



Technical Specifications

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Router Specifications

The Cisco 12016, Cisco 12416, and Cisco 12816 Router original series and enhanced series specifications are presented in four tables:

- [Table A-1, “Physical Specifications for Cisco 12000 Series Routers”](#)
- [Table A-2, “AC Electrical Specifications”](#)
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- [Table A-4, “Environmental Specifications”](#)

Table A-1 Physical Specifications for Cisco 12000 Series Routers

| Description | Value |
|--|--|
| Chassis height <ul style="list-style-type: none"> • With standard AC-input power shelf or DC-input power shelf • With optional AC-input power shelf | 71.5 in. (181.6 cm); 72.5 in. (184.1 cm) with front covers installed 77.63 in. (197.2 cm); 79.11 in. (200.9 cm) with front covers installed |
| Chassis width | 17.25 in. (43.8 cm) 19.0 in. (48.3 cm) including chassis rack-mount flanges and front door width |
| Chassis depth | 22.0 in. (55.9 cm) 26.25 in. (66.7 cm) including cable management system and front covers |
| Weight <ul style="list-style-type: none"> • Chassis only, standard power shelf • Chassis only, optional AC-input power shelf • Chassis fully configured, using all card slots, AC-input power shelf, and 3 AC-input power supplies • Chassis fully configured, using all card slots, AC-input power shelf, and 4 AC-input power supplies | 140 lb (64 kg) 160 lb (73 kg) 412 lb (187 kg) 440 lb (200 kg) |

Table A-2 AC Electrical Specifications

| Description | Value |
|---|---|
| Power | |
| <ul style="list-style-type: none"> Standard subsystem (3 power supplies—original series) | 4000 W maximum (for 3 AC-input power supplies—N+1 redundancy) |
| <ul style="list-style-type: none"> Optional subsystem (4 power supplies—original series) | 4000 W maximum (for 4 AC-input power supplies—N+2 redundancy) |
| <ul style="list-style-type: none"> Standard subsystem (3 power supplies—enhanced series) | 4800 W maximum (for 3 AC-input power supplies—N+1 redundancy) |
| <ul style="list-style-type: none"> Optional subsystem (4 power supplies—enhanced series) | 4800 W maximum (for 4 AC-input power supplies—N+2 redundancy) |
| Rated input voltage ¹ | 200 to 240 VAC nominal (range: 180 to 264 VAC) |
| Rated input line frequency ¹ | 50 to 60 Hz nominal (range: 47 to 63 Hz) |
| Input current rating ¹ | 13 A maximum @ 200 to 240 VRMS |
| Source AC service requirement ¹ | 20 A North America; 16 A international |

1. For each power supply module (three in the standard shelf; four in the optional shelf).

**Caution**

To ensure that the chassis configuration complies with the required power budgets, use the on-line power calculator. Failure to properly verify the configuration may result in an unpredictable state if one of the power units fails. Contact your local sales representative for assistance.

Table A-3 DC Electrical Specifications

| Description | Value |
|----------------------------------|---|
| Power | 4800 W maximum |
| Rated input voltage ¹ | –48 VDC nominal in North America –60 VDC nominal in the European Community (range: –40.5 to –72 VDC (–75 VDC FOR 5mS)) –40 VDC to –72 VDC steady-state input voltage |

Table A-3 DC Electrical Specifications

| Description | Value |
|-------------------------------|--|
| Input current rating | 60A maximum @ 40.5 VDC |
| Source DC service requirement | Sufficient to supply the rated input current. Local codes apply. |

- For each PEM.



To ensure that the chassis configuration complies with the required power budgets, use the on-line power calculator. Failure to properly verify the configuration may result in an unpredictable state if one of the power units fails. Contact your local sales representative for assistance.

Table A-4 Environmental Specifications

| Description | Value |
|------------------|---|
| Temperature | Operating: 32° to 104°F (0° to 40°C) Nonoperating: -4° to 149°F (-20° to 65°C) |
| Humidity | Operating: 10 to 90% noncondensing Nonoperating: 5 to 95% noncondensing |
| Altitude | Operating: 0 to 10,000 ft (0 to 3,000 m) Nonoperating: 0 to 15,000 ft (0 to 4,570 m) |
| Heat dissipation | 11,602 BTU/hr maximum (original series) 16,378 BTU/hr maximum (enhanced series) |
| Acoustic noise | 70 dBa maximum |
| Shock | Operating (halfsine): 21 in./sec (0.53 m/sec) Nonoperating (trapezoidal pulse): 20G ¹ , 52 in./sec (1.32 m/sec) |
| Vibration | Operating: 0.35 Grms ² from 3 to 500 Hz Nonoperating: 1.0 Grms from 3 to 500 Hz |

- G is a value of acceleration, where 1G equals 32.17 ft/sec² (9.81 m/sec²).
- Grms is the root mean square value of acceleration.

Compliance and Safety Information

The Cisco 12016, Cisco 2416 and Cisco 12816 routers are designed to meet the regulatory compliance and safety approval requirements. Refer to the *Regulatory Compliance and Safety Information for the Cisco 12000 Series Router* (Document Number 78-4347-xx) if you require additional compliance information (see “[Cisco Technical Support & Documentation Website](#)” section on [page -xx](#) for site information).

