

Servaris ProServ 970

Environmental and Compliance Facts



Environmental Specifications

The system is tested to the environmental specifications indicated in the following. All testing is performed per procedures defined in Bellcore GR-63-CORE NEBS Physical Protection, Bellcore GR-1089-CORE EMC and Electrical Safety — Generic Criteria for Network Telecommunications Equipment

Environmental Specifications Summary

Environment	Specification
Temperature, operating	+5° C to +40° C (41° F to 104° F)
Temperature, non-operating	-40° C to +70° C (-40° F to +158° F)
Altitude	0 to 900m (2,950 ft.) @ 40° C, temperature derated by 1° C for each additional 300m (985 ft.)
Humidity, non-operating	95%, non-condensing at temperatures of 23° C (73° F) to 40° C (104° F)
Vibration, operating	Swept sine survey at an acceleration amplitude of 0.1 G from 5 to 100 Hz and back to 5 Hz at a rate of 0.1 octave/minute, 90 minutes per axis on all three axes as per Bellcore GR-63-CORE standards
Vibration, non-operating	Swept sine survey at an acceleration amplitude of 0.5 G from 5 to 50 Hz at a rate of 0.1 octaves/minute, and an acceleration amplitude of 3.0 G from 50 to 500 Hz at a rate of 0.25 octaves/minute, on all three axes as per Bellcore GR-63-CORE standard. 2.2 Grms, 10 minutes per axis on all three axes as per the <i>Intel Environmental Standards Handbook</i>
Shock, operating	Half-sine 2 G, 11 ms pulse, 100 pulses in each direction, on each of the three axes as per the <i>Intel Environmental Standards Handbook</i>
Shock, non-operating	Trapezoidal, 25 G, 170 inches/sec delta V, three drops in each direction, on each of the three axes as per <i>Intel Environmental Standards Handbook</i>
Acoustic	Sound power: ≤ 7 bels at ambient temperatures <24° C measured at bystander positions in operating mode
System Cooling Requirement	1200 BTU/hr with single power supply unit 1250 BTU/hr with dual power supply units
RoHS	Complies with RoHS Directive 2002/95/EC

Safety Compliance

USA/Canada	UL 60950-1, 1 st Edition/CSA 22.2
Europe	Low Voltage Directive, 73/23/EEC TUV/GS to EN60950-1, 1 st Edition
International	CB Certificate and Report to IEC60950-1, 1 st Edition and all international deviations

Electromagnetic Compatibility

USA	FCC 47 CFR Parts 2 and 15, Verified Class A Limit
Canada	IC ICES-003 Class A Limit
Europe	EMC Directive, 89/336/EEC EN55022, Class A Limit, Radiated & Conducted Emissions EN55024 Immunity Characteristics for ITE EN61000-4-2 ESD Immunity (level 2 contact discharge, level 3 air discharge) EN61000-4-3 Radiated Immunity (level 2) EN61000-4-4 Electrical Fast Transient (level 2) EN61000-4-5 Surge EN61000-4-6 Conducted RF EN61000-4-8 Power Frequency Magnetic Fields EN61000-4-11 Voltage Fluctuations and Short Interrupts EN61000-3-2 Harmonic Currents EN61000-3-3 Voltage Flicker
Australia/New Zealand	EN55022, Class A Limit
Japan	VCCI Class A ITE (CISPR 22, Class A Limit)
Taiwan	BSMI Approval, CNS 13438, Class A and CNS13436 Safety
Korea	RRL Approval, Class A
China	CCC Approval, Class A (EMC and Safety)
Russia	Gost Approval (EMC and safety)
International	CISPR 22, Class A Limit, CISPR 24 Immunity

CE Mark

The CE marking on this product indicates that the Carrier Grade Server **ProServ 970** system is in compliance with the European Union's EMC Directive 89/336/EEC, and Low Voltage Directive 73/23/EEC.

NEBS Compliance

The Carrier Grade Server **ProServ 970** with DC input is compliant with the NEBS Level 3 criteria from the following NEBS specifications:

- NEBS GR-63-CORE, Issue 3 — Physical Protection
- NEBS GR-1089-CORE, Issue 4 — Electromagnetic Compatibility and Electrical Safety

ETSI Standards Compliance (DC Input Only)

The Carrier Grade Server **ProServ 970** with DC input is compliant with the following ETSI specifications:

- ETSI EN 300 386 — EMC requirements for Telecom Equip.
- ETS 300-019-2-1 — Storage Tests, Class T1.2
- ETS 300-019-2-2 — Transportation Tests, Class T2.3
- ETS 300-019-2-3 — Operational Tests, Class T3.2
- ETS 753 — Acoustic Noise