

Free Like the Wind – AIRCON 10 S

With AIRCON 10 S you supply your wind-produced energy directly into your internal consumption, being thus independent from increasing energy costs as well as being free from the expensive concepts of big wind turbines.

No additional transformer station?

No, supply directly and without detours into your house connection line by then selling the energy surplus to the power supply system or using it for your internal heating system. Your new AIRCON 10 S will amortize within no time, all by itself.

And after that?

Now you own your personal and independent energy source right in front of your door. Come what may...

...count on the wind-
Slack periods are elsewhere.

EXCELLENT!

The AIRCON 10 S wind power station essentially:

- variable rotor speed through new power electronics. Best possible degree of effectiveness, even in the partial load range. Power factor regulation with very low flicker- and harmonics strain for the supply into the power system.
- rotor blade with noise-optimized blade tips
- disc rotor generator without gear unit and with a minimal ripple of moments (see also description SPARK)
- active wind tracking through propulsion by AZIMUTH
- infinitely variable regulation of the output capacity in the whole range of performance, made possible via the Aircon-Supply-System-Inject-Converter, which works self-synchronizing on a digital basis

Our SPARK-GENERATOR

(Spark: Permanently energized synchronous generator)

Conventionally built three-phase current machines working synchronously show several disadvantages – these disadvantages are avoided here by the special arrangement and the structure of our rotors and stators.

The SPARK-GENERATOR allows to run the plant rotor speed variably. By the use of this newly developed machine, essentially technical advantages arise:

- convenient run-up conduct and a low noise factor
- high electrical efficiency level

- outstanding power- and energy density with regard to the structure volume and the weight
- reduction of the harmonics strain to a hardly measurable minimum

Perfect Staying Power

The galvanized, lattice masts are specially designed for the AIRCON 10 S, deliverable in heights of 12/18/24/30 meters including static calculation as well as mast and foundation plans. Optionally a folding mast up to 18 meters can be put up without application of cranes.

Keep it on the safe side

The AIRCON 10 S provides all the necessary safety functions to keep your wind power plant safe or even to stop it operationally in the unlikely case of an emergency.

Both the generator as well as the converter are equipped with sensors to supervise the temperature. The plant control consists of a process computing system with input/output units communicating among each other: Rotor speed and acceleration, wind velocity and direction, power production, vibrations, cable torque and turbine position are all permanently observed and analysed.

Wind turbine Aircon 10 S - Technical data

- Rated output: 9,8 kW
- Rotor diameter: 7,60 m
- Rotor disc: 45,4 m²
- Switching-on wind velocity: 3,5 m/s
- Nominal wind velocity: 11 m/s
- Switching-off wind velocity: 25 m/s
- Survival wind velocity: 52 m/s
- Revolutions per minute: 60-120 r. p. m.
- Rotor speed regulation: Active stall
- 1. Brake system: Generator overload regulation
- 2. Brake system: hydraulic Disc-Brake
- 3. Brake system: Azimuth adjustment
- Wind tracking: Active controller-aided wind tracking
- Supervision: Micro controller
- Generator: Permanent excited synchronous machine
- Rated output, kVA: 12,5
- Rated tension voltage, V: 400
- Output factor (cos q): 0,98
- Harmonic waves: very low
- Remote control optional: by telephone network/radio network/internet