

## **Celestion PowerPro X18 Subwoofer Finalist for 2024 NAMM TEC Award**



Celestion, a supplier of professional loudspeakers and compression drivers for sound reinforcement applications, announces that the 18-inch PowerProX18 subwoofer has been named a finalist for the 2024 Technical Excellence & Creativity (TEC) Awards for outstanding technical achievement in the category of Sound Reinforcement Loudspeakers. Vote for the Celestion PowerProX18 on the website of Tec Awards below.

The PowerPro X18' is designed to surpass the performance of other 18-inch subwoofer drivers in its class. Its relentless high-quality performance makes it ideally suited to applications including cinema sound, fixed install and touring sound reinforcement. The subwoofer features an advanced cooling design that enables its voice coil to run 20°C cooler than comparable competitor drivers. This greatly reduces heat-related stress on the 4-inch glass-fibre voice coil former and other thermally sensitive parts. It also reduces the temperature-related rise in Re (coil resistance) that causes power compression. By operating at less severe temperatures, the subwoofer offers end users brand-new-out-of-the-box high performance throughout the product's lifespan.

Through detailed research Celestion has identified advanced adhesives that ensure additional driver performance and durability. In the interest of performance longevity, especially in outdoor applications such as concerts, the glass fibre-loaded cellulose cone is weatherproofed not only on the front side, but on the back as well.

With a nominal impedance of 8 ohms, the PowerProX18 subwoofer's power rating is a mighty 1200 watts nominal (AES) and 2400 watts continuous. Sensitivity, measured at 1W@1m in 2 $\pi$  space is 97dB. Its Bl (motor force) curve exhibits remarkable symmetry, and thanks to the cone's polysiloxane-laminated dual suspension, which provides greater stability and improves cone displacement symmetry, the K (stiffness) curve again reveals superb symmetry resulting in reduced distortion.

An aluminium demodulation ring reduces the inductance (Le) of the motor circuit - only 1.61mH at 1kHz - which also contributes to lowering power compression. The ring also reduces harmonic distortion as the voice coil and cone move in the gap toward either pole of the magnet.

The subwoofer has a usable frequency range of 35 to 1000Hz, making it suitable for any large subwoofer applications, and excels when delivering the deep, palpable lows of cinema audio. Xmax is calculated at  $\pm 9.3$ mm. Its chassis supports a 3.5kg ferrite magnet, while the overall weight of the subwoofer is 13.2kg (29.1lb.)

PowerProX18 key features include:

- Reduced operating temperature - voice coil runs at 20°C lower than leading competitor speakers.
- Reduced susceptibility to power compression and thermal stresses.
- 1200W (AES) / 2400W (continuous) power rating; 8 $\Omega$  nominal impedance.
- High sensitivity - 97 dB (1W @ 1m).
- Highly symmetrical Bl (motor force) and K (stiffness).
- Cone weatherproofed on both sides.
- Xmax of  $\pm 9.3$  mm.
- 18-inch diameter; 4-inch voice coil.

The NAMM TEC Awards will take place during the NAMM Show at the Anaheim Convention Center on Saturday, January 27th.

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