

A Guide to

ENERGY EFFICIENT

CENTRAL

AIR

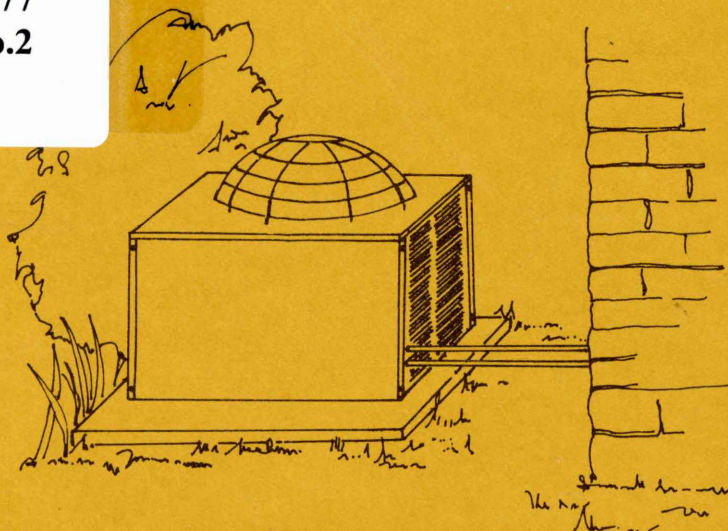
CONDITIONERS

2

of a series
on appliances

**TH
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1977
No.2**

Conserving Your Energy Dollars



**IOWA
ENERGY
POLICY
COUNCIL**

October, 1977

The investment you make in purchasing a central air conditioning system is just part of the cost of keeping your home cool year after year. The unit's operating performance is an important factor and you're wise to evaluate its efficiency.

Each system listed in this brochure has a high Energy Efficiency Ratio, or EER. The higher the EER, the better.

$$\text{EER} = \text{BTU's/watts}$$

At current electrical prices, a 90000 BTU central air conditioning unit with a 10.1 EER would cost \$269.30 to operate per year, while a 6.8 EER unit with the same output would cost \$397.05.

Systems in the brochure are classified as air cooled, evaporatively cooled and water cooled. All brands are available in Iowa.

A I R C O O L E D

<u>Size Category</u> (Btu/hour)	<u>Energy</u> <u>Efficiency</u> <u>Ratio (EER)</u>	<u>Brand Name</u>
11500	4.8	McGraw-Edison
12000	6.7	York split system, coil alone
	6.7	York split system, coil with blower
	6.3	General Electric split system, coil alone
	6.3	General Electric split system, coil with blower
12500	6.8	York
	6.6	York
	6.3	Janitrol or Tappan
13500	6.6	Bryant, Day & Night, Payne or Carrier
	5.9	Fedders
	5.9	Mueller Climatrol
14000	6.7	Janitrol or Tappan
	6.4	Janitrol or Tappan
	6.0	Bryant, Day & Night, Payne or Carrier, coil with blower
	6.0	Bryant, Day & Night, Payne or Carrier, remote condensing unit
14500	6.3	General Electric, coil alone
	6.3	General Electric, coil with blower
	6.0	Bryant, Day & Night, Payne or Carrier; Fedders, Mueller Climatrol, coil alone
	6.0	Bryant, Day & Night, Payne or Carrier; Fedders, Mueller Climatrol, coil with blower
15000	6.8	General Electric
15500	6.7	York
	6.5	Bryant, Day & Night, Payne or Carrier
16000	7.3	General Electric
	5.7	Bryant, Day & Night, Payne or Carrier

<u>Size Category</u> <u>Btu/hour)</u>	<u>Energy</u> <u>Efficiency</u> <u>Ratio (EER)</u>	<u>Brand Name</u>
16500	7.9	York
	6.7	York
	6.6	York
17000	8.1	York
	7.1	Fedders
	7.1	Mueller Climatrol
17500	8.3	York
	8.1	York
	7.8	Fedders split system, coil alone
	7.8	Fedders split system, coil with blower
	7.8	Mueller Climatrol, coil alone
18000	7.8	Mueller Climatrol, coil with blower
	8.4	York
	8.2	York
	7.8	Fedders
	7.8	Fraser & Johnson
18500	7.6	Airtemp split system, coil alone
	7.6	Airtemp split system, coil with blower
	7.4	Bryant, Day & Night, Payne or Carrier
19000	8.8	Janitrol or Tappan
	8.1	Rheem or Ruud
	7.8	Rheem or Ruud
19500	7.8	Bryant, Day & Night, Payne or Carrier
	7.2	Bryant, Day & Night, Payne or Carrier
	7.0	Trane
20000	8.7	Bryant, Day & Night, Payne or Carrier
	8.2	Singer
	8.0	Bryant, Day & Night, Payne or Carrier
20500	8.9	Bryant, Day & Night, Payne or Carrier: split system, coil with blower
	8.9	Bryant, Day & Night, Payne or Carrier: year-round
	8.0	Bryant, Day & Night, Payne or Carrier: split system, coil with blower

<u>Size Category</u> <u>Btu/hour)</u>	<u>Energy</u> <u>Efficiency</u> <u>Ratio (EER)</u>	<u>Brand Name</u>
20500 (cont.)	8.0	Bryant, Day & Night, Payne or Carrier: year-round with remote condensing unit
21000	8.8	Bryant, Day & Night, Payne or Carrier: split system, coil alone
	8.8	Bryant, Day & Night, Payne or Carrier: coil with blower
	8.2	Bryant, Day & Night, Payne or Carrier: coil with blower
	8.2	Bryant, Day & Night, Payne or Carrier: year-round with remote condensing unit
21500	8.8	Bryant, Day & Night, Payne or Carrier
	6.2	Rheem or Ruud
	6.1	Henry Furnace Co. or Luxaire
22000	9.2	York
	9.0	York
	8.8	York
22500	9.0	Bryant, Day & Night, Payne or Carrier
	8.5	York
	8.3	Mueller Climatrol
23000	8.8	Bryant, Day & Night, Payne or Carrier
	8.5	Friedrich
	8.5	York
23500	8.5	Fedders
	8.5	Mueller Climatrol
	8.5	Mueller Climatrol
24000	8.6	York
	8.4	York
	8.3	Janitrol or Tappan
24500	8.9	Heil-Quaker or Whirlpool
	8.9	Sears
	8.6	Mueller Climatrol
25000	10.0	Montgomery Ward
	10.0	Rheem or Ruud
	9.6	Rheem or Ruud

<u>Size Category</u> <u>(Btu/hour)</u>	<u>Energy</u> <u>Efficiency</u> <u>Ratio (EER)</u>	<u>Brand Name</u>
25500	9.6	Rheem or Ruud
	8.5	York
	7.6	General Electric
26000	8.5	York
	8.0	Coleman
	7.9	Coleman
27000	8.1	York
	7.7	Bryant, Day & Night, Payne or Carrier
	7.7	Johnson Corp.
27500	8.2	York
	7.7	Lennox
	7.4	Lennox
28000	8.5	Bryant, Day & Night, Payne or Carrier
	8.2	York
	8.0	York
28500	8.6	Bryant, Day & Night, Payne or Carrier
	8.1	York
	8.1	York
	8.1	York
29000	9.4	Heil-Quaker or Whirlpool
	9.4	Sears
	8.5	Bryant, Day & Night, Payne or Carrier
29500	8.5	York
	8.4	Airtemp
	8.4	Airtemp
30000	9.1	General Electric
	8.8	Bryant, Day & Night, Payne or Carrier
	8.6	Airtemp
30500	8.8	Bryant, Day & Night, Payne or Carrier
	8.7	York
	8.6	Airtemp

<u>Size Category</u> <u>(Btu/hour)</u>	<u>Energy</u> <u>Efficiency</u> <u>Ratio (EER)</u>	<u>Brand Name</u>
31000	10.0	Coleman
	9.3	General Electric, coil alone
	9.3	General Electric, coil with blower
31500	10.3	Coleman
	10.2	Coleman
	9.3	General Electric
32000	10.5	Coleman
	9.4	General Electric
	9.3	General Electric
32500	9.7	Coleman
	9.6	General Electric
	9.6	Sears
33000	9.8	Coleman
	9.6	Heil-Quaker or Whirlpool
	9.6	Sears
33500	10.0	Coleman
	9.6	General Electric
	8.6	York
34000	9.7	General Electric
	8.4	York
	8.3	Airtemp
34500	9.6	Rheem or Ruud
	9.0	General Electric
	8.4	Airtemp
35000	10.0	Coleman
	9.5	Rheem or Ruud
	9.1	General Electric
35500	10.1	Coleman
	10.0	Coleman
	9.2	General Electric
36000	10.3	Coleman
	9.6	Coleman
	9.5	Coleman

<u>Size Category</u> (Btu/hour)	<u>Energy</u> <u>Efficiency</u> <u>Ratio (EER)</u>	<u>Brand Name</u>
36500	10.3	Montgomery Ward
	10.3	Rheem or Ruud
	9.0	Heil-Quaker or Whirlpool
36000	9.3	General Electric
	9.1	General Electric
	9.0	Westinghouse
37500	9.4	General Electric
	7.6	General Electric
38000	9.4	General Electric
	9.3	Westinghouse
	9.0	Bryant, Day & Night, Payne or Carrier
39000	8.7	Bryant, Day & Night, Payne or Carrier
	8.3	Bryant, Day & Night, Payne or Carrier
	8.2	York
4000	8.5	Bryant, Day & Night, Payne or Carrier
	8.4	Bryant, Day & Night, Payne or Carrier
	8.3	Johnson Corp.
41000	8.6	Bryant, Day & Night, Payne or Carrier
	8.5	Bryant, Day & Night, Payne or Carrier
	8.3	General Electric
42000	8.4	Amana
	8.4	Heil-Quaker or Whirlpool
	8.4	Sears
	8.4	York
43000	8.6	Johnson Corp.
	8.4	York
	8.3	York
44000	9.2	Coleman
	8.6	Coleman
	8.3	York
44500	8.9	Coleman

<u>Size Category</u> <u>(Btu/hour)</u>	<u>Energy</u> <u>Efficiency</u> <u>Ratio (EER)</u>	<u>Brand Name</u>
45000	9.2	Coleman
	8.7	Coleman
	8.7	General Electric
46000	9.5	Coleman
	9.0	Coleman
	8.7	Bryant, Day & Night, Payne or Carrier
47000	8.7	Bryant, Day & Night, Payne or Carrier
	8.7	Friedrich
	8.7	General Electric
48000	8.9	Bryant, Day & Night, Payne or Carrier
	8.9	General Electric
	8.7	Bryant, Day & Night, Payne or Carrier
49000	9.1	General Electric
	8.9	General Electric
	8.5	Friedrich
50000	8.8	Friedrich
	7.9	General Electric
	7.9	General Electric
51000	8.4	Lennox
	8.2	Bryant, Day & Night, Payne or Carrier
	8.1	Trane
52000	8.4	Lennox
	7.9	Lennox
	7.8	Henry Furnace Co. or Luxaire
53000	8.5	Lennox
	8.3	Coleman
	7.9	Lennox
54000	8.4	Lennox
	7.8	Singer
	7.1	Lennox

<u>Size Category</u> (Btu/hour)	<u>Energy</u> <u>Efficiency</u> <u>Ratio (EER)</u>	<u>Brand Name</u>
55000	8.3	Johnson Corp.
	8.3	Singer
	7.7	Friedrich
56000	8.4	Heil-Quaker or Whirlpool
	8.1	Bryant, Day & Night, Payne or Carrier
57000	8.3	General Electric
	8.1	Bryant, Day & Night, Payne or Carrier
	8.0	Singer
58000	8.3	General Electric
	8.2	Rheem or Ruud
	8.1	Bryant, Day & Night, Payne or Carrier
59000	8.9	General Electric
	8.8	Johnson Corp.
	8.2	Rheem or Ruud
60000	8.5	Rheem or Ruud
	8.3	General Electric
	8.2	Montgomery Ward
61000	8.7	General Electric
	7.8	Bryant, Day & Night, Payne or Carrier
	7.6	General Electric
62000	8.0	Fedders
	8.0	Mueller Climatrol
	7.7	Singer
63000	8.3	Bryant, Day & Night, Payne or Carrier
	7.0	General Electric
64000	8.5	General Electric
	6.9	General Electric
65000	6.2	McGraw-Edison
66000	7.0	General Electric

<u>Size Category</u> (Btu/hour)	<u>Energy</u> <u>Efficiency</u> <u>Ratio (EER)</u>	<u>Brand Name</u>
68000	6.9	Westinghouse
	6.4	General Electric
69000	7.5	General Electric
	7.3	General Electric
	7.0	General Electric
70000	8.8	Bryant, Day & Night, Payne or Carrier
	6.9	Westinghouse
	6.8	Westinghouse
71000	7.5	General Electric
	7.0	Westinghouse
72000	6.9	Westinghouse
	6.0	Fedders
	6.0	Mueller Climatrol
73000	7.8	Trane
	7.7	Trane
	7.5	Lennox
74000	8.2	Bryant, Day & Night, Payne or Carrier
	7.7	Trane
	6.9	Trane
75000	7.9	Trane
	7.7	Lennox
	7.1	Bryant, Day & Night, Payne or Carrier
76000	8.2	Lennox
77000	7.3	Fedders
	7.3	Mueller Climatrol
80000	8.0	Fedders
	8.0	Mueller Climatrol
81000	7.2	Heil-Quaker or Whirlpool
	7.2	Janitrol or Tappan

<u>Size Category</u> (Btu/hour)	<u>Energy</u> <u>Efficiency</u> <u>Ratio (EER)</u>	<u>Brand Name</u>
92000 (cont.)	8.8	Bryant, Day & Night, Payne or Carrier: split system, coil with blower
	8.6	York
93000	10.3	Bryant, Day & Night, Payne or Carrier
	9.9	Bryant, Day & Night, Payne or Carrier
	8.1	Johnson Corp.
94000	8.9	Bryant, Day & Night, Payne or Carrier
	7.9	General Electric
	7.6	Century or Heat Controller or McDonald Mfg. Co.: split system, coil alone
	7.6	Century or Heat Controller or McDonald Mfg. Co.: split system, coil with blower
95000	7.4	John Zink Co. single package
	7.4	John Zink Co. single package, year- round
	6.9	General Electric
96000	8.1	Fedders
	8.1	Mueller Climatrol
	7.6	Lennox single package
	7.6	Lennox single package, year-round
97000	8.0	General Electric split system, coil alone
	8.0	General Electric split system, coil with blower
	7.1	General Electric
98000	8.2	Bryant, Day & Night, Payne or Carrier
	8.0	Lennox
	7.0	Bryant, Day & Night, Payne or Carrier
99000	8.0	Lennox
100000	8.8	Lennox
	7.9	General Electric
	7.8	Bryant, Day & Night, Payne or Carrier

<u>Size Category</u> <u>(Btu/hour)</u>	<u>Energy</u> <u>Efficiency</u> <u>Ratio (EER)</u>	<u>Brand Name</u>
101000	7.4	Friedrich
102000	7.8	Bryant, Day & Night, Payne or Carrier
	7.3	General Electric
	7.0	General Electric
	7.0	Henry Furnace Co. or Luxaire
103000	7.9	Bryant, Day & Night, Payne or Carrier
104000	7.7	General Electric
	7.0	General Electric
	6.9	General Electric
107000	6.3	Airtemp
	6.3	Fedders
	6.3	Mueller Climatrol
108000	7.4	General Electric
	6.6	Rheem or Ruud
	6.4	Rheem or Ruud
109000	7.0	General Electric
	6.6	Singer
110000	7.7	General Electric
	7.0	General Electric
111000	8.9	Bryant, Day & Night, Payne or Carrier
	7.7	Trane
	6.6	Airtemp
112000	6.9	Henry Furnace Co. or Luxaire
	6.8	Henry Furnace Co. or Luxaire
113000	8.6	Bryant, Day & Night, Payne or Carrier
	7.2	Fedders
	7.2	Mueller Climatrol
114000	9.2	Bryant, Day & Night, Payne or Carrier
	7.8	Bryant, Day & Night, Payne or Carrier
	6.8	General Electric

<u>Size Category</u> (Btu/hour)	<u>Energy</u> <u>Efficiency</u> <u>Ratio (EER)</u>	<u>Brand Name</u>
115000	7.6	General Electric
	7.3	Trane remote condenser
	7.3	Trane split system, coil with blower
	7.3	Trane split system, coil with blower, year-round
116000	8.0	Williamson
	7.9	Williamson
	7.5	Fedders
117000	6.9	Friedrich
118000	9.4	Bryant, Day & Night, Payne or Carrier
	8.1	General Electric split system, coil alone
	8.1	General Electric split system, coil with blower
119000	8.0	Bryant, Day & Night, Payne or Carrier
	6.7	Fedders
	6.7	Mueller Climatrol
120000	8.2	Bryant, Day & Night, Payne or Carrier
	8.2	Singer
	8.2	Westinghouse
121000	8.2	Bryant, Day & Night, Payne or Carrier
	8.2	York
	7.7	Bryant, Day & Night, Payne or Carrier
122000	8.5	York
	8.2	Bryant, Day & Night, Payne or Carrier: single package
	8.2	Bryant, Day & Night, Payne or Carrier: single package, year-round
123000	8.2	Bryant, Day & Night, Payne or Carrier
124000	7.6	Lennox
	7.0	Bryant, Day & Night, Payne or Carrier

<u>Size Category</u> <u>Btu/hour)</u>	<u>Energy</u> <u>Efficiency</u> <u>Ratio (EER)</u>	<u>Brand Name</u>
125000	8.2	Century or Heat Controller or McDonald Mfg. Co.: split system, coil alone
	8.2	Century or Heat Controller or McDonald Mfg. Co.: split system, coil with blower
	7.4	Trane
126000	8.3	Bryant, Day & Night, Payne or Carrier
	7.0	General Electric
	6.6	Fedders
	6.6	Mueller Climatrol
127000	7.8	Lennox
128000	6.9	General Electric
129000	8.1	Lennox
130000	8.6	Bryant, Day & Night, Payne or Carrier
	8.5	York
	7.6	York single package
	7.6	York single package, year-round

E V A P O R A T I V E L Y C O O L E D

<u>Size Category</u> (Btu/hour)	<u>Energy</u> <u>Efficiency</u> <u>Ratio (EER)</u>	<u>Brand Name</u>
21000	8.4	Rheem or Ruud
22000	8.5	Rheem or Ruud
22500	8.8	Rheem or Ruud
29500	7.9	Rheem or Ruud
	7.8	Rheem or Ruud
31500	8.3	Rheem or Ruud
40000	9.5	Rheem or Ruud
	9.3	Rheem or Ruud
	9.1	Rheem or Ruud
41000	9.5	Rheem or Ruud
	9.3	Rheem or Ruud
46000	9.0	Rheem or Ruud
	8.7	Rheem or Ruud
48000	8.9	Rheem or Ruud
	8.6	Rheem or Ruud
50000	9.1	Rheem or Ruud
	8.8	Rheem or Ruud
59000	9.4	Rheem or Ruud
	9.2	Rheem or Ruud

W A T E R C O O L E D

<u>Size Category</u> (Btu/hour)	<u>Energy</u> <u>Efficiency</u> <u>Ratio (EER)</u>	<u>Brand Name</u>
20000	8.5	Bryant, Day & Night, Payne or Carrier York
	8.5	
20500	9.1	Bryant, Day & Night, Payne or Carrier
26000	9.0	Bryant, Day & Night, Payne or Carrier Bryant, Day & Night, Payne or Carrier
	8.5	
27000	10.2	Bryant, Day & Night, Payne or Carrier Bryant, Day & Night, Payne or Carrier
	9.8	
29000	9.1	Bryant, Day & Night, Payne or Carrier
30000	9.7	Bryant, Day & Night, Payne or Carrier
31000	8.4	Bryant, Day & Night, Payne or Carrier Bryant, Day & Night, Payne or Carrier
	8.1	
32000	8.8	York
33000	8.4	Trane
36000	9.1	Singer
	9.1	Westinghouse
	8.8	Bryant, Day & Night, Payne or Carrier
37000	9.0	Bryant, Day & Night, Payne or Carrier Bryant, Day & Night, Payne or Carrier
	8.6	
38000	9.3	Bryant, Day & Night, Payne or Carrier Bryant, Day & Night, Payne or Carrier Century or Heat Controller or McDonald Mfg. Co.
	9.1	
	8.3	
39000	9.1	Bryant, Day & Night, Payne or Carrier
40000	9.5	Bryant, Day & Night, Payne or Carrier Airtemp Fedders Mueller Climatrol
	8.9	
	8.9	
	8.0	

<u>Size Category</u> <u>(Btu/hour)</u>	<u>Energy</u> <u>Efficiency</u> <u>Ratio (EER)</u>	<u>Brand Name</u>
42000	9.5	Bryant, Day & Night, Payne or Carrier
44000	9.0	York
60000	9.2	Bryant, Day & Night, Payne or Carrier
	9.0	Singer
	9.0	Westinghouse
62000	9.1	Trane
63000	8.5	Airtemp
	8.5	Fedders
	8.5	Mueller Climatrol
64000	8.6	Trane
65000	8.0	Century or Heat Controller or McDonald Mfg. Co.
66000	8.4	York
86000	8.7	Singer
	8.7	Westinghouse
89000	10.0	Trane
	9.0	Trane
92000	9.7	Bryant, Day & Night, Payne or Carrier
	9.0	Westinghouse
93000	8.2	Airtemp
	8.2	Fedders
	8.2	Mueller Climatrol
100000	11.0	York
	8.5	Century or Heat Controller or McDonald Mfg. Co.
118000	8.8	Bryant, Day & Night, Payne or Carrier
120000	10.4	Bryant, Day & Night, Payne or Carrier
	9.2	Singer
	9.2	Westinghouse

<u>Size Category</u> (Btu/hour)	<u>Energy</u> <u>Efficiency</u> <u>Ratio (EER)</u>	<u>Brand Name</u>
121000	8.7	Westinghouse
122000	8.3	Trane
128000	8.7	Century or Heat Controller or McDonald Mfg. Co.
130000	8.8	Century or Heat Controller or McDonald Mfg. Co.
	8.6	Airtemp
	8.6	Fedders
	8.6	Mueller Climatrol
132000	9.9	York

SOURCES OF INFORMATION

Directory of Certified Unitary Air Conditioners and Unitary Heat Pumps, Air Conditioning and Refrigeration Institute July 1, 1977; and inquiries of manufacturers. This information is the best available to the Energy Policy Council at this time. However some air conditioners and heat pumps may be available on the Iowa market which are not included in this analysis.



For additional copies of this EPC consumer brochure, contact the Iowa Energy Policy Council, 707 E. Locust, Des Moines, Iowa 50319.