

# WindStax® Energy

WindStax Turbine Technical Specifications April 10, 2018<sup>1</sup>

Off Grid Microgrid	WS20OG	WS40/20OG	WS40OG	WS60OG
				
Installed Height	20' 4.5" / 6.21m	38' 10" / 11.836m	38' 10" / 11.836m	59' 2.5" / 18.05m
Width Equilateral Triangle	6' 8" / 2.032m C/L	6' 8" / 2.032m C/L	6' 8" / 2.032m C/L	6' 8" / 2.032m C/L

<sup>1</sup> The information provided in this document is intended for informational purposes only and is subject to change without notice. Manufacturer may also make improvements and/or changes in the products, pricing and/or the programs described at any time without notice.

Off Grid Microgrid	WS20	WS40/20	WS40	WS60
Installed Height	20' 4.5" / 6.21m	38' 10" / 11.836m	38' 10" / 11.836m	59' 2.5" / 18.05m
Width Equilateral Triangle	6' 8" / 2.032m	6' 8" / 2.032m	6' 8" / 2.032m	6' 8" / 2.032m C/L
Mounting	Flange w/ anchor bolts	Steel Pin w/ subframe or helical piles	Steel Pin w/ subframe or helical piles	Steel Pin w/ subframe or helical piles
Weight	2174# / 986 kg	4858# / 2204 kg	5348# / 2426 kg	7673# / 3480 kg
Structural Material	Steel	Steel	Steel	Steel
Rotor Material	Aluminum	Aluminum	Aluminum	Aluminum
Generator Drive	Variable Ratio Belt	Variable Ratio Belt	Variable Ratio Belt	Variable Ratio Belt
Rated output power	1.8kW	1.8kW	3.6kW	5.4kW
Rated wind speed	12 m/s	12 m/s	12 m/s	12 m/s
Peak output	1.8kW	1.8kW	3.6kW	5.4kW
Survival wind speed	90 mph / 40 m/s	90mph / 40 m/s	90mph / 40 m/s	90mph / 40 m/s
Start-up wind speed	7 mph / 3.13 m/s	7 mph / 3.13 m/s	7 mph / 3.13 m/s	7 mph / 3.13 m/s
Cut-in wind (adjustable)	8 mph / 3.58 m/s	8 mph / 3.58 m/s	8 mph / 3.58 m/s	8 mph / 3.58 m/s
Rated rotation speed	180 rpm	180 rpm	180 rpm	180 rpm
Max rotation speed	200 rpm	200 rpm	200 rpm	200 rpm
Rated voltage	24/48/96VDC	24/48/96VDC	24/48/96VDC	24/48/96VDC
Battery storage minimum scalable in 200AH increments	AGM 200AH@20	AGM 200AH@20	AGM 200AH@20	AGM 200AH@20
AC output scalable in 4000W increments	4000W continuous 120/220/230/240 V	4000W continuous 120/220/230/240V	4000W continuous 120/220/230/240V	4000W continuous 120/220/230/240V
Output frequency	50Hz / 60Hz	50Hz / 60Hz	50Hz / 60Hz	50Hz / 60Hz
Output Standards	UL5741*	UL5741*	UL5741*	UL5741*

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Off Grid Microgrid	WS20	WS40/20	WS40	WS60
Warranty	10 years mechanicals, Manf. warranty electronics*	10 years mechanicals, Manf. warranty electronics*	10 years mechanicals, Manf. warranty electronics*	10 years mechanicals, Manf. warranty electronics*
Hybrid PV input Capable	Yes	Yes	Yes	Yes
Generator auto start	Optional	Optional	Optional	Optional
Online Monitoring Option	Optional	Optional	Optional	Optional
Retail price per system	\$25,795	\$32,231	\$49,722	\$69,707

\*US grid tie requires grid interactive system that has the benefit of energy storage and grid interconnect sending excess energy to the utility. Turbine is not AWEA or SWA certified due to N/A of published standards for rotors. UL and NEC compliant electronics has a 5 year limited warranty from the date of purchase.

\*Country-specific standards are programmed by the manufacturer. Grid tied generator and inverter meets Low Voltage Directive 2006/95/EC: DINEN50178:1997. DINVDE0126-1-1:2006. EMC Guideline 2004/108/EC: DINEN61000-6-1:2007, DINEN61000-6-3:2007. Inverter and generator has a 5 year limited warranty from the date of purchase.

