

## ae 14.0-111.0

### General Data

Blade length (m)	111.0	Maximum chord (m)	7.018
Design Type Class (-)	1B	Prebending at tip (m)	4.00

### Operation Parameter

Rated power (kW)	14000
Rotor diameter (m)	228
Nominal speed (rpm)	7.54
Nominal tip speed (m/s)	90.0

### Aerodynamic Parameter

Tip speed ratio (-)	9.75
Power coefficient** (-)	0.491

### Blade Connection

BCD blade root (mm)	5050
Number, size of tension bolts	tdb.

### Mass and Frequencies

Mass (excl. T-Bolts) (kg)	69760
Mass-T-Bolts (kg)	tdb.
CoG (m)	31.18
First / Second flap-wise frequency (Hz)	0.44/1.24
First/Second edge-wise frequency (Hz)	0.68/2.24

\*\* blade itself without turbine specific rotor cone and tilt angles and wind shear

The standard design of the blade is performed with the wind conditions and operation parameters as listed above. Any customized modifications of the wind conditions, the blade materials and the structural design are possible. Its lightweight construction using modern glass fibre textiles along with its load reducing design makes this blade well-balanced. The blades' structure is based on the well proven and successful AEblade concept.

