Service Bulletin

Bulletin No: SB-0012-19-200-SW Effective Date: 07-19-2019 Type: Information

Subject: Superwind Turbine Wind Speed Survival Ratings

Scope
This service bulletin provides information on operational parameters and wind speed survival ratings for the SW-350, SW-353, and SW-1250 turbines.

Wind speed ratings
In 2019, **superwind GmbH** increased its wind speed survival rating from 100 MPH to 110 MPH with additional and now concise operational parameters. For Superwind SW-350, SW-353 and SW-1250 users, this means that between 0 and 80 MPH, the SW-350 or SW-353 can remain in the "ON" (RUN) position and continue to be fully operational. Between 81 and 110 MPH, Superwind turbine survival is likely when placed in the "STOP" Mode (OFF).
NOTE: All provided wind speeds are valid for hub height and are meant as instantaneous values in non-turbulent wind flow.

Operational impact and benefits
With this vital information, should the unit be located in the potential path of a tropical storm or hurricane, a user can switch the turbine to the "STOP" (OFF) position well before a forecasted storm arrives.

Additional survival strategies
For commercial users, a remote control stop switch (the SW-35x-ARS V1) is available for use with the SW-350 & SW-353 series. This switch can be operated manually via the dry contact available on most any standard monitoring system or when used in conjunction with a monitoring & SCADA system such as the FlexSCADA Q5 or FlexSCADA Q5 PRO. With the addition of an anemometer (wind speed sensor) or an Anemoment Trisonica Mini Weather Station (Wind, plus Wind direction with optional Temperature and Humidity) the SCADA system can automatically shut down the turbine at 70 MPH (well ahead of potentially dangerous winds over 80 MPH) while also greatly improving the turbine's survival in winds above 100 MPH. This system also allows the turbine to automatically restart once winds have decreased to an acceptable, pre-set level by continuously monitoring wind speeds. Please contact Mission Critical Energy for more integration information regarding this strategy.
IMPORTANT CONSIDERATION: Many hobby type micro wind turbines say they may survive to 110 MPH, but all require battery power to do so and must cease production at 34 MPH on average. This non-professional strategy of utilizing battery power to slow the turbine not only endangers the turbine, batteries and charge controller, but also results in low or no electrical production in moderate to high winds. This is not the case with the SW-350, SW-353 or

SW-1250 and is one of many reasons why the Superwind line of turbines is commercially rated and used by off-grid professionals world-wide.
For more information on the SW-35x-ARS V1 remote control switch, FlexSCADA series RTU & Monitoring systems, wind sensors or our line of Superwind turbines, please contact Mission Critical Energy at (716) 276-8465 or visit us at www.missioncriticalenergy.com.

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