

# LS HuraKan 8.0

Horizontal-axis wind power turbine



## HuraKan – God of wind and storm

In Mayan mythology, the eponym Hurakan is the god of wind and storm. The innovative features of the LuvSide LS HuraKan 8.0 ensure efficient and robust operation even during periods of high winds or storms.

The flexible blade suspension reacts in the overload range, changes the pitch and thus angle of attack and reduces the diameter of the rotor. Three gas springs control the position of the blades in such a way that the system runs constantly at nominal power. This is how we succeed in doing what many power plants in the small wind sector fail to do: The horizontal-axis LuvSide turbine is not braked or disengaged at high wind speeds but continues to run at full load during the most attractive wind phase.

### Insights into the LuvSide turbine

At the heart of the LuvSide LS HuraKan 8.0 is a modular power train (bearing, gearbox, twin generator, control unit, inverter) which is fitted into a continuous casting profile to make it watertight (IP 68). These components have been developed for each other and ensure high reliability and maximum efficiency. Thanks to the downwind design, the turbine aligns itself into the wind.



# LS HuraKan 8.0

Horizontal-axis wind power turbine



## Output Power

Nominal Power	8 kW at 36 fps
Average annual yield*	12.000 kWh
Start-up wind speed	9.8 fps (6.7 mph)
Survival wind speed	164 fps (112 mph)

\*for a good location with 6 m/s average wind speed

## Rotor Dimension

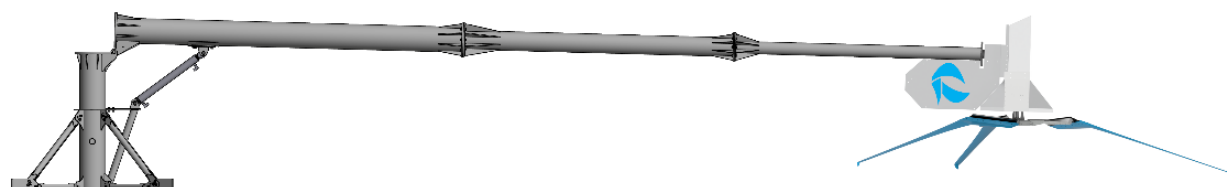
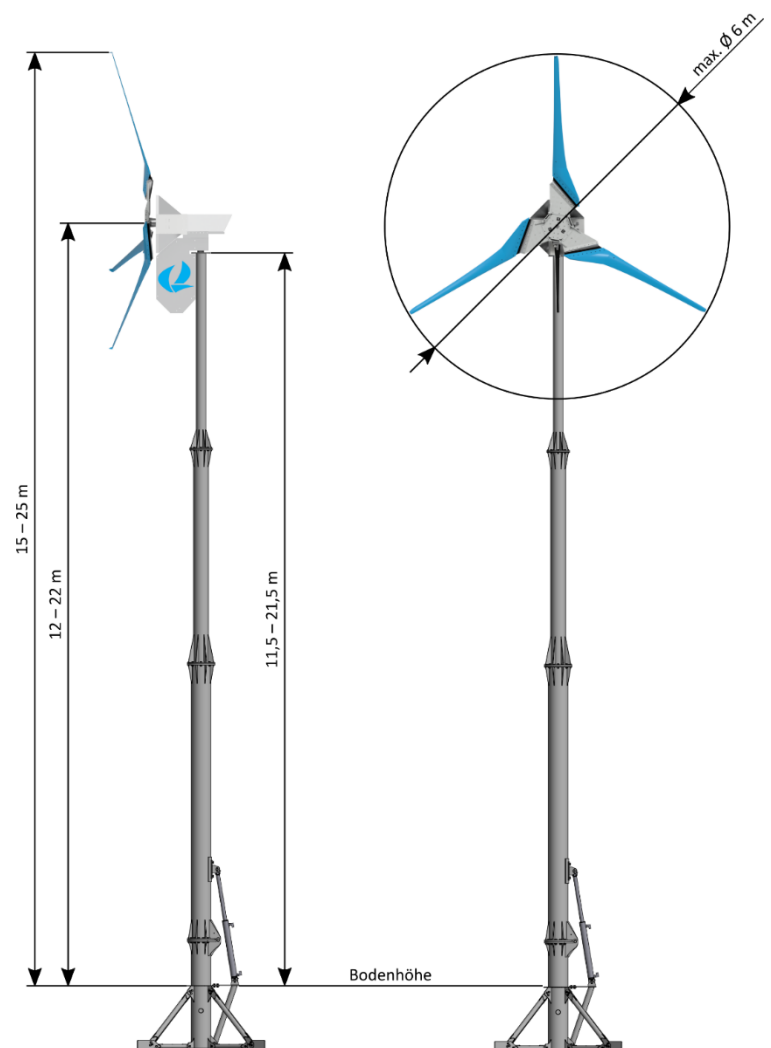
Rotor diameter	19.7 ft
Rotor blade length	8.5 ft
Projected rotor area	302 sqft
Turbine weight	992 lbs
Nominal rotational speed	260 rpm
Weight per rotor blade	17.6 lbs
Material	Glassfiber-reinforced plastic (GRP)
Manufacturing process	protopur composite

## System Information

Heigh	39-72 ft
Alignment	Down-wind principle with wind vane
Mode of action	Horizontal axis (lift principle)
Power connection	AC 400 V / Three-phase power
Safety features	- Mechanical control - electric brake
Ingress protection	IP 68

## Foldable Mast for easy construction

With the SteelRoots® foldable Mast, the construction of the turbine is significantly simplified. The foundation is buried on site and covered again with the excavated material and compacted. This way there is no soil sealing. The mast and turbine are delivered in pre-assembled assemblies and mounted at the foundation. Finally, the mast is erected hydraulically, so no crane and cherry picker are needed.



# LS HuraKan 8.0

Horizontal-axis wind power turbine



## Installed systems



The RES Project South Africa is supported by the German Federal Ministry for Economic Affairs and Climate Action as part of the Renewable Energy Solutions Programme of the German Energy Solutions Initiative.

Supported by



on the basis of a decision  
by the German Bundestag

Implemented by



Customer



Project partner



### LuvSide GmbH

Wind power technology  
Krankenhausstraße 18  
86911 Diessen am Ammersee  
Germany

Phone +49 89 1892 83 54  
[info@luvsidede](mailto:info@luvsidede) | [www.luvsidede](http://www.luvsidede)

### Distributor for the African Continent:

Energy Systems Africa  
209 Rondebult road, Farrar park  
Boksburg, Johannesburg, 1459  
South Africa

Phone +27 82 552 76 78  
Rodney Love: [r.love@esafrika.co.za](mailto:r.love@esafrika.co.za)