



Alternative Power Sales and Rental
 512 OLD APEX ROAD
 CARY, NC 27511
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 www.alternativepower.com

Sizing Report

Rated Nominal Voltage 240
 Generator Fuel Choice Natural Gas
 Sizing Method (NEC 220) Part IV
 (Part III required for selected circuit implementation, Both valid for whole house)

General Lighting & Receptacles		Load (kW)
Square Footage Being Covered (ft ²)	2900	8.700001
Small Appliance Circuits (20 amps)		
Kitchen Circuits	2	3
Laundry Circuits	1	1.5

Fixed-In-Place Appliances & Motors	Managed Loads	Estimated (kW)	Nameplate (amps)	240 V	Load (kW)
Dryer		5.5		X	5.5
Microwave		1.3			1.3
Dishwasher		1.5			1.5
Freezer		0.8			0.8
Refrigerator		0.8			0.8

Air Conditioning & Cooling	Managed Loads	Estimated (kW)	Nameplate (amps)	240 V	Load (kW)
2.5 Ton Unit		2.5		X	2.5

Heating & Heat Pumps	Managed Loads	Estimated (kW)	Nameplate (amps)	240 V	Load (kW)
Heat Pump (2.0 Ton)	X	2.0		X	0.0
Heat Pump Electric Element	X	5.0		X	0.0

Transient Requirement	Estimated (LRA)	Actual (LRA)	Utilized (LRA)
Largest Motor's Starting Amps (LRA)	72	64	64

	Load (kW)	NEC Required
Summary NEC Load		
General Lighting & Receptacles	13.2	
Fixed-in-Place Appliances & Motors	9.9	
Sum of all General Loads	23.1	15.2
Cooling	2.5	2.5
Heating (w/demand factors)	0	0
Larger of Heating & Cooling	2.5	2.5
Sizing based on requirements of NEC Article 220, Part IV		17.7
Elevation		0 ft
Minimum size generator for motor starting requirements		9
BTU load required		301000

20 kW Generac Model Generator Recommended