



Technical Specifications

[Table A-1](#) through [Table A-5](#) list the technical specifications for the Catalyst 2950 switches. [Table A-6](#) lists the technical specifications for fiber-optic uplink ports.

[Table A-7](#) lists the regulatory agency approvals for the switches other than the Catalyst 2950 Long-Reach Ethernet (LRE) switches. [Table A-8](#) and [Table A-9](#) list the regulatory agency approvals for the Catalyst 2950 LRE switches. [Table A-10](#) lists the regulatory agency approval only for the Catalyst 2950G-24-EI-DC switch.

Table A-1 *Technical Specifications for Catalyst 2950-12, 2950-24, 2950C-24, 2950SX-24, and 2950T-24 Switches*

| Environmental Ranges | |
|---|---|
| Operating temperature | 32 to 113°F (0 to 45°C) |
| Storage temperature | -13 to 158°F (-25 to 70°C) |
| Operating humidity | 10 to 85% (noncondensing) |
| Operating altitude | Up to 10,000 ft (3000 m) |
| Storage altitude | Up to 15,000 ft (4570 m) |
| Shock | 84 in. per sec (2.13 m per sec) ¹ |
| Power Requirements | |
| AC input voltage | 100 to 127/200 to 240 VAC (autoranging) 50 to 60 Hz |
| DC input voltages for the Cisco RPS ² 300 Redundant Power System | +12 V _{DC} @ 4.5 A |
| DC input voltages for the Cisco RPS 675 | +12 V _{DC} @ 4.5 A |
| Power consumption | 30 W (maximum) 102 Btus per hour |
| Power rating | 0.05 kVA |
| Physical Dimensions | |
| Weight | 6.5 lb (3 kg) |
| Dimensions (H x W x D) | 1.72 x 17.5 x 9.52 in. (4.36 x 44.45 x 24.18 cm) |

1. This switch meets ASTM D3332.
2. RPS = redundant power system

Table A-2 Technical Specifications for Catalyst 2950G-12-EI, 2950G-24-EI, 2950G-48-EI, 2950SX-48-SI, and 2950T-48-SI Switches

| | Catalyst 2950G-12-EI and 2950G-24-EI Switches | Catalyst 2950G-48-EI, 2950SX-48-SI, and 2950T-48-SI Switches |
|--|---|--|
| Environmental Ranges | | |
| Operating temperature | 32 to 113°F (0 to 45°C) | 32 to 113°F (0 to 45°C) |
| Storage temperature | -13 to 158°F (-25 to 70°C) | -13 to 158°F (-25 to 70°C) |
| Operating humidity | 10 to 85% (noncondensing) | 10 to 85% (noncondensing) |
| Operating altitude | Up to 10,000 ft (3000 m) | Up to 10,000 ft (3000 m) |
| Storage altitude | Up to 15,000 ft (4570 m) | Up to 15,000 ft (4570 m) |
| Shock | 84 in. per sec (2.13 m per sec) ¹ | 84 in. per sec (2.13 m per sec) |
| Power Requirements | | |
| AC input voltage | 100 to 127/200 to 240 VAC (autoranging) 50 to 60 Hz | 100 to 127/200 to 240 VAC (autoranging) 50 to 60 Hz |
| DC input voltage for the Cisco RPS ² 300 | +12 V ⁻⁻⁻ @4.5 A | +12 V ⁻⁻⁻ @4.5 A |
| DC input voltage for the Cisco RPS 675 | +12 V ⁻⁻⁻ @4.5 A | +12 V ⁻⁻⁻ @4.5 A |
| Power consumption | 30 W (maximum) 102 Btus per hour | 45 W (maximum) 154 Btus per hour |
| Power rating | 0.05 kVA | 0.075 kVA |
| Physical Dimensions | | |
| Weight | 6.5 lb (3 kg) | 10.5 lb (4.8 kg) |
| Dimensions (H x W x D) | 1.72 x 17.5 x 9.52 in. (4.36 x 44.45 x 24.18 cm) | 1.72 x 17.5 x 13 in. (4.36 x 44.45 x 33.02 cm) |

1. This switch meets ASTM D3332.

2. RPS = redundant power system

Table A-3 Technical Specifications for Catalyst 2950G-24-EI-DC Switch

| Environmental Ranges | |
|-----------------------------|----------------------------|
| Operating temperature | 32 to 113°F (0 to 45°C) |
| Storage temperature | -13 to 158°F (-25 to 70°C) |
| Operating humidity | 10 to 85% (noncondensing) |
| Operating altitude | Up to 10,000 ft (3000 m) |
| Storage altitude | Up to 15,000 ft (4570 m) |

Table A-3 Technical Specifications for Catalyst 2950G-24-EI-DC Switch

| | |
|---------------------------------|---|
| Shock | 84 in. per sec (2.13 m per sec) ¹ |
| Power Requirements | |
| Power consumption | 30W (102 Btus per hour) |
| Power rating | 0.05 kVA |
| DC input voltage | -36 to -72 VDC |
| Wire gauge for power connection | 18 AWG ² (6 AWG for protective earth) |
| Branch circuit protection | 5 A |
| Physical Dimensions | |
| Weight | 6.5 lb (3 kg) |
| Dimensions (H x W x D) | 1.72 x 17.5 x 9.52 in. (4.36 x 44.45 x 24.18 cm) |

1. This switch meets ASTM D3332.
2. AWG = American Wire Gauge

Table A-4 Technical Specifications for Catalyst 2950ST-8 LRE and Catalyst-2950ST-24 LRE Switches

| | |
|--|--|
| Environmental Ranges | |
| Operating temperature | 32 to 113°F (0 to 45°C) |
| Storage temperature | -13 to 158°F (-25 to 70°C) |
| Operating humidity | 10 to 85% (noncondensing) |
| Operating altitude | Up to 10,000 ft (3000 m) |
| Storage altitude | Up to 15,000 ft (4570 m) |
| Shock | 84 in. per sec (2.13 m per sec) ¹ |
| Power Requirements | |
| AC input voltage | 100 to 127/200 to 240 VAC (autoranging) 50 to 60 Hz |
| DC input voltage for the Cisco RPS ² 300 | +12 V ⁻⁻⁻ @4 A |
| DC input voltage for the Cisco RPS 675 | +12 V ⁻⁻⁻ @4 A |
| Power consumption | 50W (maximum) 171 Btus per hour |
| Power rating | 0.083 kVA |
| Branch circuit protection | 5 A |
| Physical Dimensions | |
| Weight | 8 lb (3.6 kg) |
| Dimensions (H x W x D) | 1.73 x 17.5 x 9.96 in. (4.36 x 44.45 x 24.18 cm) |

1. This switch meets ASTM D3332.
2. RPS = redundant power system

Table A-5 *Technical Specifications for Catalyst-2950ST-24 997 LRE Switches*

| Environmental Ranges | |
|---------------------------------|---|
| Operating temperature | 32 to 113°F (0 to 45°C) |
| Storage temperature | -13 to 158°F (-25 to 70°C) |
| Operating humidity | 10 to 85% (noncondensing) |
| Operating altitude | Up to 10,000 ft (3000 m) |
| Storage altitude | Up to 15,000 ft (4570 m) |
| Shock | 84 in. per sec (2.13 m per sec) ¹ |
| Power Requirements | |
| Power consumption | 50W (maximum) 171 Btus per hour |
| Power rating | 0.083 kVA |
| DC input voltage | -36 to -72 VDC |
| Wire gauge for power connection | 18 AWG ² (6 AWG for protective earth) |
| Branch circuit protection | 5 A |
| Physical Dimensions | |
| Weight | 8 lb (3.6 kg) |
| Dimensions (H x W x D) | 1.73 x 17.5 x 9.96 in. (4.36 x 44.45 x 24.18 cm) |

1. This switch meets ASTM D3332.
2. AWG = American Wire Gauge

Table A-6 Fiber-Optic Port Specifications for Catalyst 2950C-24, Catalyst 2950SX-24, and Catalyst 2950 LRE Switches

| Fiber-Port Power Levels | Catalyst 2950C-24 | Catalyst 2950SX-24 | Catalyst 2950ST-8 LRE, 2950ST-24 LRE, and 2950ST-24 LRE 997 |
|--|---------------------------------|--------------------|--|
| Optical transmitter wavelength | 1300 nm ¹ | 850 nm | The transmitter wavelengths, receiver sensitivities, and transmitter power levels are SFP ² -module dependent. For this information, see the technical specifications that came with your SFP module. |
| Optical receiver sensitivity for 50/125-micron cabling | -33.5 to -11.8 dBm ³ | -13.5 dBm | |
| Optical receiver sensitivity for 62.5/125-micron cabling | -33.5 to -11.8 dBm | -12.5 dBm | |
| Optical transmitter power for 50/125-micron cabling | -23.5 to -14 dBm | -9.5 to -4 dBm | |
| Optical transmitter power for 62.5/125-micron cabling | -20 to -14 dBm | -9.5 to -4 dBm | |

1. nm = nanometers
2. SFP = small form-factor pluggable
3. dBm = decibel milliwatt

Table A-7 Catalyst 2950 Switch Agency Approvals

| Safety | EMC |
|--------------------|----------------------------------|
| UL/CSA 60950 | FCC Part 15 Class A |
| IEC 60950/EN 60950 | EN 55022: 1998 (CISPR22) Class A |
| AS/NZS 3260, TS001 | EN 55024: 1998 (CISPR24) |
| CE | VCCI Class A |
| | AS/NZS 3548 Class A |
| | CE |
| | CNS 13438 Class A |
| | MIC |

Table A-8 Catalyst 2950ST-8 LRE and 2950ST-24 LRE Switch Agency Approvals

| Safety | EMC |
|---|----------------------------------|
| UL/CSA 60950, 3rd edition | USA CFR47, FCC, Part 15, Class A |
| IEC 60950 with Amendments A1 through A4 and A11 | ICES-003, Class A |
| AS/NZS 3260 with Amendments A1 through A4 | EN55022/CISPR22, Class A, 1998 |

Table A-8 Catalyst 2950ST-8 LRE and 2950ST-24 LRE Switch Agency Approvals (continued)

| Safety | EMC |
|---|--|
| TUV-GS to EN60950 with Amendments A1 through A4 and A11 | EN 55024: ITE Immunity Standard. (CE Mark), 1998 |
| CE | EN61000-4-2/IEC1000-4-2: Immunity to ESD |
| | EN61000-4-3/IEC1000-4-3: Immunity to Radio Frequency Electromagnetic Fields |
| | EN61000-4-4/IEC1000-4-4: Immunity to Electrical Fast Transients |
| | EN61000-4-5/IEC1000-4-5: Immunity to Power Line Transients (Surges) |
| | EN61000-4-6/IEC1000-4-6: Immunity to Radio Frequency Induced Conducted Disturbances |
| | EN61000-4-11/IEC1000-4-11: Immunity to Voltage Dips, Voltage Variations, and Short Voltage Interruptions |
| | AS/NZS 3548, Class A |
| | BSMI, Class A |
| | VCCI, Class A |
| MIC Mark | |

Table A-9 Catalyst 2950ST-24 LRE 997 Switch Agency Approvals

| Safety | EMC |
|---|--|
| UL/CSA 60950, 3rd edition | USA CFR47, FCC, Part 15, Class A |
| IEC 60950 with Amendments A1 through A4 and A11 | ICES-003, Class A |
| AS/NZS 3260 with Amendments A1 through A4 | EN55022/CISPR22, Class A, 1998 |
| TUV-GS to EN60950 with Amendments A1 through A4 and A11 | EN 55024: ITE Immunity Standard. (CE Mark), 1998 |
| CE | EN61000-4-2/IEC1000-4-2: Immunity to ESD |
| | EN61000-4-3/IEC1000-4-3: Immunity to Radio Frequency Electromagnetic Fields |
| | EN61000-4-4/IEC1000-4-4: Immunity to Electrical Fast Transients |
| | EN61000-4-5/IEC1000-4-5: Immunity to Power Line Transients (Surges) |
| | EN61000-4-6/IEC1000-4-6: Immunity to Radio Frequency Induced Conducted Disturbances |
| | EN61000-4-11/IEC1000-4-11: Immunity to Voltage Dips, Voltage Variations, and Short Voltage Interruptions |

Table A-10 Catalyst 2950G-24-EI-DC Switch Agency Approvals

| |
|--------------------------|
| NEBS |
| Bellcore GR-1089-CORE |
| Bellcore GR-63-CORE |
| Bellcore SR-3580 Level 3 |

