

# Tiny Home Appliance Guide


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## Introduction


The purpose of this guide is to provide recommended all-electric appliances for tiny, small, and mid-sized homes. Tiny homes are considered to be 100-350 ft<sup>2</sup> (1-2 people) small 350-1000 ft<sup>2</sup>, (2-3 people) and mid-sized 1000-2500 ft<sup>2</sup> (3-5 people). This guide includes appliances for water & space heating, entertainment (T.V.), lighting, laundry (washer & dryer), fireplace, and the kitchen (burner, oven, refrigerator).

### Tiny Homes


#### Water Heating

|                     |         |   |
|---------------------|---------|---|
| <b>Bosch ES 2.5</b> | 2.5 gal |  |
| 12A                 | 120 V   | 1,800W  |


#### Entertainment

|                               |                   |   |
|-------------------------------|-------------------|---|
| <b>Samsung - UN19F4000 AF</b> | Resolution - 720p |  |
| 18.51 in.                     | Direct-lit LED    | 15 W (on)   |





#### Fireplace

|                                      |           |   |
|--------------------------------------|-----------|---|
| <b>Arturo Wall Mounted Fireplace</b> | 1500 BTUs |  |
| 19.13" H x 30.55" W x 5.67" D        | 34 lbs    | 1400 W  |

#### Space Heating


|                          |               |   |
|--------------------------|---------------|---|
| <b>Arama APTHP 15000</b> | 14330 / 14000 |  |
| 6.83 A                   | 230 V         | 1415/1420   |

#### Kitchen

|                         |                          |  |                                |  |                                |  |                     |         |   |
|-------------------------|--------------------------|--|--------------------------------|--|--------------------------------|--|---------------------|---------|---|
| <b>Summit SINC2B120</b> | 2 induction burner stove |  | <b>Breville Smart Oven Pro</b> |  | <b>Frigidaire DPF073C1 WDB</b> |  | <b>Bosch ES 2.5</b> | 2.5 gal |  |
| 15 A                    | 120 V                    | 1,800 W  | 115 V                          | 1,800 W  | 15 A                           | 120 V  | 12A                 | 120 V   | 1,800W  |

### Small Homes


#### Water Heating

|                     |       |   |
|---------------------|-------|---|
| <b>Bosch ES 7.0</b> | 7 gal |  |
| 12A                 | 120 V | 1,400W  |


#### Entertainment

|                        |                   |   |
|------------------------|-------------------|---|
| <b>Haier - 24G2000</b> | Resolution - 720p |  |
| 23.55 in.              | Direct-lit LED    | 15.9 W (on)   |

#### Fireplace

|   |           |   |
|---|-----------|---|
| <b>Arturo Wall Mounted Electric Fireplace</b> | 1500 BTUs |  |
| 19.13" H x 30.55" W x 5.67" D                 | 34 lbs    | 1400 W  |

#### Space Heating

|                             |           |   |
|-----------------------------|-----------|---|
| <b>Fujitsu AOU36RLXFZ 1</b> | 8,000 BTU |  |
|-----------------------------|-----------|---|

#### Kitchen

|                         |                           |   |                                |   |                                |   |
|-------------------------|---------------------------|---|--------------------------------|---|--------------------------------|---|
| <b>Summit SINC2B120</b> | 2 induction burners stove |  | <b>Breville Smart Oven Pro</b> |  | <b>Frigidaire DPF073C1 WDB</b> |  |
|-------------------------|---------------------------|---|--------------------------------|---|--------------------------------|---|

|        |       |                 |
|--------|-------|-----------------|
| 20.3 A | 230 V | 1.29 kW/2.69 kW |
|--------|-------|-----------------|


|      |       |         |       |         |      |       |
|------|-------|---------|-------|---------|------|-------|
| 15 A | 120 V | 1,800 W | 115 V | 1,800 W | 15 A | 120 V |
|------|-------|---------|-------|---------|------|-------|

### Mid-Sized Homes


#### Water Heating

|                        |              |   |
|------------------------|--------------|---|
| Rheem Prestige PROPH50 | 50 gal       |  |
| 240V                   | 4,200 BTU/hr | 18.75 Amp   |


#### Entertainment

|                        |                  |   |
|------------------------|------------------|---|
| Samsung - UN40K5100 AF | Resolution-1080p |  |
| 38.5 in.               | Edge-lit LED     | 17.9 W  |

#### Fireplace

|                                 |           |   |
|---------------------------------|-----------|---|
| Touchstone Wall Mount Fireplace | 5118 BTUs |  |
| 21.65" W x 50.4" H x 5.5" D     | 55 lbs    | 1500 W  |

#### Space Heating



|                      |             |   |
|----------------------|-------------|---|
| Fujitsu AOU36RLXFZ 1 | 35,200 BTUs |  |
| 20.3 A               | 230 V       | 1,170 W   |



#### Kitchen

|                       |   |                      |  |
|-----------------------|---|----------------------|--|
| KitchenAid KFID500ESS |  | Frigidaire FFHT1514T |  |
| 40 A                  | 240 V   | 15 A                 | 120 V  |

### General: Lighting, Laundry

#### Lighting

|                               |     |            |                          |                   |   |
|-------------------------------|-----|------------|--------------------------|-------------------|---|
| RAY Electrico LED Light Bulbs | LED | 800 Lumens | 9 W<br>60 W Equivalent   | 50,000 life-hours |  |
| Bulbrite Edison Bulb          | LED | 450 Lumens | 4.5 W<br>40 W Equivalent | 15,000 life-hours |  |

|        |                       |                                |                                   |  |   |
|--------|-----------------------|--------------------------------|-----------------------------------|--|---|
| Washer | Samsung - WW22K680*A* | 2.2 ft <sup>3</sup> (capacity) | Annual Energy Usage (kWh/yr): 90  | <sup>1</sup> Energy cost (\$/yr) \$13.71 |  |
| Dryer  | Blomberg DHP24400 W   | 34.0 x 273.5 x 27.0 (in.)      | Annual Energy Usage (kWh/yr): 149 | <sup>1</sup> Energy cost (\$/yr) \$22.69 |  |

<sup>1</sup>According to the U.S. Energy Information Agency (EIA), the cost of electricity in the state of California is \$0.1523/kWh.

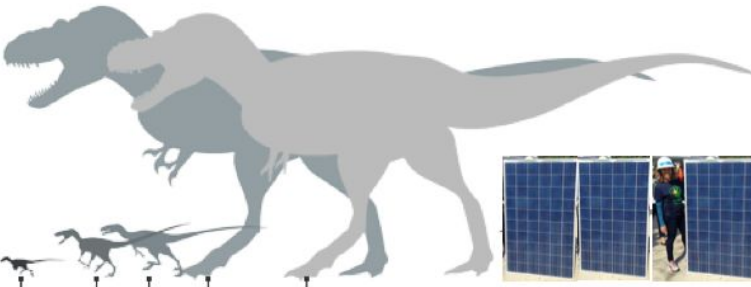
### Solar Array

The occupant formula in a well insulated house (e.g. 2016 or 2019 Code), all-electric house or apartment:

**3kW + 0.25kW of unshaded PV per occupant**

In physical space, that same formula works as:

**165sf<sub>PV</sub> + 14sf<sub>PV</sub> per occupant**



One 1kW of PV = 55 square feet  
 One 1kW of PV = ~1400 kWh/yr  
 ZNE= 3kW + .25kW/occupant  
 ZNE= 165sf + 14sf/occupant