

Celestion TSQ2145 & TSQ1845



Celestion, a manufacturer of professional loudspeakers and compression drivers for sound reinforcement applications and guitar and bass loudspeakers, announces the availability of both the 21" TSQ2145 and 18" TSQ1845 models of aluminium chassis neodymium magnet low frequency loudspeakers, meticulously engineered for applications in subwoofers or as bass units in two- or three-way loudspeakers and larger format line arrays.

The groundbreaking TSQ Series have been born out of a specialist development program at Celestion's UK-based R&D facility, embodying Ten Squared Technology, offering key features that add up to a new standard in LF driver performance. The TSQ Series are assembled on a new state-of-the-art robotic production line at Celestion's UK-based loudspeaker research and manufacturing facility and represent a culmination of the company's 100 years' experience in loudspeaker engineering and the integration of Celestion's latest feature innovations combined with a host of small, cumulative improvements. The TSQ audio drivers are designed without compromise to deliver consistently superior levels of performance in the most demanding professional sound reinforcement applications, even after hundreds of hours of use. TSQ2145 and TSQ1845 have a continuous power rating of 3600W with 97 dB/96.5 dB sensitivity and a 4.5-inch diameter copper voice coil.

Both TSQ models feature:

- Advanced temperature control using a 3-channel Precision Tuned Venting (PTV) system, providing highly efficient cooling across the frequency band.
- A voice coil which typically operates at a temperature of up to 80°C lower than other leading drivers in this class.
- Polysiloxane laminated double suspension, which provides much greater stability and improved cone displacement symmetry.
- Lead-out wires precision woven into suspension, which minimises excess motion and reduces fatigue.

- Double-sided, weatherproof cone coating enhances durability.

Constant airflow through Precision Tuned Venting (PTV), provides highly efficient cooling around the magnet assembly and voice coils. The cooling potential is further optimized through custom coil winding that utilizes a hybrid multilayer, inside/outside methodology. The cooling benefit is as much as -80° C, versus conventional designs. TSQ's PTV and proprietary coil structure synergistically combine for significant reduction of power compression and thermal stress, maximising product lifespan and performance longevity.

The TSQ Series have an impressive continuous power rating thanks to the enhanced cooling offered by the PTV system together with a proprietary voice coil featuring advanced heat-resistant adhesives. The TSQ Series Reconfigured Magnet Assembly allows much greater cone excursion and a remarkably high Xprotection level. The driver's motor strength and mechanical compliance reach their defined Xprotection limit at practically the same point, achieving a low distortion performance, even during high excursion. This capability is complemented by TSQ's unique, Polysiloxane Laminated Dual Suspension design that enables the driver's suspension system to work much harder without losing stiffness, providing better coil control and reduced likelihood of DC shift, while simultaneously increasing speaker longevity.

In ordinary drivers, the high power and long cone excursion would cause eventual fatigue of lead out wires and joints, but TSQ Series addresses this concern through laser-cauterized holes in the suspension to reduce whipping. TSQ drivers are further built to last, with protections against the elements through solvent application on the loudspeaker cone to protect against water and humidity.

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