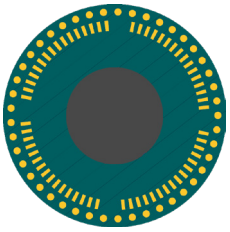
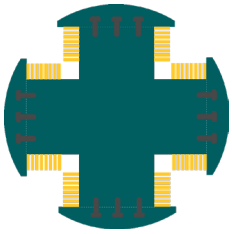
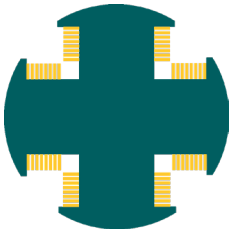
GE VERNOVA

4-6 POLE SYNCHRONOUS MACHINES

Laminated cylindrical, bolt-on solid pole or integral solid pole rotor

GE Vernova's synchronous machines are designed and manufactured to operate efficiently in a technologically complex and regulated environment where reliability, availability, and ease of maintenance are critical.

Our engineering expertise, and understanding of the complete process, complimented by our system integration studies, means that our customers can benefit from an overall enhanced, total system for compressor train processes or other industrial application enabling larger speed ranges delivered by smaller, lower power-driven machines.

Rotor technology	Laminated cylindrical	Bolt-on solid pole	Integral solid pole
			
Power capacity	Medium, up to 20 MW	High, over 20 MW	High, over 20 MW
Efficiency	Medium, <98%	High, >98%	High, >98%
Direct On Line starting conditions	High load torque Medium inertia	Medium load torque Medium inertia	Medium load torque High inertia
Starting method	With soft starter for high load torque and high inertia		

THE ADVANTAGE OF GE VERNOVA'S SYNCHRONOUS MACHINE TECHNOLOGY

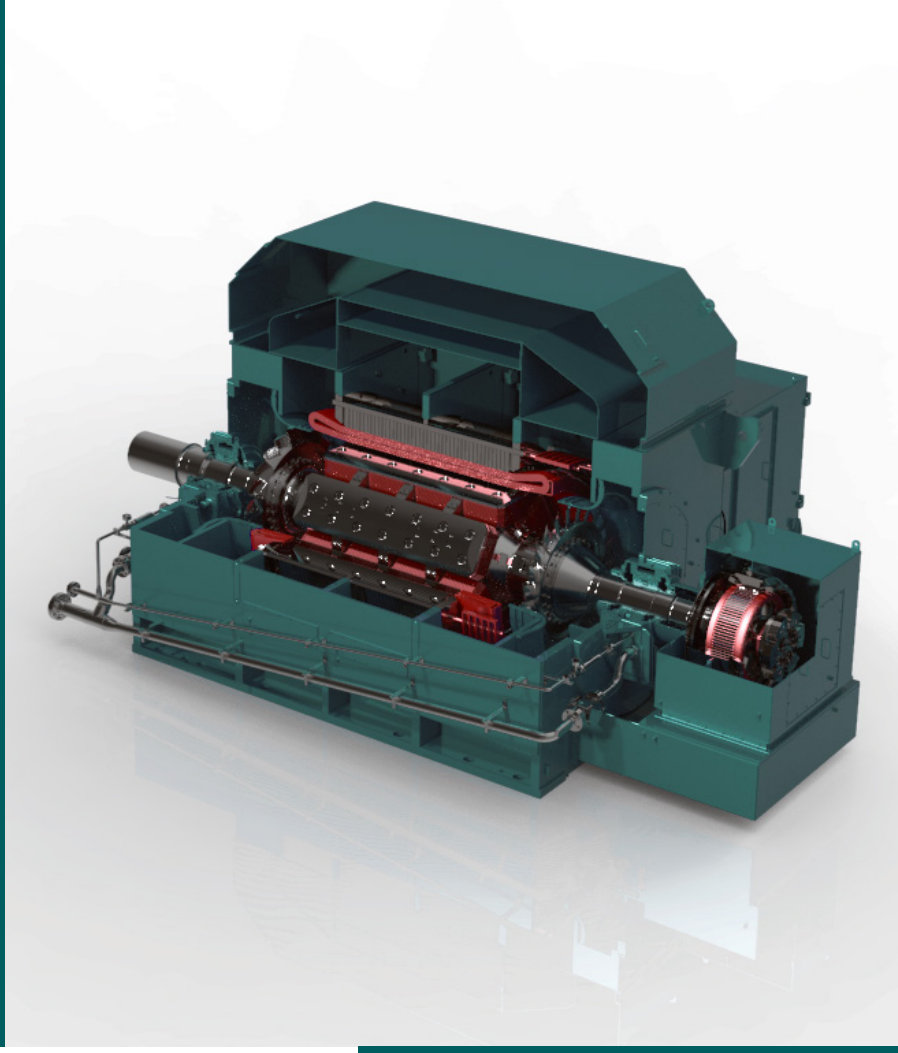
POWER FACTOR LEADING OF LAGGING
Reducing utility power factor penalties

HIGHER EFFICIENCY THAN INDUCTION
Operating cost saving

DESIGNED FOR RAM
Reliability Availability Maintainability

LOW STARTING CURRENT
Avoid use of soft starter

FULLY CUSTOMIZABLE
Compliance with customer request

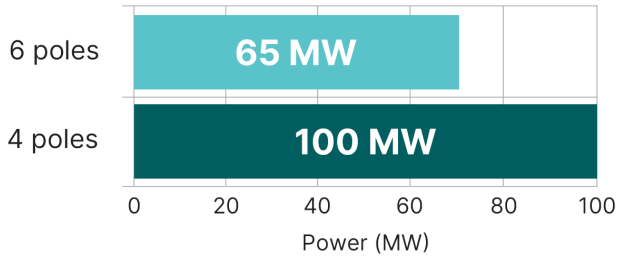


A proven techonology
The worldwide installed base for GE Vernova's synchronous 4 and 6 pole machines accounts for over 800 units and 5,700 MW of power.

FEATURES & BENEFITS

- **Compliant with global standards** - IEC, API, IEEE, NEMA
- **Optimized design tools** - Vibration, noise, FEA, starting study
- **Different rotor technology** - The right product for the right application
- **System Optimization** - Motor and Variable Frequency Driver

POWER CAPACITY



DECARBONIZATION

GE Vernova's high efficiency electrical machines help reduce global carbon intensity for power generation

Electrical technology also supersedes mechanical drivers in terms of lower carbon footprint.

About GE Vernova's Power Conversion & Storage business

GE Vernova's Power Conversion & Storage business combines advanced energy conversion and storage systems to meet the electrification needs of utilities and industries. With a focus on power stability, energy storage, and industrial electrification solutions, Power Conversion & Storage empowers customers by addressing their most complex electrification challenges and accelerating their transition to a sustainable, decarbonized future.