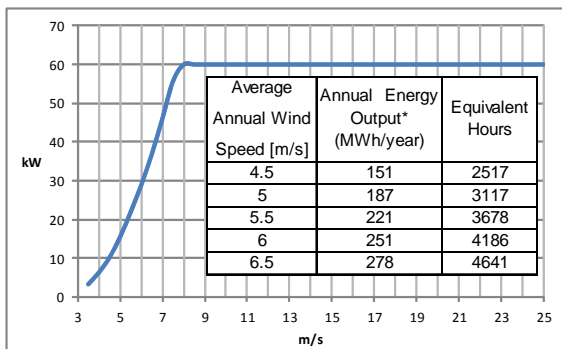


1	Rated power (kW)	59
	Rated wind speed (m/s)	8
	Cut in / out Speed (m/s)	3.5 / 20
	Wind direction	Downwind
	Wind class	IEC III
	Operating temperature range	-20 ° C to 45 ° C
2	ROTOR	Swivelling Single blade
	Material	Fibreglass / epoxy resin
	Turbined area (m ²) / Ratio m ² /kW	600 / 10
	Pitch	Variable
	Rotor Speed (rpm)	up to 50 rpm
	Max torque (kNm) / Thrust (kN)	14.5 / 16.9
	Turn direction	Clockwise (looking to downwind)
	Rotor height (m)	28
	Weight (kg)	3200
3	PENDULUM	
	Multiplication ratio	15.5
	Efficiency %	96
	Lubrication	Oil bath
	Generator	Squirrel-cage rotor
	Number of poles	8
	Voltage (V)	up to 500
	Frequency (Hz)	50/60 Hz
	Protection class	IP 54
	Thermal class	F
Weight (kg)	1900	
4	Nacelle Weight (kg)	1800
5	Weight over tower (kg)	6900
6	Tower weight (kg)	9900
7	Total structure weight (kg)	16800
8	Electrical cabinet (kg)	900
9	Sound power level dB(A)	72

ELECTRIC POWER STD CONDITIONS

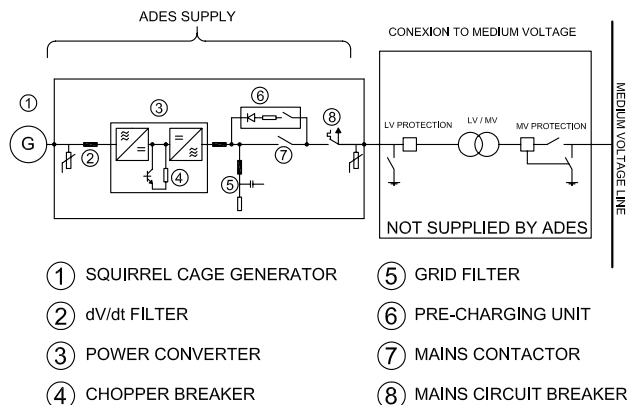
Clean Blade - $\rho = 1,225 \text{ kg/m}^3$



Tolerance $\pm 3\%$

*Annual energy production estimates assumes a Rayleigh wind distribution, standard conditions, no transmission losses and 100% availability.

UNIFILAR SCHEME



- ① SQUIRREL CAGE GENERATOR
- ② dV/dt FILTER
- ③ POWER CONVERTER
- ④ CHOPPER BREAKER
- ⑤ GRID FILTER
- ⑥ PRE-CHARGING UNIT
- ⑦ MAINS CONTACTOR
- ⑧ MAINS CIRCUIT BREAKER

In comply with Operating Procedure for Voltage Dips and EMC