

THE ESSENTIAL HOW-TO GUIDE TO POWER SYSTEM SIZING FOR ELECTRICAL ENGINEERS



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Generac is a leading energy technology company with over six decades of power generation experience. Generac's Power Design Pro[™] is a mechanical and electrical design and sizing tool unmatched by other programs. This innovative software is a one-stop solution center with state-of-the-art sizing and analysis capabilities, including spec sheets, emission information, installation drawings, a gas piping sizer, and an exhaust pipe sizer.

We have incorporated more than 60 years of expertise into Power Design Pro™ with the primary goal of making it easier for engineers to specify generators for their projects. The powerful software includes advanced algorithms that accurately simulate a load's true characteristics, including transient and harmonic analysis to help ensure total generator-to-load compatibility.

Generac's Power Design Pro[™] is unsurpassed by any other software on the market, helping users accurately design and size generator solutions. Users benefit from the easy-to-use interface and real-time results from dynamic calculations. Learn more about Power Design Pro[™] to see how it can streamline your generator project.

Power Design Pro designs, analysis, and identified product suggestions are dependent on user provided input project details. Customer is solely responsible for the accuracy and integrity of its data, and any errors in project inputs may impact the designs, analysis, and outputs of Power Design Pro. Unique circumstances in any user's project or application may also impact the suitability of the product suggested.

275 kW, 10 3

16.9 %

0.0%

0.0%



Clarify Project Scope

POWER DESIGN PRO™ CAN HELP USERS **CLARIFY THE SIZE OF THEIR PROJECT. OFFERING THE FOLLOWING BENEFITS:**

MODEL SOLUTIONS TO HELP **ENGINEERS BETTER UNDERSTAND THE TRADEOFFS**

BUILD CREDIBILITY BY LOOKING OUT FOR THE CLIENT'S CAPEX BUDGET

SAVE TIME WITH FEWER DRAWING REVISIONS

IDENTIFY BUDGET "BLOWOUTS" EARLY ON IN THE DESIGN PHASE

Our software focuses on how generators function in real-life scenarios so that customers can appropriately size their generator solution. Competitive software defaults to placing all loads into a single step, which not only creates a challenging condition for the generator but also leads customers to choose an oversized, overbudget solution.



The goal of Power Design Pro[™] is to avoid this situation and help users model load sequencing that more accurately represents real-life operation and sequencing of loads.

For example, one of our valued customers recently had their engineer provide us with the horsepower and loads of their motors. We entered the data into Power Design Pro[™] and received the recommended size generator. In addition, due to heavy inrush currents, the system identified that the alternator needed upsizing to help ensure facility compatibility. Power Design Pro[™] allowed us to quickly identify potential issues and provide a generator size that matched our client's needs.



QUICKLY EVALUATE POTENTIAL DESIGN SOLUTIONS

THE FOLLOWING FEATURES AND BENEFITS OF POWER DESIGN PRO™ HELP USERS QUICKLY EVALUATE THEIR OPTIONS:



Generating a model in Power Design Pro[™] does not require follow-up calls from a salesperson. As a user-initiated platform, the tool allows users to download product information through the platform as needed, giving them total control over the project's speed.

We recognize that Power Design Pro[™] may be just one of many tools that a design engineer uses when selecting a generator for their project. With this in mind, we designed Power Design Pro[™] with an intuitive user interface that allows engineers to input various load types with default settings. This simple process lets users input information quickly.

A recent customer successfully used Power Design Pro[™] to determine the recommended size of a generator. They input three 125-horsepower motor loads and the site accessory loads, quickly modeling their ideal solution and receiving a recommendation for a specific Generac product.

Step-by-Step Tutorial

Take the following steps to get started in Power Design Pro[™].



Create a new account using your work email address. All security and project sharing permissions will be attached to this email address. Once the initial setup is complete, users can remain logged in from any computer and start working

immediately. The dashboard will display projects from the past 90 days.

Power Design Pro[™] eliminates IT hassles, offers faster updates, and is easier to share while maintaining version control.

Email Address	
Password	
Sign in	



ONE OF THE MOST POWERFUL GENERATO SIZING TOOLS IN THE INDUSTRY

Get Started





SOLUTION SETUP

Global constraints are set within the project to include the following:

- Fueltype
- Voltage (nominal and specific), frequency, and phase
- Maximum allowable voltage and frequency dip
- Maximum allowable voltage distortion (continuous and momentary)
- Maximum running load
- Powerrating

Certain selections limit the range of available solutions, such as:

- Drive engine derates (altitude, temperature, LP fuel)
- Engine or alternator upsizing (Vdip or Fdip limits, rated frequency)
- No solutions (single phase limited to 200kw, no MPS, LP fuel)

Home Test Setup Diesel Test Example shared v2									
Test Setup								×	
Contact Name Contact Email	Prepared By Company			Phone Email					
Diesel Test Example shared v2					10	1	Ê	×	
Recommended Product	Loads	Documentation	Gas Piping	Exhaust Piping	Transient Analysis				





ADDING LOADS

Load types typically use conservative parameters but can be adjusted when specific information is available. Different load types address the following:

- All load types (starting and running power factor)
- Non-linear loads (momentary and continuous harmonic distribution)
- Across the line vs. VFD, soft start vs. wye/delta (starting kVA requirements)
- Fire pumps, NEMA contactors, general building loads (Vdip limits)
- UPS types (Frequency dip limits, battery recharge rate, revert to battery)
- Soft start (current limit and voltage stepped vs. ramped)
- VFD (rectifier type, configuration input)
- Reduced voltage starter (wye/delta open vs. closed, auto transformer tap-point)

Running		Transien	ts	Harmonics	
٢W	28.39	kW (step)	72	kVA	C
«VA	33.4	kW (peak)	72	THID Cont.	0 %
PF	0.85	kVA (step)	180	THID Peak	0 %

Load Characteristics

sKW

rKW

0

7.51

1.92

1 12

0.56

0.4

0

0

Voltage Phase

Quantity 2

Motor

Sequence Step 1

Size (Run 15

lotor Cha

NEMA Starting (

Code

itarting L

Starting N Soft S MOTOR LOADS

Since the motor load and starting technique affect the generator size, Power Design Pro[™] assumes the motor is 100% loaded unless otherwise indicated. Inputs include the suggested voltage and frequency limits, with tighter limits driving the project cost and generator size. Implementing improved motor starting techniques can significantly reduce generator costs.

The following factors affect motor loads:

Soft Starters:

A lower current limit extends the start-up time and reduces the sKVA requirement. A soft starter gets bypassed once the motor reaches rated speed. Soft starters are common on larger fire pumps.

Starting Method	
Soft Starter	~
Across the Line Reduced Voltage	
Soft Starter	
VFD	
Configuration Input	
Configuration Input Voltage Stepped	~
Configuration Input Voltage Stepped	

	Startin	g Load	
sKVA	104.4	sKW	24.22
	Runnin	g Load	
rKVA	34.08	rKW	28.97
Harm	onic Curre	nt Distortion (%)
Momentary	25	Continuous	0

VFDs:

Due to modern energy efficiency requirements, VFDs are common and often found in HVAC systems. THID may vary considerably and will default to 30% when no other information is available.

Starting Method	
VFD	~
Device Type	
6 Pulse Rectifier	~
Configuration Input	
Industrial (150%)	~
Harmonic Content (THID %)	
30.00	~

	Startin	g Load	
sKVA	11.4	sKW	9.69
	Runnir	ıg Load	
rKVA	35.16	rKW	29.88
Ham	nonic Cume	nt Distortion (%	ð
Momentary	30	Continuous	30

10 | PowerDesignPro.com

Starting Methods:

The most challenging load for a generator is motor starting. It is often an economic decision that dictates an improved starter or upsized generator. VFDs and soft starters reduce sKVA but result in harmonic distortion. Upsizing the alternator to reduce the effects of harmonic distortion can sometimes offset the advantages of VFDs.



HVAC/Chiller:

Many commercial HVAC systems today consist of multiple standard-sized compressors. Power Design Pro[™] makes it easy to model the starting sequence of multiple compressors. Using this load type will accurately model the starting kVA of each individual compressor as the required cooling capacity varies, while showing the correct running load at full cooling capacity.

10.59

20

0

ortion (%)

Load	AC / Chiller		~				
Load Basics Description			Device Information Compressors		Lood Char	otorictic	
AC / Chiller #1			4 Compressor Motors	~	Load Chara	Startin	no Load
Quantity			Cooling Load		sKVA	35.29	sKW
Sequence			Reheat Load			Runnir	ng Load
Group 1 (Non-Concurrent)		~	0.0 kW/ton	~	rKVA	23.53	rKW
Cooling 20	Tons 🗸		Maximum Allowable Transients Voltage Dip		Momentary	0	Continuous
			25.00 % V Percent V				
			15 hertz 🗸 Hertz 🗸				

The following factors affect non-linear loads:

UPS:

While the technology has improved over the years, THD and PF efficiency varies based on the system's age. Active front end units are more commonly used today and significantly reduce the THID with less need for alternator up-sizing Some UPS can be configured to adjust behavior when using generator power.

Load	UPS (Servets)	~	
Load Basics		Device Information	
Description		Phase	
UPS (Servers) #1		Three Phase	,
Quantity		Efficiency	
- t		97%	
Sequence		Charge Rate	
Group 1 (Non-Concurr	ent)	✓ 10.00%	
Size (KVA)		Power Factor	
100	Output 🗸	0.97	
UPS Type		UPS revert to battery on system transients 🗹	
Line Interactive		*	
Harmonic Type Charac	teristics	Voltage Dio	
Device Type		15.00 % - Percent -	
IGBT Rectifier		 Frequency Dip 	
Harmonic Content (THID	96)	3 hertz 🗸 Hertz 🗸	
7.50		U and Characteristics	
		Load Level	
		100%	

Total Harmonic Current Distortion (THID):

A measurement of non-sinusoidal current flow and the defining characteristic of a nonlinear load.

Total Harmonic Voltage Distortion (THVD):

A consequence of non-sinusoidal current flow, proportional to the power source impedance.

THVD may be acceptable (<10% per IEEE-519) when connected to a low-impedance utility power source. The same load may result in excessive THVD levels when connected to a higher impedance generator source.

Power Design Pro will assist the engineer to select the correct alternator to maintain THVD within acceptable limits.

Harmonic Content:

All non-linear loads suggest harmonic content depending on the device type. Modest improvements in THID often eliminate or reduce the need for upsizing the alternator.

larmonic Anal	ysis									Harmonic Type Characte Device Type	ristics
										IGBT Rectifier	
larmon	ic A	nalysis								Harmonic Content (THID %)	
armonic Prof	ile									7,50	
Application	Total (ru	inning)	~								
Harmonic Profile:		Application Total		Sequence	¢.		(Total)				
		(running)		2.12				-	1.40	Harmonic Cur	rent Distortion
kVA Nonlin Load;	near	148.3		THID:			11.9%	THVD	9.9%	3rd	0
kVA Base	(all	148.25		Selected a	equence(s)		70%			5th	2.49
non-linear):			harmonic loading:	alternator					7th	3.25
				io danigi						9th	0
										11th	2.87
		Selected	Harmo	onic Cur	rent and	voltage	Profiles			13th	4.78
Profile	3rd	5th	7th	9th	11th	13th	15th	17th	19th	15th	0
0	0%	8.1%	5%	0%	4%	4.8%	0%	2.4%	2.4%	17th	2.01
Current						and all a final	1.22.20	12 10 201			



SEQUENCE CONTROL

There are three load categories:

Group

(non-concurrent):

This category assumes the harshest transient in the group starts last with all other loads running. The largest skW and skVA will be added to the sum of rkW and rkVA of all other loads, minimizing the Vdip and Fdip transient impact compared to modeling multiple loads in a single step.

Step (concurrent):

This category assumes every load in a step starts simultaneously. This could lead to upsizing the alternator and generator to meet starting transient requirements.

Motor #1		
Quantity		
5		
Sequence		
Group 1 (Non-Conc	urrent)	~



Motor #1		
Quantity		
5		
Sequence		
Step 1 (Concurrent)		~
Size (Running)		
20	HP	~

	Startin	g Load	
sKVA	375	sKW	138.75
	Runnir	ig Load	
rKVA	107.5	rKW	92.45
Harm	onic Curre	nt Distortion (%	9
Momentary	0	Continuous	0

Cyclic (nonconcurrent):

All loads start at a different time, assuming average load factor as specified in the project setup phase.

Load Sequence Configuration	
Cyclic #1	
75% After Largest	٣
Cyclic #2	
75% After Largest	v

Users can quickly add all loads to Group 1 as a default, easily adjusting the sequencing at a later time.

SIZING

Generator sizing can be automatic or user-selected, dependent upon the following factors:

Load Shed

6



	Sta	rting	Ru	nning	Harm	onic Dis	tortion	Lin	nits		
Description / Sequence	kW	kVA	kW	kVA	Peak	Run	KVA.	Vdip	Fdip		
Group 1 (Non-Concurrent)											
AC / Chiller: AC / Chiller #1 1 X 20.00 w/ 1 Compressor Motors Cooling: 1.0 kW/ton Reheat: 0.0 kW/ton	42.35	141.18	20	23.53	0	0	0	35.00 %	15 Hertz	8	1
Group 1 (Non-Concurrent)											
All Loads on sequence starting 42.4kW Sequence Peak 42.4kW Application Peak	42.35	141.18	20	23.53	0	0	0	25 % 168 Volts	21.7 % 13 Hertz	🗆 s	hed
Group 2 (Non-Concurrent)											
UPS (Servers): UPS (Servers) #1 2 X 100.00 kVA at Output Loaded at 100% , 10.00% Battery Charging Harmonics: THID = 7.50%	109,7	113.09	219.4	226 19	7.5	7.5	226.2	15.00 %	3 Hertz	8	1
Group 2 (Non-Concurrent)											

Selecting the Shed check box on a specific load will exclude that load from the starting sequence. This feature helps support What-if-Analysis and will optimize utilization and system reliability.



		Sta	rting	Rur	ning	Harm	onic Di	stortion	Lin	nits	
Transient Limits	Description / Sequence	kW	kVA	kW	kVA	Peak	Run	kVA	Vdip	Fdip	
	Group 2 (Non-Concurrent)										
	UPS (Servers): UPS (Servers) #1 2 X 100.00 kVA at Output Loaded at 100%, 10.00% Battery Charging Harmonics: THID = 7.50%	109.7	113.09	219.4	226.19	7.5	7.5	226.2	15.00 %	3 Hertz	P / 1
Harmonic	Group 2 (Non-Concurrent)										
Distortion Limits	All Loads on sequence starting 219.4kW Sequence Peak 219.4kW Application Peak	109.7	113.09	219.4	226.19	7.5	7.5	226.2	25 % 72 Volts	21.7 % 13 Hertz	Shed



PROJECT LOAD SUMMARY

The project load summary considers all loads entered, with parameter limit violations flagged. Performance metrics are updated with each addition or change to loads, and immediate feedback is provided on how the generator size changes with load changes.

Nodel - 15 50 kw, Diese w 7 L Engine with Iternator	0 kW, 6.7L el Genset Si Upsized (K02001	te rated 150 24Y21-200kW)
	Request for Quote	
Ger	erate Product Guide :	Spec
	Convert to Natural Ga	s
173 % Running kW.	4.1 Fdip (Hz)	14.4% THVD Cont

******	Documentation	Gas Piping	Exhaust Piping	Translent Analysis	Harmonic Analysis	
Solution	n Limits					
Max Loa	ding	100 %	Fdip (Hz)	13	THVD Cont.	11 %
			Vdip (%)	25 %	THVD Peak	13 %
_oad S	ummary					
_oad S	ummary Running		Trans	ients.	Harmoni	6
Load S	ummary Running	258.86	Trans KW (step)	ients 109.7	Harmoni	cs 248.79
Load S	ummary Running	258.86 272.35	Transi kW (step) kW (peak)	ients 109.7 261.75	Harmoni kVA THID Cont.	cs 248.79 9 %

GAS SUPPLY AND EXHAUST PIPE SIZING

This step involves sizing natural gas pipes after the primary gas regulator (dedicated regulator immediately upstream from the generator fuel inlet) to provide minimum pressure drop and adequate gas flow at maximum load, based on the required gas flow for the selected generator. The supply pressure, run length, and number of bends must be entered to determine the required pipe size.

The exhaust pipe sizing applies to generators for indoor use and is based on the size of the generator selected according to the input loads. The run length and number of bends must be entered to determine the required pipe size.

~	
~	
*	
ngth of run (It)	Generator Min Pressure (inches of
39	water)
mber of 46 elbows	Number of Tees
2	0
table Pressure is 11.	
	ngth of run (t). 33 amber of 45 obows 2 Libbe Pressure is 11.

Sizing Method		
Manual	*	
Pipe Size		
8.00"	*	
Exhaust System Configuration		
Single	*	
Length of run (tt)	Number of Standard Elbows	Number of Long Elbows*
39	4	0
Number of 45 elbows		
٥		

ANALYSIS & REPORTING

The Project Summary Report will include transient, load, and harmonic analyses in an exportable PDF. Product documentation can be directly downloaded.

	RO. English @ editiona	ndez@outlook.com - Help 🖲 Instructional Videos Contact Us
Home Test Setup Natural Gas Test		
Test Setup		
lest octup		-
Contact Email	Company	Phone Email
Natural Gas Test		L S X
Recommended Product	Loads Documentation Gas Piping Exh	iaust Piping Transient Analysis Harmonic Analysis
ENERAC	Page 1 of 5 04/04/2026	
lution Summary		Loads Documentation Gas Piping Exhaust
Contact Information	Prepared By	
troject : Test Serup	Name : Edgar Hernandez	All and Barth All all and
olution Name : Natural Gas Test	Company: Genetac	Harmonic Analysis
pec Refé :	Phone : 414750200	
escription :	Emeil : ednemandsz@ouflook.com	
mail:		 Product Specification Sheet SG300
Solution Type	Unite	 Product Specification Sheet MG300
clution Type : Statewary	Units : English	Install Open PDF
Faultooment	Engine	Install Open DWG
mbient Temperature : 75 E / 24 G	Derv: Standor	 Install MG300 Open PDF
evation : 500 ft/ 152 m	Foet : Natural Gas	 Install MG300 Open DWG
Electrical Configuration	Market Pagion	 Install Weather RDF
Three Phone	Region : US.& Canada	· Install Weather FDF
	Application: Other	 Install Weather DWG
requency (Hz) : 50 Hz		
vouency (Hz): 50 Hz shage (Nominal): 480.277V (High Wys)	Generator Configuration	 Install SAE PDF
requency (Hz): 50 Hz citage (Nominal): 480/277V (High Wys) citage (Specific): 480 vots	Generator Configuration	Install SAE PDF Install SAE DWG
regumory (Hz): 50 Hz oltage (Komisal) : 4502/77/ (High Wys) oltage (Specific) : 450 volts) Maximum Alflowable Transients	Generator Configuration Sound (desired): No Requirement Fuel Task : No Requirement	Install SAE PDF Install SAE DWG
requency (Hz): 50 Hz obuye (Kennikal): 400.277V (Hsh Wyk) obuye (Kyecilics): 440.045 Maximum Allowable Transients Izaiman Rhanning Load : 100 %	Generator Configuration Sound (bins or) No Regimment Fuel Tank : No Regimment Ro: Time (desired) : No Regimment	Install SAE PDF Install SAE DWG Install SAE2 PDF
recensory (Md): 60 Hz; othaps (Monitoria): 4500277V (Mgh Wys); othaps (Monitoria): 450 volt; Maximum Allowable Transients 100 %; taximum Reserving Load; 100 %; taxing Op; 250 0%;	Generator Configuration Scund (Aniend): No Requirement For Each : No Requirement Run Time (deviced): No Requirement Max Subwahle Voltage Interview Max Subwahle Voltage Interview	Install SAE PDF Install SAE DWG Install SAE2 PDF Install SAE2 PDF Install SAE2 DWG
instance (Mol: SC Hz. oltage (Monimal): 450/27V (Mgh Wys) ottage (Monimal): 450/27V (Mgh Wys) ottage (Mgh Ministry): 50/200 Maximum Allowable Transients taximum Ranning Load : 10/5% ottage Op; 26/0% reaster(D) D): 10 hetz	Generator Configuration Sound [desked] No Regument Ford Easts No Regument Ban Time (desked) No Sequement Max Allowable Voltage Distortion (% THVD) Voltage Distortion (% THVD)	Install SAE PDF Install SAE DWG Install SAE2 PDF Install SAE2 DWG Gas Supply Design Guidelines
resulter (PB 4): 50; Hz; ottage (Minical): 400,0770 (Kigh Wys) ottage (Npicelike): 400,0780 Maximum Allowable Transients testing Load 1: 100 % ottage (Dp): 26,00 % testing Dp): 100 % Load Stegmence Configuration 100 %	Generator Configuration Sound (desired) No Requirement Fore Each 1 No Requirement Roin Time (desired) 1 No Requirement Max Allowable Votage Distortion (% THVD) Continuous 1 Continuous 1 11% Meanway 1 31%	Install SAE PDF Install SAE DWG Install SAE2 DWG Install SAE2 DWG Gas Supply Design Guidelines
insulancy MD1: 60 Hz; (Arbay Ellowing) 400 2777 (High Way) (Arbay Ellowing) 500 volt; Maximum Allowable Transiente Anoine Disconting Load; (Arbay Ellowing) 100 %; (Arbay Ellowing) 200 %; (Arbay Ellowing) 100 %; (Arbay Ellowing) 100 %; (Arbay Ellowing) 10 het; Load Sequence Configuration yolk; #1: (Yell & Y) Yolk Murphilic	Generator Configuration Sound (Missied) No Requirement Fuel Tank : No Requirement Rin Time (dealered) : No Requirement Max Allowable Votage Distortion (% THVD) Continuous : Continuous : 1% Monemary : 13 %	 Install SAE PDF Install SAE DWG Install SAE2 PDF Install SAE2 DWG Gas Supply Design Guidelines

	liysis					
Most diffic req	ult alter uirement	nator transient ts (Vdip)		Most diff req	ficult eng uirement	ine transient s (Fdip)
Sequence:	Grou	p 1 (Non-Concurrent	()	Sequence:	Grou	o 1 (Non-Concurrent)
Load:	Misc	ellaneous #1		Load:	Misce	ilaneous #1
Starting kVA:	75			Starting kW:	75	
Vdip Tolerance:	25.00	0 %		Fdip Tolerance:	10	
Vdlp Expected:	*6.09	No.		Fdip Expected:	1.8	
		Altornat	or Transient Ar	alvsis (Vdip)		
Sequence		Aliowable Vdip	Expected Vdip	Sequence Starti	ng kVA	Largest Transient Load
Sequence Group 1 (Non-Conce	Jrrent)	Allowable Vdip 25.0%	Expected Vdip *6.00%	Sequence Starti 75	ng kVA	Largest Transient Load
Sequence Group 1 (Non-Conce	urrent)	Allowable Vdip 25.0% Engine	Expected Vdip *6.00% • Tran Presentation	Sequence Starti 75 I last modified: 10/24	ng KVA 1/2023	Largest Transient Load
Sequence Group 1 (Non-Conci Sequence	urrent)	Allowable Vdip 25.0% Engine Allowable Fdip	Expected Vdip *6.00% • Tran Presentation Expected Fdip	Sequence Starti 75 I last modified: 10/24 Sequence Starti	ng KVA 1/2023 ing KW	Largest Transient Loan Miscellaneous #1 Largest Transient Load

SHARING A PROJECT

10

Project solutions can be shared from within the web interface, with access based on the user's login email address. There is no need to email files or deal with security or version control issues. When the project is shared, recipients cannot edit the original document. The recipient can make revisions to share back with the original user, and revised projects appear on the dashboard with the original project.

Home Clinic Test			
Clinic			/ 8 8 ×
Contact Name	Prepared By	Phone	Share Project
Contact Enter	Company	CITUM	
Test			1 / B = X

POWER		Engisti Q	edihemandez@oalloot.com	- Help O	Instituctional Video.
DESIGN	Share Project			1	
a.	Recipient Email(s) (Use ; to separate multiple email a	addresses.)			7
Edgar R Hernandez etimemandez@out				_	41473685E6 edrhemandeziĝo
	Solutions				- ×
nded Product	Test Description :			/ar.	HamooleAnalysis
Available Change F r Project Setup Se	Notes			-	THVD Cont
E Request for Quatr					HVD Peak
0					- Harmbor Ho
Fap (te)			Close Share	Project	KVA.
Marp (%)	HYD Post	0.85	NV// (stop)	70.59	THID CONL.
ethol	🔶 🔶 Add Load	l.			

GENERATE A PRODUCT GUIDE SPECIFICATION

With the generator sizing complete and performance limits verified to the engineer's satisfaction, an specification text can be easily generated after selecting desired generator set options.

Model - 500 kW, 15.2L 500 kw, Diesel Genset – Site rated 500 kw 15.2 L Engine with Standard (K0600124Y23 - 500kW) Alternator
Request for Quote
Generate Product Guide Spec
Convert to Natural Cas

Product Guide Specification Product: 500 kW, 15.2L Section: 26 32 13 Fuel Type: Diesel Standard Guide Spec: Features - per NFPA110 • Block Heater • UL2200 • Remote E-stop • Battery Charger • Critical Silencer

- Exhaust Flex
- Battery Rack and Cables
- Modbus over RS485
- FPA Certified Engine for Standby Use
- Remote Annunciator

Performance Requirement Options		
Generator Seismic Rated (Not OSHPD)	Seismic Rate (OSHPD Certified)	
Control and Monitoring Options		
Engine Run Relay	Remote Connectivity	
Fuel System Options		
Extend Tank Venting (12ft. above grade)	Fuel Overfill Prevention	
Fuel Spill Containment	Fuel Tank Risers	
Alternator Options		
Alternator Strip Heater	Alternator Tropical Coating	
Overcurrent and Fault Protection Options		
Arc Flash Reduction Maintenance System	Ground Fault Indication (NEC 7008701)	
Ground Fault Trip (NEC702)		

"Single Unit or Paralteled System		'Fuel Type		*Phase	
Single Unit	*	Diesol	*	Three Phase	*
Wire		*Enequency		"Voltage	
Please Select	v	60 Hz	×	208/120V (Low Wye)	Y
Generator Model		*Alternators		Warranty	
500 kW. 15 2L	~	K0600124Y23 - 500kW	*	5 Year Comprehensive	~
Circuit Breaker Type		"Generator Enclosure		"Sub Base Fuel Tank Capacity	
Please Select	*	Please Select	*	Please Select	~



Learn More About Generac's Power Design Pro™

Generac's Power Design Pro[™] offers a broad range of innovative capabilities to benefit any generator project. When you work with Generac, we provide assistance at every step of your advanced power management project. Our priority is to develop optimal solutions for our customers' unique problems, from custom-designed systems to turnkey options. Additionally, we provide our customers receive top-quality parts, sensible service agreements, financing services, and industry-leading warranties.

Learn more about Generac's Power Design Pro™ generator sizing software system, or contact us today to discuss how it can benefit your power system project.





ONE OF THE MOST POWERFUL GENERATOR SIZING TOOLS IN THE INDUSTRY

Get Started

Disclaimer: Power Design Pro designs, analysis, and identified product suggestions are dependent on user provided input project details. Customer is solely responsible for the accuracy and integrity of its data, and any errors in project inputs may impact the designs, analysis, and outputs of Power Design Pro. Unique circumstances in any user's project or application may also impact the suitability of the product suggested.

About Us

At Generac we're not just a company – we're pioneers charting the course towards a more resilient, efficient, and sustainable energy future. Founded in 1959, our legacy is rooted in innovation and leadership in the power generation industry. We've crafted our name by creating affordable, dependable power solutions, and designing engines specifically tailored for the rigors of generator use.

Today, as a leading provider of a broad array of energy solutions, we're committed to serving the complex needs of the commercial and industrial sectors. Our expertise extends to designing and manufacturing advanced manual and automatic transfer switches and accessories, enhancing backup power applications up to 2 MW.

But we're not simply maintaining the status quo. We're committed to leading the evolution of energy management. Whether through remote microgrids, demand response software, or efficient grid asset optimization, Generac Industrial Power is dedicated to making energy more accessible, manageable, and sustainable.

Trust Generac to energize your evolution, as we forge ahead towards a more resilient and sustainable energy future.

