

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

JOB/PROJECT ADDRESS _____ DATE _____
 NAME: Shirley Johnson RECEIPT INFORMATION: _____
 PHONE: (361) 984-6803 NAME: _____
 E-MAIL: _____ PHONE: _____
 E-MAIL: _____

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 (200AMP) 400 AMP 800 AMP OTHER: _____
 NET SQUARE FOOTAGE (OF RESIDENCE): 1500 SQUARE FEET

GENERAL LOADS:		QUANTITY:	RATING (LOAD)	FACTOR:	LOADS (VA)	LOADS (kW)
1	GENERAL LIGHTING & GENERAL USE RECEPTACLES	1500	3 VA/ft	100%	4500	4.5
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		FULL CURRENT RATING			
3.2	SUMP PUMP	1	800	100%	800	.8
3.3	FREEZER	1	1000	100%	1000	1
3.4	MICROWAVES (BUILT IN, NOT COUNTERTOP MODELS)	1	1500	100%	1500	1.5
3.5	DISPOSAL	1	1000	100%	1000	1
3.6	DISHWASHER			100%		
3.7	RANGE (SEE TABLE 220.55 FOR MULTIPLE COOKING APPLIANCES)	1	1500	100%	1500	1.5
3.8	WALL MOUNTED OVEN (BUILT-IN)	1	8000	100%	8000	8
3.9	COUNTER MOUNTED COOKING SURFACE (BUILT-IN)			100%		
3.10	WATER HEATER			100%		
3.11	CLOTHES DRYER	1	4500	100%	4500	4.5
3.12	GARAGE DOOR OPENER	1	5000	100%	5000	5
3.13	SEPTIC SYSTEM PUMP/GRINDER	1	1500	100%	1500	1.5
3.14	OTHER UNSPECIFIED LOADS (PLEASE SPECIFY / LIST BELOW)			100%		
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:			100%	35300 VA	35.3 kW
5	HEAT - AIR CONDITIONING (AC) LOAD:					
5.1	A/C COOLING EQUIPMENT	1	3000	100%	3000	3
5.2	HEAT PUMP					
5.2.1	COMPRESSOR (IF NOT INCLUDED AS AC)			100%		
5.2.2	SUPPLEMENTAL ELECTRIC HEAT	1	10000	65%	6500	6.5 - manage
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				6500	6.5 - manage
6	GENERAL LOADS					
6.1	1st 10 kW OF GENERAL LOADS @ 100% kW			100%	10 kW	
6.2	REMAINING GENERAL LOADS @ 40% kW			40%	10.12 kW	
6.3	CALCULATED GENERAL LOADS kW					
6.4	LARGEST HEAT / AC LOAD 100% kW					20.12 kW
7	TOTAL CALCULATED LOAD (NET GENERAL LOADS + HEAT/AC LOAD)					26.62 kW

Whole Home = 27 kW

Recommended = 22 kW