

**NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
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Disconnect(s) for Mini Split HVAC Systems

Code: 2017 Electrical Code
Section: 440.8

Date: June 12, 2018

This document designates the term “mini split system” as specifically referring to a ductless heating, ventilation, and air-conditioning (HVAC) system that consists of both an exterior condenser unit and an interior blower unit; and is a complete listed and labeled engineered design manufactured so that the entire system receives its power supply at only one place from a structure’s electrical system; and where control wiring, that is part of the same design, supplies power for all equipment within the system.

Question:

Does a mini split system require disconnects at both the exterior condenser unit and the interior blower unit?

Answer:

No, unless required by the manufacturer or listing instructions.

Mini splits systems as defined above are connected to the structure’s electrical system by one individual branch circuit. Because a mini split system is supplied with electrical power at only one point from the structure’s electrical system, the mini split system is one single machine as defined by section 440.8 of the State Electrical Code. A single machine defined by section 440.8 shall be permitted to have a single disconnecting means to serve all the motors of a mini split system as provided in section 430.122 Exception (a).

Section 440.14 requires a disconnecting means to be located within sight and readily accessible from the air-conditioning or refrigeration equipment. Therefore, the single disconnecting means shall disconnect the structure’s electrical system from the mini split system at only one point and shall be located within sight and readily accessible from that point of connection.

For clarity, section 440.8 does not apply to a typical HVAC split system with air ducts because the air-handler and heat pump are separate pieces of equipment that are supplied by a minimum of two branch circuits from the structure’s electrical system.