Eve
Single
Pro-line

Environmental Product Declaration

Eve Single Pro-line, 3-phase, display, type 2 socket shutters

Geographical Availability: This product is available for sale in the European market

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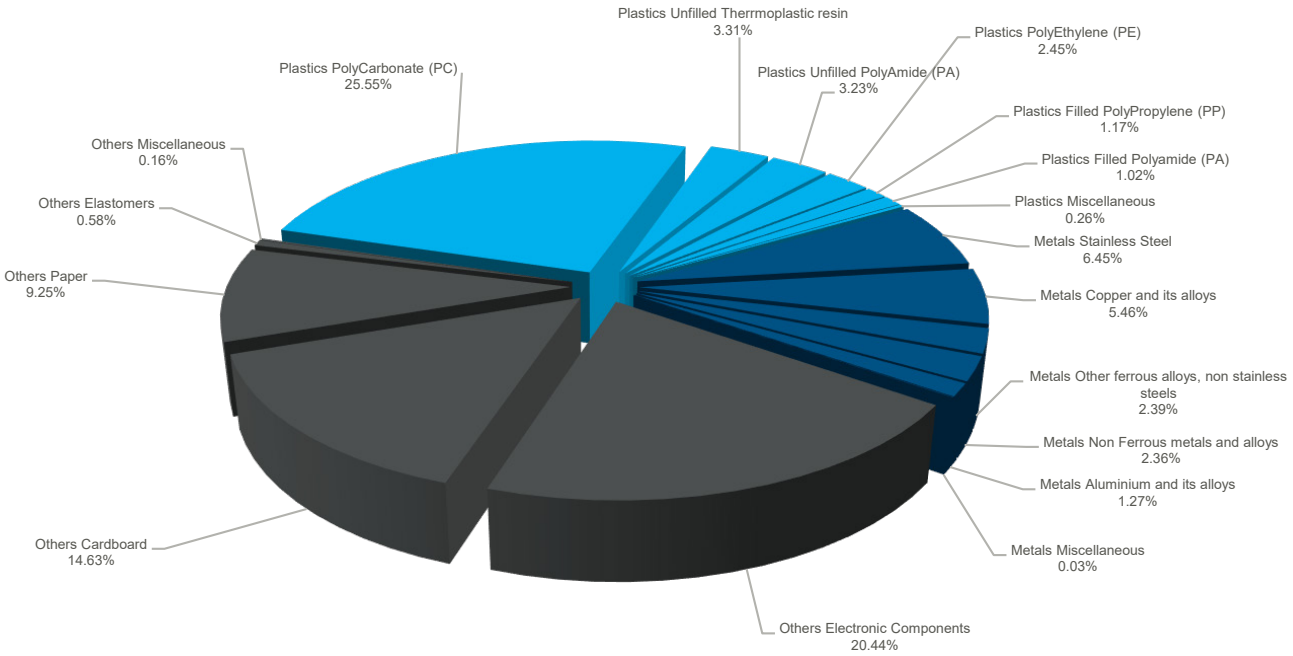
ACE-EPD-904460025V2-EN

01
General Information

Reference Product	Eve Single Pro-line, 3-phase, display, type 2 socket shutters
Description of the product	Eve Single Pro-Line is a charging station with smart solutions for semi-public spaces. It runs in mode 3 and charging type is normal. It includes one RIFD control system, a color display screen 3.5" TFT and type 2 sockets shutters, in accordance with IEC62196-2, ed. 2. This excludes the elements used for connecting the station to the main grid and to the monitoring and communication network.
Functional Unit (FU)	Supply 1 kWh to one vehicle at the charging point in accordance with the reference use scenario. The reference use scenario is described in the chapter 4. Environmental Impact.

02
Constituent Materials

Reference mass product	5.299 kg including the product, its packaging and additional elements supplied with the product.



Plastics	36.99 %	Metals	17.95 %	Other	45.05 %

03
Additional Environmental Information

Manufacturing	Eve Single Pro line is manufactured/assembled in our production facility in the Netherlands with an ISO 14001:2015-certified environmental management system and an ISO50001:2018-certified energy management system. Details about conformity with ROHS and REACH regulated substances are available on Alfen's website.
Use	Service and maintenance have not been considered in this study. The analysis covers Module B6 only. Refurbishment (B5) and Operational Water Use (B7) are not applicable to the product under study.
End of life	Eve Single Pro line is covered by the WEEE directive (2012/19/EU). Therefore, it must be properly processed before recovery or recycling. **Selective Treatment** For this product, the printed circuit boards larger than 10 cm2 must be removed from the collected WEEE by the Authorized Treatment Facility (ATF). **Extended Producer Responsibility** This product is registered in the applicable Extended Producer Responsibility scheme to which Alfen is obliged to pay fees in line with WEEE directive (2012/19/EU) for collection and recycling of end-of-life products placed on the European Market.

04
Environmental Impact

Reference Service lifetime (RL)	10 years
Installation Components	Non-installation elements were included due to their minimal impact. Waste processing is included.
Use scenario	Product category: PSR-0018-ed1.1-EN-2024 01 31 - 2.1.2. Private or semi-public station - 2.1.2.2. Private or semi-public station on a base and running on alternating current (AC) Average daily travel: 43 km per day, of which 90% is charged at private stations. Number of charging sessions: 2 per week. Effective charge time: 1.2 hours at 22 kW Average time plugged in per charging session = 12 hours Average amount of electricity supplied per charging session for a given charging point over the station's reference lifetime (RL) based on a vehicle consumption of 20kwh per 100 km: 28.251 kwh.
Geographical Representativeness	Europe
Technological Representativeness	Based on the specifications and technology described in the product's data sheet, detailing the charger's current design and functionality.
Energy model used	Manufacturing: Photovoltaic Energy; Electricity Production; Low Voltage; NL Installation: Electricity Mix; Production mix; Low voltage; FR Use: Electricity Mix; Production mix; Low voltage; FR. Decarbonization Consideration: The model incorporates the progressive decarbonization of the electricity grid over a 10-year period. End of life: Electricity Mix; Production Mix, Low Voltage; EU27

All indicators below are scaled down to the supply of 1KWh of energy

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Mandatory Environmental Impact Indicators	Unit	Total	Manufacturing (A1-A3)	Distribution (A4)	Installation (A5)	Use (B1-B7)	End of life (C1-C4)
Climate change - total (GWP-t)	kg CO2 eq	5.69E-03	4.55E-03	8.83E-05	2.79E-06	7.16E-04	3.34E-04
Climate change - fossil (GWP-f)	kg CO2 eq	6.80E-03	5.68E-03	8.83E-05	2.79E-06	7.15E-04	3.16E-04
Climate change - biogenic (GWP-b)	kg CO2 eq	0.00E+00	-1.73E-05	0.00E+00	0.00E+00	0.00E+00	1.73E-05
Climate change - land use and LU change (GWP-luluc)	kg CO2 eq	1.20E-05	1.16E-05	4.29E-08	9.01E-10	2.42E-07	3.98E-08
Ozone depletion (ODP)	kg CFC11 eq	1.04E-09	2.92E-10	1.92E-12	2.82E-14	7.44E-10	1.29E-12
Acidification (AP)	mol H+ eq	8.82E-05	4.59E-05	2.88E-07	9.34E-09	4.18E-05	2.36E-07
Eutrophication, freshwater (EP-fw)	kg P eq	1.89E-06	9.32E-07	7.06E-10	2.36E-11	9.54E-07	9.40E-10
Eutrophication, marine (EP-m)	kg N eq	1.88E-05	7.64E-06	9.78E-08	3.73E-09	1.10E-05	8.33E-08
Eutrophication, terrestrial (EP-t)	mol N eq	2.18E-04	8.64E-05	1.05E-06	3.87E-08	1.29E-04	8.73E-07
Photochemical ozone formation (POCP)	kg NMVOC eq	6.71E-05	2.73E-05	4.30E-07	1.37E-08	3.90E-05	2.85E-07
Resource use, minerals and metals (ADP-mm)	kg Sb eq	1.90E-06	1.87E-06	2.83E-10	7.26E-12	3.23E-08	2.01E-10
Resource use, fossils (ADP-f)	MJ	4.30E-01	7.49E-02	1.25E-03	2.04E-05	3.53E-01	6.50E-04
Water use (WDP)	m3-world eq	4.55E-03	1.65E-03	5.12E-06	1.51E-07	2.88E-03	1.62E-05

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Mandatory Environmental Impact Indicators	Unit	Total	Manufacturing (A1-A3)	Distribution (A4)	Installation (A5)	Use (B1-B7)	End of life (C1-C4)
Resource use indicators							
Energy, primary, renewable, excluding materials (PERE)	MJ	4.42E-05	4.42E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Energy, primary, renewable, materials (PERM)	MJ	2.28E-05	2.28E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Energy, primary, renewable (PERT)	MJ	5.59E-02	1.00E-02	1.94E-05	6.98E-07	4.59E-02	2.65E-05
Energy, primary, non-renewable, excluding materials (PENRE)	MJ	4.26E-03	4.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Energy, primary, non-renewable, materials (PENRM)	MJ	4.88E-05	4.88E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Energy, primary, non-renewable (PENRT)	MJ	4.62E-01	7.95E-02	1.33E-03	2.17E-05	3.80E-01	6.92E-04
Indicators describing the use of secondary materials, water, and energy resources							
Secondary material (SM)	kg	3.16E-07	3.16E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Secondary fuel, renewable (RSF)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Secondary fuel, non-renewable (NRSF)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Water, fresh water use (FW)	m3	2.09E-04	4.15E-05	1.66E-07	5.89E-09	1.67E-04	5.00E-07
Waste category indicators							
Waste, hazardous (HWD)	kg	2.91E-04	2.90E-04	7.97E-09	1.26E-10	8.75E-07	3.59E-09
Waste, non-hazardous (NHWD)	kg	1.56E-03	7.03E-04	6.11E-05	1.45E-06	7.68E-04	3.03E-05
Waste, radioactive (RWD)	kg	9.77E-07	2.66E-07	4.07E-10	1.79E-11	7.11E-07	5.23E-10
Output flow indicators							
Components for re-use (CRU)	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling (MFR)	kg	8.50E-05	1.83E-05	2.47E-05	2.47E-05	0.00E+00	4.20E-05
Materials for energy recovery (MER)	kg	4.16E-05	4.76E-06	0.00E+00	2.58E-06	0.00E+00	3.43E-05
Exported energy, electric (EEE)	MJ	2.08E-04	2.71E-05	0.00E+00	8.19E-06	0.00E+00	1.73E-04
Exported energy, thermal (EET)	MJ	4.58E-04	1.10E-05	0.00E+00	2.03E-05	0.00E+00	4.27E-04
Other indicators							
Biogenic carbon content of the product	kg of C	0*	0*	0*	0*	0*	0*
Biogenic carbon content of the packaging	kg of C	4.72E-06	4.72E-06	0*	0*	0*	0*

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

[1] Indicators have been adjusted based on the assumed linear reduction in electricity grid intensity from 2024 to 2050, aligning with the net-zero commitments of the countries where our products are sold.

[2] Indicator was calculated in accordance with standard NEN-EN 15804:2012+A2:2019.

Life cycle assessment was performed using the Ecochain LCA software, Ecoinvent version 3.9.1 database in compliance with ISO14040/ISO14044. The biogenic carbon content was calculated in accordance with EN15804+A2.

Data of issue	25/02/2025	
Drafting Rules	PEP-PCR-ed4-2021 09 06	
Supplemented by	PSR-0018-ed1.1-EN-2024 01 31	
Information and reference documents	www.pep-ecopassport.org	
Validity Period	5 years	
Independent Verification of the data and declaration conducted by an environmental specialist, in compliance with ISO 14025: 2010	■ Internal	☐ External

This PEP has been developed in alignment with the requirements of EN 50693:2019.

The elements of the present PEP cannot be compared with elements from another program.

This document is prepared in accordance with ISO 14025: 2010 « Environmental labels and declarations. Type III environmental declarations », based on self-declared and non-verified PEP.

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