

**MODEL:** CES-3990-158PM-67 | **DESCRIPTION:** SPEAKER**FEATURES**

- 8 ohm rated impedance
- 1.5 W rated power
- IP67 rated

**SPECIFICATIONS**

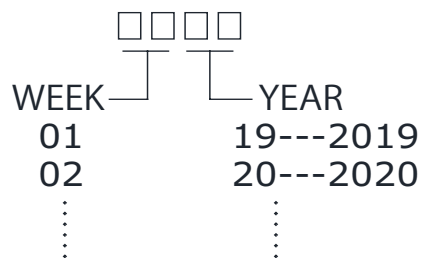
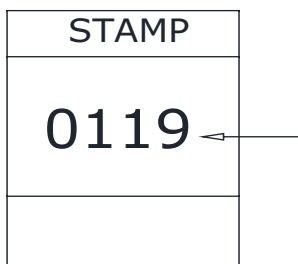
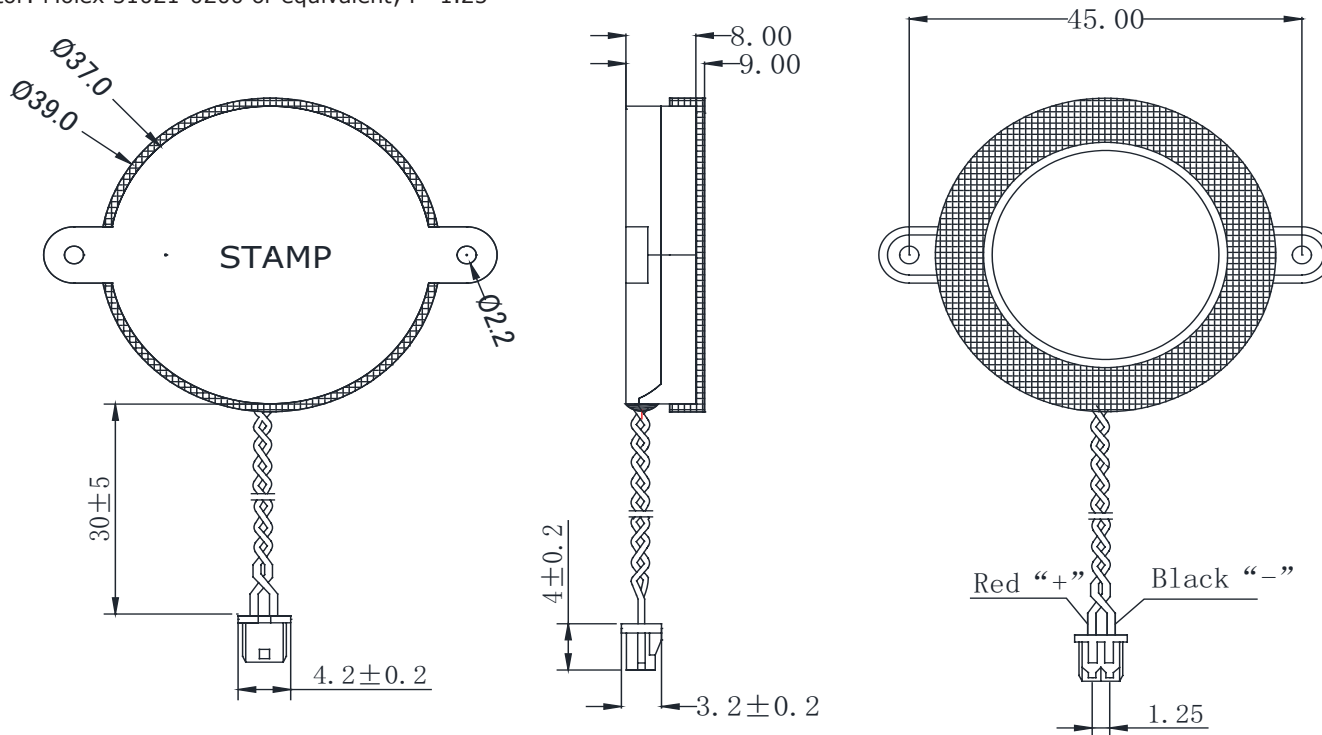
parameter	conditions/description	min	typ	max	units
input power	max power: IEC-60268-5, filter 60 seconds on, 120 seconds off, 10 cycles (room temp)		1.5	2.5	W
impedance	at 2.0 kHz, 1.0 V	6.8	8	9.2	$\Omega$
resonant frequency (Fo)	at 1.0 V	1,080	1,350	1,620	Hz
frequency response		Fo		20,000	Hz
sound pressure level	at 1.5 W, 10 cm, avg at 2.0, 3.0, 4.0, 5.0 kHz	97	100	103	dB
distortion	at 2.0 kHz, rated power, 10 cm			10	%
buzz, rattle, etc.	must be normal at sine wave, frequency range			3.46	V
polarity	cone moves forward w/ positive dc current to "+" terminal				
dimensions	$\varnothing$ 39.0 x 9.0				mm
magnet	Nd-Fe-B				
enclosure material	ABS				
cone material	PET				
terminal	wire leads with connector				
weight			11.8		g
operating temperature		-40		70	$^{\circ}$ C
storage temperature		-40		80	$^{\circ}$ C
RoHS	yes				
IP level	IP67 (front side)				

Notes: 1. All specifications measured at 25~75, humidity at 45~85%, under 86~106 kPa pressure, unless otherwise noted.

## MECHANICAL DRAWING

units: mm  
tolerance:  $\pm 0.5$  mm

wire: UL1571 30 AWG  
internal speaker: CMS-3060-128SP67  
connector: Molex 51021-0200 or equivalent; P=1.25

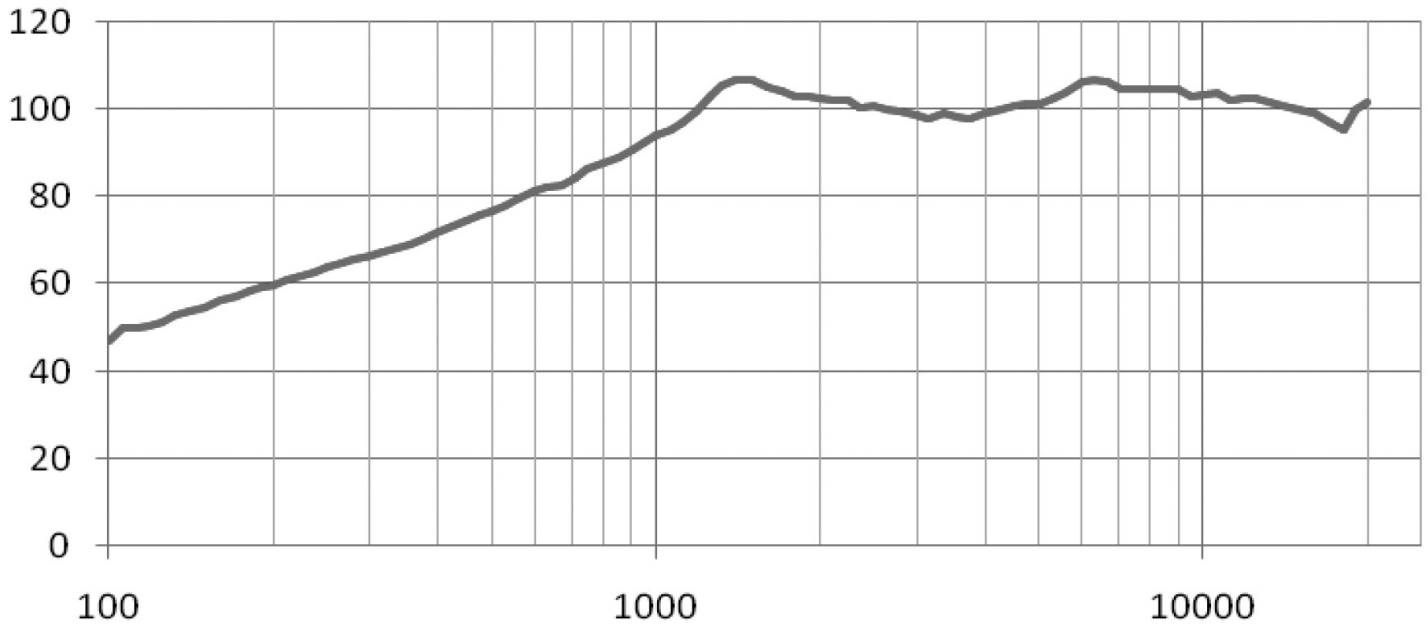


STAMP DIRECTION  
IS FREE

## RESPONSE CURVES

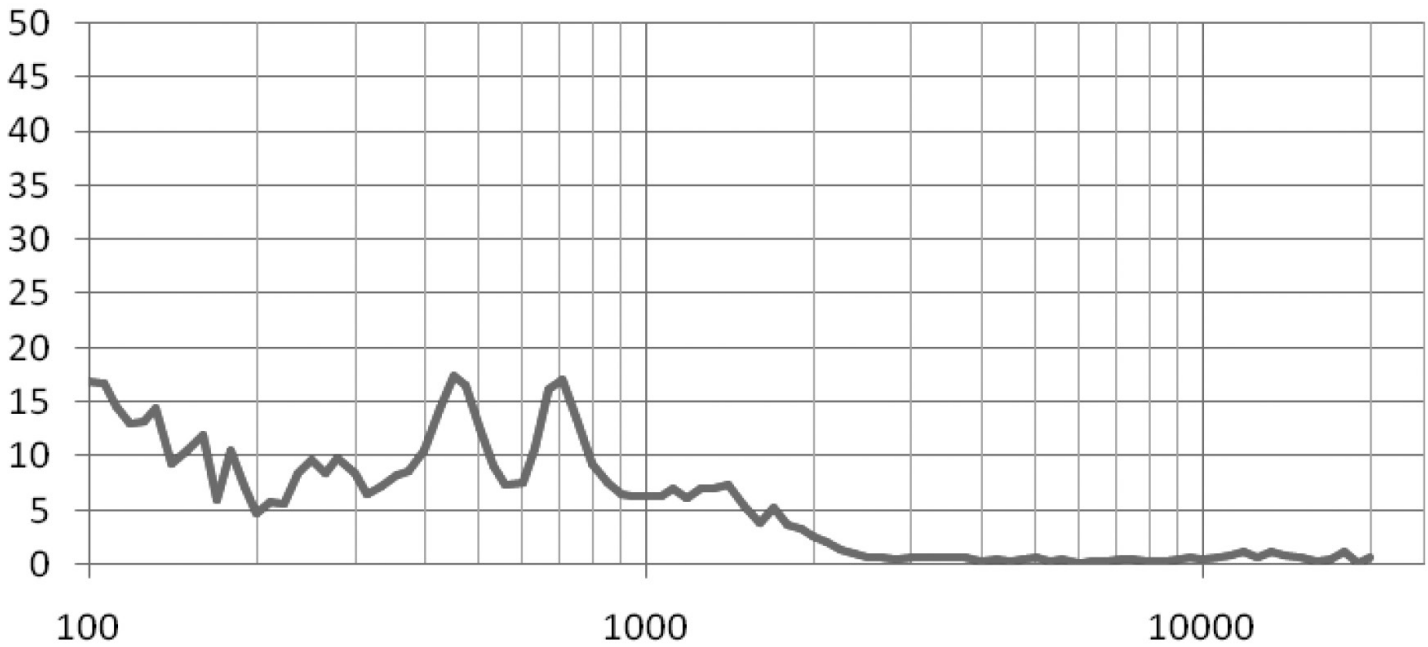
### Frequency Response Curve

Test Conditions: 1.5 W / 10 cm



### Total Harmonic Distortion Curve

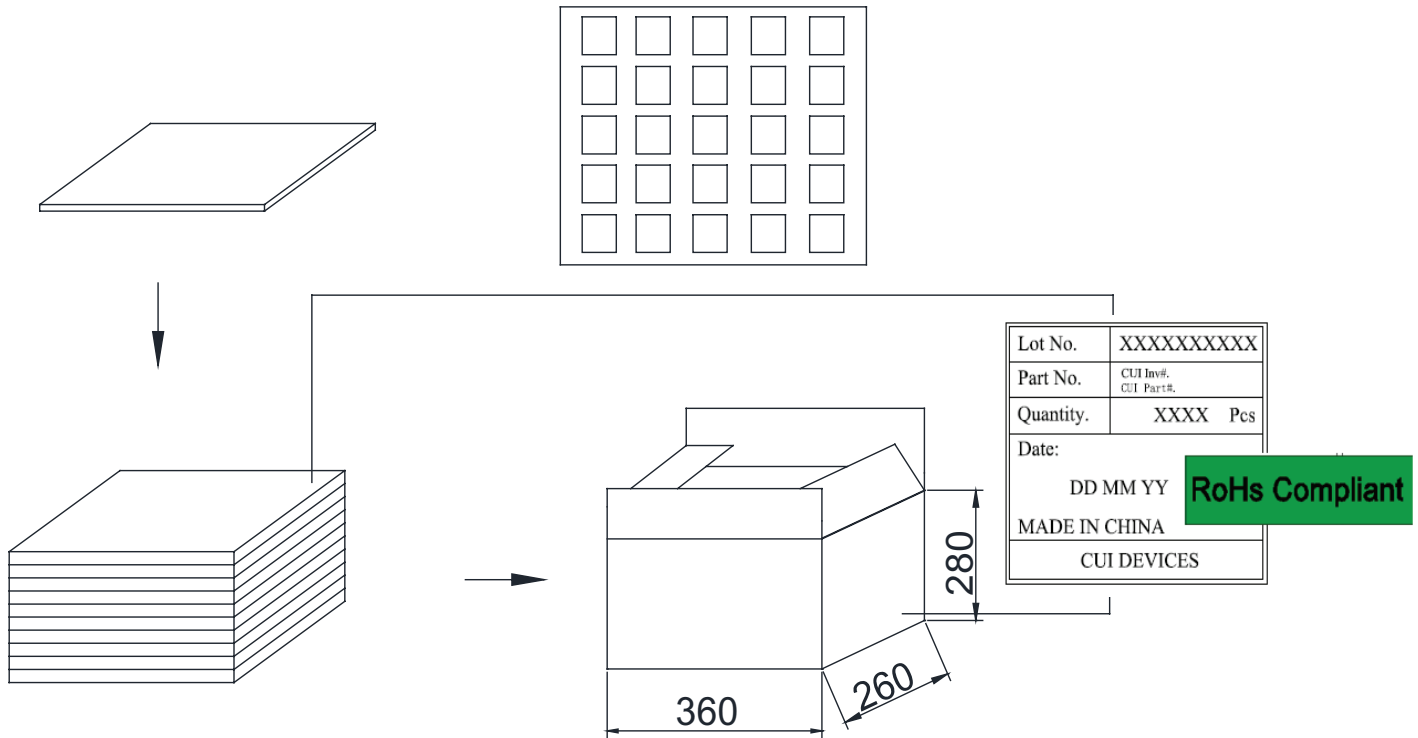
Test Conditions: 1.5 W / 10 cm



## PACKAGING

units: mm

Tray Size: 330 x 245 x 16 mm  
 Tray QTY: 25 pcs per tray  
 Carton Size: 360 x 260 x 280 mm  
 Carton QTY: 300 pcs per carton



## REVISION HISTORY

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rev.	description	date
1.0	initial release	06/08/2020

The revision history provided is for informational purposes only and is believed to be accurate.

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