

3M™ PELTOR™ X Series Earmuffs

Technical datasheet



Product description

The 3M™ PELTOR™ X Series Earmuffs are available in multiple design styles, including headband and neckband. When correctly selected and worn these products can help to reduce exposure to hazardous levels of noise.

Offering a colour coding system to quickly and simply visually identify the level of protection being worn. The attenuation values in the headband and neckband models ranges from SNR 27 dB to SNR 37 dB, to meet the needs of a wide range of environments and applications.

Electrically insulated (dielectric) properties:

- ▶ The metal wire of the headband version is covered in a non conductive material
- ▶ The headband versions were found to be electrically insulated, withstanding a voltage up to 1.2 kV, at an external laboratory against a modified test method based on EN 397:2012 under dry conditions
- ▶ The user must determine the overall suitability of this product for the intended application taking into account any hazards other than noise for which this product is tested and approved

NOTE: The neckband versions of the X Series are not electrically insulated and replicate the well known 3M™ PELTOR™ Optime™ steel design.

Key features

- ▶ Lightweight design (lightest version 149g)
- ▶ Twin headband designed to optimise weight distribution and comfort with reduced heat build up
- ▶ Protected wire headband for constant headband force during extended use providing reliable protection
- ▶ Electrically insulated headband with no exposed wires helps protect against electrical voltage hazards
- ▶ Neckband version available in all five base models
- ▶ Soft wide foam cushions helps reduce pressure around the ears and improves comfort and wearability
- ▶ Innovative damping pads and spacer that helps improve attenuation (X3, X4, X5)
- ▶ 3M designed cushion foam technology helps provide an effective acoustic seal and reliable protection
- ▶ Replaceable cushions and inserts are available separately to extend the life of your earmuffs
- ▶ Easy to understand different colour coding for attenuation values to help select appropriate product for specific application
- ▶ Modern sleek design to help encourage wear whilst ABS plastic cups provide rigid strength and high impact resistance



Colour code and attenuation values

Model	Cup colour band	SNR (dB)	
		Headband version	Neckband version
3M™ PELTOR™ Earmuff X1 (X1A, X1B)	Green	27	26
3M™ PELTOR™ Earmuff X2 (X2A, X2B)	Yellow	31	30
3M™ PELTOR™ Earmuff X3 (X3A, X3B)	Red	33	32
3M™ PELTOR™ Earmuff X4 (X4A, X4B)	Bright Green	32	33
3M™ PELTOR™ Earmuff X4 (X4A-OR)	Orange	32	N/A
3M™ PELTOR™ Earmuff X5 (X5A, X5B)	Black	37	37

Material listing

Component	Headband version	Neckband version
Headband	TPE (Thermoplastic Elastomer), PP, POM (Polyoxymethylene), Stainless steel	N/A
Neckband	N/A	Stainless steel, PO
Headstrap	N/A	Polyester, PP (Polypropylene), PA (Polyamide)
Cups	ABS, TPU (Thermoplastic Polyurethane)	ABS, TPU
Insert (liner)	PU (Polyurethane) foam	PU foam
Cushions and cushion covers	PVC (Polyvinyl chloride), PU foam	PVC, PU foam
X3, X4, X5 Spacer	ABS (Acrylonitrile butadiene styrene)	ABS

Standards and approvals

Hereby, 3M Svenska AB declares that the product is in compliance with appropriate Directives or Regulations to fulfill the requirements for the CE and/or UKCA marking.

The full text of the Declaration of Conformity is available at the following internet address: www.3M.com/PELTOR/DOC.

A copy of the Declaration of Conformity and additional information required in the Directives or Regulations can also be obtained by contacting 3M in the country of purchase.

3M strongly recommends personal fit testing of hearing protectors. Research suggests that users may receive less noise reduction than indicated by the attenuation label value(s) on the packaging due to variation in fit, fitting skill, and motivation of the user. Refer to applicable regulations and guidance on how to adjust attenuation label value(s). In the absence of applicable regulations, it is recommended that the attenuation label value(s) be reduced to better estimate typical protection.

Accessories/replacement

The cushions and inserts on the 3M™ PELTOR™ X Series earmuffs can be replaced with the hygiene kits listed below to maintain consistent protection, hygiene, and comfort.

Hygiene kits:


Earmuff model	Hygiene kit
3M™ PELTOR™ Earmuff X1	HYX1
3M™ PELTOR™ Earmuff X2	HYX2
3M™ PELTOR™ Earmuff X3	HYX3
3M™ PELTOR™ Earmuff X4	HYX4
3M™ PELTOR™ Earmuff X5	HYX5

In addition, HY100 sweat pads are also available that can be placed on the cushions to help absorb moisture and sweat.

Attenuation values and weights - Headband versions


3M™ PELTOR™ X1A Earmuff

EN 352-1:2020

	Frequency (Hz) <i>f</i>							H	M	L	SNR	
	125	250	500	1000	2000	4000	8000					
Mf (dB)	11.9	15.4	24.5	34.3	32.8	37.4	37.4	34.3	25.8	17.8	28.2	184 g
SD (dB)	2.0	2.6	2.6	2.3	3.3	2.5	3.8	2.1	1.8	1.9	1.7	
APVf (dB)	9.9	12.8	22.0	31.9	29.5	34.9	33.5	32	24	16	27	


3M™ PELTOR™ X2A Earmuff

EN 352-1:2020

	Frequency (Hz) <i>f</i>							H	M	L	SNR	
	125	250	500	1000	2000	4000	8000					
Mf (dB)	14.1	22.2	31.1	39.7	36.6	37.0	37.9	37.4	31.3	22.2	33.0	220 g
SD (dB)	2.2	2.1	2.7	3.2	3.2	3.7	3.4	2.6	1.8	1.9	1.8	
APVf (dB)	11.9	20.1	28.4	36.6	33.5	33.3	34.5	35	30	20	31	


3M™ PELTOR™ X3A Earmuff

EN 352-1:2020

	Frequency (Hz) <i>f</i>							H	M	L	SNR	
	125	250	500	1000	2000	4000	8000					
Mf (dB)	22.8	25.1	27.0	40.0	35.8	38.5	38.9	37.0	31.9	27.0	34.2	245 g
SD (dB)	2.1	3.1	1.7	2.8	2.2	2.7	2.9	1.8	1.6	1.9	1.5	
APVf (dB)	20.7	22.0	25.4	37.2	33.6	35.8	35.9	35	30	25	33	


3M™ PELTOR™ X4A Earmuffs

EN 352-1:2020

	Frequency (Hz) <i>f</i>							H	M	L	SNR	
	125	250	500	1000	2000	4000	8000					
Mf (dB)	17.8	22.1	30.6	39.5	37.3	43.8	42.1	39.3	32.1	24.2	34.3	234 g
SD (dB)	2.3	2.5	1.8	2.9	4.1	2.8	4.0	2.9	1.9	2.2	1.9	
APVf (dB)	15.5	19.6	28.8	36.6	33.2	41.1	38.2	36	30	22	32	

3M™ PELTOR™ X5A Earmuff

EN 352-1:2020

	Frequency (Hz) <i>f</i>							H	M	L	SNR	
	125	250	500	1000	2000	4000	8000					
Mf (dB)	22.3	28.8	39.7	44.2	39.8	43.0	40.2	40.8	37.8	29.9	39.0	351 g
SD (dB)	2.4	2.4	2.7	3.4	4.6	2.8	2.9	3.2	1.7	2.1	1.9	
APVf (dB)	19.9	26.4	37.0	40.9	35.2	40.2	37.3	38	36	28	37	

Attenuation table key:

f = Test frequency

Mf = Mean attenuation value

SD = Standard deviation

APVf (Mf - SD) = Assumed Protection Value

H = High-frequency attenuation value (predicted noise level reduction for noise with LC - LA = -2dB)

M = Medium-frequency attenuation value (predicted noise level reduction for noise with LC - LA = +2dB)


L = Low-frequency attenuation value (predicted noise level reduction for noise with LC - LA = +10dB)

SNR = Single Number Rating (the value that is subtracted from the measured C-weighted sound pressure level, LC in order to estimate the effective A-weighted sound pressure level inside the ear).

Attenuation values and weights - Neckband versions


3M™ PELTOR™ X1B Earmuff

EN 352-1:2020

	Frequency (Hz) <i>f</i>								H	M	L	SNR	
	125	250	500	1000	2000	4000	8000						
Mf (dB)	12.4	15.3	25.3	31.4	34.1	38.2	33.9	33.8	25.6	17.8	28.0	149 g	
SD (dB)	4.7	2.2	2.2	3.2	4.4	3.4	5.4	2.9	1.8	2.7	2.0		
APVf (dB)	7.7	13.1	23.1	28.2	29.7	34.8	28.5	31	24	15	26		


3M™ PELTOR™ X2B Earmuff

EN 352-1:2020

	Frequency (Hz) <i>f</i>								H	M	L	SNR	
	125	250	500	1000	2000	4000	8000						
Mf (dB)	13.6	19.7	32.5	39.5	35.8	35.2	35.7	36.2	30.0	20.8	31.7	186 g	
SD (dB)	3.5	2.3	2.3	3.3	2.2	1.9	2.7	1.4	1.7	2.7	1.6		
APVf (dB)	10.1	17.4	30.2	36.2	33.6	33.3	33.0	35	28	18	30		


3M™ PELTOR™ X3B Earmuff

EN 352-1:2020

	Frequency (Hz) <i>f</i>								H	M	L	SNR	
	125	250	500	1000	2000	4000	8000						
Mf (dB)	19.5	24.5	29.7	40.0	37.6	38.3	36.7	37.4	32.6	25.8	34.4	223 g	
SD (dB)	5.0	3.7	2.6	3.2	3.5	2.3	4.3	2.1	2.9	4.1	2.9		
APVf (dB)	14.5	20.8	27.1	36.8	34.1	36.0	32.4	35	30	22	32		


3M™ PELTOR™ X4B Earmuff

EN 352-1:2020

	Frequency (Hz) <i>f</i>								H	M	L	SNR	
	125	250	500	1000	2000	4000	8000						
Mf (dB)	18.0	20.7	32.9	40.8	38.5	45.9	40.4	40.1	32.0	23.6	34.2	202 g	
SD (dB)	3.2	1.6	3.1	2.7	3.1	2.2	3.8	2.1	1.7	2.1	1.7		
APVf (dB)	14.8	19.1	29.8	38.1	35.4	43.7	36.6	38	30	22	33		

3M™ PELTOR™ X5B Earmuff

EN 352-1:2020

	Frequency (Hz) <i>f</i>								H	M	L	SNR	
	125	250	500	1000	2000	4000	8000						
Mf (dB)	21.5	29.0	42.4	44.6	40.3	40.9	38.1	40.0	37.8	29.4	38.5	319 g	
SD (dB)	3.3	1.9	3.7	3.5	2.7	2.5	3.9	1.8	1.5	2.4	1.5		
APVf (dB)	18.2	27.1	38.7	41.1	37.6	38.4	34.2	38	36	27	37		

Important notice

Product Selection and Use: Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application.

As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable national and/or European regulations and standards. Failure to properly evaluate, select, and use a 3M product in accordance with all applicable instructions and with appropriate safety equipment, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

Warranty, Limited Remedy, and Disclaimer: A limitation of liability applies to the 3M product(s). For warranty statement and limitation of liability, refer to your supply agreement or the 3M terms & conditions of sale.

3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use.