## **3**M Science. Applied to Life.™

# **3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup>** Earmuffs

**Technical datasheet** 

## **Product description**

The 3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> Earmuffs are available in headband, neckband, foldable or helmet mounted version. These products are designed to provide moderate to very high levels of attenuation that meets the needs of an extensive range of industrial applications.

Providing attenuation value ranging from SNR 26dB to SNR 35dB they can meet the needs of a wide range of noisy environments.

The helmet mounted version is designed to fit a wide range of industrial safety helmets (see below for further details).

#### **Key features**

- Low profile light-weight design (lightest version 165g)
- Sealing rings are available as combination fluid and foam in most models or soft foam cushion only – see model type for more information
- Stainless steel headband design helps maintain constant pressure during wear time
- Large space inside cup helps reduce moisture and heat build-up
- Soft wide cushions help reduce pressure around the ears and improves comfort and wearability
- Replaceable cushions and inserts are available separately to extend the life of your earmuffs
- Helmet mounted version fits directly to many industrial safety helmets without the need of any adapter
- > 3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> Earmuffs feature a double cup design that helps improve attenuation at lower frequencies
- Some models are available in a high visibility colour for enhanced visibility in at risk environments





3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> I Earmuffs (Headband)



3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> II Earmuffs (Helmet Mounted)



3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> III Earmuffs (Neckband)

## Helmet mounted version approved combination:

BMAirstream HT-70, HT-705, HT-705AEMLMLLBMAirstream HT-70, HT-707, HT-705AEMLMLLSMSinteram HT-707AFMLMLMLBMG500 HeadgearESMLSMLSMLBMVerasifo M-006 and M-107AFMLMLMLBMVerasifo M-306 and M-307AFMLMLMLSMSpeedgias" Weiding Heimet 9100 MPAFMLSMLSMLSMG2200KSMLSMLSMLSMLBMG2200ESMLSMLSMLSMLBMG2200ESMLSMLSMLSMLBMG2200ESMLSMLSMLSMLAuboukixBernusFSMLSMLSMLAuboukixFondelecFSMLSMLSMLAuboukixIrisEMLMLMLAuboukixIrisESMLSMLSMLCenturion100/ARCO Type 2HSMLSMLSMLCenturion100/ARCO Type 2ASMLSMLSMLCenturion100/ARCO Type 2HSMLSMLSMLCenturion100/ARCO Type 2ASMLSMLSMLCenturion100/ARCO Type 2ASMLSMLSMLCenturion100/ARCO Type 2ESMLSMLSMLCenturionConceptESML<	Helmet brand	Model number	P3 Adapter	3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> I Earmuffs	3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> II Earmuffs	3M <sup>™</sup> PELTOR Optime <sup>™</sup> III Earmuffs
BMAirstream HT-701, HT-702, HT-705AEMLMLLMMAirstream HT-707AEMLMLMLKMLBMGS00 HeadgaarESMLSMLSMLSMLBMVersaflo M-106 and M-107AFMLMLMLMLBMVersaflo M-306 and M-307AFMLMLMLMLBMSpeedjare's Welding Homet 9100 MPAFMLMLSMLSMLBMG2000KSMLSMLSMLSMLSMLBMG2000ESMLSMLSMLSMLBMG2000ESMLSMLSMLSMLBMG2000ESMLSMLSMLSMLBMG3001ESMLSMLSMLSMLBMG3001ESMLSMLSMLSMLAlubouik:BrenusFSMLSMLSMLAlubouik:Iris 2EMLMLMLAlubouik:Iris 2HSMLSMLSMLCenturion100/ARCO Type 2HSMLSMLSMLCenturion102/ARCO PlusHSMLSMLSMLCenturion102/ARCO PlusESMLSMLSMLCenturionConceptESMLSMLSMLGrollsBalance ADMSMLSMLSMLSMSuper V-Sardi IIESMLSMLSMLGrolls <td>3M</td> <td>Airstream AH1, AH4</td> <td>AE</td> <td>ML</td> <td>ML</td> <td>L</td>	3M	Airstream AH1, AH4	AE	ML	ML	L
BMAirstream HT-707AEMLMLLSMGSO HeadgaarESMLSMLSMLBMVarrafio M-306 and M-307AFMLMLMLSMSpeedglas" Welding Helmet DIO DPAFMLMLMLSMG200KSMLSMLSMLSMLBMG200ESMLSMLSMLSMLSMG22 (Basic Combination)ESMLSMLSMLSMG3501ESMLSMLSMLSMLAuboukFSMLSMLSMLSMLAuboukFondelecFSMLSMLSMLAuboukFondelecFSMLSMLSMLAuboukFondelecFSMLSMLSMLCenturion100/ARCO Type 2HSMLSMLSMLCenturion154/ARCO PlusHSMLSMLSMLCenturion154/ARCO PlusAMLMLMLCenturion154/ARCO PlusESMLSMLSMLGrolisBalance ACEMLMLSMLSpilMK8EMLSMLSMLSpilSobustESMLSMLSMLSpilSobustESMLSMLSMLCenturionTop CapESMLSMLSMLSpilSobustESMLSMLSMLSpilSobustESMLSML </td <td>3M</td> <td>Airstream AH7</td> <td>AE</td> <td>ML</td> <td>ML</td> <td>L</td>	3M	Airstream AH7	AE	ML	ML	L
BMG500 HeadgearESMLSMLSMLSMLBMVersafto M-105 and M-107AFMLMLMLBMSpeedglas" Welding Heimet 9100 MPAFMLMLSMLSMSpeedglas" Welding Heimet 9100 MPAFMLSMLSMLSMG200KSMLSMLSMLSMLSMG22 (Baic Combination)ESMLSMLSMLSMG300ESMLSMLSMLSMLSMG3001ESMLSMLSMLSMLSMG3001ESMLSMLSMLSMLAboueixBrenusFSMLSMLSMLSMLAboueixIrisEMLMLMLMLAboueixIrisESMLSMLSMLSMLCanturion100/ARCO Type 2HSMLSMLSMLCanturion115/ARCO PlusAMLMLMLCanturion116/ARCO PlusAMLMLSMLGrollsBalance HDMSMLSMLSMLGrollsBalance HDMSMLSMLSMLJSPKKGN/KTRESMLSMLSMLJSPKKGM/KTRESMLSMLSMLJSPKKGM/KTRESMLSMLSMLSAL2002ESMLSMLSMLSAL2002ESMLSMLSML<	ЗМ	Airstream HT-701, HT-702, HT-705	AE	ML	ML	L
BMVersefic M-106 and M-307AFMLMLMLBMSpeedjang' Walding Helmet 9100 MPAFMLMLMLBMG2000KSMLSMLSMLSMLBMG22 (tasic Combination)ESMLSMLSMLSMLBMG3501ESMLSMLSMLSMLBMG3501ESMLSMLSMLSMLAbboueixBrenousFSMLSMLSMLSMLAuboueixIrisEMLMLMLAuboueixIrisESMLSMLSMLAuboueixIrisESMLSMLSMLCenturion100/ARCO Type 2HSMLSMLSMLCenturion100/ARCO FlusFSMLSMLSMLCenturion100/ARCO FlusHSMLSMLSMLGrollsBalance ACEMLMLMLGrollsBalance ACEMLMLSMLJSPKKR/MK/RESMLSMLSMLJSPKKR/MK/RESMLSMLSMLJSPKKR/MK/RESMLSMLSMLMGAH2002ESMLSMLSMLGrollsBalance ACESMLSMLSMLSMLSMLSMLSMLSMLSMLSMSSMLSMLSMLSMLSMLSMSSMLSMLSML<	3M	Airstream HT-707	AE	ML	ML	L
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SMG200KSMLSMLSML3MG22 (Basic Combination)ESMLSMLSML3MG3000ESMLSMLSML3MG3001ESMLSMLSML3MG3001ESMLSMLSML3MG301EMLSMLLAubouixBrennusFSMLSMLSMLAuboueixFondelecFSMLSMLSMLAuboueixIrisEMLMLMLAuboueixIrisEMLSMLSMLCenturion100/ARCO Type 2HSMLSMLSMLCenturion156/ARCOHSMLSMLSMLCenturion156/ARCOHSMLSMLSMLCenturion156/ARCOESMLSMLSMLGrollsBalance ACEMLMLMLGrollsBalance HDMSMLSMLSMLJSPVARF/MK7RESMLSMLSMLJSPMK8/MK7RESMLSMLSMLLASLP2002ESMLSMLSMLLASLP2002ESMLSMLSMLMSASuper V-Gard IIESMLSMLSMLMSASuper V-Gard IIESMLSMLSMLProtector/ScottStyle 300"ESMLSMLSMLRomerProfistonnazB <td>3M</td> <td>Versaflo M-306 and M-307</td> <td>AF</td> <td>ML</td> <td>ML</td> <td>ML</td>	3M	Versaflo M-306 and M-307	AF	ML	ML	ML
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BMG3501ESMLSMLSMLLAuboueixH=700EMLSMLSMLSMLAuboueixFronusFSMLSMLSMLAuboueixIrisEMLMLMLAuboueixIris 2EMLMLMLAuboueix (Seybol)KARAESMLSMLSMLCenturion100/ARCO Type 2HSMLSMLSMLCenturion1540/ARCO PlusHSMLSMLSMLCenturionConceptEMLMLMLCenturionConceptEMLMLMLGrollsBalance ACEMLMLSMLGrollsBalance HDMSMLSMLSMLSMLJSPKKR/MK7RESMLSMLSMLSMLJSPMK8/MK7RESMLSMLSMLSMLLASLP2002ESMLSMLSMLSMLLASLP2006ESMLSMLSMLSMLMSASuper-V-Gard IIE,GSMLSMLSMLProtector/ScottStyle 300*ESMLSMLSMLRomerMarcu Top 2 Alas NomazBSMLSMLSMLRomerMarcu Top 2 Alas NomazBSMLSMLSMLRomerMarcu Top 2 Alas NomazBSMLSMLSMLRomerProf Expo AlasBSMLSMLS	3M	G22 (Basic Combination)	E	SML	SML	SML
BMH-700EMLSMLLAuboueixBrennusFSMLSMLSMLAuboueixFondelecFSMLMLMLAuboueixIrisEMLMLMLAuboueixIris 2EMLMLMLCenturion100/ARCO Type 2HSMLSMLSMLCenturion1152/ARCO PlusHSMLSMLSMLCenturion1540/ARCOAMLMLMLCenturionConceptESMLSMLSMLGrollsBalance ACEMLMLMLGrollsBalance HDMSMLSMLSMLGrollsBalance HDMSMLSMLSMLJSPKKR/MK/RESMLSMLSMLJSPMK8/MK/R/RESMLSMLSMLLASL/2006ESMLSMLSMLASASuper V-Gard IIESMLSMLSMLProtector/ScottStyle 600ESMLSMLSMLProtector/ScottStyle 600ESMLSMLSMLRomerParao 2 NomazBSMLSMLSMLRomerProf ExpoESMLSMLSMLRomerProf Expo Atlas NomazBSMLSMLSMLRomerProf Expo Atlas NomazBSMLSMLSMLSchuberthBERS/VPCB0ESMLSML <td>3M</td> <td>G3000</td> <td>E</td> <td>SML</td> <td>SML</td> <td>SML</td>	3M	G3000	E	SML	SML	SML
AuboueixFennusFSMLSMLSMLAuboueixFondelecFSMLSMLSMLAuboueixIrisEMLMLMLAuboueixIris 2ESMLSMLSMLAuboueix /SeybolKARAESMLSMLMLCenturion1100/ARCO Type 2HSMLSMLSMLCenturion1125/ARCO PlusHSMLSMLSMLCenturion1126/ARCO PlusESMLSMLSMLCenturion1126/ARCO PlusESMLSMLSMLCenturionConceptESMLMLMLCenturionBalance ACEMLMLMLGrollsBalance HDMSMLSMLSMLGrollsBalance HDESMLSMLSMLJSPMK6R/MK/RESMLSMLSMLJSPMK6R/MK/RESMLSMLSMLJSPMK6R/MK/RESMLSMLSMLJSPMK68/MK/RESMLSMLSMLMSASuper V-Gard IIESMLSMLSMLMSAV-GardESMLSMLSMLMSASuper V-Gard IIE,GMLSMLSMLProtector/ScottStyle 600ESMLSMLSMLProtector/ScottStyle 600ESMLSMLSMLRomerMarcus Top 2 Atlas NomazB<	3M	G3501	Е	SML	SML	SML
AuboueixFondelecFSMLSMLSMLAuboueixIrisEMLMLMLAuboueix/ SeybolKARAESMLSMLMLCenturion100/ARCO Type 2HSMLSMLSMLCenturion125/ARCO PlusHSMLSMLSMLCenturion1540/ARCOAMLMLMLCenturionConceptESMLSMLSMLGrollsBalance ACEMLMLMLGrollsBalance HDMSMLSMLSMLGrollsBalance HDMSMLSMLSMLGrollsBalance HDMSMLSMLSMLSPVCUITEESMLSMLSMLJSPMK6R/MK7RESMLSMLSMLJSPMK8ELMLSMLLASLP2002ESMLSMLSMLLASLP2006ESMLSMLSMLMSASuper V-Gard IIESMLSMLSMLProtector/ScottStyle 300*ESMLSMLSMLProtector/ScottStyle 300*ESMLSMLSMLRomerBravo 2 NomazBSMLSMLSMLRomerProtector/ScottStyle 300*ESMLSMLRomerProtector/ScottStyle 300*ESMLSMLRomerProtector/ScottStyle 300*E <td>3M</td> <td>H-700</td> <td>E</td> <td>ML</td> <td>SML</td> <td>L</td>	3M	H-700	E	ML	SML	L
AuboueixIrisEMLMLMLAuboueix/ SeybolKARAEMLMLMLCanturion1100/ARCO Type 2HSMLSMLSMLCenturion1125/ARCO PlusHSMLSMLSMLCenturion1540/ARCO AMLMLMLMLCenturion1540/ARCOAMLMLMLCenturionConceptESMLSMLSMLCenturionSalance ACEMLMLMLGrollsBalance ACEMLSMLSMLGrollsBalance HDMSMLSMLSMLGrollsBalance HDMSMLSMLSMLJSPKK6R/MK7RESMLSMLLJSPMK6R/MK7RESMLSMLSMLLASLP2002ESMLSMLSMLLASLP2006ESMLSMLSMLMSASuper V-Gard IIESMLSMLSMLMSASuper V-Gard IIESMLSMLSMLProtector/ScottStyle 300*ESMLSMLSMLRomerBravo 2 NomazBSMLSMLSMLRomerProtector/ScottStyle 300mazBSMLSMLRomerProfi MomazESMLSMLSMLRomerProfi MomazBSMLSMLSMLRomerProfi MomazESMLSM	Auboueix	Brennus	F	SML	SML	SML
AuboueixIris 2EMLMLMLAuboueix / SeybolKARAESMLSMLMLCenturion1100/ARCO Type 2HSMLSMLSMLCenturion1125/ARCO PlusHSMLSMLSMLCenturion1126/ARCOAMLMLMLCenturionConceptESMLSMLSMLCenturionConceptEMLMLMLCenturionBalance ACEMLMLMLGrollsBalance HDMSMLSMLSMLGrollsBalance HDMSMLSMLSMLGrollsBalance HDMSMLSMLSMLGrollsBalance HDESMLSMLSMLJSPEVOLITEEMLMLLJSPMK6R/MK7RESMLSMLSMLJSPMK6R/MK7RESMLSMLSMLLASLP2002ESMLSMLSMLLASLP2006ESMLSMLSMLMSAV-GardESMLSMLSMLPetzlVertexESMLSMLSMLProtector/ScottStyle 300*ESMLSMLSMLProtector/ScottStyle 300*ESMLSMLSMLRomerBravo 2 NomazBSMLSMLSMLRomerProfi ExpoESMLSMLSMLR	Auboueix	Fondelec	F	SML	SML	SML
Auboueix /SeybolKARAESMLSMLMLCenturion1100/ARCO Type 2HSMLSMLSMLCenturion1125/ARCO PlusHSMLSMLSMLCenturion1540/ARCOAMLMLMLCenturion1540/ARCOESMLSMLSMLCenturionConceptEMLMLMLGrollsBalance ACEMLMLMLGrollsBalance HDMSMLSMLSMLGrollsRobustEMLMLLGrollsRobustEMLMLLJSPEVOLITEEMLMLLJSPMK6R/MK7RESMLSMLSMLLASLP2002ESMLSMLSMLLASLP2003ESMLSMLSMLProtector/ScottStyle 600ESMLSMLProtector/ScottStyle 600ESMLSMLProtector/ScottTiffmaster IIE,GMLSMLRomerProfi ExpoASMLSMLSMLRomerProfi ExpoESMLSMLSMLRomerProfi KonnazBSMLSMLSMLRomerProfi KonnazBSMLSMLSMLRomerProfi KonnazBSMLSMLSMLRomerProfi KonnazBSMLSMLSMLSchuberth	Auboueix	Iris	E	ML	ML	ML
Auboueix /SeybolKARAESMLSMLMLCenturion1100/ARCO Type 2HSMLSMLSMLCenturion1125/ARCO PlusHSMLSMLSMLCenturion1540/ARCOAMLMLMLCenturion1540/ARCOESMLSMLSMLCenturionConceptEMLMLMLGrollsBalance ACEMLMLMLGrollsBalance HDMSMLSMLSMLGrollsRobustEMLMLLGrollsRobustEMLMLLJSPEVOLITEEMLMLLJSPMK6R/MK7RESMLSMLSMLLASLP2002ESMLSMLSMLLASLP2003ESMLSMLSMLProtector/ScottStyle 600ESMLSMLProtector/ScottStyle 600ESMLSMLProtector/ScottTiffmaster IIE,GMLSMLRomerProfi ExpoASMLSMLSMLRomerProfi ExpoESMLSMLSMLRomerProfi KonnazBSMLSMLSMLRomerProfi KonnazBSMLSMLSMLRomerProfi KonnazBSMLSMLSMLRomerProfi KonnazBSMLSMLSMLSchuberth	Auboueix	Iris 2	Е	ML	ML	ML
Centurion 1100/ARCO Type 2 H SML SML SML   Centurion 1125/ARCO Plus H SML SML SML   Centurion 1540/ARCO A ML ML ML   Centurion Concept E SML SML SML   Grolls Balance E ML ML ML   Grolls Balance AC E ML ML ML   Grolls Balance AC E ML ML SML   Grolls Balance AC E ML ML L   Grolls Balance AC E ML ML SML   SMC SML SML SML SML SML   JSP WK6R/MK7R E SML SML SML   LAS LP2002 E SML SML SML   LAS LP2006 E SML SML SML   Protector/Scott Style 300* E	Auboueix /Sevbol					
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Centurion1540/ARCOAMLMLMLCenturionConceptESMLSMLSMLSMLGrollsBalanceEMLMLMLGrollsBalance ACEMLMLMLGrollsBalance HDMSMLSMLSMLGrollsRobustESMLSMLLJSPEVOLITEEMLMLLJSPMK6R/MK7RESMLSMLSMLJSPMK8ELMLLLASLP2002ESMLSMLSMLLASLP2006ESMLSMLSMLMSASuper V-Gard IIESMLSMLSMLProtector/ScottStyle 300*ESMLSMLSMLProtector/ScottStyle 300*ESMLSMLSMLProtector/ScottStyle 300*ESMLSMLSMLProtector/ScottStyle 300*ESMLSMLSMLRomerBrave 2 NomazBSMLSMLSMLRomerProtector/ScottStyle 600ESMLSMLSMLRomerProtector/ScottStyle 600ESMLSMLSMLRomerProtector/ScottStyle 600ESMLSMLSMLRomerProtector/ScottStyle 600ESMLSMLSMLRomerProtector/ScottStyle 500ESMLSM						
CenturionConceptESMLSMLSMLMGrollsBalance ACEMLMLMLGrollsBalance ACEMLMLMLGrollsBalance HDMSMLSMLSMLGrollsRobustEMLMLMLGrollsRobustEMLMLLJSPEVOLITEEMLMLLJSPMK6R/MK7RESMLSMLSMLJSPMK82ELMLLLASLP2002ESMLSMLSMLLASLP2006ESMLSMLSMLMSASuper V-Gard IIESMLSMLSMLProtector/ScottStyle 300*ESMLSMLSMLProtector/ScottStyle 300*ESMLSMLSMLProtector/ScottStyle 300*BSMLSMLSMLProtector/ScottStyle 300*BSMLSMLSMLProtector/ScottStyle 300*BSMLSMLSMLRomerMarcus Top 2 Atlas NomazBSMLSMLSMLRomerNave Style 600ESMLSMLSMLRomerNave Style 600ESMLSMLSMLRomerNave Style 600BSMLSMLSMLRomerNave Style 600ESMLSMLSMLRomerNave Style 600BSML <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
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RomerTop Expo AtlasBSMLSMLSMLSMLSchuberthBENBBSMLSMLSMLSMLSchuberthBER S0/WPC80EASMLSMLSMLSchuberthBOP RBSMLSMLSML	Romer	Profi Expo	Е	SML	SML	SML
SchuberthBENBBSMLSMLSMLSchuberthBER SESMLSMLSMLSchuberthBER80/WPC80EASMLSMLSMLSchuberthBOP RBSMLSMLSML	Romer	Profi Momaz	Е	SML	SML	SML
SchuberthBER SESMLSMLSMLSchuberthBER80/WPC80EASMLSMLSMLSchuberthBOP RBSMLSMLSML	Romer	Top Expo Atlas	В	SML	SML	SML
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	Schuberth					
	Schuberth	Piomier	В	SML	SML	SML

## Helmet mounted version approved combination:

Helmet brand	Model number	P3 Adapter	3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> I Earmuffs	3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> II Earmuffs	3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> III Earmuffs
Schuberth	SH 91/WPL 91	EB	SML	SML	SML
Schuberth	SW1	EB	ML	ML	ML
Sofop Taliaplast	Oceanic	E	ML	ML	ML
Sofop Taliaplast	Opus	E	ML	ML	ML
Uvex	Airwing	E	SML	SML	SML
Voss	Inap 88	E	SML	SML	SML
Voss	Inap Master	E	ML	ML	ML
Voss	Inap PCG	G	ML	ML	ML
Voss	Inap Star	E	ML	ML	ML

#### Mass

Model	Mass (grams)
3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> I Earmuffs (H510A)	180
3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> I Earmuffs (H510F)	200
3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> I Earmuffs (H510B)	165
3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> I Earmuffs (H510P3)	205
3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> II Earmuffs (H520A)	210
3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> II Earmuffs (H520F)	230
3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> II Earmuffs (H520B)	195
3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> II Earmuffs (H520P3)	235
3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> III Earmuffs (H540A)	285
3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> III Earmuffs (H540B)	270
3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> III Earmuffs (H540P3)	310

## Standards and approvals:

The 3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> Earmuffs are type approved against the European Regulation (EU) 2016/425 by Finnish Institute of Occupational Health (FIOH), Topeliuksenkatu 41aA, FIN-00250 Helsinki, Finland (Notified Body number 0403). These products meet the requirement of the Harmonised European Standard EN 352-1:2002 (for headband and neckband version) and EN 352-3:2002 (for helmet mounted version). The applicable Certificate(s) and Declaration(s) of Conformity are available at www.3M.com/Hearing/certs.

## **Material listing**

	Headband, neckband and foldable version	Helmet mounted version
Headband/neckband and cover/sleeve	Stainless steel wire, PVC, Acetal	N/A
Helmet attachment arm	N/A	Stainless steel, acetal, polyamide
Cups	ABS	ABS
Insert (liner)	Polyether foam	Ployether foam
Cushions and cushion covers	PU foam and PVC	Polyether/Glycerine. (applies to 3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> I Earmuffs and 3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> II Earmuffs only)
Cushion cover	PVC	PVC

## Accessories/replacement

The cushions and inserts on the 3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> range can be replaced with the hygiene kits listed below for improved comfort and reassured protection.

## Hygiene kits:

Earmuff model	Hygiene kit
3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> I Earmuffs (H510A, H510F, H510B, H510P3)	HY51
3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> II Earmuffs (H520A, H520F, H520B, H520P3)	HY52
3M <sup>™</sup> PELTOR <sup>™</sup> Optime <sup>™</sup> III Earmuffs (H540A, H540B, H540P3)	HY54

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

## **Attenuation values**

3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> I Earmuffs (H510A headband)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	14.1	11.6	18.7	27.5	32.9	33.6	36.1	35.8
sf (dB)	4.0	4.3	3.6	2.5	2.7	3.4	3.0	3.8
APVf (dB)	10.1	7.3	15.1	25.0	30.1	30.2	33.2	32.0

SNR = 27dB H = 32dB M = 25dB L = 15dB

#### 3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> I Earmuffs (H510B neckband)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	13.3	10.9	17.1	25.4	31.5	32.6	36.3	34.8
sf (dB)	4.1	3.5	2.8	1.8	2.6	4.3	3.4	3.6
APVf (dB)	9.1	7.3	14.3	23.6	28.9	28.3	32.9	31.1

SNR = 26dB H = 30dB M = 24dB L = 15dB

#### 3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> I Earmuffs (H510F folding headband)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	14.6	12.2	18.7	27.1	32.9	35.0	36.5	34.4
sf (dB)	3.8	3.4	3.2	3.0	2.1	4.0	2.9	3.9
APVf (dB)	10.8	8.7	15.5	24.1	30.8	31.0	33.6	30.6

SNR = 26 dB H = 32 dB M = 23 dB L = 15 dB

#### 3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> I Earmuffs (H510P3 helmet mounted)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	13.1	11.2	13.4	26.9	33.9	32.0	33.5	36.9
sf (dB)	2.3	2.0	1.9	1.8	1.9	2.4	1.8	1.8
APVf (dB)	10.8	9.2	11.5	25.1	31.9	29.6	31.7	35.1

## **Attenuation values**

3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> II Earmuffs (H520A headband)

Mf (dB) 16.2 14.6 20.2 32.5 39.3 36.4 34.4 40.2   sf (dB) 19 16 25 23 21 24 40 23	Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
ef (dR) 19 16 25 23 21 24 40 23	Mf (dB)	16.2	14.6	20.2	32.5	39.3	36.4	34.4	40.2
	sf (dB)	1.9	1.6	2.5	2.3	2.1	2.4	4.0	2.3
APVf (dB) 14.3 13.0 17.7 30.2 37.2 34.0 30.4 37.9	APVf (dB)	14.3	13.0	17.7	30.2	37.2	34.0	30.4	37.9

SNR = 31dB H = 34dB M = 29dB L = 20dB

#### 3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> II Earmuffs (H520A neckband)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	15.9	14.7	20.4	32.3	39.6	36.2	35.4	40.2
sf (dB)	2.1	1.8	2.6	2.5	2.2	2.4	4.2	2.4
APVf (dB)	13.8	12.9	17.8	29.8	37.4	33.8	31.2	37.8



#### 3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> II Earmuffs (H520F folding headband)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	16.1	14.5	20.3	32.6	39.1	35.1	34.7	39.8
sf (dB)	2.0	1.8	2.6	2.4	2.5	2.3	2.7	2.5
APVf (dB)	14.1	12.7	17.7	30.2	36.6	32.8	32.0	37.3

SNR = 31dB H = 34dB M = 28dB L = 20dB

#### 3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> II Earmuffs (H520P3 helmet mounted)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	15.1	14.1	19.4	32.0	39.9	36.2	35.4	39.2
sf (dB)	2.1	2.3	2.7	2.7	2.4	2.6	4.4	2.6
APVf (dB)	13.0	11.8	16.7	29.3	37.5	33.6	31.0	36.6
SNR = 30 dB	H = 34 dB	M = 28 dB	L = 19 dB					

#### 3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> III Earmuffs (H540A headband)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	20.8	17.4	24.7	34.7	41.4	39.3	47.5	42.6
sf (dB)	3.1	2.1	2.6	2.0	2.1	1.5	4.5	2.6
APVf (dB)	17.7	15.3	22.1	32.7	39.3	37.8	43.0	40.0

SNR = 35dB H = 40dB M = 32dB L = 23dB

## **Attenuation values**

3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> III Earmuffs (H540B neckband)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	20.9	17.5	24.5	34.5	41.4	39.5	47.3	42.0
sf (dB)	3.3	2.3	2.7	2.0	2.2	2.0	4.4	2.8
APVf (dB)	17.6	15.2	21.8	32.5	39.2	37.5	42.9	39.2

SNR = 35dB H = 40dB M = 32dB L = 23dB

#### 3M<sup>™</sup> PELTOR<sup>™</sup> Optime<sup>™</sup> III Earmuffs (H540P3 helmet mounted)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	20.1	17.1	24.5	34.8	40.2	39.6	46.7	43.1
sf (dB)	3.3	2.3	2.8	2.2	2.0	1.8	4.2	2.5
APVf (dB)	16.8	14.8	21.7	32.6	38.2	37.8	42.5	40.6

SNR = 34 dB H = 40 dB M = 32 dB L = 22 dB

#### Attenuation table key:

f = Test frequency

APVf = Assumed Protection Value

Mf = Mean attenuation value

sf = Standard deviation

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).

## Important notice

The use of the 3M product described within this document assumes that the user has previous experience of this type of product and that it will be used by a competent professional. Before any use of this product it is recommended to complete some trials to validate≈the performance of the product within its expected application. All information and specification details contained within this document are inherent to this specific 3M product and would not be applied to other products or environment. Any action or usage of this product made in violation of this document is at the risk of the user. Compliance to the information and specification relative to the 3M product contained within this document and usage of tools with this product must be observed. The 3M group (which cannot verify or control those elements) would not be held responsible for the consequences of any violation of these rules which remain external to its decision and control. Warranty conditions for 3M products are determined with the sales contract documents and with the mandatory and applicable clause, excluding any other warranty or compensation.

Personal Safety Division

3M United Kingdom PLC 3M Centre Cain Road, Bracknell Berkshire RG12 8HT t: 0870 60 800 60 www.3M.eu/PPEsafety

