PHASE PERFECT®
WIND POWER CONVERTERS

PRODUCT INFORMATION
MODEL: PT3110

Phase Perfect® Grid-Tie Wind Converters represent the ultimate technology for converting three-phase electrical power to single-phase electrical power for three-phase AC induction generators to tie back to the single-phase grid.

Phase Perfect utilizes the latest advances in solid state power switching technology. Proprietary software controls power switching devices to generate power with precision and efficiency. Its patented design makes it unlike any other grid-tie phase converter.

POWER QUALITY

Phase Perfect provides balanced voltages with very low harmonic distortion and an output current that is true sinusoidal, near unity (.99) power factor and does not produce harmonics which can pollute the power grid. Phase Perfect® grid-tie wind converters typically operate at 97% efficiency.

REGENERATIVE POWER CAPABILITY

Phase Perfect converter's bi-directional design handles regenerative power by passing clean, balanced power back onto the single-phase line when three-phase loads are in a generating mode. This also allows the utility to power the generator and keep it on line during brief periods of low wind. Bi-directional, regenerative power capability allows Phase Perfect to operate continuously as a three-phase to single-phase converter.

EASY INSTALLATION AND OPERATION

Phase Perfect's installation is straightforward and simple and can usually be accomplished in minutes with a minimum of additional equipment required. Phase Perfect grid- tie wind converters provide an affordable, efficient means for converting the output of three-phase wind generators to single-phase power.

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FEATURES

- Balanced three-phase voltages
- High efficiency
- Electronic power factor correction
- High momentary overload current capacity
- Automatic brownout and over-voltage protection
- Fault protection and overload protection
- Clean power fed back to utility grid from three-phase generating loads

SPECIFICATIONS

Specifications are subject to change without notice.

SINGLE-PHASE POWER	
1-phase current characteristics	Sinusoidal, 2% total harmonic distortion
Power factor	Near unity, all load conditions (.99)
Voltage	187 – 260 volts
Recommended maximum 1-phase circuit breaker rating	220-250 amps

THREE-PHASE POWER	
Rated HP	40
3-phase power characteristics	Sinusoidal, 3% total harmonic distortion
Phase-to-phase voltage balance	Better than 1% (NEMA MG1 standard for voltage unbalance)
Voltage	Equal to single-phase input voltage – 187-260 volts
Maximum 3-phase current, steady state	110 amps
Overload current, 4 seconds	560 amps

PROTECTIVE FUNCTIONS	
Under-voltage	Automatic shutdown <187 V, restart when >199 V
Over-voltage	Automatic shutdown >260 V, restart when <260 V
Internal temperature sensor	Automatic shutdown if overheated

GENERAL	
Efficiency	97% typical
Operating temperature range	-10 – 40 C
Storage temperature	-20 – 60 C
Weight	145 lb. each (2 units)
Enclosure	Powder coated steel, Type 1 indoor or Type 3R rain proof
Dimensions(H x W x D) per unit Type 1 indoor Type 3R rainproof	Wall mount (2 units) 26 x 19 x 14 in. 30 x 19 x 14 in.

OPTIONS
Plasma display with 36 character text for status indicators