2485J COMPRESSION DRIVER

FEATURES:

120 watts continuous program above 300 Hz

100 mm (4 in) edgewound aluminum ribbon voice coil

100 mm (4 in) phenolic diaphragm

49 mm (2 in) horn throat diameter

Model 2485J is an extremely high-power professional-quality compression driver It has a 100 mm (4 in) voice coil and a magnetic structure weighing 10.5 kg (23 lb). It can take the most explosive transients in stride and reproduce them at thunderous levels. Model 2485J is built to typical JBL standards of precision.

Diaphragms of phenolic impregnated linen are virtually indestructible. After manufacture, each driver is tested for conformity to rigid performance standards.

The driver features a waterproof rear cover for the mounting of a line matching transformer in outdoor applications. A waterproof gland nut allows cable connections to be made while maintaining moisture isolation integrity.

Model 2485J is unequalled by any other driver in both power capacity and efficiency. It can be used as the high frequency section of two-way systems for high-power reinforcing applications or by itself with a 300 Hz high-pass filter for voice paging or reinforcing systems of high quality and power.

ARCHITECTURAL SPECIFICATIONS:

The compression driver shall consist of a ferrite magnetic structure with all magnetic assembly parts machined from cast or extruded billet stock. The phasing plug shall be assembled of concentric horns to minimize phase cancellations, and it shall be coupled to a tapered throat. The diaphragm shall be phenolic-impregnated linen for high durability The voice coil shall be edgewound aluminum ribbon of not less than 100 mm (4 in) in diameter, operating in a magnetic field of not less than 1.9 tesla (19.000 gaussl. The driver shall be fitted with a waterproof rear cover suitable for the internal mounting of a line matching transformer, and waterproof gland nut for cable connections

Performance specifications of a typical production unit shall be as follows, Measured sensitivity with a 1 mW input on a 25 mm (1 in) terminated tube. averaged from 500 Hz to 2.5 kHz. shall be at least 118 dB SPL. Measured sensitivity with a I W input at I m distance on axis from the mouth of a horn with a Q of 6.3 averaged in the 2 kHz octave band shall be at least 111 dB SPL. As an indication of electromechanical conversion efficiency, the BI factor shall be at least 19 newtons per ampere. Frequency response, measured on a terminated tube. shall be flat within ± 5 dB from 300 Hz to 5.5 kHz. Nominal impedance shall be 16 ohms and power capacity shall be at least 120 watts normal speech or music program material.

The compression driver shall be the JBL Model 2485J. Other drivers will be considered for equivalency provided that submitted data from a recognized independent test laboratory verify that the above performance specifications are met

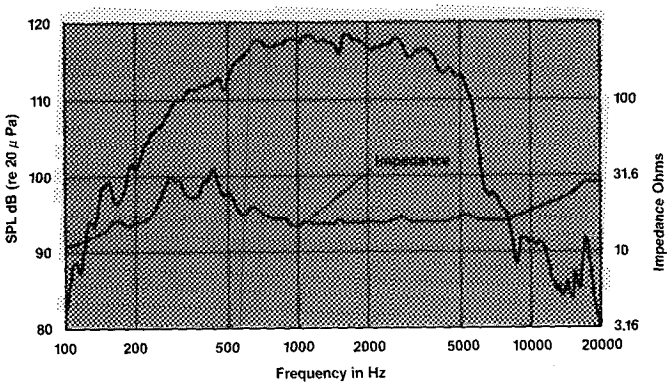
SPECIFICATIONS:

Throat Diameter:	49 mm (2 in)
Nominal Impedance:	16 Ω
Minimum Impedance:	12 Ω @ 5 kHz
DC Resistance:	8.5 Ω ± 10% @ 25°C
Power Capacity[1]:	120 W continuous program above 300 Hz
Sensitivity:	111 dB SPL, 1 W @ 1 m on-axis on horn[2] 118 dB SPL, 1mW on plane-wave tube[3]
Nominal Efficiency:	30% (500 Hz to 2.5 kHz)
Frequency Range:	300 Hz to 6 kHz
Recommended Crossover:	300 Hz or higher, 12 dB/octave minimum
Diaphragm:	.23 mm 10.009 in) phenolic
Voice Coil Diameter:	100mm (4 in)
Voice Coil Material:	Edgewound aluminium ribbon
Flux Density:	1.9 T (19,000 gauss)
BI Factor:	19 N/A
Positive voltage to black terminal gives diaphragm motion toward the phasing plug	
Dimensions:	235 mm (911 in) diameter 330 mm (13 in) depth
Mounting	Four ¼-20 threaded holes, 90° apart on 101.6 mm (4 in) diameter
Weight:	13.8 kg (30½ lb)
Shipping Weight:	14.5 kg (32 lb)

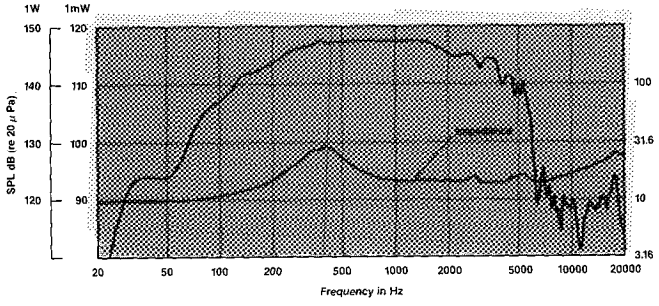
[1]Continuous program is defined as 3 dB greater than continuous pink noise and is a conservative expression of the transduceis ability to handle normal speech and music program material. Continuous pink noise power ratings are tested with pink noise input having a 6 dB crest factor. with a high-pass filter set at the specified lower limiting frequency for two hours duration.

[2]Sensitivity measured with 1 W input at 1 m distance on axis from the mouth of a horn with a Q of 6.3 averaged in the 2 kHz octave band.

[3]As specified by recognized standards organizations, sensitivity is measured with the driver coupled to a terminated tube. The JBL sensitivity rating represents the SPL in a 25 mm (1 in) terminated tube, using a 1 mW input signal (0.126 V into 16 Ω) swept from 500 Hz to 2.5 kHz. The sensitivity rating with a I W input would be 30 dB greater.



Response on JBL 2366 Constant Coverage Bi-Radial Horn. Frequency response of the 2485J coupled to a JBL 2366 Constant Coverage Bi-Radial horn, measured on-axis at a distance of I meter with a l-watt (4.0 V RMS) input in a reflection-free environment, with impedance vs. frequency curve. A horn with a pure exponential flare, such as typical radial horn designs, will exhibit greater high frequency output on-axis at the expense of lost angular coverage.



Response on Plane-Wave Terminated Tube. Frequency response and impedance modulus of Model 2485J coupled to a 49 mm (2 in) diameter terminated plane-wave tube, with sensitivity referenced to a 25 mm (1 in) tube. This is the power response of the transducer, and is the frequency response that will be obtained on a true full-range constant directivity horn design, such as JBL s 2360 series of Constant Coverage Bi-Radial Horns.

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