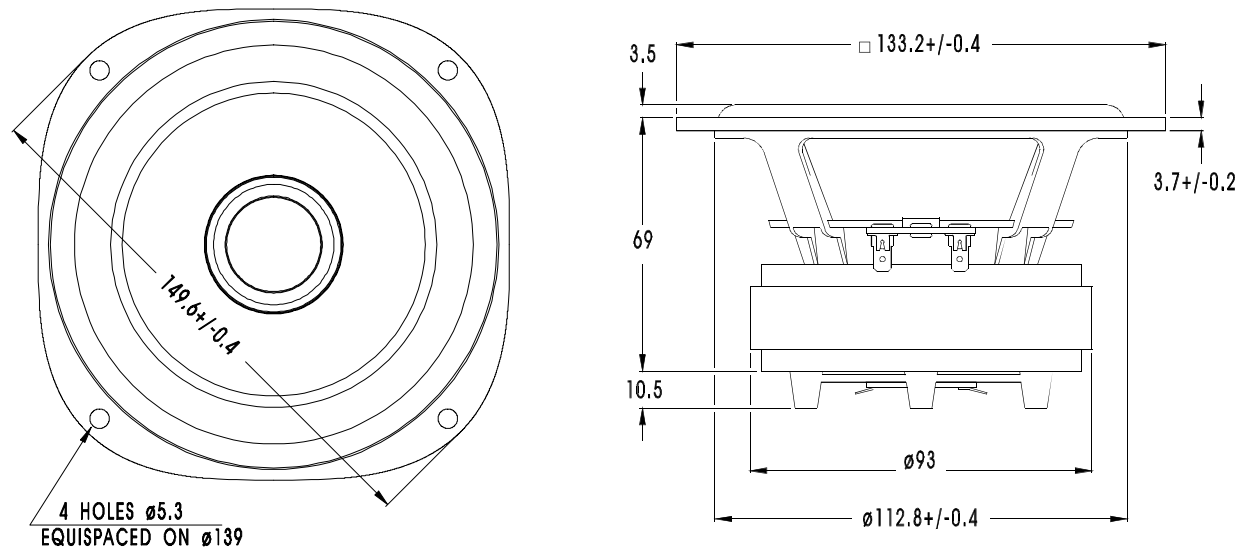


COAXIAL

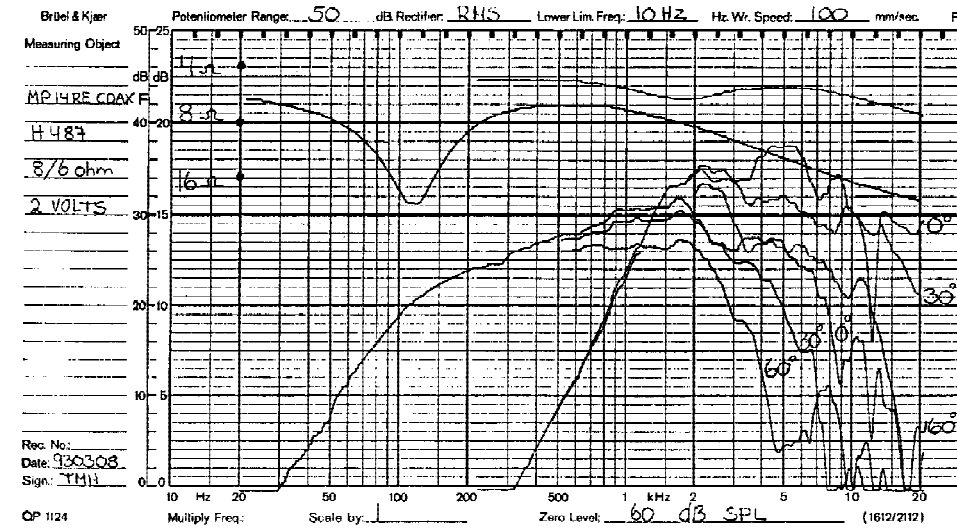
MP14RE/XF



This loudspeaker is a coaxial and time coherent arrangement of a cone midrange unit and a precoated fabric dome high frequency unit. The cone of the midrange unit acts as a horn loading for the tweeter, and the chassis of the dome unit represents the throat of this horn. Unlike most traditional coaxial loudspeakers, this arrangement has two advantages: The two drive units have identical acoustic centers, and their directivities in the crossover frequency region are practically identical. With a symmetrical woofer arrangement, e.g. one woofer above and one below this unit, it is possible to build coherent loudspeakers with a symmetrical and stable radiation pattern combined with a smooth frequency response. The midrange unit has an injection moulded metal chassis for strength and stability. The polypropylene cone is carefully matched to a high loss rubber surround. The large voice coil diameter (39mm) allows efficient heat transfer for stable voice coil temperature. The high frequency unit has a vacuum formed, precoated fabric dome diaphragm, with its voice coil immersed in magnetic fluid for improved heat transfer and damping. A small, efficient magnet made from neodymium-iron-boron provides the magnetic field.

NOTES

Response curve recorded in anechoic chamber (Free-field, 4 pi radiation) with 0.5m microphone distance. The loudspeaker is mounted in a closed box of 7 l net volume.



TECHNICAL DATA DOME TWEETER.

NOMINAL IMPEDANCE	6 Ohms	VOICE COIL RESISTANCE	4.8 Ohms
RECOMMENDED FREQUENCY RANGE	3000-25000 Hz	VOICE COIL INDUCTANCE (EQUIVALENT)	0.05 mH
SHORT TERM MAXIMUM POWER *	220 W	VOICE COIL DIAMETER	26 mm
LONG TERM MAXIMUM POWER *	90 W	VOICE COIL HEIGHT	1.5 mm
CHARACTERISTIC SENSITIVITY (1W, 1m)	89 dB SPL	MOVING MASS	0.3 g
		EFFECTIVE PISTON AREA	7.0 sq.cm
AIR GAP HEIGHT	2.0 mm	LINEAR COIL TRAVEL (p-p)	0.5 mm
MAGNETIC GAP FLUX DENSITY	1.3 T	FREE AIR RESONANCE	1800 Hz
FORCE FACTOR	2.45 N/A		

* IEC 268-5. VIA HIGH PASS BUTTERWORTH FILTER : 3500Hz, 12dB/oct

TECHNICAL DATA CONE DRIVER

NOMINAL IMPEDANCE	8 Ohms	VOICE COIL RESISTANCE	5.6 Ohms
RECOMMENDED FREQUENCY RANGE	150-4000 Hz	VOICE COIL INDUCTANCE (EQUIVALENT)	0.5 mH
SHORT TERM MAXIMUM POWER *	400 W	FORCE FACTOR	7.0 N/A
LONG TERM MAXIMUM POWER *	110 W	FREE AIR RESONANCE	84 Hz
CHARACTERISTIC SENSITIVITY (1W, 1m)	89 dB SPL	MOVING MASS	6.0 g
		AIR LOAD MASS IN IEC BAFFLE	0.5 g
VOICE COIL DIAMETER	39 mm	SUSPENSION COMPLIANCE	0.6 mm/N
VOICE COIL HEIGHT	8.0 mm	SUSPENSION MECHANICAL RESISTANCE	2.7 Ns/m
AIR GAP HEIGHT	6.0 mm	EFFECTIVE PISTON AREA	68 sq.cm
LINEAR COIL TRAVEL (p-p)	2.0 mm		
MAXIMUM COIL TRAVEL (p-p)	--- mm	VAS	3.6 Litres
		QMS	1.27
MAGNETIC GAP FLUX DENSITY	0.85 T	QES	0.39
MAGNET WEIGHT	0.42 Kg	QTS	0.30
TOTAL WEIGHT	1.35 Kg		

* IEC 268-5 VIA HIGH PASS BUTTERWORTH FILTER: 250 Hz 6 dB/oct