HVAC LOAD CALCULATION

Simplified Manual J - Residential Heating & Cooling Load

PROPERTY INFORMATION:

Address: 27503 Sweetgum Drive, Wesley Chapel, FL
Square Footage: 2,800 sq ft
Year Built: 2015
Ceiling Height: 10 ft

' LOAD CALCULATION RESULTS:

Calculated Load: 44,250 BTU/hr
Recommended Tonnage: 3.7 tons
Acceptable Range: 3.3 - 4.2 tons

Equipment Match: 4 tons - ACCEPTABLE

CALCULATION BREAKDOWN:

Walls (conduction): 1,810 BTU/hr
Windows (conduction + solar): 16,428 BTU/hr
Ceiling/Roof: 1,704 BTU/hr
Doors: 450 BTU/hr
Infiltration (air leakage): 2,310 BTU/hr
Internal Gains (people, appliances, lights): 8,750 BTU/hr
Duct Gain (unconditioned space): 4,178 BTU/hr

+ Latent (humidity) gains:
  Infiltration: 420 BTU/hr
  Occupants: 1,400 BTU/hr
  Appliances: 1,200 BTU/hr

Ø=Ü¡ RECOMMENDATIONS:

- Proper duct sealing and insulation saves 20-30% on energy bills.
- Programmable thermostat can reduce runtime by 10-15% with no comfort loss.

Methodology:
ACCA Manual J 8th Edition - Residential Load Calculation
Confidence Level: HIGH