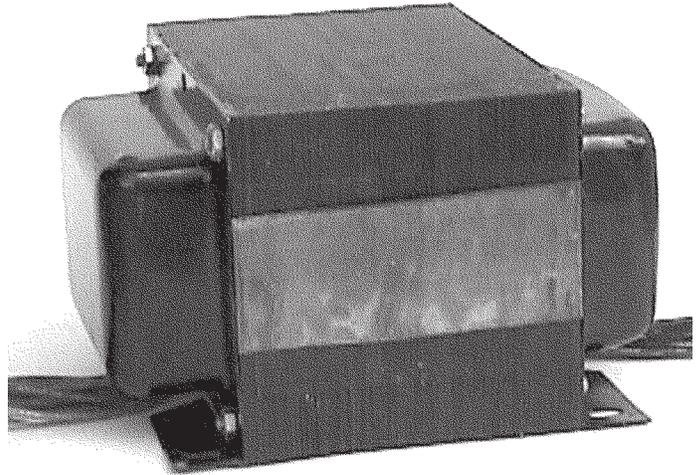


BFT-1B

Audio-Grade Power Transformer



Description

The BFT-1B is a high-quality power transformer designed for tube audio power amplifiers. Originally designed for a stereo amplifier using parallel EL34s and UBT-1 output transformers, the BFT-1B is well suited for moderate-power tube amplifiers. Special audio-grade features include an electrostatic shield between primary and secondary and a copper flux band to reduce stray hum fields.

The BFT-1B is manufactured in the United States or Mexico to high quality commercial standards. It is protected from moisture by a full vacuum-impregnation with varnish.

The BFT-1B replaces the earlier BFT-1 and BFT-1A models. The BFT-1B is physically larger than these earlier models, with greater design margins. The BFT-1B and BFT-1A

have a simpler primary winding arrangement. All types have the same performance specifications.

Specifications

Primary: 100, 110, 120, 220, 230, 240 volts at 50 to 60Hz

Secondary #1: 770 VCT @ 360 mA with a set of taps at 520 VCT, capacitor-input filter load

Secondary #2: 5.0 VCT @ 4 A, resistive load

Secondary #2: 6.3 VCT @ 9.6 A, resistive load

Secondary #2: 6.3 V @ 4 A, resistive load

Size: 3.75" x 4.5" x 6" (95 x 114 x 152 mm)

Weight: Approx. 15 lbs (6.8 kg)

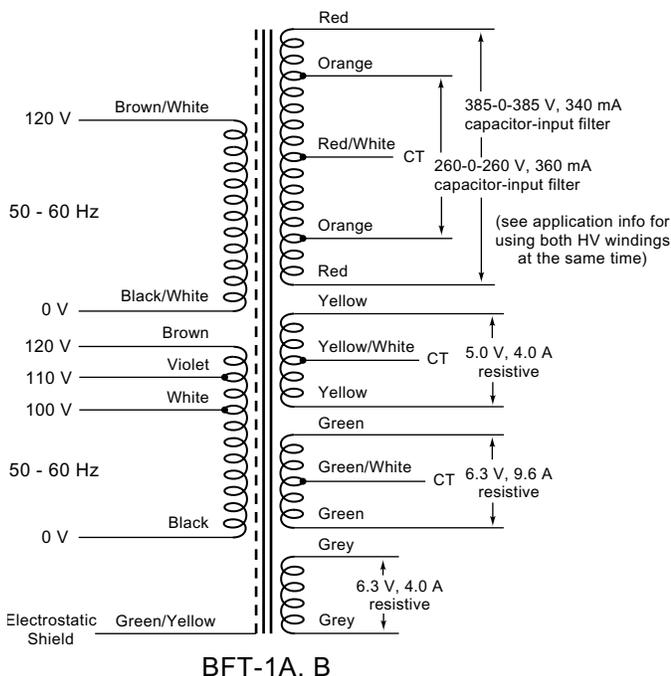
Application Information

The BFT-1B is well-suited for tube-type audio power amplifiers, but can be used wherever a conservatively-designed power transformer is needed. The high-voltage secondary is tapped to give flexibility in output voltages. The published current ratings are for capacitor-input filters. If choke-input filtering is used, the current ratings of secondary #1 can be increased by 40%. Running below maximum ratings reduces the temperature rise and increases reliability.

Both the 770VCT and 520VCT outputs can be used simultaneously, as long as the total volt-amperes (voltage multiplied by current) for both does not exceed 277VA.

The low-voltage windings supply traditional tube heaters, but can be connected in series to give a variety of low voltages. If a capacitor-input rectifier is used on the low-voltage windings, the maximum current rating must be derated to less than 60% of the listed ratings.

The BFT-1B is designed to be used on any of the common power line voltages in the world. The hook-up connections are shown below. In the 100, 110, and 120V connections,

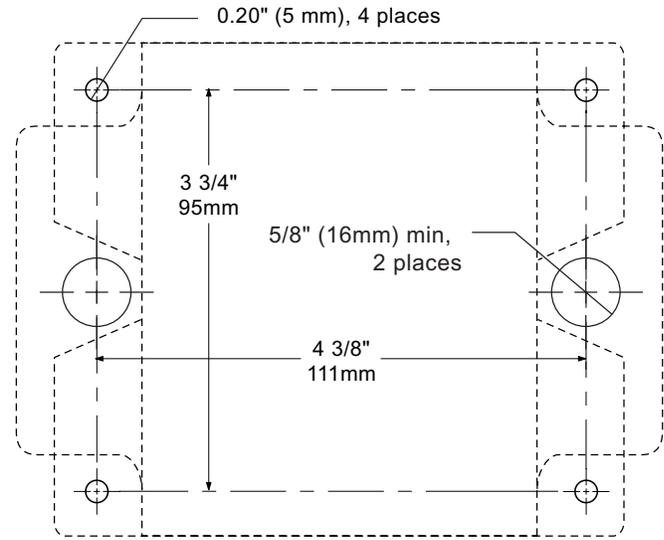
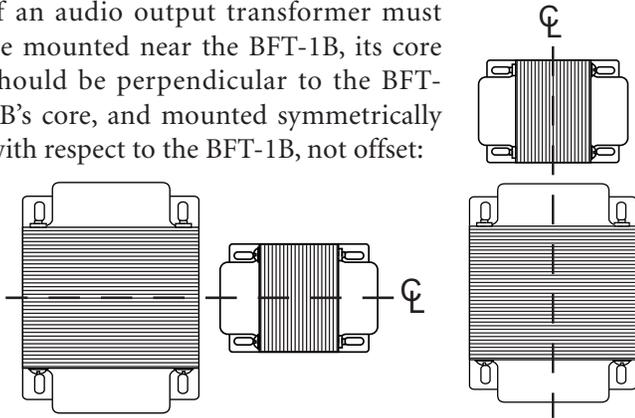


BFT-1B Audio-Grade Power Transformer

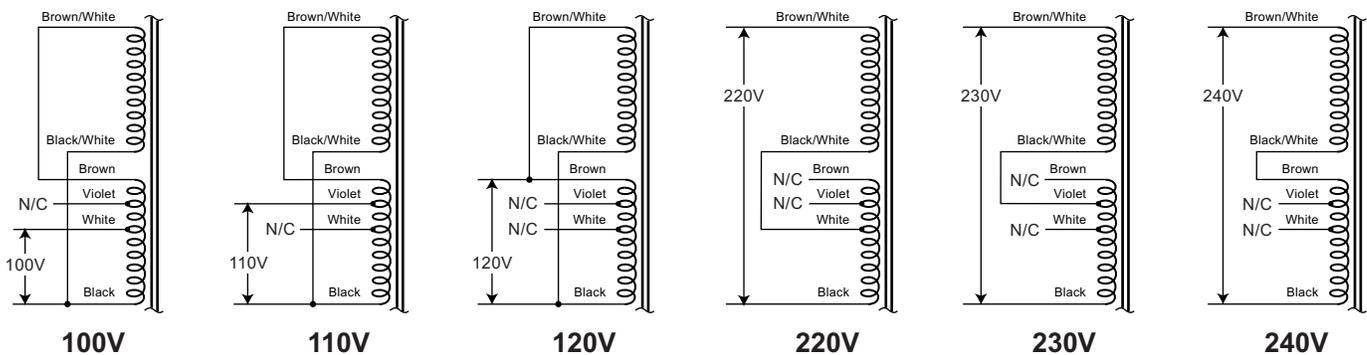
BFT-1B data sheet rev 1.1

it is important that the two 120V windings be paralleled as shown and not be used for any other purpose.

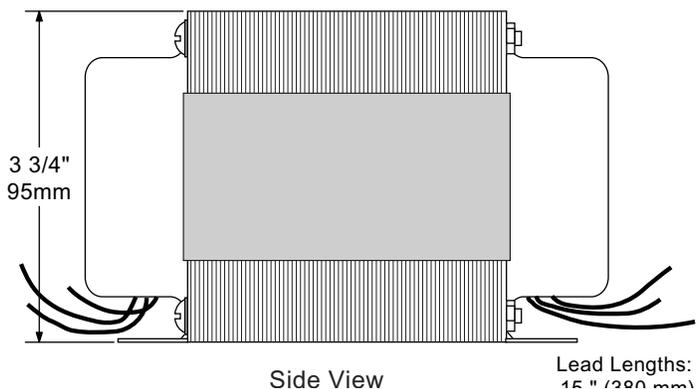
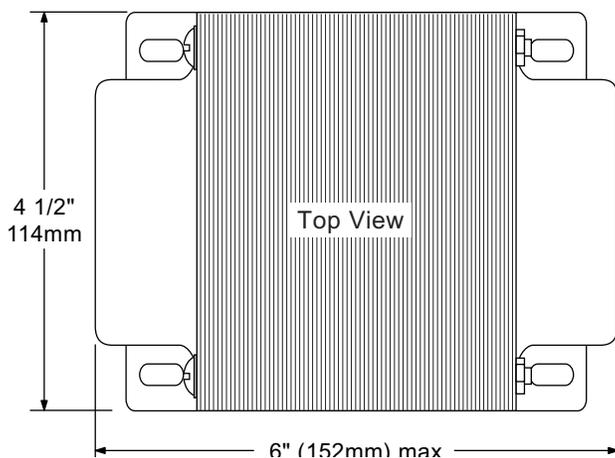
Although designed for audio use, the BFT-1B, like any power transformer, will radiate a magnetic field at the line frequency. To avoid hum, mount the BFT-1B as far from sensitive input stages or audio transformers as possible. If an audio output transformer must be mounted near the BFT-1B, its core should be perpendicular to the BFT-1B's core, and mounted symmetrically with respect to the BFT-1B, not offset:



BFT-1B Mounting Hole Footprint



BFT-1B Dimensions



one electron™

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