

# Product Environmental Profile

Harmony XVS sirens and electronic alarms

Harmony XVS





## General information

### Representative product

Harmony XVS sirens and electronic alarms - XVSV9MBN

### Description of the product

The product is an audible signaling units designed for long distance indication of the operating status or sequences of a machine or installation. They are used mainly in the factory applications, construction sites, safety applications and in public areas.

### Description of the range

The XVS range consist of multi sound sirens, multi sound alarms, and editable alarms/voices commonly used in audible signaling products for a wide range of applications. These audible units come with different degree of environment protection; IP65, IP 53 and IP 54 and input voltage range from 12 to 24 Vdc and 12 to 230 Vac.

The environmental impacts of this referenced product are representative of the impacts of the other products of the range which are developed with a similar technology.

### Functional unit

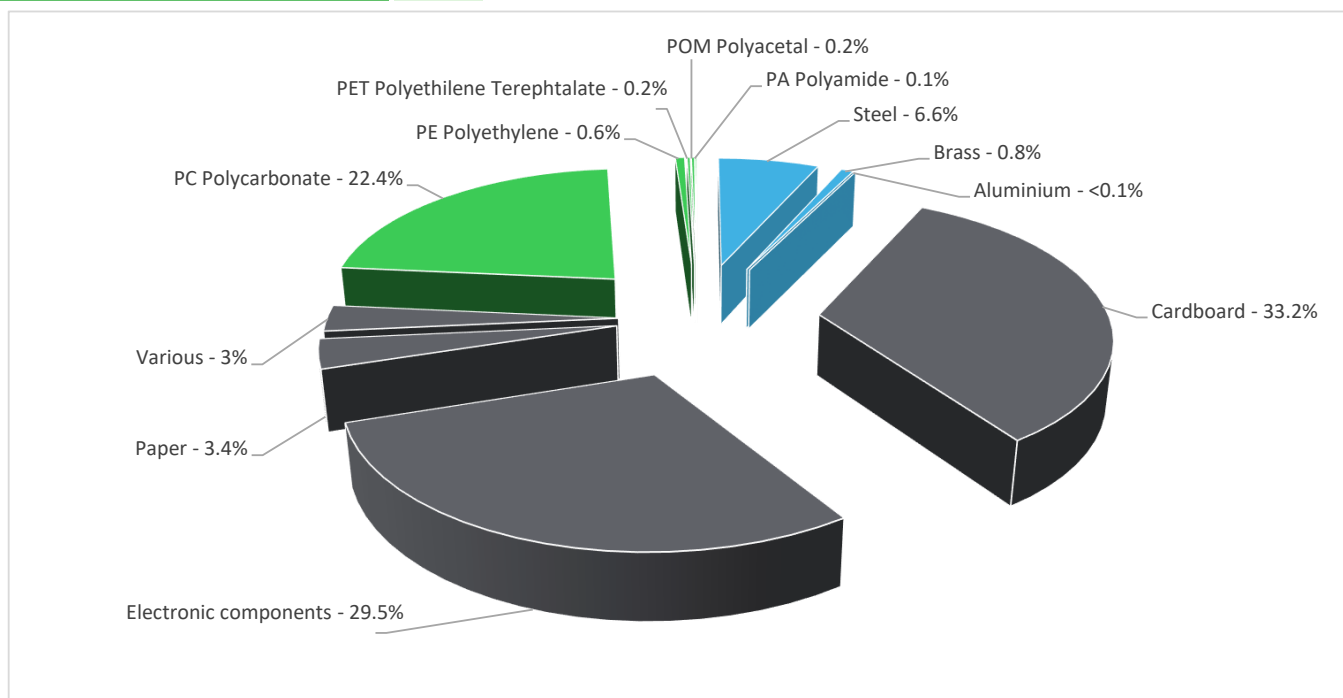
To monitor an event by providing audible signaling/voice for safety alarm in public areas and factory applications during 10 years with a 30% use rate, in compliance with French standard.



## Constituent materials

### Reference product mass

591.2 g including the product, its packaging and additional elements and accessories



	Plastics	23.5%
	Metals	7.4%
	Others	69.1%



## Substance assessment

Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 8 June 2011) and do not contain, or only contain in the authorised proportions, lead, mercury, cadmium, hexavalent chromium or flame retardants (polybrominated biphenyls - PBB, polybrominated diphenyl ethers - PBDE) as mentioned in the Directive

As the products of the range are designed in accordance with the RoHS Directive (European Directive 2002/95/EC of 27 January 2003), they can be incorporated without any restriction in an assembly or an installation subject to this Directive.

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website

<http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page>



## Additional environmental information

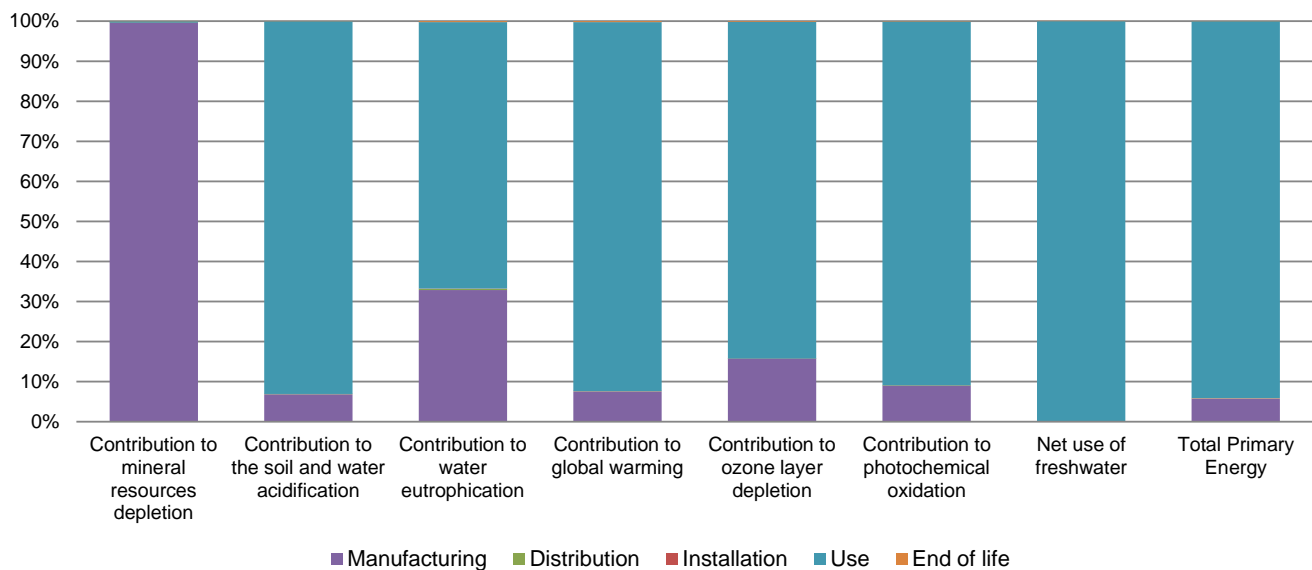
The Harmony XVS sirens and electronic alarms presents the following relevant environmental aspects

<b>Manufacturing</b>	Manufactured at a Schneider Electric production site ISO14001 certified
<b>Distribution</b>	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 223.1 g, consisting of cardboard (88.8%), paper (9%), plastic (2%), aluminium (0.2%)  Product distribution optimised by setting up local distribution centres
<b>Installation</b>	Ref XVSV9MBN does not require any installation operation.
<b>Use</b>	The product does not require special maintenance operations.
<b>End of life</b>	End of life optimized to decrease the amount of waste and allow recovery of the product components and materials  This product contains electronic cards (46.6g) that should be separated from the stream of waste so as to optimize end-of-life treatment.  The location of these components and other recommendations are given in the End of Life Instruction document which is available on the Schneider-Electric Green Premium website  <a href="http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page">http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page</a>  Recyclability potential: <b>18%</b> Based on "ECO'DEEE recyclability and recoverability calculation method" (version V1, 20 Sep. 2008 presented to the French Agency for Environment and Energy Management: ADEME).

# Environmental impacts

Reference life time	10 years			
Product category	Other equipments - Active product			
Installation elements	No special components needed			
Use scenario	The product is in active mode 30% of the time with a power use of 3.7W and in stand-by mode 70% of the time with a power use of 0.8W, for 10 years			
Geographical representativeness	Europe			
Technological representativeness	The product is an audible signaling units designed for long distance indication of the operating status or sequences of a machine or installation. They are used mainly in the factory applications, construction sites, safety applications and in public areas.			
Energy model used	Manufacturing	Installation	Use	End of life
	Energy model used: Indonesia		Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27

Compulsory indicators		Harmony XVS sirens and electronic alarms - XVSV9MBN					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	1.69E-03	1.68E-03	0*	0*	6.23E-06	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	3.22E-01	2.19E-02	3.48E-04	4.99E-05	2.99E-01	1.76E-04
Contribution to water eutrophication	kg PO <sub>4</sub> <sup>3-</sup> eq	2.71E-02	8.93E-03	8.02E-05	1.15E-05	1.81E-02	6.83E-05
Contribution to global warming	kg CO <sub>2</sub> eq	7.78E+01	5.88E+00	7.63E-02	1.11E-02	7.17E+01	2.04E-01
Contribution to ozone layer depletion	kg CFC11 eq	5.55E-06	8.74E-07	0*	0*	4.67E-06	8.08E-09
Contribution to photochemical oxidation	kg C <sub>2</sub> H <sub>4</sub> eq	1.81E-02	1.61E-03	2.49E-05	3.55E-06	1.64E-02	1.77E-05
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	2.60E+02	3.98E-02	0*	0*	2.60E+02	0*
Total Primary Energy	MJ	1.52E+03	8.79E+01	1.08E+00	1.57E-01	1.43E+03	9.74E-01



Optional indicators		Harmony XVS sirens and electronic alarms - XVSV9MBN					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	8.96E+02	8.02E+01	1.07E+00	1.56E-01	8.14E+02	8.34E-01
Contribution to air pollution	m³	3.71E+03	6.16E+02	3.24E+00	4.55E-01	3.08E+03	6.41E+00
Contribution to water pollution	m³	3.75E+03	6.74E+02	1.25E+01	1.83E+00	2.96E+03	1.03E+02
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	2.29E-02	2.29E-02	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	1.88E+02	6.11E+00	0*	0*	1.82E+02	0*
Total use of non-renewable primary energy resources	MJ	1.33E+03	8.18E+01	1.08E+00	1.57E-01	1.25E+03	9.74E-01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.84E+02	2.17E+00	0*	0*	1.82E+02	0*
Use of renewable primary energy resources used as raw material	MJ	3.94E+00	3.94E+00	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.33E+03	7.33E+01	1.08E+00	1.57E-01	1.25E+03	9.74E-01
Use of non renewable primary energy resources used as raw material	MJ	8.46E+00	8.46E+00	0*	0*	0*	0*
Use of non renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*
Use of renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*
Waste categories	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Hazardous waste disposed	kg	7.73E+00	6.88E+00	0*	0*	3.74E-02	8.17E-01
Non hazardous waste disposed	kg	2.69E+02	2.01E+00	0*	0*	2.67E+02	0*
Radioactive waste disposed	kg	1.80E-01	1.17E-03	0*	0*	1.78E-01	0*
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	9.18E-02	1.99E-02	0*	3.27E-03	0*	6.86E-02
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	2.77E-02	0*	0*	0*	0*	2.77E-02
Exported Energy	MJ	0.00E+00	0*	0*	0*	0*	0*

\* represents less than 0.01% of the total life cycle of the reference flow

Life cycle assessment performed with EIME version EIME v5.8.0, database version 2018-09 in compliance with ISO14044.

The use phase is the life cycle phase which has the greatest impact on the majority of environmental indicators (based on compulsory indicators).

According to this environmental analysis, proportionality rules may be used to evaluate the impacts of other products of this range.

Depending on the impact analysis, the environmental indicators (without the contribution to mineral resources depletion and contribution to water eutrophication) of other products in this family may be proportional extrapolated by energy consumption values. For contribution to mineral resources depletion, impact may be proportional extrapolated by mass of the product. For contribution to water eutrophication, impact may be proportional extrapolated 33% by product mass and 67% by energy consumption.

Please note that the values given above are only valid within the context specified and cannot be used directly to draw up the environmental assessment of an installation.

Registration number	ENVPEP1311010EN_V2	Drafting rules	PCR-ed3-EN-2015 04 02
Date of issue	12/2018	Supplemented by	PSR-0005-ed2-EN-2016 03 29
Validity period	5 years	Information and reference documents	<a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
Independent verification of the declaration and data			
Internal	X	External	
The elements of the present PEP cannot be compared with elements from another program.			
Document in compliance with ISO 14021:2016 « Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) »			

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