

Rack Specifications

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General Requirements and Guidelines for Cabinets and Racks

The cabinet or rack must have all of the following characteristics:

- Standard 19-inch (48.3 cm) four-post EIA cabinet or rack.
- Mounting rails that conform to English universal hole spacing per section 1 of ANSI/EIA-310-D-1992). See below.

The cabinet or rack must also meet the following requirements:

- The minimum vertical rack space per Cisco Nexus 3000 Series switch chassis must be one RU (rack units), equal to 1.75 inches (4.4 cm).
- The width between the rack-mounting rails must be at least 17.75 inches (45.0 cm) if the rear of the device is not attached to the rack. For four-post EIA racks, this measurement is the distance between the two front rails.

Four-post EIA cabinets (perforated or solid-walled) must meet the following requirements:

- The minimum spacing for the bend radius for fiber-optic cables should have the front-mounting rails of the cabinet offset from the front door by a minimum of 3 inches (7.6 cm).
- The distance between the outside face of the front mounting rail and the outside face of the back mounting rail should be 23.0 to 30.0 inches (58.4 to 76.2 cm) to allow for rear-bracket installation.
- A minimum of 2.5 inches (6.4 cm) of clear space should exist between the side edge of the chassis and the side wall of the cabinet. No sizeable flow obstructions should be immediately in the way of chassis air intake or exhaust vents.

Note To help with cable management, consider planning additional space in the rack or cabinet above and below the chassis to make it easier to route all of the fiber optic or copper cables through the rack.

About Requirements for Perforated Cabinets

A perforated cabinet has perforations in its front and rear doors and side walls. In addition to the requirements listed in the *General Requirements for Cabinets and Racks* section, perforated cabinets must meet the following requirements:

- The front and rear doors must have at least a 60-percent open area perforation pattern, with at least 15 square inches (96.8 square cm) of open area per rack unit of door height.
- The roof should be perforated with at least a 20-percent open area.
- The cabinet floor should be open or perforated to enhance cooling.

The Cisco R Series rack conforms to these requirements.

About Requirements for Open Racks

In addition to the requirements listed in the *General Requirements for Cabinets and Racks* section, if you are mounting the chassis in an open rack (no side panels or doors), ensure that the rack meets the following requirements:

- The minimum vertical rack space per chassis must be two rack units (RU), equal to 3.47 inches (8.8 cm).
- The horizontal distance between the chassis and any adjacent chassis should be 6 inches (15.2 cm), and the distance between the chassis air vents and any walls should be 2.5 inches (6.4 cm).