

**Residential Emergency (Required) Power List**

**WORK SHEET #2**

Note: From the Residential Assessment List, the following Items have been designated as “REQUIRED” Emergency Items needed to be powered under Emergency condition.

**Homeowner info:**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Item No.** | **Equipment/Appliance** | **Starting Factor** | **Running Wattage** | **Personal Requirement**  **Risk Assessment**  **Yes/No** | **Mathematical Total Wattage Needed** (running – use maximum) X starting factor) |
| 1 | Water Heater (50 gallon) | 1 | 4500-5000 |  |  |
| 2 | Portable Heater with fan | 2 | 500-1500 |  |  |
| 3 | Furnace fan (Central) 1/4 HP | 3 | 400 |  |  |
| 4 | 1/3 HP | 3 | 450 |  |  |
| 5 | 1/2 HP | 3 | 600 |  |  |
| 6 | Computer | 1 | 200 |  |  |
| 7 | Fax Machine | 1 | 50-1000 |  |  |
| 8 | Space Heater | 1 | 500-1500 |  |  |
| 9 | Refrigerator | 3 | 750 |  |  |
| **Item No.** | **Equipment/Appliance** | **Starting Factor** | **Running Wattage** | **Personal Requirement**  **Risk Assessment**  **Yes/No** | **Mathematical Total Wattage Needed** (running – use maximum) X starting factor) |
| 10 | Freezer (separate) | 3 | 750 |  |  |
| 11 | Home Security System | 1 | 200 |  |  |
| 12 | Lights  (Need QTY, listed info is for (1) ) | 1 | 40-150 |  | Multiply TOTAL QTY desired X 150 wattage  Total QTY of Lights: \_\_\_\_\_\_\_\_\_\_\_\_\_  150 X \_\_\_\_\_\_\_ = **\_\_\_\_\_\_\_\_\_** |
| 13 | Range with oven | 1 | 12200 |  |  |
| 14 | (Stove) Small Burner | 1 | 1300 |  |  |
| 15 | (Stove) Large Burner | 1 | 2400 |  |  |
| 16 | Garage Door Opener 1/3 HP | 3 | 750 |  |  |
| 17 | ½ HP | 3 | 1050 |  |  |
| 18 | Well Pump 1/3 HP | 3 | 750 |  |  |
| 19 | ½ HP | 3 | 1000 |  |  |
| 20 | ¾ HP | 3 | 1500 |  |  |
| 21 | Submersible Sump Pump ½ HP | 3 | 1000 |  |  |
| 22 | Electric Heat Pump | 3 | 6000 |  |  |
| 23 | Central A/C 3 Ton | 3 | 6000 |  |  |
| 24 | Dishwasher with Hot Water | 2 | 1200 |  |  |
| 25 | TV - Television | 1 | 150-400 |  |  |
| 26 | Radio | 1 | 70-200 |  |  |
| 27 | Microwave | 1 | 600-1500 |  |  |
| 28 | Coffee maker | 1 | 750-1200 |  |  |
| 29 | Toaster | 1 | 1100 |  |  |
| 30 | Hair Dryer | 2 | 600-1500 |  |  |
| 31 | Washing Machine with Hot Water | 2 | 1000 |  |  |
| 32 | Clothes Dryer | 2 | 4850 |  |  |
| 33 | Air Cleaner | 2 | 50 |  |  |
| 34 | Dehumidifier | 2 | 840 |  |  |
| 35 | Humidifier | 1 | 177 |  |  |
| 36 | Vacuum Cleaner | 1 | 800 |  |  |
| 37 | Coffee Pot (10 cup) |  | 1200 |  |  |
| 38 | Coffee Pot (4 cup) |  | 650 |  |  |
| 39 | Toaster |  | 800-1500 |  |  |
| 40 | Cappuccino Maker |  | 1250 |  |  |
| 41 | Coffee Grinder |  | 100 |  |  |
| 42 | Blender |  | 300 |  |  |
| 43 | Waffle iron |  | 1200 |  |  |
| 44 | Hot Plate |  | 1200 |  |  |
| 45 | Frying Pan |  | 1200 |  |  |
| 46 | Toaster Oven |  | 1200 |  |  |
|  |  |  |  |  |  |
| **Item No.** | **Equipment/Appliance** | **Starting Factor** | **Running Wattage** | **Personal Requirement**  **Risk Assessment**  **Yes/No** | **Mathematical**  **Total Wattage Needed** (running – use maximum) X starting factor) |
| 47 | VCR |  | 40-60 |  |  |
| 48 | CD Player |  | 35 |  |  |
| 49 | DVD Player |  |  |  |  |
| 50 | Stereo |  | 30-150 |  |  |
| 51 | Clock Radio |  | 50 |  |  |
| 52 | Cassette |  | 8 |  |  |
| 53 | Satellite Dish |  | 30 |  |  |
| 54 | Vacuum cleaner |  | 300-1100 |  |  |
| 55 | Mini-Christmas Lights (50) |  | 25 |  |  |
| 56 | Iron |  | 1000 |  |  |
| 57 | 12” 3 speed table fan |  | 230 |  |  |
| 58 | Jig Saw |  | 300 |  |  |
| 59 | Band Saw |  | 1200 |  |  |
| 60 | Table Saw |  | 1800 |  |  |
| 61 | 6 ½” Circular Saw |  | 1000 |  |  |
| 62 | 7 ¼” Circular Saw |  | 1200 |  |  |
| 63 | 8 ¼” Circular Saw |  | 1800 |  |  |
| 64 | Disc. Sander |  | 1200 |  |  |
| 65 | Makita Chop Saw |  | 1550 |  |  |
| 66 | Makita Cut Off Saw |  | 1000 |  |  |

P= VI

Power (Wattage) = Voltage (V) X Amperage (I)

Calculate, from above, what is considered the Risk Value necessitated by home owner (what is essential to have operational – EACH Homeowner will have their OWN requirements). From this summation, it can be determined what the overall Emergency Generator requirements are.

I.E. Typical Total AMPERAGE Assessment for current residence – whether it is a new build or an upgrade - there is a 200 AMP Service. (If different, calculation needs to be altered).

From the formula P = VI, where P=Power (Watts); V= Volts and I = Current (AMPERAGE); (it is assumed further there is 220Volts brought INTO the Residence before it is converted to 110V)

If all these assumptions are valid - then:

P= 220Volts X 200 AMP = 44,000 Watts. 44,000 Watts is the total AVAILABLE Power to run the residence (not the total power needed to start and run everything at once!)

44,000 watts divided by 1000 watts/kW = 44 kW. Note: kW is a standard unit for many Generator sizes.

Signature/Date of Homeowner – understood NOT 100% of existing Power currently supplied to Home

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_