

## Low-Z / Noise-Dissipation 3-Pole AC Power Cable

Solid Perfect-Surface Silver (PSS) and Perfect-Surface Copper + (PSC+) Conductors  
Uncompressed High-Current Transfer  
RF/ND-Tech (US Patent # 8,988,168)  
ZERO: No Characteristic Impedance  
72v Dielectric-Bias System with Level-X Radio-Frequency Noise Trap  
Directionally Controlled Conductors

Alternating Current (AC), is a far-from-perfect power source. AC power technology is well over a century old and was never designed to meet the exacting standards of today's high resolution audio-video components. AC noise is present at the utility source, and is then exacerbated by radio frequency noise that is induced (picked up by the AC power cord) and coupled to the component power supplies and to circuit ground. This creates distortion and low-level signal losses via the "asking effect." Further, power amplifiers can require immense reserves of transient current for their power supplies to react to and then stabilize during dynamic audio passages. Most AC power cords and power conditioner-regenerators, though helpful to a point, are simply not up to the task.

Power amplifiers present a real challenge for any AC power source, as the transient current requirements (though short in duration) can be many times that of the average (RMS) current consumption. Power amplifiers are also unique from all other components in that the current draw is dynamic, not constant, and it changes with volume and audio signal content. Though many AC power cords may feature low DC resistance to allow for some of this requirement, the characteristic impedance of the AC cable is equally responsible for assuring uncompromised performance. Many premium AC cords constrict or compress the audio transient as their characteristic impedance restricts the transient current.

**SOLID PERFECT-SURFACE SILVER (PSS) & SOLID PERFECT-SURFACE COPPER+ (PSC+) CONDUCTORS**  
Solid conductors prevent electrical strand-to-strand interaction, major sources of distortion. Surface quality is critical because a conductor can be considered as a rail-guide for both the fields within a conductor, and for the magnetic fields that extend outside the conductor. The astonishingly smooth and pure Perfect-Surface Copper+ eliminates harshness and greatly increases clarity compared to OFHC, OCC, 8N and other premium coppers. Extremely high-purity Perfect-Surface Silver further minimizes distortion caused by grain boundaries, which exist within any metal conductor.

**RF/ND-TECH (PATENTED RADIO-FREQUENCY GROUND-NOISE DISSIPATION) MINIMIZES CIRCUIT MISBEHAVIOR BY CANCELLING INDUCED RF NOISE**

AC Ground wires may provide protection from an electrical short circuit, but they also act as an antenna. Thus, they are subject to induced radio-frequency (RF) noise. This RF noise bypasses component power supplies and is typically coupled directly into a system's most sensitive audio/video circuits. AudioQuest's RF/ND-Tech greatly reduces this distortion, yielding unprecedented levels of noise dissipation across the widest bandwidth (range) of radio frequencies possible. Our unique circuit topology uses a common-mode phase-cancelling array, in concert with proprietary dielectric materials which provide additional differential linear filtering. US Patent # 8,988,168.

**UNCOMPRESSED HIGH (VARIABLE) CURRENT TRANSFER - DRAGON**

With current capacity of 20 amps RMS @ 125VAC 50/60Hz (16 amps RMS @ 220-240VA 50/60Hz), Dragon High (Variable) Current can withstand current transient peaks many times its

continuous (average) RMS rating. This makes Dragon High (Variable) Current ideally suited for a wide assortment of AC power conditioners, power regenerators, AC isolation transformers, and AC battery back-up devices, as well as any power amplifier, powered subwoofer, powered loudspeaker, powered receiver, or integrated amplifier.

#### 72v Dielectric-Bias System (DBS)

Insulation is also a dielectric that can act like a shunt-filter. Biasing minimizes dielectric-noise and linearizes the filter, significantly improving wide-bandwidth dissipation of induced RF noise.

#### DIRECTIONALITY

All drawn metal strands or conductors have a non-symmetrical, and therefore directional, grain structure. AudioQuest controls the resulting RF impedance variation so that noise is drained away from where it will cause distortion. The correct direction is determined by listening to every batch of metal conductors used in every AudioQuest audio cable. When applicable, arrows are clearly marked on the connectors to ensure superior sound quality. For most models of AQ cable, the arrows not only indicate the direction that optimizes metal-directionality as part of Noise-Dissipation, but also indicates non-symmetrical attachment of shield and GND in order to optimize full-system performance.