



MODEL / ROOM SIZE CHART / VENT-FREE HEATERS

QUICK REFERENCE
Based on Ceiling Height of 8 Feet & Average Construction.*

Square Feet Approximate Room Size

Minimum Input Rate Needed to Maintain Comfort

0.90 1.45 1.95 2.45 3.15 0.90 1.45 1.95 2.45 3.15

Manually Controlled			Btu Zone					Btu Zone				
Model	Btuh Input	Btuh Output	1	2	3	4	5	1	2	3	4	5
SR-6	6,000	6,000	833	517	385	306	238	29 x 29	23 x 23	20 x 20	17 x 17	15 x 15
SR-10	10,000	10,000	1389	862	641	510	397	37 x 37	29 x 29	25 x 25	23 x 23	20 x 20
SR-18	18,000	18,000	2500	1552	1154	918	714	50 x 50	39 x 39	34 x 34	30 x 30	27 x 27
SR-30	30,000	30,000	4167	2586	1923	1531	1190	65 x 65	51 x 51	44 x 44	39 x 39	35 x 35
VFCM-25	25,000	25,000	3472	2155	1603	1276	992	59 x 59	46 x 46	40 x 40	36 x 36	31 x 31
VFYM-16	25,000	25,000	3472	2155	1603	1276	992	59 x 59	46 x 46	40 x 40	36 x 36	31 x 31
VFYM-18	32,000	32,000	4444	2759	2051	1633	1270	67 x 67	53 x 53	45 x 45	40 x 40	36 x 36
VFMS-24	36,000	36,000	5000	3103	2308	1837	1429	71 x 71	56 x 56	48 x 48	43 x 43	38 x 38
VFYM-30	38,000	38,000	5278	3276	2436	1939	1508	73 x 73	57 x 57	49 x 49	44 x 44	39 x 39
VFMS-18	32,000	32,000	4444	2759	2051	1633	1270	67 x 67	53 x 53	45 x 45	40 x 40	36 x 36
VFMS-24	36,000	36,000	5000	3103	2308	1837	1429	71 x 71	56 x 56	48 x 48	43 x 43	38 x 38
VFMS-30	38,000	38,000	5278	3276	2436	1939	1508	73 x 73	57 x 57	49 x 49	44 x 44	39 x 39
Thermostatically Controlled			Btu Zone					Btu Zone				
Model	Btuh Input	Btuh Output	1	2	3	4	5	1	2	3	4	5
SR-10T	10,000	10,000	676	568	481	397	325	26 x 26	24 x 24	22 x 22	20 x 20	18 x 18
SR-18T	18,000	18,000	1216	1023	865	714	584	35 x 35	32 x 32	29 x 29	27 x 27	24 x 24
SR-30T	30,000	30,000	2027	1705	1442	1190	974	45 x 45	41 x 41	38 x 38	35 x 35	31 x 31
BF-10	10,000	10,000	676	568	481	397	325	26 x 26	24 x 24	22 x 22	20 x 20	18 x 18
BF-20	20,000	20,000	1351	1136	962	794	649	37 x 37	34 x 34	31 x 31	28 x 28	25 x 25
BF-30	30,000	30,000	2027	1705	1442	1190	974	45 x 45	41 x 41	38 x 38	35 x 35	31 x 31
VFBL-30, VFBH-30	30,000	30,000	2027	1705	1442	1190	974	45 x 45	41 x 41	38 x 38	35 x 35	31 x 31
VFCR, VFCT-25	25,000	25,000	1689	1420	1202	992	812	41 x 41	38 x 38	35 x 35	31 x 31	28 x 28
VFHS-10T	10,000	10,000	676	568	481	397	325	26 x 26	24 x 24	22 x 22	20 x 20	18 x 18
VFHS-20(T, R)	20,000	20,000	1351	1136	962	794	649	37 x 37	34 x 34	31 x 31	28 x 28	25 x 25
VFHD-32(T,TV,R,RV)	30,000	30,000	2027	1705	1442	1190	974	45 x 45	41 x 41	38 x 38	35 x 35	31 x 31
VFHD-36(T,TV,R,RV)	36,000	36,000	2432	2045	1731	1429	1169	49 x 49	45 x 45	42 x 42	38 x 38	34 x 34
BWVF-30	32,000	32,000	2162	1818	1538	1270	1039	46 x 46	43 x 43	39 x 39	36 x 36	32 x 32
VFYR-16(RWO, SO)	25,000	25,000	1689	1420	1202	992	812	41 x 41	38 x 38	35 x 35	31 x 31	28 x 28
VFYR-18(RWO, SO)	32,000	32,000	2162	1818	1538	1270	1039	46 x 46	43 x 43	39 x 39	36 x 36	32 x 32
VFYR-24(RWO, SO)	36,000	36,000	2432	2045	1731	1429	1169	49 x 49	45 x 45	42 x 42	38 x 38	34 x 34
VFYR-30(RWO, SO)	38,000	38,000	2568	2159	1827	1508	1234	51 x 51	46 x 46	43 x 43	39 x 39	35 x 35
VF(SR,SV)-16	25,000	25,000	1689	1420	1202	992	812	41 x 41	38 x 38	35 x 35	31 x 31	28 x 28
VF(SR,SV)-18	32,000	32,000	2162	1818	1538	1270	1039	46 x 46	43 x 43	39 x 39	36 x 36	32 x 32
VF(SR,SV)-24	36,000	36,000	2432	2045	1731	1429	1169	49 x 49	45 x 45	42 x 42	38 x 38	34 x 34
VF(SR,SV)-30	38,000	38,000	2568	2159	1827	1508	1234	51 x 51	46 x 46	43 x 43	39 x 39	35 x 35
CIVF-25	25,000	25,000	1689	1420	1202	992	812	41 x 41	38 x 38	35 x 35	31 x 31	28 x 28

See map on opposite side to determine Btu Zone for your location.

Note: • Not all heater models are allowed by some local codes; i.e., vent-free. Be sure the heater model you have chosen is allowed in your area.

• At high altitudes additional heat may be required. • If you have a single room with 4 exterior walls, additional heat may be required.

Average construction (typical heat losses and infiltration rate): insulated, vapor barrier, loose storm doors and windows with weather stripping, dampered fireplace and an ACH of about 0.5 (ACH = Air Changes per Hour)

**This Chart Shall Be
Used As A Guide Only.
Installer/Dealer
For Final Model/Size
Determination.**

**TO DETERMINE BTU
NEEDS FOR AREA**

- 1. INFORMATION THAT THE CONSUMER MUST PROVIDE.**
 - Determine the volume of space to be heated in square feet. This space may be a single room, or it may be connecting rooms or areas not furnished with doors.
 - Select the type of heater control system desired: thermostat or manual operation.
 - Determine the region of the country where the house is located.
- 2. HEATER SIZING CALCULATION**
 - Find the heater input rate (in Btuh/ft³) from the Table according to the above information from 1b and 1c.
 - Multiply this value from the Table by the volume of space from 1a. This result will provide a minimum heater input (in Btuh) to ensure comfort under a range of operating conditions.

Example:

Btu Zone = 1

Manual model is to be used = .90

Square Feet = 4,098

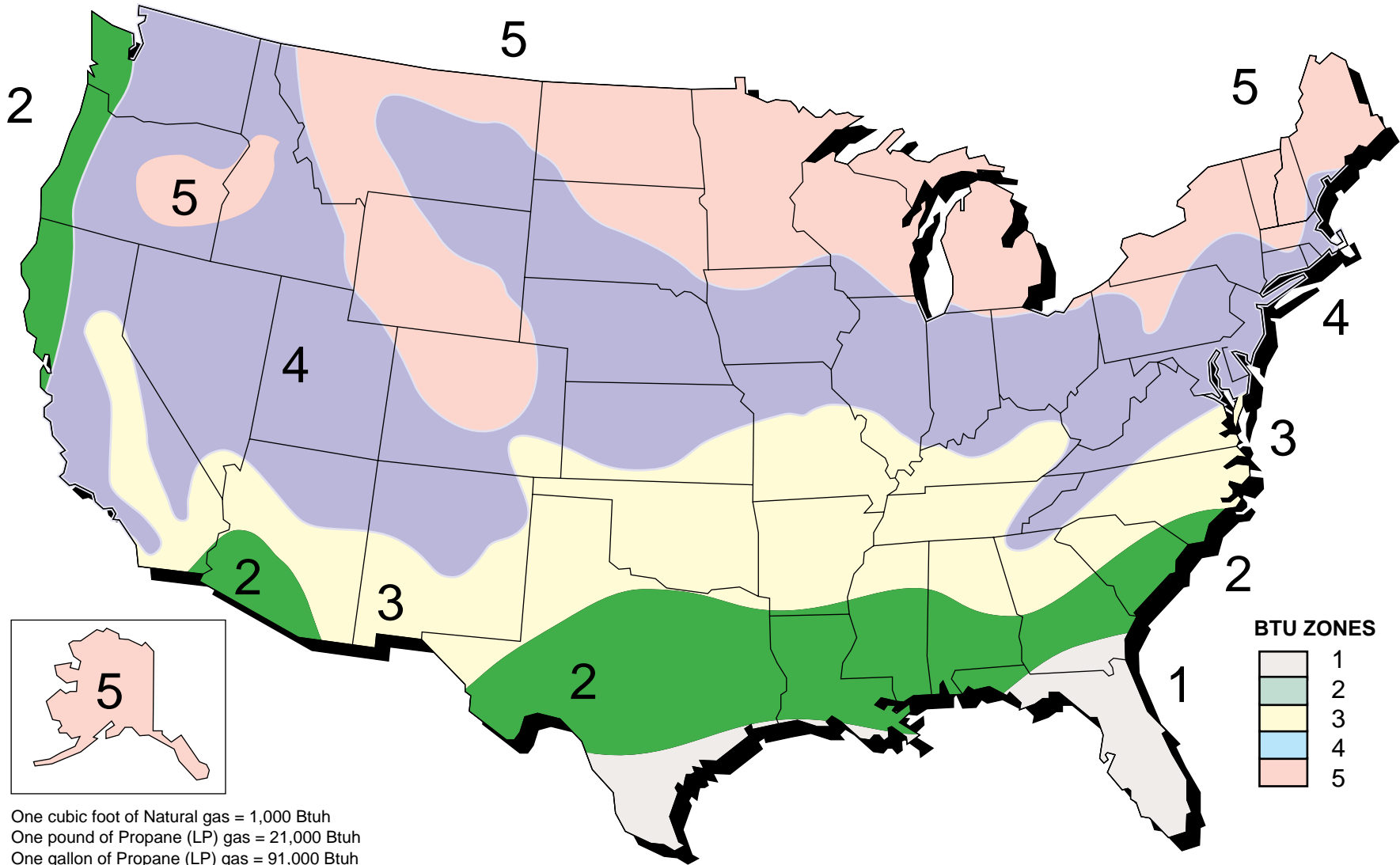
Ceiling Height = 8 Feet

4,098 x .90 x 8 = 29,505

Models that can be used =

SR-30, VFYM-18

EMPIRE COMFORT SYSTEMS HEATER SIZING CHART



This chart is for rooms with average insulation and windows for your Btu zone. The sizing chart is based on a 72° temperature. To maintain higher room temperature, use the next higher Btu zone.

Empire Comfort Systems, Inc. • 918 Freeburg Avenue • Belleville, IL 62220 • 618-233-7420 • 800-851-3153