

## Operational Data • Power Curve

### 1.0 GENERAL DATA

Type	Avionex-30/250
Rated output	250 KW
Rated voltage	415 V
Rated frequency	50 Hz / 60 Hz
Voltage variation	± 5%
Frequency variation	± 2 Hz
Asymmetry variation	15% V
Regulation	STALL
Rotor speed	29.5/39.8 rpm
Nacelle tilt angle	3°

### 2.0 OPERATIONAL DATA

Cut in wind speed	3 – 4 m/sec
Rated wind speed	15 m/sec. (250 KW)
Wind speed for maximum output	19 m/sec. (271 KW)
Cut-off wind speed	25 m/sec
Survival wind speed	57 m/sec

### 3.1 Rotor

Diameter	29.7 m
Swept area	693 sq.m
Number of blades	3
Length of blades	13.4 m
Rotor speed	39.5 RPM
Tip speed ratio	1.57
Regulation (stall/pitch)	stall

### 3.2 Gearbox

Gear ratio	25.4
No of stages	3
Gear type	Helical

### 3.3 Brake System

Disc brake	2 calipers
Aero dynamic brake	Tip brake

### 3.4 YAW System

Type	Active yawing
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### 3.5 Generator

Type	Induction Generator
Nominal Output (KW)	250
Designed output (KW)	290
Synchronous speed	750/1000 RPM

### 3.6 Control System

Type	Micro processor based
Soft start	Yes.
Capacitor rating	100 KVAR + additional if required

### 3.7 Tower

Type	Lattice
Hub height	50 m / 182.26 ft.
Corrosion protection	Hot dip galvanized

