

BACK-UP GENERATOR WORKSHEET-LOAD CALCULATION - 2014 N.E.C (ART.220)

JOB/PROJECT ADDRESS

DATE

NAME

PHONE

E-MAIL

OWNER INFORMATION:

James Foster

(352) 359-1736

MrCabinetman@gmail.com

CONTRACTOR INFORMATION:

NAME:

PHONE:

E-MAIL:

SPECIFY FUEL SOURCE:

NAT.GAS

LP

OTHER:

SPECIFY/VERIFY ELECTRIC SERVICE VOLTAGE:

120/240- SINGLE PHASE

OTHER

SPECIFY ELECTRIC SERVICE AMPERAGE:

100AMP

200AMP

300 AMP

800 AMP

OTHER:

NET SQUARE FOOTAGE (OF RESIDENCE):

2350

SQUARE FEET

GENERAL LOADS:		QUANTITY:	RATING (LOAD)	FACTOR	LOADS (VA)	LOADS (KW) (VA/1,000)
1	GENERAL LIGHTING & GENERAL USE RECEPTACLES	2350	3 VA/ft	100%	7050	7.05
2	BRANCH CIRCUITS (1500 VA/ft)					
2.1	SMALL APPLIANCE CIRCUITS (20 AMP)	2	1500	100%	3000	3
2.2	LAUNDRY CIRCUITS	1	1500	100%	1500	1.5
3	FIXED APPLIANCES					
3.1	WELL	1	FULL CURRENT RATING			
3.2	SUMP PUMP	1	800	100%	800	.8
3.3	FREEZER	2	3000	100%	3000	3
3.4	MICROWAVES (BUILT-IN, NOT COUNTERTOP MODELS)	1	1000	100%	1000	1
3.5	DISPOSAL	1	1500	100%	1500	1.5
3.6	DISHWASHER	1	800	100%	800	.8
3.7	RANGE (SEE TABLE 220.55 FOR MULTIPLE COOKING APPLIANCES)					
3.8	WALL MOUNTED OVEN (BUILT-IN)	1	8000	100%	8000	8
3.9	COUNTER MOUNTED COOKING SURFACE (BUILT-IN)					
3.10	WATER HEATER	1	4500	100%	4500	4.5
3.11	CLOTHES DRYER	1	5000	100%	5000	5
3.12	GARAGE DOOR OPENER	1	1500	100%	1500	1.5
3.13	SEPTIC SYSTEM PUMP/GRINDER					
3.14	OTHER UNSPECIFIED LOADS (PLEASE SPECIFY / LIST BELOW)					
3.14.1	fridge	1	1500	100%	1500	1.5
3.14.2				100%		
3.14.3				100%		
3.14.4				100%		
3.14.5				100%		
3.14.6				100%		
3.14.7				100%		
3.14.8				100%		
3.14.9				100%		
4	TOTAL GENERAL LOADS:				38350 VA	38.35 KW
5	HEAT - AIR CONDITIONING (AC) LOAD:					
5.1	A/C COOLING EQUIPMENT	1	5000	100%	5000	5
5.2	HEAT PUMP					
5.2.1	COMPRESSOR (IF NOT INCLUDED AS AC)			100%		
5.2.2	SUPPLEMENTAL ELECTRIC HEAT	1	15000	65%	9750	9.75
5.3	ELECTRICAL SPACE HEATING EQUIPMENT					
5.3.1	LESS THAN FOUR (4) SEPARATELY CONTROLLED UNITS			65%		
5.3.2	FOUR (4) OR MORE SEPARATELY CONTROLLED UNITS			40%		
5.4	SYSTEM WITH A CONTINUOUS NAMEPLATE LOAD			100%		
5.5	LARGEST HEAT / AC LOAD (VA) KW				9750	9.75
6	GENERAL LOADS					
6.1	1st 10 KW OF GENERAL LOADS @ 100% KW			100%	10 KW	
6.2	REMAINING GENERAL LOADS @ 40% KW			40%	11.39 KW	
6.3	CALCULATED GENERAL LOADS KW					
6.4	LARGEST HEAT / AC LOAD 100% KW					21.34 KW
7	TOTAL CALCULATED LOAD (NET GENERAL LOADS + HEAT/A/C LOAD)					31.09 KW

-manage

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Whole Home = 32 kw

Recommended = 24 kw