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Generac® Industrial Power Launches New Sizing Program
Power Design Pro Software Offers More Features than any Competitive Software

Waukesha, Wis. – December 16, 2009 – [Generac® Power Systems, Inc.](#), a leading manufacturer of standby and portable power generation equipment, has introduced its new Power Design Pro software, a sizing and design program created by engineers, for engineers. This new software is a complete generator sizing and system design tool supporting both electrical and mechanical design.

“Recently, Generac Industrial Power made a commitment to reach out to the market, listen carefully to its customers and tailor its product offering to meet their needs,” states Noreen Brooker, senior channel manager, Generac. “This new sizing program not only meets the needs of the engineer but also has more features and capabilities than any other competitive software program.”

Based on 50 years of power generation experience, the software incorporates state-of-the-art algorithms that accurately model the load’s true characteristics. This modeling includes full harmonic and transient analysis to ensure complete generator-to-load compatibility. Power Design Pro will provide the market with the most advanced and accurate generator design tool available.

In addition to providing state-of-the-art generator sizing and analysis, Power Design Pro is a one-stop solution center for the consulting engineer and offers specification sheets; installation drawings; emission information; sound data and calculator; gas and exhaust pipe sizing; decrement and damage curves; a specification text library with full inclusive design notes; and the ability to link directly to supporting dealers for budgetary quoting and additional support.

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Specific features of the program include:

- **Harmonic Analysis** – The Power Design Pro suite uses harmonic analysis to limit the harmonic voltage distortion to acceptable levels. The software handles this by selecting a harmonic current signature for each load type and the user then has the ability to modify it to accurately model any load the user may be working with. Once the loads have been entered, the software calculates the resulting harmonic voltage distortion as that load is applied to various generators.
- **Transient Analysis** – In order to calculate transients, the software uses voltage and frequency tolerances, as opposed to a simple voltage dip model. Power Design Pro customizes allowable tolerances for each load versus a single parameter for the entire project. It also provides the user with a detailed transient analysis which identifies the load sequences and the loads in that sequence that are causing the greatest system transients – voltage and frequency.
- **Advanced Load Modeling** – When it comes to accurately capturing a load's true nature, most sizing programs don't ask the right questions such as: "Is the UPS technology passive, line interactive, ferro-resonant or double conversion?" or, "Is the variable frequency drive input six pulse unfiltered, filtered or IGBT?" In contrast, Power Design Pro uses an expert system approach to provide a safe default setting for times when specific information is limited, but incorporates the right questions to model a load's true characteristics. The software even accommodates for out-of-the-ordinary applications and allows users to build their own load types inclusive of starting, running and harmonic characteristics.
- **Load Shedding** – Power Design Pro also provides the ability to shed loads entered into the program and allows the user to evaluate the effects of running those loads against any generator configuration selected by the user. When designing redundant power solutions, load shedding schemes are often implemented to maintain system integrity. With Power Design Pro, the goal is not to simply provide a sizing recommendation, but also provide a tool to allow the user to perform "what-if" analysis.
- **Natural Load Sequencing, Cyclic Loading and Load Factors** – Power Design Pro supports natural load sequencing, cyclic loading and user-definable load factors in addition to the traditional concurrent starting load step method. This ability is designed to overcome a common limitation and misapplication of traditional generator sizing

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programs that occurs when too many loads are entered into a single step resulting in a fictitious situation that assumes all the loads are running and starting simultaneously. With Generac's new software, users no longer have to manipulate loads into an arbitrary grouping to compensate for this shortcoming.

Power Design Pro is one of a variety of product improvements made this year by Generac Industrial Power which include new engines, new enclosures, several ergonomic enhancements and aesthetic changes. These changes are just the beginning of many improvements to be made over the next year. To learn more about Generac Industrial Power, please visit www.Generac.com.

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About Generac Industrial Power

For 50 years, Generac Power Systems, Inc. has been a leading manufacturer and marketer of innovative industrial, commercial and residential standby generators. For industrial requirements, Generac offers the Generac modular power system (MPS) for exceptional reliability and scalability; the Bi-Fuel system for dramatic fuel cost savings; and the Gemini Twin Pack system for serious space-saving requirements. For more information about Generac generators, visit www.generac.com.