



T2000 Transformer for LF Conducted Susceptibility Testing

Features

- Frequency response – 10 Hz to 250 kHz
- Turns ratio – 2:1 step down
- Audio power – 200W MAX
- Meets the LF Conducted Susceptibility test requirements of DO 160 Section 18
- Circuit breaker protected from over-current on secondary
- Durable steel and high-density polyethylene case for impact resistance

For testing to these Specifications:

- Chrysler CS-11809 (2009)
- DaimlerChrysler DC-10615
- DO 160 Section 16
- DO 160 Section 18
- Ford FMC 1278
- GLloyd VI-7-2
- ISO 11452-10
- EMC-CS-2010JLR V1.1 (2011-01)
- MIL STD 461 D CS 101
- MIL STD 461 D CS 109
- MIL STD 461 E CS 101
- MIL STD 461 E CS 109
- MIL STD 461 F CS 101
- MIL STD 461 F CS 109
- MIL-STD-704
- Mitsubishi ES-X82115
- SAE J1113-2
- Tata TST/TS/WI/257

The AE Techron **T2000 Audio-Bandwidth Transformer** was designed to meet or exceed the LF conducted susceptibility test requirements of DO 160 Section 18. The T2000 is used to apply the required test signals to the lines under test for ripple voltage tests and continuous or transient conducted immunity tests.

It may also be used as 2-to-1 step-down transformer. The secondary can support up to 40 A_P.

The T2000 transformer supports up to 200W and is able to pass up to 40 A_P on the secondary. The turns ratio provides a two-to-one step down.

The T2000 provides convenient input connectors via binding posts. Standard 0.75-inch spacing of binding posts allows use of standard plugs. Output is via feed-through terminal block connectors (76A); accepts up to AWG 6 wire.

A thermal breaker protects the unit against over-current conditions on the primary. A 35A_{RMS} breaker protects the unit against over-current conditions on the secondary. A rugged, impact-resistant case and robust design protects the transformer from accidental damage.

The T2000 transformer is for use by experienced staff.

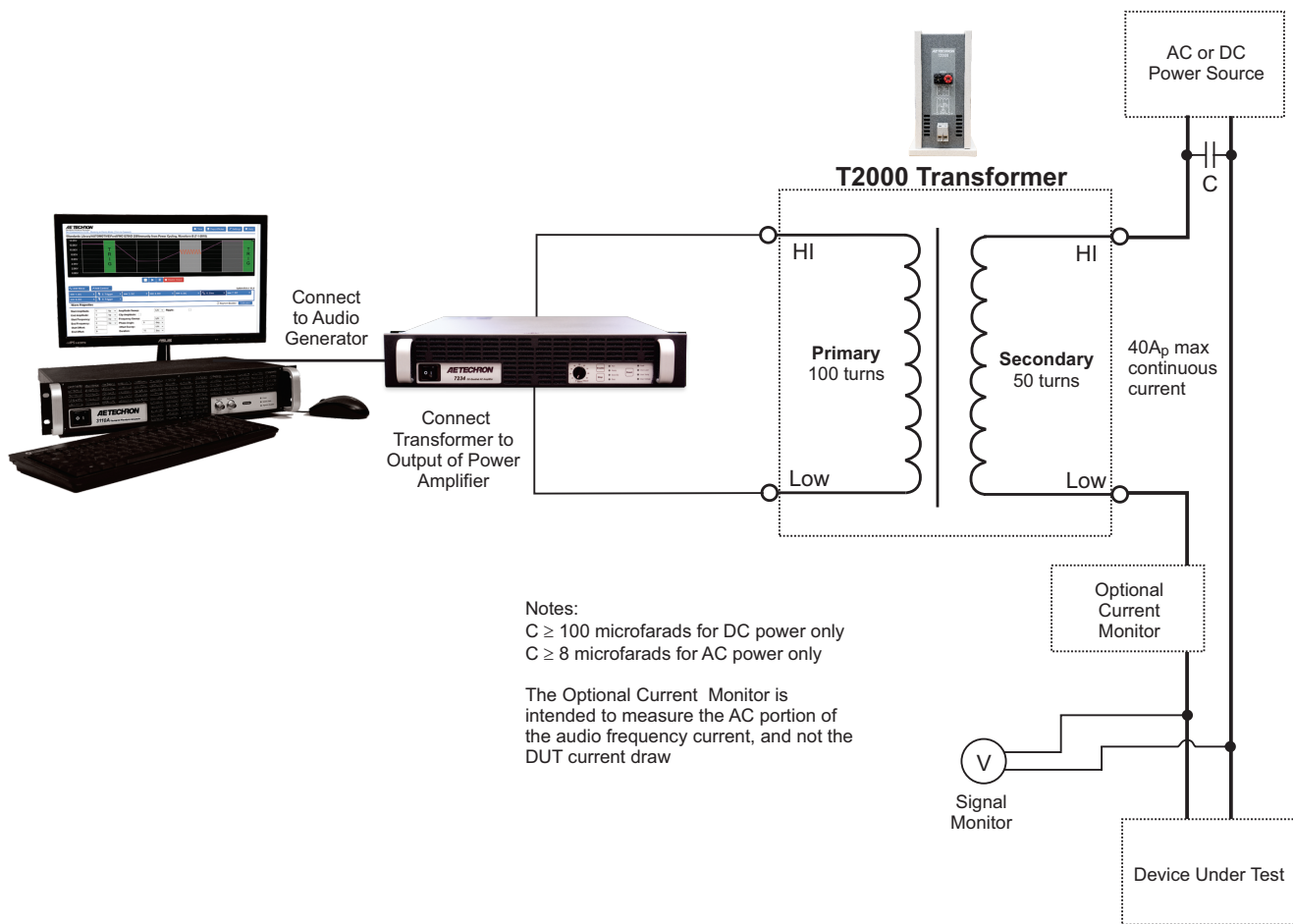


Figure 1 – Sample Application: DO 160 Section 18 Test Setup (for AC and DC power lines, differential mode)

Specifications

Performance Specifications

Transformer DC Resistance,

Primary:

0.076 ohms

Secondary:

0.021 ohms

Frequency Response:

10 Hz to 250 kHz

Audio Power:

200W

Dielectric Test:

1500 VDC primary to secondary

Secondary Saturation:

40A_p AC or DC maximum

Turns Ratio::

Two-to-one step down

Secondary Inductance:

Approximately 0.6 mH (unloaded)

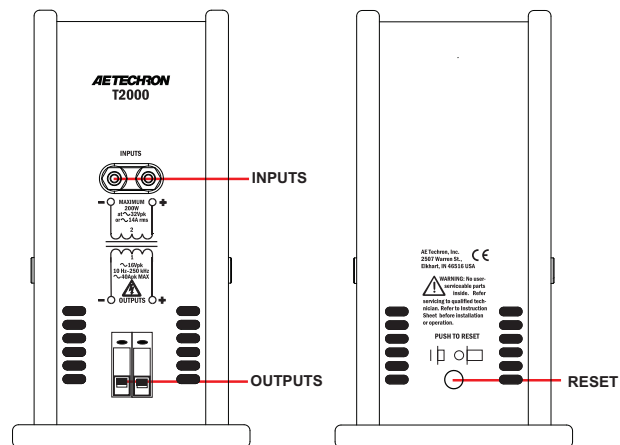


Figure 2 – T2000 Controls and Connectors

Protection:

Input power-protected via thermal breaker; secondary winding protected via 35A_{RMS} breaker

Controls and Connectors

(see **Figure 2**)

Input Terminals:

4-way binding posts

Output Terminals:

Feed-through terminal block connectors (76A); accepts up to AWG 6 wire

Circuit Breaker:

Secondary winding limited to 35A_{RMS} via circuit breaker; push to reset.

Physical Characteristics

Case:

Steel interior shell with a durable external shell made from high-density polyethylene for impact resistance.

Operating Conditions,

Temperature: 10°C to 40°C (50°F to 104°F)

Humidity: 70% or less, non-condensing

Recommended Ambient Temperature:

25°C (77°F)

Cooling:

Natural air convection

Weight:

17 lbs. (7.7 kg)

Dimensions (WxDxH):

5.25 in. x 10.375 in. x 9.75 in. (13.3 cm x 26.4 cm x 24.8 cm)

AE Techron Sales Representative