T-CLASS / TFR31

THREE-WAY TRIAMPLIFIED 30° X 10° HIGH OUTPUT HORN SYSTEM

SPECIFICATIONS (See notes 1 and 2)

Loudspeaker Type: 3-way, horn loaded
Operating Range: 60 Hz - 18 kHz
70 Hz - 17 kHz (+/-3dB)
Max Input (Passive): 600W continuous, 1500W program
49 volts RMS, 110 volts momentary peak
Recommended Power Amp: 1250W to 1800W @ 4 Ohms
Maximum Inputs (Triamp):
LF:(Same as for Passive mode)
Recommended LF Power Amp:
(Same as for Passive mode)
MF:75W continuous, 200W program
24 volts RMS, 57 volts momentary peak
Recommended MF Power Amp: 170W to 240W @ 8 Ohms
HF:200W continuous, 800W program
28 volts RMS, 80 volts momentary peak
Recommended HF Power Amp: 670W to 960W @ 8 Ohms
Sensitivities 1W/1m:
LF: 108 dB SPL (80 Hz - 630 Hz 1/3 octave bands)
MF: 114 dB SPL (630 Hz - 4000 Hz 1/3 octave bands)
HF: 119 dB SPL (4000 Hz - 12500 Hz 1/3 octave bands)
N/A: dB SPL (250 Hz - 4 kHz speech range)
Maximum Output: 136 dB SPL / 143 dB SPL (peak)
Nominal Impedance (passive): 4 Ohms
Min Impedance: 3.7 Ohms @ 119 Hz
Nominal Impedances (Triamp): LF: 4 Ohms
MF: 8 Ohms
HF: 4 Ohms
Nominal -6dB Beamwidth:
30° H (+27° / -10°, 2000 Hz - 16000 Hz)
10° V (+42° / -1°, 2000 Hz - 16000 Hz)
Axial Q / DI: 59.6 / 17.8, 2000Hz - 16 kHz
Crossover Frequencies: 630 Hz / 3.5 kHz
Recommended Signal Processing:
70 Hz - 700 Hz crossover (for biamp)
700 Hz - 4 kHz crossover (for triamp)
70 Hz high pass filter
Drivers: LF (2) 12", Ferrofluid cooled
MF (1) M200, Ferrofluid cooled
HF (2) UC2, Ferrofluid cooled
Input Connection: (2) Neutrik NL8MP, (tri-amp)
(2) Neutrik NL4MP, (passive/bi-amp)
(3) dual banana jacks
Controls: Passive / Bi-amp switch
Enclosure: 13-ply 18 mm Baltic Birch
Enclosure Hardware: (10) Ergo-Grip handles
Mounting / Rigging Provisions:
(8) 3/8-16 rigging points, W.L.L. 300 lb. vertical pull each
(3) seat track
Grille: 16 gauge perforated steel (see options)
Required Accessories: (DSP) DXP4800 Controller
Supplied Accessories: None
Driver Protection: None
Optional Accessories: 3/8-EYBLTKIT: (4) forged 3/8-16 eyebolts, Digital speaker controller, TFRJP: Joiner Plate connects adjacent TFR FLY-BAR, TFR-FB: Single flybar, TFR-RAFRAC: Rear seat track mount, TFR-COVER, TFR-DOLLY, TFR-RIGCABLE,SKIP1,SKIP5

Dimensions:

Height:	25.1 in. / 637.5 mm
Width Front:	25.45 in. / 646.4 mm
Width Rear:	12.1 in. / 307.3 mm
Depth:	33.5 in. / 852.2 mm
Weight:	161.5 lb. / 73.2 kg
Shipping Weight:	167 lb. / 76 kg

1. Sensitivity: Free field pink noise measurement at 40 ft / 12.2 m at 50% power; extrapolated to 1 meter and an input of 2 volts RMS.
2. Watts: All wattage figures are calculated using the rated nominal impedance.

APPLICATIONS:

The TFR31 is well suited for use as a array element, or as a distributed system loudspeaker in properly configured indoor applications including:

- Full-spectrum, Center Cluster Reinforcement for Churches, Auditoriums, etc.
- Dance/Nightclubs
- Athletic Field Houses (basketball, skating/ice hockey rinks, etc.)
- Convention Centers, Stadia

DESIGN BENEFITS:

- High Efficiency Horn Loading
- Symmetrical Coverage Pattern
- High-Fidelity, Full-Range Reproduction of Music And Speech

FEATURES:

- Drivers: LF (2) 12” cast frame
- MF (2) M200, 2” (51mm) exit, low compression driver with non-metallic diaphragm
- HF (2) UC2, 2” (51mm) exit, low compression driver with non-metallic diaphragm
- Trapezoidal Baltic Birch enclosure ships with a Tri-amp input panel
- Passive/Biamp crossover available
- Input Connections: Neutrik NL4 (passive/bi-amp), NL8 (tri-amp)
- Four top/bottom eye-bolt rigging points.

DESCRIPTION

The TFR31 is an all horn-loaded tri-axial design using precision, hand-laminated fiberglass, proprietary waveguides to deliver quality, full-range sound projection in short throw downfill applications. Its wide, smooth frequency response and high efficiency provide superb projection of clear, intelligible speech and ensure high-fidelity music reproduction at very low distortion.

The outer TFR31 enclosure forms a double wall construction, while the mid/high frequency horn assembly is mounted in the mouth of the bass horn. The TFR31 mid/HF horn uses an M200 mid-range and dual UC2 HF drivers for 30°H x 10°V coverage. For flexibility, a switchable, high quality passive crossover/bi-amp input panel is available.

The TFR31 provides extremely high output capability within the voice range to help overcome excess air absorbtion losses in long-throw applications. The TFR31’s are designed for systems requiring projection of full band-width sound over long distances.

TFR31’s may be arrayed with simular and like systems to achieve the required intensity and coverage.

Five-year limited non-component warranty.

Two-year limited component warranty.

COMMUNITY PROFESSIONAL LOUDSPEAKERS
333 East 5th Street, Chester, PA USA 19013-4511 TEL (610) 876-3400 FAX (610) 874-0190
www.loudspeakers.net

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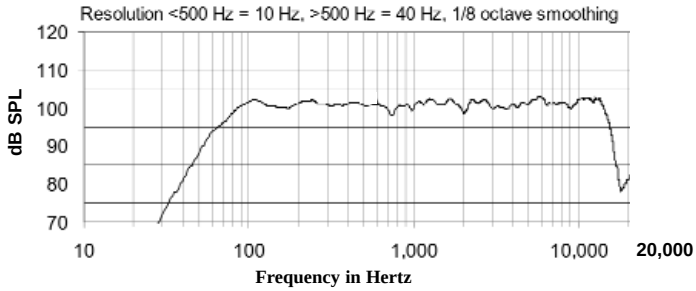
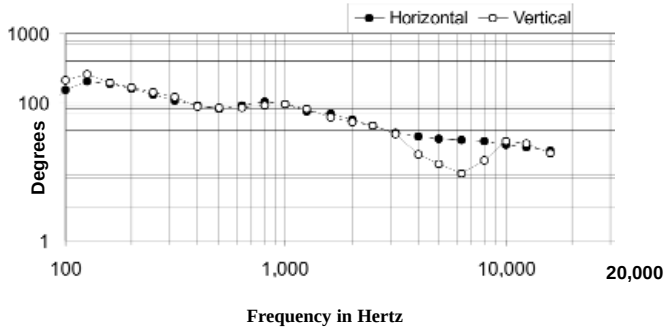
THREE-WAY TRIAMPLIFIED 30° X 10° HIGH OUTPUT HORN SYSTEM

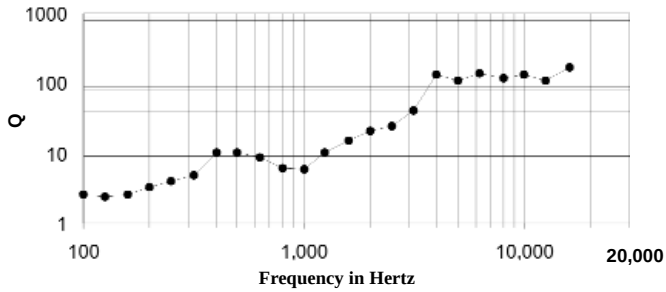
FULL-RANGE FREQUENCY RESPONSE (PROCESSED)



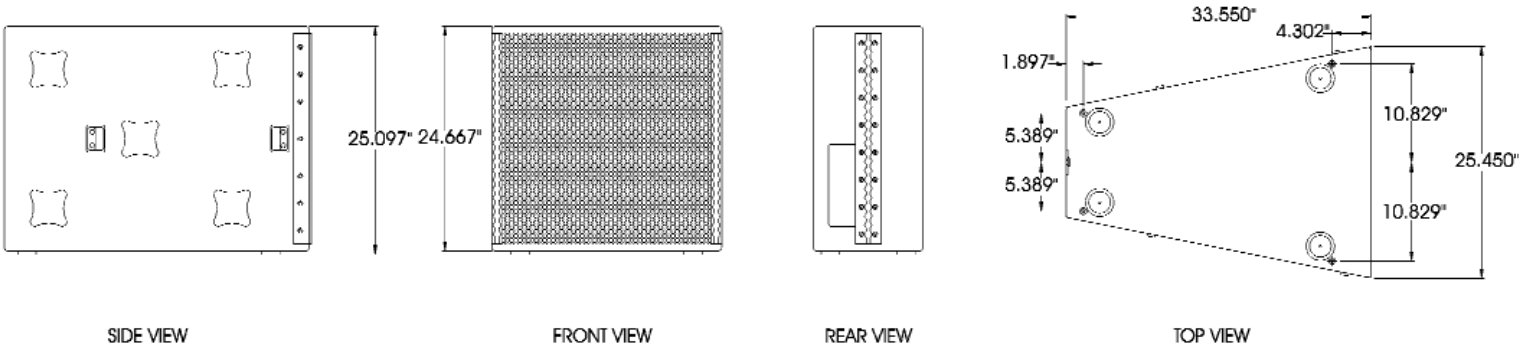
BEAM WIDTH



AXIAL Q



DIMENSIONS



ARCHITECTS AND ENGINEERS SPECIFICATIONS

The TFR31 loudspeaker system shall be a horn-loaded, three-way, full-range bass reflex trapezoidal design with two 12" woofers, plus a 2" exit mid-range driver with a non-metallic diaphragm, and (2) 2" exit HF drivers with a non-metallic diaphragm mounted to an integrated, interchangeable MF/HF fiberglass waveguide module. Crossover frequencies shall be of 630 Hz and 3.5 kHz. There shall be two NL8MP (tri-amp) connectors. The system shall meet the following performance criteria: Overall amplitude response of 70Hz to 17 kHz (+/-3dB) with LF section amplitude response 80-630Hz, mid-range section amplitude response 630 Hz-4000 Hz, and HF section amplitude response 4000 Hz-12.5 kHz. (+/-2dB) Tri-amp mode power handling shall achieve, 600W RMS and 1500W PGM for LF, 75W RMS and 200W PGM for mid-range and 2100W RMS and 800W PGM for HF (@4kHz/24dB HPF). NOTE: HF bandpass NOT accessible in passive mode. The loudspeaker enclosure shall be well-braced 18mm 13-ply Baltic birch with a black powder-coated 16 gauge perforated steel grille. The enclosure is finished with black Tuf-Coat™. There shall be eight 3/8in-16(threads per inch) integral threaded insert mounting points connected to top and bottom internal steel bracing.The LF sensitivity is 108 dB SPL/1W @ 4 ohms. The MF sensitivity is 114 dB SPL/1W @ 8 ohms. The HF sensitivity is 119 dB/1W @ 4 ohms. Nominal dispersion shall be 30°H x 10°V from 1.6 kHz to 16 kHz . The loudspeaker shall be 25.1"(637.5mm) H, 25.45"(646.4mm) W(front), 12.1"(307.3mm) W(rear) x 33.5"(852.2mm) D and weigh 161.5lbs (73.2kg). The three-way, full-range loudspeaker system shall be the Community Model TFR31.

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