Server Specifications

Server Specifications

This appendix lists the physical, environmental, and power specifications for the server.

Physical Specifications

The following table lists the physical specifications for the server versions.

Table 1: Physical Specifications

Description	Specification
Height	1.7 in. (43.2 mm)
Width	16.9 in. (429.0 mm)
Depth (length)	Server only: 29.5 in. (740.3 mm) Server with slide rail: 31.0 in (787.4 mm)
Weight	Maximum: 37.5 lb. (17.0 Kg) Minimum: 29.0 lb. (13.2 Kg)

Environmental Specifications

The following table lists the environmental requirements and specifications for the server.

Table 2: Physical Specifications

Description	Specification

Temperature, Operating	10° C to 35° C (50° F to 95° F) with no direct sunlight
	
	Derate the maximum temperature by 1°C per every 300 meters of altitude above sea level.
	
	Note Although the ASHRAE guidelines define multiple classes with different operating ranges, the *recommended* temperature and humidity operating range is the same for each class. The *recommended* temperature and humidity ranges are:
	
	     • Operating Temperature: 64.4°F to 80.6°F (18°C to 27°C)
	
	     For general information, see the Cisco Unified Computing System Site Planning Guide: Data Center Power and Cooling.

Temperature, non-operating (when the server is stored or transported)	Below -40° C or above 65° C (below -40° F or above 149° F) Maximum rate of change (operating and non-operating) 20° C/hr (36° F/hr)
Extended Operating Temperature	5° C to 40° C (41° F to 104° F) with no direct sunlight Maximum allowable operating temperature derated 1° C/175 m (1° F/319 ft) above 950 m (3117 ft) 5° C to 45° C (41° F to 113° F) with no direct sunlight Maximum allowable operating temperature derated 1° C/125 m (1° F/228 ft) above 950 m (3117 ft) System performance may be impacted when operating in the extended operating temperature range. Operation above 40° C is limited to less than 1% of annual operating hours. Hardware configuration limits apply to extended operating temperature range.
Humidity (RH), operating	8 to 90% and 24° C (75o F) maximum dew-point temperature, non-condensing environment
Humidity (RH), non-operating (when the server is stored or transported)	Below 5% or above 95% and 33o C (91o F) maximum dew-point temperature, non-condensing environment
Altitude, operating	0 to 10,000 feet
Altitude, non-operating (when the server is stored or transported)	0 to 40,000 feet

Sound power level Measure A-weighted per ISO7779 LwAd (Bels) Operation at 73°F (23°C)	5.8
Sound pressure level Measure A-weighted per ISO7779 LpAm (dBA) Operation at 73°F (23°C)	43

Network Interface Card Considerations

This section describes network interface card (NIC) support and considerations for Cisco Application Policy Infrastructure Controller (APIC) APIC M4/L4.

The following supported network interface cards must be inserted to PCIe Riser 01 for Cisco APIC M4/L4.

- APIC-P-I8D25GF (2 x 10/25G SFP28)

- APIC-P-ID10GC (2 x 10GBase-T)

- APIC-PCIE-C25Q-04 (2 x 10GBase-T)

The following virtual interface cards are also supported:

- Cisco VIC 1455 (4 × 10/25G SFP28)

Note The supported network interface cards have following considerations:

- 10/25GbE ports on Cisco VIC 1455 and APIC-P-I8D25GF can be used as either 10G or 25G ports. All ports must have the same speed.

- 25G connectivity between Cisco Application Centric Infrastructure (ACI) leaf and Cisco APIC M4/L4 must use copper cable when APIC-P-I8D25GF network interface cards are used. For example, Cisco SFP-H25G-CU1M.

- 25G connectivity between the Cisco ACI leaf and Cisco APIC M4/L4 can use either copper or fiber cables when APIC-PCIE-C25Q-04/Cisco VIC 1455 network interface cards are used.

  Please see the list of transceiver options:
  https://www.cisco.com/c/en/us/products/collateral/interfaces-modules/transceiver-modules/datasheet-c78-736950.html.

- APIC-P-ID10GC supports 10G Base-T connectivity to Cisco APIC leaf nodes.

- The Cisco VIC 1455 has 4 ports: port-1, port-2, port-3, and port-4, from left to right.

  - Port 1 and port 2 is one pair, corresponding to eth2-1 on Cisco APIC. Port 3 and port 4 is another pair, corresponding to eth2-2 on Cisco APIC. Only one connection is allowed for each pair. For example, you can connect one cable to either port 1 or port 2, and you can connect another one cable to either port 3 or port 4. **Do not connect two cables on any pair.**

See NIC Mode and NIC Redundancy Settings for additional considerations and more information on NIC modes.

Power Specifications

Table 3: M4 System Load Estimates

System Workload Factor	50%	75%	100%
Maximum Input Power	409.91 W	409.91 W	409.91 W
Input Power	268.24 W	338.59 W	409.91 W
Idle Input Power	129.18 W	129.18 W	129.18 W
Input Current	1.13 A	1.43 A	1.72 A
Air Flow	31.69 cfm	40 cfm	48.43 cfm
Cooling	915.28 BTU/hr.	1155.31 BTU/hr.	1398.68 BTU/hr.

Table 4: L4 System Load Estimates

System Workload Factor	50%	75%	100%
Maximum Input Power	429.85 W	429.85 W	429.85 W

System Workload Factor	50%	75%	100%
Input Power	280.83 W	355 W	429.85 W
Idle Input Power	134.26 W	134.26 W	134.26 W
Input Current	1.19 A	1.5 A	1.81 A
Air Flow	33.18 cfm	41.94 cfm	50.78 cfm
Cooling	958.22 BTU/hr.	1211.31 BTU/hr.	1466.71 BTU/hr.

Note   Do not mix power supply types or wattages in the server. Both power supplies must be identical.

You can get more specific power information for your exact server configuration by using the Cisco UCS Power Calculator:

http://ucspowercalc.cisco.com

The power specifications for the supported power supply options are listed in the following sections.

770 W AC Power Supply

This section lists the specifications for each 770 W AC power supply (Cisco part number APIC-PSU1-770W).

Table 5: 770 W AC Specifications

Description	Specification
AC Input Voltage	Nominal range: 100–120 VAC, 200–240 VAC (Range: 90–132 VAC, 180–264 VAC)
AC Input Frequency	Nominal range: 50 to 60Hz (Range: 47–63 Hz)
Maximum AC Input current	9.5 A at 100 VAC 4.5 A at 208 VAC
Maximum input volt-amperes	950 VA at 100 VAC
Maximum inrush current	15 A (sub-cycle duration)
Maximum hold-up time	12 ms at 770 W
Maximum output power per PSU	770 W
Power supply output voltage	12 VDC
Power supply standby voltage	12 VDC
Efficiency rating	Climate Savers Platinum Efficiency (80Plus Platinum certified)

Form factor	RSP2
Input connector	IEC320 C14

1050 W DC Power Supply

This section lists the specifications for each 1050 W DC power supply (Cisco part number UCSC-PSUV2-1050DC).

Table 6: 1050 W DC Specifications

Description	Specification
DC Input Voltage	Nominal range: -48 to -60 VDC (Range: -40 to -72 VDC)
Maximum DC input current	32 A at -40 VDC
Maximum input wattage	1234 W
Maximum inrush current	35 A (sub-cycle duration)
Maximum hold-up time	5 ms at 100% load (1050 W main and 36 W standby)
Maximum output power per PSU	1050 W on 12 VDC main power 36 W on 12 VDC standby power
Power supply output voltage	12 VDC
Power supply standby voltage	12 VDC
Efficiency rating	≥ 92% at 50% load
Form factor	RSP2
Input connector	Fixed 3-wire block

Power Cord Specifications

Each power supply in the server has a power cord. Standard power cords or jumper power cords are available for connection to the server. The shorter jumper power cords, for use in racks, are available as an optional alternative to the standard power cords.

Note Only the approved power cords or jumper power cords listed below are supported.

Table 7: Supported Power Cords

Description	Length (Feet)	Length (Meters)

CAB-48DC-40A-8AWG DC power cord, -48 VDC, 40 A, 8 AWG Three-socket Mini-Fit connector to three-wire	11.7	3.5
CAB-C13-C14-AC AC power cord, 10 A; C13 to C14, recessed receptacle	9.8	3.0
CAB-250V-10A-AR AC power cord, 250 V, 10 A Argentina	8.2	2.5
CAB-C13-C14-2M-JP AC Power Cord, C13 to C14 Japan PSE Mark	6.6	2.0
CAB-9K10A-EU AC Power Cord, 250 V, 10 A; CEE 7/7 Plug Europe	8.2	2.5
CAB-250V-10A-IS AC Power Cord, 250 V, 10 A Israel	8.2	2.5
CAB-250V-10A-CN AC power cord, 250 V, 10 A PR China	8.2	2.5
CAB-ACTW AC power cord, 250 V, 10 A Taiwan	7.5	2.3
CAB-C13-CBN AC cabinet jumper power cord, 250, 10 A, C13 to C14	2.2	0.68
CAB-C13-C14-2M AC cabinet jumper power cord, 250 V, 10 A, C13 to C14	6.6	2.0
CAB-9K10A-AU AC power cord, 250 V, 10 A, 3112 plug, Australia	8.2	2.5

CAB-N5K6A-NA AC power cord, 200/240 V, 6 A, North America	8.2	2.5
CAB-250V-10A-ID AC power Cord, 250 V, 10 A, India	8.2	2.5
CAB-9K10A-SW AC power cord, 250 V, 10 A, MP232 plug Switzerland	8.2	2.5
CAB-250V-10A-BR AC power Cord, 250 V, 10 A Brazil	8.2	2.5
CAB-9K10A-UK AC power cord, 250 V, 10 A (13 A fuse), BS1363 plug United Kingdom	8.2	2.5
CAB-9K12A-NA AC power cord, 125 V, 13 A, NEMA 5-15 plug North America	8.2	2.5
CAB-AC-L620-C13 AC power cord, NEMA L6-20 to C13 connectors	6.6	2.0
CAB-9K10A-IT AC power cord, 250 V, 10 A, CEI 23-16/VII plug Italy	8.2	2.5
R2XX-DMYMPWRCORD No power cord; PID option for ordering server with no power cord	NA	NA