

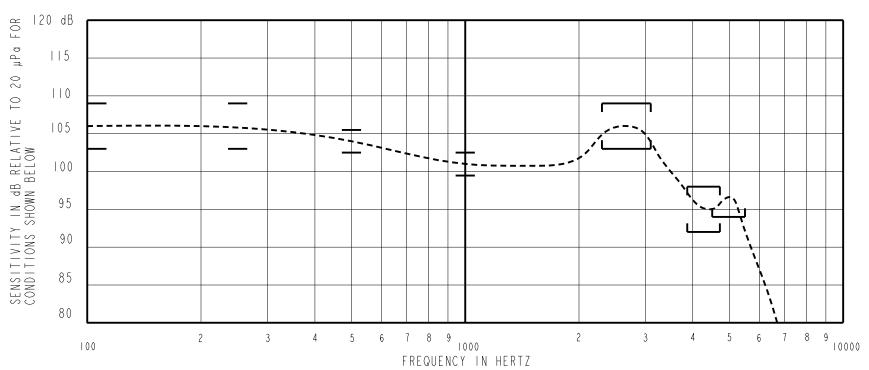
HC-23769-000

SHEET 2.1

THE HC-23769-000 IS A MAGNETIC BALANCED ARMATURE RECEIVER INTENDED FOR USE IN ITC AND CIC HEARING INSTRUMENTS. THE HC FAMILY OFFERS 6 dB HIGHER OUTPUT LEVELS IN THE SAME SIZE PACKAGE AS THE FC FAMILY. ALL HC UNITS HAVE SHOCK PROTECTION. THIS MODEL HAS MEDIUM IMPEDANCE AND IS UNDAMPED.

NOTE: SPECIFICATIONS FOLLOWED BY AN ASTERISK (*) ARE 100% TESTED.

CONSTANT VOLTAGE DRIVE RESPONSE



ACOUSTICAL

SENSITIVITY*

DESCRIPTION

DEVICE WILL PRODUCE THE SPL LISTED BELOW WITH THE TEST CONDITIONS DESCRIBED IN TABLE 3. NOMINAL SENSITIVITY AT I kHz IS dB RELATIVE TO 20μPa. ALL OTHER VALUES IN dB RELATIVE TO THE SENSITIVITY AT 1 kHz.

FREQUENCY (Hz)	MINIMUM	NOMINAL	MAXIMUM
100	+2.0	+5.0	+8.0
250	+2.0	+5.0	+8.0
500	+1.5	+3.0	+4.5
1000	-1.5	101.0	+1.5
2300-3100 PEAK	+2.0	+5.0	+8.0
3680-4720 VALLEY	- 9 . 0	-6.0	- 3 . 0
4500-5500 PEAK	- 7 . 0		

TABLE I.

TOTAL HARMONIC DISTORTION*

DEVICE WILL NOT EXCEED TOTAL HARMONIC DISTORTION LEVELS LISTED BELOW.

FREQUENCY (Hz)	DRIVE (V RMS)	DC BIAS (MA)	LIMIT (%)
900	0.283 V	0	5
1350	0.283 V	0	5
500	0.797 V	0	10

TABLE 2.

TEST CONDITIONS

NOMINAL SOURCE VOL	TAGE 0.283 Vrms, 0 Vdc BIAS
SOURCE IMPEDAN	$E < \Omega$
TUBING	10 mm (.394) LONG, 1 mm (.039) ID.
COUPLER CAVITY	2 CC SIMULATED ANSI S3.7 TYPE HA-3, (IEC 60318-5:

TABLE 3.

POLARITY *

POSITIVE SIGNAL APPLIED TO TERMINAL 2 WILL PRODUCE A DECREASE IN SOUND PRESSURE AT THE SOUND OUTLET.

ELECTRICAL

DC RESISTANCE	120Ω ±10% *
IMPEDANCE @ 500 Hz	170Ω ±15% *
IMPEDANCE @ kHz	281 <u>Ω ±</u> 20% *
INDUCTANCE @ 500Hz	46mH ±15%
CAPACITANCE @ 10 MHz	6pF ±20%

TABLE 4.

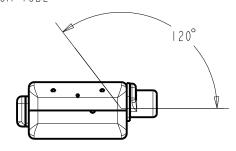
ISOLATION: THE CASE WILL BE ELECTRICALLY ISOLATED FROM THE COIL CIRCUIT*

MAGNETIC RADIATION

WORST CASE: FIELD WILL BE LESS THAN LEVEL STATED BELOW AT AMPLIFIER CLIPPING (.920 V).

l34 dB re lμA/m

DISTANCE OF 6.3 mm FROM CENTER OF RECEIVER ANGLE OF 120 DEGREES FROM TUBE



MECHANICAL

PORT LOCATION: 12C

SOLDER TYPE: SAC 305

TEMPERATURE

OPERATING: SENSITIVITY WILL NOT VARY MORE THAN

+1/-3 dB FROM -17°C TO 63°C

STORAGE: -40°C TO 63°C

RELIABILITY

UNITS WILL SURVIVE ANY OF THE FOLLOWING ACCELERATED LIFE TESTS, REPORT AVAILABLE FROM QA DEPARTMENT

HALT TEST (8 WEEKS, 63°C, 95% RH, 0.83V, 500 Hz SIGNAL) HIGH TEMPERATURE STORAGE (63°C, 72 HOURS)

LOW TEMPERATURE STORAGE (-40°C, 72 HOURS) DAMP HEAT CYCLING (ALTERNATE 25°C TO 63°C, 93% RH, 20 CYCLES)

THERMAL SHOCK (-40°C TO 63°C, 5 CYCLES) SOLDER/DESOLDER CYCLING (5 CYCLES)

SOLDER PAD STRENGTH (STRENGTH > 1.8 LBS.) STRESS TEST (5.29 Vrms AT 2700 Hz SIGNAL, I HOUR)

MECHANICAL SHOCK

PERFORMANCE SPECIFICATION

LEAK TEST AFTER AGING (NO LEAK AFTER ANY OF THE ABOVE TESTS)

SHT 2.1

GJP

	Revision	C.O. #	Implementation Date	RELEASE LEVEL		REVISION	
	С	C10112180	2-28-11				
	В	C10103946	2 - 20 - 06	Active		(
	A	C10103365	11-29-05				
	LIMITS ARE US	ED TO ESTABLISH INCOMING INSPECTION ACCEPTANCE/REJECTION		DR. BY	DATE		
KNOWLES ELECTRONICS	CRITERIA, CORRELATION OF TEST EQUIPMENT WITH KNOWLES IS ALSO REQUIRED FOR ELIMINATION OF EQUIPMENT AND TEST METHOD VARIATION			AB	11-29-05		
				CK. BY	DATE		
ITASCA, ILLINOIS U.S.A.	TITLE:	RF	CFIVER	HC-23769-000	GJP	12-5-05	
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