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TRANSFORMERS

Step-up Output Transformer for electrostatic headphones
LL3732

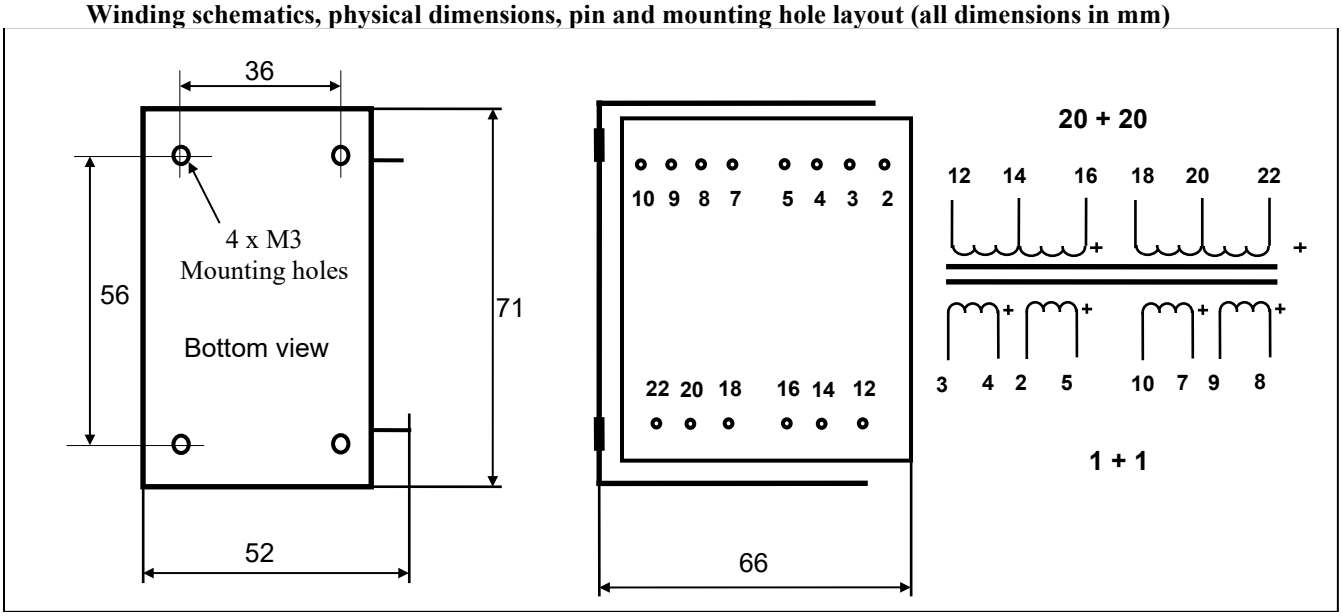
LL3732 is a step-up output transformer designed for electrostatic headphone applications optimized for use with low-impedance amplifiers. The transformer features dual five sections coils wound with a low-capacitance technique. It uses our own manufactured audio C-core, manufactured in-house. For best low frequency response the c-core has a minimal airgap

For maximum output voltage, the secondary windings should be connected in series. Connection ratios are 1:10, 1:20, and 1:40, see connection alternatives below.

When driven by a very low impedance source (< 10 Ohm), the transformer exhibits a self-resonance above 20 kHz. To control this, it is recommended to add either a series resistor at the primary input or a Zobel network across the secondary output. Suggested starting values are 10 Ω for the series resistor, or 10 kΩ + 500 pF for the Zobel network. These values should be fine-tuned to achieve the desired frequency response.

Turns ratio: 1 + 1 +1 +1 : 20+20

Winding schematics, physical dimensions, pin and mounting hole layout (all dimensions in mm)



	LL3732
Static resistance of each primary (average)	6Ω
Static resistance of each secondary (average)	820Ω
Primary inductance (primaries in series)	>20H
Primary leakage inductance (primaries in series)	To be measured
Frequency response @ 0 dBU output level (Source impedance 15Ω ,1:20, secondary open)	10 Hz - 25 KHz +/- 1 dB
Max. output level (Secondaries in series)	
at 10 Hz	280Vrms
at 20 Hz	560Vrms
at 30 Hz	840Vrms
Weight	0.8kg
Isolation between primary and secondary windings / between windings and core	4kV / 2kV

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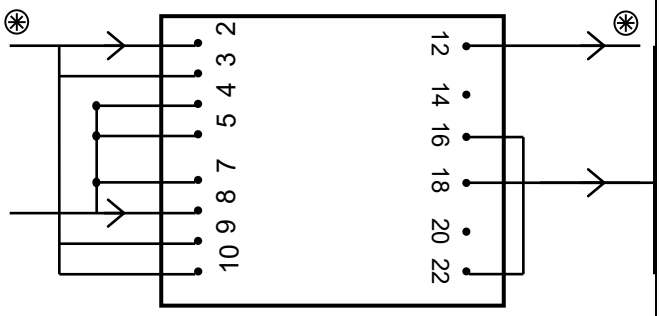
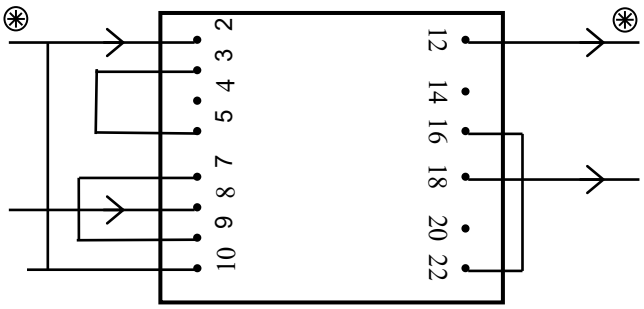
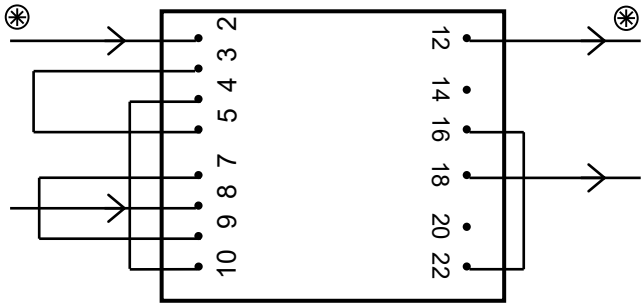
Connection alternatives



1 : 40 (CT at 16)



1 : 20 (CT at 16)



1 : 10 (CT at 16)

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