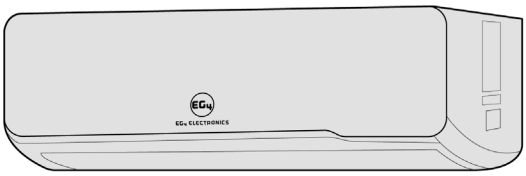
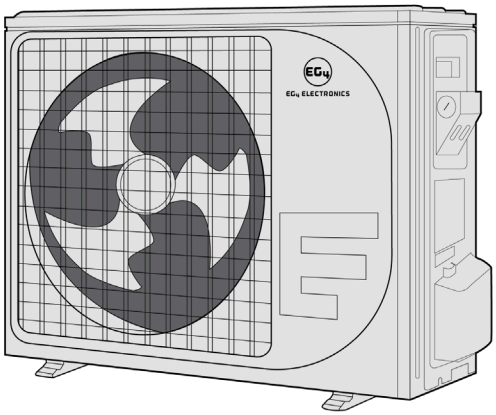
EG4® MINI-SPLIT

SIZING GUIDE





RULES FOR SIZING DUCTLESS MINI-SPLITS

- Avoid installing mini-splits larger than 12,000 BTUs in areas smaller than 250 sq ft.
- Always perform a load calculation (using LaserCalc Mobile or Wrightsoft Manual J) to determine the necessary capacity.
- Understand that oversizing causes short cycling, which shortens equipment lifespan.
- Recognize that under-sizing can cause customers discomfort from inadequate heating or cooling.
- Avoid oversizing, which can reduce efficiency and comfort. However, intentional upsizing may be justified based on factors like insulation quality or solar gain — see “Important Sizing Considerations” below.

  Note: It is better to upgrade insulation, replace windows, and seal leaks to reduce the structure's load, but this is not always applicable.

IMPORTANT SIZING CONSIDERATIONS

- **Insulation quality:** Poor insulation may require upsizing.
- **Ceiling height:** Higher ceilings increase the volume and may require more BTUs.
- **Sun exposure:** Rooms with large or heavy sun exposure may need an extra 10 – 20% capacity.
- **Usage type:** Kitchens and home offices with appliances generate more heat and may require upsizing.
- **Zoning:** If splitting areas into separate zones, use the square footage of each zone individually.

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QUICK ESTIMATION SIZING FORMULA

For a basic estimate in average conditions, use the formula below:

Square footage × 25 = BTUs needed

Example:

800 sq ft × 25 = 20,000 BTU (rounded to the nearest standard size: 18,000 BTU)

To account for one or more upsizing factors (e.g., insulation quality, sun exposure), the multiplier may need to be adjusted:

MINI-SPLIT SIZING BY SQUARE FOOTAGE

Properly sizing a mini-split is essential for energy efficiency, comfort, and system longevity. Use this general square footage-to-BTU guide when selecting indoor units.

BTU SIZE	RECOMMENDED SQUARE FOOTAGE	IDEAL APPLICATIONS
9,000 BTU	250 – 450 sq ft	Bedrooms, small offices, sunrooms
12,000 BTU	450 – 600 sq ft	Master bedrooms, larger offices, small apartments
18,000 BTU	600 – 1000 sq ft	Living rooms, studio apartments, small retail shops
24,000 BTU	1000 – 1300 sq ft	Large living rooms, open-concept areas, small homes
36,000 BTU	1300 – 1800 sq ft	Large homes, multi-room areas (open design)
48,000 BTU	1800 – 2400 sq ft	Whole homes, open commercial spaces

SIZING GUIDELINES BY APPLICATION

Standard Residential:

- 500 – 600 sq ft per ton

Foam Insulated Structure:

- 800 – 900 sq ft per ton

Commercial /Retail /Sunroom:

- 400 – 450 sq ft per ton

Computer Data Rooms:

- 200 – 250 sq ft per ton