



Sogaenergies Generators: a complete range of powers.

EV and VS series, with powers up to 1 MW, are developed for wind turbines at low, medium, high speed.

Soga Energy Team is an Italian industrial group, which head-quarter Soga SpA is located at just an hour's drive from Venice, specialized from over the last 50 years in the design and manufacturing of generators and motors today marketed in 80 countries worldwide.

Sogaenergies division, skilled in renewables and special projects, is particularly focused on wind industry, proposing to manufacturers of mini wind turbines as a technical partner in providing **synchronous AC generators at low, medium, high speed up to 1 MW.**

EV: PMG GENERATORS FOR DIRECT DRIVE AND MEDIUM SPEED APPLICATIONS.

The EV range consists of 22 models of permanent magnet, multipole, radial flux generators with powers **up to 300 kW** on 7 sizes: EV180 – EV225 – EV315 – EV400 – EV560 – EV710 – EV900.

Coupled to the blades hub with Direct Drive system (low speed) or with low ratio gearbox

(medium speed), the EV models reveal **the best market efficiencies** with nominal values up to 96%.

By developing the concept of modularity, they allow to realize turbines suitable for a specific site upon the wind speed, with no need to review the full project switching from one generator to another: while maintaining unaltered the generator diameter, only its depth is modified.

VS: HYBRID TECHNOLOGY GENERATORS FOR HIGH SPEED APPLICATIONS.

The VS range, recently introduced, includes powers **up to 1 MW.**

Built with a **new hybrid technology** based on **synchronous brushless system with voltage active control**, the VS models ensure excellent performances not only at nominal working conditions, but also within a **wide operating range (350/2000 RPM).**

The efficiencies levels are always performing at low and high speed, with values that can go up to 95%.

A further plus of these models is offered by the **safety system in case of over-speed**: the generator, besides keeping supplying the nominal power, is also providing extra power which, properly managed by the inverter, can be used to put the turbine in safety by reducing its rotation speed.

This is possible also thanks to the voltage control carried out by the generator itself, stopping the maximum voltage at a predetermined level.

In this way, the generator becomes the active player able to affect significantly, in real-time, on the dynamic control of the turbine.

Thanks to their features, as well as for new turbines the VS generators can also be used for the updating of existing projects and for the retrofit, in place of asynchronous generators, increasing the efficiency up to 30%.

The great technical know-how of the company allows to realize generators in **custom-built versions**, fully meeting any design, construction and assembly requirement of manufacturers and their turbines.

Sogaenergies generators represent essential components to compete in the global markets with technology and innovation.