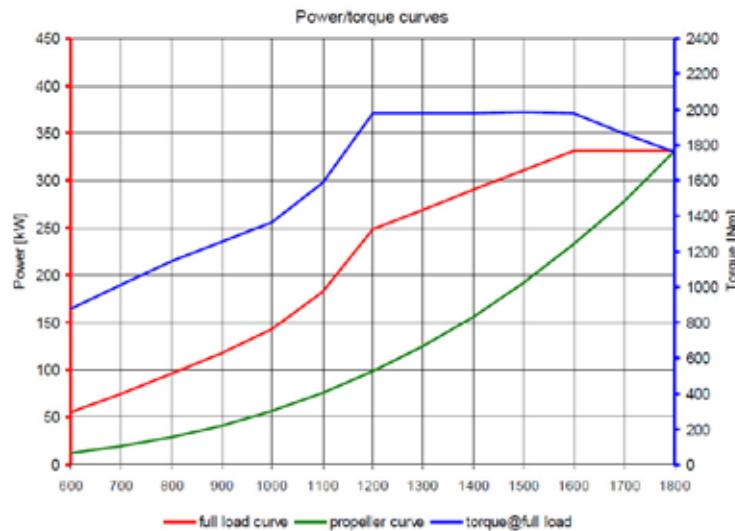
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 RCD 2013/53/EC, 97/68/EC
Cylinders	6
Displacement	[lt]
Maximum torque	[Nm]
Absolute fuel consumption	[lt/h]
Classification	si

## DIMENSIONS AND WEIGHT



Dimensions (mm) A=986 B=1795 C=1096 D=674 E=1527 Weight=1215 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 2,7

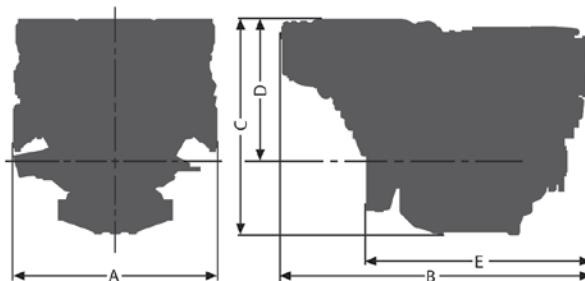
Engine specifications are subjected to change without notice



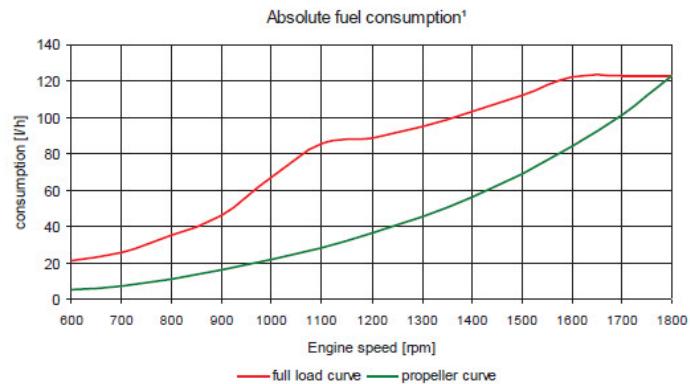
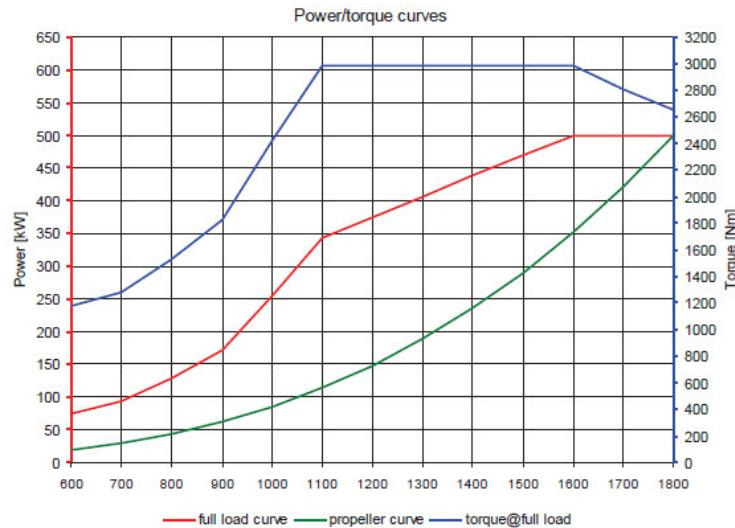
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, RCD 2013/53/EC, 97/68/EC
Cylinders	8
Displacement	[lt]
Maximum torque	[Nm]
Absolute fuel consumption	[lt/h]
Classification	si

## DIMENSIONS AND WEIGHT

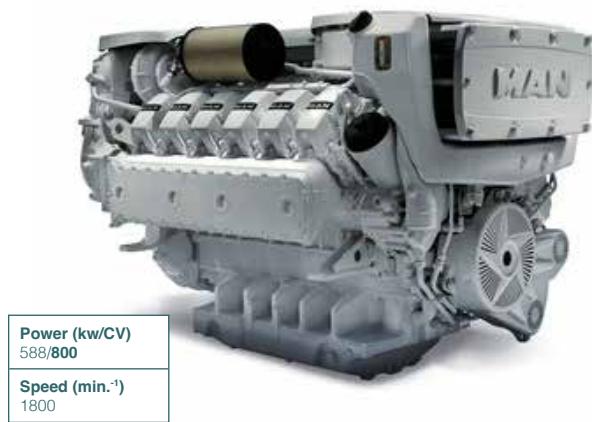


Dimensions (mm)   A=1153   B=1745   C=1177   D=765   E=1243   Weight=1780 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)  
Exponent for propeller curve 3 >

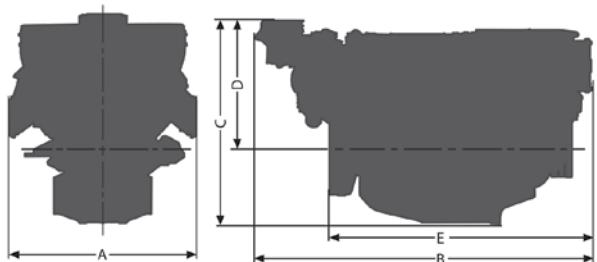
*Engine specifications are subjected to change without notice*



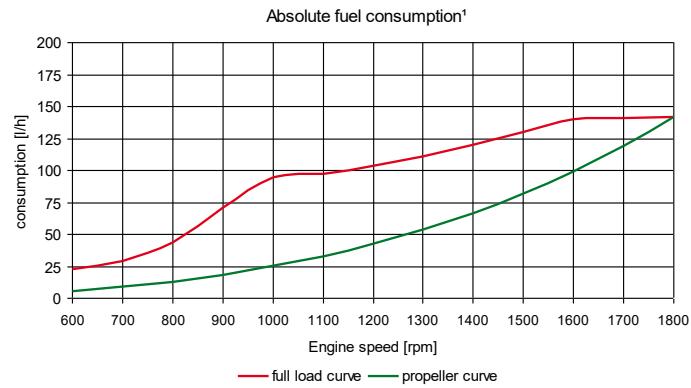
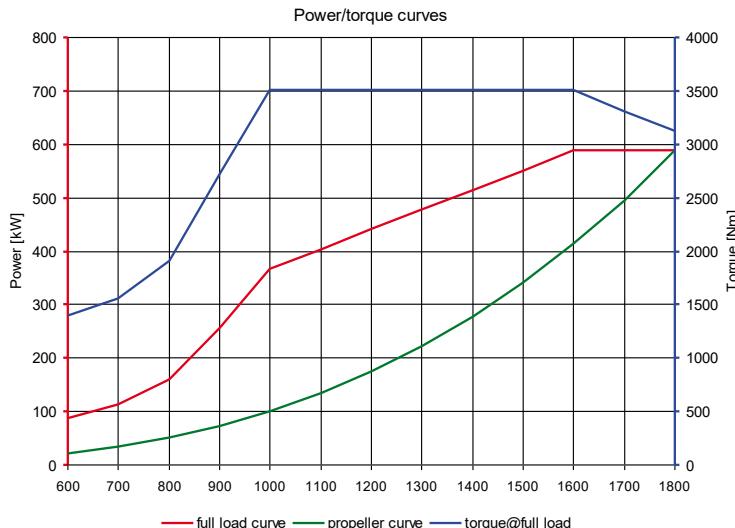
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3EU Stage RCD 2013/53/EC, IIIA
Cylinders	12
Displacement	[lt]
Maximum torque	[Nm]
Absolute fuel consumption	[lt/h]
Classification	si

## DIMENSIONS AND WEIGHT



Dimensions (mm) A=1153 B=2130 C=1230 D=765 E=1630 Weight=2270 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 3 >

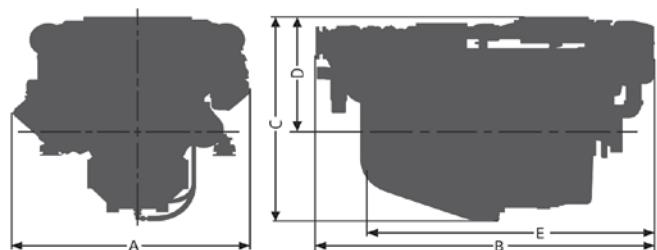
Engine specifications are subjected to change without notice



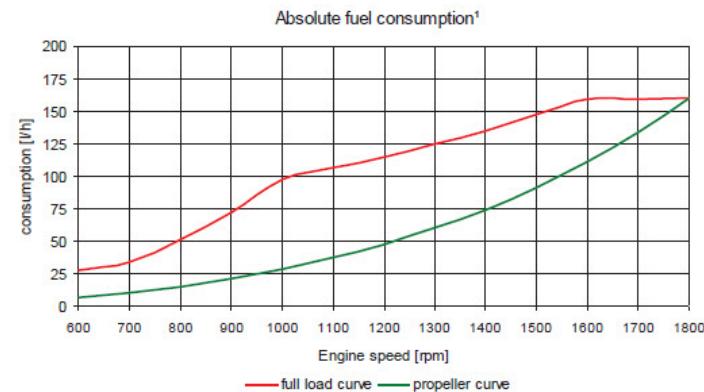
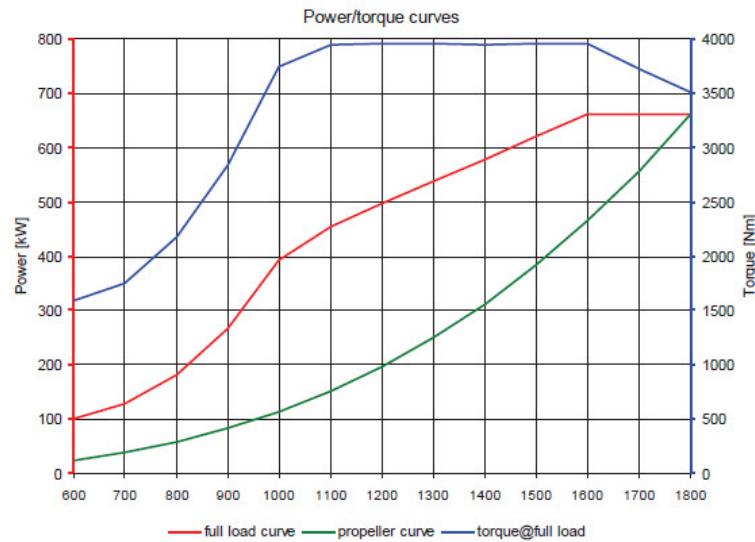
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 RCD 2013/53/EC, 97/68/EC
Cylinders	12
Displacement	[lt]
Maximum torque	[Nm]
Absolute fuel consumption	[lt/h]
Classification	si

## DIMENSIONS AND WEIGHT



Dimensions (mm) A=1153 B=2130 C=1230 D=765 E=1630 Weight=2270 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 3 >

Engine specifications are subjected to change without notice



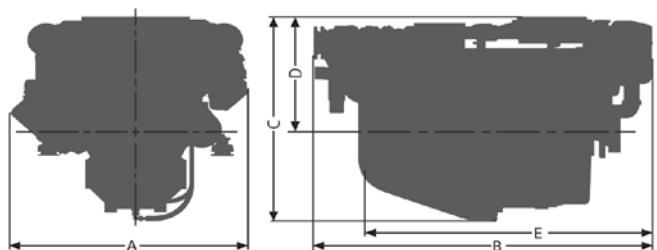
**Power (kw/CV)**  
735/1000

**Speed (min.<sup>-1</sup>)**  
1800

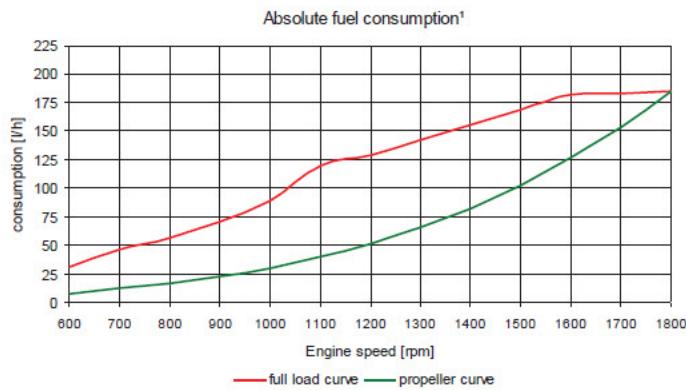
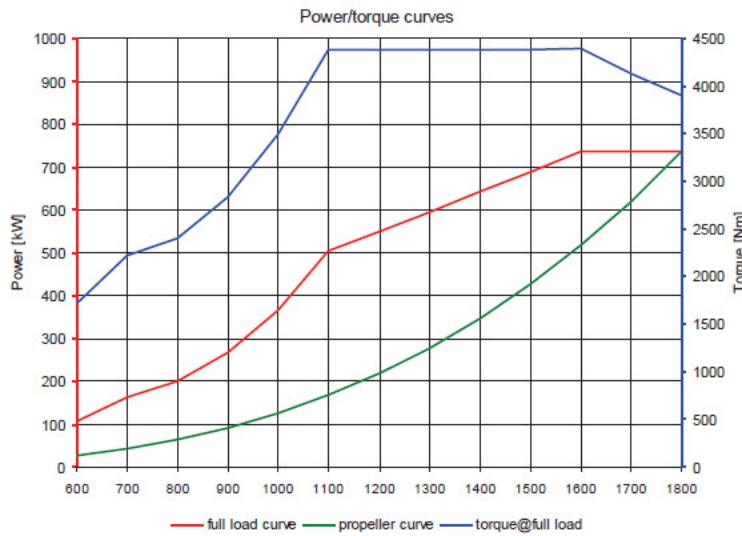
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 RCD 2013/53/EC, 97/68/EC
Cylinders	12
Displacement	[lt]
Maximum torque	[Nm]
Absolute fuel consumption	[lt/h]
Classification	si

## DIMENSIONS AND WEIGHT



Dimensions (mm)   A=1153   B=2130   C=1230   D=765   E=1630   Weight=2270 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)

Exponent for propeller curve 3 >

Engine specifications are subjected to change without notice

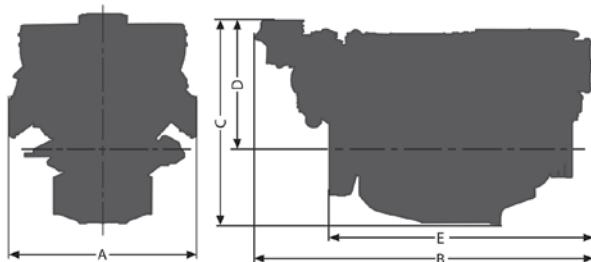


Power (kw/CV)	920/1251
Speed (min. <sup>-1</sup> )	1800

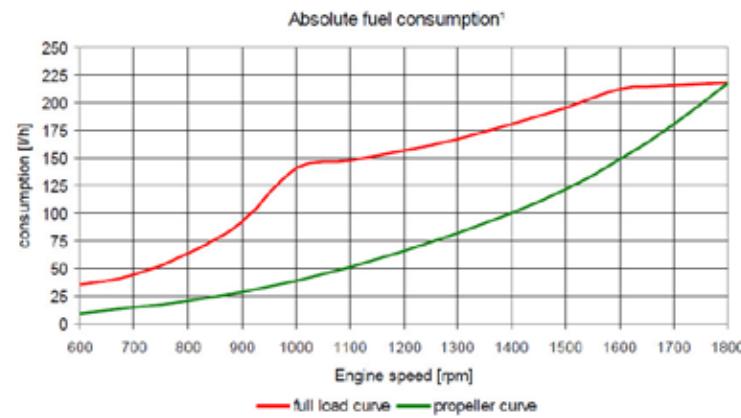
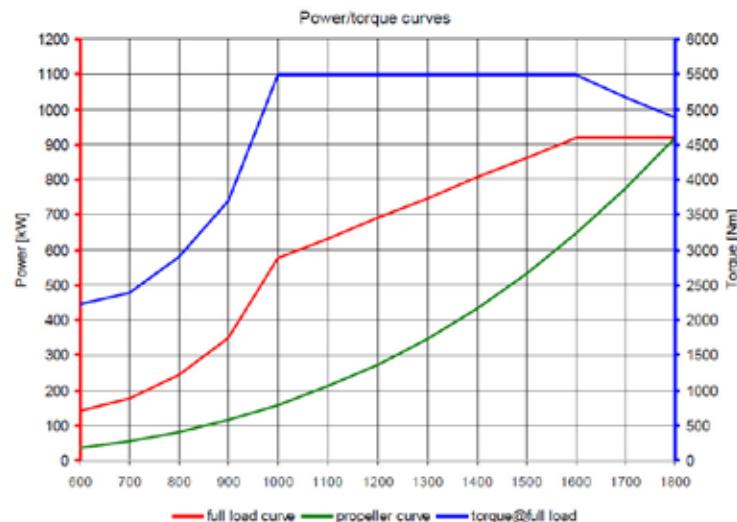
## TECHNICAL SPECIFICATIONS

Injection	Common Rail
Exhaust status	IMO Tier 2, EPA Tier 3 RCD 2013/53/EC,
Cylinders	12
Displacement [lt]	29,62
Maximum torque [Nm]	5491
Absolute fuel consumption [lt/h]	218
Classification	-

## DIMENSIONS AND WEIGHT



Dimensions (mm) A=1117 B=2105 C=1294 D=829 E=1768 Weight=2500 Kg



The rated power is based on reference conditions according to DIN ISO 3046 - 1 (2002)  
Exponent for propeller curve 2,7

Engine specifications are subjected to change without notice

# OUR SOLUTION IMO TIER III E STAGE V

## EXHAUST GAS TREATMENT FOR NOX AND PARTICULATE REDUCTION

The flexibility of the system allows it to make use of every available space. Individual components of the EGA and DPF kit can be positioned variably, enabling a wide range of installation and engine room design options. Thanks to our after-treatment systems, our engines comply with the most stringent IMO TIER III and STAGE V emission standards.



## IMO TIER III - STAGE V

Model	Kw	hp	RPM	Rating
D2862LE48B	1066	1450	2100	Medium Duty
D2862LE43B	882	1200	2100	Medium Duty
D2862LE44A	735	1000	1800	Heavy Duty
D2862LE43A	551	749	1800	Heavy Duty
D2676LE43B	412	560	2100	Medium Duty
D2676LE47A	368	500	1800	Heavy Duty
IMO TIER III				
D2862LE499	1471	2001	2300	Light Duty
D2862LE479	1397	1900	2300	Light Duty
D2862LE439	1324	1801	2300	Light Duty
D2862LE459	1213	1650	2300	Light Duty
D2862LE429	1140	1550	2300	Light Duty
D2862LE489	1066	1450	2100	Medium Duty
D2862LE458	1066	1450	2100	Medium Duty-DF
D2862LE469	974	1325	2100	Medium Duty
D2862LE438	882	1200	2100	Medium Duty
D2862LE448	749	1019	2100	Medium Duty-DF
D2862LE428	749	1019	2100	Medium Duty
D2862LE447	735	1000	1800	Heavy Duty
D2862LE427	662	900	1800	Heavy Duty
D2862LE437	551	749	1800	Heavy Duty
D2868LE469	956	1300	2300	Light Duty
D2868LE439	882	1200	2300	Light Duty
D2868LE459	824	1120	2300	Light Duty
D2868LE429	735	1000	2300	Light Duty
D2868LE449	662	900	2100	Medium Duty
D2868LE428	588	800	2100	Medium Duty
D2868LE437	500	680	1800	Heavy Duty
D2676LE428	441	600	2100	Medium Duty
D2676LE438	412	560	2100	Medium Duty
D2676LE477	368	500	1800	Heavy Duty
D2676LE497	331	450	1800	Heavy Duty
D2676LE487	290	394	1800	Heavy Duty
D2676LE457	221	301	1800	Heavy Duty

## DEF (DIESEL EXHAUST FLUID) ADBLUE



Highly pure, representing 32.5% urea in aqueous solution  
Injected directly into the exhaust system to reduce nitrogen oxide; it reacts with nitrogen oxide inside the catalyst, breaking down into nitrogen and water  
In use since 2007 for commercial vehicles and passenger transport  
Not classified as hazardous  
Water-soluble  
Average consumption corresponds to approximately 5% of fuel consumption

# MAN DUAL FUEL



## DIESEL MODE

The engine is started and operates exclusively on diesel fuel. In diesel mode, performance, fuel consumption, and all other characteristics are exactly the same as the MAN D2862 LE428 with equivalent output. The MAN SCR modular system reduces nitrogen oxides in the exhaust gas through effective after-treatment, ensuring that emission levels comply with IMO Tier III standards.

## DUAL FUEL MODE

In a form of pre-treatment, a precisely measured amount of hydrogen is added to the boosted air. This air-hydrogen mixture is then ignited in the cylinder combustion chambers using the injected diesel fuel.

Depending on the engine's operating point, only a very small amount of diesel is required. For this reason, dual fuel mode emits significantly lower CO<sub>2</sub> in the exhaust gas.

With a typical daily load of a workboat, CO<sub>2</sub> emissions are expected to be reduced by approximately 50%.

Nitrogen oxide and particulate emissions can also be reduced. As a result, the operator benefits from lower AdBlue® consumption, the reducing agent for the SCR reaction in exhaust after-treatment.

In the event of a hydrogen circuit malfunction or exhausted hydrogen supply, it is possible to switch back to diesel mode at any time. This ensures continuous operation with the usual reliability and economy of a MAN marine engine.

Regardless of the operating mode, emission limits are fully compliant with IMO Tier III.

All components carrying hydrogen are double-walled. Through the Hydrogen Monitoring System, any potential leaks are immediately detected.

The venting system safely evacuates hydrogen leaks, and hydrogen supply to the engine is immediately stopped. The engine safely returns to diesel mode, continuing to provide power.

## MARINE AUXILIARY GENSETS

### MAN MARINE ENGINE AUXILIARY GENSET D2676

Modello	KW	HP	Giri/1'	Emissioni	Dimensions (LxWxH)	Weight
LE332	190	258	1500	IMOII	1763X983X1103mm	1251 kg
LE 332	220	299	1800	IMOII	1763X983X1103mm	1251 kg
LE322	280	381	1500	IMOII	1763X983X1103mm	1251 kg
LE322	330	449	1800	IMOII	1763X983X1103mm	1251 kg
LE328	295	401	1500	Stage V	1763X983X1103mm	1251 kg
LE328	295	401	1800	IMOIII	1763X983X1103mm	1251 kg
LE327	360	490	1500	IMOIII	1763X983X1103mm	1251 kg
LE327	410	558	1800	IMOIII	1763X983X1103mm	1251 kg
LE321	375	510	1500	IMOII	1763X983X1103mm	1251 kg
LE321	445	605	1800	IMOII	1763X983X1103mm	1251 kg
LE323*	375	510	1500	IMOII	1763X983X1103mm	1251 kg
LE323*	445	605	1800	IMOII	1763X983X1103mm	1251 kg



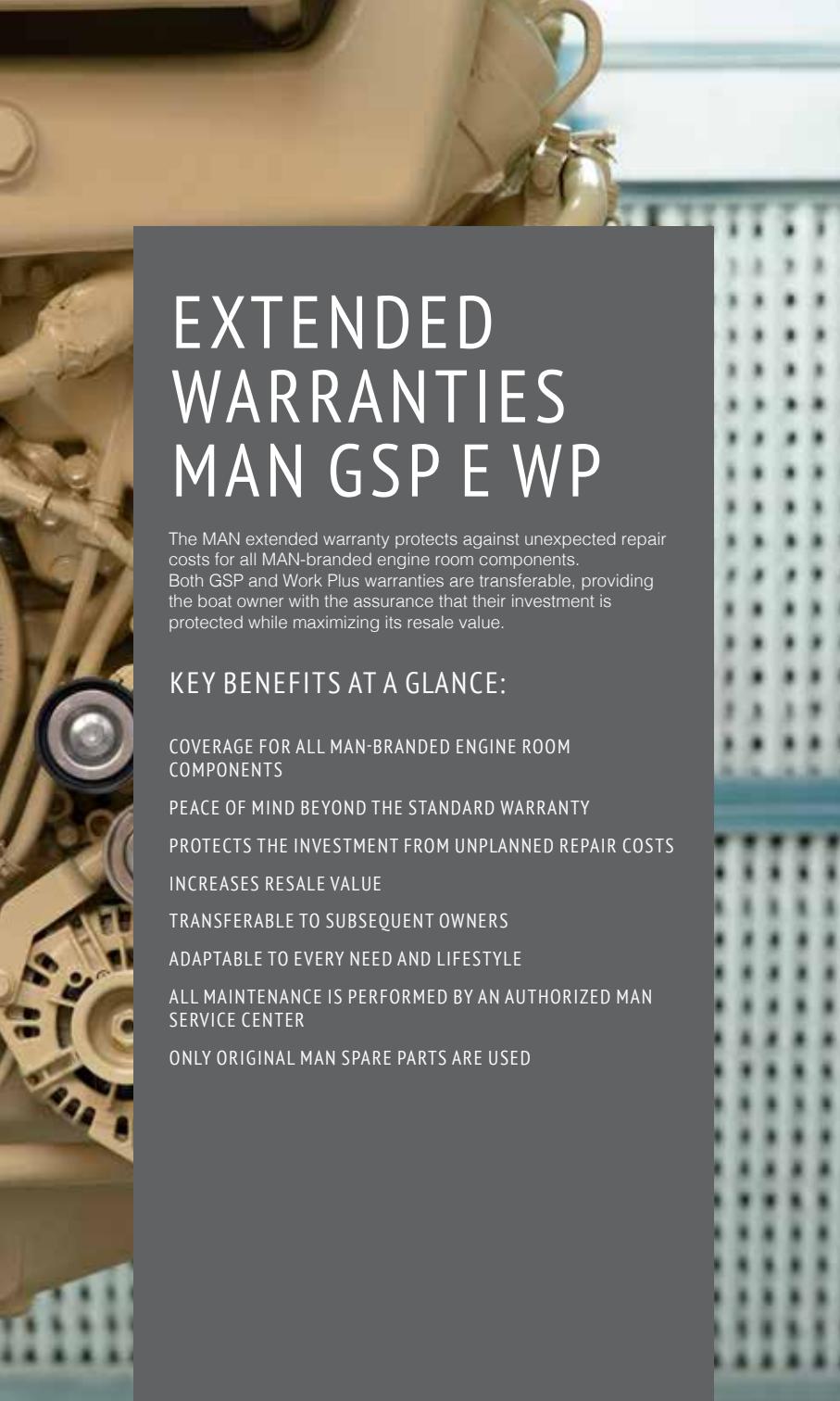
### MAN MARINE ENGINE AUXILIARY GENSET D2862

Modello	KW	HP	Giri/1'	Emissioni	Dimensions (LxWxH)	Weight
LE 322	600	816	1500	IMOII	2119X1273X1305mm	2280 kg
LE322	700	952	1800	IMOII	2119X1273X1305mm	2280 kg
LE325	600	816	1500	IMOII3A	2119X1273X1305mm	2280 kg
LE325	700	952	1800	IMOII3A	2119X1273X1305mm	2280 kg
LE328	600	816	1500	IMOIII	2023X1151X1281mm	2280 kg
LE328	700	952	1800	IMOIII	2023X1151X1281mm	2280 kg
LE321	700	952	1500	IMOII	2129X1273X1282mm	2280 kg
LE321	800	1088	1800	IMOII	2129X1273X1282mm	2280 kg
LE324	700	952	1500	IMOII3A	2129X1273X1282mm	2280 kg
LE324	800	1088	1800	IMOII3A	2129X1273X1282mm	2280 kg
LE327	700	952	1500	IMOIII	2003X1151X1268mm	2280 kg
LE327	800	1088	1800	IMOIII	2003X1151X1268mm	2280 kg
LE323*	700	952	1500	IMOII	2129X1273X1282mm	2280 kg
LE323*	800	1088	1800	IMOII	2129X1273X1282mm	2280 kg

\*emergenza

### MOTORI MAN PER GRUPPI ELETTROGENI DI BORDO E3262 LNG

Modello	KW	HP	Giri/1'	Emissioni	Dimensions (LxWxH)	Weight
LE 201	500	680	1500	IMOIII	1870X1260X1365mm	1849 kg
LE 201	580	789	1800	IMOIII	1870X1260X1365mm	1849 kg



# EXTENDED WARRANTIES MAN GSP E WP

The MAN extended warranty protects against unexpected repair costs for all MAN-branded engine room components. Both GSP and Work Plus warranties are transferable, providing the boat owner with the assurance that their investment is protected while maximizing its resale value.

## KEY BENEFITS AT A GLANCE:

- COVERAGE FOR ALL MAN-BRANDED ENGINE ROOM COMPONENTS
- PEACE OF MIND BEYOND THE STANDARD WARRANTY
- PROTECTS THE INVESTMENT FROM UNPLANNED REPAIR COSTS
- INCREASES RESALE VALUE
- TRANSFERABLE TO SUBSEQUENT OWNERS
- ADAPTABLE TO EVERY NEED AND LIFESTYLE
- ALL MAINTENANCE IS PERFORMED BY AN AUTHORIZED MAN SERVICE CENTER
- ONLY ORIGINAL MAN SPARE PARTS ARE USED

## MAN GOLD STANDARD PREMIUM

The MAN GSP extended warranty, available for yachts holding the MAN GOLD STANDARD certificate, extends the engine warranty period to 5 years, with a choice of 2,500 or 4,000 maximum operating hours within the 5-year coverage period. The table below lists the engines for which the GSP can be activated:

ENGINE TYPE	for 2,500 operating hours	for 2,500 operating hours	for 4,500 operating hours
I6-730 /800	+ 1 year extended warranty	+ 3 year extended warranty	+ 3 year extended warranty
I6-850			
V8 -1000/1200			
V8 -1300			
V12 -1400/1550			
V12 -1650/1800/1900			
V12 - 2000			
V12X - 2200			

## MAN WORK PLUS

With the MAN Work Plus extended warranty, the 12-month warranty on MAN engines for commercial applications can be extended by an additional 12 or 24 months. The program includes the same coverage as the standard first-year warranty, maximizing uptime and minimizing unexpected repair costs.

ENGINE TYPE	OPERATION
D2676	light/medium/heavy duty <sup>1</sup>
D2868	
D2862	
D3872	

<sup>1)</sup> applies only to engines in commercial use



surface drive  
**TOPSYSTEM**  
  
by TONISSIMARINE





**RANIERI TONISSI IS THE  
EUROPEAN DISTRIBUTOR OF  
TOP SYSTEM SURFACE DRIVE.**

Top System is a surface propeller transmission system with variable trim and steering.

The Top System Surface Drive is suitable for high-performance planing motorboats, offering an unmatched power range from 300 to 4,000 hp.

## TECHNICAL SPECIFICATIONS

MODEL	MAX TORQUE INPUT NM PLEASURE	MAX TORQUE INPUT NM DUTY
TS 4	1.400	1.000
TS 5	2.000	1.500
TS 5.5	2.800	2.100
TS 6.5	4.300	3.100
TS 7	4.400	3.300
TS 7.5	7.300	5.500
TS 8	11.000	7.000
TS 8.5	13.000	9.750
TS 9	15.000	11.250
TS 9.5	17.000	12.750
TS 10	20.500	15.300
TS 11	23.000	17.250
TS 12	30.000	22.500

MODEL	A	B	C	D	E	F	G
TS 4	80 mm	1000 mm	330 mm	410 mm	Ø 210mm	Ø 100mm	Z19
TS 5	172 mm	1175 mm	336 mm	496 mm	Ø 270mm	Ø 132mm	Z25
TS 5.5	172 mm	1220 mm	550 mm	600 mm	Ø 270mm	Ø 132mm	Z31
TS 6.5	175 mm	1340 mm	570 mm	580 mm	Ø 270mm	Ø 170mm	Z36
TS 7	170 mm	1340 mm	570 mm	580 mm	Ø 270mm	Ø 170mm	Z36
TS 7.5	170 mm	1600 mm	772 mm	675 mm	Ø 330mm	Ø 170mm	Z36
TS 8	175 mm	1645 mm	830 mm	795 mm	Ø 350mm	Ø 196mm	Z33
TS 9	230,5 mm	1762 mm	830 mm	810 mm	Ø 400mm	Ø 210mm	Z34
TS 9.5	233 mm	2065 mm	830 mm	970 mm	Ø 400mm	Ø 250mm	Z32
TS 10	403 mm	2070 mm	850 mm	1020 mm	Ø 600mm	Ø 340mm	Z32
TS 11	403 mm	2395 mm	850 mm	1020 mm	Ø 600mm	Ø 340mm	Z32
TS 12	403 mm	2400 mm	850 mm	1020 mm	Ø 600mm	Ø 340mm	Z32





## EASY SET SYSTEM



THE INTEGRATED EASY SET SYSTEM CONNECTS TO THE ENGINE CAN NETWORK AND DISPLAYS ALL ENGINE DATA, ENABLING COMPLETE CONTROL OF TRIM AND FLAPS.

This exceptional Easy Set system allows automatic control of trim and flaps, so the pilot does not need to manually adjust the boat's attitude. Simply select the desired navigation mode from three available functions: CRUISE, SPORT, and ROUGH.

This system serves as a gateway for integrating additional systems and can therefore be integrated with the Aventics Integrated Control System, optimizing both maneuverability and cruising performance of the vessel.





## EMERSON AVENTICS CONTROL SYSTEMS

AVENTICS is an international company specializing in pneumatic components and systems.

The company also provides custom drive and control solutions for ships and commercial vehicles. Formerly a subsidiary of Bosch Rexroth, AVENTICS became an independent company at the beginning of 2014 and employs approximately 2,100 people worldwide.

AVENTICS OFFERS CROSS-SECTOR, TAILORED SOLUTIONS AND SERVICES, WITH DECADES OF FIELD EXPERIENCE.

IT IS A WORLD-LEADING SUPPLIER OF INDUSTRIAL PNEUMATICS, POSSESSING EXTENSIVE TECHNICAL KNOW-HOW, FOR EXAMPLE IN INTEGRATING ELECTRONICS INTO PNEUMATIC COMPONENTS.

WITH SOLUTIONS FOR MARINE PNEUMATICS AND ADVANCED SHIP AUTOMATION SYSTEMS, AVENTICS IS AT HOME EVEN IN THE MIDDLE OF THE OCEANS.

Ranieri Tonissi is the Italian importer of Marex ECS, Marex OSIII, and Marex OS3D Joystick control systems produced by AVENTICS. These systems, chosen by major engine manufacturers such as MAN and Caterpillar, can control any type of propulsion system, whether it consists of a fixed-pitch propeller with a reversing gearbox or a variable-pitch propeller or waterjet.

Thanks to their flexibility and reliability, these systems are used by the majority of Italian shipyards, both for Motor Yachts from 40' to 200' and for commercial and military vessels.

Customer satisfaction is supported by product service, managed through a network of service centers in Italy coordinated by Ranieri Tonissi.

From our spare parts warehouse, necessary components can be supplied to quickly resolve any issues, minimizing downtime and avoiding the loss of precious hours for yacht owners.

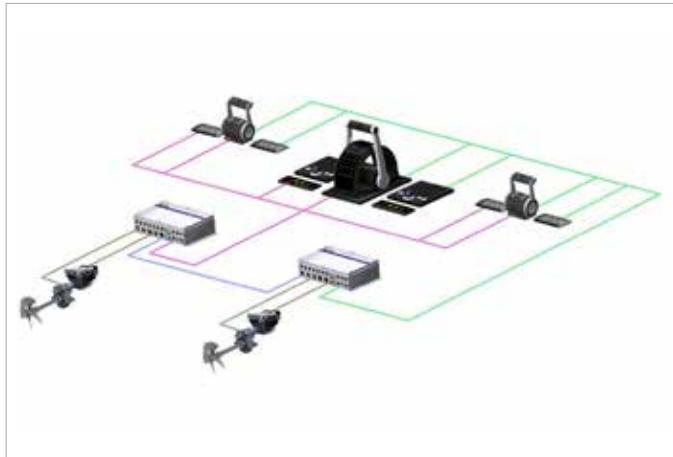




## ELECTRONIC CONTROL SYSTEM AVENTICS MAREX OSIII

The Marex OS III control system manages the main engines, the gearboxes, and therefore the clutches. The system is capable of controlling propulsion systems with fixed-pitch propellers and gearboxes, variable-pitch propeller systems, and waterjets. It is particularly suitable for diesel-electric applications. The ability to choose among different signal types for engine and gearbox control allows the system to be used for almost any application, whether single-, twin-, or triple-engine setups. Data transmission occurs via CAN-Bus, ensuring maximum safety.

**This system is especially well-suited for commercial vessels and medium-to-large pleasure craft.**



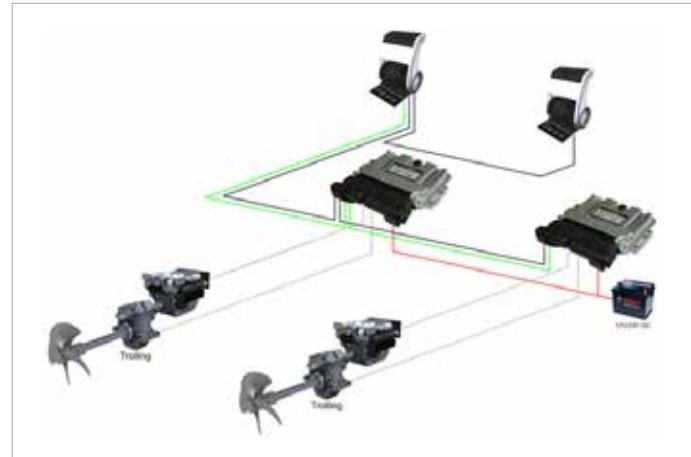
## ELECTRONIC CONTROL SYSTEM AVENTICS MAREX ECS

AVENTICS introduces the new Marex Easy Control System (ECS).

This system is particularly suitable for commercial vessels and small to medium-sized pleasure craft.

Its ease of installation, combined with a very competitive price, makes it an ideal solution for refitting projects. Thanks to the integrated WiFi interface, alarm diagnostics have never been as intuitive, nor has configuration during start-up.

**This system is especially well-suited for commercial vessels and small to medium-sized pleasure craft.**





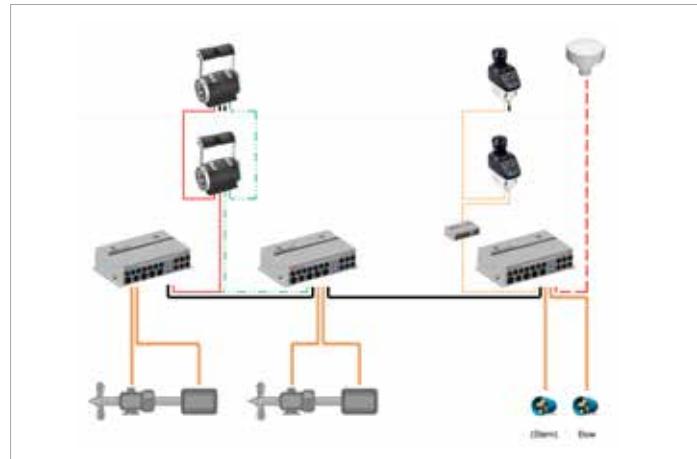
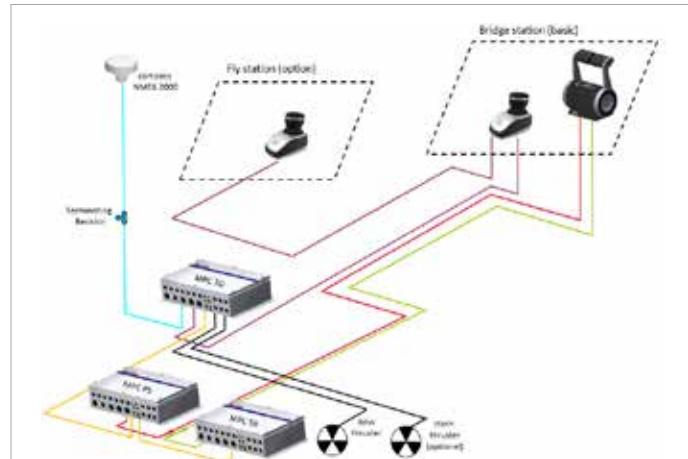
## ELECTRONIC CONTROL SYSTEM AVVENTICS MAREX OS3D

With Marex OS 3D, a yacht can be easily maneuvered even in tight spaces thanks to the intuitive use of the 3D joystick. The Marex OS III system of the main engine receives the command signal from the Marex OS 3D control unit via CAN. The principle is simple: the vessel precisely mirrors the movement executed by the operator on the joystick. Unwanted movements caused by crosswinds or currents are automatically compensated. The joystick can be used as a stand-alone control unit or paired with a throttle lever on the maneuvering platform. The thrusters are directly controlled by the Marex OS 3D control unit.



## DPS (DYNAMIC POSITIONING SYSTEM)

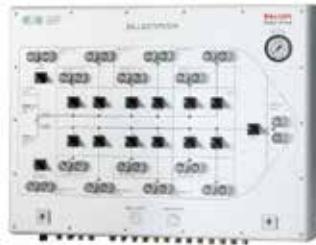
The Dynamic Positioning System (DPS) maintains the boat's heading and position within a defined area, both in calm waters and in conditions of wind or current. It is a perfect solution for preparing for berthing, waiting for refueling, or for the opening of a bridge. The AVTS DPS system can operate in three modes: heading hold, virtual anchoring, and sky hook. Its easy integration with the Marex OS3D joystick system makes it an increasingly popular optional feature among yacht owners.





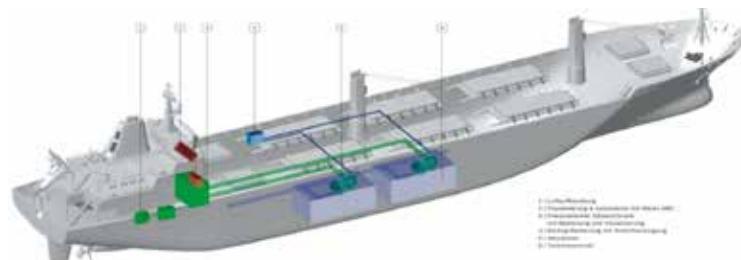
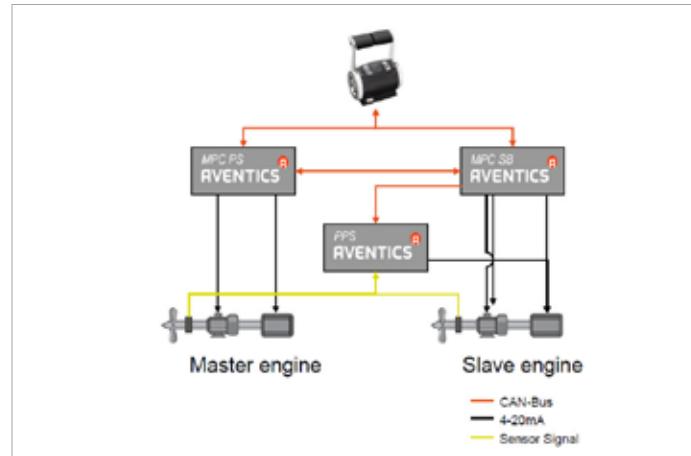
## ELECTRONIC CONTROL SYSTEM AVENTICS MAREX PPS

Thanks to the innovative Marex PPS system, navigating has never been so comfortable. Onboard vibrations can have various causes: installation issues, irregular fastenings, or anomalies in coupling or alignment. All of these factors can generate noise and vibrations, common problems that can cause significant discomfort. Through a specific analysis of the phase angle of each propeller blade at different speeds, the system can remodulate the synchro function, optimizing the phase angle of the two propellers. Thanks to its easy installation, the system is particularly suitable for refitting projects as well.



## ELECTRONIC CONTROL SYSTEM ELETTRONICO AVENTICS MAREX VCS

Unmatched in TCO analysis for economical purchase, continuous operational reliability, and low running costs, our ballast tank systems impress with well-thought-out design, personal support up to commissioning, and a global service network. The system's advantage lies in its ease of installation: only a control cabinet and, ideally, a loop circuit are needed. The fully pneumatic ship control manages without electrical connections or power supply for basic systems. The Marex VCS is an economical and eco-friendly solution for load management, stowage, or ship stabilization. Advantages of the Marex VCS ballast tank system: More economical than hydraulic solutions Low operating pressures, from 5 to 7 bar Valves with active position indicators for installation inside or outside the tank Simple- or double-acting control devices ensure fault-free operation



### ADVANTAGES OF THE MAREX VCS BALLAST TANK SYSTEM:

1. More economical than hydraulic solutions
2. Low operating pressures, from 5 to 7 bar
3. Valves with active position indicators for installation inside or outside the tank
4. Simple- or double-acting control devices ensure fault-free operation





## LINDENBERG ANLAGEN

Lindenberg Anlagen GmbH was founded in 1948 by its founder, Mr. Karl Lindenberg. From the very beginning, the company distinguished itself in the market through the production of generator sets, thanks to a product customization policy designed to meet even the most complex customer requirements.

Today, Lindenberg's internal technical office boasts a staff of over 40 engineers out of approximately 140 employees, enabling the development of plants where customer technical requirements are highly advanced.

### LINDENBERG ANLAGEN GMBH SPECIALIZES IN:

TURNKEY LAND-BASED COGENERATION PLANTS FROM 50 KWe TO 4,000 KWe, USING ANY TYPE OF FUEL (NATURAL GAS, VEGETABLE OILS, EXHAUST GASES, ETC.)

MARINE GENERATOR SETS IN THE RANGE OF 100 KWe TO 2,000 KWe, WITH OVER 6,000 MARINE GENERATOR SETS SOLD IN THE LAST 10 YEARS

Ranieri Tonissi is the Italian importer of marine generator sets from Lindenberg Anlagen GmbH, Rösrath, in the range of 32 kWe to 2,500 kWe, including:  
Onboard auxiliary generator sets  
Onboard emergency generator sets  
Harbor generator sets  
Ranieri Tonissi also serves as the Lindenberg Anlagen GmbH agent for service and spare parts in Italy.



Heat Exchanger, 50 Hz, Auxiliary

IMO TIER II

Set power max. <sup>1)</sup>	Motor Type	LIAG Code
175 kW	D2676LE332 <sup>2)</sup>	MRL265HE175
180 kW	DI09 074M / 04-01 <sup>3)</sup>	MRL095HE180
200 kW	DI09 074M / 04-02 <sup>3)</sup>	MRL095HE200
250 kW	DI09 074M / 04-03 <sup>3)</sup>	MRL095HE250
260 kW	D2676LE322 <sup>2)</sup>	MRL265HE260
265 kW	DI13 074M / 04-04 <sup>3)</sup>	MRL135HE265
300 kW	DI13 074M / 04-05 <sup>3)</sup>	MRL135HE300
350 kW	DI13 074M / 04-02 <sup>3)</sup>	MRL135HE350
350 kW	D2676LE321 <sup>2)</sup>	MRL265HE350
400 kW	DI13 074M / 04-03 <sup>3)</sup>	MRL135HE400
410 kW	6M26.3 <sup>4)</sup>	MRL2635HE410
420 kW	DI16 074M (04-02) <sup>3)</sup>	MRL165HE420
450 kW	DI16 074M (04-03) <sup>3)</sup>	MRL165HE450
460 kW	6M33.2 <sup>4)</sup>	MRL325HE460
480 kW	DI16 090M (04-44) <sup>3)</sup>	MRL165HE480
500 kW	DI16 090M (04-45) <sup>3)</sup>	MRL165HE500
565 kW	D2862LE322 <sup>2)</sup>	MRL285HE565
660 kW	D2862LE321 <sup>2)</sup>	MRL285HE660
830 kW	12M26.2 <sup>4)</sup>	MRL2625HE830
830 kW	12M26.3 <sup>4)</sup>	MRL2635HE830
940 kW	12M33.2 <sup>4)</sup>	MRL325HE940

Heat Exchanger, 60 Hz, Auxiliary

IMO TIER II

Set power max. <sup>1)</sup>	Motor Type	LIAG Code
185 kW	DI09 074M / 04-01 <sup>3)</sup>	MRL096HE185
200 kW	DI09 074M / 04-02 <sup>3)</sup>	MRL096HE200
200 kW	D2676LE332 <sup>2)</sup>	MRL266HE200
250 kW	DI09 074M / 04-03 <sup>3)</sup>	MRL096HE250
300 kW	DI09 074M / 04-04 <sup>3)</sup>	MRL096HE300
300 kW	D2676LE322 <sup>2)</sup>	MRL266HE300
350 kW	DI13 074M / 04-01 <sup>3)</sup>	MRL136HE350
400 kW	DI13 074M / 04-02 <sup>3)</sup>	MRL136HE400
420 kW	D2676LE321 <sup>2)</sup>	MRL266HE420
440 kW	DI16 074M (04-01) <sup>3)</sup>	MRL166HE440
470 kW	6M26.3 <sup>4)</sup>	MRL2636HE470
480 kW	DI16 074M (04-02) <sup>3)</sup>	MRL166HE480
520 kW	DI16 074M (04-03) <sup>3)</sup>	MRL166HE520
520 kW	6M33.2 <sup>4)</sup>	MRL336HE520
560 kW	DI16 090M (04-44) <sup>3)</sup>	MRL166HE560
600 kW	DI16 090M (04-45) <sup>3)</sup>	MRL166HE600
660 kW	D2862LE322 <sup>2)</sup>	MRL286HE660
760 kW	D2862LE321 <sup>2)</sup>	MRL286HE760
870 kW	12M26.2 <sup>4)</sup>	MRL2626HE870
920 kW	12M26.3 <sup>4)</sup>	MRL2636HE920
1040 kW	12M33.2 <sup>4)</sup>	MRL326HE1040

Heat Exchanger, 50 Hz, Auxiliary

IMO TIER III  
incl. SCR System

Set power max. <sup>1)</sup>	Motor Type	LIAG Code
250 kW	DI13 091M / 04-73A <sup>3)</sup>	MGL135HE250
265 kW	DI13 091M / 04-73B <sup>3)</sup>	MGL135HE265
270 kW	D2676LE328 <sup>2)</sup>	MGL265HE270
300 kW	DI13 091M / 04-73C <sup>3)</sup>	MGL135HE300
340 kW	D2676LE327 <sup>2)</sup>	MGL265HE340
350 kW	DI13 091M 04-73D <sup>3)</sup>	MGL135HE350
400 kW	DI13 091M 04-73E <sup>3)</sup>	MGL135HE400
410 kW	6M26.3 <sup>4)</sup>	MGL2635HE410
420 kW	DI16 091M / 04-73B <sup>3)</sup>	MGL165HE420
450 kW	DI16 091M / 04-73C <sup>3)</sup>	MGL165HE450
565 kW	D2862LE328 <sup>2)</sup>	MGL285HE565
660 kW	D2862LE327 <sup>2)</sup>	MGL285HE660
830 kW	12M26.3 <sup>4)</sup>	MRL2635HE830

Heat Exchanger, 60 Hz, Auxiliary

IMO TIER III  
incl. SCR System

Set power max. <sup>1)</sup>	Motor Type	LIAG Code
265 kW	DI13 091M / 04-73A <sup>3)</sup>	MGL136HE265
270 kW	D2676LE328 <sup>2)</sup>	MGL266HE270
300 kW	DI13 091M / 04-73B <sup>3)</sup>	MGL136HE300
350 kW	DI13 091M / 04-73C <sup>3)</sup>	MGL136HE350
380 kW	D2676LE327 <sup>2)</sup>	MGL266HE380
400 kW	DI13 091M / 04-73D <sup>3)</sup>	MGL136HE400
440 kW	DI16 091M / 04-73A <sup>3)</sup>	MGL166HE440
470 kW	6M26.3 <sup>4)</sup>	MGL2636HE470
480 kW	DI16 091M / 04-73B <sup>3)</sup>	MGL166HE480
520 kW	DI16 091M / 04-73C <sup>3)</sup>	MGL166HE520
660 kW	D2862LE328 <sup>2)</sup>	MGL286HE660
760 kW	D2862LE327 <sup>2)</sup>	MGL286HE760
920 kW	12M26.3 <sup>4)</sup>	MGL2636HE920

**Heat Exchanger, Keel Cooling, 50 Hz, Auxiliary  
IMO TIER III incl. SCR + DPF System**

Set power max. <sup>1)</sup>	Motor Type	LIAG Code
565 kW	D2862LE32B <sup>2)</sup>	MGx285HE565
565 kW	D2862LE32B <sup>2)</sup>	MGx285KC565
660 kW	D2862LE32A <sup>2)</sup>	MGx285HE660
660 kW	D2862LE32A <sup>2)</sup>	MGx285KC660

**Heat Exchanger, Keel Cooling, 60 Hz, Auxiliary  
IMO TIER III incl. SCR + DPF System**

Set power max. <sup>1)</sup>	Motor Type	LIAG Code
660 kW	D2862LE32E <sup>2)</sup>	MGx286HE660
660 kW	D2862LE32E <sup>2)</sup>	MGx286KC660
760 kW	D2862LE32D <sup>2)</sup>	MGx286HE760
760 kW	D2862LE32D <sup>2)</sup>	MGx286KC760



**Radiator Cooler, 50 Hz, Emergency IMO TIER II**

Set power max. <sup>1)</sup>	Motor Type	LIAG Code
175 kW	DI09 074M / 04-21 <sup>3)</sup>	MBL095RC175
185 kW	DI09 074M / 04-22 <sup>3)</sup>	MBL095RC185
240 kW	DI09 074M / 04-23 <sup>3)</sup>	MBL095RC240
280 kW	DI13 075M / 04-24 <sup>3)</sup>	MBL135RC280
310 kW	D2676LE323 <sup>2)</sup>	MBL265RC310
330 kW	DI13 075M / 04-25 <sup>3)</sup>	MBL135RC330
380 kW	DI13 075M / 04-23 <sup>3)</sup>	MBL135RC380
410 kW	DI16 075M / 04-12 <sup>3)</sup>	MBL165RC410
440 kW	DI16 075M / 04-13 <sup>3)</sup>	MBL165RC440
465 kW	DI16 075M / 04-14 <sup>3)</sup>	MBL165RC465
575 kW	D2862LE323 <sup>2)</sup>	MBL285RC575

**Radiator Cooler, 60 Hz, Emergency IMO TIER II**

Set power max. <sup>1)</sup>	Motor Type	LIAG Code
169 kW	DI09 074M / 04-21 <sup>3)</sup>	MBL096RC169
185 kW	DI09 074M / 04-22 <sup>3)</sup>	MBL096RC185
235 kW	DI09 074M / 04-23 <sup>3)</sup>	MBL096RC235
285 kW	DI09 074M / 04-24 <sup>3)</sup>	MBL096RC285
325 kW	DI13 075M / 04-24 <sup>3)</sup>	MBL136RC325
370 kW	D2676LE323 <sup>2)</sup>	MBL266RC370
375 kW	DI13 075M / 04-25 <sup>3)</sup>	MBL136RC375
420 kW	DI16 075M / 04-11 <sup>3)</sup>	MBL166RC420
460 kW	DI16 075M / 04-12 <sup>3)</sup>	MBL166RC460
500 kW	DI16 075M / 04-13 <sup>3)</sup>	MBL166RC500
540 kW	DI16 074M / 04-14 <sup>3)</sup>	MBL166RC540
690 kW	D2862LE323 <sup>2)</sup>	MBL286RC690

