S120

2.1 MW
PLATFORM
DOING MORE WITH LESS
THE SUZLON GROUP

Suzlon Group is among the world’s leading renewable energy solutions provider and is spread across 18 countries in Asia, Australia, Europe, Africa and Americas. With over two decades of operational track record, the Group has a cumulative installation of over 18 GW of wind energy capacity, over 7,500 employees with diverse nationalities and several world-class manufacturing facilities. Suzlon is the only Indian wind energy company with large in-house Research and Development (R&D) centres in Germany, Netherlands, Denmark and India. Over 12 GW of the Group’s installation is in India, accounting for ~35% of the country’s wind installations, which makes Suzlon the largest player in this sector. The company has also forayed into the solar space. The Group headquartered at Suzlon One Earth in Pune, India comprises Suzlon Energy Limited and its subsidiaries.

KEY DESIGN FEATURES

**Rotor:**
Advanced pitch control mechanism allows individual control of each blade and enables 120m rotor on the 2.1 MW platform.

**Blade:**
SB 59 with massive swept area of 11,225m² and new generation of profiles along with superior leading edge protection coating provides longer maintenance cycles and ensures maximum generation in low wind regimes.

**Generator:**
Grid-friendly DFIG electrical systems continue to smoothly integrate wind turbines into the ever demanding utility network, meeting the latest grid requirements.

**Hub:**
Improved hub sub-assembly enhances safety and ergonomics.

**Tower:**
Various tower options (hub height and construction) help unlock the potential of previously unviable sites.
With our hugely successful 2.1 MW platform, we are constantly pushing our limits and the latest outcome of these efforts is the S120 - 2.1 MW.

With this product, we have yet again redefined the benchmark and built a world-class product specifically for low wind regimes.

Tower variants include various hub height (90m, 120m, 140m) and construction (Steel Tubular, Hybrid Lattice, Hybrid Concrete) options depending upon site conditions.

The superior performance of the S120 will improve ROI for customers and set a new benchmark in the Indian wind industry.

**OPERATING DATA:**
- Wind class - IEC S
- Rated power - 2.1 MW
- Cut-in wind speed - 3.0m/s
- Rated wind speed - 9.5m/s
- Cut-out wind speed - 26.1m/s (3-second average)
- 18.0m/s (10-minute average)

**GENERATOR:**
- Frequency - 50Hz
- Asynchronous - Slip ring asynchronous generator

**TOWER:**
- Hub heights - 105m | 120m | 140m
- (depending on the type of the tower)
- Type - Steel Tubular | Hybrid Lattice | Hybrid Concrete

**BLADE:**
- Make - Suzlon SB59

**ROTOR:**
- Diameter - 120m
- Swept area - 11,225m²

*Power curve according to wind class IEC S and air density 1.16kg/m³. The released power curve has been created according to IEC 61400-12 guidelines. The actual power curve on specific sites varies due to site-specific conditions.*