

COMPARATIVE FEATURES UNITRON VS CHINESE WIND GENERATORS

Sr. No.	Wind Generator part and Features	UNITRON	CHINESE
1	Rotor blades	High Cp Carbon Composite , ultra light weight (< 1kg / M), all weather impermeable blades. Ensures high OUTPUT under low winds	Low Cp fiberglass , heavy (> 2.5Kg / M), failures seen under snow and rain , water seepage in rains, LOW output < 50%
2	Alternator Stator	High Quality Silicon Steel thin stampings, M63 grade , dual coated copper winding with CLASS "H" insulation	Low grade steel , no insulation standards followed results in burnt stators in the first year of operation in windy sites
3	Alternator Rotor	Very high grade C10 contoured magnets, in-house machined and magnetized to ensure uniform in situ gauss strength and special coating.	Mostly bought out item and no quality control
4	Yaw System	High grade stainless steel shaft with copper chrome rings fused on to the glass epoxy insulation complimented by Cu-Br spring contacts will ensure N X 360° freedom in Horizontal plane.	This kind of yaw mechanism is not available on most Chinese models , wind generator cables can get twisted and unwinding is necessary frequently
5	Surface Treatment	Multilayer surface treatment, Green Zinc , followed by Akzo powder coat , epoxy and clear Acrylic final coat.	Mostly very low cost enamel or spray paint , protection treatment is completely absent
6	Controller	In-house manufactured using new generation reliable power electronic components and embedded IC chips , high quality additional switch gear needed with controller	Mostly low quality out sourced product simple rectifier etc just a simple BOX , nothing else
7	Manufacturing process	Entire component range is manufactured in house , this will ensure consistency in QUALITY	Most of the major parts like alternators , blades etc are outsourced or manufactured by third party
8	Energy output	Meets or exceed claimed power	< 50% energy than specified
9	Estimated life	15 to 20 years	5 to 6 years

Notes

1. Most of the Chinese wind generators are just Branded , the parts and components are very similar and common to most brands , they are generally mass produced , with low quality materials ,
2. Though wind generator cheaper tower and installations steeply higher due to weight of WEG itself
3. Life-cycle costs are very high though they are cheaper initially, sometimes entire assembly is replaced which is very expensive.
4. The pricing of UNITTRON also include high quality switch gear needed for systematic installation, like PF capacitor bank , MCB assist stop switch, Terminal blocks etc.,