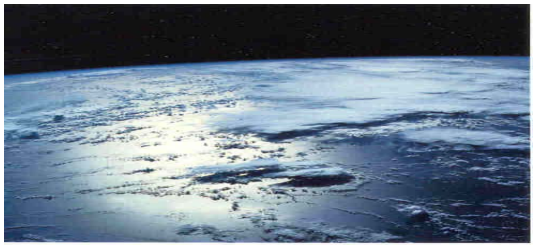

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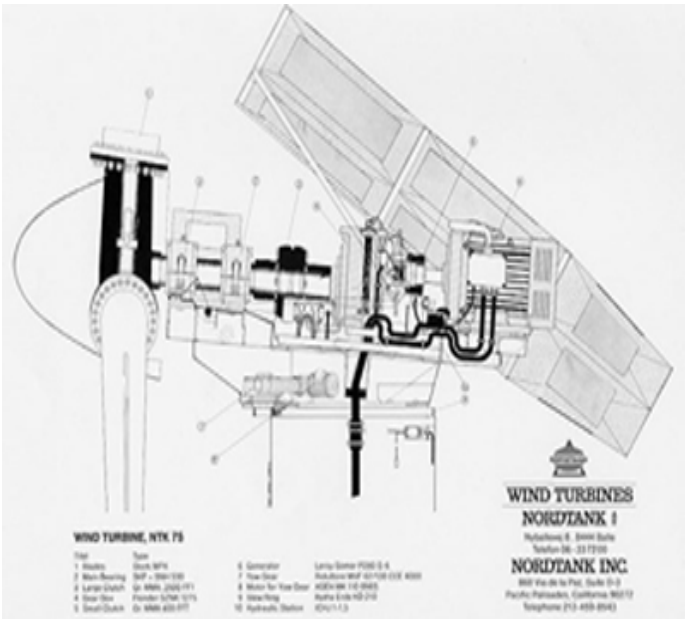
J.P. Sayler & Associates, Consultants Ltd.
P.O. Box 41515, Des Moines, Iowa 50311 USA
Tel: 515. 255. 4970 Fax: 515. 255. 4925

Windturbine Consultation, Engineering, Sales & Installation

Contact Us
Windworkers.com

TECHNICAL DATA SERIES:

Nordtank 65 kW



Turbine Price Complete: $ 44,770.00 USD [1]

Delivery: 6 to 8 weeks [2]

System Specifications:

Tower

- Hub height: 80 ft w/ base
- Material: Hot dip-galvanized tubular steel. Three sections, w/ access doors bottom & top.
- Safety: Nacelle reached by inside tower ladder; lockable doors.

Component Weight

- Nacelle: 12,580 lbs
- Tower: 14,300 lbs

Rotor

- 3 fixed pitch blades
- 54 ft. diameter
- Upwind orientation

Generator

- Rate generator power: 65 kW at approximately 33 mph, max out 68 kW at 39 mph.
- RPM's: 1200
- Type: Asynchronous 480 VAC; 3-phase;
- 60 Hz + or - 1 Hz, Phase equal. control

Operational Data

- Cut-in wind speed: 8 mph
- Cut-off wind speed: None (stall regulated)
- Survival wind speed: 120 mph

Blades

- Fiberglass reinforced polyester
- 2,290 sq ft swept area

Miscellaneous

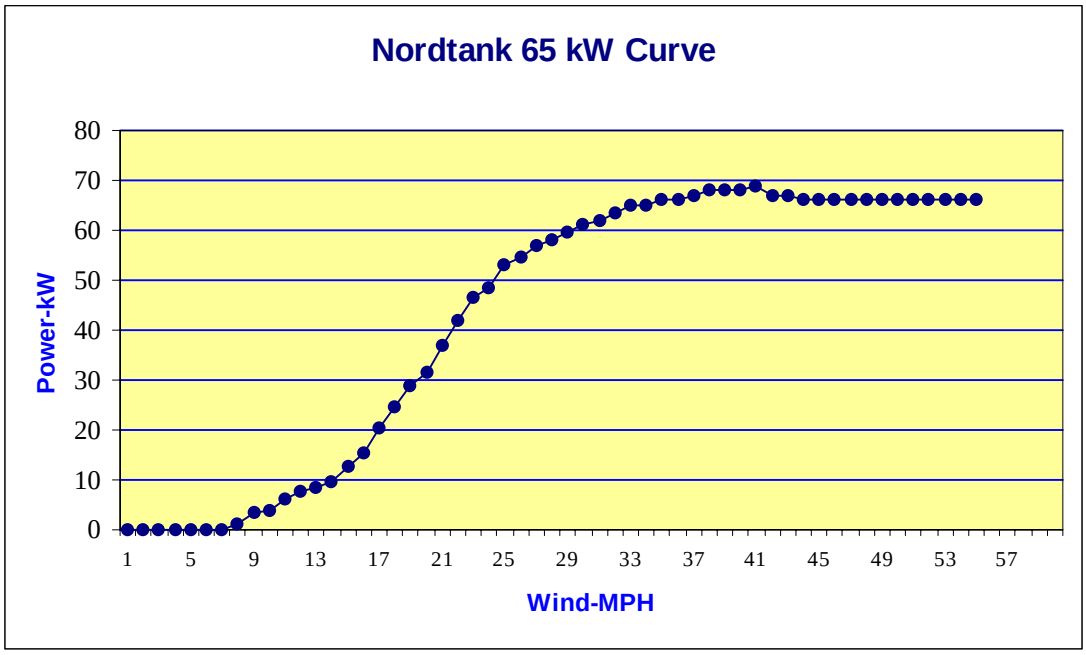
- Control panel mounted safely inside tower base.
- Centrifugally activated blade-tip brakes.
- For more information on this, or other turbines, contact us at; mailto:ewind@netins.net

Safety

- All turbines purchased include the following OSHA approved safety equipment, which is packed within the turbine load at time of shipment.
    - Safety climbing harness with shock absorber strap
    - Climbing lanyards
    - Slip grips, no fall
    - Safety instructions manual

NOTE: All personnel working in, on or around a turbine installation should wear a hard hat at all times.

System Performance [3]



Windspeed		Output
M/S	MPH	Kilowatts
0.0	0.0	0.0
2.0	4.4	0.0
3.0	6.6	0.0
4.0	8.8	3.5 kW
5.0	11.0	6.2 kW
6.0	13.2	8.6 kW
7.0	15.4	13.2 kW
8.0	17.6	21.5 kW
9.0	19.8	29.5 kW
10.0	22.0	42.0 kW
11.0	24.2	48.5 kW
12.0	26.4	55.0 kW
13.0	28.6	59.0 kW
14.0	30.8	62.0 kW
15.0	33.0	65.0 kW
16.0	35.2	66.0 kW
17.0	37.4	67.0 kW
18.0	39.6	68.0 kW
19.0-25.0	40.0-55.0	66.0 kW

RECONDITIONING PROCESS

- **All parts:** Inspect/replace as needed
- **Gearbox:** Inspect gearbox, check endplay, replace seals if needed, and fill with new gear oil.
- **Brake unit:** Test magnetic brake unit & meg electric motor
- **Yaw System:** Meg yaw motor. Inspect yaw bearing & adjust yaw pinon gear to yaw ring.
- **Generator:** Meg large generator.
- **Main Shaft:** Inspect mainshaft bearings, seals, & coupler. Replace if needed.
- **Anemometer:** Test RPM sensor, anemometer & windvane.
- **Controller:** Check & test controller & set parameters
- **Blades:** Inspect blades, balance & match set, inspect & adjust tips & replace tip pins & bushings if needed

SHIPPING

- All prices quoted are FOB: Riverside, California U.S.A.

WARRANTY

- Turbines are warranted for a period of two years on drive train. (One year on major components).
- Replacement parts are available.

INSTALLATION

- Manual and blueprints provided at time of sale.
- Foundation drawings available, based upon your geologic conditions.
- Technical phone support, on-site installation supervision or system installation available, under separate contract.

DESIGN ADVANTAGES

- Low visual impact tubular towers
- Easy access to controller and nacelle via internal tower ladder with dual lockable doors
- Ease of service and maintenance during inclement conditions

NOTES:

[1] Prices and delivery dates are subject to availability and change. We do offer price discounts for multiple system purchases. Contact us for additional information and a price quote.

[2] Please confirm with us at: ewind@netins.net

[3] Annual electrical production in kilowatt-hours will vary dependent upon your wind speed averages. We would be glad to assist you in calculating your annual production upon request.