DATASHEET

27.47 [698 mm] 24.47 [622 mm]

# 900-LFC Compact Low Frequency Control Element



24.89 [632 mm]



(Shown with optional Quickfly® rigging)

24.43 [621 mm] 01.50 [038 mm] U.S. 01.38 [035 mm] E.U.

(Dimensions shown for Rigging version)

Meyer Sound's 900-LFC compact low-frequency control element reproduces low frequencies at high continuous output levels with extremely low distortion. The 900-LFC offers the same sonic linearity as Meyer Sound's 1100-LFC low-frequency control element in a smaller, lighter cabinet, making it ideal for building scalable systems to suit touring applications or fixed installations of any size.

A newly designed class D amplifier affords unprecedented efficiency to the 900-LFC, significantly lowering distortion while reducing power consumption and operating temperature. A single, field-replaceable module contains the on-board amplifier and control circuitry.

In addition to pairing with LEOPARD™ systems, the 900-LFC integrates easily with other Meyer Sound loudspeaker systems, including LEO-M™, LYON™, and ULTRA Series loudspeakers.

Meyer Sound's Galileo® GALAXY Network Platforms, which provide matrix routing, alignment, and processing for array components,

can drive LEOPARD and 900-LFC loudspeakers. To guarantee optimum performance, use Meyer Sound's MAPP $^{\text{TM}}$  system design tool to design systems with the 900-LFC.

LEOPARD and 900-LFC loudspeakers work with Meyer Sound's RMS<sup>™</sup> remote monitoring system, which provides comprehensive monitoring of system parameters from a Mac<sup>®</sup> or Windows<sup>®</sup>-based computer.

The 900-LFC is available with or without Meyer Sound's QuickFly® rigging. When equipped with the optional MRK-900 rigging kit, the captive GuideALinks™ enable flying of the 900-LFC from the MG-LEOPARD/900 multipurpose grid in LEOPARD arrays without a transition frame. Also use the MG-LEOPARD/900 grid for groundstacks with uptilt or downtilt. Or fly 900-LFCs separately as a subwoofer array with variable splay angles of 0°, 1.25°, 2.5°, 3.75°, or 5°.

Transport both versions of the 900-LFC in stacks with the optional MCF-900 caster frame.

#### **FEATURES AND BENEFITS**

- Compact cabinet with small footprint and extraordinary power-to-size ratio
- High peak power output with extremely low distortion
- Exceptional linearity, transient reproduction, and low-frequency clarity
- Self-powered for simplified setup and increased reliability
- Stackable and flyable in regular and cardioid arrays, with tilt and splay options
- Integral pole-mount receptacle easily pairs the subwoofer with ULTRA Series loudspeakers

## **APPLICATIONS**

- Scalable low-frequency control (very long arrays possible) for touring applications or fixed installations of any size
- Clubs, theaters, houses of worship, corporate AV, and theme parks
- Low-frequency complement for LEO-M, LYON, and LEOPARD systems

## **ACCESSORIES AND ASSOCIATED PRODUCTS**

MG-LEOPARD/900 Multipurpose Grid: Flies LEOPARDs, 900-LFCs, and mixed arrays. Also supports LEOPARD and 900-LFC ground-stack configurations.

**PBF-LEOPARD Pull-Back Frame:** Provides pull-back for extreme downtilt of flown LEOPARD and 900-LFC arrays, and allows additional downtilt in ground-stacked arrays.

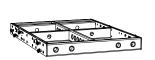
MVP Motor Vee Plate: Attaches to MG-LEOPARD/900 grid and fine tunes horizontal aim of LEOPARD and 900-LFC arrays.

MG-LEOPARD/900 Ground-stack Tilt Kit: Includes two angle feet that attach to the rear of the MG-LEOPARD/900 grid that can add up to eight degrees of tilt to the entire ground-stack array.

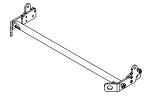
MCF-900 Caster Frame: Safely transports up to two 900-LFCs, making it easy to assemble and disassemble arrays in blocks of two cabinets. This adjustable frame accommodates 900-LFC cabinets with or without rigging.

MDM-5000 Distribution Module: MDM-5000 units conveniently power 900-LFC systems, routing up to six channels of AC power, balanced audio and RMS signals to the loudspeakers.

**Galileo GALAXY Network Platform:** The Galileo GALAXY Network Platform provides state-of-the-art audio control technology for loudspeaker systems with multiple zones. With immaculate sonic performance, it provides a powerful tool set for corrective room equalization and creative fine-tuning for a full range of applications.



MG-LEOPARD/900 Multipurpose Grid



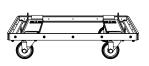
**PBF-LEOPARD Pull Back Frame** 



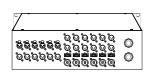
**MVP Motor Vee Plate** 



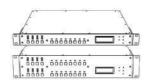
MG-LEOPARD/900 Ground-stack Tilt Kit



MCF-900 Caster Frame



MDM-5000 Distribution Module



**GALAXY Network Platform** 

| ACOUSTICAL <sup>1</sup>                        |  |
|--|--|
| Operating Frequency Range <sup>2</sup>         | 30 Hz – 125 Hz   |
| Frequency Response <sup>3</sup>                | 32 Hz - 115 Hz ±4 dB   |
| Phase Response                                 | 40 Hz – 110 Hz ±30°  |
| Linear Peak SPL <sup>4</sup>                   | 133 dB with crest factor >10 dB (M-noise), 133 dB (Pink noise), 134.5 dB (B-noise)   |
| COVERAGE                                       |  |
|  | 360° (single unit); varies with number of units and configurations   |
| TRANSDUCERS                                    |  |
| Low Frequency                                  | One 18-inch, dual-coil, long-excursion cone driver; $2\Omega$ nominal impedance  |
| AUDIO INPUT                                    |  |
| Туре   | Differential, electronically balanced  |
| Maximum Common Mode Range                      | ±15 V DC, clamped to earth for voltage transient protection  |
| Connectors <sup>5</sup>                        | XLR 5-pin female input with male loop output; XLR 3-pin female connectors available to accommodate only balanced audio (no RMS signals)                        |
| Input Impedance                                | 10 $k\Omega$ differential between pins 2 and 3   |
|  | Pin 1: Chassis/earth through 1 kΩ, 1000 pF, 15 V clamped network to provide virtual ground lift at audio frequencies   |
|  | Pin 2: Signal +  |
| Wiring   | Pin 3: Signal -  |
|  | Pin 4: RMS   |
|  | Pin 5: RMS  Case: Earth ground and chassis   |
| Nominal Input Sensitivity                      | 6.0 dBV (2.0 V rms) continuous is typically the onset of limiting for noise and music  |
| Input Level                                    | Audio source must be capable of producing +20 dBV (10 V rms) into 600 $\Omega$ to produce the maximum peak SPL over the operating bandwidth of the loudspeaker |
| AMPLIFIER                                      |  |
| Туре   | Two-channel, open-loop, class D  |
| Total Output Power <sup>6</sup>                | 3100 W peak  |
| THD, IM, TIM                                   | < 0.02%  |
| Cooling  | Convection   |
| AC POWER                                       |  |
| Connectors                                     | powerCON 20 input with loop output   |
| Automatic Voltage Selection                    | 90–265 V AC, 50–60 Hz  |
| Safety Rated Voltage Range                     | 100–240 V AC, 50–60 Hz   |
| Turn-on and Turn-off Points                    | 90 V AC turn-on, no turn-off; internal fuse-protection above 265 V AC  |
| CURRENT DRAW                                   |  |
| Idle Current                                   | 0.60 A rms (115 V AC), 0.49 A rms (230 V AC), 0.63 A rms (100 V AC)  |
| Maximum Long-Term Continuous Current (>10 sec) | 4.9 A rms (115 V AC); 2.5 A rms (230 V AC); 5.2 A rms (100 V AC)   |
| Burst Current (<1 sec) <sup>7</sup>            | 8.8 A rms (115 V AC), 4.7 A rms (230 V AC), 11.0 A rms (100 V AC)  |
| Maximum Instantaneous Peak Current             | 18.2 A peak (115 V AC), 9.2 A peak (230 V AC), 20.6 A peak (100 V AC)  |
| Inrush Current                                 | < 20 A peak  |
| RMS NETWORK                                    |  |
|  | Equipped with two-conductor twisted-pair network, reporting all operating parameters of amplifiers to system operator's host computer.                         |

#### SPECIFICATIONS, CONT'D.

| PHYSICAL                   |   |
|----------------------------|---|
| Dimensions without Rigging | W: 27.43 in (697 mm) x H: 24.43 in (621 mm) x D: 24.89 in (632 mm)  |
| Dimensions with Rigging    | W: 27.47 in (698 mm) x H: 24.43 in (621 mm) x D: 24.89 in (632 mm)  |
| Weight without Rigging     | 136 lb (61.7 kg)  |
| Weight with Rigging        | 159 lb (72.1 kg)  |
| Enclosure                  | Premium multi-ply birch with slightly textured black finish   |
| Protective Grille          | Powder-coated, hex-stamped steel with acoustical black mesh   |
| Rigging                    | Optional end frames with captive GuideALinks secured with 0.3125 in x 0.63 in quick release pins that allow 0°, 1.25°, 2.5°, 3.75°, or 5° splay angles; detachable side handles. Rigging supports ground-stacked, flown, and cardioid configurations. |
| Pole Mount                 | U.S. version: 1.5 in (38 mm) E.U. version: 1.375 in (35 mm and M20 thread at the bottom)  |

## **NOTES**

- 1. Loudspeaker system predictions for coverage and SPL are available in Meyer Sound's MAPP System Design Tool.
- 2. Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
- 3. Measured in half-space with pink noise at 4 m, 1/3-octave frequency resolution.
- 4. **Linear Peak SPL** is measured in half-space at 4 m referred to 1 m. Loudspeaker SPL compression measured with M-noise at the onset of limiting, 2-hour duration, and 50-degree C ambient temperature is <2 dB.

**M-noise** is a full bandwidth, (10 Hz–22.5 kHz) test signal developed by Meyer Sound to better measure the loudspeaker's music performance. It has a constant instantaneous peak level in octave bands, a crest factor that increases with frequency, and a full bandwidth Peak to RMS ratio of 18 dB. The presence of a greater-than (>) symbol with regard to crest factor indicates it may be higher depending on EQ and boundary loading.

Pink noise is a full bandwidth test signal with Peak to RMS ratio of 12.5 dB.

**B-noise** is a Meyer Sound test signal used to ensure measurements reflect system behavior when reproducing the most common input spectrum, and to verify there is still headroom over pink noise.

- 5. Pins 4 and 5 (RMS) only included with XLR 5-pin connector that accommodates both balanced audio and RMS signals.
- 6. Peak power based on the maximum unclipped voltage the amplifier will produce into the nominal load impedance.
- 7. AC power cabling must be of sufficient gauge so that under burst current rms conditions, cable transmission losses do not cause the loudspeaker's voltage to drop below the specified operating range.

#### ARCHITECTURAL SPECIFICATIONS

The loudspeaker shall be a compact, self-powered, linear, low-distortion, low-frequency control element and shall be capable of flown, ground-stacked, and cardioid configurations. Its transducer shall be one 18-inch, dual-coil, long-excursion cone driver.

The loudspeaker shall incorporate internal processing and a two-channel, open-loop, class D amplifier. Processing shall include equalization, phase correction, and driver protection. Performance specifications for a typical production unit, measured at 1/3-octave resolution, shall be as follows: operating frequency range shall be 30–125 Hz; frequency response shall be 32–115 Hz  $\pm 4$  dB, measured in half-space with pink noise at 4 m, 1/3-octave frequency resolution; phase response shall be 40–110 Hz  $\pm 30^{\circ}$ ; linear peak SPL shall be 133 dB with crest factor >10 dB, measured in half-space with pink noise at 4 m referred to 1 m.

Audio connectors shall be XLR 3-pin, female and male, accommodating balanced audio, or XLR 5-pin, accommodating both balanced audio and RMS.

The internal power supply shall perform EMI filtering, soft current turn-on, and surge suppression. Power requirements shall be nominal 100, 110, or 230 V AC line current at 50–60 Hz. UL and CE operating voltage range shall

be 100–240 V AC at 50–60 Hz. AC power connectors for input and loop output shall be powerCON 20. Maximum long-term continuous current draw shall be 4.9 A rms at 115 V AC, 2.5 A rms at 230 V AC, and 5.2 A rms at 100 V AC.

The loudspeaker shall include an RMS remote monitoring system module.

Components shall be mounted in an optimally tuned, vented enclosure constructed of premium multi-ply birch with a slightly textured black finish. The front protective grille shall be powder-coated, hex-stamped steel with acoustical black mesh. Optional rigging for the enclosure shall include end frames with captive GuideALinks for linking units in vertical arrays at splay angles of  $0^{\circ}$ ,  $1.25^{\circ}$ ,  $2.5^{\circ}$ ,  $3.75^{\circ}$ , or  $5^{\circ}$ .

Dimensions without rigging shall be W: 27.43 in (697 mm) x H: 24.43 in (621 mm) x D: 24.89 in (632 mm). Dimensions with optional rigging shall be W: 27.47 in (698 mm) x H: 24.43 in (621 mm) x D: 24.89 in (632 mm). Weight shall be 136 lb (61.7 kg). Weight with optional rigging shall be 159 lb (72.1 kg).

The loudspeaker shall be the Meyer Sound 900-LFC.

