Product Environmental Profile

Charging station,Charge Pro,22kW,32A,3P+N,T2S socket-outlet,MID,TIC,4G

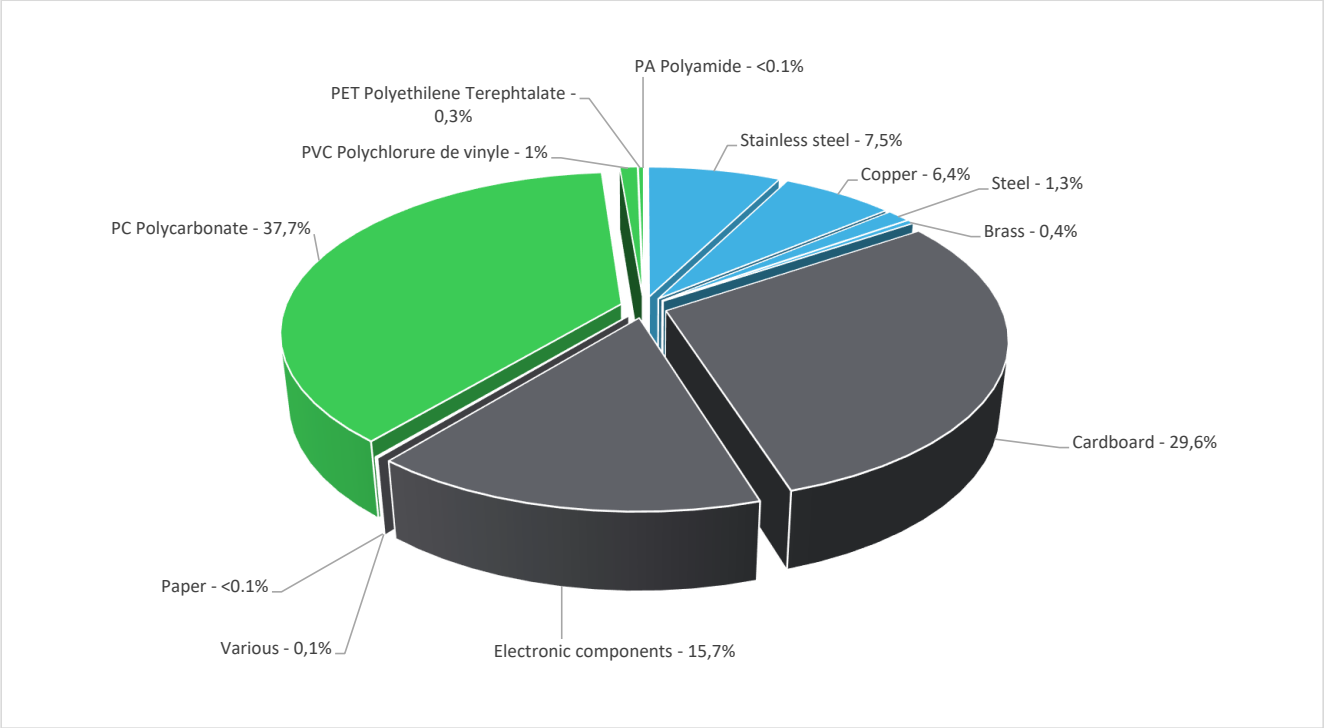
Charge Pro

General information

Reference product	Charging station,Charge Pro,22kW,32A,3P+N,T2S socket-outlet,MID,TIC,4G - EVB4S22N40MG
Description of the product	The chargePro charging station is designed to allow private persons or public to have a charging point dedicated to their electric vehicle. Its function unit is to allow the charging of an electrical vehicle 16 hours a day for 10 years.
Description of the range	The products of the range are: Charge Pro,22kW, 32A, 3P+N T2S and Att Cable The environmental impacts of this reference product are representative of the impacts of the other products of the range which are developed with a similar technology.
Functional unit	Supply 1 kWh to one vehicle in accordance with the reference use scenario at the charging point
Specifications are:	Supply 1 kWh to one vehicle in accordance with the reference use scenario at the charging point.Charging an electrical vehicle with power 7 to 22 kW, with T2S outlet during 10 years. 1 x access control system (RFID or key) 2 x Ethernet port (Daisy channel) 1 x modem 1 x 2.4GHz Wi-Fi 1 x T2S socket 1 OCPP to CPO communication module 1 TIC remote data module

Constituent materials

Reference product mass	6712 g	including the product, its packaging and additional elements and accessories



	Plastics	39.00%
	Metals	15.60%
	Others	45.40%

Substance assessment

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website
https://www.se.com/ww/en/work/support/green-premium/

Additional environmental information

End Of Life	Recyclability potential:	**22%**	The recyclability rate was calculated from the recycling rates of each material making up the product with the exception of data using the ESR database. For materials or components using the ESR database or the absence of data the conservative hypothesis "0% recyclability" was used.

Environmental impacts

Reference service life time	10 years
Product category	Private or semi-public station - AC wallbox
Installation elements	The product does not require any installation operations
Use scenario	The product is in active mode 20% of the time with a power use of 15W; in stand-by mode 80% of the time with a power use of 10W during 10 years.
Time representativeness	The collected data are representative of the year 2024
Technological representativeness	The Modules of Technologies such as material production, manufacturing processes and transport technology used in the PEP analysis (LCA EIME in the case) are Similar and représentaive of the actual type of technologies used to make the product.
Geographical representativeness	Europe

Energy model used	[A1 - A3]	[A5]	[B6]	[C1 - C4]
	Electricity Mix; Low voltage; 2018; China, CN	Electricity Mix; Low voltage; 2018; France, FR	Electricity Mix; Low voltage; 2018; France, FR	Electricity Mix; Low voltage; 2018; France, FR

Detailed results of the optional indicators mentioned in PCRed4 are available in the LCA report and on demand in a digital format - Country Customer Care Center - http://www.schneider-electric.com/contact

For the purposes of drafting the PEP, impact was scaled down to the supply of 1 kWh of energy.

Mandatory Indicators		Charging station,Charge Pro,22kW,32A,3P+N,T2S socket-outlet,MID,TIC,4G - EVB4S22N40MG						
Impact indicators	**Unit**	**Total (without Module D)**	**[A1 - A3] - Manufacturing**	**[A4] - Distribution**	**[A5] - Installation**	**[B1 - B7] - Use**	**[C1 - C4] - End of life**	**[D] - Benefits and loads**
Contribution to climate change	kg CO2 eq	2.02E-01	1.17E-01	3.23E-03	2.18E-03	6.64E-02	1.32E-02	-3.62E-03
Contribution to climate change-fossil	kg CO2 eq	2.01E-01	1.16E-01	3.23E-03	2.08E-03	6.61E-02	1.31E-02	-5.90E-03
Contribution to climate change-biogenic	kg CO2 eq	8.96E-04	3.95E-04	0*	1.04E-04	2.93E-04	1.04E-04	2.28E-03
Contribution to climate change-land use and land use change	kg CO2 eq	4.05E-06	4.05E-06	0*	0*	0*	1.47E-09	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	2.13E-08	1.73E-08	2.85E-09	2.83E-11	1.09E-09	5.85E-11	-1.25E-09
Contribution to acidification	mol H+ eq	1.23E-03	8.28E-04	1.40E-05	6.39E-06	3.54E-04	2.41E-05	-9.74E-05
Contribution to eutrophication, freshwater	kg $(PO4)^{3-}$ eq	6.58E-06	7.48E-07	0*	5.00E-08	2.98E-06	2.80E-06	-4.28E-08
Contribution to eutrophication marine	kg N eq	1.61E-04	9.36E-05	6.46E-06	2.78E-06	5.24E-05	5.73E-06	-6.00E-06
Contribution to eutrophication, terrestrial	mol N eq	1.98E-03	9.93E-04	7.00E-05	1.93E-05	8.34E-04	6.59E-05	-5.79E-05
Contribution to photochemical ozone formation - human health	kg COVNM eq	5.40E-04	3.45E-04	2.29E-05	4.43E-06	1.50E-04	1.72E-05	-2.20E-05
Contribution to resource use, minerals and metals	kg Sb eq	1.92E-05	1.90E-05	0*	0*	9.02E-08	9.02E-08	-1.01E-06
Contribution to resource use, fossils	MJ	1.42E+01	1.85E+00	4.02E-02	2.16E-02	1.21E+01	1.57E-01	-8.20E-02
Contribution to water use	m3 eq	5.38E-02	3.62E-02	1.64E-04	1.69E-04	1.37E-02	3.68E-03	-5.28E-03

Inventory flows Indicators		Charging station,Charge Pro,22kW,32A,3P+N,T2S socket-outlet,MID,TIC,4G - EVB4S22N40MG						
Inventory flows	**Unit**	**Total (without Module D)**	**[A1 - A3] - Manufacturing**	**[A4] - Distribution**	**[A5] - Installation**	**[B1 - B7] - Use**	**[C1 - C4] - End of life**	**[D] - Benefits and loads**
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.37E+00	2.37E-02	0*	2.84E-03	1.34E+00	2.23E-03	4.86E-03
Contribution to use of renewable primary energy resources used as raw material	MJ	4.81E-02	4.81E-02	0*	0*	0*	0*	-3.02E-02
Contribution to total use of renewable primary energy resources	MJ	1.42E+00	7.17E-02	0*	2.84E-03	1.34E+00	2.23E-03	-2.53E-02
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.41E+01	1.75E+00	4.02E-02	2.16E-02	1.21E+01	1.57E-01	-8.20E-02
Contribution to use of non renewable primary energy resources used as raw material	MJ	1.03E-01	1.03E-01	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	1.42E+01	1.85E+00	4.02E-02	2.16E-02	1.21E+01	1.57E-01	-8.20E-02
Contribution to use of secondary material	kg	4.06E-05	4.06E-05	0*	0*	0*	0*	0.00E+00
Contribution to use of renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to use of non renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Inventory flows Indicators		**Charging station,Charge Pro,22kW,32A,3P+N,T2S socket-outlet,MID,TIC,4G - EVB4S22N40MG**						

Inventory flows	Unit	Total (without Module D)	[A1 - A3] - Manufacturing	[A4] - Distribution	[A5] - Installation	[B1 - B7] - Use	[C1 - C4] - End of life	[D] - Benefits and loads
Contribution to net use of freshwater	m^3	1.26E-03	8.42E-04	3.82E-06	3.93E-06	3.22E-04	8.56E-05	-1.23E-04
Contribution to hazardous waste disposed	kg	2.17E-01	2.09E-01	0*	5.44E-05	6.61E-03	1.09E-03	-8.45E-02
Contribution to non hazardous waste disposed	kg	1.09E-01	8.87E-02	0*	9.34E-04	1.59E-02	3.07E-03	-2.36E-03
Contribution to radioactive waste disposed	kg	2.31E-05	1.90E-05	6.43E-07	1.15E-07	3.15E-06	1.61E-07	-1.14E-06
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	1.21E-03	1.58E-04	0*	0*	0*	1.05E-03	0.00E+00
Contribution to materials for energy recovery	kg	1.79E-10	1.79E-10	0*	0*	0*	0*	0.00E+00
Contribution to exported energy	MJ	1.01E-04	1.69E-06	0*	8.92E-05	0*	1.04E-05	0.00E+00

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

Contribution to biogenic carbon content of the product	kg of C	0.00E+00
Contribution to biogenic carbon content of the associated packaging	kg of C	5.52E-01

Mandatory Indicators		Charging station,Charge Pro,22kW,32A,3P+N,T2S socket-outlet,MID,TIC,4G - EVB4S22N40MG							
Impact indicators	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to climate change	kg CO2 eq	6.64E-02	0*	0*	0*	0*	0*	6.64E-02	0*
Contribution to climate change-fossil	kg CO2 eq	6.61E-02	0*	0*	0*	0*	0*	6.61E-02	0*
Contribution to climate change-biogenic	kg CO2 eq	2.93E-04	0*	0*	0*	0*	0*	2.93E-04	0*
Contribution to climate change-land use and land use change	kg CO2 eq	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to ozone depletion	kg CFC-11 eq	1.09E-09	0*	0*	0*	0*	0*	1.09E-09	0*
Contribution to acidification	mol H+ eq	3.54E-04	0*	0*	0*	0*	0*	3.54E-04	0*
Contribution to eutrophication, freshwater	kg $(PO4)^{3-}$ eq	2.98E-06	0*	0*	0*	0*	0*	2.98E-06	0*
Contribution to eutrophication marine	kg N eq	5.24E-05	0*	0*	0*	0*	0*	5.24E-05	0*
Contribution to eutrophication, terrestrial	mol N eq	8.34E-04	0*	0*	0*	0*	0*	8.34E-04	0*
Contribution to photochemical ozone formation - human health	kg COVNM eq	1.50E-04	0*	0*	0*	0*	0*	1.50E-04	0*
Contribution to resource use, minerals and metals	kg Sb eq	9.02E-08	0*	0*	0*	0*	0*	9.02E-08	0*
Contribution to resource use, fossils	MJ	1.21E+01	0*	0*	0*	0*	0*	1.21E+01	0*
Contribution to water use	m3 eq	1.37E-02	0*	0*	0*	0*	0*	1.37E-02	0*

Inventory flows Indicators		Charging station,Charge Pro,22kW,32A,3P+N,T2S socket-outlet,MID,TIC,4G - EVB4S22N40MG							
Inventory flows	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.34E+00	0*	0*	0*	0*	0*	1.34E+00	0*
Contribution to use of renewable primary energy resources used as raw material	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to total use of renewable primary energy resources	MJ	1.34E+00	0*	0*	0*	0*	0*	1.34E+00	0*
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.21E+01	0*	0*	0*	0*	0*	1.21E+01	0*
Contribution to use of non renewable primary energy resources used as raw material	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to total use of non-renewable primary energy resources	MJ	1.21E+01	0*	0*	0*	0*	0*	1.21E+01	0*
Contribution to use of secondary material	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to use of renewable secondary fuels	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to use of non renewable secondary fuels	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to net use of freshwater	m^3	3.22E-04	0*	0*	0*	0*	0*	3.22E-04	0*
Contribution to hazardous waste disposed	kg	6.61E-03	0*	0*	0*	0*	0*	6.61E-03	0*
Contribution to non hazardous waste disposed	kg	1.59E-02	0*	0*	0*	0*	0*	1.59E-02	0*
Contribution to radioactive waste disposed	kg	3.15E-06	0*	0*	0*	0*	0*	3.15E-06	0*
Contribution to components for reuse	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to materials for recycling	kg	0*	0*	0*	0*	0*	0*	0*	0*

Inventory flows Indicators		Charging station,Charge Pro,22kW,32A,3P+N,T2S socket-outlet,MID,TIC,4G - EVB4S22N40MG							
Inventory flows	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to materials for energy recovery	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to exported energy	MJ	0*	0*	0*	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 v6.1, database version 2023-02 in compliance with ISO14044, EF 3.0 method is applied, for biogenic carbon storage, assessment methodology 0/0 is used

According to this environmental analysis, proportionality rules may be used to evaluate the impacts of other products of this range, ratios to apply can be provided upon request

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 :	ENVPEP2410035_V1	*Drafting rules* *Supplemented by*	PCR-4-ed4-EN-2021 09 06 PSR-0018-ed1.1-EN-2024 01 31
Date of issue	11-2024	*Information and reference documents*	www.pep-ecopassport.org
		Validity period	5 years

Independent verification of the declaration and data, in compliance with ISO 14021 : 2016

Internal X External

The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain)

PEPs are compliant with XP C08-100-1:2016 and EN 50693:2019 or NF E38-500 :2022

The components of the present PEP may not be compared with components from any other program.

Document complies with ISO 14021:2016 "Environmental labels and declarations. Type II environmental declarations"

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