

Product Environmental Profile

Ensto One Home
EVH321B-HCR00



ENSTO BUILDING SYSTEMS' ENVIRONMENTAL COMMITMENTS

• **Incorporate environmental management into our sites**

All Ensto Building System industrial sites are ISO 14001-certified.

• **Provide our customers sustainable and innovative solutions**

Solutions with low environmental impact through whole life cycle.

High quality products with long life time.

• **Involve the environment in product design and provide informations in compliance with ISO 14025.**


Environmental labels and declarations — Type III environmental declarations — Principles and procedures

Reduce the environmental impact of products over their whole life cycle.

Provide our customers with all relevant information (composition, consumption, end of life, etc.).



REFERENCE PRODUCT

Function	Supply 1 kW to one vehicle in accordance with the reference use scenario at the charging point
Reference Product	<div style="text-align: center;">  <p>EVH321B-HCR00</p> </div> <p>EVH 1x32A T2C RCBO DLM Product family: Active products Station type: Wallbox running on alternating current (AC) Installation type: wall installation: garages, roofed sheds or exterior parking areas in collective residential buildings or buildings used as offices, car parks, or the public highway Charging type: Normal Number of charging points: 1 joined cable (length 5 m) rated up to 32A Charging mode: Mode 3 Presence of connected sockets: 0 domestic sockets Reference power: 32 A - 230V - 7 kW single phase Current type: AC Reference service life: 10 years</p> <p>The elements used for connecting the station to the mains grid and to the monitoring and communication network are excluded. Calculating the environmental impact at a Functional Unit (FU) level: Environmental impact of the PEP (for 1 kWh) = Environmental impact of the reference product / Quantity of energy supplied to one or more vehicles by the EVCI over its RL. Conversion factors between Declared Unit and Functional Unit: 1 / (28174 kWh * 1 charging point) = 3,55E-05</p>

The company reserves the right to change specifications and designs without notice. All illustrations, descriptions, dimensions and weights in the document are for guidance and cannot be held binding on the company.



PRODUCTS CONCERNED

The environmental data is representative of the following products:

Catalogue Numbers
• EVH321B-HCR00

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■ CONSTITUENT MATERIALS

This Reference Product contains no substances prohibited by the regulations applicable at the time of its introduction to the market. It respects the restrictions on use of hazardous substances as defined in the RoHS directive 2011/65/EU amended by delegated directive (EU) 2015/863, and its amendment 2017/2102/EU.

Total weight of Reference Product	7714 g (all packaging included)				
Plastics as % of weight		Metals as % of weight		Other as % of weight	
PC	21,9 %	Steel	15,0 %	Electric cables/wires	20,7 %
PA	6,3 %	Copper alloys	4,4 %	Electronic card	2,9 %
PET	0,8 %	Other metals	<0,3 %	Other electronic components	<0,6 %
PBT	0,7 %				
PP	0,6 %				
Other plastics	3,5 %				
Packaging as % of weight					
PE	0,2 %			Paper	14,2 %
Other packaging plastics	0,1 %			Wood	7,8 %
Total plastics	34,1 %	Total metals	19,7 %	Total others	46,2 %

Estimated recycled material content: 17 % by mass.



■ MANUFACTURE

This Reference Product comes from sites that have received ISO14001 certification.



■ DISTRIBUTION

Products are distributed from logistics centres located with a view to optimize transport efficiency. The Reference Product is therefore transported over an average distance of 780 km by road from our warehouse to the local point of distribution into the European market.

Packaging is compliant with european directive 2004/12/EU concerning packaging and packaging waste. At their end of life, its recyclability rate is 97 % (in % of packaging weight).



■ INSTALLATION

For the installation of the product, only standard tools are needed.



■ USE

Under normal conditions of use, this product requires no servicing, no maintenance or additional products.

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END OF LIFE

The product end of life factors are taken into account during the design phase. Dismantling and sorting of components or materials is made as easy as possible with a view to recycling or failing that, another form of reuse. This product falls within the scope of the WEEE directive (2012/19/EU). Therefore it must be processed through local WEEE recycling/recovery channels.

• Elements to process specifically:

In accordance with the requirements of this Directive, the following components must be removed and sent to specific channels for processing which comply with the WEEE Directive 2012/19/EU:

- electronic cards more than 10 cm² : 222 g

• Extended producer responsibility:

The sale of this product is subject to a contribution to eco-organisations in each country responsible for managing end-of-life products in the field of application of the European Waste Electronic and Electrical Equipment Directive.

• Recyclability rate:

Calculated using the method described in technical report IEC/TR 62635, the recyclability rate of the product is estimated at 80 %. This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for the end of life of this product.

Separated into:

- plastic materials (excluding packaging) : 29 %
- metal materials (excluding packaging) : 20 %
- other materials (excluding packaging) : 9 %
- packaging (all types of materials) : 22 %



ENVIRONMENTAL IMPACTS

The evaluation of environmental impacts examines the stages of the Reference Product life cycle: manufacturing, distribution, installation, use and end of life. It is representative from products marketed and used in Europe, in compliance with the local current standards.

For each phase, the following modelling elements were taken in account:

Manufacture	Materials and components of the product, all transport for the manufacturing, the packaging and the waste generated by the manufacturing.
Distribution	Transport between the last Group distribution centre and an average delivery point in the sales area.
Installation	The end of life of the packaging.
Use	<ul style="list-style-type: none"> • Product category: Based on PSR-0018-ed1-EN-2021 09 13, paragraph 2.1.2.1: «AC wallbox» • Use scenario: 10 years, with an average daily travel of 38.7 km per day. Number of charges: 2 charges per week. Effective charge time: 3.87 hours at 7 kW. Average time plugged in = 12 h. 28,174 kWh supplied per charging point over the RL. <ul style="list-style-type: none"> • Energy model: Electricity Mix; Europe 27 - 2008
End of life	The default end of life scenario maximizing the impacts.
Software and database used	EIME & database CODDE-2018-11

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SELECTION OF ENVIRONMENTAL IMPACTS

Results of mandatory indicators per Functional Unit (Supply 1 kW to one vehicle in accordance with the reference use scenario at the charging point) of EVH321B-HCR00


	Total for Life cycle		Raw material and manufacture		Distribution		Installation		Use		End of life	
Global warming	1,06E-02	kgCO₂ eq.	1,99E-03	19 %	1,06E-05	< 1%	1,24E-05	< 1%	8,61E-03	81 %	2,25E-05	< 1%
Ozone depletion	7,44E-10	kgCFC-11 eq.	1,83E-10	25 %	2,15E-14	< 1%	2,45E-14	< 1%	5,61E-10	75 %	5,09E-13	< 1%
Acidification of soils and water	3,90E-05	kgSO₂ eq.	2,94E-06	8 %	4,78E-08	< 1%	1,53E-08	< 1%	3,59E-05	92 %	8,72E-08	< 1%
Water eutrophication	3,18E-06	kg[PO₄]³⁻ eq.	8,92E-07	28 %	1,10E-08	< 1%	5,95E-09	< 1%	2,17E-06	68 %	1,07E-07	3 %
Photochemical ozone formation	2,34E-06	kgC₂H₄ eq.	3,60E-07	15 %	3,39E-09	< 1%	1,33E-09	< 1%	1,97E-06	84 %	6,76E-09	< 1%
Depletion of abiotic resources - elements	3,21E-07	kgSb eq.	3,20E-07	100 %	4,25E-13	< 1%	1,22E-13	< 1%	7,48E-10	< 1%	1,37E-12	< 1%
Total use of primary energy	2,07E-01	MJ	3,44E-02	17 %	1,50E-04	< 1%	4,60E-05	< 1%	1,72E-01	83 %	2,51E-04	< 1%
Net use of fresh water	3,13E-02	m³	9,46E-05	< 1%	9,52E-10	< 1%	1,95E-08	< 1%	3,12E-02	100 %	1,77E-08	< 1%
Depletion of abiotic resources - fossil fuels	1,14E-01	MJ	1,62E-02	14 %	1,49E-04	< 1%	4,49E-05	< 1%	9,77E-02	85 %	2,28E-04	< 1%
Water pollution	9,43E-01	m³	5,83E-01	62 %	1,75E-03	< 1%	5,94E-04	< 1%	3,55E-01	38 %	2,65E-03	< 1%
Air pollution	6,16E-01	m³	2,43E-01	39 %	4,36E-04	< 1%	1,87E-04	< 1%	3,71E-01	60 %	2,46E-03	< 1%

The values of the 27 impacts defined in the PCR-ed3-EN-2015 04 02 are available in the digital database of pep-ecopassport.org website.

Environmental impacts per kWh corresponding to the Functional Unit.

The life cycle analysis, the description of the Functional Unit, the calculation of the dissipation in the Use phase are compliant with the prescriptions contained in PSR-0018-ed1-EN-2021 09 13, while the set of indicators that describe the environmental impacts is compliant with PCR-ed3-EN-2015 04 02.

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Results of mandatory indicators per unit of Reference Product EVH321B-HCR00

	Total for Life cycle		Raw material and manufacture		Distribution		Installation		Use		End of life	
	Value	Unit	Value	%	Value	%	Value	%	Value	%	Value	%
Global warming	3,00E+02	kgCO ₂ eq.	5,60E+01	19 %	2,99E-01	< 1%	3,50E-01	< 1%	2,43E+02	81 %	6,35E-01	< 1%
Ozone depletion	2,10E-05	kgCFC-11 eq.	5,15E-06	25 %	6,07E-10	< 1%	6,91E-10	< 1%	1,58E-05	75 %	1,43E-08	< 1%
Acidification of soils and water	1,10E+00	kgSO ₂ eq.	8,27E-02	8 %	1,35E-03	< 1%	4,30E-04	< 1%	1,01E+00	92 %	2,46E-03	< 1%
Water eutrophication	8,97E-02	kg(PO ₄) ³⁻ eq.	2,51E-02	28 %	3,09E-04	< 1%	1,68E-04	< 1%	6,11E-02	68 %	3,02E-03	3 %
Photochemical ozone formation	6,60E-02	kgC ₂ H ₄ eq.	1,01E-02	15 %	9,56E-05	< 1%	3,76E-05	< 1%	5,56E-02	84 %	1,91E-04	< 1%
Depletion of abiotic resources - elements	9,04E-03	kgSb eq.	9,01E-03	100 %	1,20E-08	< 1%	3,44E-09	< 1%	2,11E-05	< 1%	3,87E-08	< 1%
Total use of primary energy	5,83E+03	MJ	9,69E+02	17 %	4,23E+00	< 1%	1,30E+00	< 1%	4,84E+03	83 %	7,08E+00	< 1%
Net use of fresh water	8,82E+02	m ³	2,66E+00	< 1%	2,68E-05	< 1%	5,50E-04	< 1%	8,79E+02	100 %	4,98E-04	< 1%
Depletion of abiotic resources - fossil fuels	3,22E+03	MJ	4,55E+02	14 %	4,21E+00	< 1%	1,27E+00	< 1%	2,75E+03	85 %	6,42E+00	< 1%
Water pollution	2,66E+04	m ³	1,64E+04	62 %	4,93E+01	< 1%	1,67E+01	< 1%	1,00E+04	38 %	7,46E+01	< 1%
Air pollution	1,74E+04	m ³	6,84E+03	39 %	1,23E+01	< 1%	5,26E+00	< 1%	1,04E+04	60 %	6,92E+01	< 1%

The values of the 27 impacts defined in the PCR-ed3-EN-2015 04 02 are available in the digital database of pep-ecopassport.org website.

Environmental impacts per product.
28,174 kWh supplied per charging point over the RL.

Registration number: LGRP-01620-V01.01-EN	Drafting rules: «PEP-PCR-ed3-EN-2015 04 02»
Verifier accreditation N°: VH23	Information and reference documents: www.pep-ecopassport.org
Date of issue: 12-2022	Validity period: 5 years
Independent verification of the declaration and data, in compliance with ISO 14025 : 2010 Internal <input checked="" type="checkbox"/> External <input type="checkbox"/>	
The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)	
PEP are compliant with XP C08-100-1 : 2016 The elements of the present PEP cannot be compared with elements from another program	
Document in compliance with ISO 14025 : 2010: «Environmental labels and declarations. Type III environmental declarations»	
Environmental data in alignment with EN 15804: 2012 + A1 : 2013	

