PROPHON

3-way cinema screen speaker





















XD23
High Power, horn-loaded 3-way cinema screen speaker



PRESENTATION

Description and features

- Designed for high quality digital cinema installations
- Can be installed conventionally "stacked" behind the screen (see picture to right)
- Can be installed horizontally arrayed above the screen (see picture above)
- 3 way bi-amped or tri-amped construction for best performance
- 1 x 15" LF
- Assymetrically hornloaded 10" MF
- Assymetrically hornloaded 1" HF
- 105 dB overall sensitivity (2Pi)
- 960W RMS / AES power-handling (3840W peak)
- 137dB max SPL @ 1 m.(peak)



Design, Facts and Applications.

The XD123 was designed for reproducing uncompressed 96/192kHz, 24/48 bit digital HD sound, and to meet the ever growing demand in sound quality on screen speakers in professional motion picture playback.

To be able to reproduce the sound quality, resolution and details professional sound engineers have in their screening rooms and in their mastering rooms when producing the movie, a 3-way hornloaded system was developed with very low distortion, high sensitivity and flat frequency responce, this ensures an accurate sound reproduction that easily covers medium sized digital theatres.

When installing the XD123 system, the MF/HF cabinet can be adjusted and can be aimed at a proper angle, horisontally and vertically. The unique horns are assymetrical with different dispersion and different throw length both vertically and horisontally, allowing for a much more even sound preassure level in the theatre, where nearfield seats and farfield seats experiences a similar SPL, with very small differences in dB.

The high power 15" LF woofer have an exellent frequency responce down to the lowest frequencies. With a power-handling of 1100W cont. and a sensitivity of 105dB (2Pi) they can reproduce astounding SPL with very low distortion, for larger venues additional XD115 (1x15") speakers can be added.



TECHNICAL SPECIFICATIONS High Power three-way cinema se	
Construction	3-way hornloaded tri-amped, or bi-amped with passive crossover between MF and HF.
Cabinet construction	19 mm. Medium Density Fiberboard (MDF) extra reinforced (vented box. LF) (closed hornloaded cabinet MF/HF)
Finnish	two-component lacque, black textured
External features	mounting brackets, MF/HF-aiming bracket
LF drivers MF driver	1 x 15"- high power woofers bassreflex additional 1x15" LF (XD115) can be added for larger venues 10" midrange hornloaded, assymetrical, closed cabinet
HF driver	1" driver, loaded on an assymetrical horn
LF driver voicecoil MF driver viocecoil HF driver viocecoil	3" 2,5" 1,7"
Power handling LF MF HF	550W RMS, 1100W cont. 2200W peak 350W RMS, 700W cont, 1400W peak 60" RMS, 120W cont. 240W peak
Nominal impedance	
LF MF/HF	8 ohms. 8 ohm
Sensitivity Half space (2Pi)	
LF	105dB @ 1W / 1m.
MF	105dB @ 1W / 1m.
HF	108,5 dB @ 1W / 1m.
Max SPL system (calculated peak)	137dB @ 3kW/1m.
Frequency responce	35z - 20kHz, -3dB
Power mode	Bi-amplified with passive crossover between MF and HF. or tri-amplified with 3-way external DSP processor
Connectors LF (Bi-amped and tri-amped)	Neutrik, Speakon, 1+/1- (8 ohm, nom.)
MF/HF (Bi-amped)	Neutrik Speakon, 2+/2- (8 ohm, nom.)
Tri-amped MF	Neutrik Speakon, 1+/1- (8 ohm, nom.)
Tri-amped HF	Neutrik Speakon, 2+/2- (8 ohm, nom.)
Pre-programmed DSP System processor	PROPHON DSP480, PROPHON DX48,
Suggested power on amplifier	
LF MF/HF	1100W @ 8 ohm 700W @ 8 ohm
Suggested amplifier	PROPHON P3000, P3000DSP, P10000, PL3400, PL1600 POWERSOFT dsp-amplifiers: ottocanali, quattrocanali, X-series, M-series,
Total channels on external DSP	
LF	1
MF/HF	1





