

LX-V12



DATA SHEET

pag.1/4 V.13.08

- ▶ Class D Powered (tri-amplified)
- ▶ Integrated Digital Processing
- ▶ Internal temperature control
- ▶ Electronic protection
- ▶ Digital inclinometer system
- ▶ FIR linear phase filtering
- ▶ Online monitoring available
- ▶ Three way active system



APPLICATIONS:

- Theatres
- Concert Halls and auditoriums
- Sport Stadiums
- Large Discos
- Outdoor events

GENERAL DESCRIPTION:

The LX-V12 is part of the LX Line Array Series. Line Array topology is employed to create cylindrical radiation, increasing throw and achieving a precise control of both horizontal and vertical dispersion. The LX-V12 is the ideal solution for application in theatres, concert halls, stadiums, auditoriums, conference halls or any event where high precision Line Array is required.

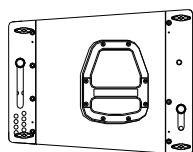
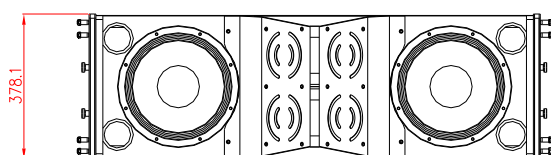
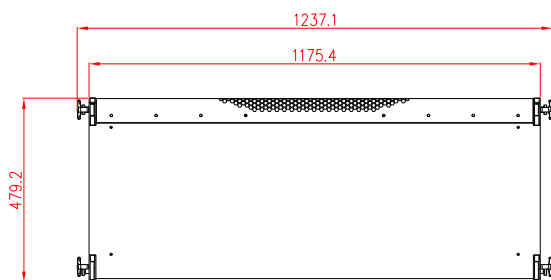
The LX-V12 is a very high output three-way self powered cabinet. For the low frequencies it uses dual 12" neodymium transducers with interleaved Sandwich Voice Coil (ISV) & Double Demodulating Rings (DDR). The mid range is looked after by four 6.5" transducers with glass fiber cones & ultra-light voice coil. The high frequencies use two 1.4" neodymium magnet drivers with titanium diaphragm, each with its own individual high precision wave guide. The system is powered with a total of 4000W of class D amplification, 2400W for the low frequencies, 1000W for the mid and 600W for the high frequencies. Each cabinet has a DSP integrated which applies linear phase (FIR) and classical crossovers. Other features include temperature sensor, fan speed control, inclinometer, Ethernet options and many more.

The LX-V12 has a selection of rugged hardware available. The SV-LXV12 flying frame can hold up to 16 cabinets with splay angles selectable in 0.5° increments between 0° to 3° and 1° increments between 3° to 12°. The CA-LXV12 transport dolly can house up to 6 cabinets and a nylon protection cover is also available. Rain hoods are also optional to protect the system electronics.

With a very high power to size ratio and with easy rigging options offered the system can be taken from the truck and rigged up in record time. It is also very easy to use and control without the need for any external amps. To extend the low frequency response, the LX-318C Cardioid sub bass is recommended.

SPECIFICATIONS:

FREQUENCY RANGE	45Hz -20KHz
FREQUENCY RESPONSE	55Hz- 18KHz ± 3dB
HORIZONTAL COVERAGE	100°
VERTICAL COVERAGE	According to Array configuration
MAX SPL	140 dB/ 143dB peak
TRANSDUCERS	LF: 2 x 12" Neodymium, Interleaved Voice coil MF: 4 x 6.5" Neodymium, glass fiber cone HF: 2 x 1.4" Driver Neodymium + Wave Guide
POWER AMPLIFIER	4000W Class D with Switching Power supply power factor correction PFC technology LF: 2 x 1200W Class D MF: 1 x 1000W Class D HF: 1 x 600W Class D
DSP	Internal LYNX processor DSPB-24® with FIR filters
CABINET ADJUSTMENT	Back panel LCD screen
INTERNAL CONTROLS	Cabinet Angle detection / Temperature sensor Fan Speed control
SIGNAL CONNECTION	NEUTRIK connectors XLR Male Input XLR Female Loop Thru
CONTROL CONNECTIONS	USB (DSP programming), ETHERNET* (Online Monitoring System OMS®)
AC POWER	85v / 270v selectable. 50/60 Hz 3A
AC CONECTIONS	32A NEUTRIK POWERCON NAC3FC-HC
CONSTRUCTION	15 mm Premium Birch plywood
FINISH	High resistant water-based black paint
FRONT DESIGN	Antirush black metal grille
DIMENSIONS (H x W x D)	371 x 1175 x 505 mm 371 x 1250 x 505 mm with ball-pins
WEIGHT	74 Kg (163 lbs)
INTERCABINET ANGLE ADJUSTMENT	0°/ 0,5°/ 1°/ 1,5°/ 2°/ 2,5°/ 3°/ 3,5°/ 4°/ 4,5°/ 5°/ 5,5°/ 6°/ 6,5°/ 7°/ 7,5°/ 8°/ 8,5°
RIGGING	Integrated flying plates



Dimensions in mm.

SOFTWARE:



- ONLINE CONTROL SYSTEM

Offers detailed system information for each cabinet and via ethernet or PC controls the cabinet/s in real time.



- RAINBOW

Acoustical Prediction software for accurate loudspeaker planning offering both horizontal and vertical views.

KEY FEATURES AND BENEFITS:

- **SELF POWERED:** Tri-amplified Class D with switching power supply and PFC (Power Factor Correction). With PFC the power supply regulates itself when AC mains change, so the amp power output will not change with mains swinging. This system is also very environmentally friendly with a reduction of approximately 40% of current draw. Includes two 1200W power modules, one for each 12" woofer, one 1000W for the four 6" transducers and one 600W power module for the HF drivers. The amplification far exceeds the transducers needs thus resulting in high output, high damping factor and extremely low levels of distortion.

- **DIGITAL PROCESSING & DOUBLE DYNAMICS:** Latest generation 24bit/96Khz digital processor which optimizes the system components. It includes 2 channel processing electronics with functions for phase correction, driver protection, gain control, equalization, classic crossover and linear phase filtering, using double precision filters with 56bit internal processing. This enables a noticeable reduction in distortion with clean and clear equalization. The DSP incorporates sophisticated double protection limitation; RMS and Peak. The RMS limiter is used to adjust the transducer reproduction level, maintaining the original dynamics whilst at the same time respecting the original transients and achieving a better acoustical result. The Peak limiter controls the movement of the speaker, protecting it from any damage and also reducing distortion caused by over-excitation. These double dynamics lower levels of distortion and provide protection for all the speaker components and internal electronics.

- **DIGITAL INCLINOMETER:** Automatic function to calculate cabinet splay angles. The inclinometer data can be viewed and controlled from the cabinet LCD display either manually or automatically. The inclinometer automatically communicates with the DSP and modifies the equalization algorithms. According to the splay angle of the inclinometer the DSP compensates for atmospheric loss. The result is a more efficient performance and a flat response, even at long distances.

- **TEMPERATURE & PROTECTION CONTROL:** Via internal sensors a micro controller analyzes in real time the temperature of each power module. It then automatically adjusts the fan speed to apply the correct temperature dissipation, reducing both the speed of the fan and the noise generated leaving the system as quiet as possible.

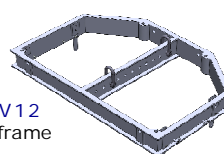
- **COMPONENTS:** Transducers and drivers with neodymium magnet groups. **12" woofers** with 4" interleaved Sandwich Voice Coil (ISV), Double Demodulating Rings (DDR) for lower distortion and improved heat dissipation, weather protected cone & plates for outdoor use with onboard heatsink for improved dissipation. **6.5" drivers** with glass fiber cones for natural sound, low harmonic distortion & ultra lightweight aluminium voice coil. **HF drivers** with Aluminium voice coil, titanium diaphragms increasing the life of the components, Short copper cap for extended HF response.

- **HARDWARE:** Cabinet constructed from premium birch plywood and finished with high-resistant water based black paint. Robust aluminium flying frame for easy rigging options and splay configuration.

HARDWARE:



FD-1LXV12NL
Rain cover



SV-LXV12
Flying frame

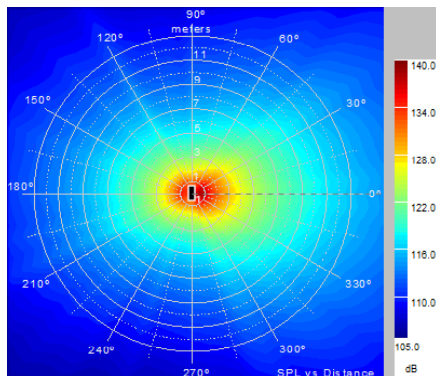


FD-4LXV12
Nylon protection cover

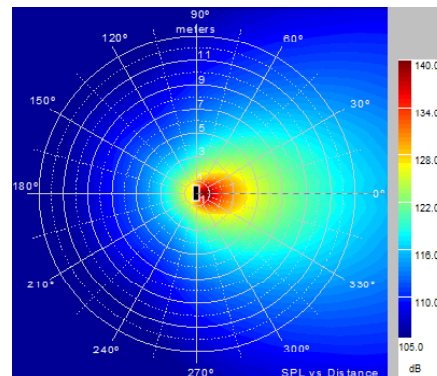


CA-LXV12
Transport dolly

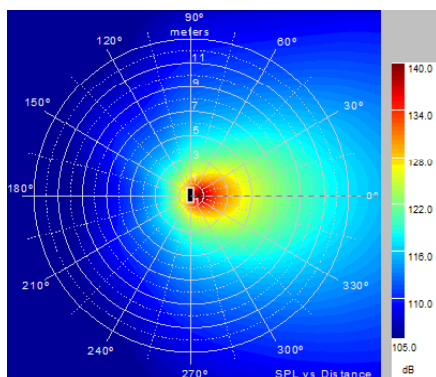
HORIZONTAL POLARS



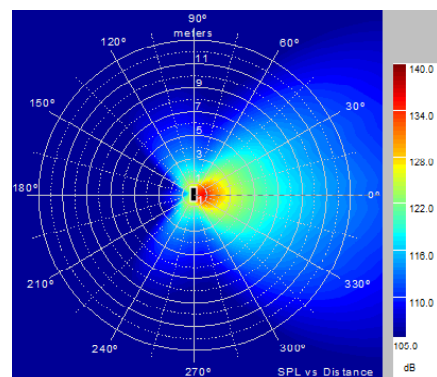
100 Hz



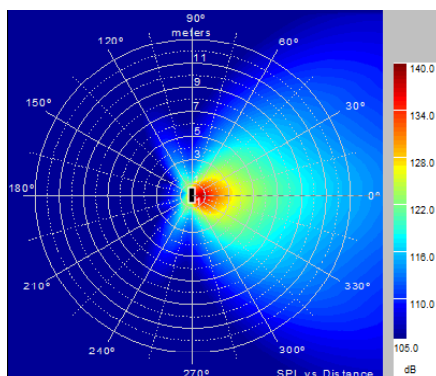
315 Hz



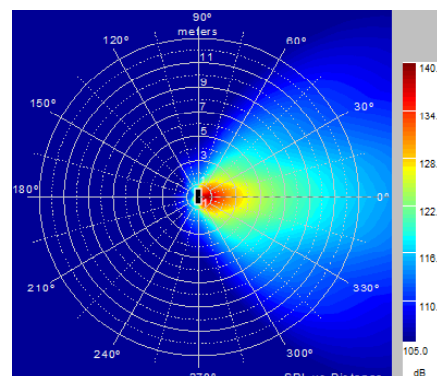
400 Hz



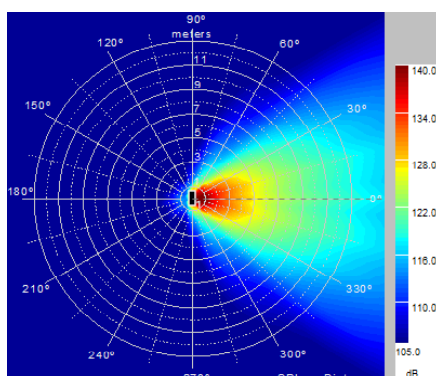
630 Hz



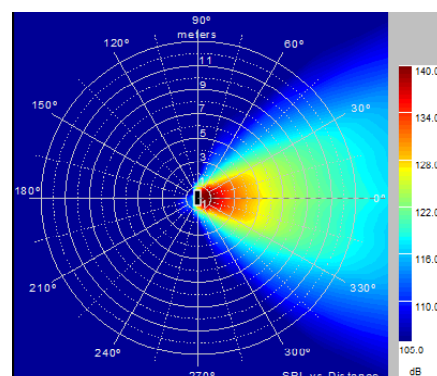
800 Hz



1000 Hz

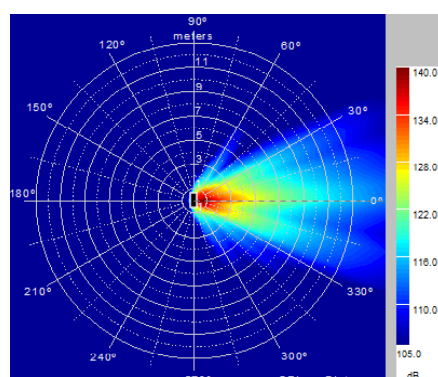
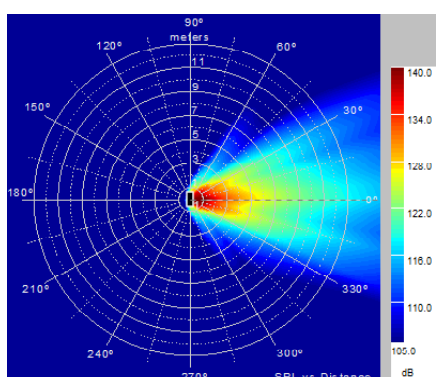
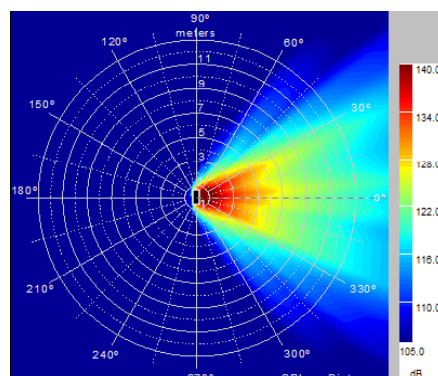
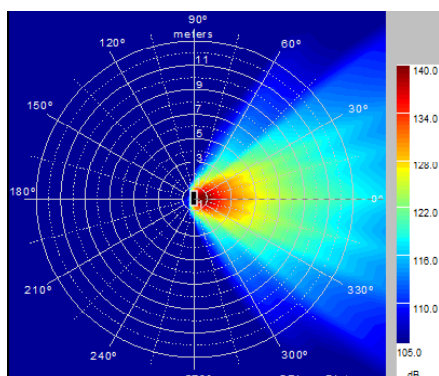


2500 Hz



5000 Hz

HORIZONTAL POLARS



FREQUENCY / PHASE RESPONSE

