



**ELECTRIC DRIVES**  
FOR EVERY DEMAND

Permanent Magnet

# **In-line Shaft Generators**

500 kVA – 15,000 kVA



# Engineering at VEM

## Efficiency Ahead

PM machines provide typically a 2 to 4 percent higher efficiency at full load and even up to 10 percent at partial load, compared to other machine types.

## Short Circuit Proof

Short circuits in the main switch board (MSB) or in the VFD may cause an electromagnetic counter field that could damage or demagnetize the rotor of PM machines. VEM machines withstand these short circuit events under every condition.

## Reliability

In VEM you can trust. With over 130 years of experience in constructing electrical machines, our commitment to high engineering standards and quality ensures long-term operation. We offer our customers a unique guarantee for PM machines.

## Advantages

- Higher efficiency
- Better reliability
- Improved shaftline dynamics
- Compact design

## Key Features

- Approved generator design
- High voltage insulation
- Modular series
- Redundant cooling circuit
- Emergency proof disconnection

## VEM Technology

Embedded magnets

Short circuit proof

Guarenteed stability of magnets

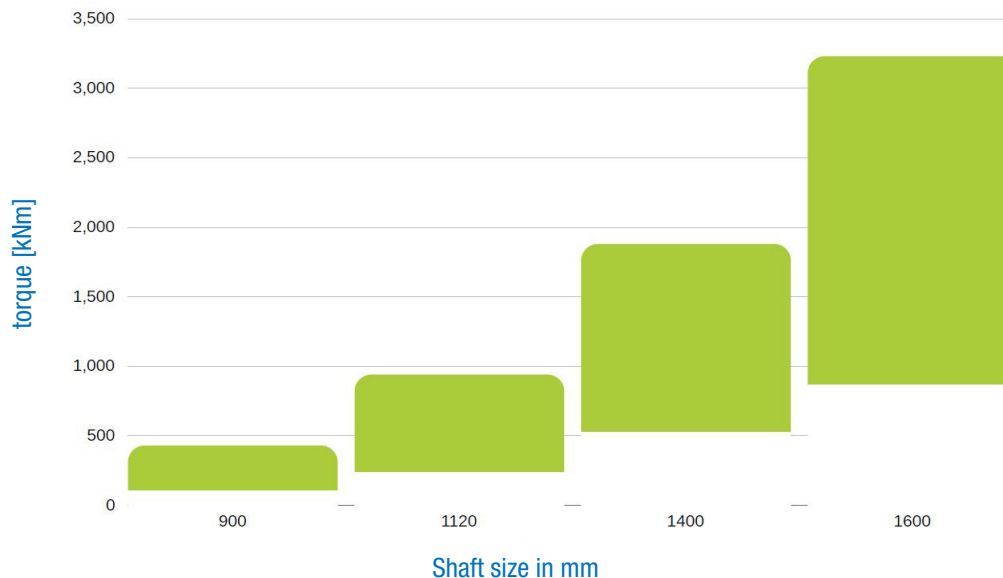
Form-wound winding

Insulation/temperature rise F/F  
(more on demand)

Approved marine technology based  
on standard components

Water cooled

## Torque capability of the shaft sizes



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