



**CM20DTS / CM30DTD / CM60DTD**  
Instruction manual



## CM20DTS / CM30DTD / CM60DTD manual



CM20DTS



CM30DTD



CM60DTD

## Important safety instructions

Please read carefully before proceeding and keep this manual for future reference. Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, short-circuiting, damages, fire or other hazards. These precautions include, but are not limited to, the following:

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions, particularly those pertaining to rigging, mounting, hanging and electrical connections.
- This professional device needs to be installed by qualified personnel only. As improper installation may cause the unit to fall, resulting in personal injury and/or property damage.
- Take care of the loudspeaker wires; they should be free of damage. Damaged loudspeaker wires may result in poor sound quality, in damaged amplifiers, injury and/or electrical shock.
- No mains power shall be connected to the loudspeaker, doing so will damage the loudspeaker, and increase the risk of fire.
- Respect power rating, to prevent damaged loudspeakers, and risk of fire.
- Do not open the loudspeaker or attempt to disassemble the internal parts or modify them in any way. If the loudspeaker appears to be malfunctioning (no sound or distorted sound), if you detect smoke or a strange smell coming from the unit, discontinue use immediately and have it inspected by qualified

personnel.

- Use cables of the right gauge, especially for long runs or high power systems.
- Use cables with clear colour indication and maintain polarity throughout the whole system.
- Avoid loud feedback from microphones; this can damage your loudspeaker.
- Clean only with dry cloth.
- Avoid touching the unit's sharp metal edge to prevent injury.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Only use attachments/accessories that are specified and approved by the manufacturer.
- Install the loudspeaker in a location that can structurally support the weight of the unit and its mounting hardware.
- Tighten all speaker clamps securely. Doing otherwise may result in the unit falling down and causing personal injury and/or property damage.
- Do not hold the tweeter as a handle to carry the unit; this can damage your loudspeaker.
- Always attach a safety cable to both seismic safety tabs to secure the loudspeaker to the building structure. Please, be guided by applicable building codes here. Otherwise the unit could fall down, resulting in personal injury or even death.
- Use only industry-accepted mounting tools and methods.

- Exposure to loud audio levels over a long time can cause severe hearing loss.
- Do not forget to consult the local law directions regarding producing sound in public places.
- Please check the unit's condition after unpacking. If the outside or the carton box has been damaged, inform your shipper immediately.
- Do not expose the device to water, damp or wet conditions.
- The unit is designed for fixed installations in buildings. It is not fit for use in mobile applications.
- Refer all servicing to qualified personnel.
- Indoor use only.

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The warranty of this product and the applicable terms and conditions are provided by the dealer where you purchased this product.

## Consignes de sécurité importantes

Veillez lire attentivement ce manuel avant de mettre l'appareil en service et conservez-le pour référence ultérieure. Respectez à tout moment les consignes énumérées ci-dessous afin d'éviter de sérieuses lésions ou même le décès suite à un choc électrique, à un court-circuit, à des dégâts, à un incendie ou à d'autres dangers. Ces consignes comprennent, sans y être limitées, les suivantes :

- Lisez les présentes consignes.
- Conservez ces consignes.
- Tenez compte de tous les avertissements.
- Respectez toutes les consignes, en particulier celles qui ont trait au gréement, au montage, à la suspension et aux connexions électriques.
- Ce matériel professionnel doit être installé par du personnel qualifié uniquement, étant donné qu'une installation défectueuse peut résulter dans la chute de l'objet, ce qui peut causer des lésions corporelles et/ou des dégâts matériels.
- Prenez soin des câbles du haut-parleur, ils ne peuvent aucunement être endommagés. Les câbles de haut-parleurs endommagés peuvent donner lieu à une mauvaise qualité sonore, à des dégâts aux amplificateurs, à des lésions et/ou à des chocs électriques.
- Il ne faut pas connecter les haut-parleurs au réseau électrique, cela peut endommager le haut-parleur et augmenter le risque d'incendie.
- Respectez la puissance nominale afin d'éviter les dégâts aux haut-parleurs ainsi que les risques d'incendie.

- N'ouvrez pas le haut-parleur et n'essayez pas de démonter les pièces internes ni de les modifier de quelque façon que ce soit. Au cas où le haut-parleur semble mal fonctionner (aucun son ou son altéré), si vous constatez de la fumée ou une odeur inhabituelle émanant de l'appareil, cessez immédiatement de l'utiliser et faites-le inspecter par du personnel qualifié.
- Utilisez des câbles du calibre adéquat, en particulier pour de longues distances ou pour des systèmes de haute puissance.
- Utilisez des câbles avec une indication de couleur claire et gardez la polarité à travers tout le système.
- Évitez un accrochage acoustique trop fort des microphones, ceci peut endommager votre haut-parleur.
- Nettoyez uniquement au moyen d'un chiffon sec.
- Évitez de toucher le bord tranchant en métal de l'appareil pour éviter les blessures.
- Ne bloquez aucune ouverture d'aération. Installez selon les instructions du fabricant.
- Utilisez uniquement des pièces jointes/des accessoires spécifiés et approuvés par le fabricant.
- Installez le haut-parleur à un endroit qui peut supporter de façon structurelle le poids de l'appareil et de son équipement de montage.
- Serrez fermement toutes les pinces du haut-parleur. Y manquer pourrait mener à la chute de l'appareil et causer ainsi des lésions aux personnes et/ou des dégâts matériels.
- N'utilisez pas le tweeter comme poignée pour transporter l'appareil ; cela peut endommager votre haut-parleur.



- Attachez toujours un câble de sécurité aux deux attaches de sécurité sismiques afin de fixer sûrement le haut-parleur à la structure de construction. Veillez à respecter dans cette optique les codes de construction qui sont d'application. Dans le cas contraire, l'appareil pourrait tomber, ce qui peut causer des lésions aux personnes ou même entraîner la mort.
- Utilisez uniquement des outils et méthodes de montage reconnus dans le secteur.
- L'exposition à de hauts niveaux sonores pendant une longue période peut causer de sérieuses pertes auditives.
- N'oubliez pas de consulter les directives légales locales en matière de production de son dans des lieux publics.
- Veuillez vérifier l'état de l'appareil après l'avoir déballé. Si l'extérieur ou la boîte en carton a été endommagé, avertissez-en immédiatement le transporteur.
- N'exposez l'appareil ni à l'eau, ni à l'humidité, ni à des conditions humides.
- L'appareil est destiné à des installations fixes dans les bâtiments. Il ne convient pas à l'usage mobile.
- Confiez tout l'entretien et toutes les réparations à du personnel qualifié.
- Utilisation à l'intérieur uniquement.

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La garantie de ce produit et les conditions applicables sont fournies par le partenaire chez qui vous avez acheté ce produit.

## Introduction

The CM Design Back Can Series loudspeakers have a sealed back can and bass reflex port which gives a controlled sound performance in any kind of ceiling structure. The ultra-slim housing with minimal built-in depth has been tuned to optimise bass and midrange performance while maintaining sonic consistency. The matching Apart sound image allows you to combine various models in the same room or area. All models have a tool-free rotatable 16 ohm and 70/100 volt power selector on the front. The thin-edge grille and integrated neodymium grille fixing magnets guarantee easy, smooth and elegant integration in any kind of environment. With ease of installation, dynamic sound, pristine clarity and attractive aesthetics, the CM Design Back Can Series range is the clear choice for installers seeking a reliable loudspeaker with high build quality at affordable prices.

## Features

- Design ceiling loudspeaker with back can for controlled sound performance in any kind of ceiling structure
- Matching Apart sound image allows you to combine various models in the same room or area
- Tuned bass reflex port for optimised low frequency performance
- High intelligibility while remaining perfect music reproduction quality
- 4.25" LF driver for CM20DTS and CM30DTD, both with 1" tweeter
- 6.5" LF driver for CM60DTD, with 1" tweeter
- 60 W dynamic power handling for CM20DTS, 80 W for CM30DTD and 120 W for CM60DTD

- Thin-edge loudspeaker grille for elegant integration
- User-friendly grille mounting due to integrated strong neodymium magnets
- Easily paintable in any RAL colour
- Installer-friendly grille safety wire speeds up installation and avoids the grille from falling down during and after installation
- Included tile bridge support rails prevent ceiling tile sagging
- Quick installation with two fast screwing loudspeaker clamps
- Minimal built-in depth with uncompromised acoustical performance
- Loudspeaker overload protection for a 24/7 failsafe operation
- Front panel selection of 16 ohm or 100V/70V operation, this allows easy and fast adjustment of the loudspeaker power without the need to remove it from the ceiling or move connection wires
- Enhanced cable management with incorporated strain relief and cable guidance along with provision for a cable gland
- In & Link connection with permanent pass through on the euroblock connector allows easy daisy chaining of multiple loudspeakers
- Two integrated seismic safety tabs allowing for connection of safety cables

## Supplied items

Unpack the contents and confirm following items are included.

- Loudspeaker x 2
- Thin-edge grille x 2
- Tile rail x 4
- Tile rail spacer x 4
- Cutout template x 2
- Important safety instructions x 1

Loudspeaker wires and safety cables are not included.

## Installation instructions

### **ATTENTION**

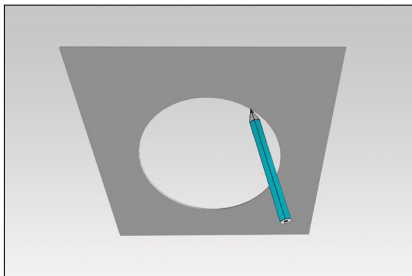
Apart Audio nv is not responsible for damages resulting from the negligent installation of any loudspeaker.

### **WARNING**

Please make sure that the mounting structure is capable of safely supporting the loudspeaker's weight.

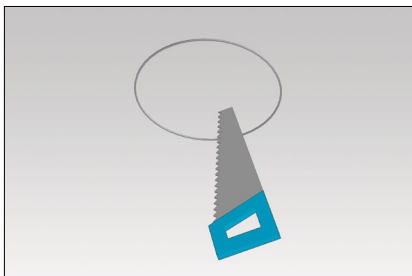
1

Use the cutout template to mark the mounting hole.



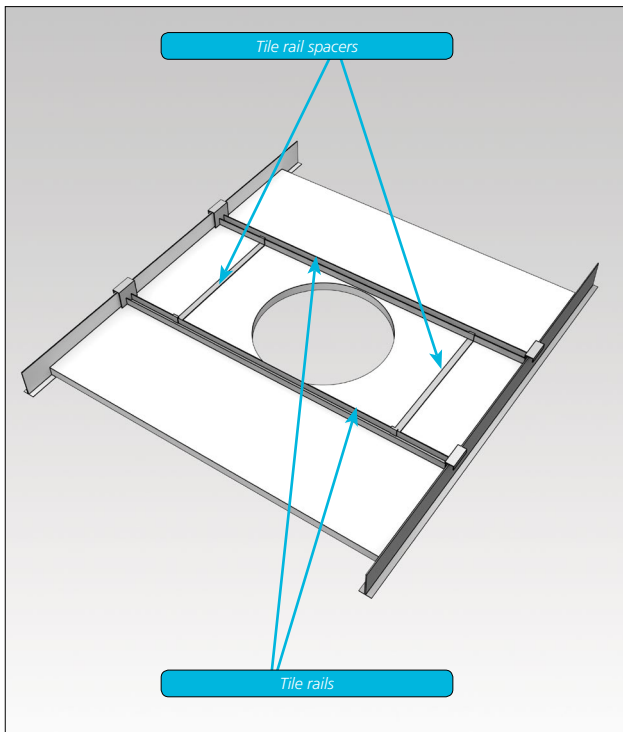
2

When making the hole in your mounting panel, double check that there are no cables or any other obstructions behind the mounting panel. Cutting the mounting panel without this check might result in damaged infrastructure or power lines.



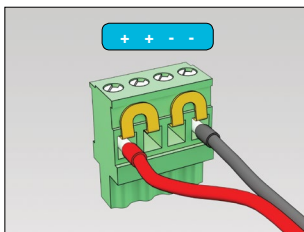
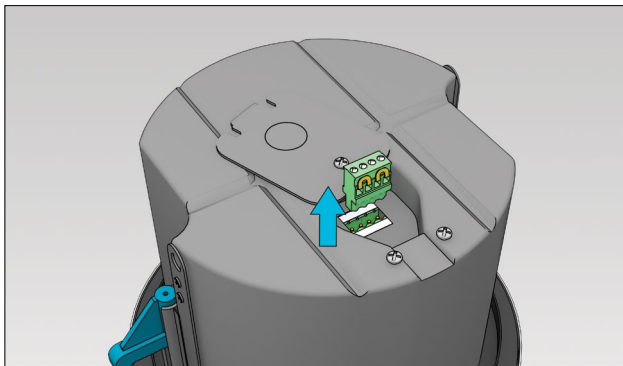
3

Insert the two tile rails through the cut hole and place them on the ceiling surface right next to the opening. Insert the tile rail spacers in the hole and clip them on the tile rails.

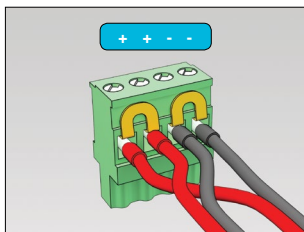


4

Open the connection box on the back of the loudspeaker and take out the euroblock connector. Pull the loudspeaker wires through the mounting hole and connect them to the euroblock terminal.



wiring: single cable

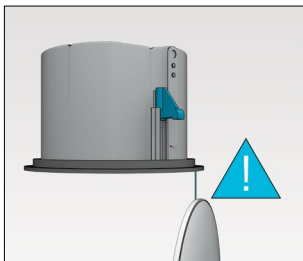
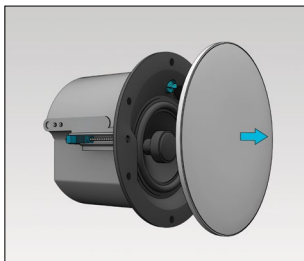


wiring: daisy-chained to next unit

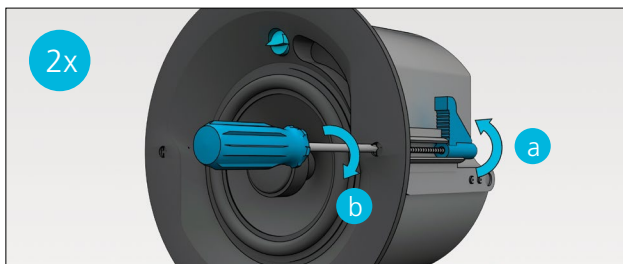


The use of wire ferrules is strongly recommended when stranded wire is used.

- 5 Remove the grille from the loudspeaker. The grille is connected to the loudspeaker frame with a detachable wire. This enables the installer to install the loudspeaker more easily without walking up and down the stairs multiple times. It also serves as a grille safety restraint.



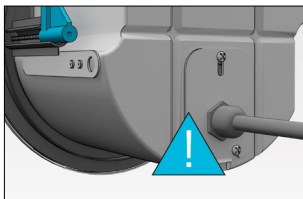
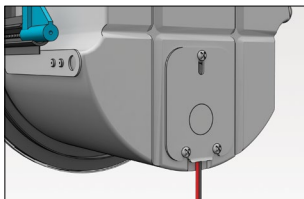
- 6 Turn the mounting clamps inwards (a) and tighten the screws slightly to make them stay in the inward position (b).





7

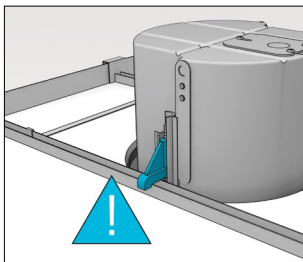
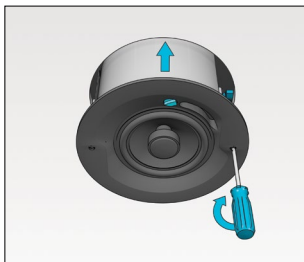
Insert the euroblock connector in the connection box on the back of the loudspeaker and close the cover. This cover acts as a strain relief plate for the cable and retainer for the euroblock connector. If the installation requires the use of a cable gland, use the knockout of 22mm (0.87 inch) present on the cover.



**WARNING** Only use a non-conductive cable gland

8

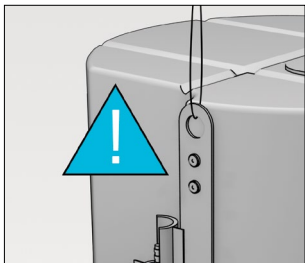
Insert the loudspeaker into the pre-cut hole and fasten the mounting clamp screws carefully until the loudspeaker sits safely in place. Do not overtighten the mounting clamp screws and make sure the clamps are aligned with the tile rails.



9

Always attach a safety cable to one or both provided seismic safety tabs to secure the back can to the building structure.

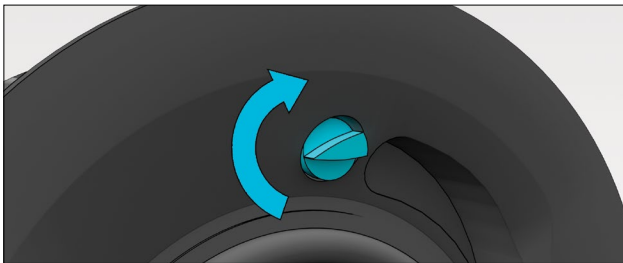
Please be guided by applicable building regulations in this matter otherwise the unit could fall, resulting in personal injury or even death.



If the safety cable is too long and the loudspeaker should fall the safety cable may snap as result of too much strain. We therefore recommend installing the safety cable with as little slack as possible.

10

Set the power selector on the front of the loudspeaker in the required position. This power selector switch makes it very easy and fast to balance an installation since there is no need to remove the loudspeakers from their support panel and move wires to different terminals.



**WARNING**

Set the power tapping prior to applying audio and only change the setting while the audio amplifier is shut off.

**WARNING**

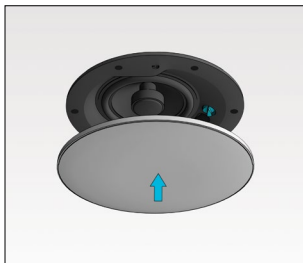
The 16 ohm setting is not compatible with 70 volt or 100 volt line amplifiers!

**WARNING**

The highest 70 volt power setting is not compatible with 100 volt line amplifiers, only with 70 volt line amplifiers.

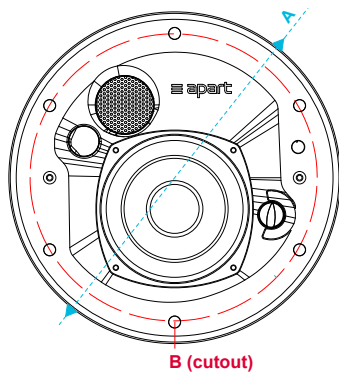
11

Install the thin-edge grille on the loudspeaker. The grille is held in place by powerful magnets. Out of the box, the loudspeaker's colour is pure white (RAL9010). This white finish complements most decors and does not require further painting.

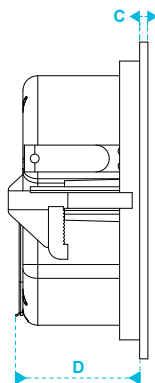


However, if the interior design requires a custom loudspeaker finish, these loudspeakers are very easy to paint. Only the speaker grille and trim ring have to be painted. For more information we refer you to the dealer where you purchased this product.

## Dimensions - CM20DTS

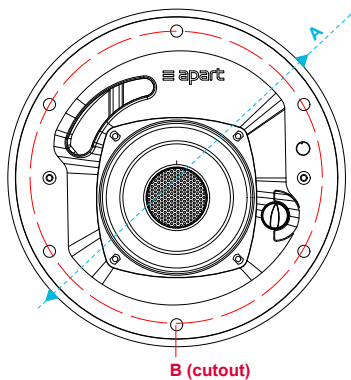


|   | mm  | inch  |
|---|-----|-------|
| A | 223 | 8.780 |
| B | 193 | 7.598 |

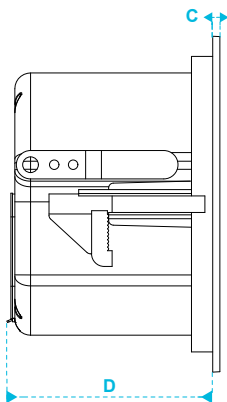


|   | mm | inch  |
|---|----|-------|
| C | 5  | 0.197 |
| D | 84 | 3.307 |

## Dimensions - CM30DTD

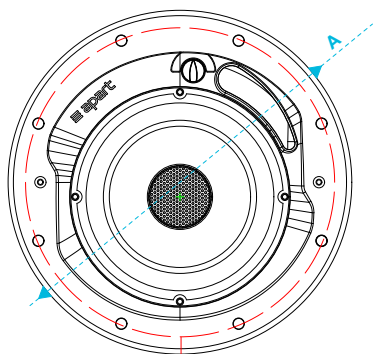


|   | mm  | inch  |
|---|-----|-------|
| A | 223 | 8.780 |
| B | 193 | 7.598 |

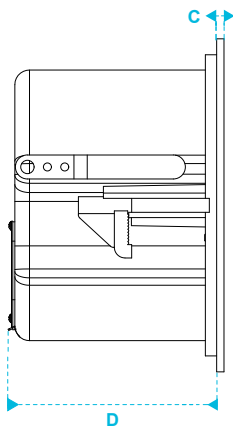


|   | mm  | inch  |
|---|-----|-------|
| C | 5   | 0.197 |
| D | 131 | 5.157 |

## Dimensions - CM60DTD

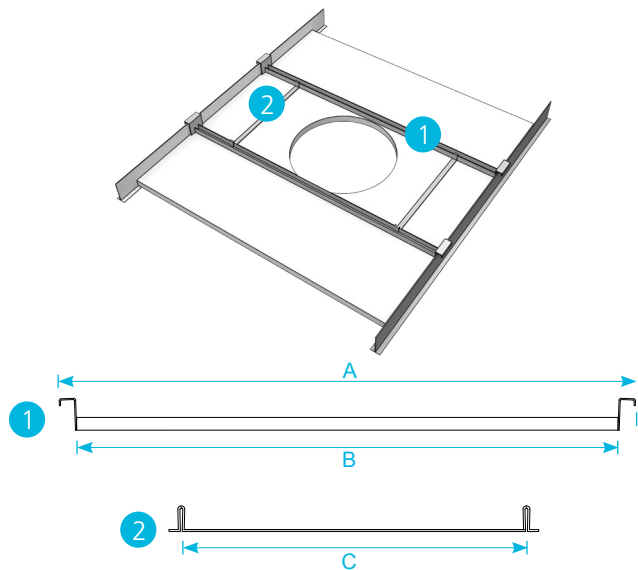
**B (cutout)**

|   | mm  | inch   |
|---|-----|--------|
| A | 258 | 10.157 |
| B | 232 | 9.134  |



|   | mm  | inch  |
|---|-----|-------|
| C | 5   | 0.197 |
| D | 157 | 6.181 |

## Dimensions - tile rail and tile rail spacer



|                          | mm  | inch   |
|--------------------------|-----|--------|
| A                        | 631 | 24.843 |
| B                        | 594 | 23.385 |
| C<br>(CM20DTS / CM30DTD) | 190 | 7.480  |
| C<br>(CM60DTD)           | 228 | 8.976  |

## Specifications

| model name  | CM20DTS                                      | CM30DTD                           | CM60DTD                         |
|---|--|-----------------------------------|---------------------------------|
| loudspeaker system                                    | 2-way with bass reflex                       |                                   |                                 |
| woofer size   | 4.25 inch                                    |                                   | 6.5 inch                        |
| woofer cone material                                  | coated paper                                 | polypropylene                     | coated paper                    |
| tweeter size  | 1 inch                                       |                                   |                                 |
| nominal impedance                                     | 16 ohms                                      |                                   |                                 |
| 100V transfo power taps                               | 20 - 10 - 5 - 2.5 watts                      | 30 - 15 - 7.5 - 3.75 watts        | 60 - 30 - 15 - 7.5 watts        |
| 70V transfo power taps                                | 20 - 10 - 5 - 2.5 - 1.25 watts               | 30 - 15 - 7.5 - 3.75 - 1.75 watts | 60 - 30 - 15 - 7.5 - 3.75 watts |
| connector wire capacity (connection and pass-through) | max. wire size: 2.5 mm <sup>2</sup> (12 AWG) |                                   |                                 |
| frequency range                                       | 80 - 20,000 Hz                               | 75 - 20,000 Hz                    | 65 - 20,000 Hz                  |
| low impedance dynamic power                           | 60 watts                                     | 80 watts                          | 120 watts                       |
| RMS power   | 40 watts                                     | 50 watts                          | 60 watts                        |
| SPL at 1 W / 1 m                                      | 88   | 88                                | 91                              |
| max SPL at 1m   | 104  | 108                               | 110                             |
| dispersion angle (1000 Hz)                            | 180°   |                                   |                                 |



|  |  |                                 |                                 |
|--|--|---------------------------------|---------------------------------|
| protection system                                  | self-resetting loudspeaker protection system |                                 |                                 |
| IP rating  | indoor use only                              |                                 |                                 |
| mounting system                                    | 2 screws                                     |                                 |                                 |
| baffle material                                    | ABS plastic                                  |                                 |                                 |
| enclosure material                                 | steel  |                                 |                                 |
| grille material                                    | steel  |                                 |                                 |
| nearest RAL color code, colour deviation can occur | RAL9010 (white)                              |                                 |                                 |
| net weight   | 2.05 kg<br>4.52 lbs                          | 2.5 kg<br>5.51 lbs              | 4.01 kg<br>8.84 lbs             |
| outside diameter                                   | 223 mm<br>8.780 inch                         | 223 mm<br>8.780 inch            | 258 mm<br>10.157 inch           |
| depth  | 84 mm<br>3.307 inch                          | 131 mm<br>5.157 inch            | 157 mm<br>6.181 inch            |
| cutout diameter                                    | 193 mm<br>7.598 inch                         | 193 mm<br>7.598 inch            | 232 mm<br>9.134 inch            |
| installation grip range                            | 3 – 41 mm<br>0.118 – 1.614 inch              | 3 – 65 mm<br>0.118 – 2.559 inch | 3 – 65 mm<br>0.118 – 2.559 inch |





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