

7 inch HIGH POWER MOTIONAL FEEDBACK LOUDSPEAKER

APPLICATION

For application in small enclosures with very low bass response down to 40 Hz with excellent distortion suppression.

The loudspeaker has a built-in acceleration sensor.

TECHNICAL DATA

Rated impedance	4 Ω
Voice coil resistance	4,3 Ω
Resonance frequency	39 Hz
Power handling capacity without filter mounted in 7 l sealed enclosure	40 W
Operating power	7,5 W
Sweep voltage frequency range: 35-3000 Hz	4 V
Energy in air gap	225 mJ
Flux density	1,1 T
Air -gap height	5 mm
Voice coil height	11 mm
Core diameter	25 mm
Magnet material	FXD
diameter	90 mm
mass	0,45 kg
Mass of loudspeaker	1,15 kg

The loudspeaker has a paper cone and rubber surround.

Connection to the loudspeaker is by means of soldering or Fastons: voice coil 6,3 mm (0,25 inch); acceleration sensor: 3,2 mm (0,12 inch).

AD7066/MFB7 inch HIGH POWER MOTIONAL
FEEDBACK LOUDSPEAKER

Dimensions (mm)

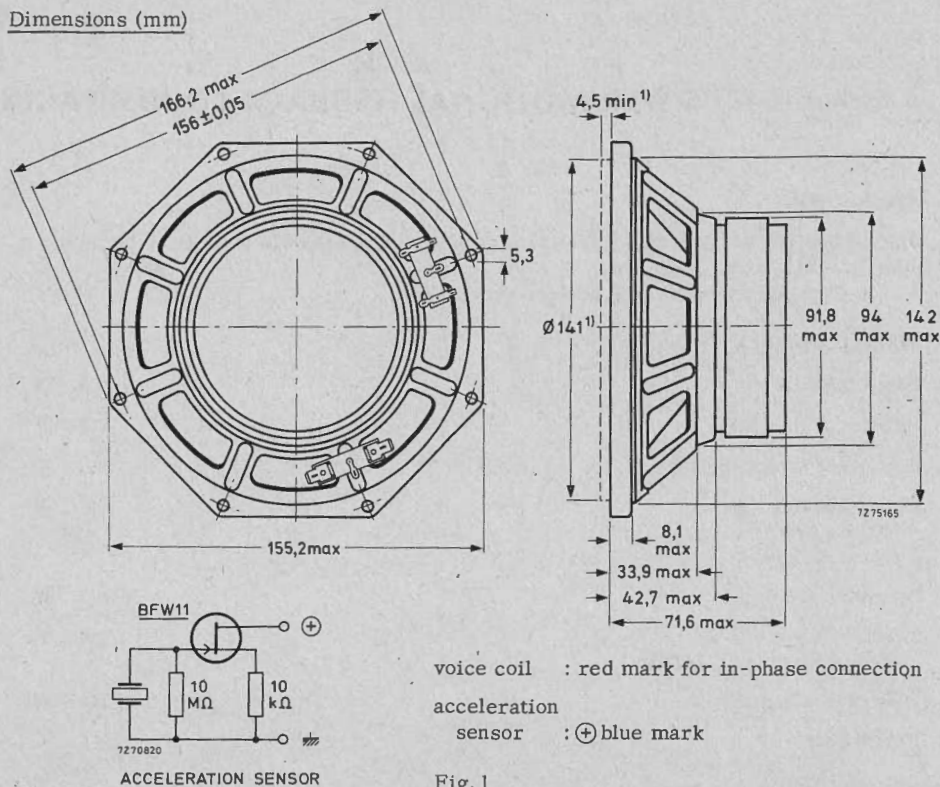


Fig. 1

¹⁾ Baffle hole and mounting clearance depth required for cone movement at the specified power handling capacity.

AVAILABLE VERSIONS

AD8067/MFB, catalogue number 2422 257 470.5

- (0 = stamped on loudspeaker magnet, not to be used for ordering)
- 2 = for bulk packing*)
- 6 = for single unit packing

FREQUENCY RESPONSE CURVES (see Fig. 2)

Curve b: Sound pressure measured in anechoic room at an operating power of 7,5 W.
Loudspeaker mounted in sealed 80 l enclosure, filled with 1 kg of glass wool.

Curve c: 2nd and 3rd harmonic distortion, measured at the operating power of 7,5 W in anechoic room, loudspeaker mounted in sealed 80 l enclosure, filled with 1 kg of glass wool.

*) Minimum packing quantity 3 per unit.

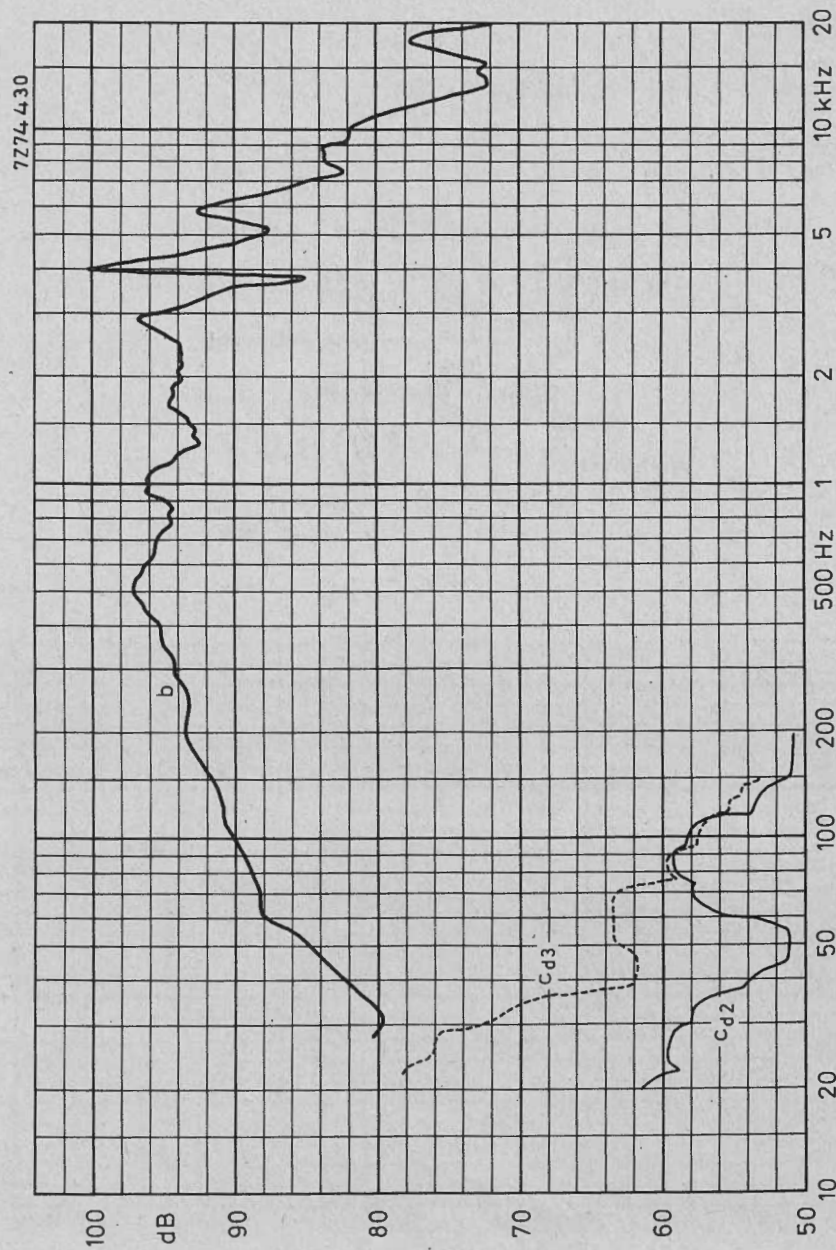


Fig. 2

COIL ACCELERATION RESPONSE CURVE (see Fig. 4)Test conditions:

Loudspeaker unmounted.

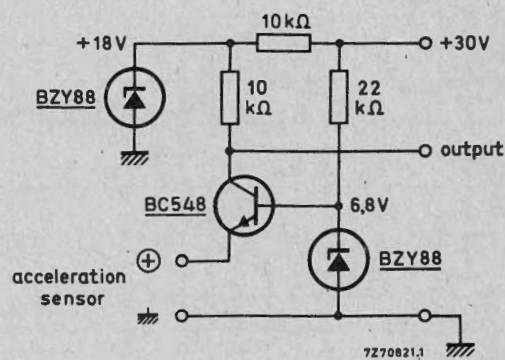
Input at voice coil connections: 0, 44 V (50 mW/4 Ω)Test circuit

Fig. 3

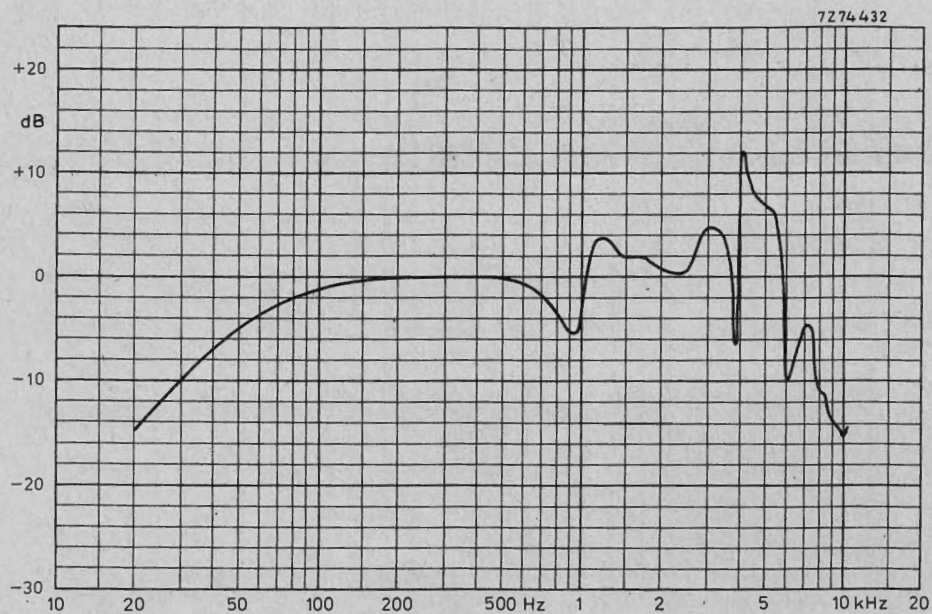


Fig. 4

Phase relation between output voltage of acceleration sensor and input voltage on voice
coil

-: V_{out} lagging

+: V_{out} leading

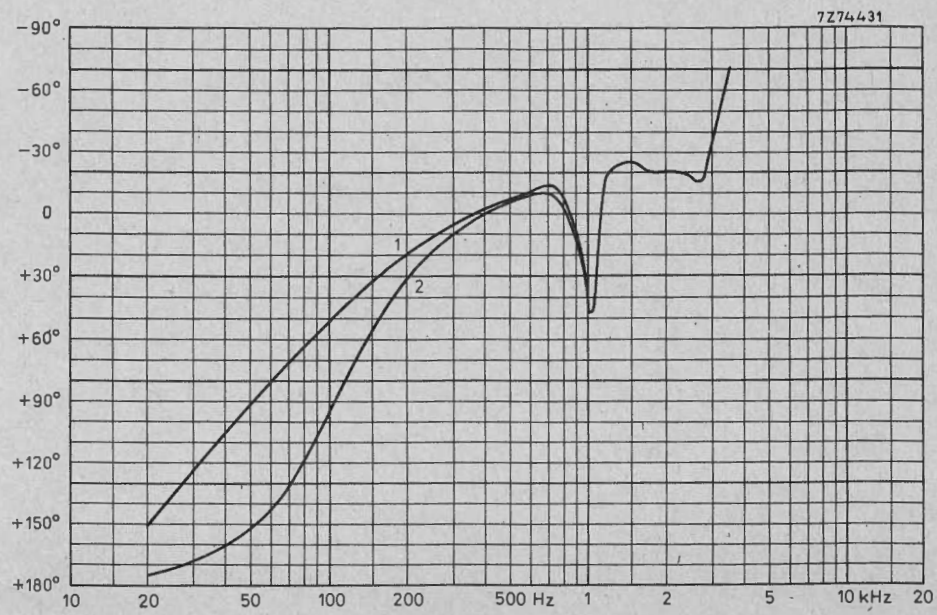


Fig. 5

Curve 1: loudspeaker unmounted; $f_{res} = 39$ Hz.

Curve 2: loudspeaker mounted in sealed 9 l enclosure; $f_{res} = 100$ Hz.