# TRC60

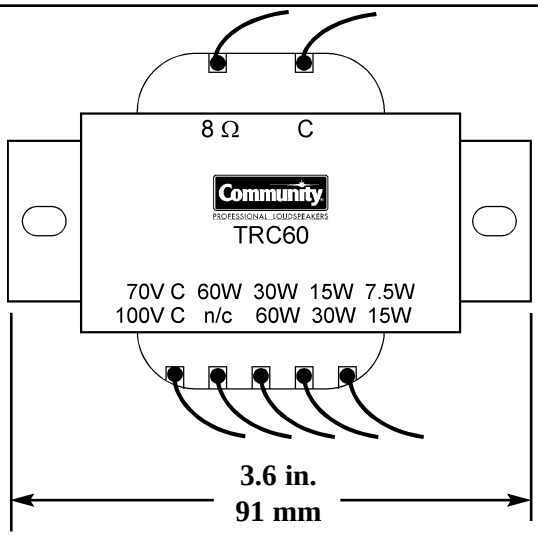
## 60 WATT 70 VOLT LINE TRANSFORMER



## SPECIFICATIONS (See notes 1 - 3)

**Type:** Line transformer for constant voltage audio distribution lines
**Input:** 70V line
**Maximum Input:**
100V RMS / 140V peak
**Input Taps:**
(4):full power, 1/2 power, 1/4 power, 1/8 power
**Output:**
8 Ohm
**Output Load:**
Nominal 8 Ohm
**Frequency Response:**
60 Hz - 20 kHz (+/- 1 dB)
**Insertion Loss:**
1.1 dB
**Turns Ratio to Output Tap:**
60W tap 16:5
30W tap 9:2
15W 32:5
7.5W 9:1
**Input & Output Connections:**
5 in / 127 mm #22 AWG color coded wires
with stripped ends
**Construction:**
Open frame
**Mounting Provisions:**
(2) mounting tabs each with a
0.27 in / 7 mm x 0.15 in / 4 mm hole
**Dimensions:**

| | |
|---|---|
| Height: | 2.3 in. / 58 mm |
| Width: | 2.6 in. / 66 mm (without mounting tabs) |
| Width: | 3.6 in. / 91 mm (with mounting tabs) |
| Depth: | 2.3 in. / 58 mm |
| **Weight:** | 2.2 lb. / 1.0 kg |
| **Shipping Weight:** | 2.6 lb. / 1.2 kg |




## APPLICATIONS:

• 100V, 70V, and 25V Lousdpeaker Distrtibution Systems.

## FEATURES:

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

## DESCRIPTION

The TRC60 is a 60 Watt 70 volt line transformer to step down the voltage and impedance of "constant voltage" audio distribution lines to the voltage level and impedance required by loudspeakers. The TRC60 has four output taps. The taps allow individual loudspeakers to be adjusted to operate at the same or different power levels compared to other loudspeakers on the distribution line. The input tap can be used for 100V, 70V or 25V distribution systems. The output taps of the TRC60 are designed to drive nominal 8 ohm loudspeakers. See the Usage Tables for the various capabilities.

The TRC60 is manufactured from high quality materials. Its high permeability iron core provides high power handling at low frequencies. The TRC60 is has two 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.



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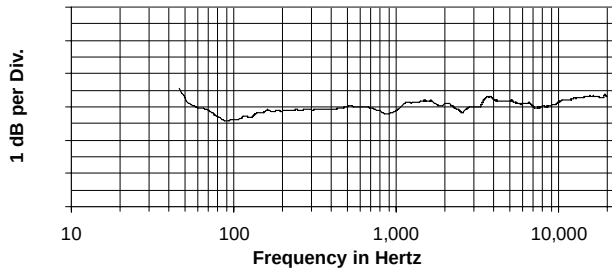
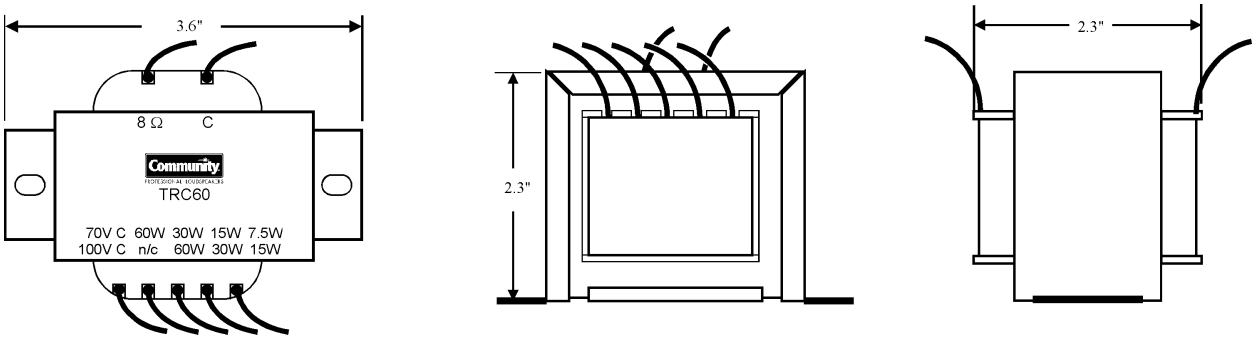
## 60 WATT 70 VOLT LINE TRANSFORMER

## FREQUENCY RESPONSE




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 (60W).

## DIMENSIONS




top view side view end view

## 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 four input taps for 60 watts, 30 watts, 15 watts, and 7.5 watts used with a 70 volt RMS input and three input taps rated for 60 watts, 30 watts, and 15 watts used with a 100 volt RMS input. The output shall be for use with a nominal 8 Ohm load impedance. The inputs and outputs may reversed for step up use. The typical insertion loss for any combination of input to output shall be 1.1 dB. Frequency response shall be from 50 Hz to 20 kHz (+/- 1 dB) at 60 watts. All taps shall have 5 in (127 mm) long, 22 gauge wires for connections. Construction shall be of the open frame type with four 1.1 in. (28 mm) x 0.5 in. (13 mm) mounting tabs. The transformer, including mounting tabs, shall be be 2.3 in. (58 mm) H x 3.6 in. (91 mm) W x 2.3 in. (58 mm) D and weigh 2.2 lb. (1.0 kg).

**USAGE TABLES:**

**100V INPUT:**

| Input Tap | Input Z for 8 Ohm Load | Power Output | RMS Output |
|---|---|---|---|
| | (60W Tap not used) | | |
| 30W | 167 Ohms | 46W | 19.2V |
| 15W | 333 Ohms | 23W | 13.5V |
| 7.5W | 667 Ohms | 11W | 9.7V |

**70V INPUT:**

| Input Tap | Input Z for 8 Ohm Load | Power Output | RMS Output |
|---|---|---|---|
| 60W | 83 Ohms | 46W | 19.2V |
| 30W | 167 Ohms | 23W | 13.5V |
| 15W | 333 Ohms | 12W | 9.7V |
| 7.5W | 667 Ohms | 6W | 6.9V |

**25V INPUT:**

| Input Tap | Input Z for 8 Ohm Load | Power Output | RMS Output |
|---|---|---|---|
| 60W | 83 Ohms | 5.9W | 6.9V |
| 30W | 167 Ohms | 2.9W | 4.8V |
| 15W | 333 Ohms | 1.5W | 3.5V |
| 7.5W | 667 Ohms | 0.7W | 2.4V |

**STEP-UP USE FOR 70V OUTPUT:**

| Output Tap | Max Load on Xfmr | Amp Load At Max Xfmr Load |
|---|---|---|
| 60W | 83 Ohms | 8 Ohms |
| 30W | 167 Ohms | 8 Ohms |
| 15W | 333 Ohms | 8 Ohms |
| 7.5W | 667 Ohms | 8 Ohms |

**STEP UP-USE FOR 100V OUTPUT:**

| Output Tap | Max Load on Xfmr | Amp Load At Max Xfmr Load |
|---|---|---|
| 60W | 167 Ohms | 8 Ohms |
| 30W | 333 Ohms | 8 Ohms |
| 15W | 667 Ohms | 8 Ohms |
| | (7.5W Tap not used) | |

**Notes:** 1. Lable on transformer will only list performance for 70V inputs.
2. The 1.1 dB insertion loss is INCLUDED in above table for the Power and RMS output values.

**Specifications subject to change without notice.**



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