



**Manual S Performance Data - System 1 - 1st Floor**

**Loads and Design Conditions**

**Cooling:**

|                   |     |                    |        |
|-------------------|-----|--------------------|--------|
| Outdoor Dry Bulb: | 86  | Sensible Gain:     | 16,339 |
| Outdoor Wet Bulb: | 75  | Latent Gain:       | 2,200  |
| Indoor Dry Bulb:  | 75  | Total Gain:        | 18,540 |
| Indoor RH:        | 50  | Load SHR:          | 0.88   |
| Supply Airflow:   | 745 | Entering Dry Bulb: | 75     |
|                   |     | Entering Wet Bulb: | 62.5   |

**Heating:**

|                   |    |                    |        |
|-------------------|----|--------------------|--------|
| Outdoor Dry Bulb: | 15 | Sensible Loss:     | 24,532 |
| Indoor Dry Bulb:  | 70 | Entering Dry Bulb: | 70.0   |
| Indoor RH:        | 30 | Supply Airflow:    | 320    |

**Equipment Performance Data at System Design Conditions**

This system's equipment was selected in accordance with ACCA Manual S.

**Cooling:**

Model Type: Standard Air Conditioner, Outdoor Model: RA1424AJ1CA, Indoor Model: RCFY2417SEANMC  
 Nominal Capacity: 24,000, Manufacturer: Rheem

**Entered Interpolation Data:**

| EWB °F | Air Flow CFM | ODB °F | Total Capacity Btuh | Power Input kW | EDB 75 °F |                        |
|--------|--------------|--------|---------------------|----------------|-----------|------------------------|
|        |              |        |                     |                | S/T       | Sensible Capacity Btuh |
| 59     | 745          | 85     | 22800               | 1.74           | 0.975     | 22220                  |
|        |              | 95     | 21400               | 1.95           | 0.977     | 20900                  |
| 63     |              | 85     | 21200               | 1.74           | 0.915     | 19400                  |
|        |              | 95     | 22700               | 1.95           | 0.828     | 18800                  |

**Interpolation Results:**

|                    |        |             |                        |
|--------------------|--------|-------------|------------------------|
|                    |        | <u>Load</u> | <u>Percent of Load</u> |
| Sensible Capacity: | 19,689 | 16,339      | 120%                   |
| Latent Capacity:   | 1,828  | 2,200       | 83%                    |
| Total Capacity:    | 21,516 | 18,540      | 116%                   |
| Power Input:       | 1.76   |             |                        |

**Heating:**

Model Type: Natural Gas Furnace, Model: R951T0403A17M4SNAS, Nominal Capacity: 39,900, Manufacturer: Rheem

**Results:**

|                   |        |             |                        |
|-------------------|--------|-------------|------------------------|
|                   |        | <u>Load</u> | <u>Percent of Load</u> |
| Heating Capacity: | 39,900 | 24,532      | 163%                   |