



#### 4006A, 4006A Omni Microphone

- Neutrality
- Versatility
- Precision
- Recording standard

Timeless transparency

The versatile DPA 4006A is without doubt the most popular mic in our standard range and has rightly earned its status as a worldwide recording standard. This highly sought after omni has forged its enviable reputation over the past quarter of a century by repeatedly exhibiting its total transparency in any recording situation, and by picking up incredible detail and depth of sound. The definition of its high-frequency characteristics across a wide range of instruments is undeniably impressive for the vast majority of miking applications.

Renaissance microphone

With the 4006A, engineers, broadcasters and musicians alike can achieve extremely clean, natural and precise reproduction in a variety of applications. Ideal for A-B stereo pairs for symphonic concert hall recordings, the 4006A also excels on vocals and for close-miking instruments like grand piano, guitar, double bass and percussion.

Several tools in one

A selection of acoustic modification accessories, including nose cone and interchangeable protection grids, allows the 4006A to be acoustically transformed into different microphone versions, making it the most multifaceted mic in your collection and a tremendous value. By simply changing a grid, it is possible to gain several unique frequency responses and directional characteristics from a single mic. Furthermore, these grids and elements will not produce any phase shift, noise or distortion that would otherwise be introduced by an electrical filter.

Also available as matched stereo pair and surround kit

The ST4006A stereo pair is supplied in a specially designed PeliTM Case, the stereo matching is free of charge.

The SU4006-11A Surround Kit is supplied in a specially designed PeliTM Case, the surround matching is free of charge.

For more information please visit: www.dpamicrophones.com

### 4006A, 4006A Omni Microphone

Directional characteristics:

Omnidirectional

Principle of operation:

Pressure

Cartridge type:

Pre-polarized condenser

Frequency range: 10 Hz to 20 kHz

Frequency range, ± 2 dB:

10 Hz to 20 kHz

Sensitivity, nominal, ±2 dB at 250 Hz:

40 mV/Pa; -28 dB re. 1 V/Pa

Equivalent noise level, A-weighted: Typ. 15 dB(A) re. 20 µPa (max. 17 dB(A))

Equivalent noise level, ITU-R BS.468-4:

Typ. 27 dB (max. 29 dB)

S/N ratio (A-weighted), re. 1 kHz at 1 Pa (94

dB SPL):

Typ. 79 dB(A)
Total Harmonic Distortion (THD):

< 1 % up to 139 dB SPL peak

Minimum load impedance:

2 kohm

Dynamic range:

Typ. 124 dB

Max. SPL, peak before clipping:

147 dB

Switchable attenuator:

0 dB / -20 dB

Output impedance:

< 200 ohm

Cable drive capability:

100 m (328 ft)

Output balance principle:

Impedance balancing with Active Drive

Common Mode Rejection Ratio (CMRR):

> 60 dB

Power supply (for full specifications):

48 V Phantom power (± 4 V)

Current consumption:

2.8 mA Connector:

XLR-3M. Pin 1: shield, Pin 2: signal + phase,

Pin 3: - phase

Color:

Matte black

Weight:

163 g (5.7 oz)

Diameter:

16 to 19 mm (0.63 to 0.75 in)

Capsule diameter:

16 mm (0.63 in)

Length:

170 mm (6.7 in)

Output voltage, RMS:

> 5 V

Polarity:

+V at Pin 2 for positive sound pressure

Temperature range:

-40 °C to 50 °C (-40 °F to 122 °F)

Relative Humidity (RH):

Up to 90 %

Classification:

Conforms to IEC 61672 Class I (with Near-field

Grid DD0251)

Matching tolerance:

± 0.5 dB

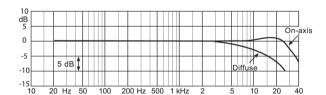
Phase deviation for kit:

< 5°

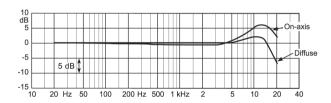
## **Diagrams**

### 4006A, 4006A Omni Microphone

On-axis and diffuse-field responses of DPA 4006A with the pre-mounted, silver Near-field Grid DD0251 fitted



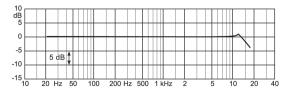
On-axis and diffuse-field responses of DPA 4006A with the black Diffuse-field Grid DD0297 fitted



On-axis and diffuse-field responses of DPA 4006A with the pre-mounted, silver Near-field Grid DD0251 fitted

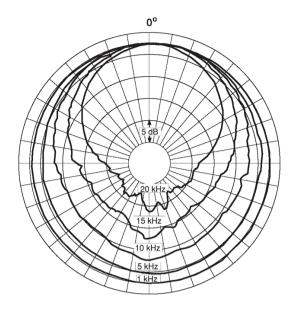
On-axis and diffuse-field responses of DPA 4006A with the black Diffuse-field Grid DD0297 fitted

On-axis response of DPA 4006A with the silver trapezoid Close-miking Grid DD0254



On-axis response of DPA 4006A with the silver trapezoid Close-miking Grid DD0254

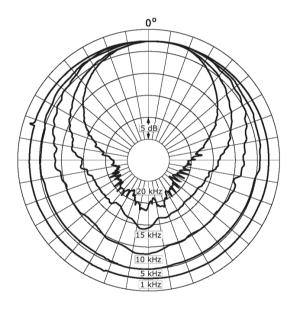
Directional characteristics of DPA 4006A with the pre-mounted, silver Free-field Grid DD0251 fitted (normalized)



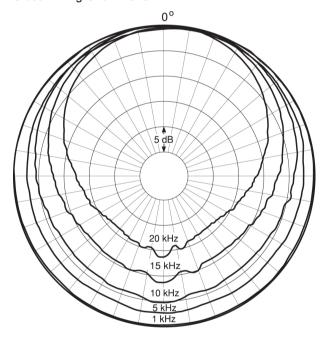
Directional characteristics of DPA 4006A fitted with the black Diffuse-field Grid DD0297 (normalized)

Directional characteristics of DPA 4006A with the pre-mounted, silver Free-field Grid DD0251 fitted (normalized)

Directional characteristics of DPA 4006A with the silver trapezoid Close-miking Grid DD0254

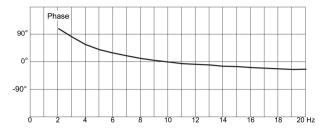


Directional characteristics of DPA 4006A fitted with the black Diffuse-field Grid DD0297 (normalized)



Directional characteristics of DPA 4006A with the silver trapezoid Close-miking  $\operatorname{Grid}$  DD0254

# On-axis phase response of DPA 4006A plotted using a linear frequency axis for evaluation of the phase response



On-axis phase response of DPA 4006A plotted using a linear frequency axis for evaluation of the phase response  $\,$ 



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