1. The specified equipment or appliance utilizes multistage technology or variable refrigerant flow technology and the loads calculated in accordance with the approved heating and cooling calculation methodology are within the range of the manufacturer’s published capacities for that equipment or appliance.

2. The specified equipment or appliance manufacturer’s published capacities cannot satisfy both the total and sensible heat gains calculated in accordance with the approved heating and cooling calculation methodology and the next larger standard size unit is specified.

**M1601.1 Duct design.** Duct systems serving heating, cooling and ventilation equipment shall be installed in accordance with the provisions of this section and ACCA Manual D, the appliance manufacturer’s installation instructions or other approved methods.

**As Per Code - 2018 IECC - International Energy Conservation Code - Mandatory**

R403.7 Equipment sizing and efficiency rating (Mandatory). Heating and cooling equipment shall be sized in accordance with ACCA Manual S based on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies. New or replacement heating and cooling equipment shall have an efficiency rating equal to or greater than the minimum required by federal law for the geographic location where the equipment is installed.

***************Make sure that you are using an ACCA - Air Conditioning Contractors of America - MJ8 Manual J & S & D Approved Software Program - Visit the ACCA Website for a list of the Approved Programs at: https://www.acca.org/standards/approved-software
Where are These Required?

- All new construction by townships for the new HVACR Mechanical Permits
- EnergyStar Certified Home programs
- Replacement of existing HVACR systems by township for permits
- New Jersey Clean Energy Rebates
- COOLAdvantage and WARMAdvantage programs

System Design Process for the Trades:

(HVACR, Electrical, Plumbing, Building Contractors, Architects and Inspectors)

- ACCA Residential Manual RS - System Concept
- ACCA Residential Manual J - Load Calculation
- ACCA Residential Manual S - Equipment Selection
- ACCA Residential Manual D - Duct Design
- ACCA Residential Manual T - Air Distribution
- ACCA Residential Manual Zr - System Zoning
- ACCA Residential Manual B - Adjust, Testing and Balancing (Duct leakage test report is required)
- Layout, Design and Sizing of HVACR Equipment for:
  - Ductless Mini Split Systems
  - HVACR Residential and Light Commercial Rooftop Systems
  - Radiant Load Calculations, Layout and Design