Static Excitation System

For DC Arc Furnaces we can also provide solutions that range from 6 pulses to 48 pulses. The complete system includes the regulation of the motor windings or thyristor-based DC converter. The cooling system is closed circuit using deionised water. The configuration on the network side can be:

- forced water with water-air exchanger
- forced air
- natural air

Cooling methods include:

- forced water up to 6000A
- forced air up to 3500A
- natural air up to 200A

Power Quality

The Silcovar is a high current AC/DC converter designed for synchronous machines. The converter is a static compensator that supplies excitation current to the motor windings. It is equipped with protection devices. The configuration on the network side is: high current AC/DC converters / Reactive Power static Compensator

The Silcomax series is a very high current diode rectifier that is suitable for synchronous motors. The configuration on the network side is: High current AC/DC converters / Reactive Power static Compensator. The system consists of Harmonic filters and reactive power compensation. The Silcomax Light up to 1000 V and power range: 8-50 kA. The Silcomax Large up to 1600 V and power range: 40-120 kA. The Silcostat is an AC/DC thyristor power converter that supplies excitation current to synchronous generators. Applications: DC arc furnaces, smelters, chemical processes (chlorine, caustic soda, PVC), research facilities, for arc furnaces from 6 pulses to 48 pulses, for arc furnaces over 50 pulses. Power range: Voltage: DC 100 V to 1000 V, Current range: 2-250 MVAR, from 1853 to Present. Nidec ASI, a destiny with roots that go back more than 150 years, Nidec ASI was formed in December 2012 as a result of the acquisition of Ansaldo Sistemi Industriali Spa (ASI) by Nidec Corporation. The company can trace its origins back to the founding of Ansaldo in 1853. ASI was born as Ansaldo’s specialized in providing innovative power control and dynamic performance with a high level of efficiency across the drive systems’ entire speed range. The variable frequency drive system is designed to optimize Life Cycle Costs for your equipment by making it possible for plant managers and technicians to play an important role in your Maintenance and Operating position across the globe.