

## EUR24\_12 - Direct-On-Line High Voltage Motor Starting Criteria for an all-Electric FPSO

Author(s): Vincent Sibille (SBM Offshore), Adnan Ashraf (ABB Ltd.), Andrea Santarpia (SBM Offshore)

### Abstract:

Floating Production, Storage and Offloading (FPSO) remain key assets for meeting the global future energy demands, while alternative energy sources are being developed and made available to global energy supply chains.

The Oil & Gas industry is under increased scrutiny to reduce Greenhouse Gas (GHG) emissions. Hence it is critical that current and future FPSOs are designed to minimize emissions.

Induction motors are the most energy-intensive consumers on an FPSO and shall be designed for the available network supply. Oversizing these motors can result in increased GHG emissions.

Starting criteria of HV direct-on-line motor have significant implications for the size and design of the motor. This paper aims to present the main elements of an all-electric FPSO and investigate, through a case study, the design criteria for a high-power direct-on-line motor.