



H A Harman International Company

C 3000

Large Diaphragm Condenser Microphone

Description

The AKG Model C 3000 is a studio quality microphone designed around a large 28 mm (1.1 in.) diaphragm acting in conjunction with a very small diaphragm for precise pattern control at high frequencies. This combination of diaphragms has the virtues of low self noise (18 dB A) and very high output capability (137 dB for 1% THD and 140 dB for 3% THD). The microphone's polar response may be switched between cardioid and hypercardioid, depending on the specific application. The transducer section is internally shock mounted for minimum handling noise or floor-borne vibrations. A switchable 10-dB pad can be engaged for close-in applications on-stage or in the studio, effectively raising the output level by 10 dB for a given distortion value. An electrical bass cut (6 dB/octave below 300 Hz) compensates for proximity effect for close-in vocal application, resulting in smooth response down to 100 Hz with a gentle roll-off below that frequency. The C 3000 microphone operates with phantom powering over the standard ranges from 12 to 48 volts (9 to 52 V dc).

In addition to its use in the recording and broadcast studio for both vocal and instrumental applications, the C 3000 has many applications in music and speech reinforcement. Its carefully engineered off-axis response produces rejection at 180° (cardioid setting) of greater than 30 dB in the critical mid-band range from 300 to 1,500 Hz. Due to the dual diaphragm design, the 180° pattern rejection is never less than 12 dB over the extended range from 20 Hz to 20 kHz. This is quite an accomplishment for any cardioid microphone design.

Specifications

Transducer Principle:	Pre-polarized condenser
Frequency Range:	20–20,000 Hz
Polar Pattern:	Cardioid or hypercardioid, switchable
Sensitivity at 1,000 Hz:	Cardioid: 20 mV/Pa $\hat{=}$ -34 dBV Hypercardioid: 15 mV/Pa $\hat{=}$ -36.5 dBV
Equivalent Noise Level:	18 dB-A
Sound Pressure Level for 1% THD:	137 dB
S/N Ratio (A-weighted):	76 dB
Electr. Impedance:	200 ohms
Load Impedance:	\geq 2,000 ohms
Power Requirement:	Phantom powering, 12–48 volts nominal (9 to 52 V DC)
Connector:	3-pin XLR type
Size:	57 mm diameter (2.217 in.); 160 mm length (6.29 in.)
Net/Shipping Weight:	320 g (11.3 oz.)/820 g (28.9 oz.)
Included Accessories:	SA 41/1 Stand adapter
Optional Accessories:	H 15/22 Elastic suspension, W 414 Windscreen, B 18 Battery supply unit, N 62, Phantom power supply unit, MK 9/10 10-m Cable (33 ft.)

Features

- Large diaphragm format optimized for studio applications
- Switchable cardioid and hypercardioid pickup patterns
- High acoustic level capability (137 dB-SPL for 1 % THD)



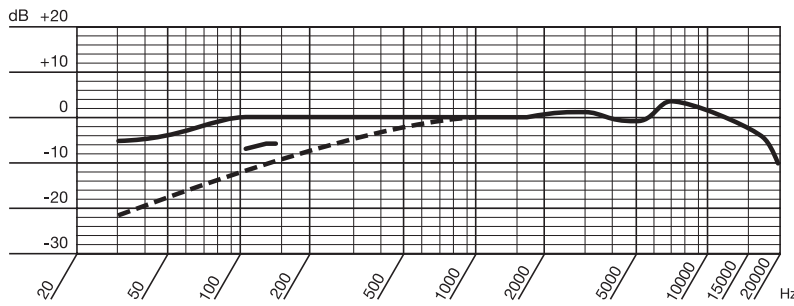
Architect's and Engineer's Specifications

The microphone shall provide at least two switchable pickup patterns that are nominally cardioid and hypercardioid. In the cardioid position, the signal rejection at 180° shall be maintained no less than 30 dB over the frequency range from 300 to 1,500, and no less than 12 dB over the range from 20 to 20 kHz. The microphone shall have maximum sensitivity along its radius, and that sensitivity shall be no less than 8.5 mV/Pa in the cardioid position and 15 mV/Pa in the hypercardioid position. The

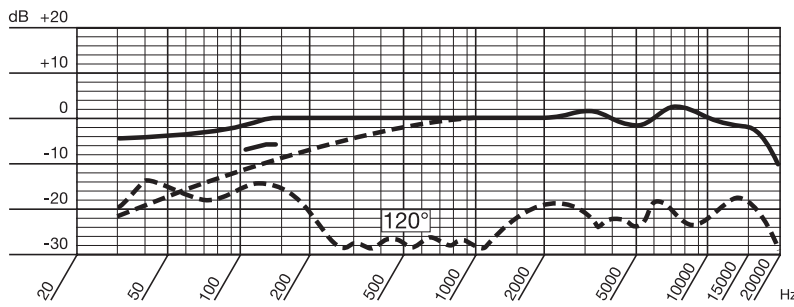
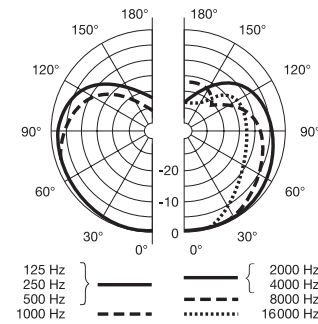
microphone shall provide a switchable electrical rolloff of 12 dB/octave below 400 Hz, as well as a switchable 10 dB pre-preamp signal attenuation. The self noise of the microphone shall be no greater than 18 dB (A-weighted), and the microphone shall operate in a sound field of 137 dB with no more than 1% total harmonic distortion. The microphone case shall be no greater than 57 mm (2.22 in.) in diameter and 160 mm (6.29 in.) in length. The microphone shall be the AKG Model C 3000.

Graphical Data

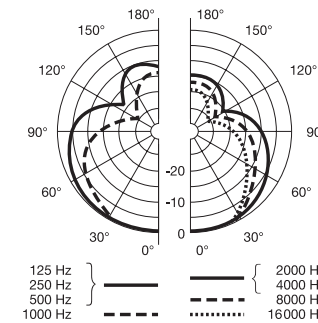
On-axis Frequency Response (measured at 1 meter)



Cardioid Polar Response



Hypercardioid Polar Response



AKG is constantly improving and modifying its products, therefore, specifications are subject to change without notice.

Limited Warranty

Valid only in the United States. AKG Acoustics warrants AKG products against defects in material or workmanship for a period of one year from the date of original purchase for use, and agrees to repair or, at our option, replace any defective unit without charge for either parts or labor. Important: This warranty does not cover damage resulting from accident, misuse or abuse, lack of reasonable care, the affixing of any attachment not provided with the product, loss of parts or connecting the product to any but the specified receptacles. This warranty is void unless service or repairs are performed by an authorized service center.

No responsibility is assumed for any special, incidental or consequential damages. However, the limitation of any right or remedy shall not be effective where such is prohibited or restricted by law. Simply take or ship you AKG product prepaid to our service department. Be sure to include your sales slip as proof of purchase date. (We will not repair transit damage under the no-charge terms of this warranty.) Note: No other warranty, written or oral is authorized by AKG Acoustics, Inc. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitation on how long an implied warranty lasts, so the above exclusions and limitation may not apply to you.

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H A Harman International Company

AKG Acoustics GmbH
Lemböckgasse 21-25, P.O.B. 158, A-1230 Vienna/AUSTRIA
Tel: (43 1) 86 654-0*, Fax: (43 1) 86 654-516
Internet: <http://www.ake-acoustics.com>

AKG Acoustics; A Division of Harman Pro Germany
Bodenseestraße 228, D-81243 München/GERMANY
Tel: (089) 87 16-0, Fax: (089) 87 16-200

Arbiter Pro Audio
Wilberforce Road, London NW9 6AX/ENGLAND
Tel: (0181) 202 1199, Fax: (0181) 202 7076

AKG ACOUSTICS, U.S.
1449 Donelson Pike, Airpark Business Centre 12,
Nashville, TN 37217, U.S.A.
Tel: (615) 360-0499, Fax: (615) 360-0275

Studer Japan Ltd.
2-43-7, Uehara, Shibuya-ku, Tokyo 151-0064/JAPAN
Tel: (813) 3465-2211, Fax: (813) 3465-2214

Erikson Pro Audio
620 McCaffrey, St-Laurent, Quebec, H4T 1N1, CANADA
Tel: (514) 738-3000, Fax: (514) 737-5069
Internet: www.jam-ind.com/eriksonpro