# **Product Specifications**

### SM87A Supercardioid Condenser Microphone

#### **Overview**

The SM87A is a rugged, lightweight supercardioid condenser microphone with superior rejection for clear reproduction of warm and accurate lead vocals. Designed with a three-stage shock mount for low self-noise, and a tight polar pattern that excludes unwanted sound sources, the SM87A is an excellent choice for sound reinforcement in noisy or reverberant environments.

#### Features

- Highly directional supercardioid pickup pattern Controlled low-frequency roll-off •
- Very low RF and magnetic hum susceptibility Minimally affected by varying load impedance .
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- Built-in wind and pop filter Transducer element shock mounted •
- Rugged construction for outstanding reliability •
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- Field-usable over a wide range of temperature and humidity conditions Accepts a wide variety of phantom power sources, including DIN 45 596 voltages of 11 and 52 Vdc •

#### Available Models

SM87A	Includes Stand Adapter and Zippered Pouch

#### Specifications

Туре	Condenser		
Frequency Response	50 to 20,000 Hz		
Polar Pattern	Supercardioid		
Sensitivity (at 1,000 Hz)	Open Circuit Voltage: –52.5 dBV/Pa (2.4 mV) (1 Pa = 94 dB SPL)		
Impedance	Rated at 150 ohms (100 ohms actual ±20%) Recommended minimum load impedance: 800 ohms		
Output Clipping Level	1000 Ohm Load at 1,000 Hz: –6 dBV (0.5 V)		
Maximum SPL (at 1,000 Hz)	140.5 dB (0.25% THD, 1000 ohm load)		
Self-Noise	24 dB typical, A-weighted 26 dB typical, weighted per DIN 45 405		
Dynamic Range (1000 ohms)	116.5 dB (maximum SPL to A-weighted noise level)		
Signal-to-Noise Ratio	70 dB at 94 dB SPL (IEC 651) S/N ratio is difference between 94 dB SPL and equivalent SPL of self– noise A-weighted		
Polarity	Positive pressure on diaphragm produces positive voltage on pin 2 relative to pin 3		
Power Requirements	11 to 52 vdc, 1.2 mA		
Case	Aluminum construction with steel grille and satin black finish		
Connector	Three-pin professional audio connector (male XLR type)		
Net Weight	200 grams (7 oz)		
Dimensions	192 mm (7-9/16 in.) L x 50 mm (2 in.) W at the widest point		

#### SM87A

#### **Optional Accessories and Replacement Parts**

A25D	Microphone Clip	RK128	Replacement Cartridge and Shock Mount	A55M, A55HM	Isolation Mount
A85WS	Microphone Windscreen	RK214G	Replacement Screen and Grille		

#### Polar pattern



- 100 Hz ----- 500 Hz, 1000 Hz

180° 150 150° 120 120° 90° 90 -20 dB -15 dB 60° 609 –10 dB -5 dB 30 30 - 3150 Hz

#### ---- 610000 Hz

## Frequency response





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