





Since the solar unit is not operating at full capacity all the time, it cannot be compared to the published data to determine a standard unit COP.

The solar unit is producing 18,954 BTUs more than the standard unit which is 28.3% higher BTUs

3 JUPITER, FL. TESTING

The equipment being tested in Jupiter, FL. is the following:



1. iAIRE model SHRPZ-24LH00A00-A 2-ton condensing unit

There are (2) total systems in the house. There is a 3-ton system that provides heating and air conditioning to the 2nd floor. The 2-ton solar system is providing the cooling for the main floor of the house. Each unit operates on their own thermostat and the units turn on and off with the call for cooling from the thermostats. These units provide comfort cooling for the house.

- Solar Unit average EER 15.63
- Maximum EER of solar unit 24.9
- Maximum BTU output of the solar unit 35,824
- Maximum BTU output of standard unit 28,380

The solar unit is running at a very high average EER.

The solar unit is producing 7,444 BTUs more than the standard unit which is 26.2% higher BTUs.

SUMMARY

In all three test sites, the Solar HVAC unit is performing at a higher efficiency than a standard 14 SEER system by approximately 25%. This means the solar unit is performing better in both the cooling and heating mode. In all three cases, most of the gain is coming because the solar unit is out producing the BTUs of the standard system. The remainder of the gain is coming as the solar unit is running slightly less KW than the standard system.