### **MAN Energy Solutions**

Future in the making



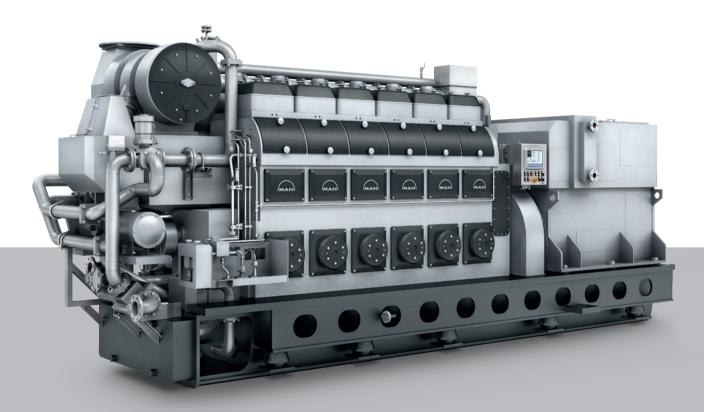
# MAN L28/32DF

**GenSet** 

The MAN L28/32DF engine is based on the proven MAN 28/32H, recognized worldwide as an ultrareliable and robust GenSet with long TBOs. Its ability to run on gas offers economical and environmental advantages, especially as part of a complete power package.

#### Benefits at a glance

- High efficiency in gas and diesel mode
- Easy operation, easy maintenance and proven reliability
- Long time between overhauls with low life cycle costs

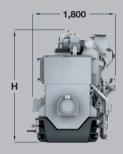


# **MAN L28/32DF**

#### **GenSet**

#### **Dimensions**

| Cyl. No. |    | 5     | 6     | 7     | 8     | 9     |
|----------|----|-------|-------|-------|-------|-------|
| A        | mm | 4,321 | 4,801 | 5,281 | 5,761 | 6,241 |
| В        | mm | 2,400 | 2,510 | 2,680 | 2,770 | 2,690 |
| С        | mm | 6,721 | 7,311 | 7,961 | 8,531 | 8,931 |
| Н        | mm | 2,835 | 3,009 | 3,009 | 3,009 | 3,009 |
| Dry mass | t  | 32.6  | 36.3  | 39.4  | 40.7  | 47.1  |

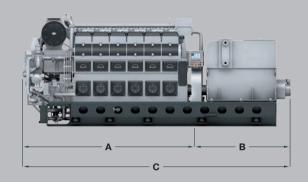


#### **Output**

| Speed<br>Frequency   | rpm<br>Hz      | 750<br>50                                |                             | 720<br>60                                | 720                               |
|--|----------------|--|-----------------------------|--|-----------------------------------|
|  |                | Eng.                                     | Gen.*                       | Eng.                                     | Gen.                              |
| MAN 5L28/32DF  | kW             | 1,000                                    | 950                         | 1,000                                    | 950                               |
| MAN 6L28/32DF  | kW             | 1,200                                    | 1,140                       | 1,200                                    | 1,140                             |
| MAN 7L28/32DF  | kW             | 1,400                                    | 1,330                       | 1,400                                    | 1,330                             |
| MAN 8L28/32DF  | kW             | 1,600                                    | 1,520                       | 1,600                                    | 1,520                             |
| MAN 9L28/32DF  | kW             | 1,800                                    | 1,710                       | 1,800                                    | 1,710                             |
| MAN 5L28/32DF<br>MAN 6L28/32DF<br>MAN 7L28/32DF<br>MAN 8L28/32DF | kW<br>kW<br>kW | Eng.<br>1,000<br>1,200<br>1,400<br>1,600 | Gen.* 950 1,140 1,330 1,520 | Eng.<br>1,000<br>1,200<br>1,400<br>1,600 | Ger<br>99<br>1,14<br>1,33<br>1,52 |

<sup>\*</sup>Based on nominal generator efficiencies of 95 % Gas/fuel ratio at load: 20 - 100 % 93/7 (Tier II) Gas methane number ≥ 80.

Last updated July 2018



#### General

- Engine cycle: four-stroke
- No. of cylinders: 5, 6, 7, 8, 9
- Bore: 280 mm Stroke: 320 mm
- Swept volume per cyl: 19.7 dm<sup>3</sup>

#### Cylinder output (MCR)

- At 720/750 rpm: 200 kWm
- Power-to-weight ratio: 26.2 - 32.6 kg/kW

## Compliance with emission regulations

- IMO Tier II

#### Main features

#### **Turbocharging system**

 High efficiency constant pressure MAN TCR series exhaust turbocharging system

#### Engine automation and control

 MAN in-house developed engine attached safety and control system MAN SaCoSone

#### Air management

 Waste gate controlled air-fuel ratio in gas mode with jet assist for improved load response and start up time

#### **Fuel system**

 Combined fuel injection system for main liquid fuel and pilot fuel injection based on the well proven and reliable conventional MAN 28/32H engine

#### Gas system

Cylinder individual low pressure gas admission system

#### Cooling system

2-string high and low temperature cooling water systems

#### Starting system

- Pressurized air starter (turbine type)
   Engine mounting
- Resilient GenSet mounting on improved base frame design with reduced overall GenSet weight and stiff construction for reduced level of vibration and simple installation into the engine room.

MCR = Maximum continuous rating

#### **MAN Energy Solutions**

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