



Explosion-Proof Loudspeakers

HLE/MLE Series



MLE-1

Features

- Explosion-Proof Loudspeakers for Signal and Communications Systems
- Listed by UL for Use in Hazardous/Combustible Environments (Noted Models)
- Available with Internally Mounted, Factory-Installed Transformer
- Choice of 30 or 60 Watt High-Intelligibility Driver in Cast Aluminum Housing
- Efficiency of Reflex-Style Projectors with Wide Angle or Circular Sound Dispersion
- UL Listings 1203, 1604, 2279, 93
- NFPA499 Listed

Applications

Install HLE or MLE Series loudspeakers to efficiently, and safely communicate in combustible. All drivers comply with the regulations governing electrical equipment in hazardous locations as set forth by the National Electric Code. Drivers are listed by UL. They are recommended for paging, signal, and voice communication in chemical processing, petroleum, natural resource exploration and atmospheres as listed in the attached chart.

General Description

Series HLE and MLE loudspeakers are explosion-proof compression drivers engineered for high-efficiency voice and electronic signal communication in hazardous areas. Drivers, which are protected within a rugged die-cast aluminum housing, are available in 60 Watt (HLE Series) and 30 Watt (MLE Series) power handling versions. Models with T suffix include a factory-installed, internally mounted transformer (Note: To meet UL requirements transformer must be factory installed). All models are equipped with 1/2" conduit access and an adjustable mounting bracket.

HLE and MLE drivers are designed to be used with projector horns to complete the full speaker assembly. Atlas Sound offers both the HLE-30/MLE-30 and HLE-32/MLE-32 projector horns to be used in these applications. Model HLE/MLE-30 is a high-quality, polycarbonate projector that creates a 120° x 60° pattern for wide area coverage. Model HLE/MLE-32 is a spun aluminum bell providing a 95° circular distribution emphasis. Drivers and projector horns are ordered and shipped separately. For performance accuracy, specifications are listed for assembled configurations.



HLE-3 Driver

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Driver	Horn	Power Rating	Frequency Respose	Sensitivty	Dispersion	Power Tap	Assembly size
HLE-1	HLE/MLE-30	60W	250Hz-12kHz	109 dB	130° x 90°	8Ω	14"W x 6"H x 17½" D (356mm x 152mm 445mm)
	HLE/MLE-32			112 dB	95°		
HLE-3	HLE/MLE-30	60W	250Hz-12kHz	108 dB	130° x 90°	8Ω	14"W x 6"H x 17½" D (356mm x 152mm 445mm)
	HLE/MLE-32			111 dB	95°		
MLE-1	HLE/MLE-30	30W	300Hz-14kHz	107 dB	130° x 90°	8Ω	14"W x 6"H x 17½" D (356mm x 152mm 445mm)
	HLE/MLE-32			110 dB	95°		
MLE-3	HLE/MLE-30	30W	300Hz-14kHz	106 dB	130° x 90°	8Ω	14"W x 6"H x 17½" D (356mm x 152mm 445mm)
	HLE/MLE-32			110 dB	95°		
HLE-1T	HLE/MLE-30	60W	250Hz-12kHz	109 dB	130° x 90°	2.5W, 5W, 10W, 20W, 40W, 60W	16.5"W x 6"H x 17.5"D (419mm x 152.4mm 444.5mm)
	HLE/MLE-32			112 dB	95°		
HLE-3T	HLE/MLE-30	60W	250Hz-12kHz	108 dB	130° x 90°	2.5W, 5W, 10W, 20W, 40W, 60W	16.5"W x 6"H x 17.5"D (419mm x 152.4mm 444.5mm)
	HLE/MLE-32			111 dB	95°		
MLE-1T	HLE/MLE-30	30W	300Hz-14kHz	107 dB	130° x 90°	1.8W, 3.7W, 7.5W, 15W, 30W	16.5"W x 6"H x 17.5"D (419mm x 152.4mm 444.5mm)
	HLE/MLE-32			110 dB	95°		
MLE-3T	HLE/MLE-30	30W	300Hz-14kHz	106 dB	130° x 90°	1.8W, 3.7W, 7.5W, 15W, 30W	16.5"W x 6"H x 17.5"D (419mm x 152.4mm 444.5mm)
	HLE/MLE-32			110 dB	95°		

Underwriters' Laboratory Listings		
Driver	Class / Group	For Atmosphere Containing:
HLE-1(T) MLE-1(T)	Class 1 / Group C & D	Gas Atmospheres (Including Ethyl, Ether, Gasoline Naphtha, Alcohols)
HLE-3(T) MLE-3(T)	Class 1 / Group B, C & D	Gas Atmospheres (Including Ethyl, Ether, Gasoline Naphtha, Alcohols, Butane, Propane) plus, Hydrogen, Gas and Vapor, (Manufactured Gas)

Architect and Engineer Specifications

Explosion proof loudspeaker shall be UL Listed for use in specified hazardous locations and/or combustible atmospheres as classified by the National Electric Code.

UL approved compression driver for 60 Watt distributed application shall be Atlas Sound Model HLE-1T or HLE-3T with internally mounted 60 Watt transformer Model T-18. Transformer shall have primary impedance taps at 2000, 1000, 500, 250, 125, and 85 with a 45Ω tap for 45Ω line use only. Corresponding power taps for 70.7V line use shall be 2.5, 5, 10, 20, 40, and 60. Secondary impedance shall be 4, 8, and 16Ω. For voice-coil circuit applications, UL Listed 60 Watt Model HLE-1, or HLE-3 with 16Ω voice coil shall be specified.

UL approved compression driver for 30-watt distributed application shall be Atlas Sound Model MLE-1T or MLE-3T with internally mounted 30 Watt transformer Model T-20. Transformer shall have primary impedance taps at 2500, 1300, 666, 333, 167, 89, and 45Ω. Corresponding power taps for 70.7V line use shall be 1.8, 3.7, 7.5, 15, and 30. Power taps for 25V line shall be 1.89, 3.7, 7, and 15. Secondary impedance shall be 8Ω. For voice-coil circuit applications, UL Listed 30 Watt Model MLE-1, or MLE-3 with 8Ω voice coil shall be specified.

Driver and transformer, where applicable, shall be mounted within a heavy, cast aluminum housing. Voice coils shall be field-replaceable. Projector horn shall be a reflex type with polycarbonate re-entrant section. It shall be Atlas Sound Model HLE/MLE-30 for 120° x 60° sound dispersion or HLE/MLE-32 for 95° sound coverage. Driver and horn assembly shall have a frequency response of _____ with sensitivity of _____(measured at 10 dynes / cm²). Sound pressure level shall be a minimum of _____(measured at 1W/1M).