

SPECIFICATIONS (See notes 1 - 3)

Type: Line transformer for constant voltage audio distribution lines

Inputs: (3) 70V, 100V, or 140V line

Maximum Inputs:

70V RMS / 100V peak

100V RMS / 140V peak

140V RMS / 195V peak

Output Taps:

(3): full power, 1/2 power, 1/4 power

Output Load:

Nominal 4 or 8 Ohm

Frequency Response:

50 Hz - 16 kHz (+/- 1 dB)

Insertion loss:

1.1 dB

Turns Ratio:

140V to 400W tap 7:2

200W tap 5:1

100W tap 7:1

100V to 400W tap 5:2

200W tap 7:2

100W tap 5:1

70V to 400W tap 7:4

200W tap 5:2

100W tap 7:2

Input & Output Connections:

7 in / 178 mm #18 AWG color coded wires
with stripped ends

Construction:

Open frame

Mounting Provisions:

(4) mounting tabs each with a

0.44 in. / 11 mm x 0.22 in. / 6 mm hole

Dimensions:

Height: 3.75 in. / 95 mm

Width: 4.5 in. / 114 mm

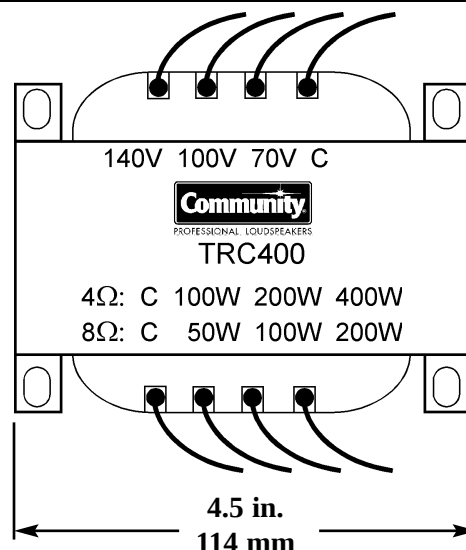
Depth: 3.75 in. / 95 mm

Weight:

8.9 lb. / 4.1 kg

Shipping Weight:

9.5 lb. / 4.3 kg



APPLICATIONS:

- 140V, 100V, and 70V Loudspeaker Distribution Systems
- Excellent Match for R1 and R2 Loudspeaker Systems
- Use for High Power M4 Distributed Announcement Systems

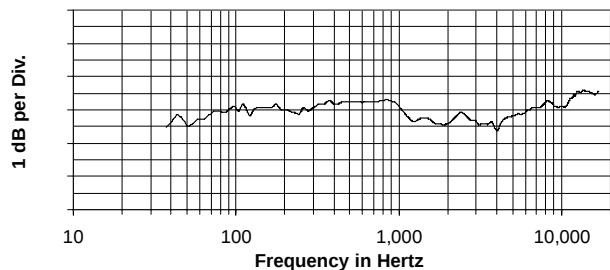
FEATURES:

- Can Be Used for Voltage Step-down or Step-up
- Low Insertion Loss
- Excellent Low Frequency Performance at Full Power

DESCRIPTION

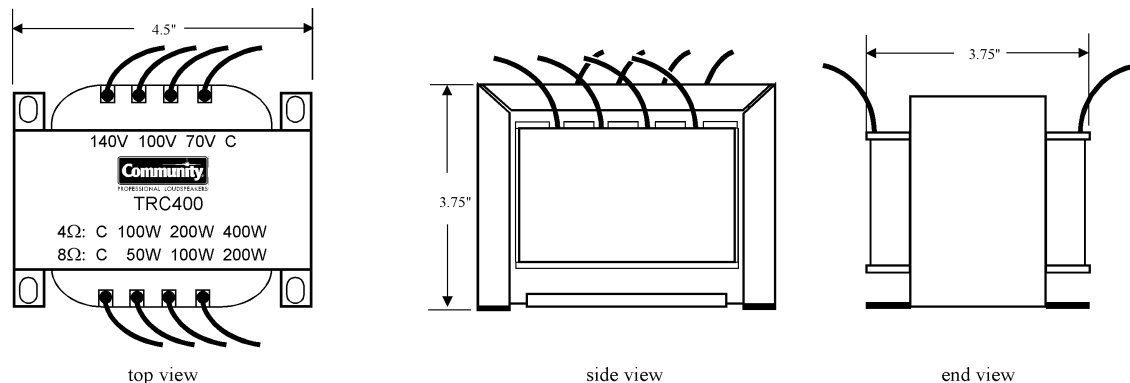
The TRC400 is a 400 Watt line transformer used to step down the voltage and impedance of "constant voltage" audio distribution lines to the voltage level and impedance required by loudspeakers. It can also be used to step up the voltage of an amplifier to the voltage needed for a distribution line. The TRC400 has three output taps. The taps allow individual loudspeakers to be adjusted to operate at the same or different power levels compared to other loudspeakers in a system on the distribution line. The input taps on the TRC400 allow it to be used with 70V, 100V, and 140V distribution systems. The output taps of the TRC400 are designed to drive either 8 ohm or 4 ohm loudspeakers. See the Usage Tables for the various capabilities.

The TRC400 is manufactured from high quality materials. Its high permeability iron core provides high power handling at low frequencies. The TRC400 has four mounting tabs that allow it to be bolted into back-boxes or other enclosures, to loudspeaker enclosures, or to loudspeaker mounting hardware. The stripped wire input and output leads can be easily connected to loudspeaker terminals and the distribution cable in a variety of ways including terminal strips, soldering, and wire-nuts.



NOTE: The Frequency Response is a plot of the relative difference in acoustic output of a loudspeaker with and without the transformer. Measurement was made at rated output (400W).

DIMENSIONS



ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The transformer shall be an audio line transformer for step down or step up use with high voltage, audio distribution lines. For step down use, it shall have three input taps for 140 volts, 100 volts, and 70 volts RMS inputs and three output taps for 400W, 200W, and 100W RMS for use with nominal 4 to 8 Ohm loads. The output taps shall provide 1/2 their rated power for 8 Ohm loads. The inputs and outputs may be reversed for step up use. The insertion loss for any combination of input to output shall be a maximum of 1.1 dB. Frequency response shall be from 50 Hz to 16 kHz (+/- 1 dB) at 400 watts. All taps shall have 7 in (178 mm) long, 18 gauge wires for connections. It shall be constructed with a high permeability iron core and copper windings. Construction shall be of the open frame type with four 0.875 in. (22 mm) x 0.75 in. (19 mm) mounting tabs. The transformer shall be 3.75 in. (95 mm) H x 4.5 in. (114 mm) W x 3.75 in. (95 mm) D and weigh 8.9 lb (4.1 kg).

USAGE TABLES:

FOR 140V, 100V & 70 V INPUT TAPS:					
Output Tap	Input Z for 4 Ohm Load	Power Output	Input Z for 8 Ohm Load	Power Output	RMS Output
400W	100 Ohms	310W	50 Ohms	155W	35 V
200W	200 Ohms	155W	100 Ohms	77W	25 V
100W	400 Ohms	77W	200 Ohms	40W	17.5 V

STEP-UP USE FOR 140V OUTPUT			STEP-UP USE FOR 100V OUTPUT			STEP-UP USE FOR 70V OUTPUT		
Input Tap	Maximum Output Load	Amp Load At Max Output Load	Input Tap	Maximum Output Load	Amp Load At Max Output Load	Input Tap	Maximum Output Load	Amp Load At Max Output Load
Used			Used			Used		
400W	50 Ohms	4 Ohms	400W	25 Ohms	4 Ohms	400W	12 Ohms	4 Ohms
200W	100 Ohms	4 Ohms	200W	50 Ohms	4 Ohms	200W	25 Ohms	4 Ohms
100W	200 Ohms	4 Ohms	100W	100 Ohms	4 Ohms	100W	50 Ohms	4 Ohms

Notes: 1. Label on transforemer will only list performance for 140V, 100V, and 70V inputs and a nominal 4 ohm load.
2. The 1.1 dB insertion loss is INCLUDED in above table for Power and RMS output values.