



we control

WIND ENERGY



Wireless eolic plant monitoring system

we500 is a flexible, full featured and high performance solution for system control, data logging and remote monitoring of all elements of every single tower in the wind farm. It helps to prevent component breakdown and to reduce maintenance costs.

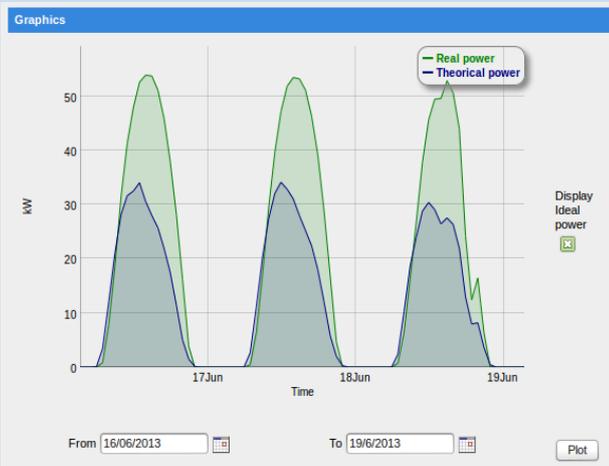
Turbine	Total	1	2	3
Current production	149.10 kW	50.39 kW	49.97 kW	48.74 kW
Total energy production	14069.38 kWh	4751.60 kWh	4722.55 kWh	4595.23 kWh
Profit	3855.0 €	1301.9 €	1294.0 €	1259.1 €
Saved CO2	6823.6 kg	2304.5 kg	2290.4 kg	2228.7 kg
Status	✔			
Wind speed	80 km/h 			

Autonomous system

WE500 needs only a data enabled SIM card and a power source for accomplishing its activities. It does not need any kind of on-site human interaction.

Wireless connectivity

The built-in web interface provided by WE500, that allows to monitor and download logged data, is available through 2G/3G wireless data connection, LAN or wireless LAN. The web interface can be accessed from a PC browser or from any mobile device using the iOS or Android apps provided. The remote server to which the data is sent can be located in the cloud or in the customer premises.



Remote diagnostics

The electric, control and yaw systems have the highest failure rate in a wind turbine. WE500 can monitor and detect malfunctions in these systems and report them through an advanced alert system that sends notifications to selected users by SMS or email.

It can send the notifications to a remote server that can analyze the data and reply with an action through the same channel or even by SMS commands that can be executed by WE500.

Real time monitoring and control

WE500 allows the real time monitoring and data logging of several parameters of every single turbine such as current, pressure and oil temperature inside the gear box, drive train and yaw system. It displays multi-trace graphics or tabulates that can also be downloaded for further processing.



Customizable and expandable

Thanks to its modular and flexible system architecture, WE500 can be customized according to specific needs. New or existing modules can be easily added and/or modified following user requests. WE500 is also expandable through additional analog and digital inputs/outputs when required.

NETHIX

WE CONTROL

Eolic data logging

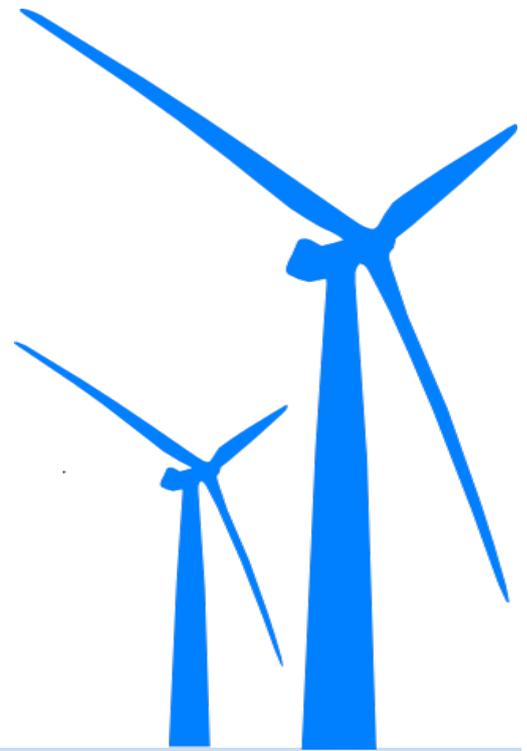
WE500 provides a sophisticated data logging mechanism that obtains several system parameters such as the rotation speed and the generated power through the local I/O, modbus or other custom protocols and sends the data to a remote server using standard protocols such as HTTP and FTP. The data can be stored in the internal memory or on USB memory sticks. It can also be downloaded in several format such as XLS and CSV. New protocols can also be implemented on request.

Redundancy

WE500 is the only device on the market with an optional dual modem that provides wireless connection redundancy to mission-critical systems. The redundancy is provided through several policies that can be selected according to the users needs.

User friendly

The web interface is self-explanatory and versatile. Data are presented with tables and multi-trace graphics, that allow to compare several parameters in a single plot, such as the comparison between the theoretical energy and the currently produced energy. Several elements of the user-interface can be personalized, including the company logo and colours, giving the desired look & feel.



WE500 Technical data

- CPU: ARM 32-bit
- Storage: 1 GB Flash
- Communications: 2x RS-232, 1x RS-485, MODBUS
- Local I/O: 8 digital IN, 2 digital OUT, 2 analog IN
- Wireless: Modem 3G/HSPA or 2G/GPRS
- Connectivity: Ethernet 10/100 Mbit RJ45
- Optionals: Dual modem, USB, WiFi



Nethix S.r.l.

Via dei Pini, 21
31033 Castelfranco V.to
(TV) - Italy
T. +39 0423 770750
F. +39 0423 770749
info@nethix.com



nethix.com