GENERAC®

Power Design Pro Overview Guide

PRECISE GENERATOR SIZING AND DESIGN

Generac's Power Design Pro

Explore Precise Generator Sizing and Design

At Generac, we are committed to delivering innovative power generation solutions that meet the evolving needs of engineers worldwide. With our deep expertise and industry-leading technology, we have developed Power Design Pro—a powerful software tool designed specifically for engineers like you.

Power Design Pro empowers you to accurately size and design reliable generator systems, efficiently. Whether you're working on commercial or industrial projects, Power Design Pro provides the tools and resources you need to make informed decisions and deliver exceptional system design.

This brochure will guide you through the key features and capabilities of Power Design Pro, showcasing how this cutting-edge engineering tool can transform your design process. From precise load calculations to advanced reporting features, Power Design Pro equips you with the insights and analysis necessary to confidently design generator systems that meet the unique requirements of your projects.

Explore the world of engineering excellence with Power Design Pro. Unlock your engineering potential and elevate your design capabilities. Join the community of tens of thousands of engineers who rely on Power Design Pro to simplify their workflow, save time, and help their projects succeed.

Are you ready to take your engineering designs to the next level? Let's embark on this journey together and unleash the power of precise generator sizing and design.

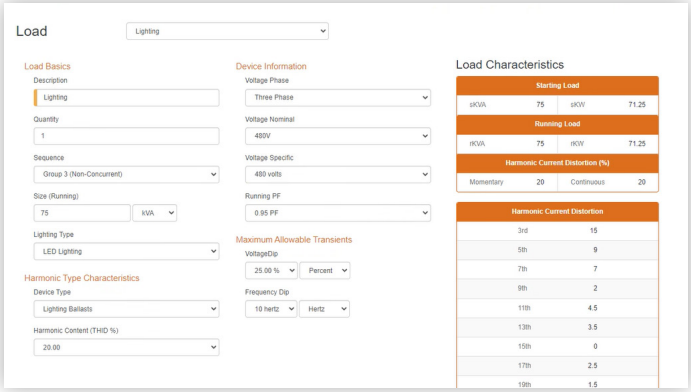
Welcome to Power Design Pro!

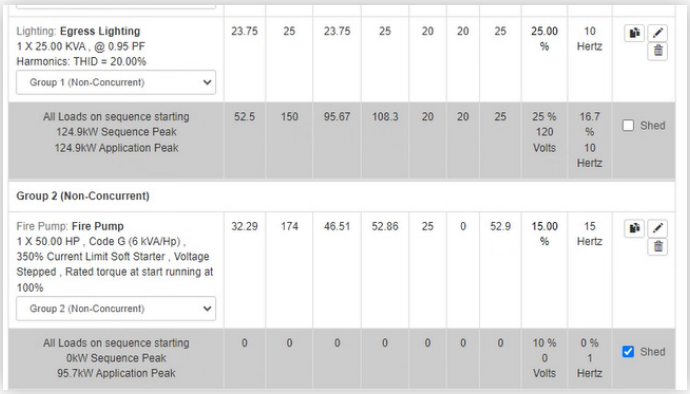
Features and Benefits

In the world of engineering, precision and accuracy are paramount. Power Design Pro is your ultimate engineering tool that revolutionizes generator sizing and design. With its advanced features and cutting-edge capabilities, Power Design Pro empowers engineers to create robust power systems that meet the exact requirements of any project.

Advanced Load Modeling

Power Design Pro offers sophisticated load modeling capabilities, allowing engineers to accurately simulate and analyze complex electrical loads. By considering various factors such as motor starting, transient behavior, and harmonics, engineers can design power systems that are reliable and efficient.



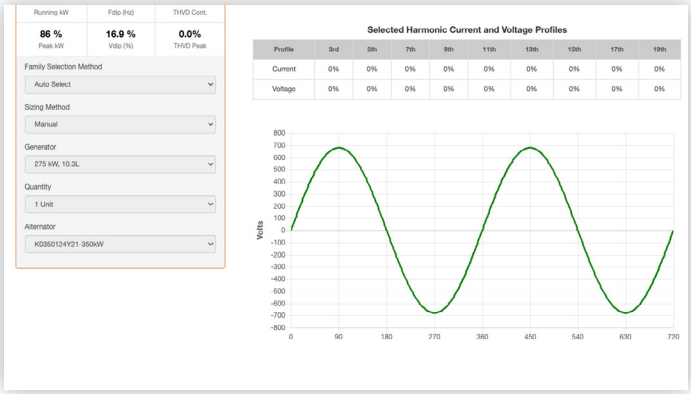


Load Shedding

Power Design Pro enables engineers to implement load shedding strategies, helping ensure the uninterrupted operation of critical loads during power outages. With the ability to prioritize and shed non-essential loads, engineers can optimize the generator sizing and backup power distribution for maximum reliability.

Harmonic Analysis

Power Design Pro incorporates comprehensive harmonic analysis tools that enable engineers to assess and mitigate harmonic distortions in power systems. By understanding and managing harmonics, engineers can minimize the impact on equipment performance and ensure compliance with industry standards.



To learn more, visit
generac.com/power-design-pro

Empowering Engineering Excellence with Power Design Pro

Streamlined Efficiency and Comprehensive Capabilities for Precise Generator Sizing and Design

With Power Design Pro, your generator sizing and design process becomes streamlined and efficient. Our intuitive user interface and interactive features simplify complex calculations, allowing you to accurately determine the optimal generator size for your projects. From load modeling to harmonic analysis, Power Design Pro empowers you to make informed decisions with ease. Look at some of the key functionalities and features that make Power Design Pro the go-to tool for engineers:

Cloud-Based Architecture

Experience the fast, accurate, and up-to-date sizing with the power of our cloud-based software. Access your projects from multiple devices and locations with a single login, thanks to safe and secure cloud saving capabilities.

Sharing and Collaboration

Power Design Pro enables efficient project management and streamlined communication. Share and collaborate with your design team or Generac's power solutions team, right from the tool.

Dynamic Calculations

Benefit from real-time results with dynamic calculations, providing you with instant feedback as you adjust your design parameters.

Multilingual Support

Power Design Pro offers a multilingual interface, ensuring ease of use and accessibility for engineers around the world.

Easy-to-Use

Designed with user experience in mind, Power Design Pro offers an intuitive and user-friendly interface, allowing you to navigate through the tool effortlessly.

Natural Load Sequencing and Load Factors

Overcoming the limitations of traditional sizing programs, Power Design Pro supports natural load sequencing and user-definable load factors. Say goodbye to manipulating loads into arbitrary steps and confidently perform accurate load calculations.

Medium Voltage Product Options

Size your projects accurately with the inclusion of medium voltage product options in Power Design Pro, ensuring comprehensive coverage for all your design needs.

Comprehensive Design Capabilities

Power Design Pro offers a wealth of design resources to support your projects from start to finish. With a comprehensive suite of tools and information, you can confidently plan and execute your generator installations. Here are some of the key design capabilities provided by Power Design Pro:

Specification Text

Access detailed specification text to guide your generator selection and help ensure compliance with industry standards.

Installation Drawings

Download accurate installation drawings that facilitate seamless project planning and execution.

Fuel Supply and Engine Exhaust Piping Design

Determine the recommended gaseous fuel supply pipe size and extended exhaust piping needed, based on your configured Generac solution and project site requirements.

Try Power Design Pro:
powerdesignpro.com

Features	Power Design Pro™
Sequence Control	
Multiple concurrent starting sequences	✓
Multiple non-concurrent starting sequences	✓
Multiple cyclic sequences	✓
Sizing Criteria Based Upon	
Running and peak kW	✓
Voltage dip (project limit)	✓
Frequency dip (project limit)	✓
Voltage dip (per sequence limit)	✓
Frequency dip (per sequence limit)	✓
Total harmonic voltage distortion (THVD)	✓
Load Modeling	
Basic (rkW, skW, rkVA, skVA)	✓
Advanced (harmonic spectrum analysis)	✓
Suggested voltage and frequency limits	✓
Suggested harmonic current spectrums	✓
Advanced modeling of SS, VFD, UPS, chillers	✓
User definable devices (customizable)	✓
Design Resources	
Specification text	✓
Specification text with design notes	✓
Drawing integration	✓
Exhaust and gas pipe sizing	✓
Integrated request for quote and info functions	✓
Analysis Resources	
Generator sizing report	✓
What if analysis	✓
Identify most demanding alternator loading	✓
Identify most demanding engine loading	✓
Harmonic spectrum analyzer	✓

Advanced Analysis with Power Design Pro

Powerful Analysis Tools

Unlock the full potential of your design capabilities with Power Design Pro's advanced analysis tools. Power Design Pro empowers engineers with advanced analysis capabilities, enabling precise generator sizing and design. Explore the following key features that enhance your analytical capabilities:

Generator Sizing Report

Generate comprehensive reports for precise generator sizing, load requirements, and equipment specifications.

"What If" Analysis

Explore design options and evaluate their impact on the system with in-depth "what if" scenarios, as they relate to load shedding, and transient analysis.

Harmonic Spectrum Analyzer

Analyze and mitigate harmonics to maintain power quality and compliance.

Application-Specific Solutions

These advanced analysis tools within Power Design Pro streamline your design process, providing you with accurate and actionable insights. By leveraging these features, you can confidently deliver optimized power generation solutions for a wide range of applications, including:

Wastewater and Sewer

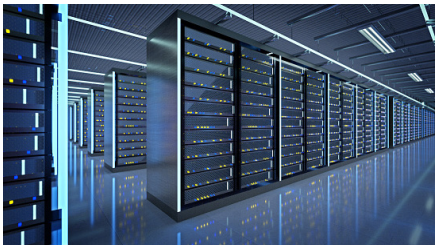
Design robust power solutions for wastewater treatment and sewer facilities, helping prevent service disruptions and ensuring public health.

Healthcare

Help ensure uninterrupted power supply for critical medical equipment and patient care facilities, enhancing patient safety and well-being.

Utilities

Optimize generator sizing and configurations to support grid stability, load shedding, and efficient power distribution during peak demand periods.



Data Centers

Size and specify generators that meet the demanding power requirements of data centers, promoting continuous availability and protection against data loss.

Commercial Buildings

Design reliable backup power systems for offices, retail spaces, and healthcare facilities, safeguarding essential operations and occupant safety.

Empowering Engineering Success

Real-World Testimonials from Generac Engineers Who Help Navigate Your Projects

Discover the real-world impact of Power Design Pro through the stories from our engineers who have experienced its benefits firsthand. See how Power Design Pro can transform your projects and elevate your engineering expertise.

> **“Generac’s Power Design Pro is an essential tool for simplifying generator sizing and specification writing. Its customizable features and accurate analysis make it a go-to solution for various applications, helping ensure efficient and optimized project completion.”**

Jesus Arguelles Chavira
Power Solutions Manager

> **“Many projects have just one or two loads that dominate the transient performance of a generator set; Power Design Pro gives immediate feedback on transient performance so the engineer can quickly and confidently select an appropriate engine-alternator combination. The effects of alternator upsizing, or the use of motor starting aids, can be easily evaluated, and compared to the requirements of other loads.”**

Michael Hainzl
Sr. Power Solutions Manager

Try Power Design Pro:
powerdesignpro.com

Join the community of engineering innovators and streamline your design process today.

Start Designing with Power Design Pro:
powerdesignpro.com

GENERAC®

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