



## THREE-PHASE POWER CONVERSION SYSTEM

The wind – unpredictable and erratically fluctuating – is a challenge to harness. Magnetek's three-phase utility-interconnected wind power inverter efficiently tames the energy produced by large wind turbines and delivers it to the grid.

E-FORCE Wind Inverters are designed for easy, quick installations and low maintenance, resulting in more up time so you reap the savings.

Harvest more energy by maximizing the full potential of your wind turbine, increase tower cooling options by leveraging E-FORCE's unique thermal management system, and minimize service calls by utilizing our highly reliable and modular design. Install E-FORCE Wind Inverters in your turbine system and you'll be sure to harvest more green.

### HIGH PERFORMANCE REDEFINED

Magnetek's E-FORCE Wind Inverters offer peak efficiencies of over 97% when operating at full power, harvesting more energy from your wind turbine. This inverter provides less than 5% total current distortion and uses proven Magnetek pulse width modulation techniques.

### BENEFITS

- High power density in compact, modular design
- Scalable power from 1.25 to 5 MW
- Full-scale conversion systems for synchronous permanent magnet generators
- Controls are digital signal processor (DSP) based with sophisticated real time pre- and post-event data logging
- Air- and liquid-cooled thermal management options
- Highly dynamic control response
- High voltage IGBT modules for reliable operation
- Low voltage ride through (LVRT) capable
- Front access and compact modularized subassemblies
- Seismic Zone 4 structural design
- Optional outdoor enclosure design

## RIDE-THROUGH CAPABILITY

Our modular E-FORCE Wind Inverters remains on-line and rides through utility transient conditions, providing seamless performance of your wind turbine once normal voltage levels resume.

## RIDE-THROUGH DESIGN DATA

VOLTAGE LIMITS	TIME DELAY BEFORE DROP OUT
100% of Nominal to 110%	Nominal Operation
100% through 120%	5 Seconds
120% through 130%	0.5 Seconds
130% and Above	Instantaneous
100% of Nominal to 90%	Nominal Operation
90% through 10%	3 Seconds
10% and Below	150 milliseconds

## SPECIFICATIONS

Voltage Output 3-Phase, 690 VAC

Frequency 60 Hz Std, 50 Hz optional

Enclosure NEMA 1,  
(Optional NEMA 4, IP 65)

Ambient Temperature  $-20^{\circ}$  C to  $50^{\circ}$  C

Low voltage ride-through capability (See chart above)

Air-cooled and liquid-cooled thermal management options

Individual Inverters rated at 625 kW output

Scalable (n+1) redundancy to 5MW

Dimensions 82.9" W (2235.2mm) x 88.4" H (2245.4mm) x 30.2" D (767.1mm) @ 1.25MW

Weight 5400 lbs. (2454.5 kg)

2 year warranty standard, extended warranty optional



N50 W13605 Overview Drive  
Menomonee Falls, WI 53051  
p 866.381.2035  
f 262.790.4142

[magnetekrenewableenergy.com](http://magnetekrenewableenergy.com)

© 2011 Magnetek, Inc.  
Pub No. E-FORCE\_WIND

  
HARVEST MORE GREEN™