

Wind Harvester Model 3.0 Specifications

Nordic Folkecenter, Denmark | Installed 2015, Removed 2016

The most significant changes incorporated into the *Wind Harvester 3.0* were cantilevering the basic H-type rotor, dramatically lowering its solidity, and moving from induction generation to power converters. The work produced by Wind Harvest European engineers Charliaos (Haris) Kotsarinis (aerodynamic modeling), Ionut Munteanu (cantilevered mechanical engineering), and Pablo Paz (electrical engineering) formed the basis of the design. In 2015 Antonio Ojeda and David Malcolm were brought on board to serve as Lead Engineer and Senior Engineer. They completed the modeling of model 3.0 and the redesign of model 3.1

Until this H-type iteration, field-tested in Denmark in 2015-2016, all previous prototypes had external support structures to hold the bearing in place at the top of the rotor mast, either with guy-wires or with arms to aerodynamically shaped stators. Changing to a cantilevered design required a significant increase in the size and length of the drive shaft and the bearings' sophistication and strength.

Model 3.0 Specifications	
Rated power (kW)	50-75
Rotor Diameter (m)	12
Rotor Height (m)	14
Swept Area (m²)	168
Number of Blades	6
Number of Blade Arms	9
Solidity	11%
Generator	PMG
Gearbox	Yes
Mast Support	Cantilevered

