



Technical Specifications

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Switch Specifications

Table 1-1 *Environmental and Physical Specifications*

Environmental Ranges	
Operating temperature ranges and altitude (AC power supply installed)	Normal operating temperature ¹ and altitude: –5°C to +45°C, up to 5000 feet (1500 m) –5°C to +40°C, up to 10,000 feet (3000 m) –5°C to +35°C, up to 13,000 feet (4000 m) –5°C to +30°C, up to 16,400 feet (5000 m)
	Short-term exceptional conditions ^{1 2} : –5°C to +50°C, up to 5000 feet (1500 m) –5°C to +45°C, up to 10,000 feet (3000 m) –5°C to +40°C, up to 13,000 feet (4000 m) –5°C to +35°C, up to 16,400 feet (5000 m) –5°C to +45°C, at sea level with single fan failure
Operating temperature ranges and altitude for Catalyst WS-C3650-24PDM and WS-C3650-48FQM switches (AC power supply installed)	Normal operating temperature ³ and altitude: –5°C to +45°C, up to 5000 feet (1500 m) –5°C to +45°C, up to 10,000 feet (3000 m)
	Short-term exceptional conditions ^{1 4} : –5°C to +50°C, up to 5000 feet (1500 m) –5°C to +50°C, up to 10,000 feet (3000 m)

Table 1-1 *Environmental and Physical Specifications*

Operating temperature ranges and altitude (DC power supply installed)	Normal operating temperature ¹ and altitudes: –5°C to +45°C, up to 6000 feet (1800 m) –5°C to +40°C, up to 10,000 feet (3000 m) –5°C to +35°C, up to 13,000 feet (4000 m) –5°C to +30°C, up to 16,400 feet (5000 m) Short-term exceptional conditions ^{1 2} : –5°C to +55°C, up to 6000 feet (1800 m) –5°C to +50°C, up to 10,000 feet (3000 m) –5°C to +45°C, up to 13,000 feet (4000 m) –5°C to +40°C, up to 16,400 feet (5000 m) –5°C to +45°C, at sea level with single fan failure
Relative humidity	5 to 96% (noncondensing)
Storage temperature	–40 to 158° F (–40 to 70° C)
Storage altitude	Up to 16,400 feet (5000 m)
Physical Specifications: Dimensions	
Dimensions (H x W x D)	Dimensions include the chassis assembly as it is shipped: three fans, two StackWise adapter blanks, one power supply blank, and the default power supply shipped with the unit.
Catalyst 3650 24-port non PoE switches	1.73 x 17.5 x 17.625 in. (4.4 x 44.5 x 44.8 cm)
Catalyst 3650 24-port PoE+ switches	1.73 x 17.5 x 17.625 in. (4.4 x 44.5 x 44.8 cm)
Catalyst 3650 48-port non PoE switches	1.73 x 17.5 x 17.625 in. (4.4 x 44.5 x 44.8 cm)
Catalyst 3650 48-port PoE+ switches	1.73 x 17.5 x 17.625 in. (4.4 x 44.5 x 44.8 cm)
Catalyst 3650 48-port Full PoE switches	1.73 x 17.5 x 19.125 in. (4.4 x 44.5 x 48.6 cm)
Catalyst 3650-24PDM and 3650-48FQM switches	1.73 x 17.5 x 17.625 in. (4.4 x 44.5 x 44.8 cm)
Catalyst 3650 24-port mGig Cisco UPOE switches	1.73 x 17.5 x 19.125 in. (4.4 x 44.5 x 48.6 cm)
Catalyst 3650 24-port mGig PoE+ switches	1.73 x 17.5 x 17.625 in. (4.4 x 44.5 x 44.8 cm)
Catalyst 3650 48-port mGig Full PoE and Cisco UPOE switches	1.73 x 17.5 x 19.125 in. (4.4 x 44.5 x 48.6 cm)
Physical Specifications: Weight	
Weight	Weight includes the chassis assembly as it is shipped: three fans, two StackWise adapter blanks, one power supply blank, and the default power supply shipped with the unit.
Catalyst 3650 24-port non PoE switches	15.15 lbs (6.87 kg)
Catalyst 3650 24-port PoE switches	16.00 lbs (7.26 kg)
Catalyst 3650 48-port non PoE switches	15.90 lbs (7.21 kg)

Table 1-1 *Environmental and Physical Specifications*

Catalyst 3650 48-port PoE switches	16.75 lbs (7.6 kg)
Catalyst 3650 48-port Full PoE switches	17.20 lbs (7.8 kg)
Catalyst 3650-24PDM switches	12.26 lbs. (5.56 kg)
Catalyst 3650-48FQM switches	12.65 lbs. (5.74 kg)
Catalyst 3650 24-port mGig switch WS-C3650-8X24UQ	16.71 lbs (7.6 kg)
Catalyst 3650 24-port mGig switch WS-C3650-8X24PD	16.60 lbs (7.5 kg)
Catalyst 3650 48-port mGig switch WS-C3650-12X48UQ	17.75 lbs (8 kg)
Catalyst 3650 48-port mGig switch WS-C3650-12X48UR	17.80 lbs (8 kg)
Catalyst 3650 48-port mGig switch WS-C3650-12X48UZ	17.80 lbs (8 kg)
Catalyst 3650 48-port mGig switch WS-C3650-12X48FD	17.75 lbs (8 kg)
StackWise stacking adapter	0.25 lbs (0.11 kg)
StackWise adapter blank	0.1 lbs (0.05 kg)

1. Minimum ambient temperature for cold start is 32°F (0°C).
2. Occurring not more than this in one-year period: 96 consecutive hours, 360 hours in total, or 15 occurrences.
3. Minimum ambient temperature for cold start is 32°F (0°C).
4. Occurring not more than this in one-year period: 96 consecutive hours, 360 hours in total, or 15 occurrences.

Power Supply Module Specifications

Table 1-2 *Environmental and Physical Specifications for AC-and DC Power Supply Modules*

Environmental Ranges	
Operating temperature	For the operating temperature ranges at various altitudes of AC and DC power supply module-powered switches, see Table 1-1 .
Storage temperature	–40 to 158° F (–40 to 70° C)
Relative humidity	5 to 96% (noncondensing)
Altitude	AC power supply: Up to 16,400 feet (5,000 m) DC power supply: Up to 16,400 feet (5,000 m)
Physical Specifications: Weight	
PWR-C1-715WAC	2.8 lb (1.3 kg)
PWR-C1-1100WAC	3 lb (1.4 kg)
PWR-C1-BLANK	0.2 lb (0.09 kg)
PWR-C2-1025WAC	3.55 lb (1.61 kg)
PWR-C2-640WAC	3.1 lb (1.41 kg)
PWR-C2-250WAC	2.55 lb (1.16 kg)
PWR-C2-640WDC	2.75 lb (1.25 kg)
PWR-C2-BLANK	0.2 lb (0.09 kg)
Physical Specifications: Dimensions (H x W x D)	
PWR-C1-715WAC	1.58 x 3.25 x 12.21 in. (4.0 x 8.3 x 31.0 cm)
PWR-C1-1100WAC	1.58 x 3.25 x 13.71 in. (4.0 x 8.3 x 34.9 cm)
PWR-C2-1025WAC	1.58 x 3.75 x 13.25 in. (4.0 x 9.5 x 33.7 cm)
PWR-C2-640WAC	1.58 x 3.75 x 11.75 in. (4.0 x 9.5 x 29.8 cm)
PWR-C2-250WAC	1.58 x 3.75 x 11.75 in. (4.0 x 9.5 x 29.8 cm)
PWR-C2-640WDC	1.58 x 3.75 x 11.75 in. (4.0 x 9.5 x 29.8 cm)

Table 1-3 *Power Specifications for AC Power 24-Port and 48-Port Switches*

Power Specifications	
Maximum output power	PWR-C1-1100WAC: 1100 W PWR-C1-715WAC: 715 W PWR-C2-1025WAC: 1025 W PWR-C2-640WAC: 640 W PWR-C2-250WAC: 250 W

Table 1-3 *Power Specifications for AC Power 24-Port and 48-Port Switches (continued)*

Input voltage range and frequency	PWR-C1-1100WAC: 1100-W, 115 to 240 VAC (autoranging) 50-60 Hz PWR-C1-715WAC: 715 W, 100 to 240 VAC (autoranging) 50-60 Hz PWR-C2-1025WAC: 1025-W, 115 to 240 VAC (autoranging) 50 to 60 Hz PWR-C2-640WAC: 640-W, PWR-C2-250WAC: 250 W, 100 to 240 VAC (autoranging), 50 to 60 Hz
Input current	PWR-C1-1100WAC: 12–6 A PWR-C1-715WAC: 10–5 A PWR-C2-1025WAC: 12–6 A PWR-C2-640WAC: 8–4 A PWR-C2-250WAC: 4–2 A
Output ratings	PWR-C1-1100WAC: –56 V@19.64 A PWR-C1-715WAC: –56 V@12.8 A PWR-C2-1025WAC: +12 V @ 20.83 A, –54 V@14.6 A PWR-C2-640WAC: +12 V @ 20.83 A, –54 V@7.36 A PWR-C2-250WAC: +12 V @ 20.83 A
Total input BTU ¹	PWR-C1-1100WAC: 4263 BTUs per hour, 1250 W PWR-C1-715WAC: 2742 BTUs per hour, 804 W PWR-C2-1025WAC: 3801 BTUs per hour, 1114 W PWR-C2-640WAC: 2371 BTUs per hour, 695 W PWR-C2-250WAC: 945 BTUs per hour, 277 W
Total output BTU ¹	PWR-C1-1100WAC: 3751 BTUs per hour, 1100 W PWR-C1-715WAC: 2438 BTUs per hour, 715 W PWR-C2-1025WAC: 3497 BTUs per hour, 1025 W PWR-C2-640WAC: 2183 BTUs per hour, 640 W PWR-C2-250WAC: 853 BTUs per hour, 250 W

1. The total input and total output BTU ratings refer to input power to the power supply and output power to the switch. The BTU ratings are based on 100 VAC for the 250-W and 640-W power supplies and 115 VAC for the 1100-W power supply.

Table 1-4 *Power Specifications for DC Power 24-Port and 48-Port Switches*

Power Specifications	
Maximum output power	PWR-C2-640WDC: 640 W
Input current	PWR-C2-640WDC: 21–10.5 A
DC input voltage	PWR-C2-640WDC: –36 to –72 VDC
Output ratings	PWR-C2-640WDC: +12 V @ 20.83 A, –54 V@7.36 A
Voltage range domestic	PWR-C2-640WDC: –36 VDC (minimum) –48 VDC (nominal), –72 VDC (maximum)
Voltage range international	PWR-C2-640WDC: –36 VDC (minimum) –60 VDC (nominal), –72 VDC (maximum)
Total input BTU ¹	PWR-C2-640WDC 2444 BTUs per hour, 719 W
Total output BTU ¹	PWR-C2-640WDC: 2188 BTUs per hour, 640 W

Table 1-4 *Power Specifications for DC Power 24-Port and 48-Port Switches (continued)*

Wire gauge for ground connection	PWR-C2-640WDC: 12 AWG or 8 AWG
Branch circuit protection	PWR-C2-640WDC: 25 A

1. The total input and total output BTU ratings refer to input power to the power supply and output power to the switch. The BTU ratings are based on –48 VDC (nominal).

Fan Module Specifications

Table 1-5 *Fan Module Environmental and Physical Specifications*

Environmental Ranges	
Operating temperature	23 to 176°F (–5 to 80°C)
Storage temperature	–40 to 185°F (–40 to 85°C)
Relative humidity	5 to 96% (non-condensing)
Altitude	Up to 16,400 feet (5,000 m)
Physical Specifications	
Dimensions (H x D x W)	1.62 x 1.73 x 4.24 in. (4.11 x 4.39 x 10.76 cm)
Weight	0.2 lb (0.07 kg)
Operating Specification	
Airflow	20 cfm