

Indoor Comfort Sizing Requirements

Cooling load (heat gain) - 95 degree day

SQUARE FOOTAGE OF WINDOWS HEAT GAIN

North (single)	x	<u> </u>	X	=	<u> </u>
North (double)	x	<u> </u>	X	=	<u> </u>
NE & NW (single)	x	<u> </u>	X	=	<u> </u>
NE & NW (double)	x	<u> </u>	X	=	<u> </u>
East & West (single)	x	<u> </u>	X	=	<u> </u>
East & West (double)	x	<u> </u>	X	=	<u> </u>
SE & SW (single)	x	<u> </u>	X	=	<u> </u>
SE & SW (double)	x	<u> </u>	X	=	<u> </u>
South (single)	x	<u> </u>	X	=	<u> </u>
South (double)	x	<u> </u>	X	=	<u> </u>

SQUARE FOOTAGE OF DOORS HEAT GAIN

Wood (no storm door)	x	<u> </u>	X	=	<u> </u>
Wood (w/storm door)	x	<u> </u>	X	=	<u> </u>
Insulated metal door	x	<u> </u>	X	=	<u> </u>

SQUARE FOOTAGE OF NET WALLS HEAT GAIN

Wall perimeter X height less
 glass and door area = net wall

No insulation	x	<u> </u>	X	=	<u> </u>
R-13 (3.5" insulation)	x	<u> </u>	X	=	<u> </u>
R-19 (6" insulation)	x	<u> </u>	X	=	<u> </u>

SQUARE FOOTAGE OF CEILING HEAT GAIN

No insulation	x	<u> </u>	X	=	<u> </u>
R-11 (3" insulation)	x	<u> </u>	X	=	<u> </u>
R-19 (6" insulation)	x	<u> </u>	X	=	<u> </u>
R-30 (10" insulation)	x	<u> </u>	X	=	<u> </u>

SQUARE FOOTAGE OF FLOOR HEAT GAIN

No insulation	x	<u> </u>	X	=	<u> </u>
Carpet (no insulation)	x	<u> </u>	X	=	<u> </u>
R-11 (3" + insulation)	x	<u> </u>	X	=	<u> </u>
Floor on slab	x	<u> </u>	X	=	<u> </u>

INFILTRATION / VENTILATION HEAT GAIN

Home square feet	x	<u> </u>	X	=	<u> </u>
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INTERNAL GAINS HEAT GAIN

Number of people		<u> </u>	X	=	<u> </u>
Kitchen & bath allowance				=	<u> </u>

Subtotal BTU / h heat gain =

GAINS FROM DUCTWORK HEAT GAIN

In crawl space - (subtotal BTU/h X .09)			X		<u> </u>
In attic - (subtotal BTU/h X .13)			X		<u> </u>

Total BTU / h input needed =

Heating load (heat loss) - 0 degree day

SQUARE FOOTAGE OF WINDOWS HEAT LOSS

Single glass	x	<u> </u>	X	=	<u> </u>
Double glass	x	<u> </u>	X	=	<u> </u>

SQUARE FOOTAGE OF DOORS HEAT LOSS

Single glass patio	x	<u> </u>	X	=	<u> </u>
Double glass patio	x	<u> </u>	X	=	<u> </u>
Wood (no storm door)	x	<u> </u>	X	=	<u> </u>
Wood (w/storm door)	x	<u> </u>	X	=	<u> </u>
Insulated metal door	x	<u> </u>	X	=	<u> </u>

SQUARE FOOTAGE OF NET WALLS HEAT LOSS

Frame (no insulation)	x	<u> </u>	X	=	<u> </u>
Frame (3.5" insulation)	x	<u> </u>	X	=	<u> </u>
Frame (6" insulation)	x	<u> </u>	X	=	<u> </u>
Masonry (no insulation)	x	<u> </u>	X	=	<u> </u>
Masonry (1" insulation)	x	<u> </u>	X	=	<u> </u>

SQUARE FOOTAGE OF CEILING HEAT LOSS

No insulation	x	<u> </u>	X	=	<u> </u>
R-11 (3" insulation)	x	<u> </u>	X	=	<u> </u>
R-19 (6" insulation)	x	<u> </u>	X	=	<u> </u>
R-30 (10" insulation)	x	<u> </u>	X	=	<u> </u>

SQ FOOTAGE OF FLOOR OVER CRAWL AREA HEAT LOSS

No insulation	x	<u> </u>	X	=	<u> </u>
Carpet (no insulation)	x	<u> </u>	X	=	<u> </u>
R-11 (3"+ insulation)	x	<u> </u>	X	=	<u> </u>

SQ FOOTAGE OF FLOOR OVER BASEMENT HEAT LOSS

No insulation	x	<u> </u>	X	=	<u> </u>
Carpet or insulation	x	<u> </u>	X	=	<u> </u>

PREIMETER OF SLAB FLOOR HEAT LOSS

Slab (no insulation)	x	<u> </u>	X	=	<u> </u>
Slab (edge insulation)	x	<u> </u>	X	=	<u> </u>

INFILTRATION / VENTILATION HEAT LOSS

Home square feet	x	<u> </u>	X	=	<u> </u>
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Subtotal BTU / h heat loss =

LOSSES FROM DUCTWORK HEAT LOSS

In crawl space - (subtotal BTU/h X .10)			X		<u> </u>
In attic - (subtotal BTU/h X .08)			X		<u> </u>

Total BTU / h heat loss =

80% furnace efficiency loss			X		<u> </u>
90 % furnace efficiency loss			X		<u> </u>

Total BTU / h input needed =

Note You will need to add an additional 6000 btu to your total cooling and heating load for mobile homes. This calculations designed to maintain 75 degrees inside temperature at 95 degrees outside temperature. This calculation does not allow for faulty duct conditions or extreme indoor temperature requirements.