



How to Properly Size a Mini-Split

National surveys have determined that well over 50% of HVAC companies do not properly size central air cooling and heating systems the correct way. The largest and most common mistake is oversizing or undersizing a cooling system. While a Fujitsu inverter system is more forgiving and will ramp down when oversized to produce the correct BTU's to match the load of the space, who wants to pay for more equipment than is needed?



Fujitsu has devised a BTU calculator which is based on a Manual J, (which has been used as an industry standard for decades), minus the duct work. The BTU load calculator is the most effective tool made for the HVAC professional to assure home owners that they have correctly sized the Fujitsu equipment to the living space correctly. Using the Fujitsu Load Calculator can make you more competitive. Why oversize and pay more for equipment? Use Fujitsu's Load Calculator and win more jobs!

Here you can see our BTU Load Calculator that is available to you on the Fujitsu Portal.

1. Select Location (State/City) from drop down lists.
2. Enter Room Dimensions (LxWxH)
3. Select Construction Type from drop down (Residential, Commercial and Industrial)
4. Enter Room Information including windows and doors and choose Insulation R-value (light, medium, heavy)

DUCTLESS MINI-SPLIT LOAD CALCULATION

INPUTS:

Location: [Help](#)

Room Dimensions (FT): Length Width Height [Help](#)

Construction Type: [Help](#)

Room Information:

Walls	Width (ft.)	Height (ft.)	Exposed Wall	Shaded Window (Sq.ft.)	Sunny Window (Sq.ft.)	Glass Door Area	Non Glass Door Area	Insulation
Wall 1	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="Select Type"/>
Wall 2	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="Select Type"/>
Wall 3	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="Select Type"/>
Wall 4	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="Select Type"/>

[Help](#)

5. Conditioned Space
6. Enter the max number of people to be in the room.
7. Select the types of Office Equipment and Appliances found in the space. If there is any equipment or appliances not on the list, enter it in the "Other Equipment" box.
8. Select types of light that give off heat.
9. Select level of infiltration (none, light, medium, heavy)
10. Enter desired room temperature set point.
11. Click on "Calculate" button. In the Output section, you will see your summer and winter BTU loads and the recommended Fujitsu systems for your application.

This would be the required procedure for sizing a Fujitsu mini-split system.

If you are unsure of how to answer any of the questions, click on the "Help" button to the right.

Contractors should use this load calculator as a reference/guide before installing at a customer's home or business.

Conditioned Space:	Above? <input type="radio"/> Yes <input checked="" type="radio"/> No	Below? <input type="radio"/> Yes <input checked="" type="radio"/> No	Help
Number of People:	<input type="text" value="0"/>		Help
Office Equipment:	<input type="text" value="None"/> Qty: <input type="text" value="0"/>		Help
	<input type="text" value="None"/> Qty: <input type="text" value="0"/>		
	<input type="text" value="None"/> Qty: <input type="text" value="0"/>		
	<input type="text" value="None"/> Qty: <input type="text" value="0"/>		
Appliances:	<input type="text" value="None"/> Qty: <input type="text" value="0"/>	<input type="text" value="None"/> Qty: <input type="text" value="0"/>	Help
	<input type="text" value="None"/> Qty: <input type="text" value="0"/>	<input type="text" value="None"/> Qty: <input type="text" value="0"/>	
Other Equipment Load (BTU/hr):	<input type="text" value="0.0"/>		Help
Lighting Wattage (per Sq. Ft):	<input type="text" value="0.5"/>		Help
Level of Infiltration:	<input type="text" value="None"/>		Help
Room Temperature Setpoint:	<input type="text" value="64 °F (17.7 °C)"/>		Help
<input type="button" value="Calculate"/> <input type="button" value="Reset"/>			

OUTPUTS:				
BTU Load Total (Summer):	<input type="text"/>			Help
BTU Load Breakdown (Summer):	Doors: <input type="text" value="0"/>	Walls: <input type="text" value="0"/>	Windows: <input type="text" value="0"/>	Help
	Infil.: <input type="text" value="0"/>	Roof/Floor: <input type="text" value="0"/>	People: <input type="text" value="0"/>	
	Equip/Apps: <input type="text" value="0"/>	Lighting: <input type="text" value="0"/>	Other: <input type="text" value="0"/>	
BTU Load Total (Winter):	<input type="text"/>			Help
BTU Load Breakdown (Winter):	Doors: <input type="text" value="0"/>	Walls: <input type="text" value="0"/>	Windows: <input type="text" value="0"/>	Help
	Infil.: <input type="text" value="0"/>	Roof/Floor: <input type="text" value="0"/>		
Fujitsu Model(s):	<input type="text"/>			Help
<p>IMPORTANT: The total cooling and heating load values calculated on this webpage are approximations and should be seen as a "rule-of-thumb" analysis for selection of Fujitsu Mini-Split Systems only.</p>				
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