



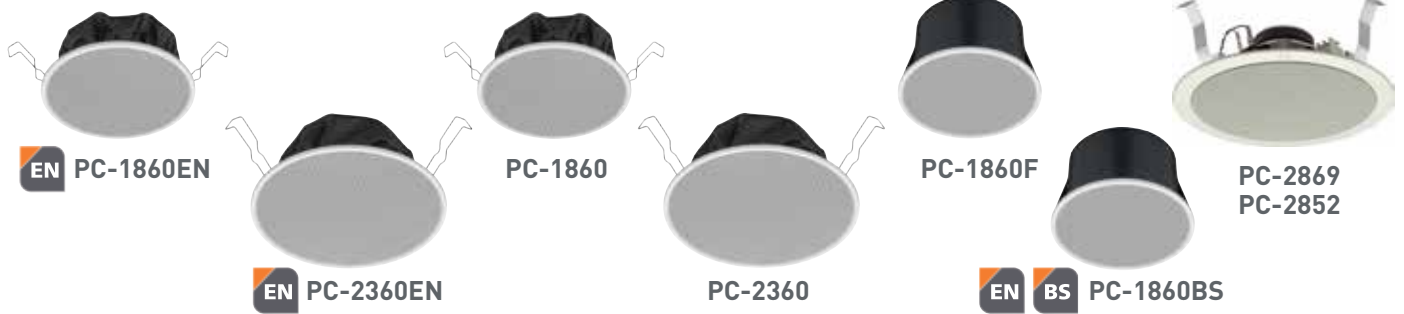
Public Address Speakers



CEILING MOUNT SPEAKERS

EN Indicates that the speaker EN54-24 certified and is therefore legalized for use in conjunction with fire detection systems

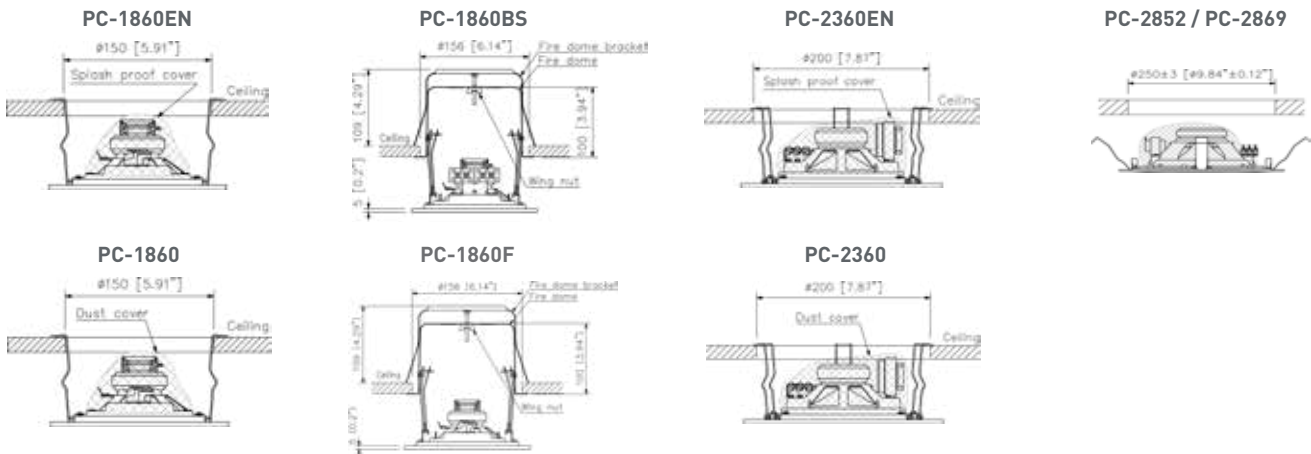
BS Indicates that the speaker is fully compliant to the BS5839 part 8 code of practice



Features

- Designed with high sound quality, it's suitable for voice alarm system, general announcement and background music system use
- EN 54-24 certified (*PC-1860EN, PC-2360EN & PC-1860BS only), BS 5839-8 compliant (*PC-1860BS only)
- All metallic construction
- Input impedance can be easily changed by changing the tap position of the transformer
- Fire Dome to protect and prevent the fire from spreading in the ceiling in event of an emergency (*PC-1860BS & PC-1860F)

Mounting Diagram



WALL MOUNT SPEAKERS



Features

- Innovative design basing on Golden Ratio (1:1.618) widely used in western architecture that is especially pleasing to the eye
- EN 54-24 certified (*BS-680FC only), BS 5839-8 compliant (*BS-680FC only)
- Choice of horizontal or vertical installation for more exact match with the venue
- Easy surface stain removal from metal punching net
- Excellent cost-performance ratio

Specifications

Model	PC-1860	PC-1860EN	PC-2360	PC-2360EN
Speaker Component	12 cm (5") cone-type		16 cm (6") cone-type	
Rated Input	6 W (100 V Line), 3 W (70 V Line)			
Rated Impedance	100 V line: 1.7 kΩ (6 W), 3.3 kΩ (3 W), 6.7 kΩ (1.5 W), 13 kΩ (0.8 W); 70 V line: 1.7 kΩ (3 W), 3.3 kΩ (1.5 W), 6.7 kΩ (0.8 W), 13 kΩ (0.4 W)			
Sensitivity	94 dB (1 W, 1 m) (500 Hz - 5 kHz, pink noise)	94 dB (1 W, 1 m) (500 Hz - 5 kHz, pink noise) 92 dB (1 W, 1 m) (100 Hz - 10 kHz, pink noise) 80 dB (1 W, 4 m) (100 Hz - 10 kHz, pink noise)	94 dB (1 W, 1 m) (500 Hz - 5 kHz, pink noise)	94 dB (1 W, 1 m) (500 Hz - 5 kHz, pink noise) 92 dB (1 W, 1 m) (100 Hz - 10 kHz, pink noise) 80 dB (1 W, 4 m) (100 Hz - 10 kHz, pink noise)
Maximum Sound Pressure Level	-	99 dB (6 W, 1 m) (100 Hz - 10 kHz, pink noise) 87 dB (6 W, 4 m) (100 Hz - 10 kHz, pink noise)	-	99 dB (6 W, 1 m) (100 Hz - 10 kHz, pink noise) 87 dB (6 W, 4 m) (100 Hz - 10 kHz, pink noise)
Frequency Response	80 Hz - 20 kHz (peak -20 dB)		60 Hz - 20 kHz (peak -20 dB)	
Coverage Angle (-6 dB)	-	Horizontal and Vertical: 165°(500 Hz), 175°(1 kHz), 165°(2 kHz), 70°(4 kHz) according to EN 54-24	-	Horizontal and Vertical: 160°(500 Hz), 170°(1kHz), 160°(2 kHz), 60°(4 kHz) according to EN 54-24
Environmental type	-	A (indoor applications)	-	A (indoor applications)
Operating Temperature	-10 °C to +50 °C			
Dimensions for Fixing Hole	Mounting hole: ø150±3 mm; Ceiling thickness: 5 - 25 mm		Mounting hole: ø200±3 mm; Ceiling thickness: 5 - 25 mm	
Speaker Mounting Method	Spring Clamp			
Applicable Cable	Solid wire: 0.5 - 3 mm ² (AWG 20 - 12)			
Connection	Push wire connection (Bridging terminal - 2 branch type)			
Finish	Frame: Steel plate, white (RAL 9016 equivalent), paint; Grille: Steel net, white (RAL 9016 equivalent), paint			
Dimensions	ø180 x 70 (D) mm		ø230 x 76 (D) mm	
Weight	560 g		740 g	

Model	PC-1860BS	PC-1860F	PC-2869	PC-2852
Speaker Component	12 cm (5") cone-type		20 cm (8") double cone-type	20 cm (8") coaxial cone-type
Rated Input	6 W (100 V Line), 3 W (70 V Line)			15 W (100 V, 70 V Line)
Rated Impedance	100 V line: 1.7 kΩ (6 W), 3.3 kΩ (3 W), 6.7 kΩ (1.5 W), 13 kΩ (0.8 W); 70 V line: 1.7 kΩ (3 W), 3.3 kΩ (1.5 W), 6.7 kΩ (0.8 W), 13 kΩ (0.4 W)			100 V Line: 670Ω (15W), 1kΩ (10W), 2kΩ (5W), 3.3kΩ (3W); 70V Line: 330Ω (15W), 670Ω (7.5W), 1kΩ (5W), 2kΩ (2.5W), 3.3kΩ (1.5W)
Sensitivity	95 dB (1 W, 1 m) (500 Hz - 5 kHz, pink noise) 93 dB (1 W, 1 m) (100 Hz - 10 kHz, pink noise) 81 dB (1 W, 4 m) (100 Hz - 10 kHz, pink noise)	95 dB (1 W, 1 m) (500 Hz - 5 kHz, pink noise)	94 dB (1 W, 1 m) (500 Hz - 5 kHz, pink noise)	96 dB (1 W, 1 m) (500 Hz - 5 kHz, pink noise)
Maximum Sound Pressure Level	100 dB (6 W, 1 m) (100 Hz - 10 kHz, pink noise) 88 dB (6 W, 4 m) (100 Hz - 10 kHz, pink noise)	-	-	-
Frequency Response	170 Hz - 20 kHz (peak -20 dB)		40 Hz - 20 kHz (peak -20 dB)	45 Hz - 20 kHz (peak -20 dB)
Coverage Angle (-6 dB)	Horizontal and Vertical: 165°(500 Hz), 175°(1 kHz), 165°(2 kHz), 70°(4 kHz) according to EN 54-24		-	-
Environmental type	A (indoor applications)		-	-
Operating Temperature	-10 °C to +50 °C			
Dimensions for Fixing Hole	Mounting hole: ø156 ±3 mm; Ceiling thickness: 5 - 25 mm		Mounting hole: ø250 ±3 mm; Ceiling thickness: 5 - 25 mm	
Speaker Mounting Method	Spring Catch		Spring Clamp	
Applicable Cable	Solid wire: 0.8 - 6 mm ² (AWG 18 - 10)	Solid wire: 0.5 - 3 mm ² (AWG 20 - 12)	600 V vinyl-insulated cable (IV wire or HIV wire) Solid copper wire: ø0.8 - ø0.16 mm (equivalent to AWG 20 - 14) 7-core twisted copper wire: 0.75-1.25mm ² (equivalent to AWG 18 - 16)	
Connection	2-Steatite connector (3 pole)	Push wire connection (Bridging terminal - 2 branch type)	Push-in connector (bridging terminal - 2 branch type)	
Finish	Frame: Steel plate, white (RAL 9016 equivalent), paint; Grille: Steel net, white (RAL 9016 equivalent), paint; Fire dome: Steel plate, black, paint		Baffle: Steel plate, white (RAL 9016 equivalent), paint Grille: Surface-treated steel plate net, white (RAL 9016 equivalent), paint	
Dimensions	ø180 x 5 (exposed section) + 100 (D) mm		ø280 x 92 (D) mm	
Weight	1.1 kg	1 kg	1.4 kg	1.6 kg

Model	BS-633A	BS-633AT	BS-634	BS-634T	BS-1034	BS-1034S
Speaker Component	12 cm (5") cone-type				12 cm (5") cone-type + balanced dome tweeter	
Rated Input	6 W (100 V Line), 3 W (70 V Line)				10 W (100 V, 70 V Line)	
Rated Impedance	100 V line: 1.7 kΩ(6 W), 3.3 kΩ (3 W), 10 kΩ (1 W) 70 V line: 1.7 kΩ(3 W), 3.3 kΩ (1.5 W), 10 kΩ (0.5 W)	100 V line: 1.7 kΩ(6 W), 3.3 kΩ (3 W) 70 V line: 1.7 kΩ(3 W), 3.3 kΩ (1.5 W)		100 V line: 1.7 kΩ (6 W) 70 V line: 1.7 kΩ (3 W)	100 V line: 1 kΩ (10 W), 2 kΩ (5 W), 3.3 kΩ (3 W), 10 kΩ (1 W) 70 V line: 500Ω (10W), 1 kΩ (5 W), 2 kΩ (2.5 W), 3.3 kΩ (1.5 W), 10 kΩ (0.5W)	
Sensitivity (1W, 1M)	91 dB			90 dB		
Frequency Response	120 Hz - 15 kHz		120 Hz - 18 kHz		120 Hz - 20 kHz	
Input Terminal	Push-in terminal			M4 screw terminal		
Attenuation	-	3W: OFF,1(-12dB), 2(-6dB), 3(0dB) 6W: OFF, 1(-13dB), 2(-7dB), 3(0dB)		3W: OFF,1(-12dB), 2(-6dB), 3(0dB)		-
Finish	Case: ABS resin, off-white Rear board: Hard board		Enclosure: HIPS resin, off-white Grille: Surface-treated steel plate net, off-white, paint		Enclosure: HIPS resin, off-white Grille: Steel plate net, off- white, paint	Enclosure: HIPS resin, silver Grille: Steel plate net, silver, paint
Dimensions	173 (W) x 195 (H) x 101 (D) mm			208 (W) x 327 (H) x 79 (D) mm		
Weight	780 g	810 g	1.3 kg		1.4 kg	

Model	BS-678	BS-678T	BS-678B	BS-678BT	BS-680F	BS-680FC
Speaker Component	16 cm (6") double cone-type					
Rated Input	6 W (100 V Line), 3 W (70 V Line)					
Rated Impedance	100 V line: 1.7 kΩ (6 W), 3.3 kΩ (3 W), 6.7 kΩ (1.5 W), 13 kΩ (0.8 W) 70 V line: 1.7 kΩ (3 W), 3.3 kΩ (1.5 W), 6.7 kΩ (0.8 W), 13 kΩ (0.4 W)					
Sensitivity (1W, 1M)	94 dB					
Frequency Response	150 Hz - 20 kHz					
Input Terminal	Push-in terminal					Screw connector (Ceramic Terminal)
Attenuation	-	OFF,1(-12dB), 2(-6dB), 3(0dB)	-	OFF,1(-12dB), 2(-6dB), 3(0dB)	-	
Finish	Baffle: HIPS resin, off-white Cabinet: Particle board with pvc sheet, off-white Grille: Surface-treated steel plate net, off-white		Baffle: HIPS resin, black Cabinet: Particle board with pvc sheet, black Grille: Surface-treated steel plate net, black		Baffle: Steel plate, off-white Cabinet: Steel plate, off-white Grille: Surface-treated steel plate net, off-white, paint	
Dimensions	250 (W) x 190 (H) x 110 (D) mm					310 (W) x 190 (H) x 90 (D) mm
Weight	1.7 kg					2.6 kg

PENDANT / PROJECTION SPEAKERS



**PJ-64
PJ-304**



**PE-64
PE-304**

Features

- Finely designed so that it perfectly harmonizes with architecture and decor
- High sound pressure level up to 30W input ensuring excellent sound reproduction
- Repaintable speakers allowing you to customize the color any you like

Specifications

Model	PE-64	PE-304	PJ-64	PJ-304
Speaker Component	12 cm (5") cone-type	12 cm (5") cone-type + balanced dome tweeter	12 cm (5") cone-type	12 cm (5") cone-type + balanced dome tweeter
Rated Input	6 W (100 V Line), 3 W (70 V Line)	30 W (100 V, 70 V Line); Low Imp: 8Ω	6 W (100 V Line), 3 W (70 V Line)	30 W (100 V, 70 V Line); Low Imp: 8Ω
Rated Impedance	100 V line: 1.7 kΩ (6 W), 3.3 kΩ (3 W), 10 kΩ (1 W) 70 V line: 1.7 kΩ (3 W), 3.3 kΩ (1.5 W), 10 kΩ (0.5 W)	100 V line: 330Ω (30 W), 500Ω (20 W), 670Ω (15 W), 1 kΩ (10 W), 2 kΩ (5 W) 70 V line: 170Ω (30 W), 250Ω (20 W), 330Ω (15 W), 500Ω (10 W), 1 kΩ (5 W) Low Imp: 8Ω (30W)	100 V line: 1.7 kΩ (6 W), 3.3 kΩ (3 W), 10 kΩ (1 W) 70 V line: 1.7 kΩ (3 W), 3.3 kΩ (1.5 W), 10 kΩ (0.5 W)	100 V line: 330Ω (30 W), 500Ω (20 W), 670Ω (15 W), 1 kΩ (10 W), 2 kΩ (5 W) 70 V line: 170Ω (30 W), 250Ω (20 W), 330Ω (15 W), 500Ω (10 W), 1 kΩ (5 W) Low Imp: 8Ω (30W)
Sensitivity (1W, 1M)	90 dB	91 dB	90 dB	91 dB
Frequency Response	100 Hz - 18 kHz	70 Hz - 20 kHz	100 Hz - 18 kHz	70 Hz - 20 kHz
Input Terminal	Push-in terminal		-	
Finish	Enclosure: HIPS resin, off-white Grille: Surface-treated steel plate net, off-white, paint			
Dimensions	ø186 x 251 (H) mm		ø186 x 369 (H) mm	
Weight	1.5 kg	2.1 kg	1.5 kg	2.1 kg