

# Safety Agency Information (Medical) AN-114



### Medical Equipment, Including Dental Equipment Standard

Standard	Earth Leakage	Electric Strength	Regulation
IEC/EN/CSA 60601-1	N.C. = 500 $\mu$ A (6)	Input to Ground = 1500 V ac (1)	Input to Ground = 4 mm (2)
UL 60601-1	N.C. = 300 $\mu$ A (6)	Input to Output = 4000 V ac (1,3)	Input to Output = 8 mm (2,3)

### IEC ELECTROMAGNETIC COMPATIBILITY (EMC)

Disturbance	General
Fundamental Definitions and Terms	IEC1000-1-1
Description of Environment	IEC1000-2-1
Compatibility Levels for Systems	IEC1000-2-2
Radiated and Conducted Phenomena	IEC1000-2-3
Compatibility Levels in Industrial Plants	IEC1000-2-4
Limits for Harmonic Current	IEC1000-3-2
Limitation Voltage Fluctuation/Flicker	IEC1000-3-3
High Current Voltage Fluctuation/Flicker	IEC1000-3-5
General Specification - Overview	IEC1000-4-1
Electrostatic Discharge Test	IEC1000-4-2
Radiated RFI Immunity	IEC1000-4-3
Electrical Fast Transients/Burst	IEC1000-4-4
Mains Surges	IEC1000-4-5
Conducted RFI	IEC1000-4-6
Harmonics and Inter-Harmonics	IEC1000-4-7
Mains Frequency Magnetic Field	IEC1000-4-8
Pulsed Magnetic Field	IEC1000-4-9
Damped Oscillatory Magnetic Field	IEC1000-4-10
Supply Voltage Dips and Interruptions	IEC1000-4-11
Oscillatory Waves Immunity	IEC1000-4-12

Standard	Touch Current	Electric Strength	Creepage Distance
IEC/EN/UL/CSA 60950 -1	Handheld=0.75mA Movable = 3.5 mA Stationary = 3.5 mA	Input to Ground=1500Vac(4) Input to Output = 3000 V ac (3,4)	Input to Ground=2.5mm(5) Input to Output = 6.4 mm (3,5)



- Notes :**
1. For measured voltages up to 250 V rms or dc.
  2. For measured voltages up to 250 V rms or 300 V dc.
  3. For SELV outputs.
  4. For measured voltages up to 354 Vpk or dc.
  5. For measured voltages up to 300 V rms or dc and based on Pollution Degree 2, Material Group III.
  6. For single fault condition, maximum = 1 mA.

## HIPOT TESTING

All Condor power supplies receive a hipot test to the following limits:

Test Location	Test Voltage
Input to Ground	1800 Vac or 2500 Vdc
Input to Output	1800 Vac or 2500 Vdc
Output to Ground	500 Vdc

**Notes :** Hipot tests can be a destructive test; especially when very high voltages are used. A catastrophic failure of the unit may result if a test voltage greater than 1800 Vac is applied between input and output circuits. The components providing the isolation from input to output cannot be tested while installed in the power supply without risk of damage to the unit. All components providing input to output isolation are tested using a minimum of 5000 V ac.



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